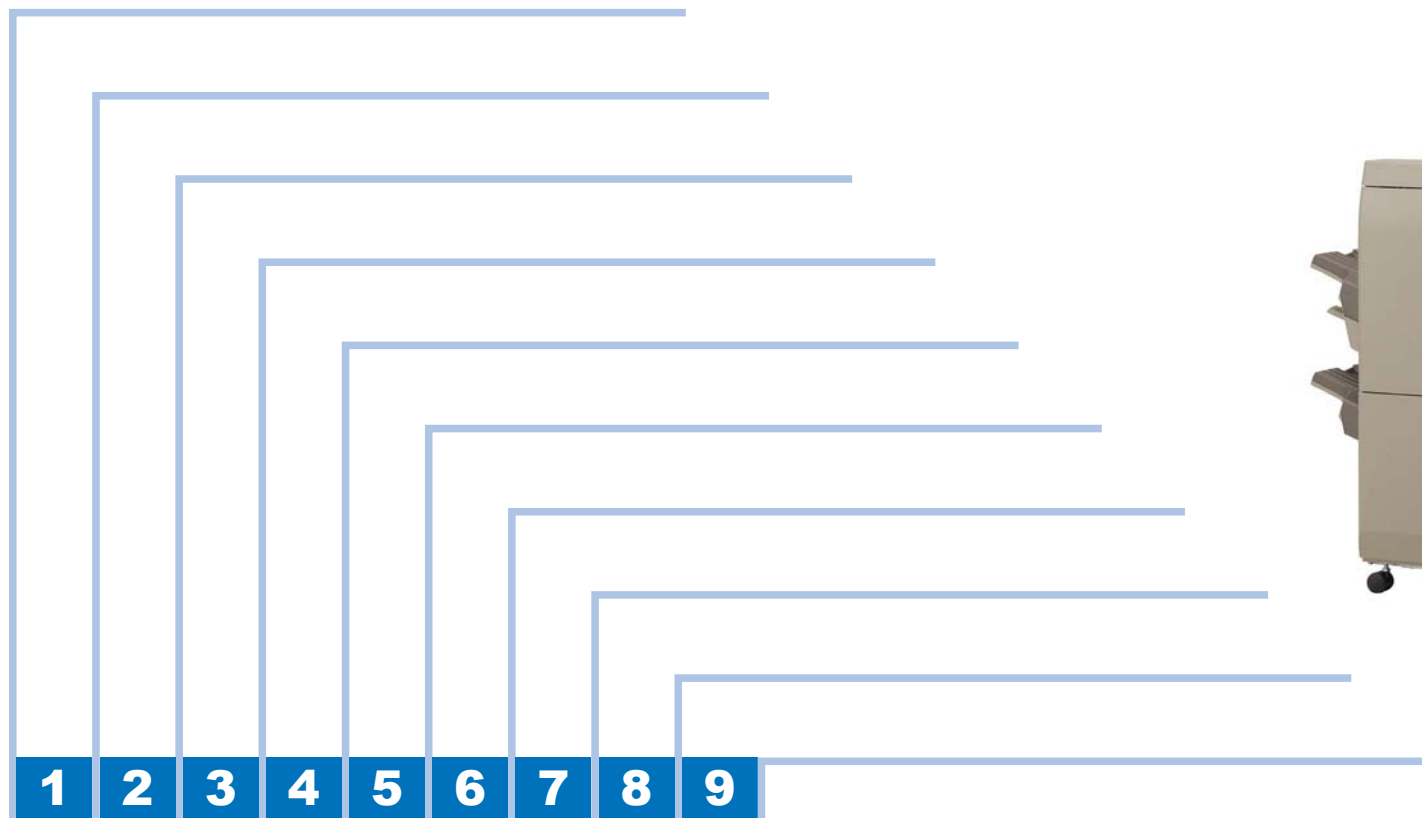




# imageRUNNER ADVANCE 8105 PRO / 8095 PRO / 8085 PRO Series

## Service Manual

REVISION 8.0



## Application

This manual has been issued by Canon Inc. for qualified persons to learn technical theory, installation, maintenance, and repair of products. This manual covers all localities where the products are sold. For this reason, there may be information in this manual that does not apply to your locality.

## Corrections

This manual may contain technical inaccuracies or typographical errors due to improvements or changes in products. When changes occur in applicable products or in the contents of this manual, Canon will release technical information as the need arises. In the event of major changes in the contents of this manual over a long or short period, Canon will issue a new edition of this manual.

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## Caution

Use of this manual should be strictly supervised to avoid disclosure of confidential information.



## Explanation of Symbols

The following symbols are used throughout this Service Manual.

Symbols	Explanation	Symbols	Explanation
	Check.		Remove the claw.
	Check visually.		Insert the claw.
	Check the noise.		Use the bundled part.
	Disconnect the connector.		Push the part.
	Connect the connector.		Plug the power cable.
	Remove the cable/wire from the cable guide or wire saddle.		Turn on the power.
	Set the cable/wire to the cable guide or wire saddle.		
	Remove the screw.		
	Tighten the screw.		

The following rules apply throughout this Service Manual:

- Each chapter contains sections explaining the purpose of specific functions and the relationship between electrical and mechanical systems with reference to the timing of operation.

In the diagrams,  represents the path of mechanical drive; where a signal name accompanies the symbol, the arrow  indicates the direction of the electric signal.

The expression "turn on the power" means flipping on the power switch, closing the front door, and closing the delivery unit door, which results in supplying the machine with power.

- In the digital circuits, '1' is used to indicate that the voltage level of a given signal is "High", while '0' is used to indicate "Low". (The voltage value, however, differs from circuit to circuit.) In addition, the asterisk (\*) as in "DRMD\*" indicates that the DRMD signal goes on when '0'.

In practically all cases, the internal mechanisms of a microprocessor cannot be checked in the field. Therefore, the operations of the microprocessors used in the machines are not discussed: they are explained in terms of from sensors to the input of the DC controller PCB and from the output of the DC controller PCB to the loads.

The descriptions in this Service Manual are subject to change without notice for product improvement or other purposes, and major changes will be communicated in the form of Service Information bulletins.

All service persons are expected to have a good understanding of the contents of this Service Manual and all relevant Service Information bulletins and be able to identify and isolate faults in the machine.

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# Safety Precautions

- CDRH Act
- Laser Safety
- Handling of Laser System
- Turn power switch ON
- Safety of Toner
- Notes When Handling a Lithium Battery
- Notes Before it Works Serving
- Points to Note at Cleaning



imageRUNNER ADVANCE  
8105 PRO/8095 PRO/8085  
PRO Series

## CDRH Act

The Center for Devices and Radiological Health of the US Food and Drug Administration put into force regulations concerning laser products on August 2, 1976. These regulations apply to laser products manufactured on and after August 1, 1976, and the sale of laser products not certified under the regulations is banned within the United States. The label shown here indicates compliance with the CDRH regulations, and its attachment is required on all laser products that are sold in the United States.

### CANON INC.

30-2, SHIMOMARUKO, 3-CHOME, OHTA-KU, TOKYO,  
146. JAPAN

### MANUFACTURED :

THIS PRODUCT CONFORMS WITH DHHS RADIATION  
PERFORMANCE STANDARD 21CFR CHAPTER I  
SUBCHAPTER J.

F-0-1



A different description may be used for a different product.

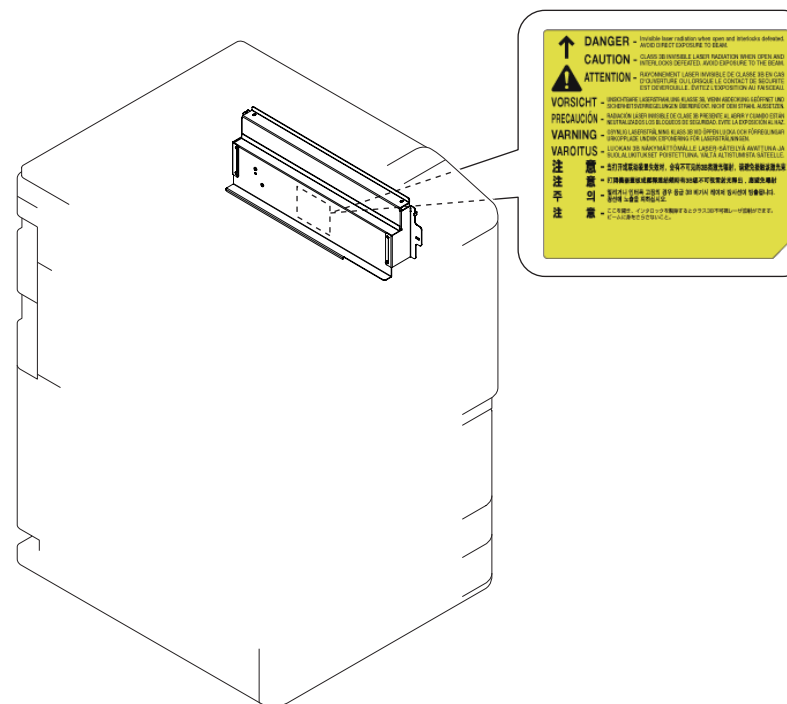
## Laser Safety

Laser beam radiation may pose a danger to the human body. A laser scanner mounted on the machine is sealed with the protection housing and external cover to prevent the laser beam from leaking to the outside. The laser beam never leaks out of the scanner as far as users operate the machine normally.

This product is certificated as a Class 1 laser product under IEC60825-1:2007.

## Handling of Laser System

When servicing the area around the laser assembly, be sure to turn off the main power. The machine's covers that can reflect laser light are identified by means of a warning label (Figure). If you must detach a cover showing the label, be sure to take extra caution during the work.



F-0-2



## Turn power switch ON

The machine is equipped with 2 power switches: main power switch and control panel power switch.

The machine goes on when the main power switch is turned on (i.e., other than in low power mode, sleep mode).



Do not turn off the main power switch while the progress bar is indicated, during which access is made to the HDD. If deprived of power, the HDD can suffer a fault (E602).



F-03

## Safety of Toner

### About Toner

The machine's toner is a non-toxic material made of plastic, iron, and small amounts of dye.



Do not throw toner into fire. It may cause explosion.

### Toner on Clothing or Skin

- If your clothing or skin has come into contact with toner, wipe it off with tissue; then, wash it off with water.
- Do not use warm water, which will cause the toner to jell and fuse permanently with the fibers of the cloth.
- Toner is easy to react with plastic material, avoid contact with plastic.

## Notes When Handling a Lithium Battery



RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.  
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

## Notes Before it Works Serving



At servicing, be sure to turn OFF the power source according to the specified steps and disconnect the power plug.

## Points to Note at Cleaning



When performing cleaning using organic solvent such as alcohol, be sure to check that the component of solvent is vaporized completely before assembling.



# Product Overview

- Product Lineup
- Features
- Specifications
- External View/Internal View
- Operation

## Product Lineup

### Main Body

imageRUNNER ADVANCE 8105 / 8095 / 8085

\*The underlined numerical value indicates the print speed (ppm: print per minute).



F-1-1

	imageRUNNER ADVANCE 8105	imageRUNNER ADVANCE 8095	imageRUNNER ADVANCE 8085
Print speed	105 ppm	95 ppm	85 ppm
Positioning	Target machine: iR7105		
Control Panel	Upright Control Panel		
HDD	Standard: 80 GB, Maximum: 250 GB		
Communication method with pickup/delivery option Pickup/delivery option	ARCNET (*) / IPC (**)		
Pickup and delivery options	The equipments that can be connected vary according to the communication method.		

T-1-1

\* ARCNET: Communication system used in the iR7105 series. Features are as follows.

Enables real time communication among multiple connected devices.

Devices can be easily added (high extensibility)

\*\* IPC: Communication system used in current low and mid speed models, for communication with paper deck and finisher.

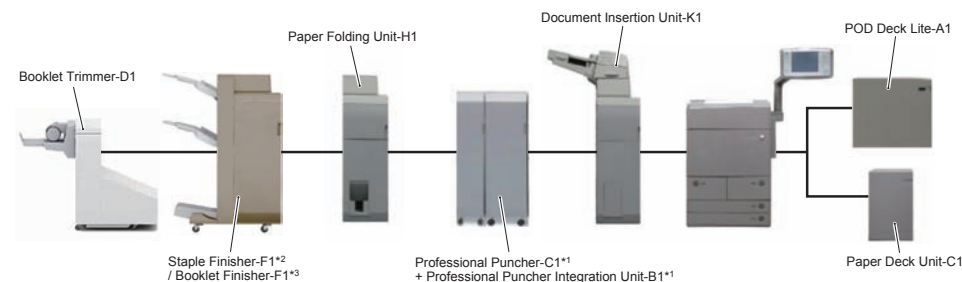
## Pickup/Delivery System Option

### Applicable Option for Each Model

There are two main groups of pickup and delivery options, depending on the communication I/F used.

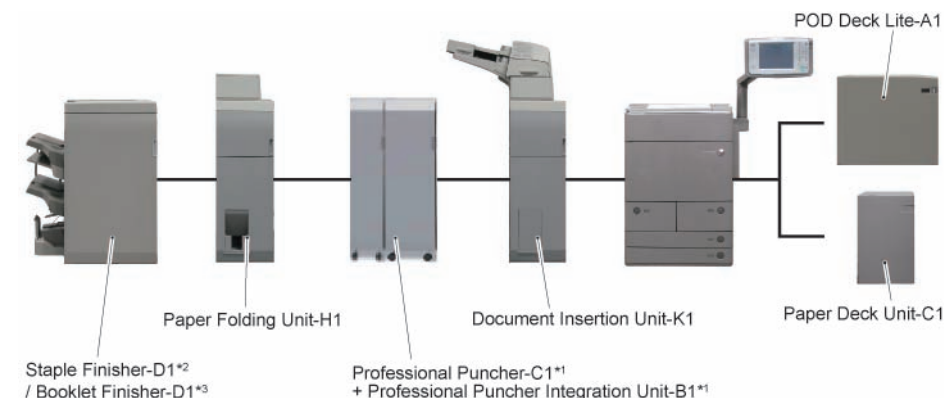
### Combinations

A. imageRUNNER ADVANCE 8105PRO/8095PRO/8085PRO ARCNET Communication Option



F-1-2

B. imageRUNNER ADVANCE 8085PRO IPC Communication Option



F-1-3

\*1: Other than CMJ, CCN, TAIWAN

\*2: Puncher Unit- BE1/BF1/BG1/BH1 is available as an option.

\*3: Puncher Unit- BE1/BF1/BG1/BH1 and Inner Trimmer-A1 are available as an option.

## Required Options/Conditions

### Pickup System Options

Product name	Required options, conditions, etc.
Paper Deck Unit-C1	Pickup method: retard method Pickup capacity: 3,500 sheets (80 g/m <sup>2</sup> ) Paper type: thin paper, plain paper, heavy paper, color paper, recycled paper, pre-punched paper Paper size: A4, B5, LTR Paper weight: 52 to 220 g/m <sup>2</sup> Double feed detection: not available
POD Deck Light-A1	Pickup method: air separation method Pickup capacity: 3,500 sheets (80g/m <sup>2</sup> ) Paper type: thin paper, plain paper, heavy paper, color paper, recycled paper, pre-punched paper Paper size: B5 to 13" x 19.2" Paper weight: 52 to 256 g/m <sup>2</sup> Double feed detection: not available
Cassette Heater Unit-38	For cassette of main body CLA, CAUS, CSPL, CHK, CCN, CKBS, TAIWAN only
Paper Deck Heater Unit-A1	Option for Paper Deck Unit-C1 CMJ, CLA, CSPL, CHK, CKBS, TAIWAN only In the 230V areas other than the areas above, this is set as a service part.

T-1-2

### Delivery System Options

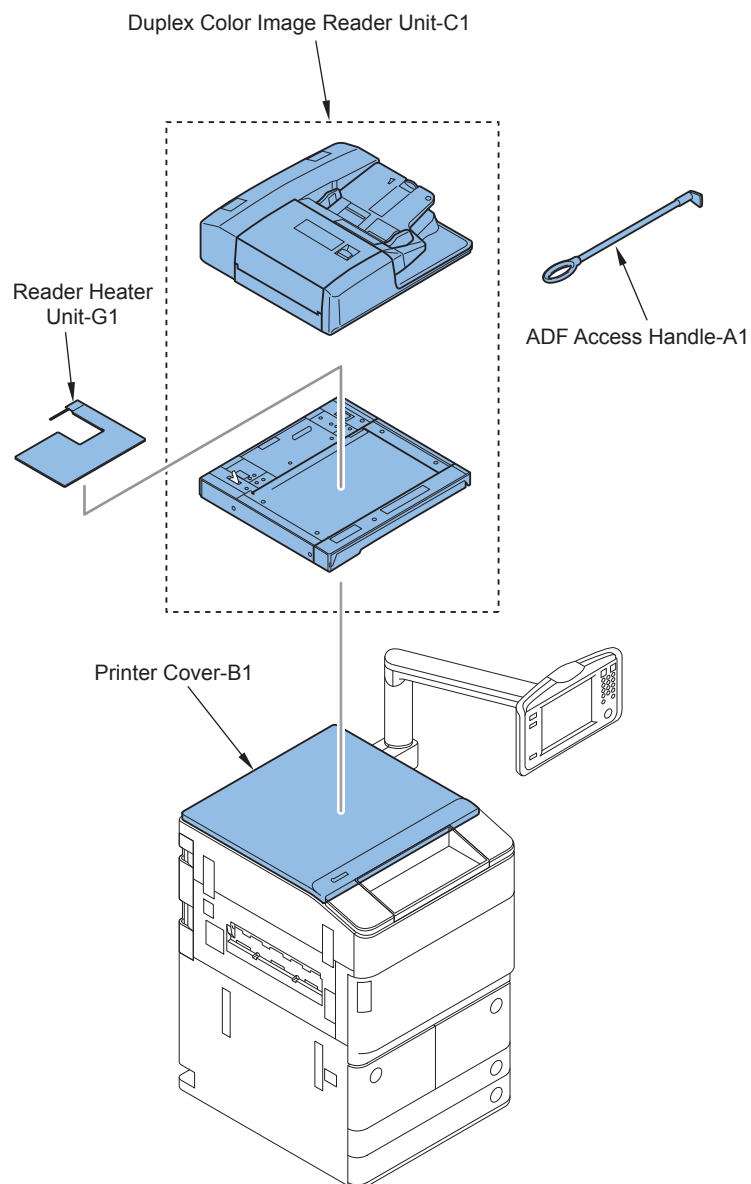
Product name (Japan)	Required options, conditions, etc.
Insertion Unit-K1	Staple Finisher/Booklet Finisher is required at the downstream side. Pickup capacity: Max. 400 sheets (200 sheets each for Upper Tray and Lower Tray) Paper type: thin paper, plain paper, heavy paper, color paper, recycled paper, pre-punched paper, Index paper, Tracing paper, coated paper Paper size: B5 to 13" x 19.2" Paper weight: 52 to 256 g/m <sup>2</sup>
Professional Puncher-C1	Professional Puncher Integration Unit-B1 is required. Staple Finisher/Booklet Finisher is required at the downstream side. Other than CMJ, CCN, TAIWAN
Professional Puncher Integration Unit-B1	A pair with Professional Puncher-C1 Staple Finisher/Booklet Finisher is required at the downstream side. Other than CMJ, CCN, TAIWAN
Paper Folding Unit-H1	Staple Finisher/Booklet Finisher is required at the downstream side. Folding type: Z-Fold, C-Fold, Half-Fold, Accordion Z-Fold, Double Parallel Fold Paper size: A4R, LTRR (Z-Fold: A3, B4, A4R, LTRR, LGL, 11" x 17") Paper weight: 52 to 105 g/m <sup>2</sup> (Double Parallel Fold: 52 to 90 g/m <sup>2</sup> )

Product name (Japan)	Required options, conditions, etc.
Booklet Finisher-F1 PRO	Paper weight: 52 to 300g/m <sup>2</sup> Maximum stacking capacity: 5,000 sheets (A4, B5, LTR) The number of sheets to be stitched: Staple:100 sheets (A4, B5, LTR) Saddle: 25-sheet saddle stitching
Staple Finisher-F1 PRO	Paper weight: 52 to 300g/m <sup>2</sup> Maximum stacking capacity: 5,000 sheets (A4, B5, LTR) The number of sheets to be stitched: Staple:100 sheets (A4, B5, LTR)
Staple Finisher-D1	Paper weight: 52 to 256 g/m <sup>2</sup> Maximum stacking capacity: 4250 sheets (A4, B5, LTR) The number of sheets to be stitched: 100 sheets (A4, B5, LTR)
Booklet Finisher-D1	Paper weight: 52 to 256 g/m <sup>2</sup> Maximum stacking capacity: 4250 sheets (A4, B5, LTR) Staple: 100 sheets (A4, B5, LTR) Saddle: 20-sheet saddle stitching
Puncher Unit-BE1	Option for Staple Finisher-D1/Booklet Finisher-D1. AB, 2 holes Paper size : A3, A4, A4R Paper weight: 52 to 256 g/m <sup>2</sup> CMJ only
Puncher Unit-BF1	Option for Staple Finisher-D1/Booklet Finisher-D1. Inch, 2 holes / 3 holes Paper size : 11" x 17", LGL, LTR, A3, A4 Paper weight: 52 to 256 g/m <sup>2</sup> CUSA, CCI, CLA, CAUS, CKBS only
Puncher Unit-BG1	Option for Staple Finisher-D1/Booklet Finisher-D1. FRN, 2 holes / 4 holes Paper size : A3 to A4 Paper weight: 52 to 256 g/m <sup>2</sup> Other than CMJ, CUSA, CCI
Puncher Unit-BH1	Option for Staple Finisher-D1/Booklet Finisher-D1. SWE, 4 holes Paper size : A3 to A4 Paper weight: 52 to 256 g/m <sup>2</sup> CEL only
Punch Unit-BB1/BC1/BD1	Booklet Finisher-F1 PRO/Staple Finisher-F1 PRO options BB1: inch, 2/ 3 holes BC1: 2/ 4 holes BD1: four holes
Staple-N1	Plain Staple Cartridge. Option for Booklet Finisher-F1 PRO/Staple Finisher-F1 PRO
Staple-P1	Saddle Staple Cartridge. Option for Booklet Finisher-D1.
Staple-G1	Plain Staple Cartridge. Option for Staple Finisher-D1/Booklet Finisher-D1.
Booklet Trimmer-D1	Upstream requires Booklet Finisher-F1 PRO

T-1-3

## Scanning System Options

### Required Options and Conditions



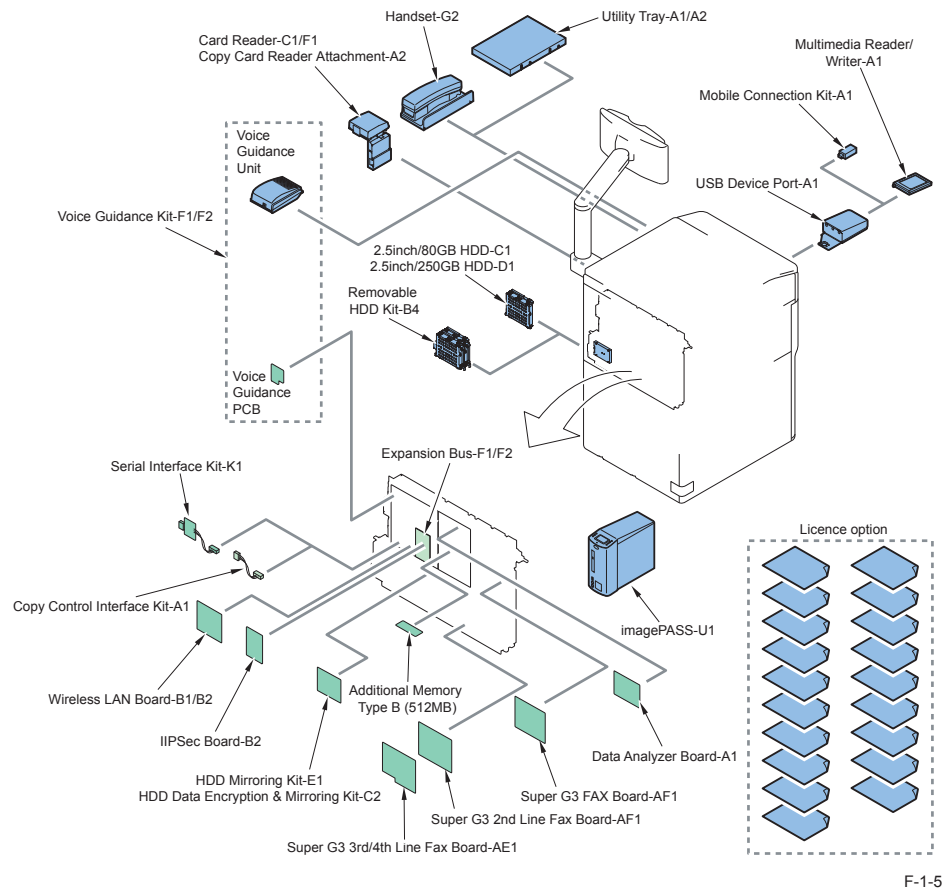
Product name	Required options, conditions, etc.
Duplex Color Image Reader Unit-C1	Reverse 2-sided scanning B/W (1-sided/2-sided): 600 dpi=85/40 ipm, 300 dpi: 85/40 ipm Color (1-sided/2-sided): 600 dpi=51/20 ipm, 300 dpi:85/40 ipm Paper weight: <1-sided> AB configuration: 38 to 220 g/m <sup>2</sup> , Inch configuration: 50 to 220 g/m <sup>2</sup> <2-sided> 50 to 220 g/m <sup>2</sup> Color original, or color-mixed original: 64 to 220 g/m <sup>2</sup> Stacking capacity: Max. 300 sheets Other than CEL
Reader Heater Unit-G1	Option for Color Image Reader Unit-C1/Duplex Color Image Reader Unit-C1 CMJ, CLA, CSPL, CHK, CCN, CKBS, TAIWAN only
ADF Access Handle-A1	It is the cover to be installed at the top of the host machine when using this equipment as a printer model.
Printer Cover-B1	It is the handle to support opening and closing the Feeder.

T-1-4

F-1-4

## Function Expansion System Options

### Required Options and Conditions



### Hardware Products

Product name (Japan)	Required options, conditions, etc.
Utility Tray-A1/A2	No particular options and conditions are required.
Card Reader-C1/F1	Copy Card Reader Installation Kit-A2 is required. Using with Serial Interface Kit-K1 and Control Interface Kit-A1 is not available.
Copy Card Reader Installation Kit-A2	Required when Card Reader-C1 is installed.
Super G3 FAX Board-AF1	The machine serial number should be HNG00500/ HNH00500/HNK00500/HNA00500/HNB00500/HNC00500/ HMU00500/HMV00500/HMW00500 or later. When using an ARCNET communication option (Finisher-F1), FAX Board Installation Kit-A1 is required. When using an IPC communication option (Finisher-D1), FAX Board Installation Kit-A1 is not required.
Super G3 2nd Line Fax Board-AF1	Super G3 FAX Board-AF1 is required. It can be installed only when using an IPC communication option (Finisher-D1). It cannot be installed when using an ARCNET communication option (Finisher-F1).
Super G3 3rd/4th Line Fax Board-AE1	Super G3 FAX Board-AF1 and Super G3 2nd Line Fax Board-AF1 is required. It can be installed only when using an IPC communication option (Finisher-D1). It cannot be installed when using an ARCNET communication option (Finisher-F1).
FAX Board Installation Kit-A1	It is required when installing the Super G3 FAX Board-AF1 and an ARCNET communication option (Finisher-F1) at the same time.
Handset-G2	Super G3 FAX Board-AF1 and Super G3 2nd Line Fax Board-AF1 is required. Using with Utility Tray-A1/A2 is not available. CMJ only
imagePASS-U1	No particular options and conditions are required. Other than CMJ, CCN
Voice Guidance Kit-F1	Product configuration consists of Voice Guidance PCB and Voice Guidance Unit. No particular options and conditions are required. Other than CMJ, CCN, CKBS
HDD Data Encryption/Mirroring Kit-C2	Not available for China models.
USB Device Port-A1	The product consists of USB 2 Port HUB PCB only. No particular options and conditions are required. CEL is standard
Expansion Memory Type B (512 MB)	Required when 600dpi color scanning (mode) is used.
Wireless LAN Board-B1/B2	No particular options and conditions are required. Other than CMJ, CCN, CKBS, TAIWAN
Option HDD (2.5 inch/80GB)-C1	This is used when the mirroring function is used with HDD Mirroring Kit-E1 or HDD Data Encryption & Mirroring Kit-C2. No particular options and conditions are required.

Product name (Japan)	Required options, conditions, etc.
Option HDD (2.5 inch/250GB)-D1	This is used when the mirroring function is used with HDD Mirroring Kit-E1 or HDD Data Encryption & Mirroring Kit-C2. No particular options and conditions are required.
HDD Mirroring Kit-E1	Option HDD (2.5 inch/80 GB)-C1 or Option HDD (2.5 inch/250 GB)-D1 are required.
HDD Data Encryption/Mirroring Kit-C2	When performing mirroring, either the Option HDD (80GB) or the Option HDD (250GB) is required. Other than CCN
Removable HDD Kit-B4	No particular options and conditions are required.
PCI Bus Expansion Kit-F1/F2	Required when IPsec Security Board-B2/Wireless LAN Board-B1 is installed.
IPsec Security Board-B2	PCI Bus Expansion Kit-F1/F2 is required. The function needs to be activated by entering the license number. Parallel use with imagePRESS-U1 is not available. Other than CCN
Image Analysis Board-A1	No particular options and conditions are required. CMJ only
Multimedia Reader/Writer-A1	USB Device Port-A1 is required. To support the CF, the SD memory and the memory stick.
Mobile Connection Kit-A1	Required when USB Device Port-A1 is installed. CMJ only
SC Kit	CMJ only
Serial Interface Kit-K1	Required when the coin manager is connected. Using with Card Reader-C1 and Control Interface Kit-A1 is not available.
Control Interface Kit-A1	Required when the coin manager is connected. Using with Card Reader-C1 and Serial Interface Kit-K1 is not available.

T-1-5

Product name (Japan)	Required options, conditions, etc.
PS Expansion Kit-AH1	No particular options and conditions are required. CMJ only
LIPS V Expansion Kit-AJ1	No particular options and conditions are required. CMJ only
PCL Printer Kit-AH1	No particular options and conditions are required. Other than CMJ, TAIWAN
PS Printer Kit-AH1	No particular options and conditions are required. Other than CMJ, TAIWAN
Scan Solution Function Expansion Kit-B1	No particular options and conditions are required. CMJ only
Universal Send Advanced Feature Set-E1	No particular options and conditions are required. Other than CMJ
Scan Solution Security Function Expansion Kit-A1	No particular options and conditions are required. CMJ only
Universal Send Security Feature Set-D1	No particular options and conditions are required. Other than CMJ, CCN
Direct Print Expansion Kit (for PDF/XPS)-H1	No particular options and conditions are required. CMJ, CUSA, CLA, CCI, CEL, CAUS only
Direct Print Kit (for PDF)-H1	No particular options and conditions are required. CLA, CSPL, CHK, CCN, CKBS, TAIWAN only
Direct Print Kit (for XPS)-H1	No particular options and conditions are required. CLA, CSPL, CHK, CCN, CKBS, TAIWAN only
User Signature & Time Stamp Expansion Kit-A1	No particular options and conditions are required. CMJ only
Universal Send Digital User Signature Kit-C1	No particular options and conditions are required. Other than CMJ
Remote Operation Kit-B1	No particular options and conditions are required.
Data Erase Kit-C1	No particular options and conditions are required.
Encryption Secure Print Kit-B1	No particular options and conditions are required. CMJ only
Encrypted Secure Print Software-D1	No particular options and conditions are required. CUSA, CLA, CCI only
Encrypted Printing Software-D1	No particular options and conditions are required. CEL, CAUS, CSPL, CHK, TAIWAN only
Barcode Printing Kit-D1	Other than CMJ
Watermark Expansion Kit-B1	No particular options and conditions are required.
Job Lock Expansion Kit-A1	No particular options and conditions are required.
Access Management System Expansion Kit-B1	No particular options and conditions are required. Other than CKBS, TAIWAN
Web Browser Expansion Kit-H1	No particular options and conditions are required. Other than CKBS

T-1-6

## License Products

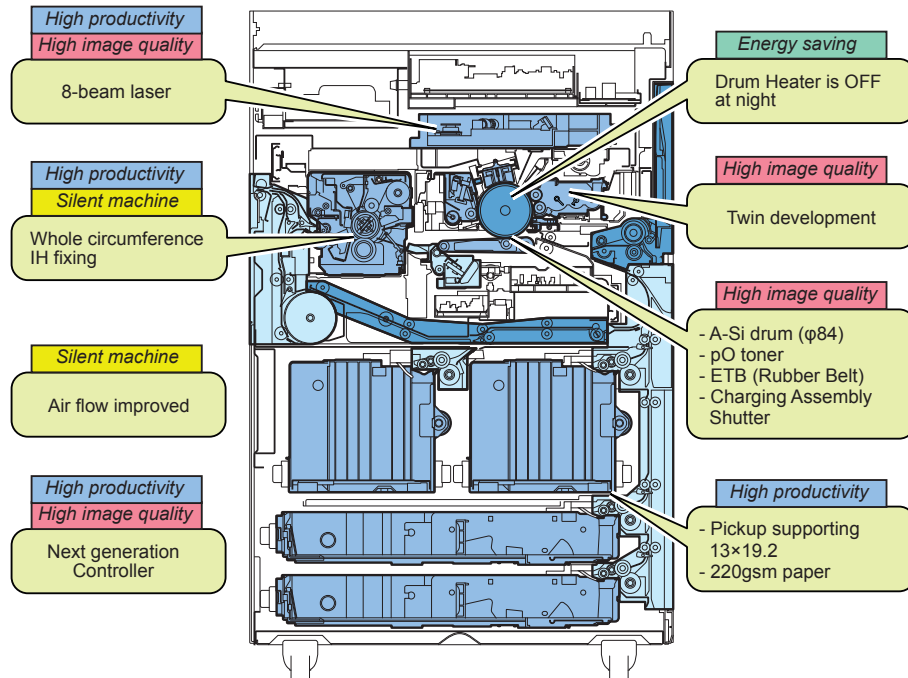
At the time of installation, obtain the license number according to the license certificate included. Then, enter the obtained license number from the Control Panel of the machine, so that the applicable functions are enabled.

There is no physical installation work at the time of installation.



## Features

### Product Features



F-1-6

### Service Features

#### Improved Service Operability

#### Removing of the Process Unit becomes easy.

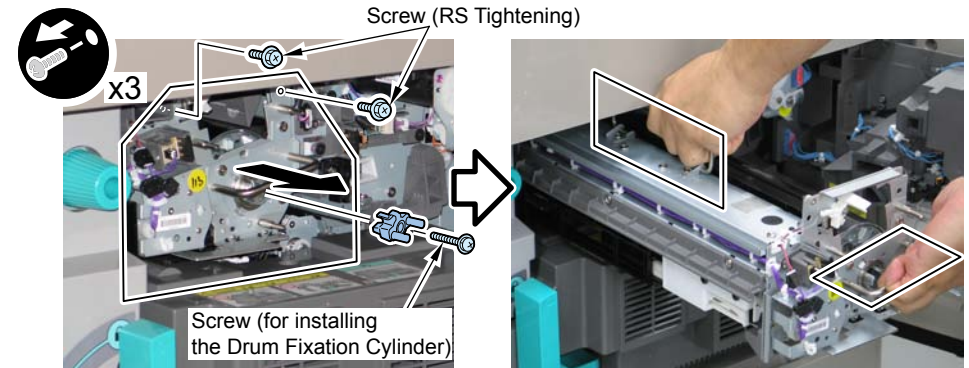
The Process Unit can be removed by accessing only from the front side.

##### <Preparation>

- 1) Open the Inner Cover.
- 2) Remove the Primary Charging Assembly.
- 3) Remove the Pre-transfer Charging Assembly.

##### <Procedure>

- 1) Remove the 2 screws.
- 2) Remove the Drum Fixation Cylinder by removing the screw for installing the Drum Fixation Cylinder, and remove the Process Unit.



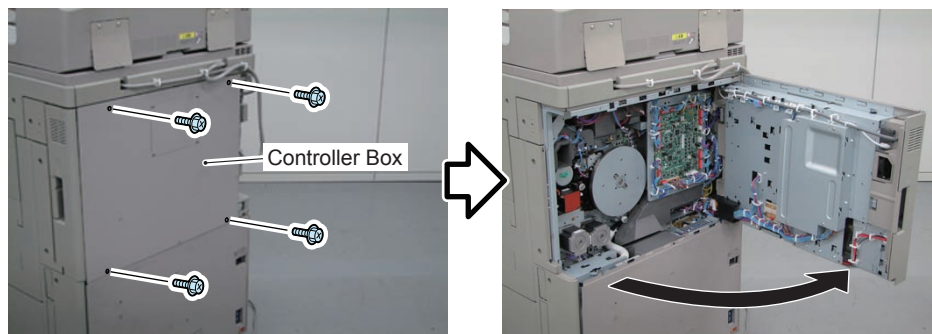
F-1-7

## ● Easy access to the parts at rear side.

Since the Rear Cover Unit becomes a retractable unit, access to the parts at rear side becomes easy.

### <Procedure>

- 1) Remove the Reader Communication Cable.
- 2) Remove the 4 screws, and open the Controller Box in the direction of the arrow.



F-1-8

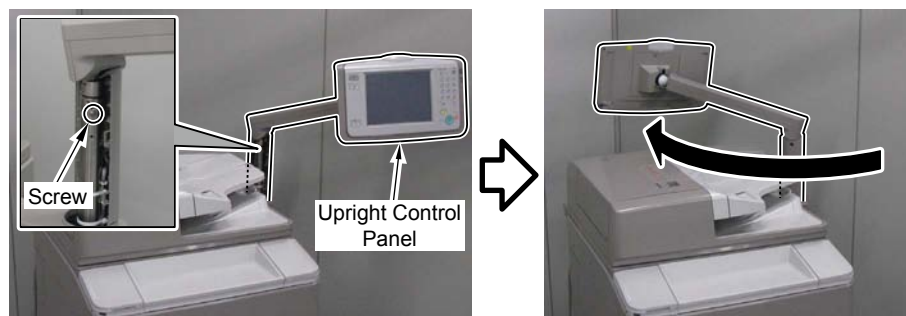
## ● Performing the rear side work while checking the Control Panel is possible.

By removing the Rotation Control Screw, the Upright Control Panel can be turned to face the rear side.

As a result, service modes can be executed even when working at rear side of the host machine.

### <Procedure>

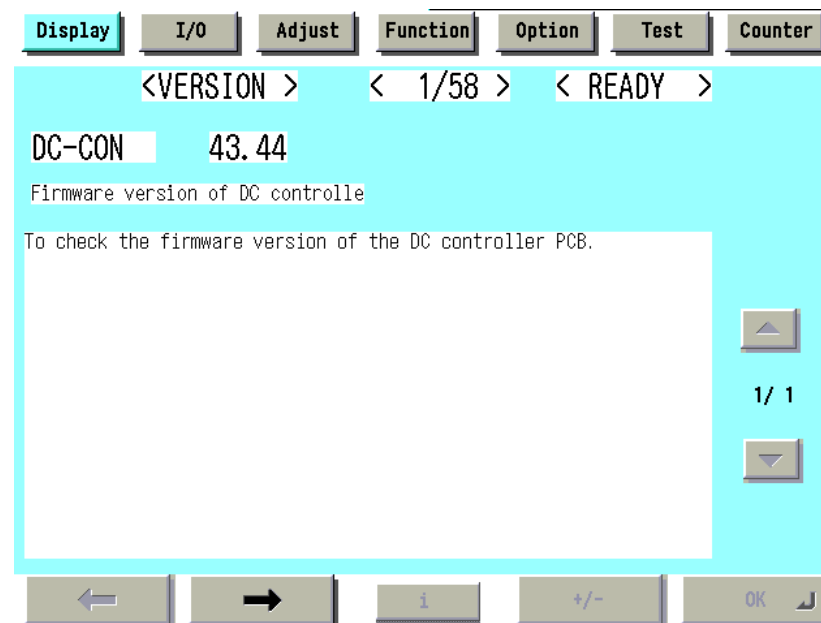
- 1) Remove the Shaft Support Cover Left.
- 2) Remove the screw on the arm, and turn the Upright Control Panel.



F-1-9

## ■ New Service Mode

The description of each service mode item is displayed as well.



F-1-10

## ● Features

- Display in natural language
- Items in the following are newly classified: COPIER > OPTION > BODY
- Enhanced I/O information
- The description of error code/alarm code is displayed.
- Easy switching of screens between Level 1 and Level 2

## ■ Improved Upgrading Operability

Almost all of the options (\*) can be upgraded through the host machine. SST (Service Support Tool) is used for upgrading as usual.

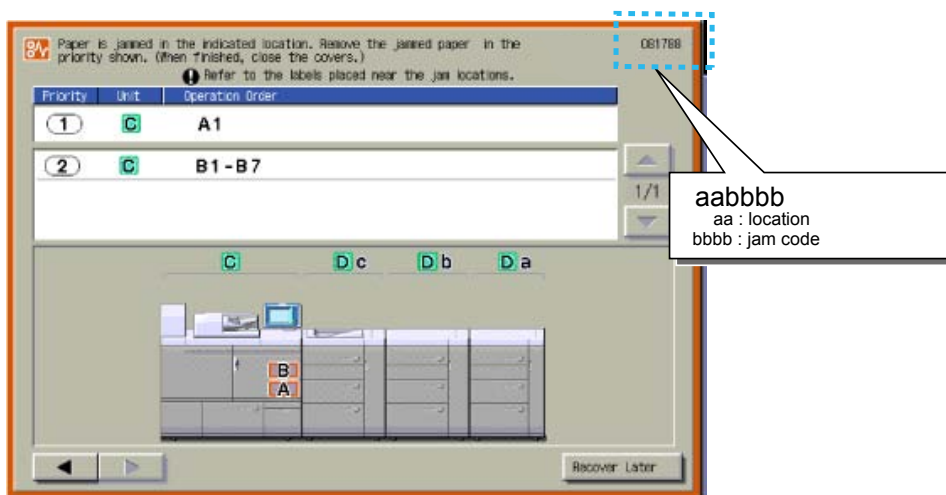
\* Excluding Document Insertion Unit-K1, Paper Folding Unit-H1 and Professional Puncher-C1.

To upgrade the Professional Puncher-C1, connect the Professional Puncher with the PC which the firmware (built-in downloader) was installed.

## Jam/Error Code Display Specifications

### Jam Code

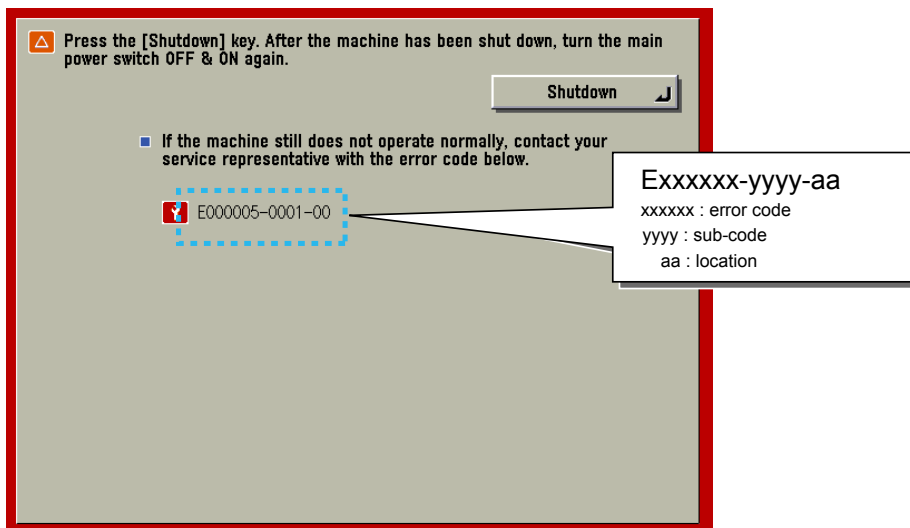
“Jam Code” and “Location Code” are displayed on the screen (\*) when a paper jam occurs.



F-1-11

### Error Code

In addition to “Error Code”, “Location Code” is displayed on the screen when an error occurs.



F-1-12

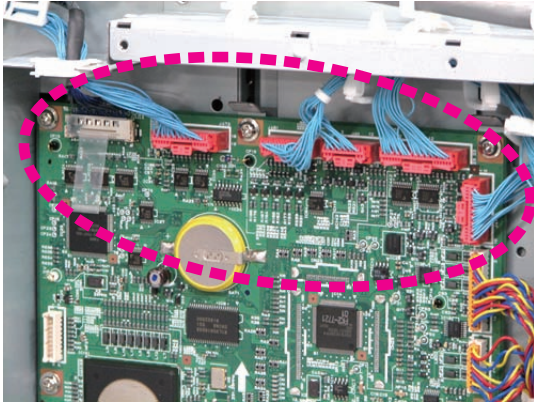
### Service Advantage

When a paper jam/error is reported from the user:

- The location (device) causing the paper jam/error can be recognized before the service technician is sent to the user site.
- The cause of trouble and the remedy can be assumed before the service technician is sent to the user site.
- Depending on the cause of the paper jam (e.g.: paper jam caused by wrong operation by the user), support can be completed by the phone or e-mail. (Visiting to the user site is not necessary.)

## Applying New Connectors

Newly-configured connectors are used as some connectors on each controller PCB.



F-1-13

### Purpose

To prevent the communication error caused by the following:

- Loose/removed connector due to vibration during transportation
- Half-inserted connector at the time of servicing

### Features

- Easy to hold because the overall height of the housing is high
- Connector can be inserted with less force.
- Lever lock mechanism is available. Proper insertion can be determined by the sound (“snap”) or clicky feeling

Points to Caution when Inserting/Removing the Connector:

Be sure to keep the following in mind during work:

- While releasing the lever lock of the housing, hold the housing to remove. Do not hold and pull the harness.
- Be sure to insert the connector while the housing is positioned straight to the socket. Do not tilt the housing to insert the connector.

## Specifications

### Product Specifications

Installation type of main body		Console type
Photoreceptor		84mm diameter amorphous silicon drum
Exposure method		Laser exposure method
Charging method		Corona + Grid charging method
Developing method		Dry, 1-component toner projection
Transfer method		Transfer Roller method
Separation method		Transfer Belt
Transfer Belt	Right/Left Deck	Separation retard method
	Upper/Lower Cassette	Separation retard method
	Multi-purpose Tray	Simple retard method
Cleaning method	Drum	Cleaning Blade
	ETB	Cleaning Blade + Brush Roller
Fixing method		Heat Roller method
Delivery method		Face-up/face-down
Type of toner		Magnetic negative toner
Toner supplying method		Set-on
Toner level detection function		Yes
Leading edge image margin		2.5 mm +/- 1.5 mm
Left image margin		2.5 mm +/- 1.5 mm
Warm-up time	At power-on	60 sec. or less
	At recovery from sleep mode	60 sec. or less
First copy time		2.7 sec. or less
Image gradations		256 gradations
Print resolution		Max. 1,200 dpi x 1,200 dpi
Maximum image guaranteed area		305 x 482.7 mm
Maximum printable area		310 x 625 mm
Paper Type	Deck	52 to 220 g/m <sup>2</sup> thin paper, plain paper, heavy paper, color paper, recycled paper, pre-punched paper, letterhead bond paper
	Cassette	52 to 220 g/m <sup>2</sup> Deck feedable type, index paper, tab paper
	Multi-purpose Tray	52 to 256 g/m <sup>2</sup> Deck feedable type, transparency, labels, tracing paper, postcard

Paper size	Deck	A4, B5, LTR
	Cassette	A3, B4, A4, A4R, B5, B5R, K8, K16, K16R, LDR, LGL, LTR, LTRR, STMTR, EXEC, 11" x 17"(279.4 x 431.8 mm), 12" x 18" (304.8 x 487.7 mm), SRA3 (320 x 450 mm), 13" x 19"(330.2 x 482.6 mm), Custom paper size (139.7 x 182 mm to 330.2 x 487.7 mm)
	Multi-purpose Tray	Cassette feedable size, A5R, Postcard, Custom paper size (100 x 139.7 mm to 330.2 x 487.7 mm), Long length paper (487.8 mm to 630 mm)
Pickup capacity	Right/Left Deck	1,500 sheets each (80 g/m <sup>2</sup> )
	Upper/Lower Cassette	550 sheets each (80 g/m <sup>2</sup> )
	Multi-purpose Tray	100 sheets (80 g/m <sup>2</sup> )
Duplex method		Through pass
Memory capacity		For Main Controller 1: 1GB (standard) For Main Controller 2: Max. 1GB (standard: 512MB, option: 512MB)
HDD capacity		Standard: 80GB, Maximum: 250 GB
Environment temperature range		2.5 to 37.5 deg C
Environment humidity range		5 to 80 %RH
Environment atmosphere range		610 to 1013 hpa (0.6 to 1.0 atmospheric pressure)
Noise	At the time of printing	75 dB or less
Rated power supply		See "Power Supply Specifications".
Maximum power consumption	At the time of printing	2.0 kW or less (100 V) 1.92 kW or less (120-127 V) 2.2 kW or less (220-240 V)
	At the time of sleep	1.0 W or less (100 V, 120-127 V) 1.5 W or less (220-240 V)
	At the time of save mode	240 Wh or less
Dimension	with the Upright Control Panel	645 (W) x 770 (D) x 1,220 (H) mm (including ADF)
	without the Upright Control Panel	1481 (W) x 770 (D) x 1,252 (H) mm
Weight		242 kg (including Reader + ADF)

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## Power Supply Specifications:

Product name	Power supply source (number of cables)	Japan		North America		Europe		Asia		Australia	
		V (V)	I (A)	V (V)	I (A)	V (V)	I (A)	V (V)	I (A)	V (V)	I (A)
imageRUNNER ADVANCE 8105 / 8095 / 8085	Power outlet (1)	100	20	120 -127	16	220 -240	10	220 -240	10	220 -240	10
POD Deck Lite-A1	Power outlet (1)	100	2.4	120 -127	5	220 -240	1.2	220 -240	1.2	220 -240	1.2
Paper Deck Unit-C1	Main body	-	-	-	-	-	-	-	-	-	-
Insertion Unit-K1	Power outlet (1)	100 -240	1.0	100 -240	1.0	100 -240	1.0	100 -240	1.0	100 -240	1.0
Paper Folding Unit-H1	Finisher	-	-	-	-	-	-	-	-	-	-
Professional Puncher-C1	Integration Unit-B1	-	-	-	-	-	-	-	-	-	-
Professional Puncher Integration Unit-B1	Power outlet (1)	-	-	120 -127	5.5	120 -127	5.5	120 -127	5.5	120 -127	5.5
Booklet Finisher-F1 PRO	Power outlet (1)	100	10	120- 127	8	220- 240	8	220- 240	8	220- 240	8
Staple Finisher-F1 PRO	Power outlet (1)	100	10	120- 127	8	220- 240	8	220- 240	8	220- 240	8
Staple Finisher-D1	Power outlet (1)	100 -240	2.8	100 -240	2.8	100 -240	2.8	100 -240	2.8	100 -240	2.8
Booklet Finisher-D1	Power outlet (1)	100 -240	2.8	100 -240	2.8	100 -240	2.8	100 -240	2.8	100 -240	2.8
Booklet Trimmer-D1	Finisher	-	-	-	-	-	-	-	-	-	-
Punch Unit-BB1/BC1/BD1	Booklet Finisher-F1 PRO	-	-	-	-	-	-	-	-	-	-
Puncher Unit-BE1	Finisher	-	-	-	-	-	-	-	-	-	-
Inner Trimmer-A1	Finisher	-	-	-	-	-	-	-	-	-	-
Duplex Color Image Reader Unit-C1	Main body	-	-	-	-	-	-	-	-	-	-

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## Weight and Size

Product name	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)
imageRUNNER ADVANCE 8105 / 8095 / 8085	645	770	1220	242
POD Deck Lite-A1	601	621	570	50
Paper Deck Unit-C1	323	583	570	37
Insertion Unit-K1	746	793	1407	61
Paper Folding Unit-H1	336	793	1190	71
Professional Puncher Integration Unit-B1	250	792	1040	40
Professional Puncher Unit-C1	305	792	1040	80
Booklet Finisher-F1 PRO	800	792	1180	180
Staple Finisher-F1 PRO	800	792	1180	130
Staple Finisher-D1	654	765	1040	61
Booklet Finisher-D1	767	765	1040	108
Booklet Trimmer-D1	1575	770	1040	152
Punch Unit-BB1/BC1/BD1	78	655	131	3
Puncher Unit-BE1/BF1/BG1/BH1	95	715	392	3.7
Inner Trimmer-A1	251	625	403	32
Duplex Color Image Reader Unit-C1	635	605	262	39.4

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**Productivity (Print Speed)**

Unit: sheets / minute

Paper type	Size	Feeding direction (mm)	Width direction (mm)	imageRUNNER ADVANCE 8105				imageRUNNER ADVANCE 8095				imageRUNNER ADVANCE 8085			
				Deck / Cassette		Multi-purpose Tray		Deck / Cassette		Multi-purpose Tray		Deck / Cassette		Multi-purpose Tray	
				1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided
Plain paper (64 to 90 g/m <sup>2</sup> )	A5R	210.0	148.5	105.0	52.5	80.0	40.0	95.0	47.5	80.0	40.0	85.0	42.5	80.0	40.0
	STMTR	215.9	139.7	105.0	52.5	80.0	40.0	95.0	47.5	80.0	40.0	85.0	42.5	80.0	40.0
Thin paper (52 to 63 g/m <sup>2</sup> )	B5	182.0	257.0	105.0	52.5	80.0	40.0	95.0	47.5	80.0	40.0	85.0	42.5	80.0	40.0
	A4	210.0	297.0	105.0	52.5	80.0	40.0	95.0	47.5	80.0	40.0	85.0	42.5	80.0	40.0
Heavy 1 (91 to 180 g/m <sup>2</sup> )	LTR	215.9	279.4	105.0	52.5	80.0	40.0	95.0	47.5	80.0	40.0	85.0	42.5	80.0	40.0
	B5R	257.0	182.0	88.2	44.1	67.2	33.6	79.8	39.9	67.2	33.6	73.0	36.5	67.2	33.6
Heavy 2 (181 to 220 g/m <sup>2</sup> )	LTRR	279.4	215.9	81.1	40.6	61.8	30.9	73.4	36.7	61.8	30.9	67.0	33.5	61.8	30.9
	A4R	297.0	210.0	76.3	38.2	58.2	29.1	69.1	34.5	58.2	29.1	63.0	31.5	58.2	29.1
Heavy 3 (221 to 256 g/m <sup>2</sup> )	LGLR	355.6	215.9	63.8	30.5	48.6	24.3	60.0	30.0	48.6	24.3	57.0	28.5	48.6	24.3
	B4R	364.0	257.0	62.3	29.5	47.5	23.7	59.0	29.5	47.5	23.7	56.0	28.0	47.5	23.7
	A3R	420.0	297.0	54.0	27.0	41.1	20.6	50.0	25.0	41.1	20.6	44.0	22.0	41.1	20.6
	LDRR	431.8	279.4	53.0	26.5	40.0	20.0	49.0	24.5	40.0	20.0	43.0	21.5	40.0	20.0
	SRA3	450.0	320.0	50.4	25.2	38.4	19.2	45.6	22.8	38.4	19.2	40.8	20.4	38.4	19.2
	12 X 18	457.2	304.8	49.6	24.8	37.8	18.9	44.9	22.4	37.8	18.9	40.1	20.1	37.8	18.9
	13 X 19	482.6	330.2	47.0	23.5	35.8	17.9	42.5	21.3	35.8	17.9	38.0	19.0	35.8	17.9
	Bond	LTR	215.9	279.4	35.0	17.5	35.0	17.5	35.0	35.0	35.0	17.5	35.0	17.5	35.0
	LTRR	279.4	215.9	24.0	12.0	24.0	12.0	24.0	24.0	24.0	12.0	24.0	12.0	24.0	12.0
Tab	A4	222.7	297.0	97.0	-	-	-	87.8	-	-	-	79.4	-	-	-
	LTR	228.6	279.4	97.0	-	-	-	87.8	-	-	-	79.4	-	-	-
Transparency	A4	210.0	297.0	-	-	-	-	-	-	80.0	-	-	-	80.0	-
	LTR	215.9	279.4	-	80.0	-	-	-	-	80.0	-	-	-	80.0	-

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## Paper Type

Following shows the types of usable papers.

See the table below for the custom paper size.

Type	Feeding direction (mm)	Width direction (mm)
Custom paper size 0-1	148.0 to 487.7	100 to 139.6
Custom paper size 0-2	148.0 to 181.9	139.7 to 330.2
Custom paper size 1-1	182.0 to 209.9	139.7 to 181.9
Custom paper size 1-2	210.0 to 279.2	
Custom paper size 1-3	279.3 to 432.0	
Custom paper size 1-4	432.1 to 487.7	
Custom paper size 2-1	182.0 to 209.9	182.0 to 209.9
Custom paper size 2-2	210.0 to 279.2	
Custom paper size 2-3	279.3 to 432.0	
Custom paper size 2-4	432.1 to 487.7	
Custom paper size 3-1	182.0 to 209.9	210.0 to 297.0
Custom paper size 3-2	210.0 to 279.2	
Custom paper size 3-3	279.3 to 432.0	
Custom paper size 3-4	432.1 to 487.7	
Custom paper size 4-1	182.0 to 209.9	297.1 to 330.2
Custom paper size 4-2	210.0 to 279.2	
Custom paper size 4-3	279.3 to 487.7	
Custom paper size 4-4	432.1 to 487.7	
Custom paper size 5 (long length)	487.8 to 630.0	100 to 330.2

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Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette3	Cassette4	Paper Deck	POD Deck Lite	Insertion Unit
Thin paper (52 to 63 g/m <sup>2</sup> )	A3	420	297	Yes	-	-	Yes	Yes	-	Yes	Yes
	B4	364	257	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4R	297	210	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4	210	297	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257	182	Yes	-	-	Yes	Yes	-	-	Yes
	B5	182	257	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210	148	Yes	-	-	Yes	Yes	-	-	-
	11x17	431.8	279.4	Yes	-	-	Yes	Yes	-	Yes	Yes
	LGL	355.6	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	STMTR	215.9	139.7	Yes	-	-	Yes	Yes	-	-	-
	SRA3	450	320	Yes	-	-	Yes	Yes	-	Yes	Yes
	12x18	457.2	304.8	Yes	-	-	Yes	Yes	-	Yes	Yes
	EXEC	184.1	266.7	Yes	-	-	Yes	Yes	-	-	Yes
	OFFICIO	317.5	215.9	Yes	-	-	Yes	Yes	-	-	-
	E-OFFICIO	320	220	Yes	-	-	Yes	Yes	-	-	-
	B-OFFICIO	355	216	Yes	-	-	Yes	Yes	-	-	-
	M-OFFICIO	341	216	Yes	-	-	Yes	Yes	-	-	-
	A-OFFICIO	340	220	Yes	-	-	Yes	Yes	-	-	-
	A-LTR	220	280	Yes	-	-	Yes	Yes	-	-	-
	A-LTRR	280	220	Yes	-	-	Yes	Yes	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	Yes	Yes	-	-	-
	GLTR	203.2	266.7	Yes	-	-	Yes	Yes	-	-	-
	GLGL	330.2	203.2	Yes	-	-	Yes	Yes	-	-	-
	AFLS	337	206	Yes	-	-	Yes	Yes	-	-	-
	FLS	330.2	215.9	Yes	-	-	Yes	Yes	-	-	-
	13x19	482.6	330.2	Yes	-	-	Yes	Yes	-	Yes	Yes
	K8	390	270	Yes	-	-	Yes	Yes	-	-	Yes
	K16	195	270	Yes	-	-	Yes	Yes	-	-	Yes
	K16R	270	195	-	-	-	Yes	Yes	-	-	-
	F4A	342.9	215.9	Yes	-	-	Yes	Yes	-	-	-
	Custom paper size 0-1, 0-2	-	-	Yes	-	-	-	-	-	-	-
Custom paper size 1-1, 1-2, 1-3, 1-4	-	-	Yes	-	-	Yes	Yes	-	-	-	
Custom paper size 2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 4-1, 4-2, 4-3, 4-4	-	-	Yes	-	-	Yes	Yes	-	-	Yes	
Custom paper size 5 (long length)	-	-	Yes	-	-	-	-	-	-	-	
Free size	182.0 to 487.7	100 to 330.2	Yes	-	-	-	-	-	-	-	
Free size (long length)	487.8 to 630.0	100 to 330.2	Yes	-	-	-	-	-	-	-	

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette3	Cassette4	Paper Deck	POD Deck Lite	Insertion Unit
Plain paper 1 (64 to 90 g/m <sup>2</sup> ) Recycled paper 1 (64 to 90 g/m <sup>2</sup> ) Color paper (64 to 90 g/m <sup>2</sup> )	A3	420	297	Yes	-	-	Yes	Yes	-	Yes	Yes
	B4	364	257	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4R	297	210	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4	210	297	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257	182	Yes	-	-	Yes	Yes	-	-	Yes
	B5	182	257	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210	148	Yes	-	-	Yes	Yes	-	-	-
	11x17	431.8	279.4	Yes	-	-	Yes	Yes	-	Yes	Yes
	LGL	355.6	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	STMTR	215.9	139.7	Yes	-	-	Yes	Yes	-	-	-
	SRA3	450	320	Yes	-	-	Yes	Yes	-	Yes	Yes
	12x18	457.2	304.8	Yes	-	-	Yes	Yes	-	Yes	Yes
	EXEC	184.1	266.7	Yes	-	-	Yes	Yes	-	-	Yes
	OFFICIO	317.5	215.9	Yes	-	-	Yes	Yes	-	-	-
	E-OFFICIO	320	220	Yes	-	-	Yes	Yes	-	-	-
	B-OFFICIO	355	216	Yes	-	-	Yes	Yes	-	-	-
	M-OFFICIO	341	216	Yes	-	-	Yes	Yes	-	-	-
	A-OFFICIO	340	220	Yes	-	-	Yes	Yes	-	-	-
	A-LTR	220	280	Yes	-	-	Yes	Yes	-	-	-
	A-LTRR	280	220	Yes	-	-	Yes	Yes	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	Yes	Yes	-	-	-
	GLTR	203.2	266.7	Yes	-	-	Yes	Yes	-	-	-
	GLGL	330.2	203.2	Yes	-	-	Yes	Yes	-	-	-
	AFLS	337	206	Yes	-	-	Yes	Yes	-	-	-
	FLS	330.2	215.9	Yes	-	-	Yes	Yes	-	-	-
	13x19	482.6	330.2	Yes	-	-	Yes	Yes	-	Yes	Yes
	K8	390	270	Yes	-	-	Yes	Yes	-	-	Yes
	K16	195	270	Yes	-	-	Yes	Yes	-	-	Yes
	K16R	270	195	-	-	-	Yes	Yes	-	-	-
	F4A	342.9	215.9	Yes	-	-	Yes	Yes	-	-	-
	Custom paper size 0-1, 0-2	-	-	Yes	-	-	-	-	-	-	-
Custom paper size 1-1, 1-2, 1-3, 1-4	-	-	Yes	-	-	Yes	Yes	-	-	-	
Custom paper size 2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 4-1, 4-2, 4-3, 4-4	-	-	Yes	-	-	Yes	Yes	-	-	Yes	
Custom paper size 5 (long length)	-	-	Yes	-	-	-	-	-	-	-	
Free size	182.0 to 487.7	100 to 330.2	Yes	-	-	-	-	-	-	-	
Free size (long length)	487.8 to 630.0	100 to 330.2	Yes	-	-	-	-	-	-	-	

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette3	Cassette4	Paper Deck	POD Deck Lite	Insertion Unit
Heavy paper 1 (91 to 180 g/m <sup>2</sup> ) Letterhead	A3	420	297	Yes	-	-	Yes	Yes	-	Yes	Yes
	B4	364	257	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4R	297	210	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4	210	297	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257	182	Yes	-	-	Yes	Yes	-	-	Yes
	B5	182	257	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210	148	Yes	-	-	Yes	Yes	-	-	-
	11x17	431.8	279.4	Yes	-	-	Yes	Yes	-	Yes	Yes
	LGL	355.6	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	STMTR	215.9	139.7	Yes	-	-	Yes	Yes	-	-	-
	SRA3	450	320	Yes	-	-	Yes	Yes	-	Yes	Yes
	12x18	457.2	304.8	Yes	-	-	Yes	Yes	-	Yes	Yes
	EXEC	184.1	266.7	Yes	-	-	Yes	Yes	-	-	Yes
	OFFICIO	317.5	215.9	Yes	-	-	Yes	Yes	-	-	-
	E-OFFICIO	320	220	Yes	-	-	Yes	Yes	-	-	-
	B-OFFICIO	355	216	Yes	-	-	Yes	Yes	-	-	-
	M-OFFICIO	341	216	Yes	-	-	Yes	Yes	-	-	-
	A-OFFICIO	340	220	Yes	-	-	Yes	Yes	-	-	-
	A-LTR	220	280	Yes	-	-	Yes	Yes	-	-	-
	A-LTRR	280	220	Yes	-	-	Yes	Yes	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	Yes	Yes	-	-	-
	GLTR	203.2	266.7	Yes	-	-	Yes	Yes	-	-	-
	GLGL	330.2	203.2	Yes	-	-	Yes	Yes	-	-	-
	AFLS	337	206	Yes	-	-	Yes	Yes	-	-	-
	FLS	330.2	215.9	Yes	-	-	Yes	Yes	-	-	-
	13x19	482.6	330.2	Yes	-	-	Yes	Yes	-	Yes	Yes
	K8	390	270	Yes	-	-	Yes	Yes	-	-	Yes
	K16	195	270	Yes	-	-	Yes	Yes	-	-	Yes
	K16R	270	195	-	-	-	Yes	Yes	-	-	-
	F4A	342.9	215.9	Yes	-	-	Yes	Yes	-	-	-
	Custom paper size 0-1, 0-2	-	-	Yes	-	-	-	-	-	-	-
Custom paper size 1-1, 1-2, 1-3, 1-4	-	-	Yes	-	-	Yes	Yes	-	-	-	
Custom paper size 2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 4-1, 4-2, 4-3, 4-4	-	-	Yes	-	-	Yes	Yes	-	-	Yes	
Custom paper size 5 (long length)	-	-	Yes	-	-	-	-	-	-	-	
Free size	182.0 to 487.7	100 to 330.2	Yes	-	-	-	-	-	-	-	
Free size (long length)	487.8 to 630.0	100 to 330.2	Yes	-	-	-	-	-	-	-	

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette3	Cassette4	Paper Deck	POD Deck Lite	Insertion Unit
Heavy paper 2 (181 to 220 g/m <sup>2</sup> )	A3	420	297	Yes	-	-	Yes	Yes	-	Yes	Yes
	B4	364	257	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4R	297	210	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4	210	297	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257	182	Yes	-	-	Yes	Yes	-	-	Yes
	B5	182	257	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210	148	Yes	-	-	Yes	Yes	-	-	-
	11x17	431.8	279.4	Yes	-	-	Yes	Yes	-	Yes	Yes
	LGL	355.6	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	STMTR	215.9	139.7	Yes	-	-	Yes	Yes	-	-	-
	SRA3	450	320	Yes	-	-	Yes	Yes	-	Yes	Yes
	12x18	457.2	304.8	Yes	-	-	Yes	Yes	-	Yes	Yes
	EXEC	184.1	266.7	Yes	-	-	Yes	Yes	-	-	Yes
	OFFICIO	317.5	215.9	Yes	-	-	Yes	Yes	-	-	-
	E-OFFICIO	320	220	Yes	-	-	Yes	Yes	-	-	-
	B-OFFICIO	355	216	Yes	-	-	Yes	Yes	-	-	-
	M-OFFICIO	341	216	Yes	-	-	Yes	Yes	-	-	-
	A-OFFICIO	340	220	Yes	-	-	Yes	Yes	-	-	-
	A-LTR	220	280	Yes	-	-	Yes	Yes	-	-	-
	A-LTRR	280	220	Yes	-	-	Yes	Yes	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	Yes	Yes	-	-	-
	GLTR	203.2	266.7	Yes	-	-	Yes	Yes	-	-	-
	GLGL	330.2	203.2	Yes	-	-	Yes	Yes	-	-	-
	AFLS	337	206	Yes	-	-	Yes	Yes	-	-	-
	FLS	330.2	215.9	Yes	-	-	Yes	Yes	-	-	-
	13x19	482.6	330.2	Yes	-	-	Yes	Yes	-	Yes	Yes
	K8	390	270	Yes	-	-	Yes	Yes	-	-	Yes
	K16	195	270	Yes	-	-	Yes	Yes	-	-	Yes
	K16R	270	195	-	-	-	Yes	Yes	-	-	-
	F4A	342.9	215.9	Yes	-	-	Yes	Yes	-	-	-
Custom paper size 0-1, 0-2	-	-	Yes	-	-	-	-	-	-	-	
Custom paper size 1-1, 1-2, 1-3, 1-4	-	-	Yes	-	-	Yes	Yes	-	-	-	
Custom paper size 2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 4-1, 4-2, 4-3, 4-4	-	-	Yes	-	-	Yes	Yes	-	-	Yes	
Custom paper size 5 (long length)	-	-	Yes	-	-	-	-	-	-	-	
Free size	182.0 to 487.7	100 to 330.2	Yes	-	-	-	-	-	-	-	
Free size (long length)	487.8 to 630.0	100 to 330.2	Yes	-	-	-	-	-	-	-	

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette3	Cassette4	Paper Deck	POD Deck Lite	Insertion Unit
Heavy paper 3 (221 to 256 g/m <sup>2</sup> )	A3	420	297	Yes	-	-	-	-	-	Yes	Yes
	B4	364	257	Yes	-	-	-	-	-	Yes	Yes
	A4R	297	210	Yes	-	-	-	-	-	Yes	Yes
	A4	210	297	Yes	-	-	-	-	-	Yes	Yes
	B5R	257	182	Yes	-	-	-	-	-	-	Yes
	B5	182	257	Yes	-	-	-	-	-	Yes	Yes
	A5R	210	148	Yes	-	-	-	-	-	-	-
	11x17	431.8	279.4	Yes	-	-	-	-	-	Yes	Yes
	LGL	355.6	215.9	Yes	-	-	-	-	-	Yes	Yes
	LTR	215.9	279.4	Yes	-	-	-	-	-	Yes	Yes
	LTRR	279.4	215.9	Yes	-	-	-	-	-	Yes	Yes
	STMTR	215.9	139.7	Yes	-	-	-	-	-	-	-
	SRA3	450	320	Yes	-	-	-	-	-	Yes	Yes
	12x18	457.2	304.8	Yes	-	-	-	-	-	Yes	Yes
	EXEC	184.1	266.7	Yes	-	-	-	-	-	-	Yes
	OFFICIO	317.5	215.9	Yes	-	-	-	-	-	-	-
	E-OFFICIO	320	220	Yes	-	-	-	-	-	-	-
	B-OFFICIO	355	216	Yes	-	-	-	-	-	-	-
	M-OFFICIO	341	216	Yes	-	-	-	-	-	-	-
	A-OFFICIO	340	220	Yes	-	-	-	-	-	-	-
	A-LTR	220	280	Yes	-	-	-	-	-	-	-
	A-LTRR	280	220	Yes	-	-	-	-	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	-	-	-	-	-
	GLTR	203.2	266.7	Yes	-	-	-	-	-	-	-
	GLGL	330.2	203.2	Yes	-	-	-	-	-	-	-
	AFLS	337	206	Yes	-	-	-	-	-	-	-
	FLS	330.2	215.9	Yes	-	-	-	-	-	-	-
	13x19	482.6	330.2	Yes	-	-	-	-	-	Yes	Yes
	K8	390	270	Yes	-	-	-	-	-	-	Yes
	K16	195	270	Yes	-	-	-	-	-	-	Yes
	K16R	270	195	-	-	-	-	-	-	-	-
	F4A	342.9	215.9	Yes	-	-	-	-	-	-	-
Custom paper size 0-1, 0-2, 1-1, 1-2, 1-3, 1-4	-	-	Yes	-	-	-	-	-	-	-	
Custom paper size 2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 4-1, 4-2, 4-3, 4-4	-	-	Yes	-	-	-	-	-	-	Yes	
Custom paper size 5 (long length)	-	-	Yes	-	-	-	-	-	-	-	
Free size	182.0 to 487.7	100 to 330.2	Yes	-	-	-	-	-	-	-	
Free size (long length)	487.8 to 630.0	100 to 330.2	Yes	-	-	-	-	-	-	-	

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette3	Cassette4	Paper Deck	POD Deck Lite	Insertion Unit
Transparency	A3	420	297	-	-	-	-	-	-	-	-
	B4	364	257	-	-	-	-	-	-	-	-
	A4R	297	210	Yes	-	-	-	-	-	-	-
	A4	210	297	Yes	-	-	-	-	-	-	-
	B5R	257	182	-	-	-	-	-	-	-	-
	B5	182	257	-	-	-	-	-	-	-	-
	A5R	210	148	-	-	-	-	-	-	-	-
	11x17	431.8	279.4	-	-	-	-	-	-	-	-
	LGL	355.6	215.9	-	-	-	-	-	-	-	-
	LTR	215.9	279.4	Yes	-	-	-	-	-	-	-
	LTRR	279.4	215.9	Yes	-	-	-	-	-	-	-
	STMTR	215.9	139.7	-	-	-	-	-	-	-	-
	SRA3	450	320	-	-	-	-	-	-	-	-
	12x18	457.2	304.8	-	-	-	-	-	-	-	-
	EXEC	184.1	266.7	-	-	-	-	-	-	-	-
	OFFICIO	317.5	215.9	-	-	-	-	-	-	-	-
	E-OFFICIO	320	220	-	-	-	-	-	-	-	-
	B-OFFICIO	355	216	-	-	-	-	-	-	-	-
	M-OFFICIO	341	216	-	-	-	-	-	-	-	-
	A-OFFICIO	340	220	-	-	-	-	-	-	-	-
	A-LTR	220	280	-	-	-	-	-	-	-	-
	A-LTRR	280	220	-	-	-	-	-	-	-	-
	GLTR-R	266.7	203.2	-	-	-	-	-	-	-	-
	GLTR	203.2	266.7	-	-	-	-	-	-	-	-
	GLGL	330.2	203.2	-	-	-	-	-	-	-	-
	AFLS	337	206	-	-	-	-	-	-	-	-
	FLS	330.2	215.9	-	-	-	-	-	-	-	-
	13x19	482.6	330.2	-	-	-	-	-	-	-	-
	K8	390	270	-	-	-	-	-	-	-	-
	K16	195	270	-	-	-	-	-	-	-	-
	K16R	270	195	-	-	-	-	-	-	-	-
	F4A	342.9	215.9	-	-	-	-	-	-	-	-
Custom paper size 0-1, 0-2, 1-1, 1-2, 1-3, 1-4, 2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 4-1, 4-2, 4-3, 4-4, 5 (long length)	-	-	-	-	-	-	-	-	-	-	
Free size	182.0 to 487.7	100 to 330.2	-	-	-	-	-	-	-	-	
Free size (long length)	487.8 to 630.0	100 to 330.2	-	-	-	-	-	-	-	-	

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette3	Cassette4	Paper Deck	POD Deck Lite	Insertion Unit
Labels	A3	420	297	Yes	-	-	-	-	-	Yes	-
	B4	364	257	Yes	-	-	-	-	-	Yes	-
	A4R	297	210	Yes	-	-	-	-	-	Yes	-
	A4	210	297	Yes	-	-	-	-	-	Yes	-
	B5R	257	182	Yes	-	-	-	-	-	-	-
	B5	182	257	Yes	-	-	-	-	-	Yes	-
	A5R	210	148	Yes	-	-	-	-	-	-	-
	11x17	431.8	279.4	Yes	-	-	-	-	-	Yes	-
	LGL	355.6	215.9	Yes	-	-	-	-	-	Yes	-
	LTR	215.9	279.4	Yes	-	-	-	-	-	Yes	-
	LTRR	279.4	215.9	Yes	-	-	-	-	-	Yes	-
	STMTR	215.9	139.7	Yes	-	-	-	-	-	-	-
	SRA3	450	320	Yes	-	-	-	-	-	Yes	-
	12x18	457.2	304.8	Yes	-	-	-	-	-	Yes	-
	EXEC	184.1	266.7	Yes	-	-	-	-	-	-	-
	OFFICIO	317.5	215.9	Yes	-	-	-	-	-	-	-
	E-OFFICIO	320	220	Yes	-	-	-	-	-	-	-
	B-OFFICIO	355	216	Yes	-	-	-	-	-	-	-
	M-OFFICIO	341	216	Yes	-	-	-	-	-	-	-
	A-OFFICIO	340	220	Yes	-	-	-	-	-	-	-
	A-LTR	220	280	Yes	-	-	-	-	-	-	-
	A-LTRR	280	220	Yes	-	-	-	-	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	-	-	-	-	-
	GLTR	203.2	266.7	Yes	-	-	-	-	-	-	-
	GLGL	330.2	203.2	Yes	-	-	-	-	-	-	-
	AFLS	337	206	Yes	-	-	-	-	-	-	-
	FLS	330.2	215.9	Yes	-	-	-	-	-	-	-
	13x19	482.6	330.2	Yes	-	-	-	-	-	Yes	-
	K8	390	270	Yes	-	-	-	-	-	-	-
	K16	195	270	Yes	-	-	-	-	-	-	-
	K16R	270	195	-	-	-	-	-	-	-	-
F4A	342.9	215.9	Yes	-	-	-	-	-	-	-	
Custom paper size 0-1, 0-2, 1-1, 1-2, 1-3, 1-4, 2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 4-1, 4-2, 4-3, 4-4, 5 (long length)	-	-	-	-	-	-	-	-	-	-	
Free size	182.0 to 487.7	100 to 330.2	-	-	-	-	-	-	-	-	
Free size (long length)	487.8 to 630.0	100 to 330.2	-	-	-	-	-	-	-	-	

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette3	Cassette4	Paper Deck	POD Deck Lite	Insertion Unit
Tracing	A3	420	297	Yes	-	-	-	-	-	-	Yes
	B4	364	257	Yes	-	-	-	-	-	-	Yes
	A4R	297	210	Yes	-	-	-	-	-	-	Yes
	A4	210	297	Yes	-	-	-	-	-	-	Yes
	B5R	257	182	Yes	-	-	-	-	-	-	Yes
	B5	182	257	Yes	-	-	-	-	-	-	Yes
	A5R	210	148	Yes	-	-	-	-	-	-	-
	11x17	431.8	279.4	Yes	-	-	-	-	-	-	Yes
	LGL	355.6	215.9	Yes	-	-	-	-	-	-	Yes
	LTR	215.9	279.4	Yes	-	-	-	-	-	-	Yes
	LTRR	279.4	215.9	Yes	-	-	-	-	-	-	Yes
	STMTR	215.9	139.7	Yes	-	-	-	-	-	-	-
	SRA3	450	320	Yes	-	-	-	-	-	-	Yes
	12x18	457.2	304.8	Yes	-	-	-	-	-	-	Yes
	EXEC	184.1	266.7	Yes	-	-	-	-	-	-	Yes
	OFFICIO	317.5	215.9	Yes	-	-	-	-	-	-	-
	E-OFFICIO	320	220	Yes	-	-	-	-	-	-	-
	B-OFFICIO	355	216	Yes	-	-	-	-	-	-	-
	M-OFFICIO	341	216	Yes	-	-	-	-	-	-	-
	A-OFFICIO	340	220	Yes	-	-	-	-	-	-	-
	A-LTR	220	280	Yes	-	-	-	-	-	-	-
	A-LTRR	280	220	Yes	-	-	-	-	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	-	-	-	-	-
	GLTR	203.2	266.7	Yes	-	-	-	-	-	-	-
	GLGL	330.2	203.2	Yes	-	-	-	-	-	-	-
	AFLS	337	206	Yes	-	-	-	-	-	-	-
	FLS	330.2	215.9	Yes	-	-	-	-	-	-	-
	13x19	482.6	330.2	Yes	-	-	-	-	-	-	Yes
	K8	390	270	Yes	-	-	-	-	-	-	Yes
	K16	195	270	Yes	-	-	-	-	-	-	Yes
	K16R	270	195	-	-	-	-	-	-	-	-
	F4A	342.9	215.9	Yes	-	-	-	-	-	-	-
Custom paper size 0-1, 0-2	-	-	Yes	-	-	-	-	-	-	-	
Custom paper size 1-1, 1-2, 1-3, 1-4, 2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 4-1, 4-2, 4-3, 4-4	-	-	Yes	-	-	-	-	-	-	Yes	
Custom paper size 5 (long length)	-	-	Yes	-	-	-	-	-	-	-	
Free size	182.0 to 487.7	100 to 330.2	Yes	-	-	-	-	-	-	-	
Free size (long length)	487.8 to 630.0	100 to 330.2	Yes	-	-	-	-	-	-	-	



Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette3	Cassette4	Paper Deck	POD Deck Lite	Insertion Unit
Cotton (Bond)	A3	420	297	-	-	-	-	-	-	-	-
	B4	364	257	-	-	-	-	-	-	-	-
	A4R	297	210	-	-	-	-	-	-	-	-
	A4	210	297	-	-	-	-	-	-	-	-
	B5R	257	182	-	-	-	-	-	-	-	-
	B5	182	257	-	-	-	-	-	-	-	-
	A5R	210	148	-	-	-	-	-	-	-	-
	11x17	431.8	279.4	-	-	-	-	-	-	-	-
	LGL	355.6	215.9	-	-	-	-	-	-	-	-
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	STMTR	215.9	139.7	-	-	-	-	-	-	-	-
	SRA3	450	320	-	-	-	-	-	-	-	-
	12x18	457.2	304.8	-	-	-	-	-	-	-	-
	EXEC	184.1	266.7	Yes	-	-	Yes	Yes	-	-	Yes
	OFFICIO	317.5	215.9	-	-	-	-	-	-	-	-
	E-OFFICIO	320	220	-	-	-	-	-	-	-	-
	B-OFFICIO	355	216	-	-	-	-	-	-	-	-
	M-OFFICIO	341	216	-	-	-	-	-	-	-	-
	A-OFFICIO	340	220	-	-	-	-	-	-	-	-
	A-LTR	220	280	-	-	-	-	-	-	-	-
	A-LTRR	280	220	-	-	-	-	-	-	-	-
	GLTR-R	266.7	203.2	-	-	-	-	-	-	-	-
	GLTR	203.2	266.7	-	-	-	-	-	-	-	-
	GLGL	330.2	203.2	-	-	-	-	-	-	-	-
	AFLS	337	206	-	-	-	-	-	-	-	-
	FLS	330.2	215.9	-	-	-	-	-	-	-	-
	13x19	482.6	330.2	-	-	-	-	-	-	-	-
	K8	390	270	-	-	-	-	-	-	-	-
	K16	195	270	-	-	-	-	-	-	-	-
	K16R	270	195	-	-	-	-	-	-	-	-
F4A	342.9	215.9	-	-	-	-	-	-	-	-	
Custom paper size 0-1, 0-2, 1-1, 1-2, 1-3, 1-4, 2-1, 2-2, 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 4-1, 4-2, 4-3, 4-4, 5 (long length)	-	-	-	-	-	-	-	-	-	-	
Free size	182.0 to 487.7	100 to 330.2	-	-	-	-	-	-	-	-	
Free size (long length)	487.8 to 630.0	100 to 330.2	-	-	-	-	-	-	-	-	

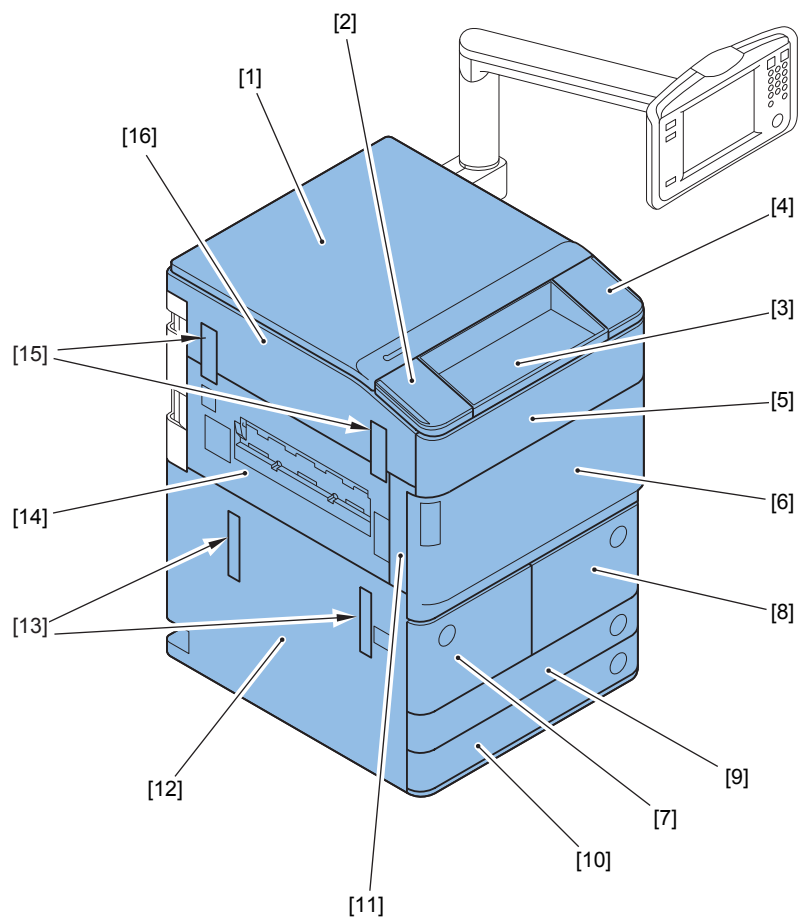
Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette3	Cassette4	Paper Deck	POD Deck Lite	Insertion Unit
Tab paper	A4	210	297	-	-	-	Yes	Yes	-	-	Yes
	LTR	215.9	279.4	-	-	-	Yes	Yes	-	-	Yes
Pre-Punched paper	A4	210	297	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Postcard	Postcard	148	100	Yes	-	-	-	-	-	-	-
	Reply Postcard	200	148	Yes	-	-	-	-	-	-	-
	4 on 1 Postcard	200	296	Yes	-	-	-	-	-	-	-

T-1-12

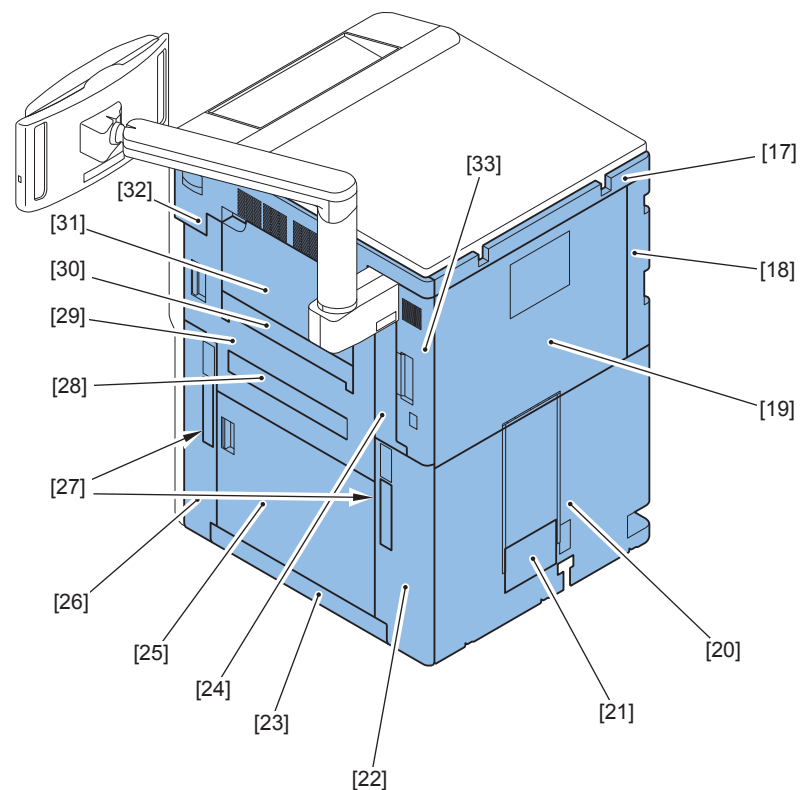
## External View/Internal View

### External View

#### External Cover



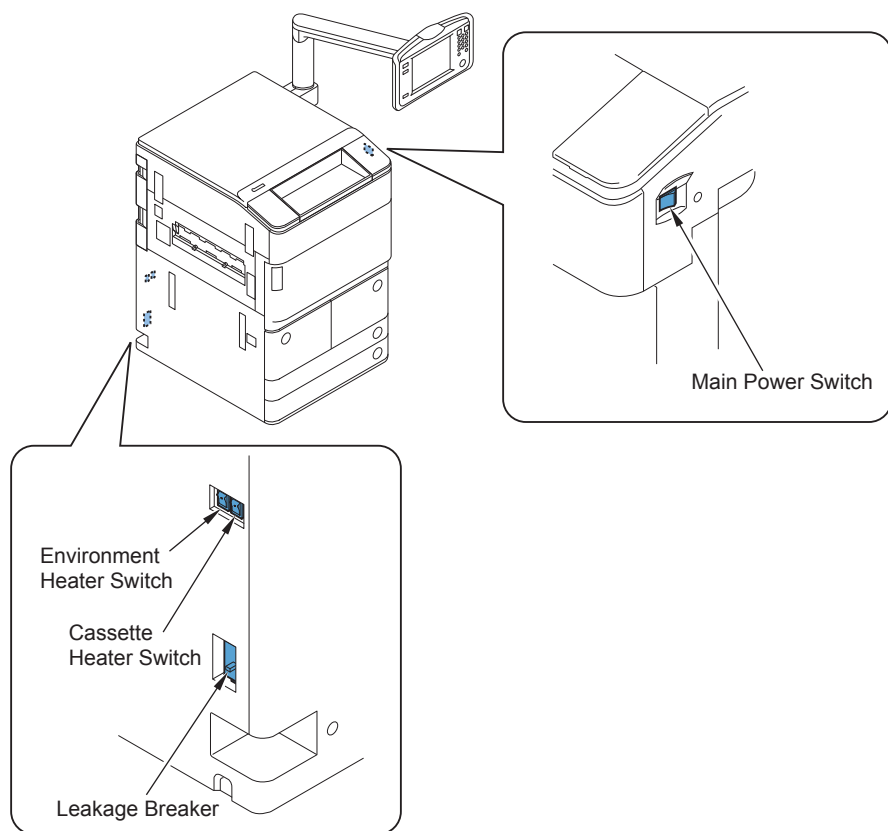
F-1-14



- |      |                          |      |                             |
|------|--------------------------|------|-----------------------------|
| [1]  | Upper Cover              | [2]  | Upper Left Cover            |
| [3]  | Upper Middle Cover       | [4]  | Upper Right Cover           |
| [5]  | Toner Exchange Cover     | [6]  | Front Cover                 |
| [7]  | Deck Left Cover          | [8]  | Deck Right Cover            |
| [9]  | Cassette Front Cover     | [10] | Cassette Front Cover        |
| [11] | Left Front Cover         | [12] | Left Lower Cover            |
| [13] | Left Handle Cover        | [14] | Delivery Cover              |
| [15] | Finisher Connector Cover | [16] | Left Upper Cover            |
| [17] | Upper Rear Cover         | [18] | Left Rear Cover             |
| [19] | Rear Upper Cover         | [20] | Rear Lower Cover            |
| [21] | Filter Cover             | [22] | Waste Toner Container Cover |
| [23] | Right Lower Cover        | [24] | Right Rear Cover 2          |
| [25] | Vertical Path Cover      | [26] | Right Front Cover           |
| [27] | Right Handle Cover       | [28] | Inner Cove                  |
| [29] | Right Cover              | [30] | MP Pickup Tray Sub Cover    |
| [31] | MP Pickup Tray           | [32] | Right Upper Cover           |
| [33] | Right Rear Cover 1       |      |                             |

F-1-15

## Switches, I/F, Others

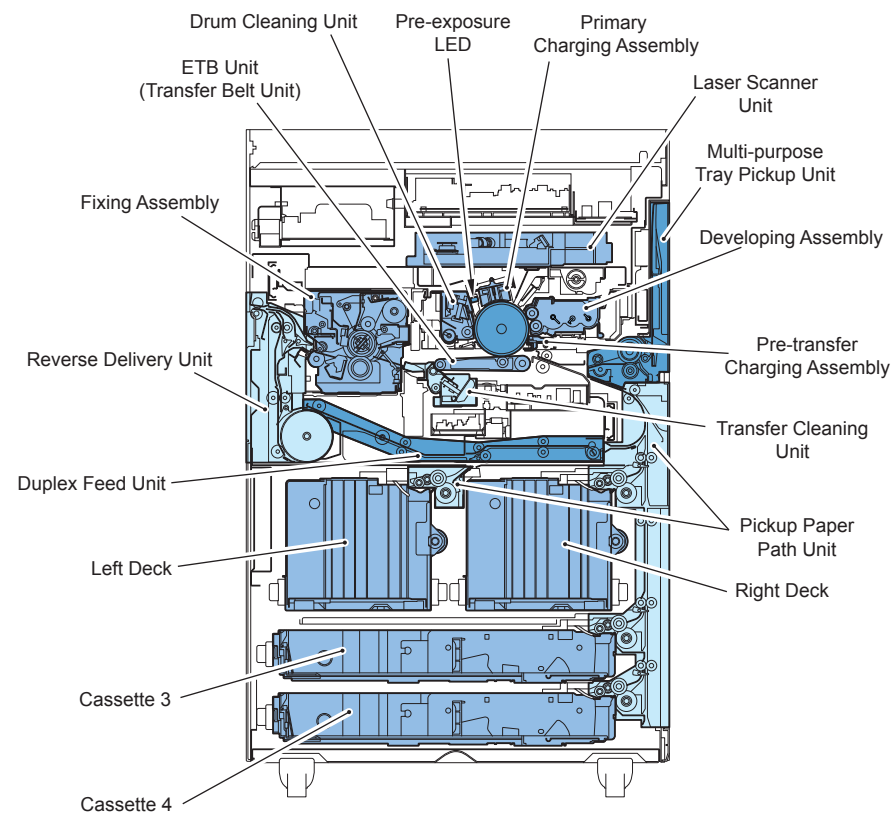


F-1-16

Be sure to perform the following procedure for checking the Leakage Breaker.

- 1) Turn OFF the main power switch and check that the Control Panel LED is off.
- 2) Using a pen point, press the test button of the breaker on the rear side of the machine.
- 3) Check that the breaker switch is OFF (O side).
- 4) Return the breaker switch to ON (I side).
- 5) Turn ON the main power switch.

## Cross-Section View



F-1-17

## Operation

### Power Switch

#### Types of Power Switches

This machine has the Main Power Switch, the Control Panel Power Switch and the Environment Heater Switch.

Turning ON the Main Power Switch supplies the power in the usual case (except when the machine is in sleep mode).

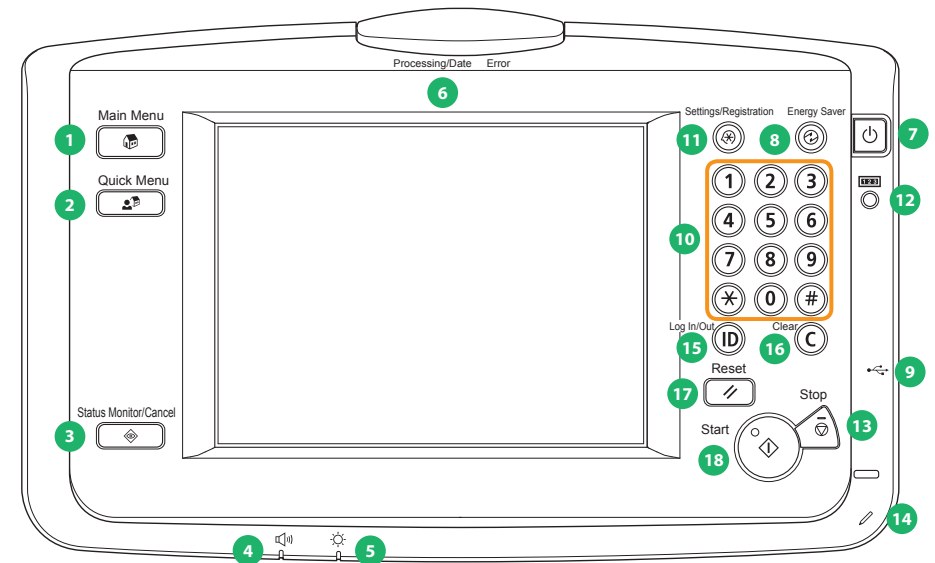
The Environment Switch supplies or blocks the power to the Drum Heater, the Cassette Heater and the Reader Heater.

#### Points to Note on Turning ON/OFF the Power Switch

- Do not turn OFF the Main Power Switch while the progress bar (to be displayed when the power is turned ON) is displayed, which indicates access to the HDD.
- Be sure to turn OFF the Main Power Switch to cut the power (there is no need to perform the shutdown sequence which has been performed with the conventional machines).
- After turning OFF the power (after turning OFF the Main Power Switch), do not turn ON the Main Power Switch unless the screen disappears.  
Do not turn OFF the power during downloading.

### Control Panel

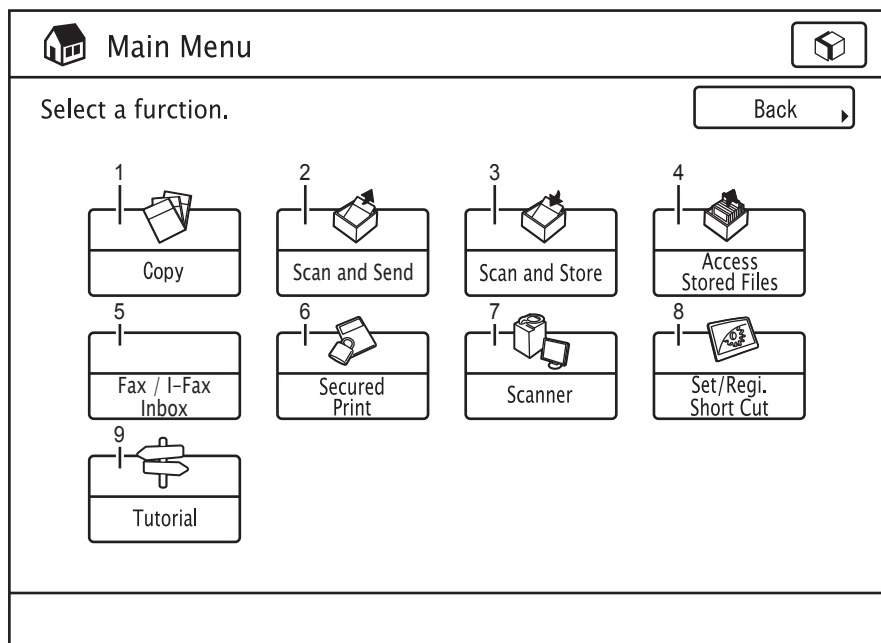
#### Control Panel



F-1-18

- |  |                                |
|--|--------------------------------|
| [1] Main Menu Key                          | [10] Numeric Key               |
| [2] Custom Menu Key                        | [11] Settings/registration Key |
| [3] Check/Stop Status Key                  | [12] Check Counter Key         |
| [4] Volume Adjustment Key                  | [13] Stop Key                  |
| [5] Brightness Adjustment Key              | [14] Operation Pen             |
| [6] Touch Panel Display                    | [15] ID Key                    |
| [7] Control Panel Power Switch (Sub-power) | [16] Clear Key                 |
| [8] Energy Saver Key                       | [17] Reset Key                 |
| [9] USB Slot                               | [18] Start Key                 |

## Main Menu



F-1-19

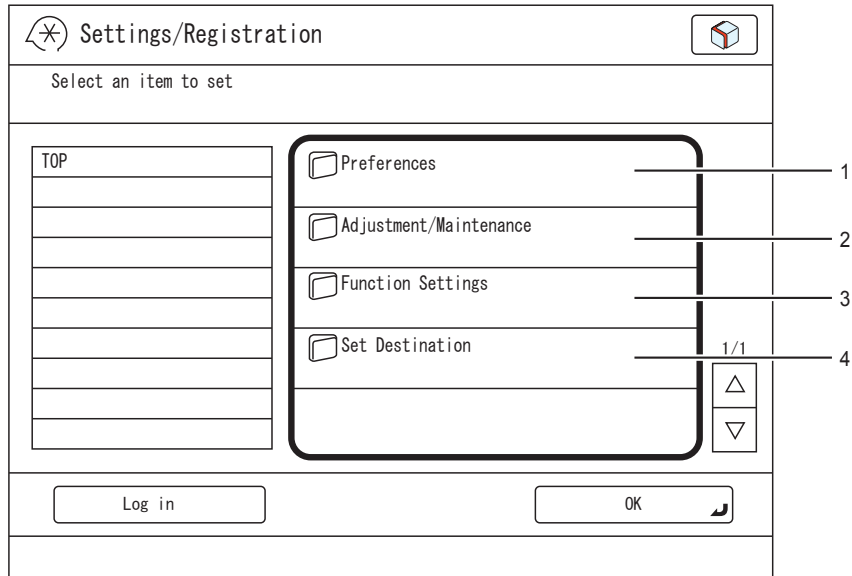
- [1] Copy
- [2] Scan and Send
- [3] Scan and Save
- [4] Access Stored Files
- [5] Fax/I-Fax Inbox
- [6] Secured Print
- [7] Remote Scanner
- [8] Shortcut to Settings/Registration
- [9] Introduction to Useful Features

## Differences in Main Menu

iR 7105/iR 5075 Series	iR ADVANCE 8105 / iR ADVANCE 6075 Series
Copy	Copy
Send/Fax	Scan and Send
Mail Box	Scan and Save (New)
	Access Stored Files (New)
	Fax/I-Fax Inbox
Menu Switch Key	-----
Print	Secured Print
Remote Scanner	Remote Scanner
-----	Shortcut to Settings/Registration (New)
(Easy NAVI)	Introduction to Useful Features
Web Browser	-----

T-1-13

## Settings/Registration Menu



F-1-20

- [1] Preferences
- [2] Adjustment/Maintenance
- [3] Function Settings
- [4] Management Settings

## Differences in Settings/Registration Menu

iR 7105/7095/7085 Series	iR ADVANCE 8105/8095/8085 Series
Common Settings	Preferences
Timer Setting	
Adjustment/Cleaning	Adjustment/Maintenance
System Settings	Management Settings
Output Report	Function Settings
Copy Settings	
Send/Receive Settings	
Mail Box Settings	
Printer Settings	
Address Book Settings	-----

T-1-14

# 2

## Technology

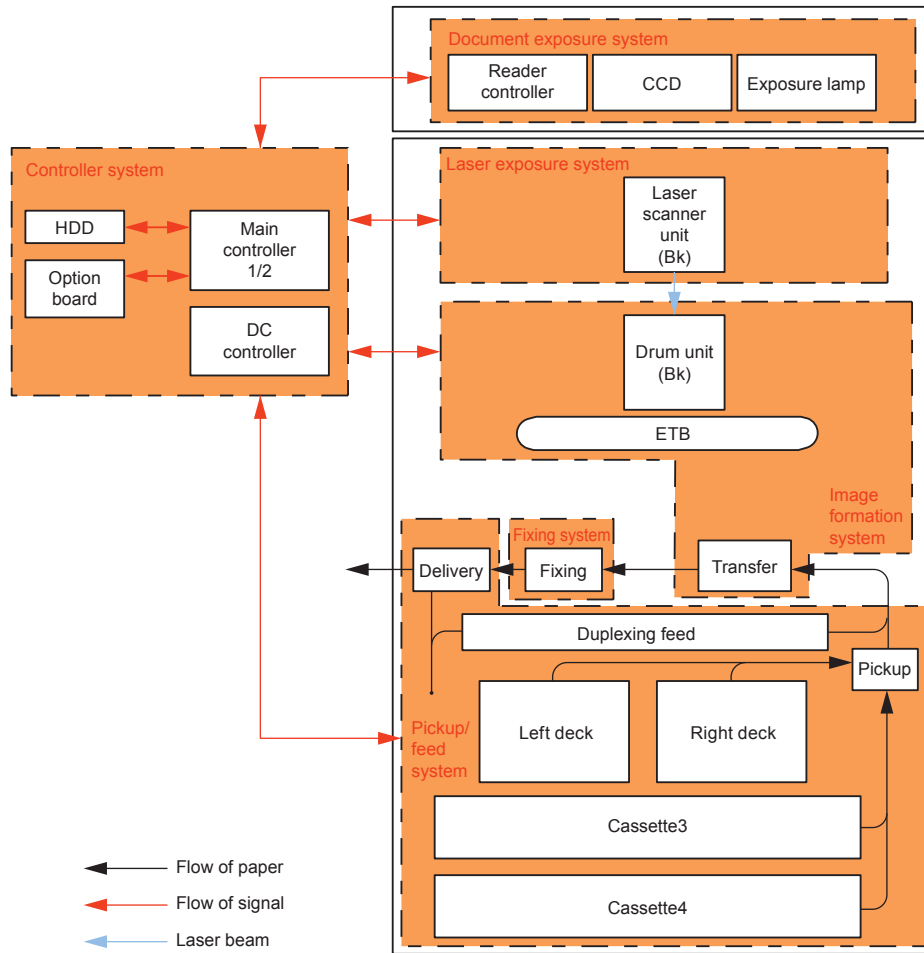
- Basic Configuration
- Main Controller
- Laser Exposure System
- Image Formation System
- Fixing
- Pickup / Feed System
- External Auxiliary System
- MEAP
- Embedded RDS
- Updater
- System Management Operations



## Basic Configuration

### Functional Configuration

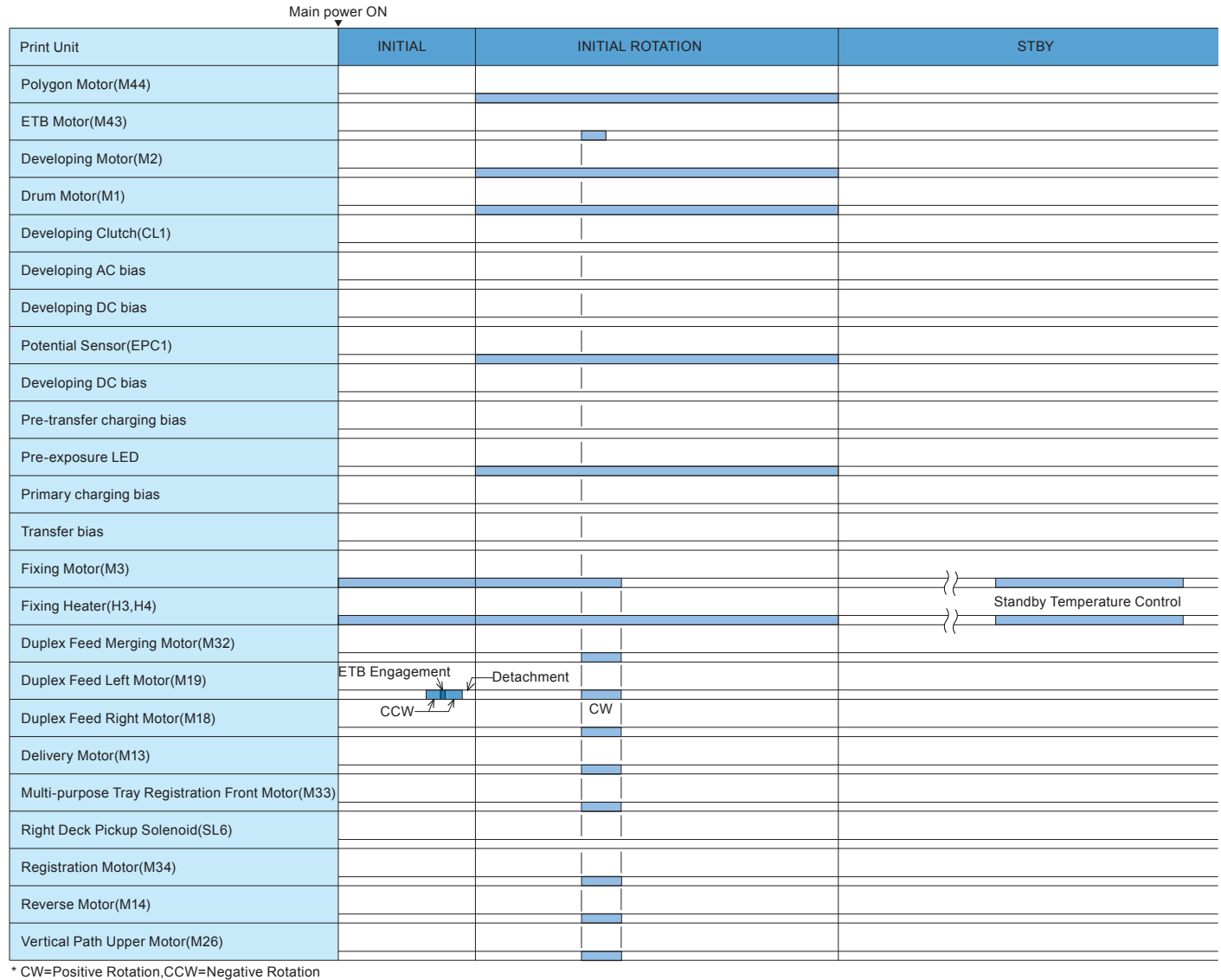
The machine may broadly be divided into the following functional system blocks; document exposure system block, controller system block, laser exposure system block, image formation system block, fixing system block and pickup/feed system block.



F-2-1

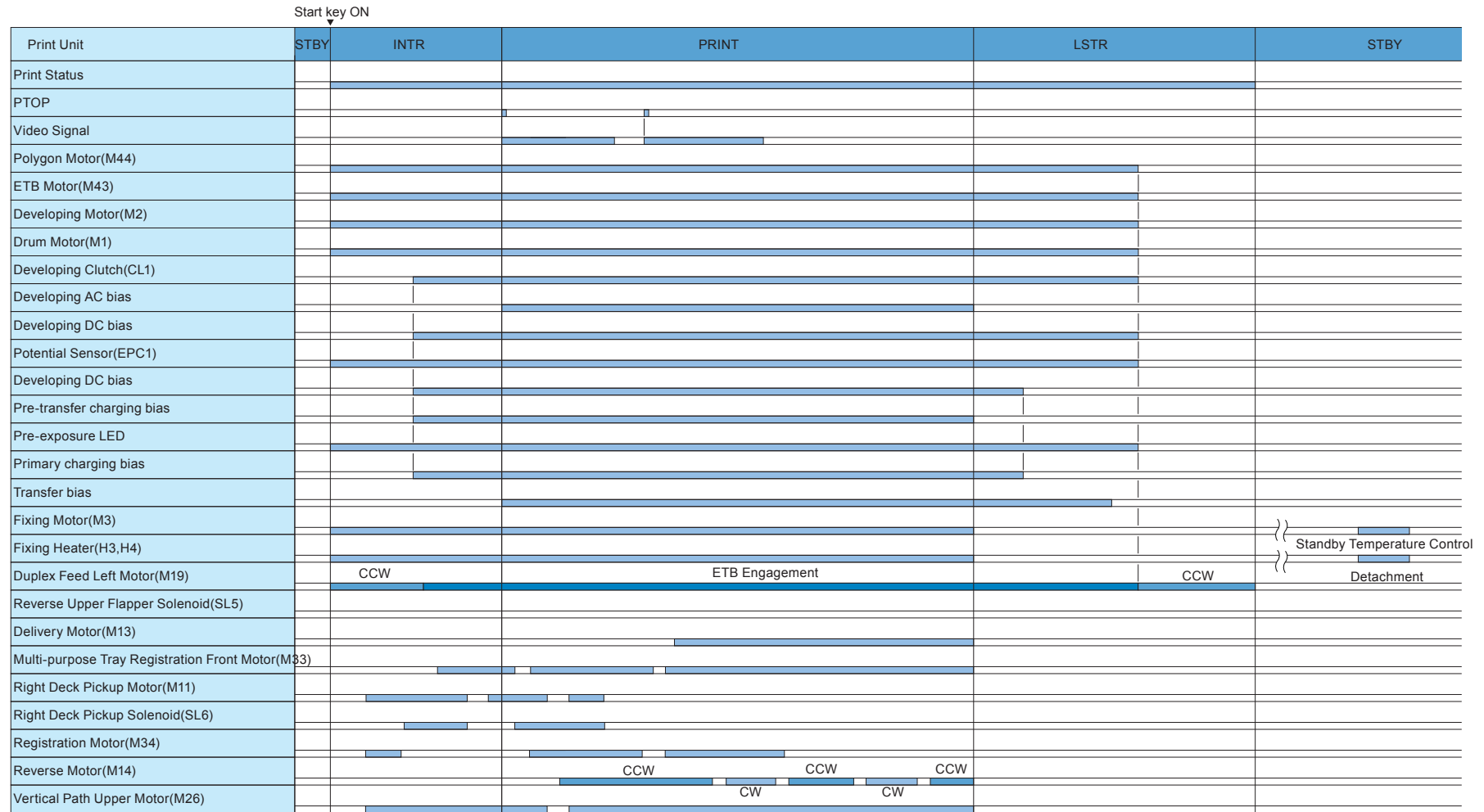
# Basic Sequence

## Basic sequence at power ON



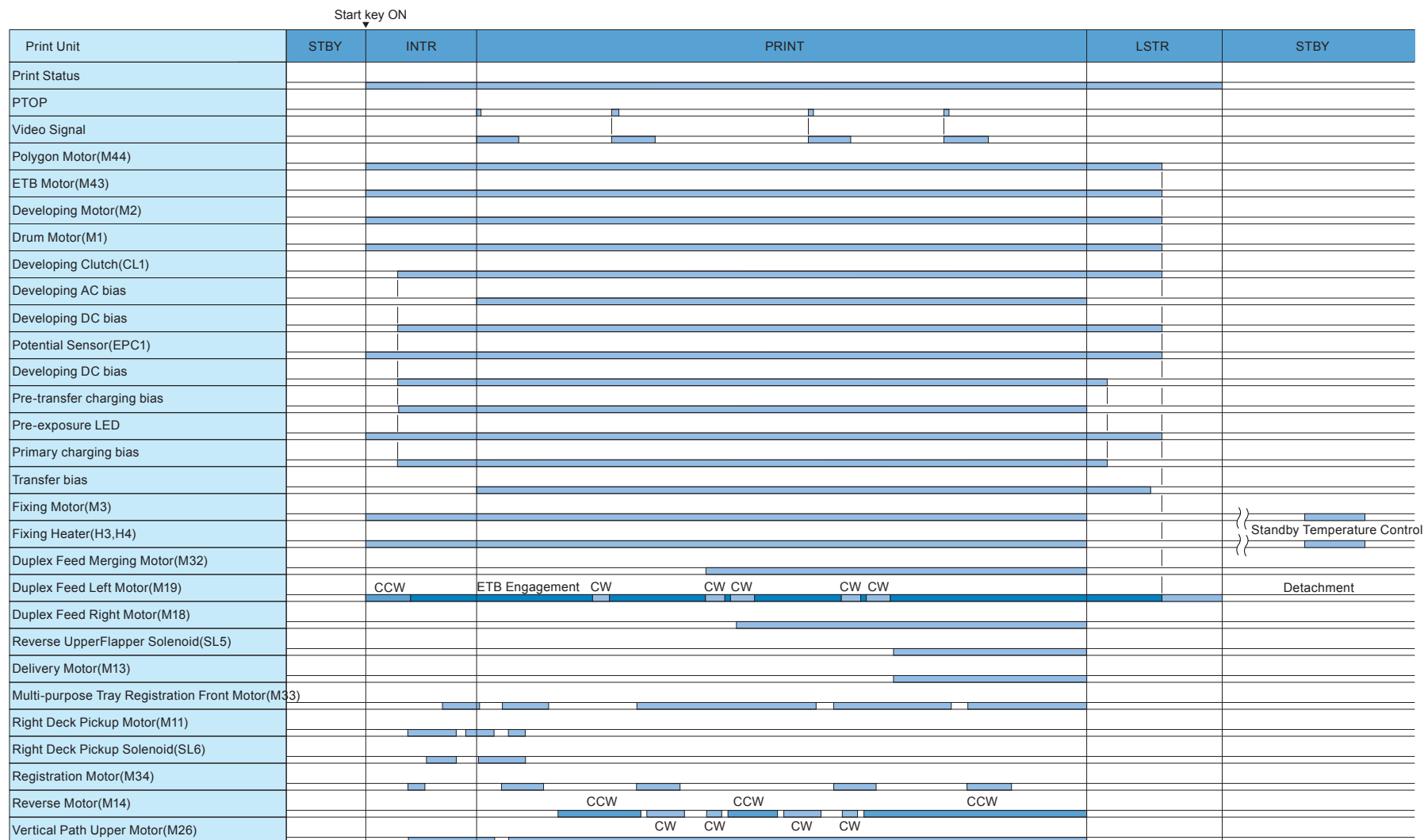
F-2-2

Basic sequence at printing <Condition: A4 1-sided (2 sheets), Right deck, Reverse delivery>



\* CW=Positive Rotation,CCW=Negative Rotation

Basic sequence at printing <Condition: A4 2-sided (2 sheets), Right deck, Reverse delivery>



\* CW=Positive Rotation,CCW=Negative Rotation

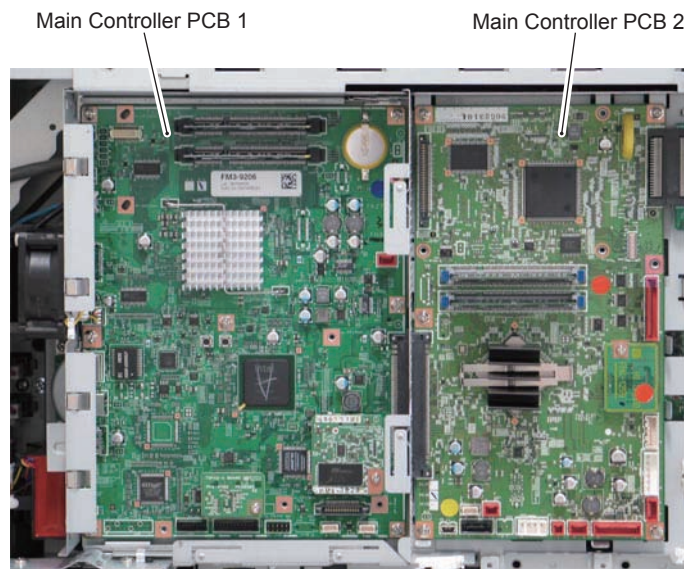
F-2-4

## Main Controller

### Overview

#### Features

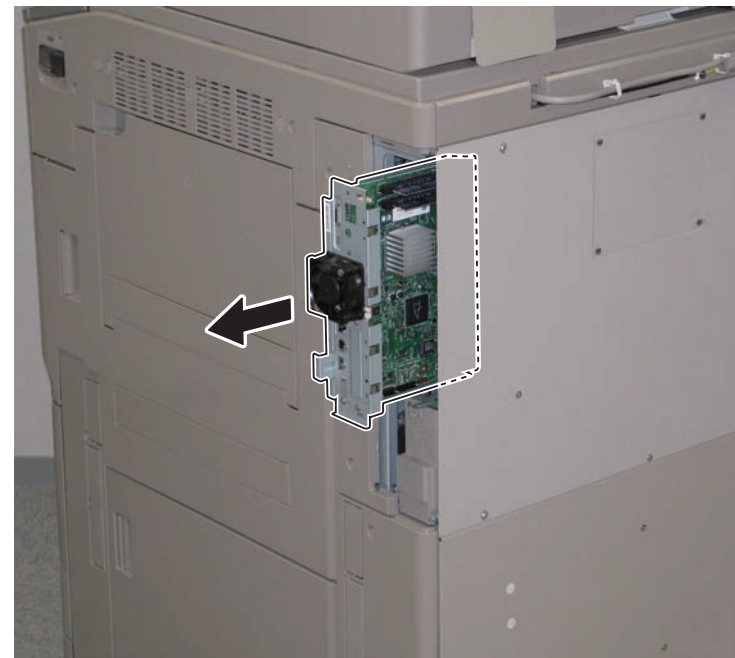
Using a new controller enables high speed PDL processing, high image quality and high functionality.



F-2-5

Main Controller PCB 1 controls the entire system while Main Controller PCB 2 mainly controls image processing.

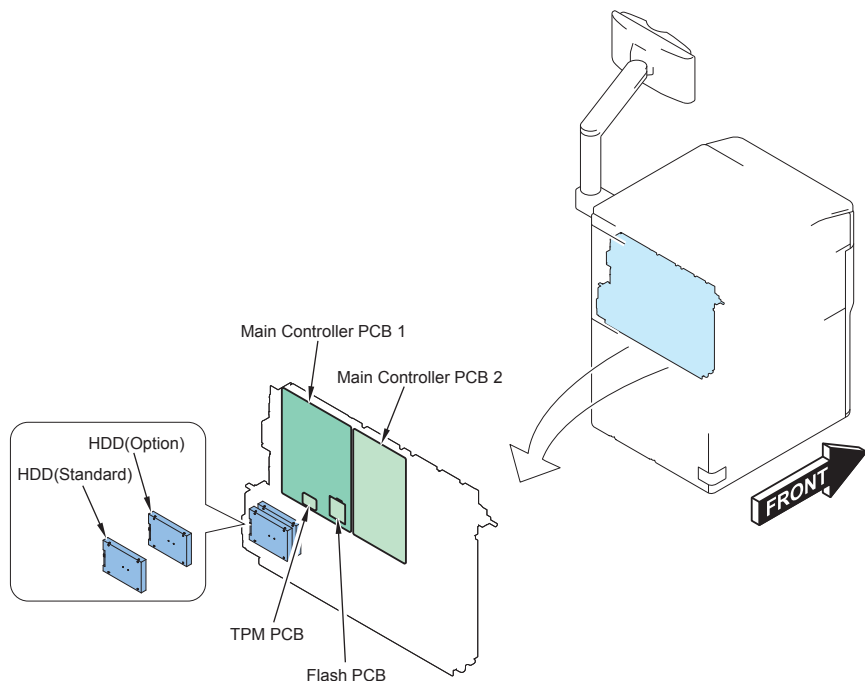
Main Controller PCBs 1 and 2 are connected through the Riser (connector for interface). Removability/installability of Main Controller PCB 1 has been improved by introducing this configuration (Slot-in/out)



F-2-6

Specifications/configuration

PCBs



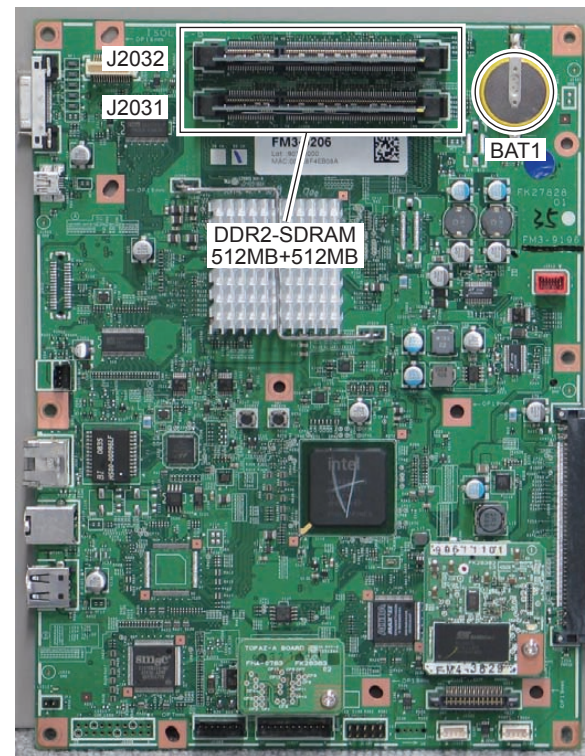
F-2-7

Parts name	Function, specifications, features
Main controller PCB 1	CPU: 1.2GHz, Control of the entire system Various controls (HDD control,memory, control panel, electric power, voice), I/Fs (PCI, USB(host),USB(devise),LAN), RTC
Flash PCB	Boot program
TPM PCB	To generate and save encryption key Available only when TPM settings is ON: Management Settings > Data Management > TPM Settings (default: OFF) Not available with China models
Main controller PCB 2	CPU: 400 MHz, Image control Image processing (resolution conversion, image rotation, halftone process, scanner image process, printer image process, compression/decompression, decoding, direct mapping, image area determination, generation of histogram,Trimming,Masking) , USB(devise) control,I/F (Reader, Printer,FAX,HDD,Power supply)
HDD	2.5 inch SATA I/F Standard: 80 GB Up to 2 HDDs can be mounted in the case of mirroring configuration. BOX data, Address book, security information (password, certificate) Op.: (2.5inch / 80GB)HDD-C1, (2.5inch / 250GB)HDD-D1

T-2-1

Memory

Main controller PCB 1

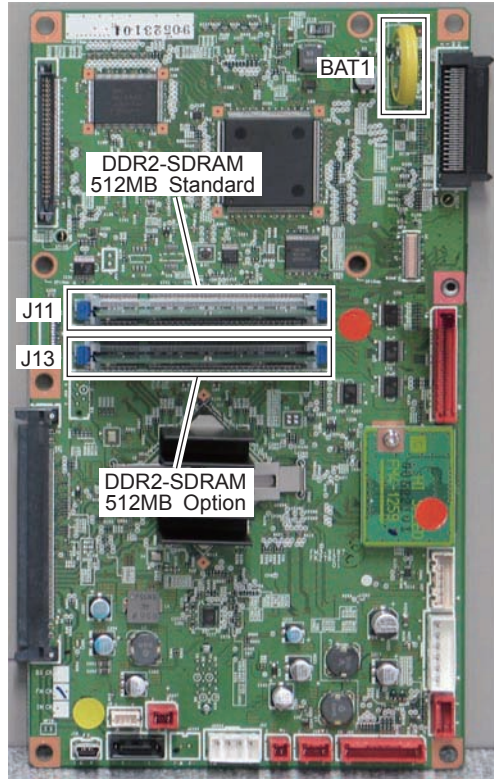


F-2-8

Parts name	Function, specifications, features
DDR2-SDRAM	2 slot / 1GB (standard) J2031: 512 MB J2032: 512 MB Clock frequency: 333 MHz Used for saving image, program data
Lithium battery (BAT1)	For RTC Life: approx. 10 years

T-2-2

Main controller PCB 2



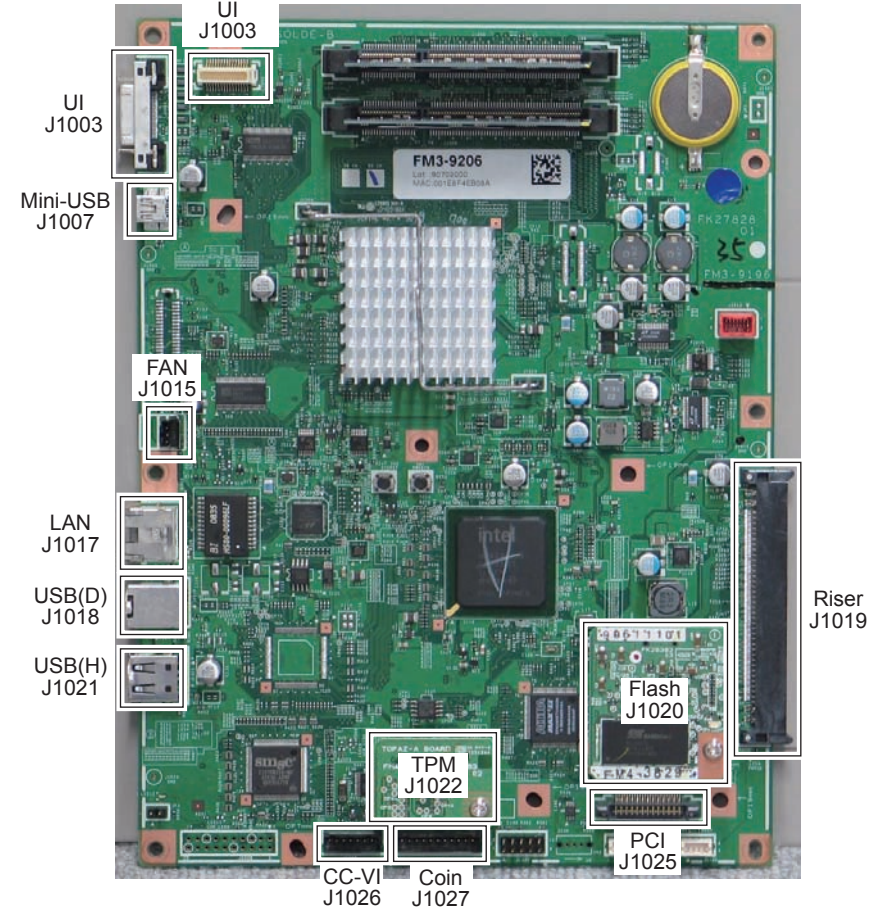
F-2-9

Parts name	Function, specifications, features
DDR2-SDRAM	512 MB (standard) / clock frequency: 200MHz Scanner image process, printer image process, resolution conversion, compression/decompression, coding/decoding
DDR2-SDRAM	512 MB (Op) / clock frequency: 200MHz Product name: Additional Memory Type B (512MB) Rasterizing, rendering, resolution conversion, coding/decoding Required when 600dpi color scanning (mode) is used
SRAM	16 Mbit To save data in Settings/Registration Mode/ Service Mode and image data management information in HDD
Lithium battery (BAT1)	For SRAM backup, Life: approx. 10 years

T-2-3

I/F, connector

Main controller PCB 1



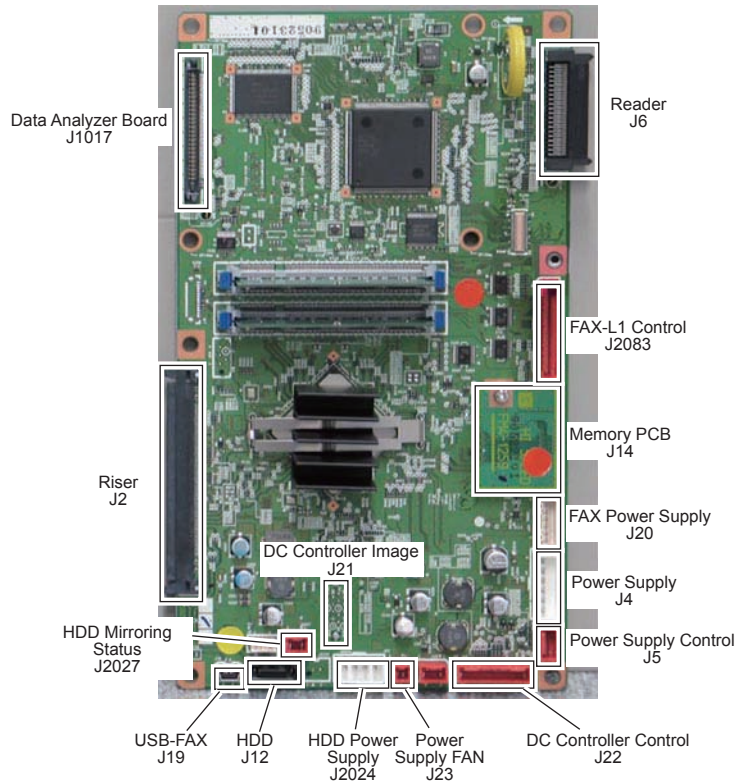
F-2-10

No.	Function, specifications	No.	Function, specifications
J1002	Voice I/F (Op.)	J1020	Flash PCB I/F
J1003	UI:Control panel I/F	J1021	USB I/F (Host) For MEAP, For USB keyboard (Op.)
J1007	Mini-USB I/F Connect USB Device Port-A1(Op.) USB Device Port-A1 is required when using Mobile Connect Kit-A1 (sold separately).	J1022	TPM PCB I/F
J1015	FAN:Fan I/F	J1025	PCI expansion PCB I/F (Op.)

No.	Function, specifications	No.	Function, specifications
J1017	LAN I/F 1000BASE-T/100BASE-TX/10BASE-T	J1026	CC-VI:I/F for control interface kit (Op.)
J1018	USB I/F (Device)	J1027	Coin:I/F for card reader, I/F for serial interface kit, I/F for coin manager (all Op.)
J1019	Raiser I/F To connect Main Controller PCB 2		

T-2-4

Main controller PCB 2



F-2-11

Jack No.	Function, specifications	Jack No.	Function, specifications
J6	Reader I/F	J2017	Image analysis PCB I/F Product name: Image Data Analyzer Board-A1
J12	HDD I/F	J2024	HDD Power Supply I/F
J14	Memory PCB I/F	J2027	HDD Mirroring Status I/F Product name:HDD MIRROR KIT-E1,HDD Data Encryption & Mirroring Kit-C2
J19	USB-FAX I/F for 2 to 4-lines FAX Product name: Advanced G3 2nd Line Fax Board-AF1, Advanced G3 3rd/4th Line Fax Board-AE1	J2083	FAX I/F for 1-line FAX Product name: Advanced G3 FAX Board-AF1
J20	FAX Power Supply I/F		

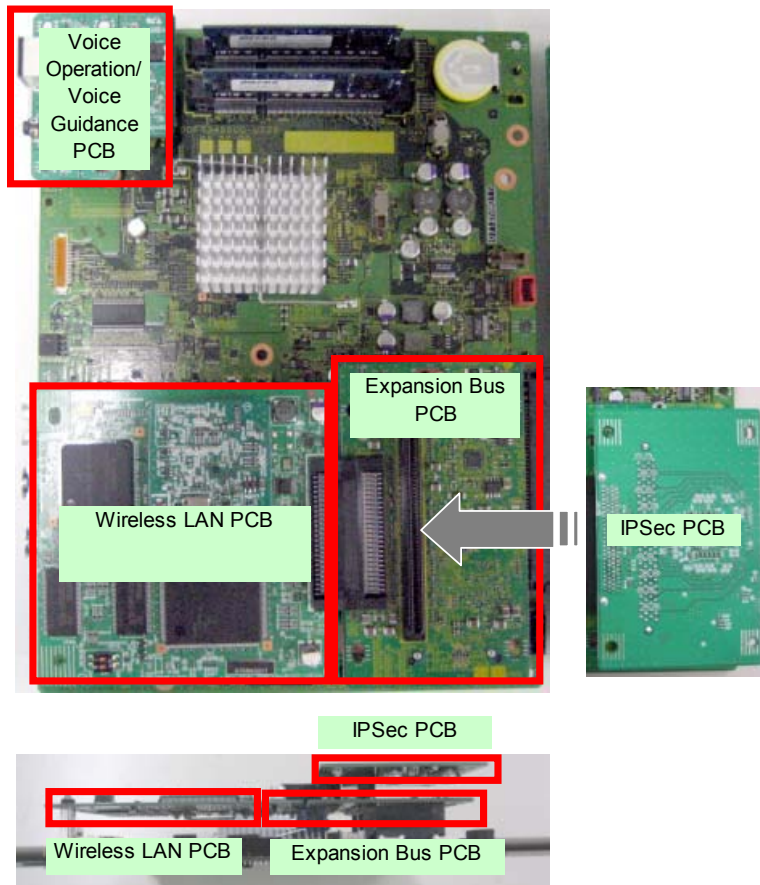
T-2-5

Jack No.	Function, specifications	Jack No.	Function, specifications
J2	Raiser I/F To connect Main Controller PCB 1	J21	DC Controller image data I/F To connect from the back of Main Controller PCB 2
J4	Power Supply I/F	J22	DC Controller Control data I/F
J5	Power Supply Control I/F	J23	Power Supply FAN I/F



Function expansion options

Main controller PCB1

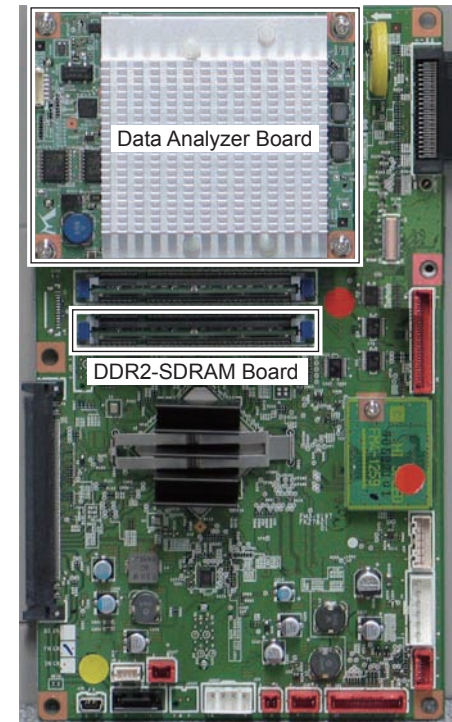


F-2-12

Name	Function, specifications, features
Voice guidance PCB	Product name: Voice Guidance Kit-F1/F2 (only for non-Japanese models)
Expansion Bus PCB	Product name: Expansion Bus -F1/F2 Required when PCI option (Wireless LAN Board-B1, IPsec Board-B2) is installed
Wireless LAN PCB	Product name: Wireless LAN Board-B1/B2 Expansion Bus -F1 is required. Only for non-Japanese models.
IPsec PCB	Encryption/composition processing of packet data Product name: IPsec Board -B2 Expansion Bus -F1/F2 is required.

T-2-6

Main controller PCB 2



F-2-13

Name	Function, specifications, features
Image analysis PCB	Product name: Image Data Analyzer Board-A1 Scan protection for output original (Copy/SEND/BOX)

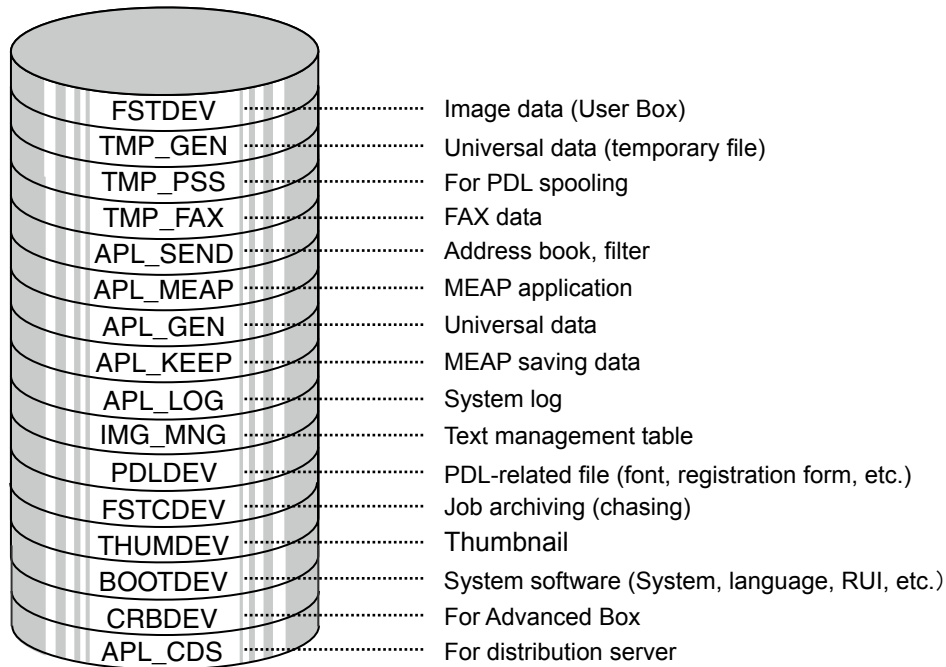
T-2-7

## ● HDD

The partitions for Advanced Box and the distribution server are added.

User Box (same as the existing machine) area is 23GB and Advanced Box area is 9.6GB.

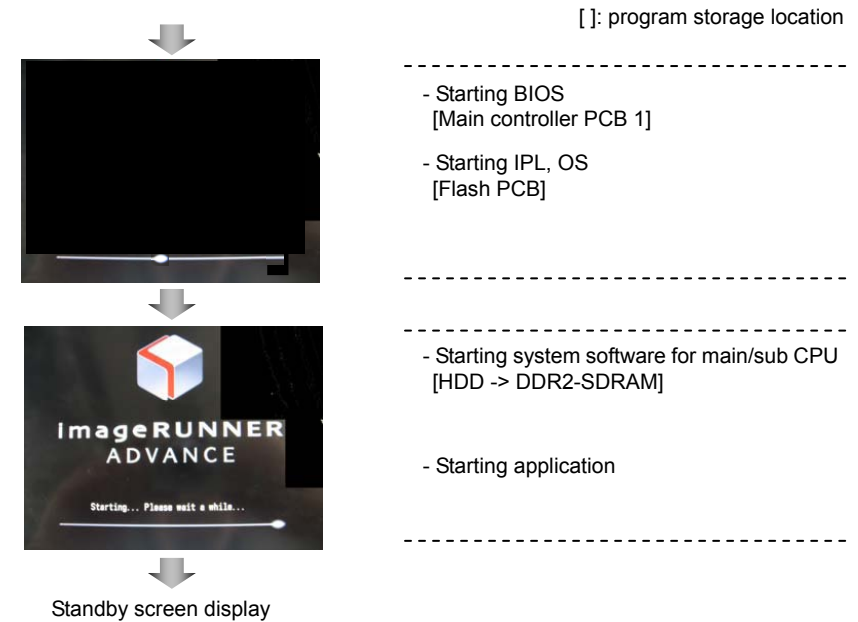
Advanced Box area can be increased by installing the high-capacity HDD option.



F-2-14

## ■ Boot/Shutdown sequence

### ● Boot sequence



F-2-15

#### NOTE:

Due to the high speed startup, the progress bar and the activating PCB are not synchronized.

For this reason, the progress bar cannot be utilized for troubleshooting. See the following error code list for the troubleshooting.

Related error codes (major error codes):

Error code	Error description
E602	HDD error
0001	HDD failed to be recognizedStartup partition (BOOTDEV) is not found at startup
0002	No system software for the main CPU
0006	No system software for the sub CPU
4000	Startup failure of OS
4001	OS startup file is not found
E604	Insufficient memory

T-2-8

**NOTE:**

When the following errors occur, the system of the host machine has not been started normally.

Therefore the error code is not recorded in the log.

E602-

0001

0002

0006

4000

4001

## ● Shutdown sequence

Before turning OFF the main power switch, it is necessary to perform HDD completion processing (to prevent damage on the HDD), cooling of the internal printer (to prevent fixed toner due to high temperature) and exhaust (to prevent smeared image due to chemical reaction of ozone in the machine and photosensitive drum). This sequential processing is called “shutdown sequence” and was executed on the legacy models manually (by holding down the power supply switch on the Control Panel for a specific duration).

When the main power switch is turned OFF on the main body, Main Controller PCB 1 detects this operation and then the shutdown sequence starts/executes automatically.

**NOTE:**

On the assumption that the shutdown sequence was not completed normally, the host machine is shut down by the Relay PCB in approx. 120 seconds.

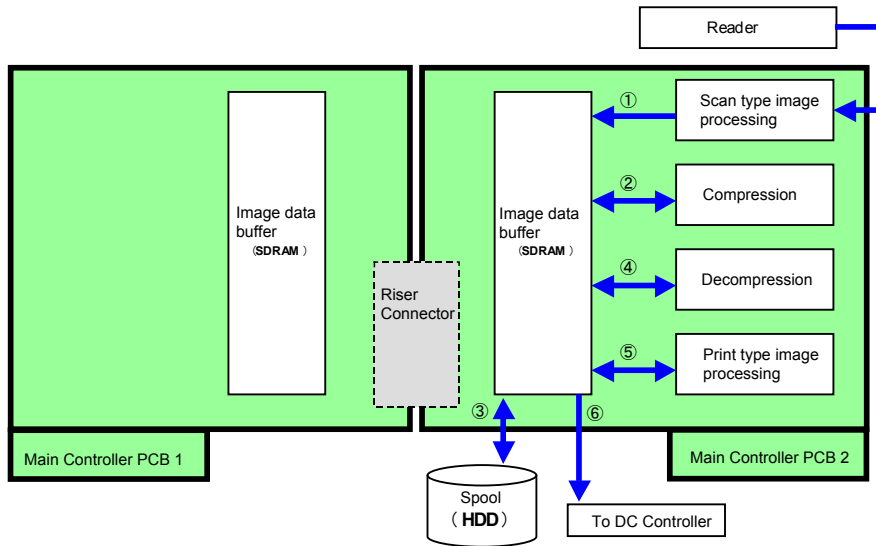
## Controls

### Flow of Image Data

Following shows major image data flow.

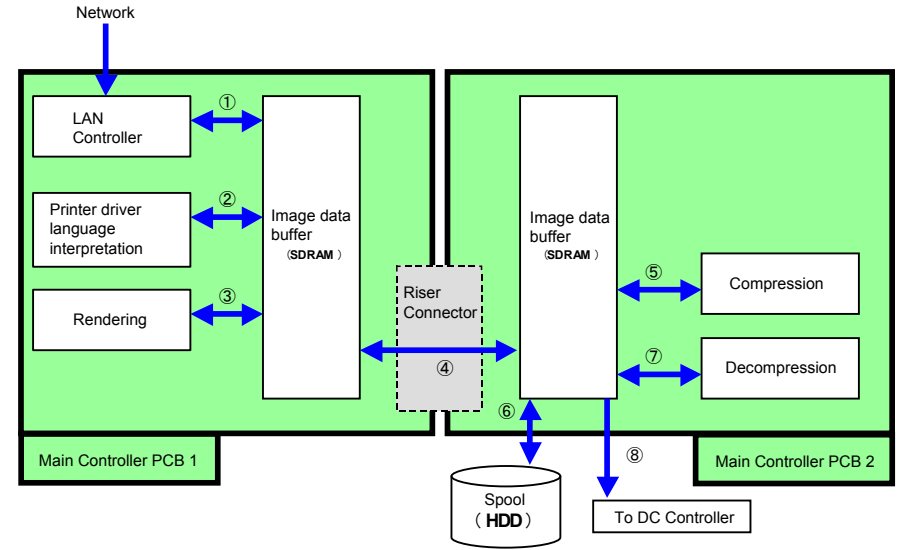
- The arrow mark indicates the flow of image data.
- Numbers (1, 2, etc.) indicate processing order.

### Copy



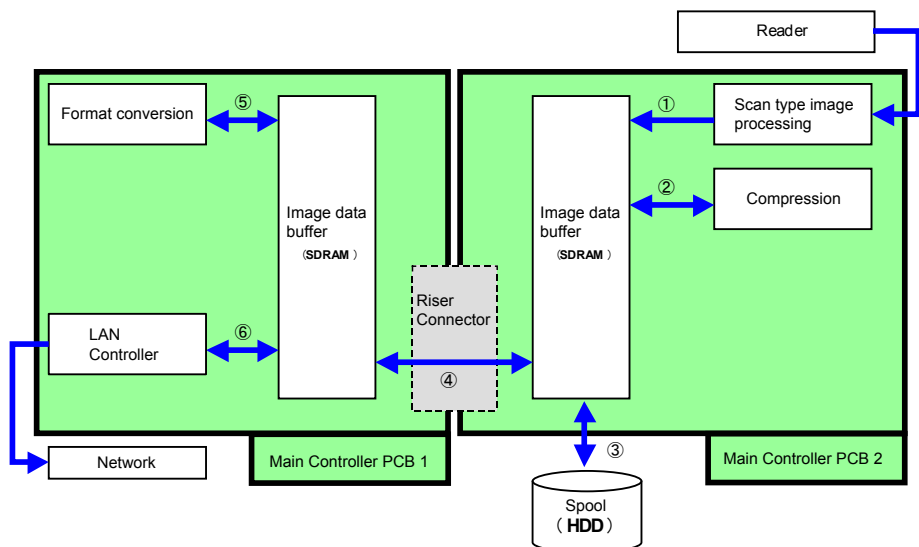
F-2-16

### Print



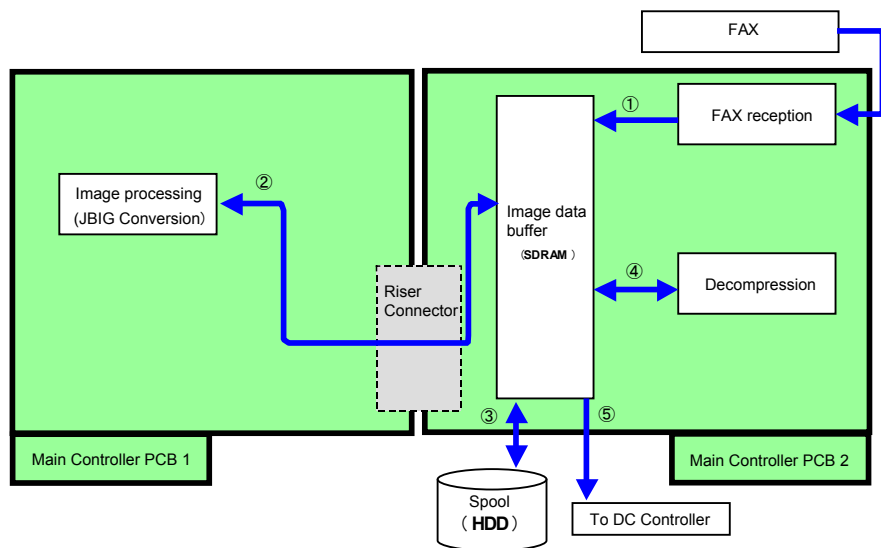
F-2-17

● SEND



F-2-18

● FAX



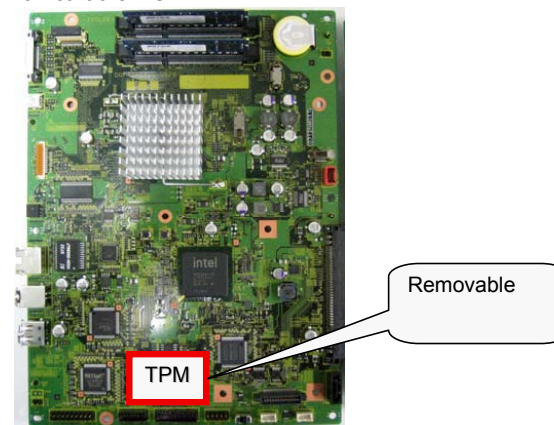
F-2-19

■ Security features (encryption key and certificate, password protection)

● Overview

The main controller PCB 1 of the host machine holds a new PCB named “TPM PCB”. “TPM” stands for “Trusted Platform Module”, which collectively refers to the chip set for generating and storing encryption keys and computing public key encryption.

Main controller PCB 1



F-2-20

The TPM PCB protects security information (passwords, certificates, and encryption keys) stored in the HDD and SRAM. Note that this PCB does not protect set, registered or stored data other than security information.

The TPM key embedded in the chip is used to encrypt / decrypt security information. The TPM key is protected from illegal access in a virtually perfect manner, thus the security information of the host machine is securely protected even in the following conditions.

- When the HDD and / or the main controller PCB is taken out from the host machine and installed in the MFP with the different serial number (the model information held in the TPM PCB is specific to the machine originally enabled the TPM setting)
- When the system of the host machine is hacked via the network

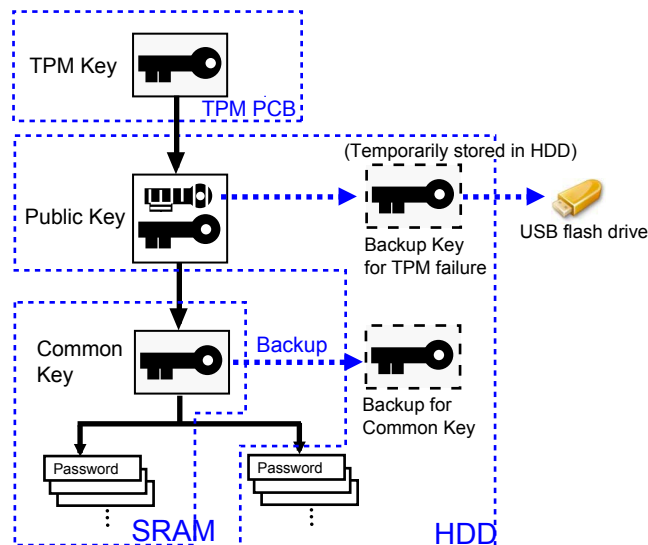
Enable this function in Setting / Registration mode.

Management Setting > Data Management > TPM Setting -> ON (OFF by default)

## ● Configuration of Security Information

The security functionality behaves differently depending on the TPM setting on the UI. This machine provides the two types of TPM settings. See the figure below for the security information flow in each setting.

- When the TPM setting is ON

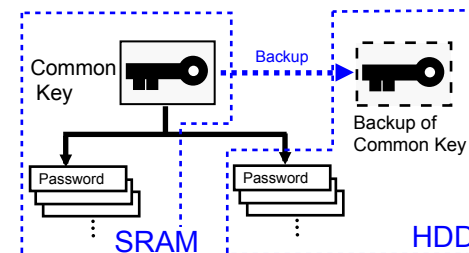


F-2-21

When the TPM setting is ON, the TPM key is enabled to secure information with the three keys. Therefore, the security information held in each machine is safely protected. The security information in this setting can be accessed by the three keys and multiple passwords stored in the SRAM and HDD. Each data is stored in the specified location (enclosed with blue dots in the figure above). Since the data in the upper layer are linked to those in the lower layer, security information is activated only when data in all the layers are linked. For the backup purpose, the backup key is temporarily stored also in the HDD to be prepared for a TPM failure (only for the initial failure after the TPM setting is ON). This key can be backed up using the USB flash drive. Once backed up, the backup key is deleted from the HDD. The common key information is stored in the HDD as well as the SRAM. The common key stored in the SRAM is cleared when the main controller PCB 2 (SRAM) is replaced or after MN-CON clear. However, the common key stored in the HDD automatically restores that in the SRAM so that the security information is decodable even after servicing. Note that the

security information is not decodable correctly in case the HDD is failed or formatted because the public key information stored in the HDD is cleared. If this occurs, execute "Initialize All Data / Settings" in user mode to set the TPM setting to OFF. This will maintain the password information in the SRAM even after the password information is initialized.

- When the TPM setting is OFF:



F-2-22

When the TPM setting is OFF, the TPM key is disabled. Thus, the security information is protected only by the common key. Under this setting, the security information held in this machine is protected at the level equivalent to the conventional machines. The security functionality in this setting is configured by the common key and multiple passwords stored in the SRAM and HDD. When the TPM setting is set to OFF, the security information is protected by the common key and multiple passwords stored in SRAM and HDD. The common key information is stored in the HDD as well as the SRAM. The common key stored in the SRAM is cleared when the main controller PCB 2 (SRAM) is replaced or after MN-CON clear. Since the common key stored in the HDD will automatically restore the common key in the SRAM, the security information is decodable correctly even after servicing. Unlike the case that the TPM setting is set to ON, the password information stored in the HDD is initialized when the HDD is replaced or formatted. However, the password information is maintained in the SRAM.

## ● TPM Setting for Security Information

The security information can be protected with or without TPM by switching between TPM settings in Setting / Registration mode.

- When the TPM setting is ON
  - The security functionality is enabled in 4 levels (TPM key, public key, common key and password).
- When the TPM setting is OFF
  - The security functionality is enabled in 2 levels (common key and password).

## ● Preparation before Installing TPM

Before installing TPM, ask the user to back up data.

Follow the steps below to back up data.

1) From Remote UI, execute Setting / Registration > Management Setting > Data

Management > Import / Export. The following data types should be backed up.

- Address book (see \*1)
- Device settings (transfer settings, address book, frequently-used Send functions) (see \*2)
- Setting / Registration
- Printer settings can be exported
- Favorites stored in the web browser (only when the web browser is enabled) (see \*3)

\*1 Each of address books can be exported. If the address book is seen as a part of device settings, this step can be disregarded.

\*2 Among settings in the main menu, only “Frequently-used Setting” under “Scan and Send” can be backed up.

\*3 These are available only in the specific models or configurations.

2) Select “Export” from Custom Menu of the Remote UI to back up “Custom Menu Setting Information”.

3) Log in to the system as Administrator from User Management of Advanced Box on Remote UI. Then, execute “Export” to back up “User Information of Advanced Box”.

## ● Works before / after introduction

Execute the following in Setting / Registration mode (“TPM setting” is OFF by default).

1. Enable the feature
2. Backup the TPM key
3. Restore the TPM key
4. Disable the feature

The works above are basically done by users.

### CAUTION:

When the TPM setting is set to “ON”, advice users on the following:

Back up the TPM key swiftly after the setting is ON

Keep the password used at backup securely

Never lose the USB flash drive with the backup TPM key file saved

The TPM key should be restored after the TPM PCB is replaced due to failures or the like.

(TPM key restoration is enabled only at TPM PCB replacement.)

Unless the key is restored, the security information (passwords, encryption key, and certificates) cannot be used.

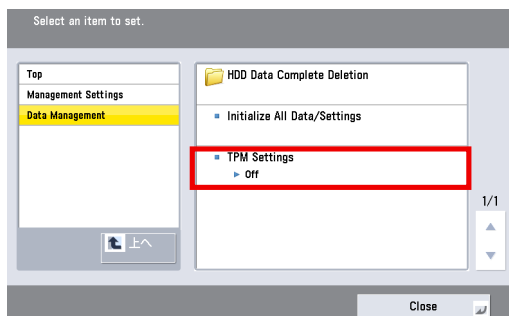
When the key restoration is failed due to the USB flash drive lost or others, “Initialize All Data / Settings” should be executed to reactivate TPM functionality. The security may be undermined if the old Setting / Registration data are maintained as it is.

## 1. Enable Functionality

**NOTE: Setup of "System Management PIN"**

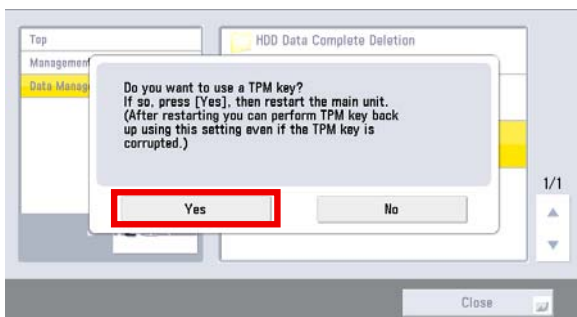
It is recommended for users (administrators) to set the system management PIN before installing TPM. The TPM key is backed up after the TPM setting is set to "ON". However, the key backup is permitted only once. Unless the key is properly backed up, users other than administrators may illegally obtain the backup file. To avoid such risks effectively, the system management PIN should be set.

- 1) Set Management Setting > Data Management > TPM Setting to "ON".  
Setting / Registration



F-2-23

- 2) Click "Yes", and restart the machine.



F-2-24

This setting is enabled after the machine is restarted.

## 2. TPM Key Backup

The TPM key backup file can be stored only in USB flash drive (supported file system: FAT32).

Note that this file requires the memory free space of several MBs.



F-2-25

- 1) Insert the USB flash drive to the machine.  
The USB I/F (host) is found at the side of the control panel as well as the main controller PCB.

**CAUTION:**

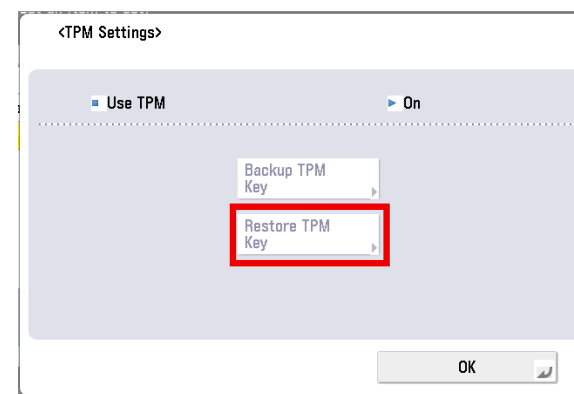
Ensure to insert only one USB flash drive.

If the backup job is started with 2 or more USB flash drives connected, the message is shown to notify that the backup is failed.

**NOTE:**

The USB flash drive holds the TPM key backup files by serial number. Thus, backup files for multiple machines can be saved in a USB flash drive.

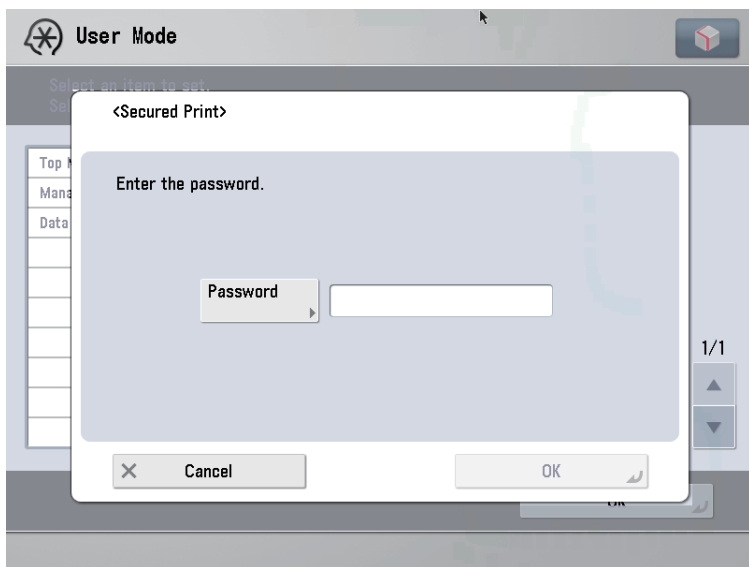
- 2) Click [Back up TPM Key] in Management Setting > Data Management > TPM Setting.



F-2-26

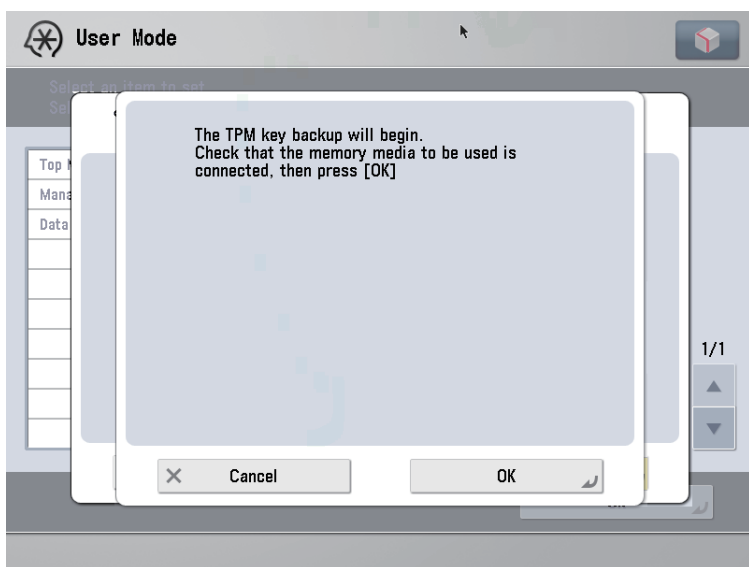


3) Click [Password] to enter the password (4-12 digits). Then, enter the password for confirmation.



F-2-27

4) Click [OK] to initiate TPM key backup.



F-2-28

5) Click [OK] on Backup Completion Screen and remove the USB flash drive.

**CAUTION:** The following may cause failures in backup.

If any of the following is detected, the backup process is aborted and the message and the cause for the failure are shown on the screen. Take an appropriate measure to recover this.

- The USB flash drive is not inserted to the machine
- 2 or more USB flash drives are inserted to the machine
- The USB flash drive has insufficient free memory space
- The USB flash drive is write-protected
- No key is found

**CAUTION:** The USB flash drive should be securely stored.

Give advice users on the following points.

- The USB flash drive should be securely stored
- Once the TPM key backup file is saved in the USB flash drive, never save the backup file on a server or the like accessible to unanimous users.

**NOTE:** Name of TPM key backup file

The serial number for the machine is automatically assigned as the backup file name.

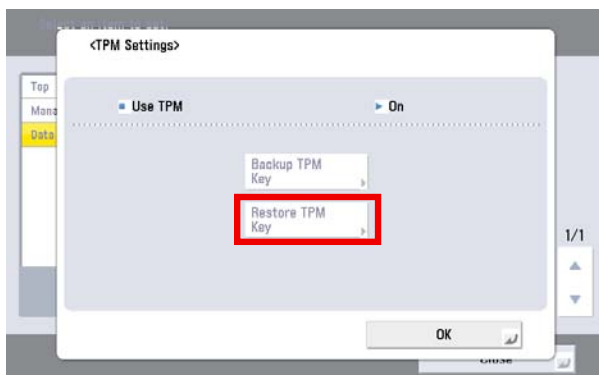
### 3. Restore of TPM key

Procedure is about the same as the backup work.

Difference between restore work and backup work:

Rebooting is necessary (turn OFF and then ON the main power) after completion of restore work.

- 1) Connect the USB memory that saves TPM key.
- 2) Select the following: Management setting > Data management > TPM setting; and click [Restore TPM key].



F-2-29

- 3) Enter the password set in the backup process.
- 4) Click [OK] on Start Restoration Screen. The restoration process is started.
- 5) Click [OK] on Restoration Completion Screen. Remove the USB flash drive and turn OFF/ ON the main power switch.

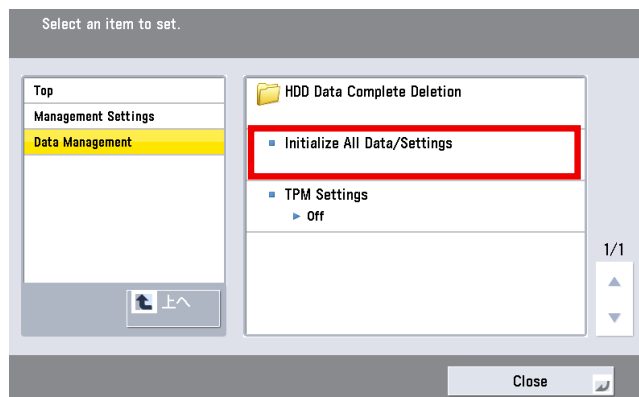
CAUTION: The following may cause failures in restoration.

If any of the following is detected, the restoration process is aborted and the message and the cause for the failure are shown on the screen. Take an appropriate measure for recovery.

- The USB flash drive is not inserted to the machine
- 2 or more USB flash drives are inserted to the machine
- The USB flash drive is security-protected
- No TPM key is saved in the USB flash drive
- The TPM key saved in the USB flash drive is not for the machine
- The wrong password is entered
- After the TPM key was backed up, [Initialize All Systems/ Settings] was executed
- SRAM (the main controller PCB 1) or HDD is crashed

## 4. Disable the feature

To set "OFF" for the TPM setting, execute [Initialize All Data / Settings].



F-2-30

**CAUTION:** Points to caution when disabling functionality

To disable the use of TPM, all data and settings should be initialized. If this is executed, user information saved in the HDD/ SRAM is totally cleared. Ensure to back up the data before disabling TPM settings.

#### List of data to be cleared

- Data saved in BOX/ Advanced Box
- Data saved in Inbox (Fax Box/ System Box)
- Destination data registered in Address Book
- Read mode registered using Send function
- Mode memory registered using Copy/ Box function
- MEAP applications and their license files
- Data saved using MEAP applications
- Password for MEAP SMS (Service Management Service)  
(The password is returned to default if any change is made.)
- User authentication information registered by local device authentication via SSO-H (Single Sign-On H)
- Unsent documents (documents for scheduled transmission and reserved transmission)
- Job logs
- Contents set in Setting / Registration
- Image-composite registration form
- Registered transfer settings

Key pair and server certificate registered in Management Setting (Setting/ Registration) > [Device Management] > [Certificate Settings]

#### Steps of data restoration after recovery

The restoration process triggers Setting/ Registration > Management Setting > Data Management > Import/ Export > Import/ Export Setting/ Registration on the UI.

The data listed below cannot be restored, thus should be set again.

#### Environment Settings

- Paper settings
- Display settings in the destination to save
- Time fine-adjustment for timer/ power settings
- Date/ time settings (excluding time zone and daylight-saving settings)
- User settings for SNMPv3
- Context settings
- Firewall settings (excluding MAC address filter)

#### Function Settings

- Image-composite form for the common print operation
- Printer settings
- Transfer settings for the common receipt/ transfer settings
- Inbox settings
- Frequently-used Copy settings
- Registered short-cuts in "Other Functions"
- Frequently-used Send settings
- Frequently-used settings for saving/ using files

#### Address Settings

- Address Book

#### Management Settings

- Sheet counts in Department ID Management
- Settings for device information distribution
- Certificate settings
- License registration
- Remote operation settings
- Box backup/ restoration
- TPM Settings

## ● Overview of Actions taken against Troubles

Location with failure	TPM Setting = ON	TPM Setting = OFF	Relevant Error Code
TPM PCB	<ol style="list-style-type: none"> <li>1. Check the TPM PCB connection</li> <li>2. Replace the TPM PCBs</li> <li>3. Turn OFF/ ON the power</li> <li>4. See the section of "Restoring TPM Key" to restore the TPM key.</li> <li>5. Turn OFF/ ON the main power for recovery</li> </ol>	N/A (TPM PCB is not in use when the TPM setting is set to OFF.)	Initially E746-0031 is shown on the screen. When the power is turned OFF/ON after the TPM PCB is replaced, E746-0032 is shown (only when the TPM setting is set to ON).
HDD	<ol style="list-style-type: none"> <li>1. Replace the HDDs.</li> <li>2. Format the HDD.</li> <li>3. Download the system software.</li> <li>4. See the section of "Disabling Functionality" to execute "Initialize All Data/ Settings".</li> <li>5. Turn OFF/ON the power. The TPM setting is automatically set to OFF.</li> <li>6. Set the TPM setting to ON (the public key and the common key are automatically set).</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the HDDs.</li> <li>2. Format the HDD.</li> <li>3. Download the system software.</li> <li>4. Restore the password information stored in the HDD.</li> </ol>	Initially E602-xxxx is shown (the different extension is shown depends on cases). After the system software is reinstalled, E746-0033 is shown.
Main Controller PCB 2 (SRAM)	<ol style="list-style-type: none"> <li>1. Replace the main controller PCB</li> <li>2. The common key backed up in the HDD will be automatically restored in the SRAM.</li> <li>3. The TPM setting on the control panel is reset to OFF. Manually set the TPM setting to ON (the machine is operated in the TPM setting ON).</li> <li>4. Restore the password information stored in the SRAM (see *1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the main controller PCB</li> <li>2. The common key backed up in the HDD will be automatically restored in the SRAM.</li> <li>3. Restore the password information stored in the SRAM (see *1).</li> </ol>	E747-xxxx (the different extension is shown depends on cases).

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\*1 If "No" is indicated in the field of Backup Column in the table of "Security Information Storage Location", the relevant information should be set manually again.

## ● Related Error Code

Error Code	Error description, Assumed cause, remedy	
E746	Error in encryption	
0031	Error in hardware	
	Assumed cause	The TPM PCB is not mounted; the TPM PCB for the other machine is mounted; the TPM chip is crashed.
	Remedy	Mount the TPM PCB for the machine; replace with the new TPM PCB
0032	Error in engine ID of SoftID	
	Assumed cause	Mismatched data in TPM
	Remedy	<p>Format the system.</p> <p>Format the HDD using SST or USB memory, and download the system software. For details, see "Chapter 6: Upgrading". For your reference, the method using USB memory is described below.</p> <ol style="list-style-type: none"> <li>1. Prepare the USB memory which system software was registered.</li> <li>2. Execute the following service mode: COPIER&gt;FUNCTION&gt;SYSTEM&gt;DOWNLOAD to enter the download mode.</li> <li>3. Insert the USB memory to the equipment.</li> <li>4. Execute [4]: Format HDD in the main menu. After formatting is completed, the machine reboots automatically and starts with the download mode.</li> <li>5. Execute [1]: Upgrade (Auto) in the main menu. System software is downloaded and the machine restarts automatically.</li> </ol>

Error Code	Error description, Assumed cause, remedy
E746	Error in encryption
0033	Error in engine ID of SoftID
	Assumed cause Error that can be recovered
	Remedy
	<p>When the TPM key was backed up, it can be restored.</p> <ol style="list-style-type: none"> <li>1. Connect the USB memory which stores the TPM key.</li> <li>2. Go to Management Settings &gt; Data Management &gt; TPM Settings, and then click "Restore TPM Key".</li> <li>3. Enter the password set at backup operation.</li> <li>4. When the restoration completion screen is displayed, click "OK". Remove the USB memory, and turn OFF and then ON the main power.</li> </ol> <p>When the TPM key was not backed up, formatting the system is required.</p> <p>Format the HDD using SST or USB memory, and download the system software. For details, see "Chapter 6: Upgrading". For your reference, the method using USB memory is described below.</p> <ol style="list-style-type: none"> <li>1. Prepare the USB memory which system software was registered.</li> <li>2. Execute the following service mode: COPIER&gt;FUNCTION&gt;SYSTEM&gt;DOWNLOAD to enter the download mode.</li> <li>3. Insert the USB memory to the equipment.</li> <li>4. Execute [4]: Format HDD in the main menu. After formatting is completed, the machine reboots automatically and starts with the download mode.</li> <li>5. Execute [1]: Upgrade (Auto) in the main menu. System software is downloaded and the machine restarts automatically.</li> </ol>

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## ● Security Information Storage Location

Storage Location	Data Type	Function	Name of Data	Backup Availability
HDD	Password/ PIN	BOX	BOX Password	Yes
HDD	Password/ PIN	BOX	Password for Fax BOX	Yes
HDD	Password/ PIN	SEND	Password for a file destination of Address Book	Yes
HDD	Password/ PIN	MEAP	Authentication information registered by local device authentication via SSO-H	Yes
HDD	Certificate/ Secret Key	SSL,AMS	Device key pair (SSL, AMS)	No
HDD	Certificate/ Secret Key	Signature SEND	User key pair	No
HDD	Others	User setting information	Key information linked to user (password)	No
SRAM	Password/ PIN	BOX	Password for encryption at BOX backup	No
SRAM	Password/ PIN	BOX	Password for SMS server at BOX backup	No
SRAM	Password/ PIN	Advanced BOX	Password for Advanced BOX backup	No
SRAM	Password/ PIN	Advanced BOX	Password for SMS server at Advanced BOX backup	No
SRAM	Password/ PIN	SEND	Password for LDAP server	Yes
SRAM	Password/ PIN	SEND	Password for POP3 server	Yes
SRAM	Password/ PIN	SEND	Password for time-stamped PDF	Yes
SRAM	Password/ PIN	SEND	Password for Adobe ES Rights Management Server	Yes
SRAM	Password/ PIN	SEND	PIN for destination list (in destination setting)	Yes
SRAM	Password/ PIN	UI	Password for service mode	No
SRAM	Password/ PIN	Network	Password for IPP authentication	Yes
SRAM	Password/ PIN	Network	Password for FTP authentication	Yes
SRAM	Password/ PIN	Network	User name and password for client in Proxy authentication	Yes
SRAM	Password/ PIN	Network	Login password for Netware print server	Yes

Storage Location	Data Type	Function	Name of Data	Backup Availability
SRAM	Password/ PIN	Network	Policy common key for IPsec	Yes
SRAM	Password/ PIN	Network	User name and password for PEAP/TTLS authentication	Yes
SRAM	Password/ PIN	Others	Password for FAX receipt	Yes
SRAM	Password/ PIN	Others	Department management data (including System Manager password)	Yes
SRAM	Encryption key	MIB	Authentication and encryption keys for SNMPv3	No
SRAM	Password/ PIN	MEAP	SMS login password	Yes

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### ● Security Information Storage Location (data managed under the mechanism other than TPM management)

Storage Location	Data Type	Function	Name of Data	Backup Availability
HDD	Password/ PIN	Advanced BOX	User information in Advanced BOX	Yes

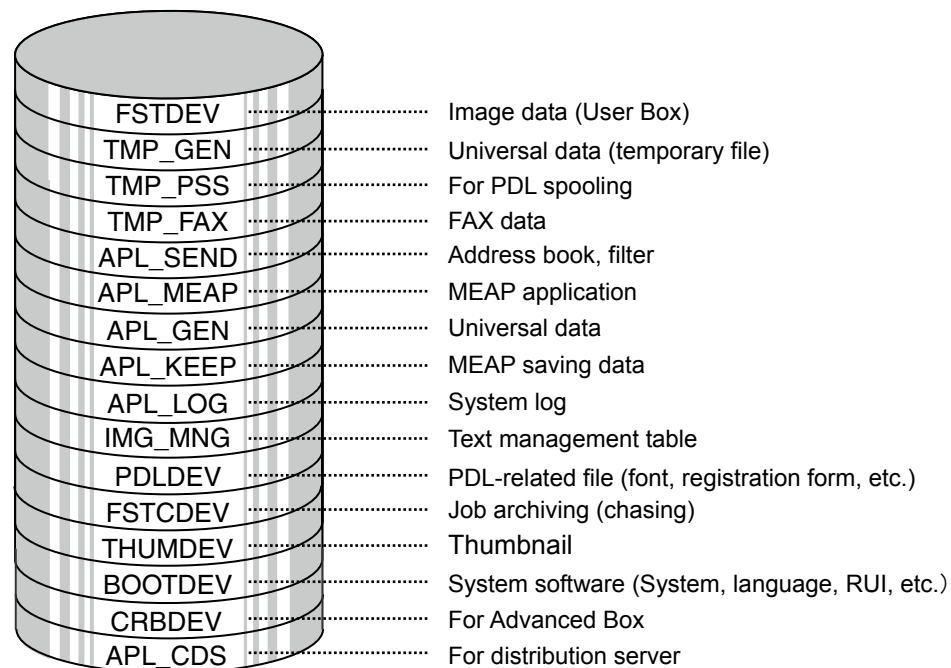
T-2-12

## ■ Option HDD

The HDD capacity mounted on this machine is 80GB as standard. Mounting a 2.5 inch/250GB HDD-D1 (option) makes 250 GB in HDD capacity. High capacity is required in the case of saving large amounts of data with “Advanced Box”  
Mounting this option increases capacity for Advanced Box.

9.6GB: in the case of 80GB HDD capacity

112.7GB: in the case of 250GB HDD capacity



F-2-31

Out of 250GB capacity, 114GB is allocated to Advanced Box (CRBDEV).

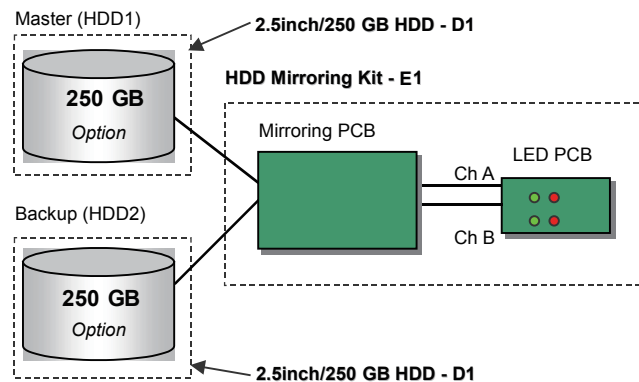
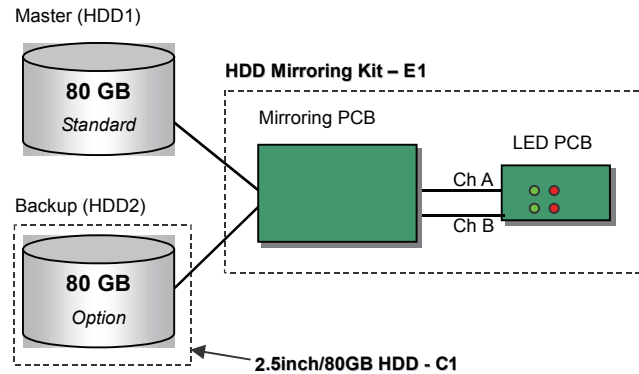
After deducting 20% snapshot area and area used for the file system, the capacity that can be actually used as document storage area is 112.7GB.

## HDD mirroring feature (option)

This option enables mirroring of HDD data (RAID1).

In the case of failure in one HDD, the operation is performed with the other HDD. This feature minimizes downtime as well as improves reliability as the document server.

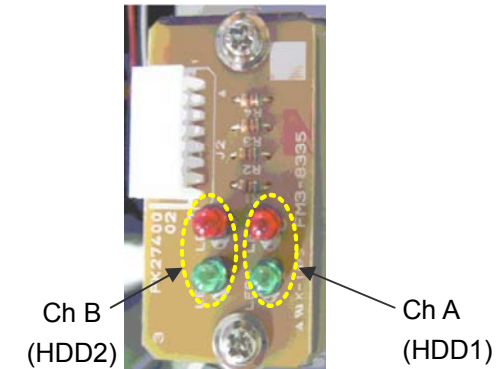
There are 2 types of mirroring configurations according to the HDD capacity (80GB / 250GB):



F-2-32

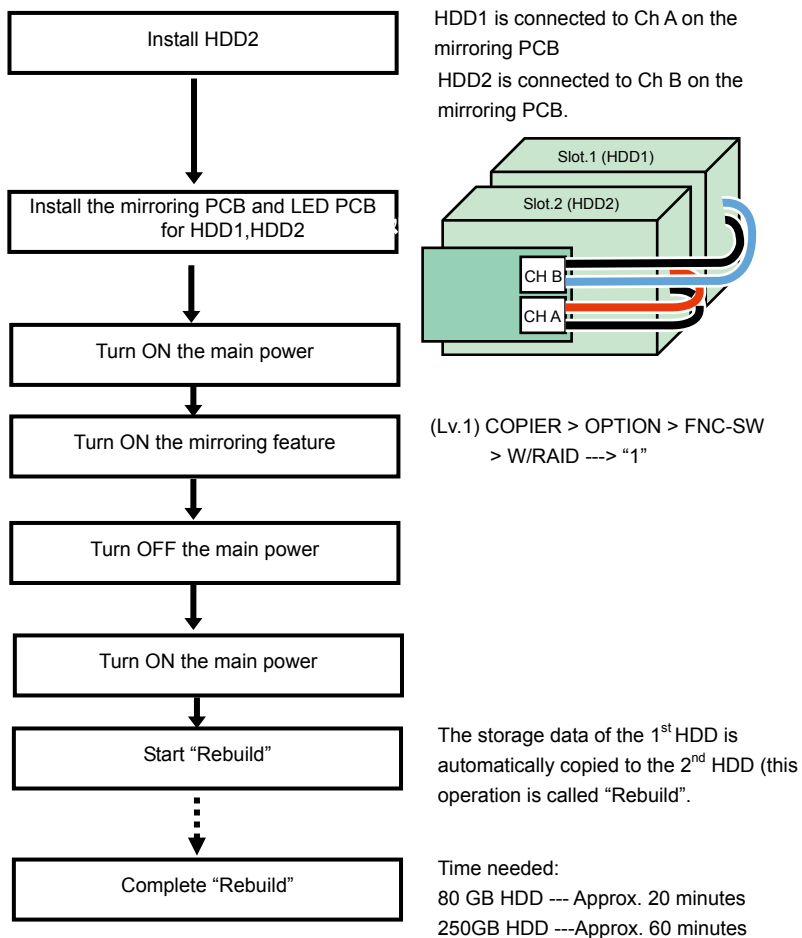
Mirroring PCB controls reading/writing timing of HDD data.

LED PCB makes the LED show operation status of the HDDs.



F-2-33

## To start using this feature (installation)



"Rebuild" progress is shown in a message at the status line on the control panel.

"Copying hard disk data... xx%"

### NOTE:

- This machine can be used even during "rebuild" process (operation is performed with HDD1)
- The HDD will not be damaged even if turning OFF the power during "rebuild" process. "Rebuild" is resumed once the power is turned ON the next time. This does not apply in the case of blackout or disconnecting the power code during "rebuild" process

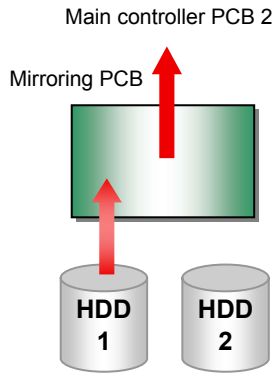
F-2-34



### HDD reading/writing operation

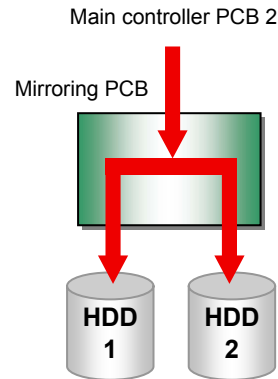
At reading:

Data is read by HDD1 (master HDD) only



At writing:

The same data is written to each HDD at the same timing



F-2-35

The ACT LED (green) on the LED PCB is lighted up/blinking if reading/writing to each HDD is performed properly.

In the case of failure:

- The LED (red) on the LED PCB is blinking. If only one HDD is faulty, the operation is continued by the other HDD.
- If both two HDDs are faulty, E602 error is shown on the control panel to stop the operation.

List of operation status (LED)

---: Light-out A: lighting-up B: blinking

Status	HDD 1 (Ch A)		HDD 2 (Ch B)	
	Green LED	Red LED	Green LED	Red LED
At normal operation	---	---	---	---
During access with HDD1	A	---	---	---
During access with HDD2	---	---	A	---
HDD1 is faulty	---	A	---	---
HDD2 is faulty	---	---	---	A
During data copy to HDD1 (rebuild)	---/A	B	---/A	---
During data copy to HDD2 (rebuild)	---/A	---	---/A	B

T-2-13

### Description of Modes

The mirroring system of this machine consists of 4 modes.

The modes in parentheses show the mirroring system statuses.

The status flows among the modes below during operation.

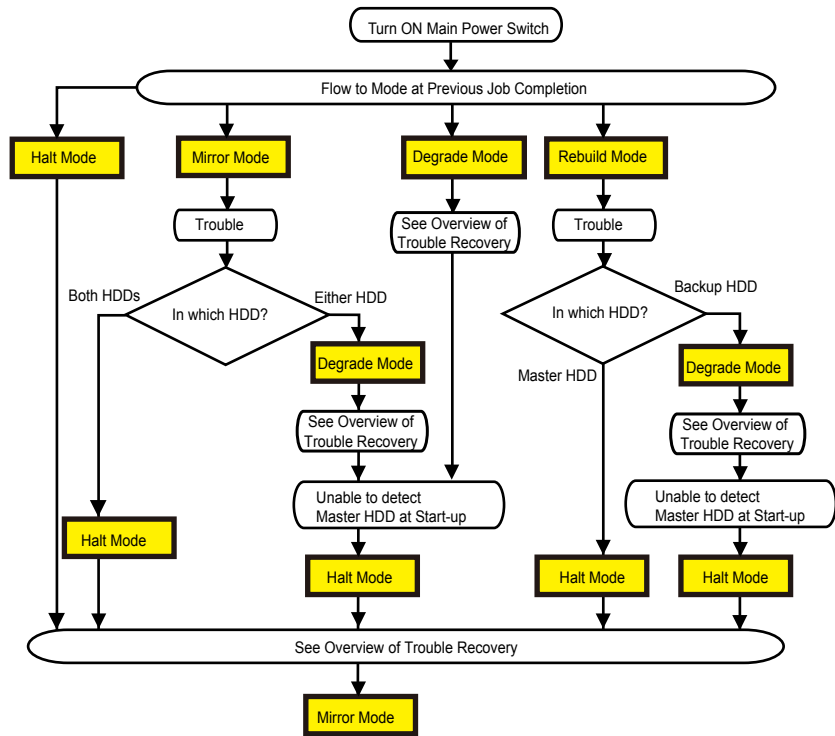
The table below lists descriptions of modes and operational overview.

Name of Mode	Description	Master HDD Status	Backup HDD Status
Mirror Mode	Both HDDs are normally operated	In normal operation	In normal operation
Degrade Mode	Any trouble occurred in the backup HDD suspends mirroring operation. The machine can be used under this condition, however, the backup HDD should be replaced at the earliest convenience.	In normal operation	With troubles (HDD not installed/ HDD in trouble)
Rebuild mode	The data of the master HDD is copied (rebuilt) to the backup HDD. The machine can be used under this condition.	In normal operation	In recovery from the trouble (Copying data of Master HDD)
Halt mode	Both HDDs are in trouble (see *1)	In trouble (HDD not installed/ HDD installed not registered/ HDD disconnected while the mirroring board is in operation)	With troubles (HDD not installed/ HDD installed not registered/ HDD disconnected while the mirroring board is in operation)

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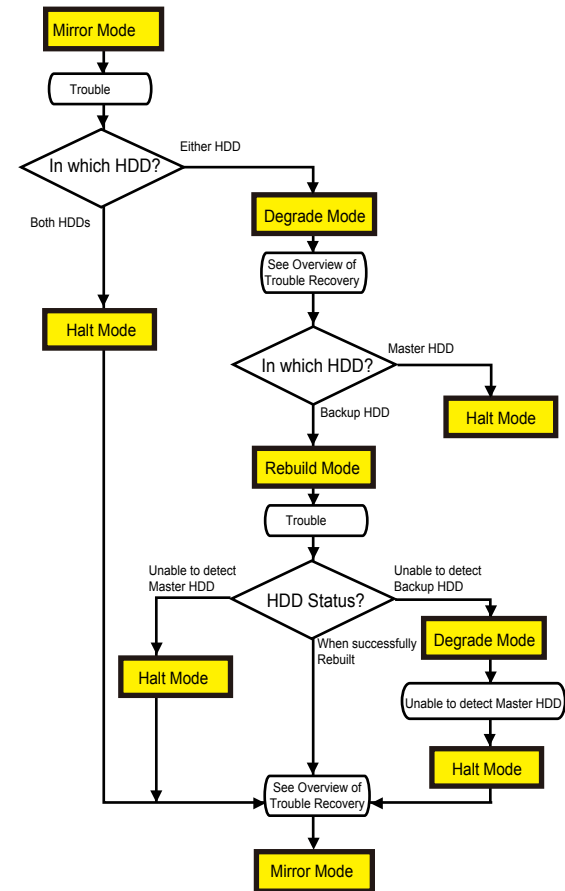
\*1: Turn OFF/ ON the power in this mode, the mode returns to the previous mode.

Mode Flow at Start-up



F-2-36

Mode Flow during Operation



F-2-37

## ● Overview of Trouble Recovery

When any trouble occurs in the mirroring system, take the action for recovery appropriate to each mode.

The HDD in trouble can be located by the red LED on the LED PCB.

In case the master HDD cannot be located, turn OFF/ ON the power to check whether the green LED is lit on the LED PCB.

The firstly blinked green LED (ChA or ChB) in a high speed tells the Master HDD, which is accessed firstly.

The green LED not lit on a channel tells the location of Backup HDD.

Name of Mode	Status	Action for Recovery	HDD1 (ChA)	HDD2 (ChB)
			Red LED	Red LED
Mirror Mode	Normal (at standby)	Under normal operation	---	---
Degrade Mode (see*1)	HDD1 in trouble	1. Check the connection between HDD1 and Mirroring Board or Main Controller PCB 2. When the trouble is not recovered, replace the HDD1.	A	---
	HDD2 in trouble	1. Check the connection between HDD2 and Mirroring Board or Main Controller PCB 2. When the trouble is not recovered, replace HDD2.	---	A
Rebuild mode	Copying data to HDD1 (Rebuild)	Copying (under Rebuild)	B	---
	Copying Data to HDD2 (Rebuild)	Copying (under Rebuild)	---	B
Halt mode	Both HDDs in trouble	1. Check Master HDD and Backup HDD (see *2) 2. When the trouble is not recovered, replace the two HDDs (format the replaced HDD and download the system software).	A	A

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---: Not lit    A: Lit    B: Blinking at an interval of 0.5 seconds

\*1: This mode shows the message, "Need to replace hard disks (contact your service engineer)", on the control panel. In addition, "310006" is indicated in CODE field of Alarm Log in service mode (COPIER > DISPLAY > ALARM-2).

\*2: Never install the HDD used in the other model. The used HDD holds the ID specific to the firstly-installed machine, thus this machine is unable to recognize it. If done, you need to reinstall the HDD recognized in this machine.

## ● Points to Note in Servicing concerning Mirroring Functionality

1. The modes other than Mirror Mode indicate troubles, which require swift recovery.

The power can be turned OFF even during Rebuild process. However, it is recommended not to turn off the power and wait until the mode flows to Mirror Mode. In addition, HDD removal after power-OFF is guaranteed only in Mirror Mode.

2. The mirroring board controls Master HDD and Backup HDD. This control is performed based on the HDD serial number and the model serial number instead of slot locations. If HDDs are replaced in a careless manner during servicing in the field, the Master and Backup HDDs may be switched.

Ex) When the master HDD is in trouble, the mirroring board automatically recognizes the backup HDD as the master. Thus, the master and backup HDDs are switched even without changing the slot locations.

If the Master HDD cannot be located, turn OFF/ ON the power to check on which channel the green LED is lit on the LED PCB.

The firstly-blinked LED (ChA or ChB) shows the Master HDD, which is accessed firstly after power-on.

3. For users who intend to use the removable and mirroring functionality concurrently, instruct them not to change the removable HDD location in advance.

Change of HDD locations after power-OFF is allowed as specifications only in Mirror Mode. Otherwise, HDD removal or change of location is not guaranteed.

4. The following conditions are required to replace HDDs at power-ON.

- Removable HDD is extended
- Either HDD is in trouble

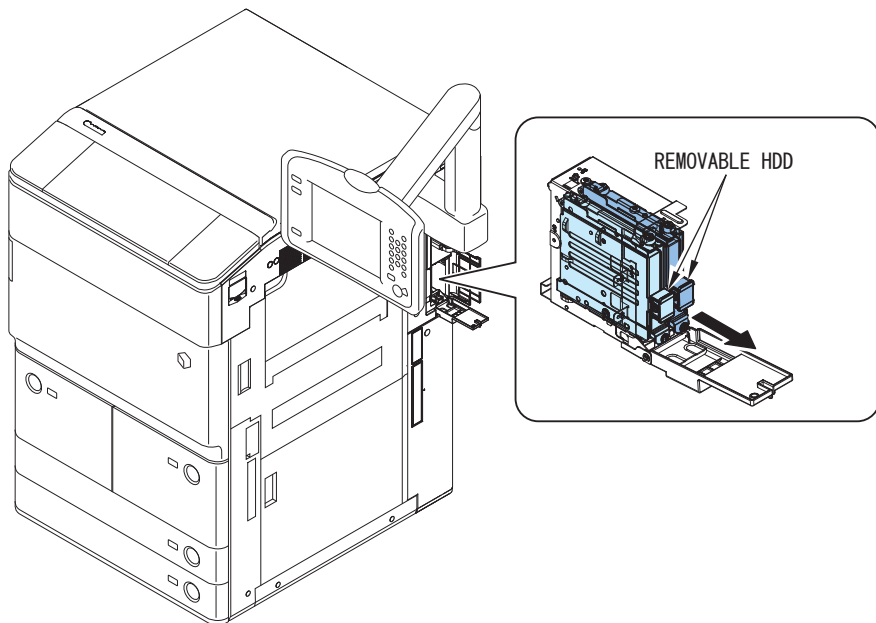
5. Upgrading should be done only in Mirror Mode while mirroring is ongoing. Upgrading in Degrade or Rebuild mode is basically prohibited. Always prioritize Mirror Mode when you take any actions.

## Removable HDD (option)

With this option, users can easily install or remove the HDD (slot-in/out).

This option is assumed to be used for: enhancing information security at government/public offices or private

- With this option, users can easily install or remove the HDD (slot-in/out).
- This option is assumed to be used for: enhancing information security at government/public offices or private companies.



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### NOTE:

- To use this option, no setting is required with the software.
- The user needs to prepare a key because there is no key with this kit.

## HDD Encryption/ Mirroring Kit (optional)

This option enables to generate the encryption key inside the encryption board and to encrypt the whole HDD including the system software. Encryption allows leaks of confidential data, even when the HDD is stolen, including image data (temporarily generated at Copy or Print jobs) and user data stored in BOX/ Advanced BOX. In addition, the data written into the two hard disks are also encrypted when the HDD mirroring functionality is enabled. The following descriptions focus on the HDD encryption function. See the previous section for the mirroring functionality.

### HDD Encryption Functionality

The HDD of the host machine holds temporary image data including scanned images or PDL data as well as user data in BOX and Advanced BOX. Such images or user file information are saved in the HDD only with system information cleared. Under this condition, the data or images can be restored by accessing directly to the stolen HDD using the access editor and the like. To counter such threats against securities, data written to the disk should be always encrypted to protect them from illegal restoration of image data or others. This product employs an unconventional approach to achieve HDD encryption and mirroring functionality with the dedicated chipset on a board (Canon MFP Security Chip Version 2.00). Since the two functions are operated in a HDD, the encryption functionality can be independently enabled.

### Data Encryption Mechanism

The encryption board receives signals transmitted from the controller board, and encrypts and saves them in the HDD.

The encryption board receives the encrypted data saved in the HDD to decode and send them to the controller.

The encryption board can be configured with a HDD and an encryption/ mirroring board, or with 2 HDDs and an encryption/ mirroring board.

### Conditions for Encryption Board Operation

The encryption board has the function to recognize and authenticate the host machine. An error is triggered if a second-hand HDD encryption/ mirroring board is installed to the other machine.

### Compatibility among Device, Encryption Board and HDD

E602-2000 error may occur if the unmatched authentication information is found between the controller and the HDD encryption board and the encryption board is mounted.

The device, the encryption board and HDD can be connected in 4 use cases.

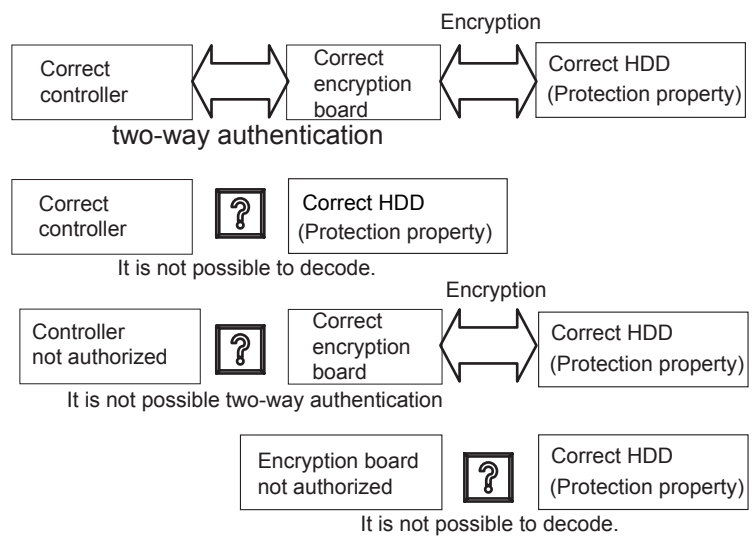
The following shows the statuses for each use case.

Case 1: Normally operated

Case 2: HDD-related error occurs because the system on the HDD cannot be read (other than E602-2000 error)

Case 3: E602-2000 is triggered by failure in mutual authentication

Case 4: Unable to decode properly due to unmatched key for the encryption board



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### Actions against Troubles – Overview

Servicing	User data	Recovery	Action
HDD replacement	cleared	Replace HDDs	1) Format the HDD 2) Install the system software
Encryption board replacement	cleared	Install HDD encryption Kit	1) Replace encryption board 2) Initialize Encryption Board (see *1) 3) Format the HDD 4) Install the system
Main controller 2 replacement (SRAM)	cleared	Clear the key for HDD data encryption kit	1) Initialize the encryption board (see *1) 2) Format the HDD 3) Install the system
Main controller 1 replacement	not cleared	N/A	N/A
Main controller clear	Information held in SRAM cleared	After MN-CON clear process is done	MN-CON clear does not clear authentication information; no work is required specifically for HDD encryption kit

T-2-16

\*1: How to Initialize Encryption Board

1. Initialize the encryption board via SST.

This step makes the disk unformatted (E602-0001 is triggered if the unformatted disk is started).

2. Format the HDD and reinstall SYSTEM via SST.

When you start the HDD formatting, the message is automatically shown to confirm whether to initialize the encryption board (Key Clear).

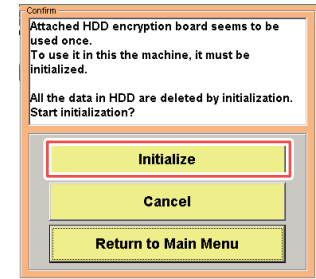
Key Clear will disable accesses to HDD data permanently. Cautions should be taken in Key Clear execution.

#### <Points to Note in Initialization via SST>

The screen below is shown when you gain access to SST in safe mode due to E602-2000.

Poor board connection also causes this error. Check the board connection to seek error recovery. Initialization of the encryption board will disable accesses to HDD data permanently.

Cautions should be taken in initialization.



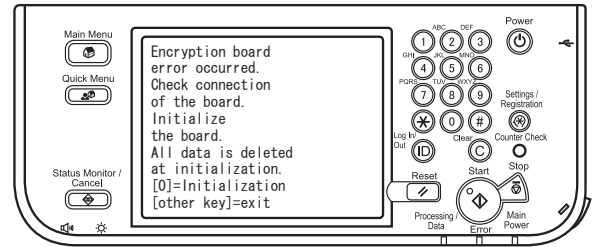
F-2-40

#### <Points to Note in Initialization using USB>

The screen below is shown on the control panel when E602-2000 occurred and the machine is started in safe mode using the USB flash memory with system data stored.

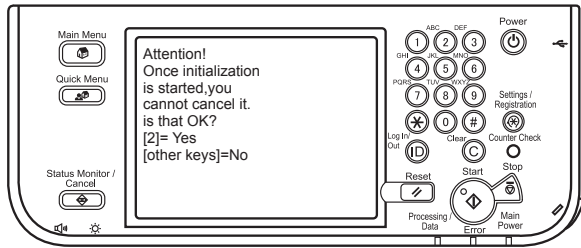
The message as shown in the figure below is displayed.

Select "0" when you are ready to initialize the encryption board.



F-2-41

The figure below shows the final screen in initializing the encryption board.  
 The message as shown in the figure below is shown on the screen.  
 Select "2" when you initialize the encryption board.  
 We recommend checking the board connection before starting initialization



F-2-42

● Relevant Error Codes

E602 and detailed codes

E code	Description	Cause	Detection Timing	Actions
E602 -2000	Authentication Error	Error in authentication between the host machine and the encryption board	Start-up	Check connections between the encryption board and the HDD and between the encryption board and the main controller 2. This error may be triggered after replacement of the encryption board or the main controller 2. At any rate, this error disables accesses to HDD data. When no problem is found in connections, use SST to execute Key Clear > Format > Install System.
	Failure in Encryption Board	Error in recognition of the encryption board		
	Device Error	Failure in the encryption board		

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E610 and detailed codes

E code	Detailed Code	Cause (Detected Error)	Actions
E610		Failure in the HDD encryption key	
	0001	Failure in the HDD encryption key (Error in hardware configuration). No encryption board is installed.	Ask the user to check the hardware configuration.
	0002	Failure in the HDD encryption key (Error in hardware configuration). The memory space is insufficient for encryption operation.	Ask the user to check the hardware configuration.
	0101	Failure in the HDD encryption key (Error in initialization). Failed to initialize the memory space where the key is stored.	Turn OFF/ON the power. If the error is not recovered, this may be caused by hardware-related factors.
	0102	Failure in the HDD encryption key (Error in initialization). Failed to initialize the encryption processing unit.	Turn OFF/ON the power. If the error is not recovered, this may be caused by hardware-related factors.
	0201	Failure in the HDD encryption key. Error in the encryption processing unit.	Turn OFF/ON the power. If the error is not recovered, this may be caused by hardware-related factors.
	0202	Failure in the HDD encryption key. Error in the encryption processing unit.	Turn OFF/ON the power. If the error is not recovered, this may be caused by hardware-related factors.
	0301	Failure in the HDD encryption key (Error in the encryption key). Failed to create the encryption key.	Turn OFF/ON the power. If the error is not recovered, this may be caused by hardware-related factors.
	0302	Failure in the HDD encryption key (Error in the encryption key). Detected the failure in the encryption key.	Turn OFF/ON the power. If the error is not recovered, this may be caused by a hardware-related factor (SRAM). Note that this error initializes the HDD.
	0303	Failure in the HDD encryption key (Error in the encryption key). Detected the failure in the encryption key.	Turn OFF/ON the power. If the error is not recovered, this may be caused by a hardware-related factor (SRAM). Note that this error initializes the HDD.
	0401	Failure in the HDD encryption key (Error in the encryption processing). Error is detected during the encryption process.	Turn OFF/ON the power. If the error is not recovered, this may be caused by a hardware-related factor (the encryption board).
	0402	Failure in the HDD encryption key (Error in the encryption processing). Error is detected during the decoding process.	Turn OFF/ON the power. If the error is not recovered, this may be caused by a hardware-related factor (the encryption board).

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## Service Operations

### HDD

<Procedure of parts replacement>

Refer to Removing HDD

<Procedure of adjustment>

#### 1. Before Replacing

Perform the following operations. Be sure to get an approval from the user beforehand.

##### 1) Backup of the set/registered data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Target data:

- Address List
- Forwarding Settings
- Settings/Registration
- Web Access Favorites
- Printer Settings
- Paper Information

##### 2) Printing the set/registered data

Use the service mode.

(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

List of the set/registered data which cannot be backed up is printed.

#### 2. After Replacing

##### 1) HDD format

1-1) Start with the safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main powerswitch.)

1-2) Use SST to format all partitions.

##### 2) Downloading system software

2-1) Use SST to download the system software (System, LANG, RUI and others).

##### 3) Initializing the key, certificate and CA certificate

(Lv.2) COPIER > FUNCTION > CLEAR > CA-KEY

##### 4) Turning OFF and ON the main power switch

##### 5) Restoring the backup data

Use the Remote UI.

Management Settings > Data Management > Import/Export

##### 6) Resetting/registering the data

While referring to the list of set/registered data which was printed before replacement, reset/register the data.

##### 7) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again.

##### 8) Executing "Auto Adjust Gradation (Full Adjust)"

Settings/Registration mode: Adjustment/Maintenance > Adjust Image Quality > Auto Adjust Gradation

When using the Card Reader and imageWARE Accounting Manager

Card ID used for imageWARE Accounting Manager is stored in the HDD, so NSA collection control is not enabled after the HDD replacement. After the HDD is replaced, reinstall the card ID from imageWARE Accounting Manager using the following procedures.

- 1) Go to COPIER > FUNCTION> INSTALL > CARD and enter the numerical value of the leading card which is used for Department ID. Then, press "OK" button.(e.g.: If No.1 to No.1000 cards are used for Department ID, enter "1" of the leading card.)
- 2) After turning OFF and ON the main power switch, perform the following operations from Settings/Registration mode.  
In Management Settings > User Management > Department ID Management > Page Totals, be sure that "ID00000001" to "ID00001000" are created.  
Set the following: Preferences > Network > TCP / IP Settings > IPv4 Settings> IP Address Settings > IP Address, Gateway Address, Subnet Mask  
In Management Settings > User Management> System Manager Information Settings> System Manager ID and System PIN, register any number for them. Then, turn OFF and ON the main power switch.  
If "System Manager ID" and "System PIN" are not registered, "card registration to device" cannot be executed for the imageWARE Accounting Manager setting operation.
- 3) Download the card ID from imageWARE Accounting Manager to the Main Body again.
- 4) After downloading is completed, go to Management Settings > User Management > Department ID Management > Page Totals. Be sure that only the downloaded card ID is displayed.
- 5) Print using the user card registered from imageWARE Accounting Manager. Be sure that the card information used for the target devices of imageWARE Accounting Manager is collected.

**CAUTION:**Points to Caution when Using the System Software-installed HDD

When using the HDD which was installed the system software of the other achine (different serial number), be sure to format the HDD after the installation. If the HDD is not formatted, the operation cannot be guaranteed.

## ■ Main Controller PCB 1

<Procedure of parts replacement>

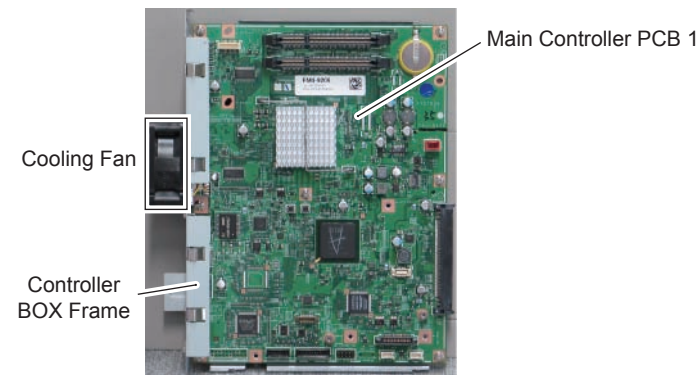
see "Removing Main Controller PCB 1," on p. 4-81.

<Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 1 + Controller Box Frame + Cooling Fan

Parts number differs on a model basis (speed basis).

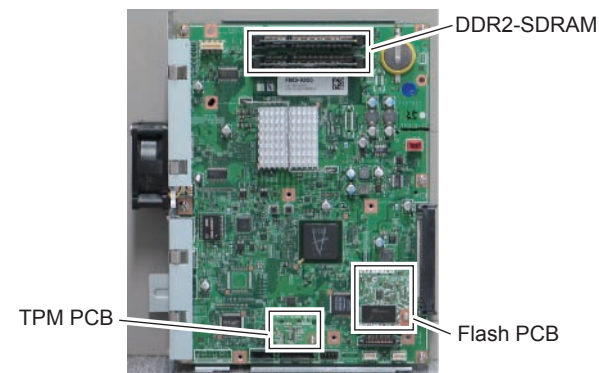


F-2-43

In order to secure the accuracy of connector connection when slotting in, this service part is provided with the PCB being installed to the frame.

1) Transferring the parts from old PCB to new PCB

- DDR2-SDRAM (2 pc.)
- Flash PCB
- TPM PCB



F-2-44



**NOTE:**

Resetting/registering the data is not necessary after Main Controller PCB 1 is replaced.

## ■ Main Controller PCB 2

<Procedure of parts replacement>

see "Removing Main Controller PCB 2," on p. 4-86.

<Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 2 + Controller Box Frame

Main Controller PCB 2



F-2-45

## 1. Before Replacing

Perform the following operations. Be sure to get an approval from the user beforehand.

### 1) Backup of the set/registered data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Target data:

- Address List
- Forwarding Settings
- Settings/Registration
- Web Access Favorites
- Printer Settings
- Paper Information

### 2) Printing the set/registered data Use the service mode.

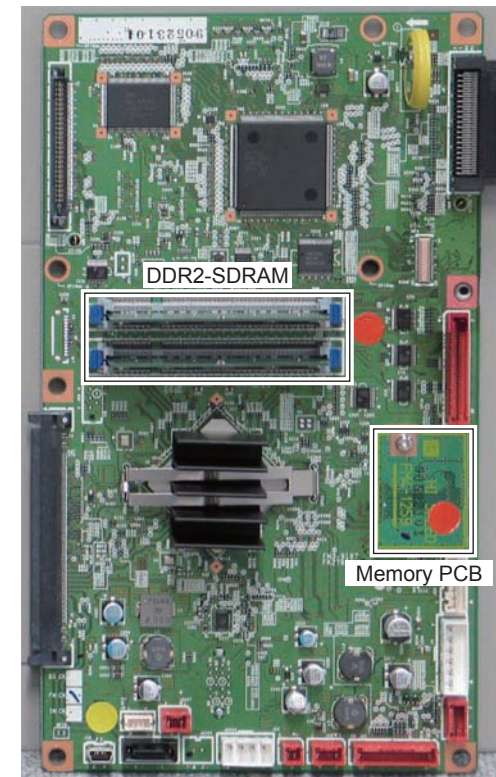
(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

List of the set/registered data which cannot be backed up is printed.

## 2. When Replacing

### 1) Transferring the parts from old PCB to new PCB

- DDR2-SDRAM (1 pc.) (When option DDR2-SDRAM is installed: 2 pc.)
- Memory PCB



F-2-46

### Prohibited Operation:

Do not transfer the following parts to another model (which has a different serial number). If you fail to do so, the Main Body does not activate normally and this might cause to fail the restoration.

- Main Controller PCB 1
- Main Controller PCB 2 (with Memory PCB installed)
- Memory PCB

### 3. After Replacing

- 1) After installing the parts, turn ON the main power switch.
- 2) Restoring the backup data  
Use the Remote UI.  
Management Settings > Data Management > Import/Export
- 3) Resetting/registering the data  
While referring to the list of set/registered data which was printed out before replacement, reset/register the data.
- 4) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again

## ■ TPM PCB

### <Procedure of parts replacement>

see "Removing Main Controller PCB 1," on p. 4-81.

### <Procedure of adjustment>

When TPM setting is "OFF"

Any operation is not necessary at replacement.

When TPM setting is "ON"

It is necessary to restore the TPM key which was backed up after changing the setting to "ON".

- 1) Removing the network cable

Until the TPM key is restored, information might be leaked due to the inappropriate access via network, so be sure to perform this operation appropriately.

- 2) Connecting the USB Memory after turning ON the main power switch
- 3) Restoring the TPM key

Management Settings > Data Management > TPM Settings > Restore of TPM Key

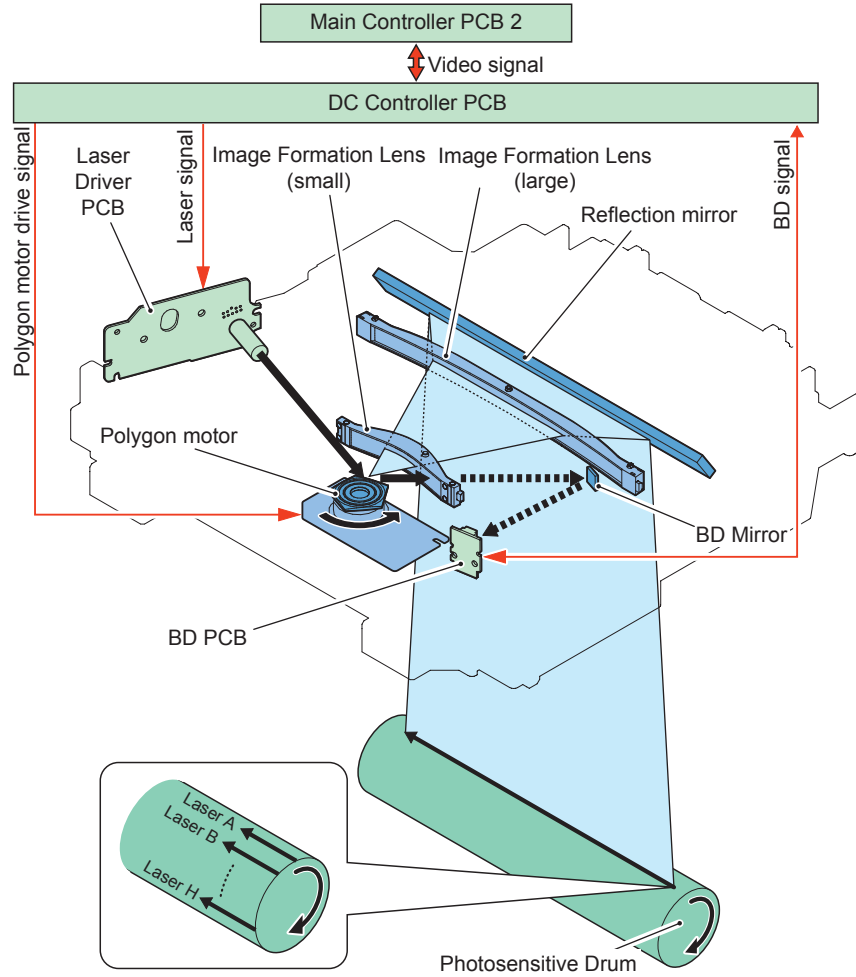
- 4) Turning OFF and ON the main power switch

# Laser Exposure System

## Overview

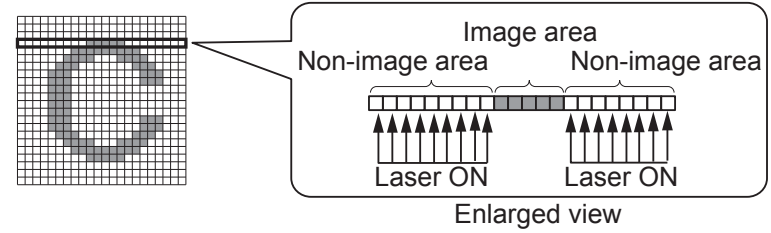
### Overview

This machine uses an 8-beam method that enables exposure of 8 beams per scanning direction for high productivity.



F-2-47

Laser is applied to the Non-image image on the positively-charged drum with this machine.



F-2-48

Laser Scanner Unit can be removed from the side of the main body.



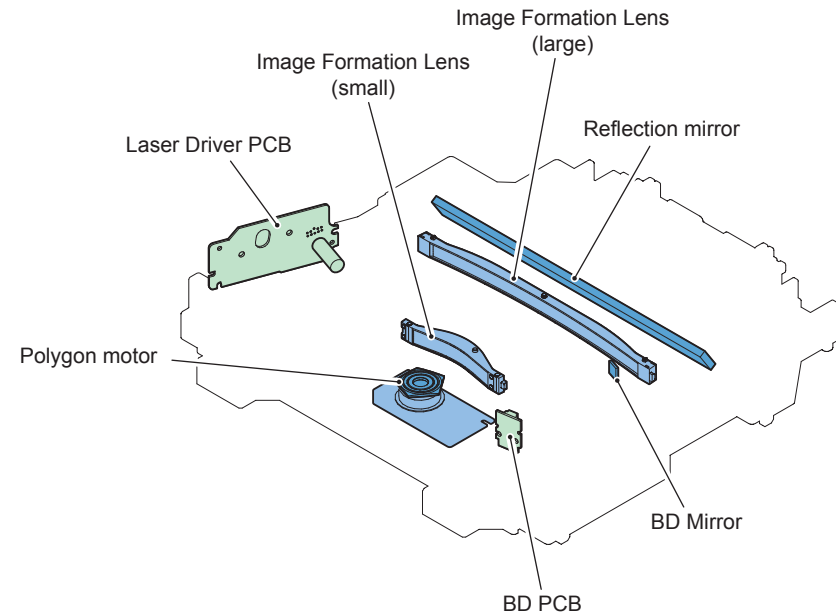
F-2-49

■ Specifications

Item		Description
Laser team	Wave length	670nm
	Laser type	Red color laser
	Laser output	7mW(Max)
	Number of laser beams	8 beams
Resolution		1200dpi
Scanner motor	Type	Brushless motor
	Number of rotations	35,400rpm(Process speed 500mm/sec)
Number of scanner mirror (polygon) surfaces		5
Controls	Laser ON timing control	Laser ON/OFF control
		Main scanning synchronization control
		Sub scanning synchronization control
	Laser beam intensity control	APC control
	Others	Duplex print magnification correction(mageRUNNER ADVANCE C8105/8095/6055 only)
Laser scanner motor control		
		Laser shutter control

T-2-19

■ Parts Configuration

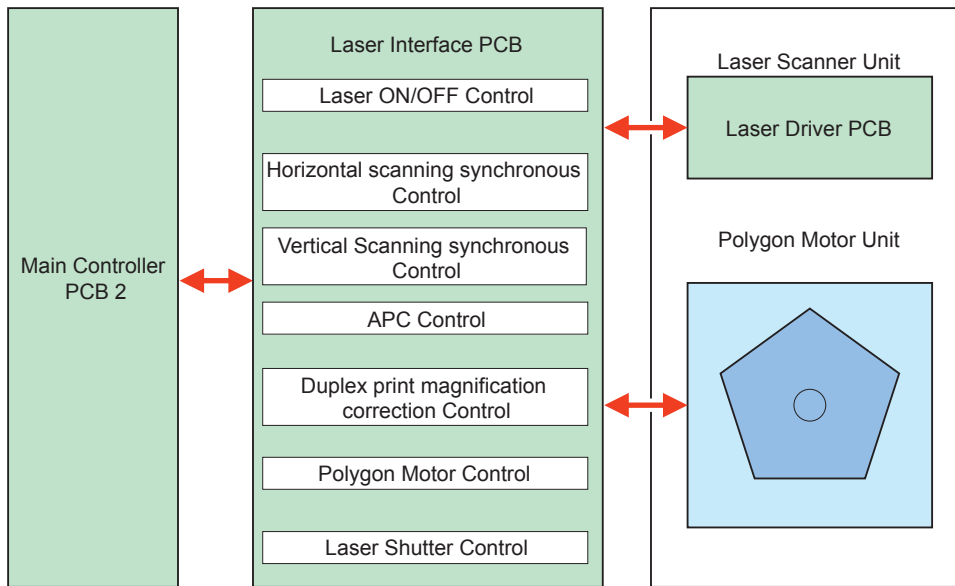


F-2-50

Name	Role
Laser driver	Laser driver
Polygonal mirror	Perform scanning with a laser beam in the main scanning direction.
Reflection mirror	Reflect a laser team to the drum.
Correction lens	Correct a main-scanning tilt of the laser beam coming from the folding mirror.
Tilt correction motor	Correct a main-scanning tilt by moving the correction lens.
Image Formation Lens (small)	To connect focuses on the Drum to provide an image
Image Formation Lens (Large)	To connect focuses on the Drum to provide an image

T-2-20

**Controls**  
**Overview**



F-2-51

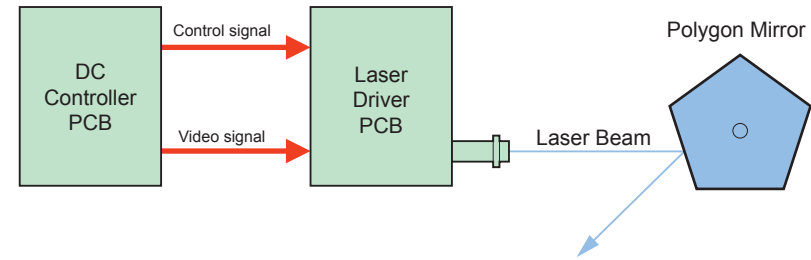
Item		Purpose/Description
Laser ON timing control	Laser ON/OFF control	Turn ON/OFF a laser beam according to the combination of laser control signals.
	Main scanning synchronization control	Performed to adjust the writing position in the main scanning direction.
	Sub scanning synchronization control	Performed to adjust the writing position in the sub scanning direction.
Laser beam intensity control	APC control	1Performed to keep a specified level of laser beam for each line.
Duplex print magnification correction control		To correct image size between the front and the rear when making 2-sided print.
Laser polygon motor control		To be executed to rotate the Polygon Mirror at the specified speed.
Laser shutter control		To prevent exposure of laser light in the machine when the Cover is open.

T-2-21

**Laser ON Timing Control**

**Laser ON/OFF Control**

This control is performed to turn ON/OFF a laser beam according to the combination of laser control signals.



F-2-52

<Timing of Execution>  
 After the power is turned ON

<Details of the Control>  
 The DC controller switches the mode among four modes (Forcible OFF mode, APC mode, Print mode, Standby mode) according to the laser control signal.

Mode	Laser status	Remarks
Forcible OFF	OFF	Clear the laser beam intensity setting determined by APC.
APC	ON	Adjust the laser beam intensity.
Print mode	OFF/ON	Irradiate a laser beam according to the video signal.
Standby mode	OFF	The main unit is placed in the standby status.

T-2-22

### ● Main Scanning Synchronization Control

This control is performed to adjust the writing position in the main scanning direction.

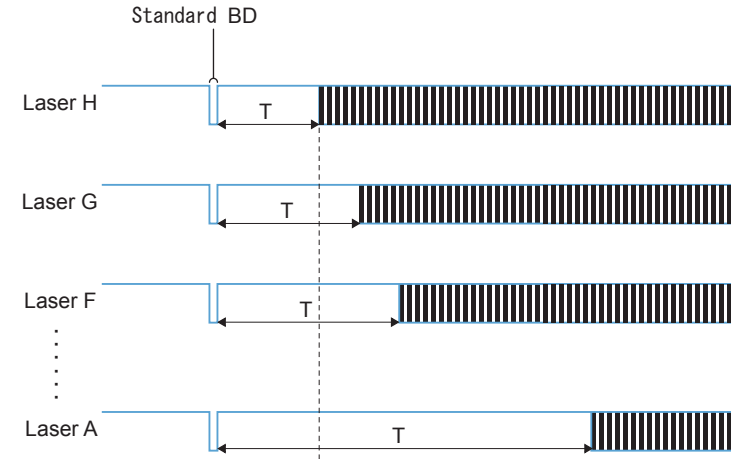
<Timing of Execution>

For every eight lines

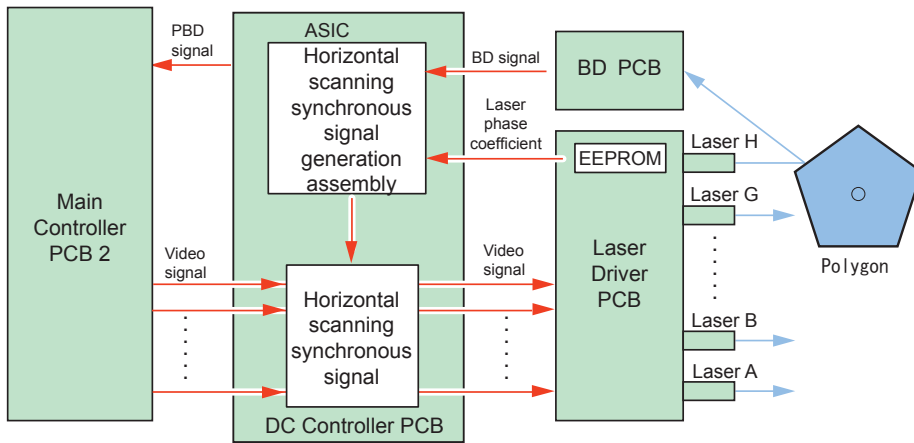
<Details of the Control>

- 1) The synchronization control in horizontal scanning direction is executed with reference to Laser A.
- 2) The BD PCB is located on the light path of Laser A laser beam and the laser beam is emitted to the BD PCB.
- 3) The BD PCB detects laser beam of Laser A and generates BD signal to be sent to the DC Controller PCB.
- 4) The DC Controller sends the PBD signal to Main Controller PCB 2 according to BD signal.
- 5) Based on the laser phase coefficient and the BD signal, the DC Controller PCB generates synchronization signal in horizontal scanning direction on an 8 lines basis at the generation area of synchronization signal in horizontal scanning direction.
- 6) Once the PBD signal is received, Main Controller PCB 2 sends video signal to the DC Controller PCB.
- 7) The video signal sent from Main Controller PCB 2 is output to the Laser Driver PCB according to the synchronization signal in horizontal scanning direction.

**NOTE:**  
EEPROM on the Laser Driver PCB stores the 8-beam phase displacement coefficient (laser phase coefficient), which is unique to the Laser Scanner Unit, and corrects 8-beam phase difference based on the stored coefficient. When a Laser Scanner Unit is replaced, the DC Controller PCB automatically retrieves the laser phase coefficient of EEPROM.



F-2-54



F-2-53

## ● Sub Scanning Synchronization Control

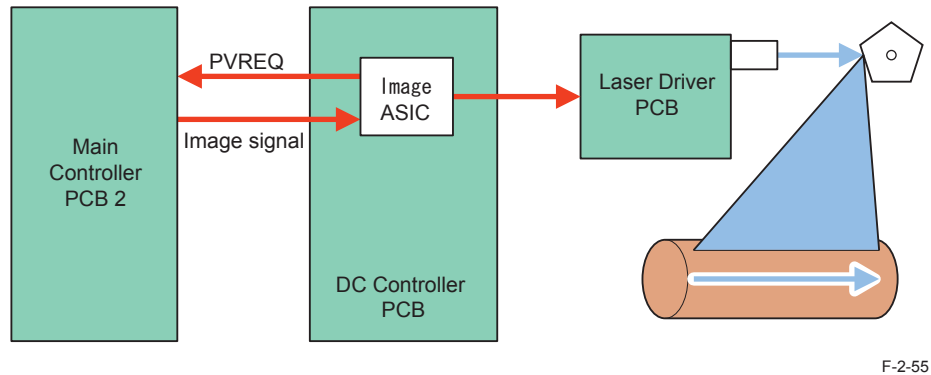
This control is performed to adjust the writing position in the sub scanning direction.

<Execution timing>

When printing is started

<Control Description>

- 1) The DC Controller PCB generates synchronization signal in vertical scanning direction (PVREQ) and sends to Main Controller PCB 2.
- 2) Main Controller PCB 2 receives PVREQ (synchronization signal in vertical scanning direction) and sends the video signal to the DC Controller PCB.
- 3) The DC Controller PCB sends drive signal to the Laser Driver PCB to turn on the laser.



## ■ Laser Beam Intensity Control

### ● APC (Auto Power Control) Control

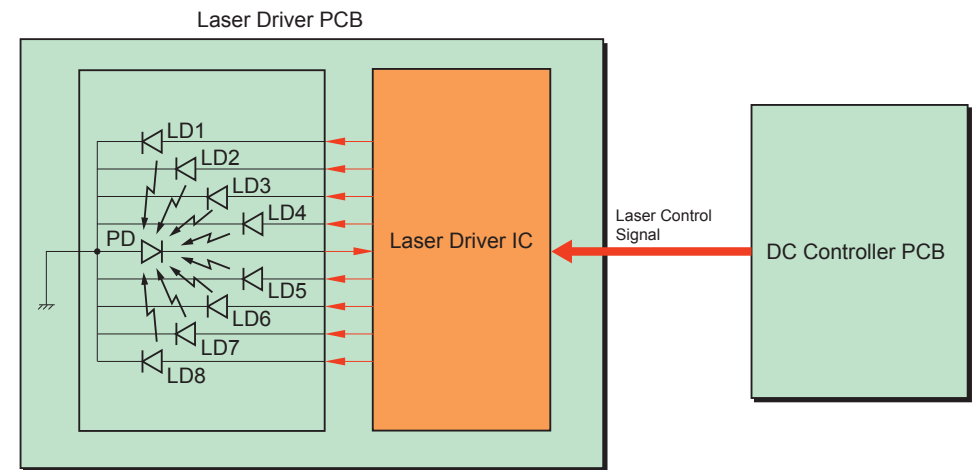
To keep constant laser light intensity per 8 beams (1BD basis)

<Execution timing>

When the laser is scanned (per line)

<Control Description>

- 1) The DC Controller PCB outputs laser control signal to the Laser Driver IC in the Laser Driver PCB to set in APC mode.
- 2) The Laser Driver IC is set in APC mode and makes laser diodes (LD1 to LD8) to forcibly emit in series.
- 3) The Laser Driver IC monitors laser diodes (LD1 to LD8) with the Photo Diode (PD) and adjusts output of laser diode until the laser light intensity reaches a specified level.



F-2-56



## Duplex print magnification correction

When the paper passes through the fixing area after the image was created on the 1st side of the 2-sided print, the paper temporarily gets shrunk due to the heat. Then, creating the image on the 2nd side causes the 2nd side image extended, which makes the 2nd side image larger than the 1st side image when the paper size returns to the original size after the paper is delivered outside the machine.

### <Execution timing>

When the image on the 2nd side of 2-sided print is created

### <Control description>

When the 2nd side is printed, the following controls are executed with consideration of paper's shrinkage level.

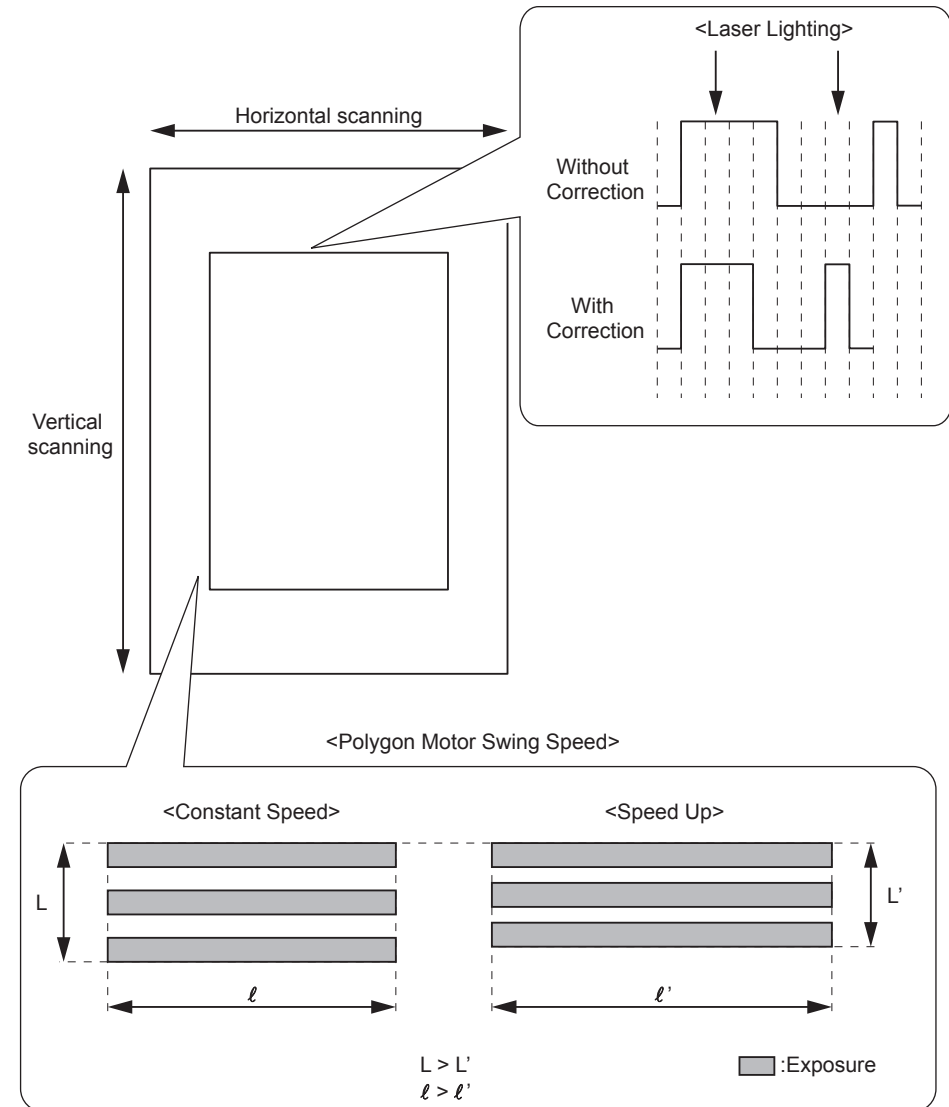
Main scanning direction:

The image in horizontal scanning direction is reduced by skipping the image data.

Sub scanning direction:

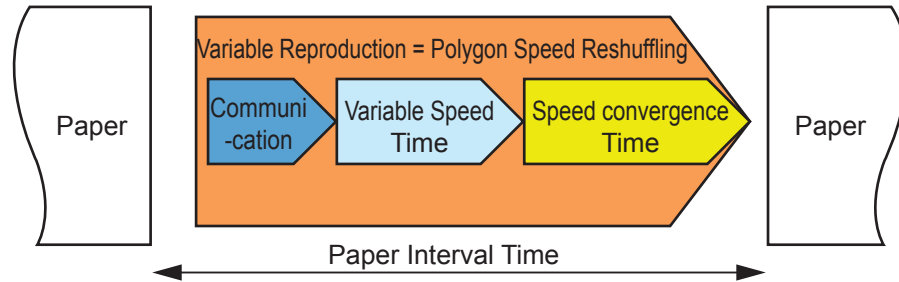
The image is reduced by increasing rotating speed of the Polygon Motor.

Increasing rotating speed of the Polygon Motor causes an increase of magnification ratio in horizontal scanning direction, and equally effects as skipping of image data.



F-2-57

When magnification is corrected, changing the Polygon Motor speed between sheets might be slower depending on the speed, so productivity might be reduced.



F-2-58

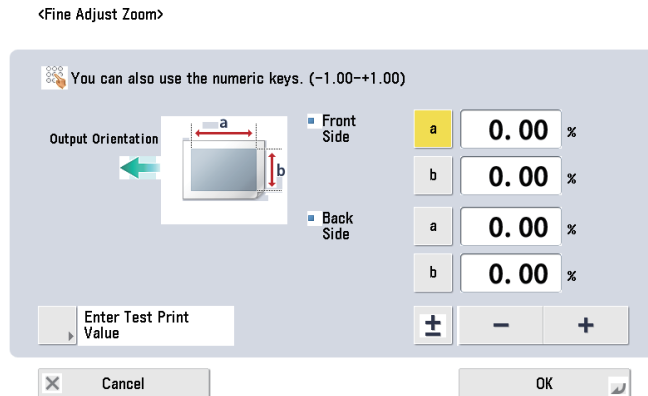
Variable speed Wide	PPM		
	105ppm	95ppm	85ppm
-0.3%	79%	80%	82%
-0.6%	71%	74%	75%
-1.0%	69%	71%	73%

T-2-23

\* In the actual use, it is assumed that changing speed over 0.6% is rarely seen.

Related "Settings/Registration" mode

Settings/Registration > Preferences > Paper Settings > Paper Type Management Settings  
>Details/Edit > Adjust Image position > Fine Adjust Zoom



F-2-59

## Polygon Motor Control

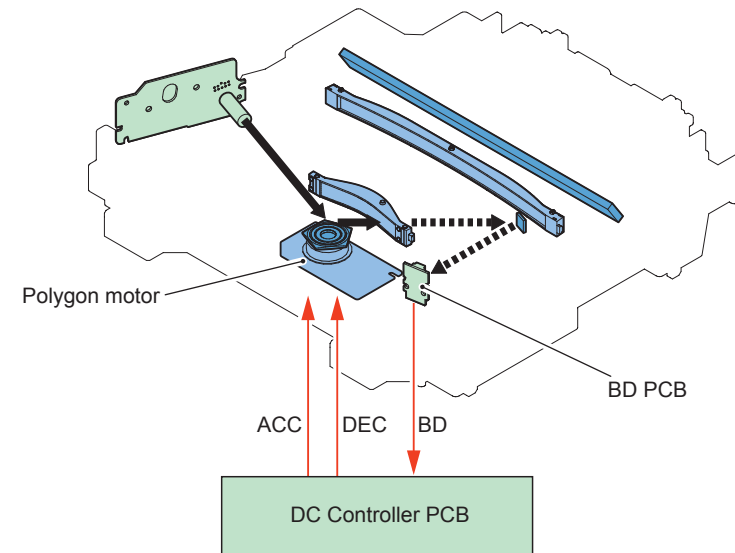
This control is performed to rotate the polygon mirror at a specified speed.

<Execution timing>

When the Polygon Motor is started

<Control description>

- 1) The DC Controller PCB outputs acceleration signal (ACC) to forcibly rotate the Polygon Motor.
- 2) The speed detection signals (FG, BD) are detected to be compared with the reference signal generated in the reference signal generation area, so that the acceleration signal (ACC) and the deceleration signal (DEC) are controlled to keep the specified speed.



F-2-60

Related Error Code

- E100: Failure to detect PLOCK signal during BD rotation
- E110: Failure to detect VLOCK signal during FG rotation

## Laser Shutter Control

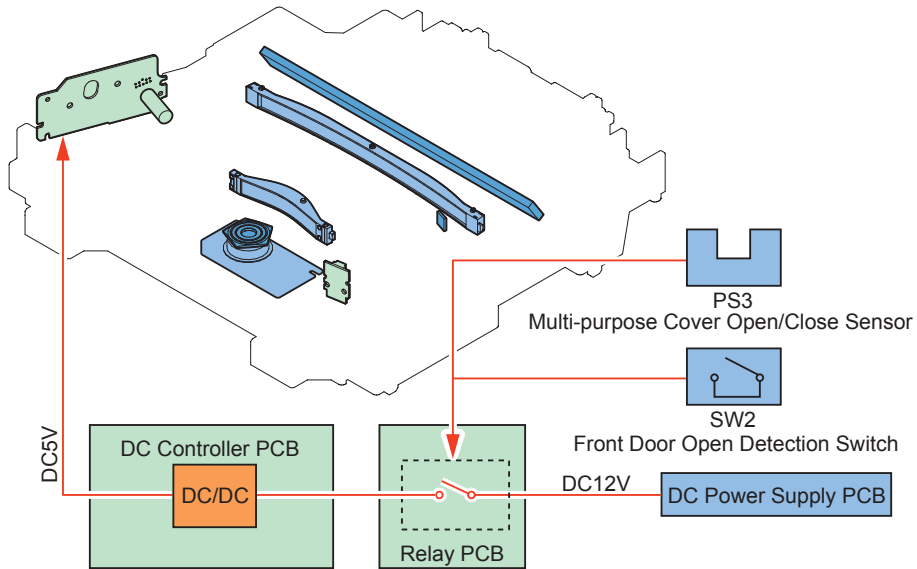
To prevent laser exposure in the machine when the Cover is open

<Execution timing>

When the Front Door or Multi tray Cover opens/closes

<Control description>

When the Front Door or Multi tray Cover opens, the DC Controller PCB stops power supply (DC5V) of the Laser Driver to prevent laser exposure.



F-2-61

**NOTE:**  
This control is executed by the software only and there is no shutter to prevent laser exposure.

## Servicing

### ■ Periodically Replaced Parts

None

### ■ Consumable Parts

None

### ■ Periodical Servicing List

Parts name	Qty	Cleaning interval	Remarks
Dust-proof glass	1	-	Clean when black lines or the like occurs due to soil on the Dustproof Glass.

T-2-24

### ■ When Replacing Parts

No.	Parts Name	When replacing parts
1	Laser Scanner Unit	1) Execution of potential control (COPIER>FUNCTION>DPC>DPC) 2) Write down the write start position adjustment value of laser in the following service mode on the service label. COPIER > ADJUST > LASER > PVE-OFST

T-2-25

### ■ Major Adjustments

None

## Image Formation System

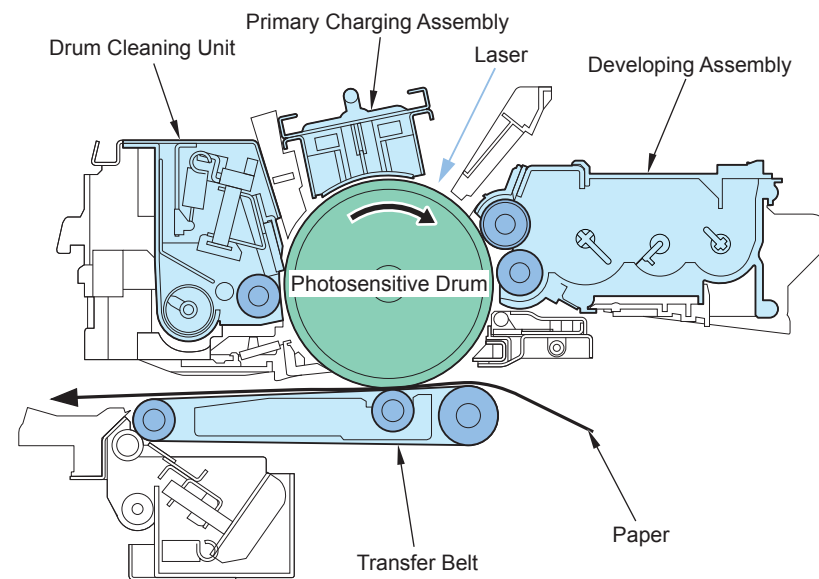
### Overview

#### Overview

Toner image is formed by the magnetic, 1-component toner projection developing method in image formation system.

To ensure high quality print, this machine introduces the following new technologies:

- Small-diameter toner  
High resolution by fine-grained toner
- Belt transfer method  
Improved transfer/feeding performance by the belt feeding
- Twin-developing method  
Improving developing efficiency by the 2-time developing. Uneven developing at the first developing is evened out with the second development.  
At the second development, if toner is excessively supplied to the drum at the first development, the excessive toner is pulled to the cylinder. If the amount of toner on the drum is not enough, toner shortfall is supplied to the drum from the cylinder.
- Image Stabilization Control  
Image density/gradation correction by the D-max control and the D-half control
- The shutter mechanism is added to the Primary Charging Assembly and the Pre-transfer Charging Assembly.  
This prevents discharge products from attaching on the Drum, thus prevents image failure just after startup.
- Improved accessibility to the periodically replaced / durable parts provides increased serviceability.



F-2-62

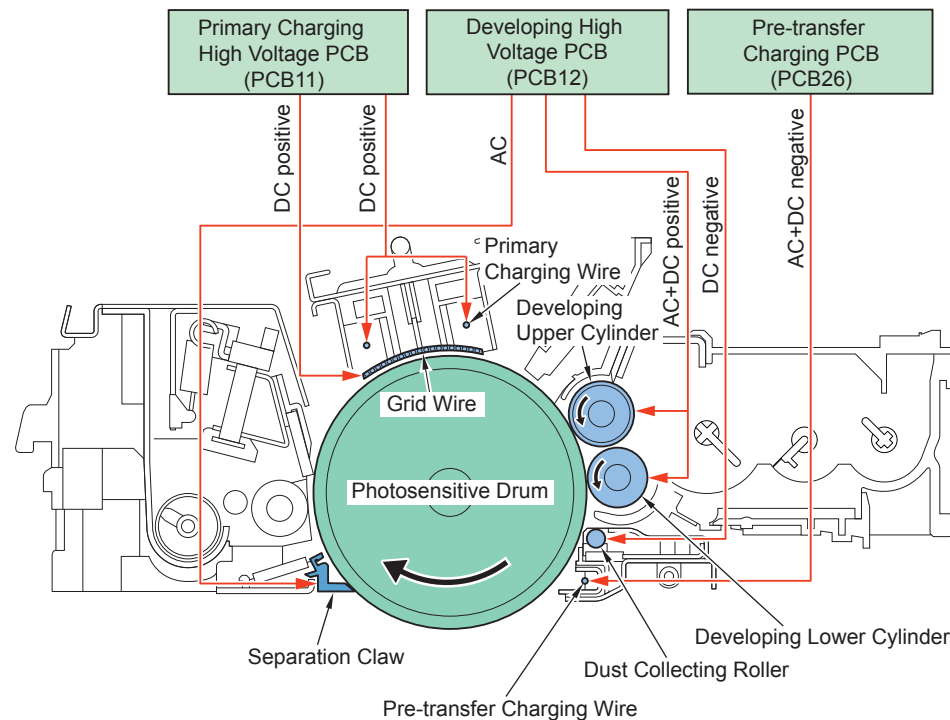
## Specifications

### Basic Specifications

Item		Function/Method
Photosensitive Drum	Material	A-Si
	Drum diameter	84 mm diameter
	Cleaning	Cleaning Blade
	Process speed	500 mm/sec
	Separation method	Curvature separation + separation claw
	Drum Heater	Yes (42 +/- 2 deg C)
	Drum HP detection	Yes
Developing Assembly	Developing method	Dry, 1-component toner projection method
	Developing Cylinder	iR-ADV 8105/8095/8085 series
		2 cylinders (twin-developing method)
		- Developing upper cylinder: 20 mm diameter - Developing lower cylinder: 20 mm diameter
	Toner	Magnetic negative toner
Toner level detection	Yes (magnetic sensor)	
Primary charging	Charging method	Corona charging (2 charging wires + grind wire)
	Cleaning	Cleaning Pad (charging wire)
	Shutter	Yes
Pre-transfer charging	Charging method	Corona charging (1 charging wire)
	Cleaning	Cleaning Pad (charging wire)
	Shutter	Yes
Transfer method	Direct transfer (ETB: Electrostatic Transfer Belt)	
ETB Unit	Material	CR rubber + urethane resin
	Circumferential length	298.5 mm
	Cleaning	Brush Roller + Cleaning Blade
	Transfer method	Transfer Roller (sponge roller)
	Separation method	Curvature separation + static eliminator
Waste Toner Container	Capacity	Equivalent to 1 million sheets
	Full-level detection	Yes
	Presence/absence detection	No
Toner Container	Method	Set-on (manual)
Patch Sensor	Yes	

T-2-26

### Charging Specifications



F-2-63

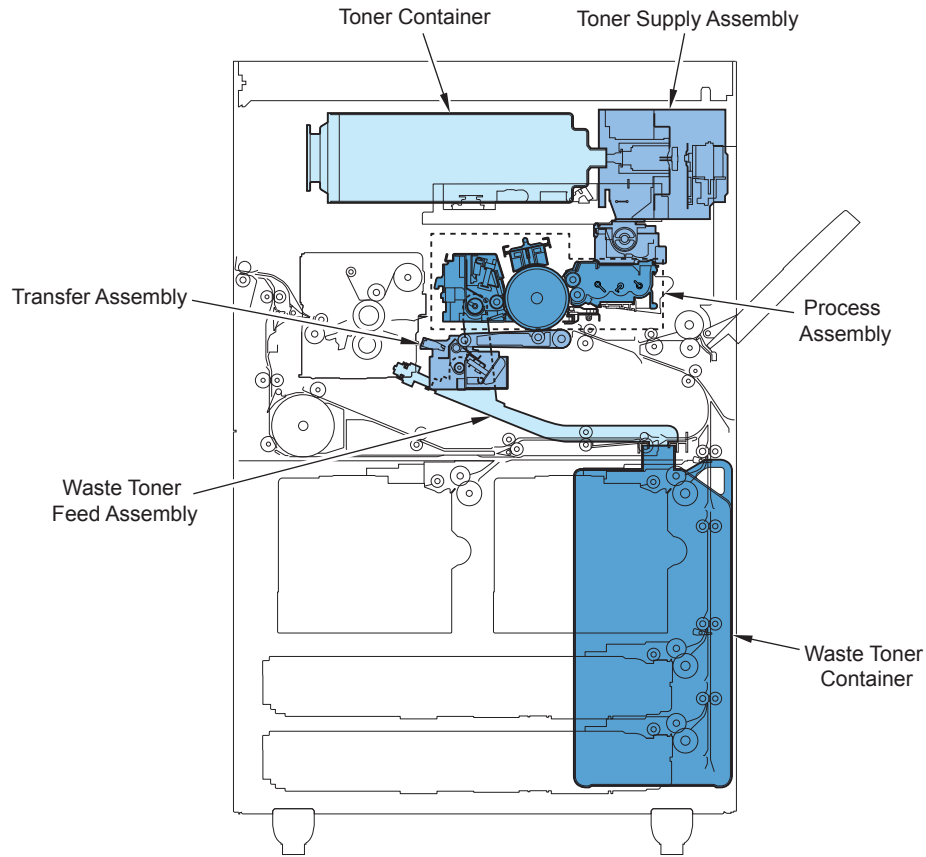
Item	Bias value	Remarks
Primary charging bias	DC bias 6000 to 9000 V	To be specified by the potential control
Grid bias	DC bias 530 to 800 V	To be specified by the estimated life and environment*
Developing bias	AC bias 1500 V	Fixed value (ON/OFF only)
	DC bias 200 to 300 V	To be specified by the D-max control
Dust-collection bias	DC bias -1000 V	Constant voltage control
Pre-transfer charging bias	AC bias 8300 V	Fixed value (ON/OFF only)
	DC bias 0 to 6000 V	Constant current control (to be specified by the environment*)
Transfer bias	DC bias 0 to 6500 V	Constant current control (to be specified by the environment*, paper type and print mode)
Separation claw bias	AC bias 690 Vpp	Fixed value (ON/OFF only)

T-2-27

\* Detected by the Environment Sensor (THU1)

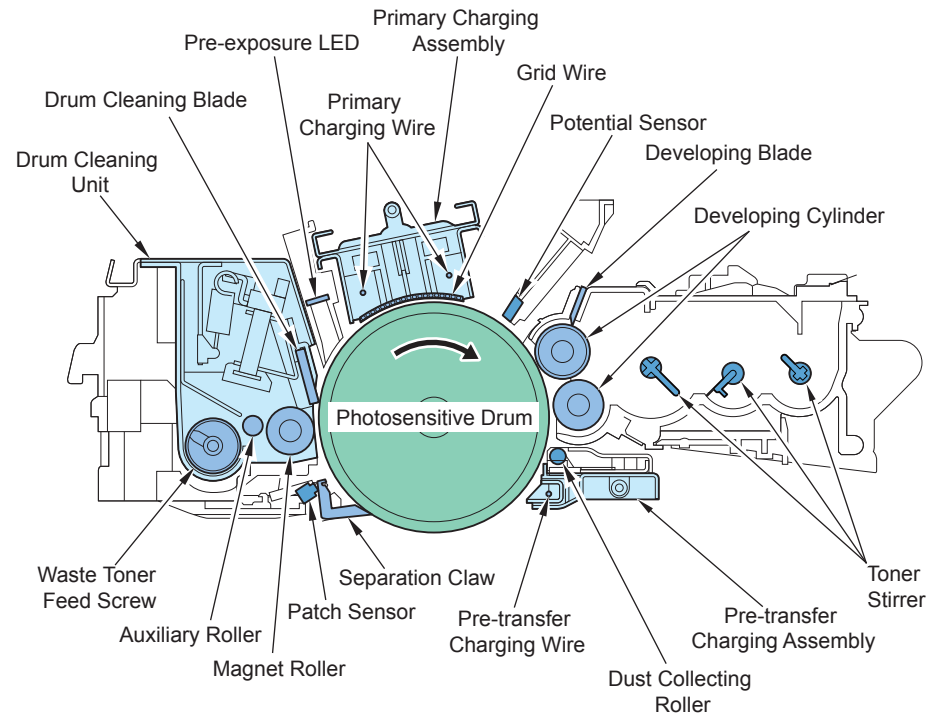
■ Parts Configuration

● Entire Configuration



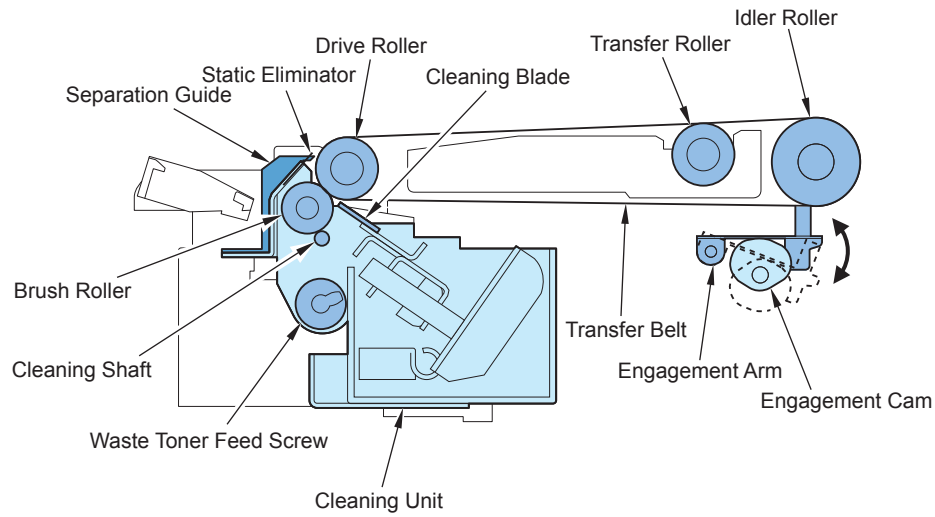
F-2-64

● Process Area



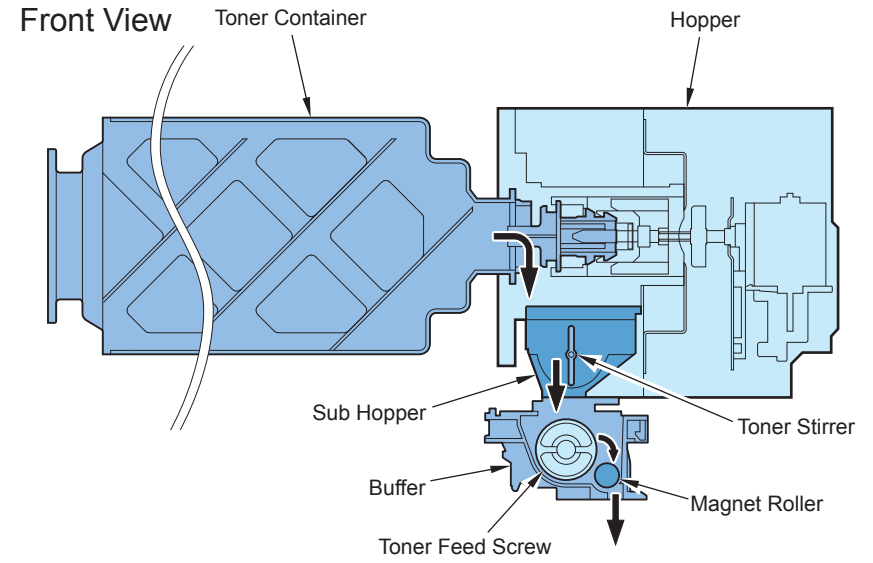
F-2-65

● Transfer Area

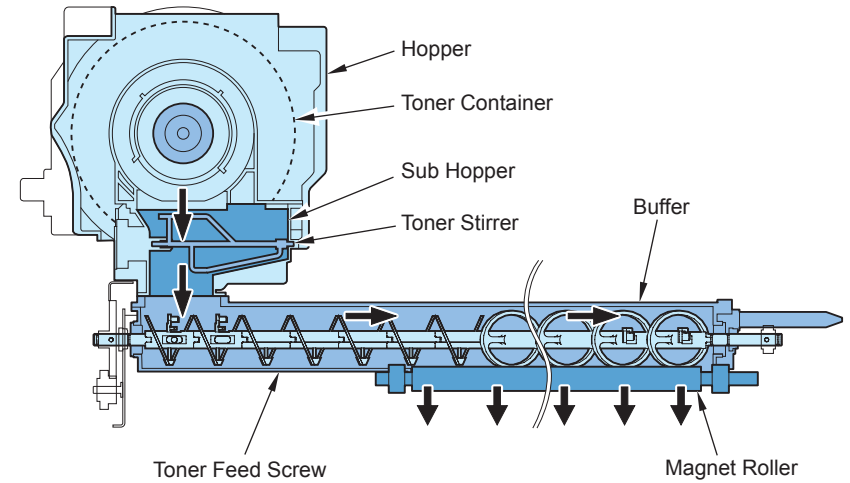


F-2-66

● Toner Supply Area



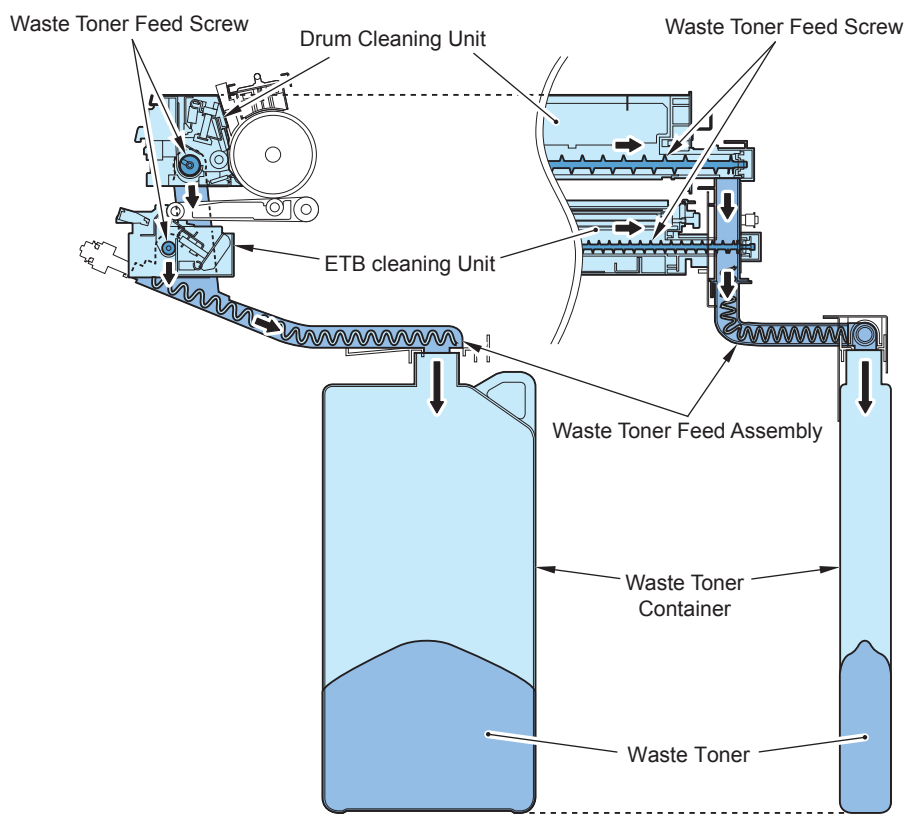
Right Side View



F-2-67



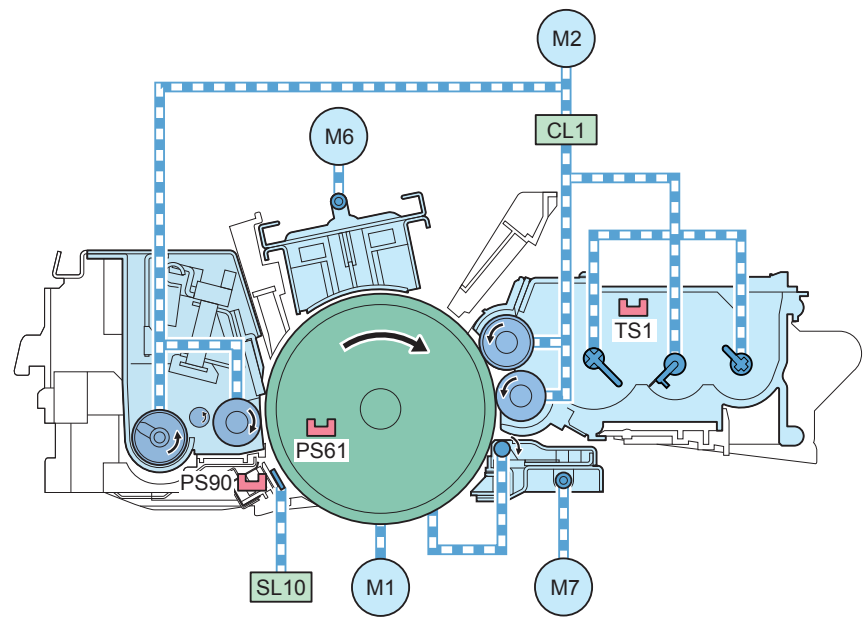
● Waste Toner Feeding Area



F-2-68

■ Drive Configuration

● Process Area

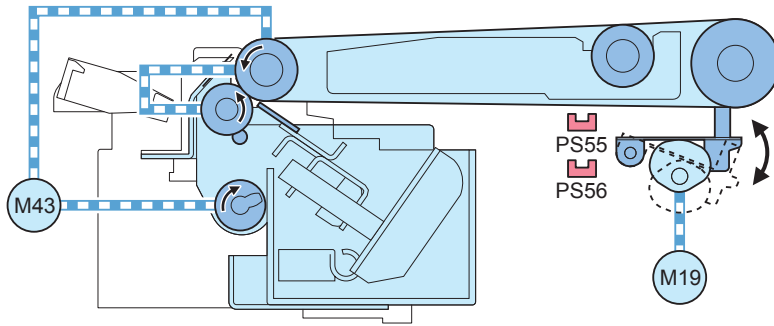


F-2-69

Code	Name	Function
M1	Drum Motor	To drive the Photosensitive Drum and the Dust-collection Roller
M2	Main Motor	To drive the Developing Cylinder, the Toner Stirring Plate, the Magnet Roller and the Waste Toner Feed Screw
M6	Primary Charging Wire Cleaning Motor	To drive the Primary Charging Wire Cleaning Pad and the Primary Charging Shutter
M7	Pre-transfer Charging Wire Cleaning Motor	To drive the Pre-transfer Charging Wire Cleaning Pad and the Pre-transfer Charging Shutter
SL10	Patch Sensor Shutter Solenoid	To drive the Patch Sensor Shutter
CL1	Developing Clutch	To drive the Developing Cylinder and the Toner Stirring Plate
TS1	Developing Toner Sensor	To detect toner level in the Developing Assembly
PS61	Drum Home Position Sensor	To detect home position of the Photosensitive Drum
PS90	Patch Sensor	To detect toner density (image stabilization control)

T-2-28

● Transfer Area

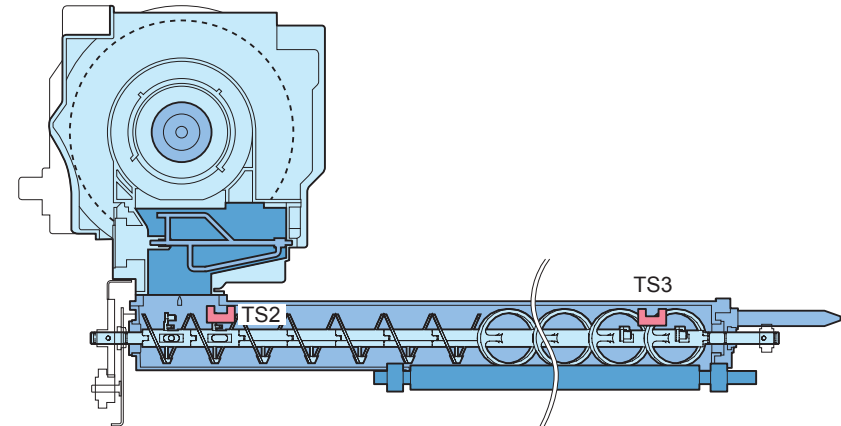
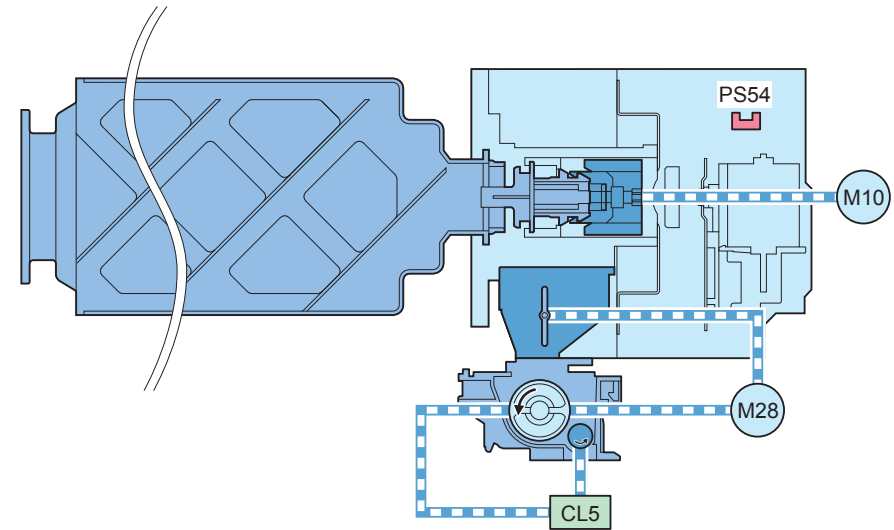


F-2-70

Code	Parts name	Function
M19	Duplex Feed Left Motor	To make the ETB Unit (ETB) engaged/disengaged
M43	ETB Motor	To drive the ETB Drive Roller, the Brush Roller and the Waste Toner Feed Screw.
PS55	ETB Engage Sensor	To detect engagement of the.
PS56	ETB Disengage Sensor	To detect disengagement of the ETB (home position).

T-2-29

● Toner Supply Area



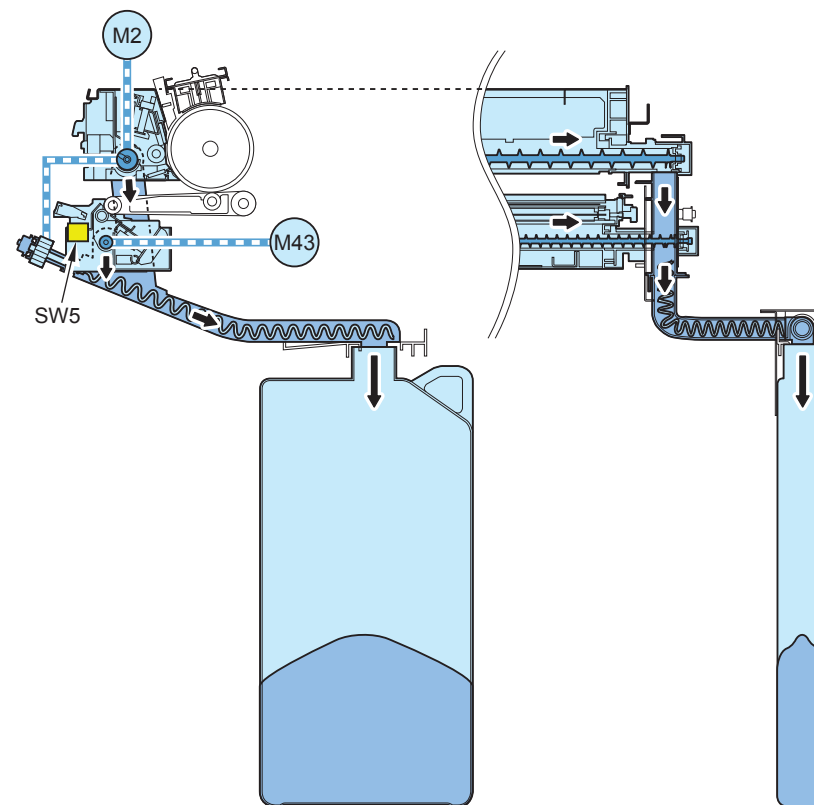
F-2-71

Code	Parts name	Function
M10	Hopper Toner Supply Motor	To drive the Toner Stirring Plate (to supply toner to the Buffer)
M28	Buffer Toner Feed Motor	To drive the Toner Feed Screw and the Toner Stirring Plate (to feed toner)
CL5	Developing Assembly Toner Supply Clutch	To drive the Magnet Roller (to supply toner to the Developing Assembly)

Code	Parts name	Function
TS2	Buffer Toner Sensor 1	To detect toner level in the Buffer(To avoid oversupply to the Buffer)
TS3	Buffer Toner Sensor 2	To detect toner level in the Buffer (to detect absence of toner in the Buffer)
PS54	Toner Replacement Cover Sensor	To detect whether the Toner Replacement Cover is opened/closed.

T-2-30

## ● Waste Toner Feeding Area



F-2-72

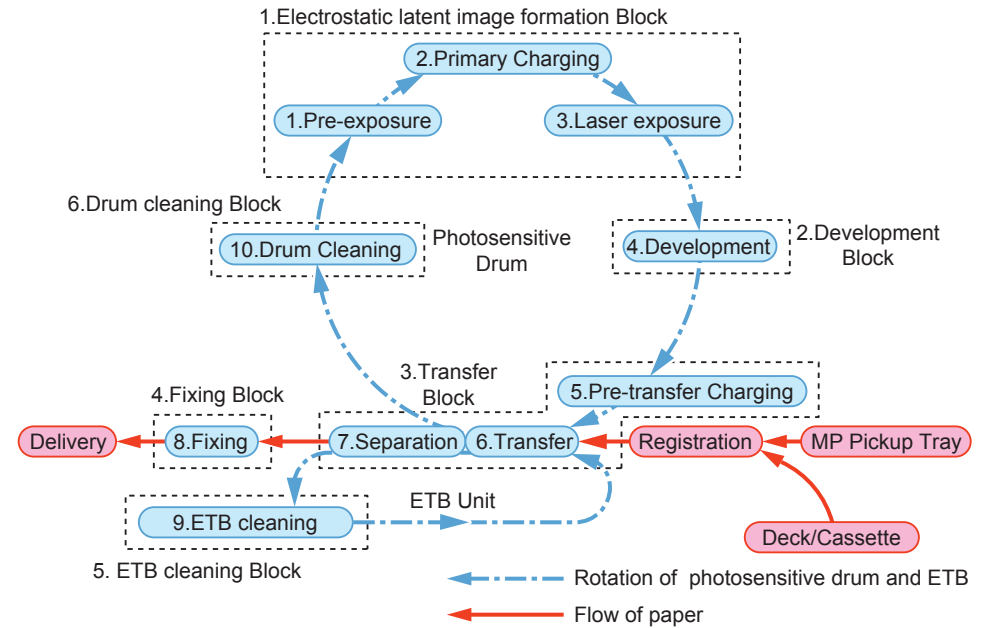
Code	Parts name	Function
M2	Developing Motor	To drive the Waste Toner Feed Screw(Drum Cleaning Unit)
M43	ETB Motor	To drive the Waste Toner Feed Screw(ETB Cleaning Unit)
SW5	Waste Toner Lock Detection Switch	To detect lock of the Waste Toner Feed Screw

T-2-31

Print Process

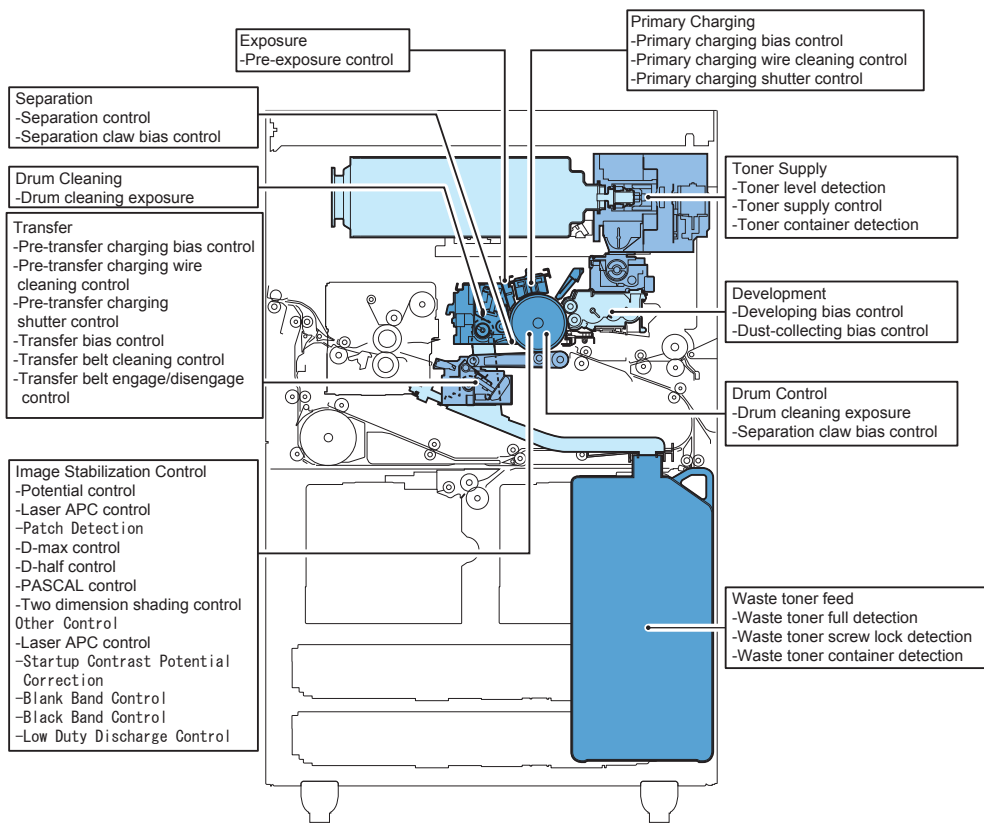
Block	Step	Overview
Static formation block	1 Exposure	Light emission from the Pre-exposure LED removes residual potential on the surface of the Photosensitive Drum to prevent density unevenness.
	2 Primary charging	The surface of the Photosensitive Drum is charged to make a uniform positive potential. This machine uses the Primary Charging Assembly which indirectly gives potential from the Charging Wire to the Photosensitive Drum.
	3 Laser exposure	Emission of the laser beam forms a static latent image on the surface of the Photosensitive Drum. When the laser beam is applied on the surface of the positively charged Photosensitive Drum, the potential at the emitted part is reduced.
Developing block Transfer block	4 Developing	With the magnetic, 1-component toner projection developing method, toner that has been negatively charged by the Developing Cylinder is attached to the latent image on the surface of the Photosensitive Drum to make it visible.
	5 Pre-transfer charging	Toner on the Photosensitive Drum is made to be a uniform potential.
	6 Transfer	Positive potential is applied to the Transfer Roller so that the toner on the Photosensitive Drum is transferred on a paper.
	7 Separation	With the curvature separation method and the static eliminator, the paper is separated from the Photosensitive Drum and the ETB.
Fixing block	8 Fixing	The toner on the paper is fused on the paper by heat and pressure.
ETB cleaning block	9 ETB cleaning	The Cleaning Blade removes the residual toner attached on the ETB.
Drum cleaning block	10 Drum cleaning	The Cleaning Blade removes the residual toner attached on the Photosensitive Drum.

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F-2-73

Controls



F-2-74

Control name	Description
<b>Exposure</b>	
Pre-exposure control	To apply the light of the Pre-exposure LED on the surface of the Photosensitive Drum.
<b>Primary charging</b>	
Primary charging wire bias control	To apply the positive potential to the Primary Charging Wire and the Primary Grid Plate.
Primary charging wire cleaning control	To clean the Primary Charging Wire.
Primary charging shutter control	To prevent image failure caused by ozone generated from the Primary Charging Wire.
<b>Developing</b>	
Developing bias control	To apply positive potential to the Developing Cylinder so that the toner on the Developing Cylinder is attached on the surface of the Photosensitive Drum.
Dust-collection bias control	To collect the scattered toner to prevent toner that scatters during developing process from being attached to the Photosensitive Drum.
Toner collection sheet bias control	To apply negative potential to the Toner Collection Sheet.
<b>Transfer</b>	
Pre-transfer charging bias control	To charge toner negatively and evenly to ensure stability of transfer performance.
Pre-transfer charging wire cleaning control	To clean the Pre-transfer Charging Wire to prevent the Charging Wire failure that is caused by soil of the Pre-transfer Charging Wire.
Pre-transfer charging shutter control	To prevent image failure caused by ozone generated from the Pre-transfer Charging Wire.
Transfer bias control	To apply positive potential to the Transfer Roller so that the toner on the Photosensitive Drum is transferred on the paper.
Transfer belt cleaning control	To remove the residual toner on the Transfer Belt to prevent image failure that is caused by toner soil on the belt.
Transfer belt engagement/disengagement control	To engage/disengage the Transfer Belt with the Photosensitive Drum.
<b>Separation</b>	
Separation control	To separate paper from the Photosensitive Drum and the Transfer Belt.
Separation bias control	To remove toner attached to the Drum Separation Claw.
<b>Drum cleaning</b>	
Drum cleaning control	To remove residual toner on the Photosensitive Drum.
<b>Drum control</b>	
Drum home position detection	To detect home position of the Photosensitive Drum.
Drum heater control	To keep constant temperature of the Photosensitive Drum.

Control name	Description
<b>Toner supply</b>	
Toner level detection	To detect toner level in the Developing Unit and the Buffer Unit.
Toner supply control	To supply toner from the Toner Container to the Developing Assembly.
Toner container detection	To detect whether the Toner Container is attached to the host machine.
<b>Waste toner feeding</b>	
Waste toner full level detection	To detect whether the Waste Toner Container is full.
Waste toner screw lock detection	To detect whether the Waste Toner Screw is locked.
Waste toner container detection	To detect whether the Waste Toner Container is attached to the host machine.
<b>Image stabilization control</b>	
Potential control	To determine primary current (Ip), laser power (Lp) and developing bias (Vdc) according to the deterioration level of the Photosensitive Drum and the environmental change.
Patch Detection	To detect the patch on the Drum by the Patch Sensor to measure the toner density.
D-max control	To determine the developing contrast to keep solid density on the image constant.
D-half control	To determine the gradation adjustment value based on the image density detected by the Patch Sensor.
PASCAL control	To determine gradation adjustment value based on the image density scanned by the Reader.
2D shading control	To correct uneven potential on the Photosensitive Drum by laser exposure.
<b>Other Control</b>	
Startup Contrast Potential	To adjust the contrast potential (Vcont) at startup in order to maintain the density consistently.
Laser APC control	To correct the laser output control value to prevent changes in surface potential by the laser output.
Blank Band Control	To blow off the reversely-charged toner on the Developing Sleeve forcibly to the Drum surface in order to collect the toner into the Drum Cleaning Unit.
Black Band Control	To supply toner thoroughly to the ends of the Cleaning Blade and prevent the blade from everting by forming the toner band at the Drum ends.
Low Duty Discharge Control	To forcibly eject toner by forming the toner band at the Drum ends in order to avoid toner deterioration in case low duty images are continuously output.

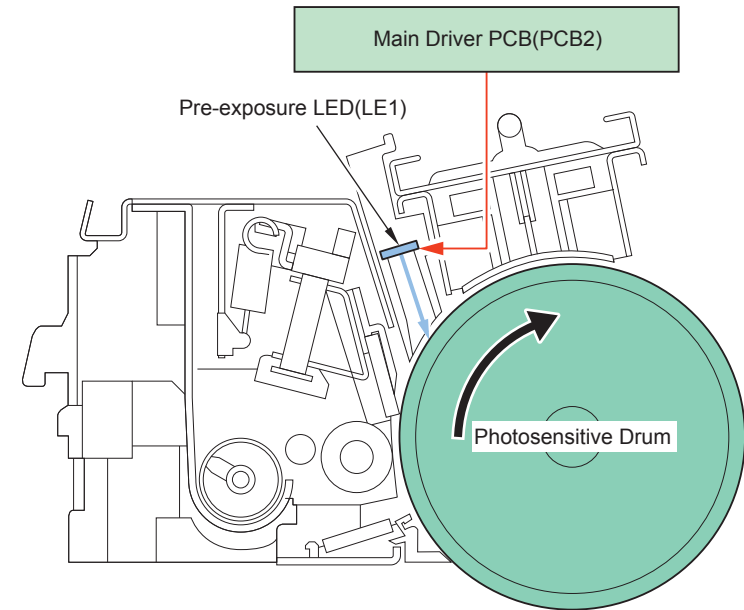
T-2-33

## Exposure

### Pre-exposure Control

To prevent uneven density with the print image, residual potential on the Photosensitive Drum is removed before the primary charging.

With the command by the DC Controller PCB, the Pre-exposure LED (LED 1) is emitted. By emitting the LED on the Photosensitive Drum, remove residual potential on the drum.



F-2-75

## ■ Primary Charging

### ● Primary Charging Bias Control

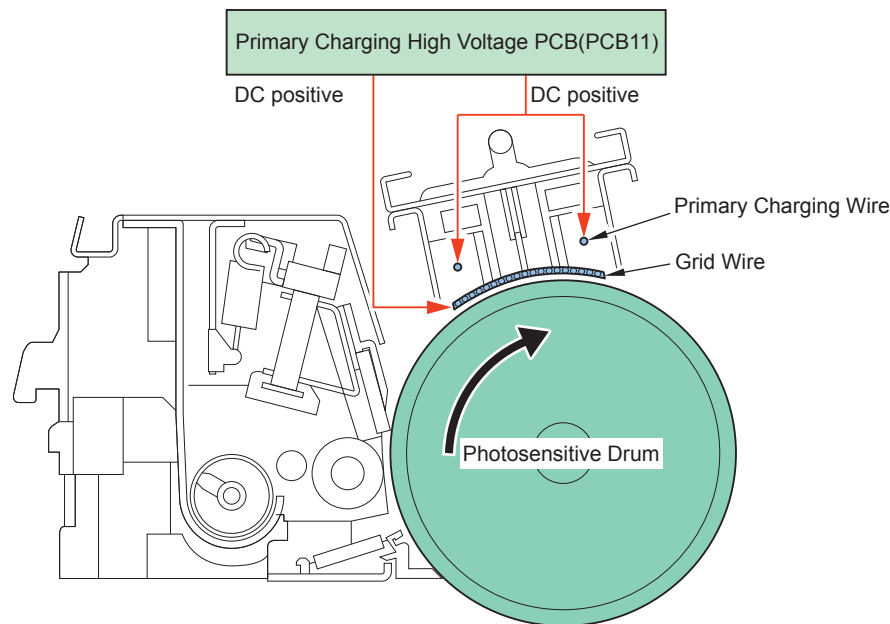
To make the surface of the Photosensitive Drum evenly and positively charged.

The primary charging bias (DC positive), which has been generated by the Primary Charging High Voltage PCB (PCB11), is applied to the Primary Charging Wire and the Grid Plate.

- Primary charging DC bias: the bias to be applied to the Primary Charging Wire
- Grid DC bias: the bias to be applied to the Grid Plate

The primary charging bias value is specified by the potential control.

The grid bias is specified based on the estimated life and the environment.



F-2-76

### ● Primary Charging Wire Cleaning Control

To prevent charging failure caused by soil of the Primary Charging Wire.

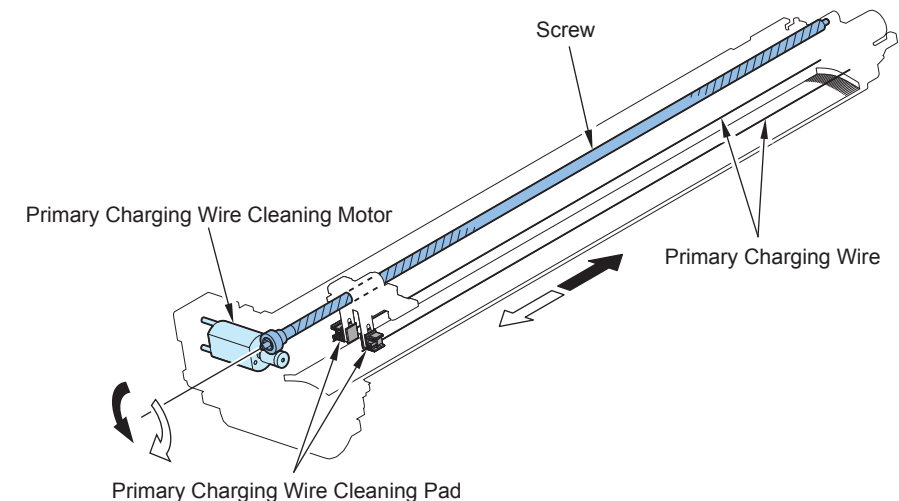
<Execution timing>

- Interruption at every 2000 sheets of continuous print (the value can be changed in service mode: 100 to 2000 sheets)
- After last rotation which is performed on the 1500th sheet and later since the last cleaning (1-roundtrip)
- In the case of executing "Clean Wire" in user mode (1-roundtrip)
- In the case of executing the wire cleaning in service mode (1-roundtrip or 3-roundtrip)

<Control description>

The drive of the Primary Charging Wire Cleaning Motor (M6) makes the Cleaner Screw rotate clockwise/counterclockwise, which moves the Cleaning Pad back and forth to clean the Primary Charging Wire.

Position detection of the Cleaning Pad is not performed.



F-2-77

<Related service modes>

To clean the Charging Wire (3-roundtrip)

COPIER > FUNCTION > CLEANING > WIRE-CLN

To check operation of the Charging Wire Cleaning (1-roundtrip)

COPIER > FUNCTION > CLEANING > WIRE-EX

To specify cleaning interval of the Last Rotation Charging Wire ((Default: every 2000 sheets (the interval can be changed within the range between 1000 and 5000 sheets))COPIER > OPTION > CLEANING > W-CLN-P

### Primary Charging Shutter Control

To prevent uneven potential on the Photosensitive Drum caused by discharge products (nitrogen oxide) accumulated on the Primary Charging Assembly.

**NOTE:**  
 In the environment which moisture content is lower than the one in power saving environment (temperature: 22 deg C, humidity: 75%, moisture content: 12.41g), set the Drum Heater to OFF in the sleep mode after a specified time passes. Discharge product (nitrogen compound) which is generated at the Charging Assembly when image is formed is deposited on the Drum when the time passes. When the Drum Heater is OFF, the discharge product (nitrogen compound) has a chemical reaction with the moisture in the air and generates nitric acid. This nitric acid deteriorates the surface of the Drum and causes the image failure.

<Execution timing>

- When the Drum Heater is turned OFF
- During sleep mode

<Execution timing>

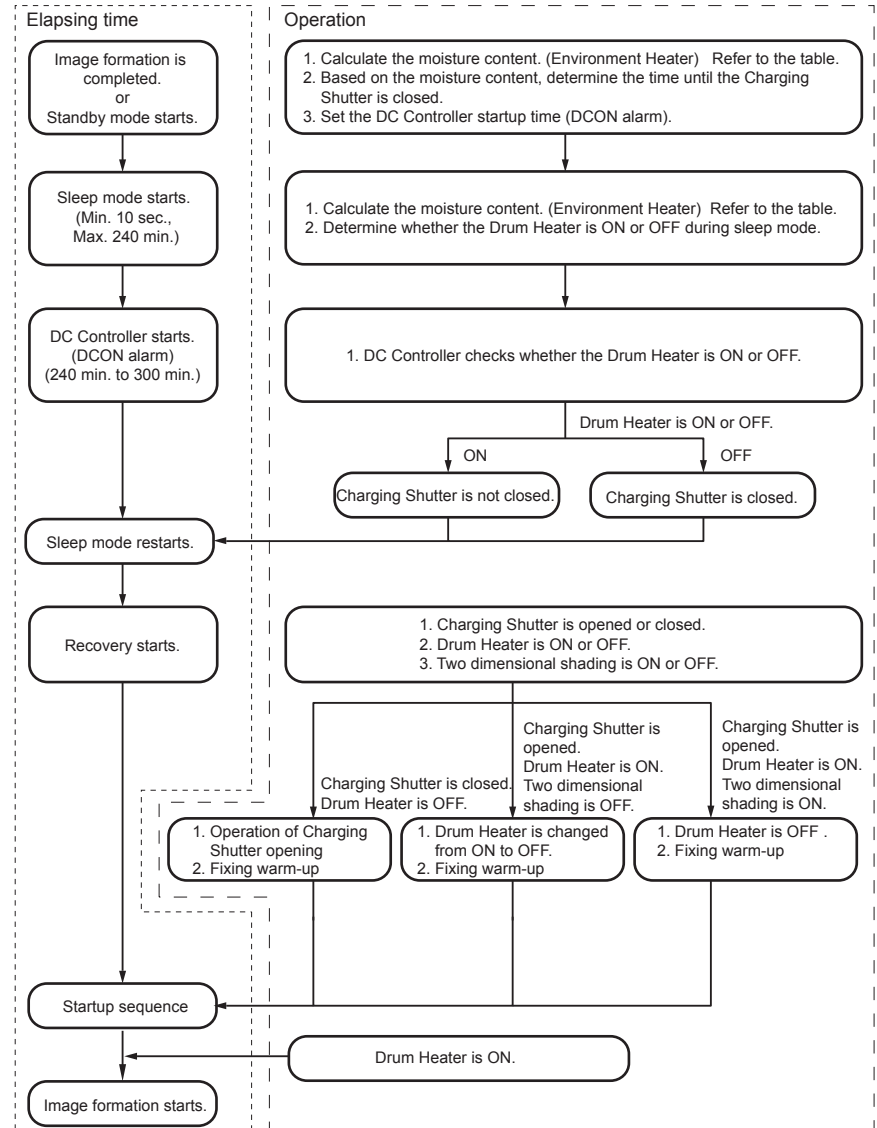
- After 4 or 5 hours since the drum was stopped\*

\*The time is determined by the environment (moisture content) when the drum operation was stopped

Environment	Moisture content	Temperature/Humidity	Drum Heater	Time
1	to 0.86	23 deg C 5%	OFF	300 min.
2	to 1.73	23 deg C 10%	OFF	285 min.
3	to 5.8	23 deg C 30%	OFF	270 min.
4	to 8.9	23 deg C 50%	OFF	255 min.
Energy save	to 12.41	22 deg C 75%	OFF	240 min.
5	to 15	23 deg C 70%	ON	Not close
6	to 18	27 deg C 80%	ON	Not close
7	to 12.41	30 deg C 80%	ON	Not close

T-2-34

### Shutter Open/Close Operation Sequence



F-2-78



## &lt;Control description&gt;

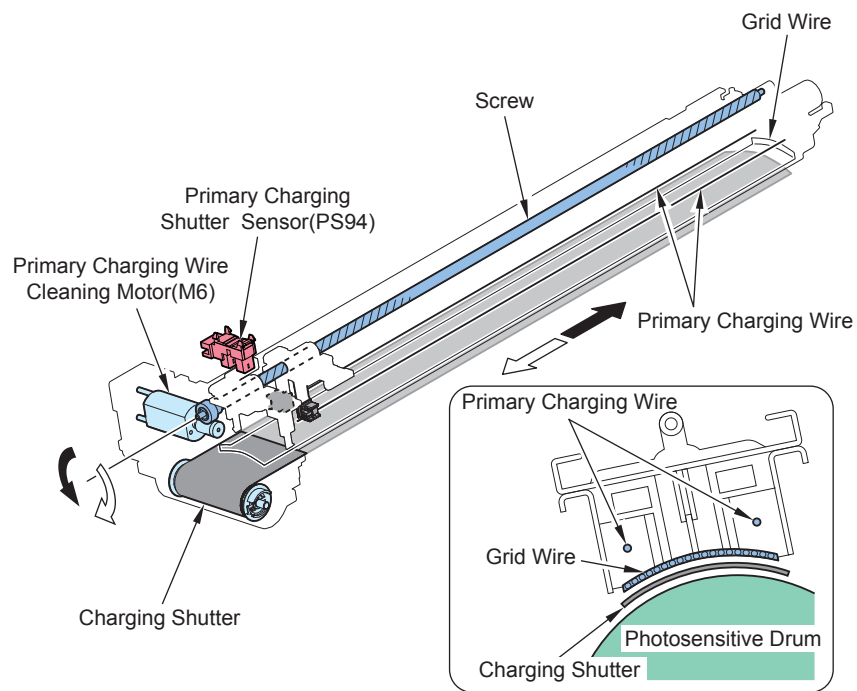
The shutter is open or closed by the cleaning mechanism of the Primary Charging Wire.

The Primary Charging Shutter is made of fiber and usually taken up by the bobbin.

The drive of the Primary Charging Wire Cleaning Motor (M6) moves the Cleaning Pad to the rear and the shutter taken up by the bobbin becomes extended to make the Shutter closed.

Because the Shutter comes between the Grid Wire and the Photosensitive Drum, discharge products from the Primary Charging Assembly do not reach the Photosensitive Drum.

The Primary Charging Shutter Position Sensor (PS94) detects opening/close of the shutter.



F-2-79

## &lt;Related error code&gt;

E060-0001 Primary Charging Shutter HP open error

E060-0002 Primary Charging Shutter HP close error

## ■ Developing

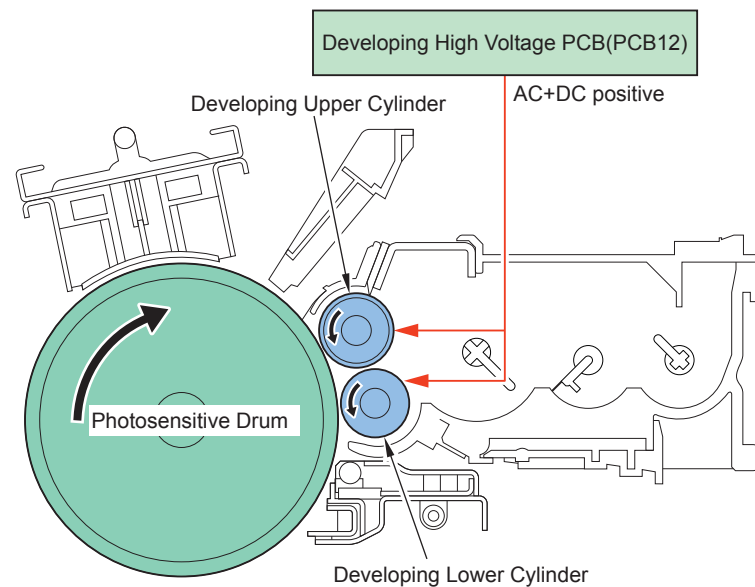
## ● Developing Bias Control

To form a toner image on the Photosensitive Drum by charging toner on the Developing Cylinder.

## &lt;Control description&gt;

The developing bias (AC, DC positive), which has been generated on the Develop High Voltage PCB (PCB12), is applied to the Developing Cylinder.

- Developing DC bias  
The bias to generate potential difference with the Photosensitive Drum.  
The bias value is determined based on the D-max control.
- Developing AC bias  
The bias to improve image quality.  
The bias value is fixed.



F-2-80

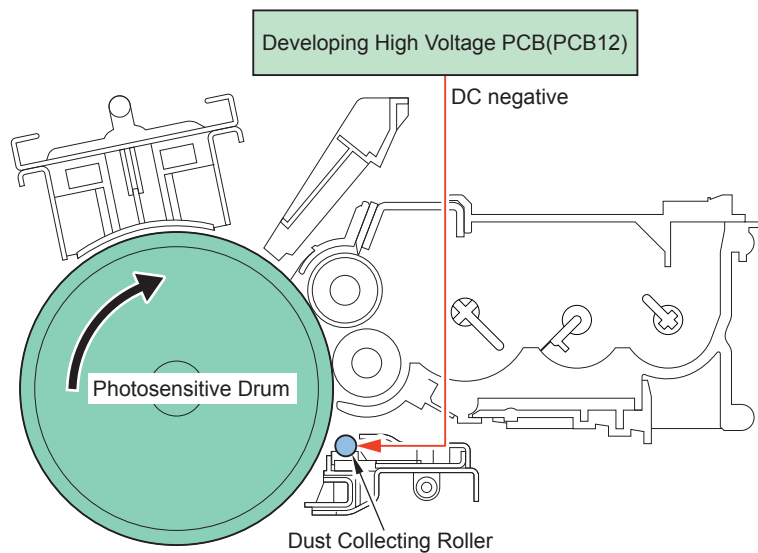
## ● Dust-collection Bias Control

To collect toner which floats over the Photosensitive Drum during developing process.

<Control description>

The dust-collection bias (DC negative), which has been generated on the Develop High Voltage PCB (PCB12), is applied to the Dust-collection Roller.

The bias value is fixed.



F-2-81

## ● Developing Supply Shutter Opening/Closing Mechanism

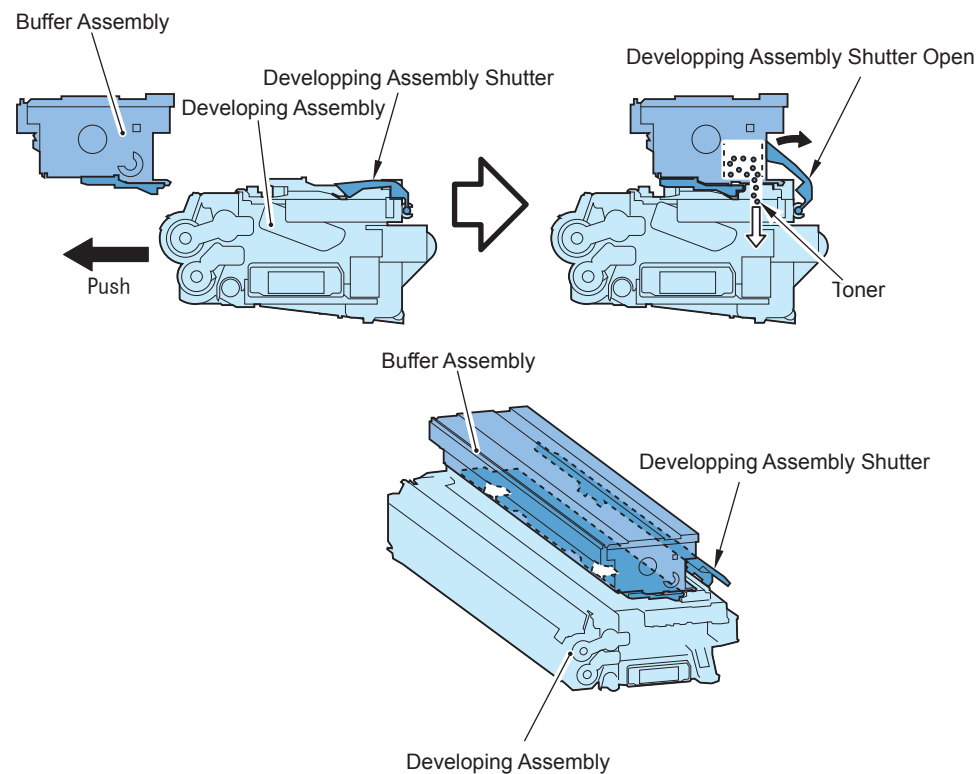
There are shutters at the Supply Mouths of the Developing Assembly and the Buffer Unit to prevent toner scattering.

The Developing Shutter and Buffer Shutter is opened/closed in conjunction with push-in and pull-out of the Developing Assembly.

<Opening and Closing Operations of the Developing Shutter>

By pushing the Developing Assembly in the main body, the Developing Shutter comes in contact with the Buffer Unit.

By pushing the assembly in farther, the Developing Shutter opens along the side of the Buffer Unit. By pulling the Developing Assembly out from the main body, the Developing Shutter closes by its own weight so the Supply Mouth is closed.



F-2-82

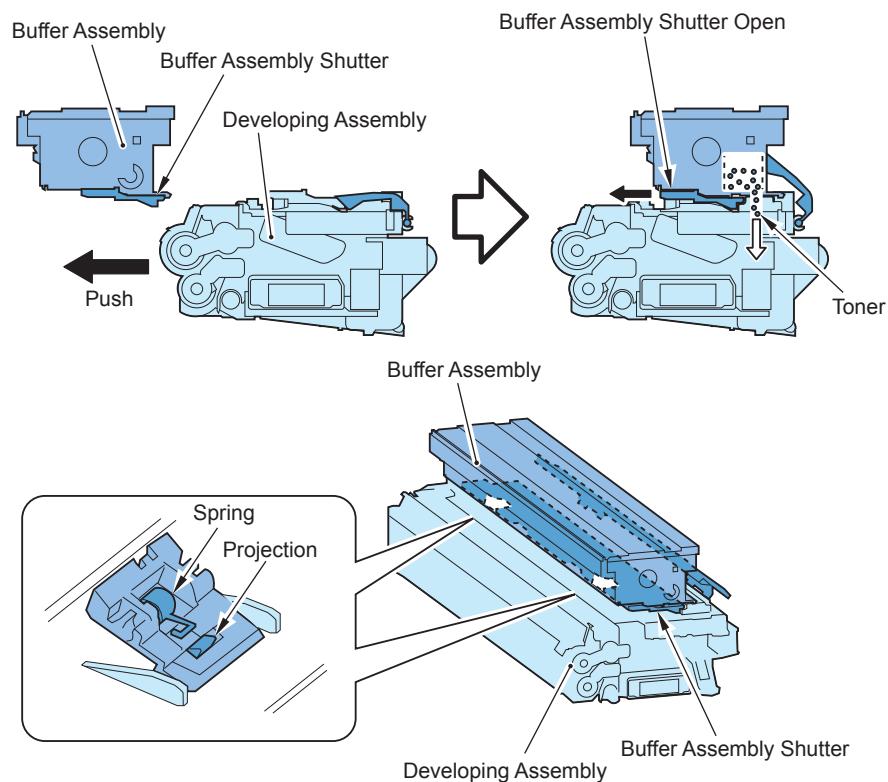
### <Opening and Closing Operations of the Buffer Shutter>

By pushing the Developing Assembly in the main body, edge of the Supply Mouth on the assembly hits to leading edge of the Buffer Shutter.

By pushing the assembly in farther, the Buffer Shutter moves to the rear so the Supply Mouth is opened.

The Shutter Arm goes down by spring pressure, and it interlocks with the protrusion on the Developing Shutter.

By pulling the Developing Assembly out, the Shutter Arm is pushed by the protrusion on the Developing Shutter, so the Buffer Shutter is closed followed by the Supply Mouth. The Shutter Arm lifts up by hitting to the bottom of the Hopper.



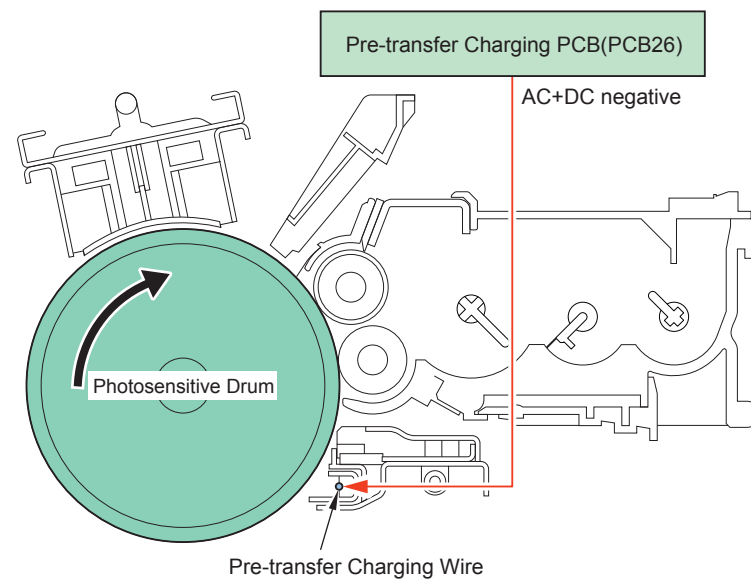
F-2-83

## Transfer

### Pre-transfer Charging Bias Control

To make the charging amount of toner on the Photosensitive Drum appropriate to improve transfer performance.

The pre-transfer charging bias (AC + DC negative), which has been generated on the Pre-transfer Charging PCB (PCB26), is applied to the Pre-transfer Charging Wire.



F-2-84

## ● Pre-transfer Charging Wire Cleaning Control

To prevent charging failure caused by soil of the Pre-transfer Charging Wire.

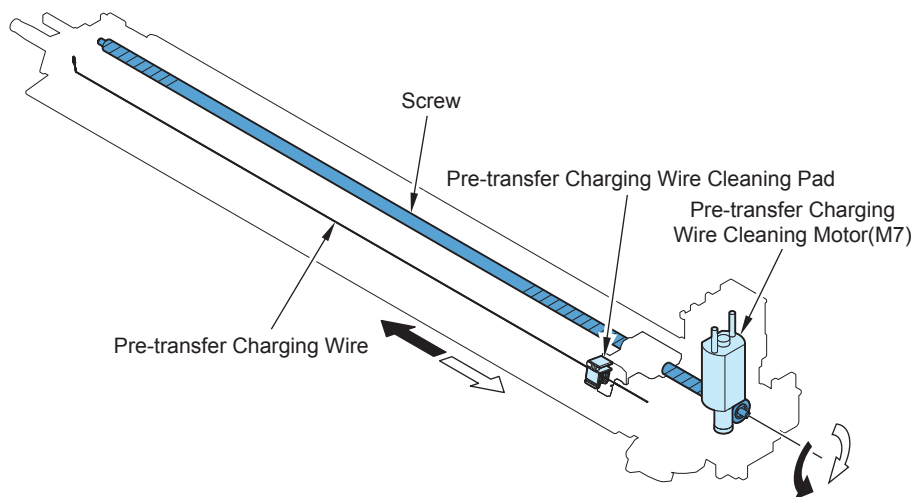
<Execution timing>

To be executed together with the primary charging wire cleaning control at the same time.

<Control description>

The drive of the Pre-Transfer Charging Wire Cleaning Motor (M7) makes the Cleaner Screw rotate clockwise/counterclockwise, which moves the Cleaning Pad back and forth to clean the Pre-transfer Charging Wire.

The Pre-transfer Charging Shutter Position Sensor ( ) detects position of the Cleaning Pad.



F-2-85

<Related service modes>

- To clean the Charging Wire (5-roundtrip)  
COPIER > FUNCTION > CLEANING > WIRE-CLN
- To check operation of the charging wire cleaning (1-roundtrip)  
COPIER > FUNCTION > CLEANING > WIRE-EX
- To specify cleaning interval of the last rotation charging wire (Default: every 2000 sheets (the interval can be changed within the range between 1000 and 5000 sheets))  
COPIER > OPTION > CLEANING > W-CLN-P

## ● Pre-transfer Charging Shutter Control

To prevent uneven potential on the Photosensitive Drum caused by discharge products (nitrogen oxide) accumulated on the Pre-transfer Charging Assembly.

<Execution timing>

To be executed together with the Pre-transfer charging wire cleaning control at the same time.

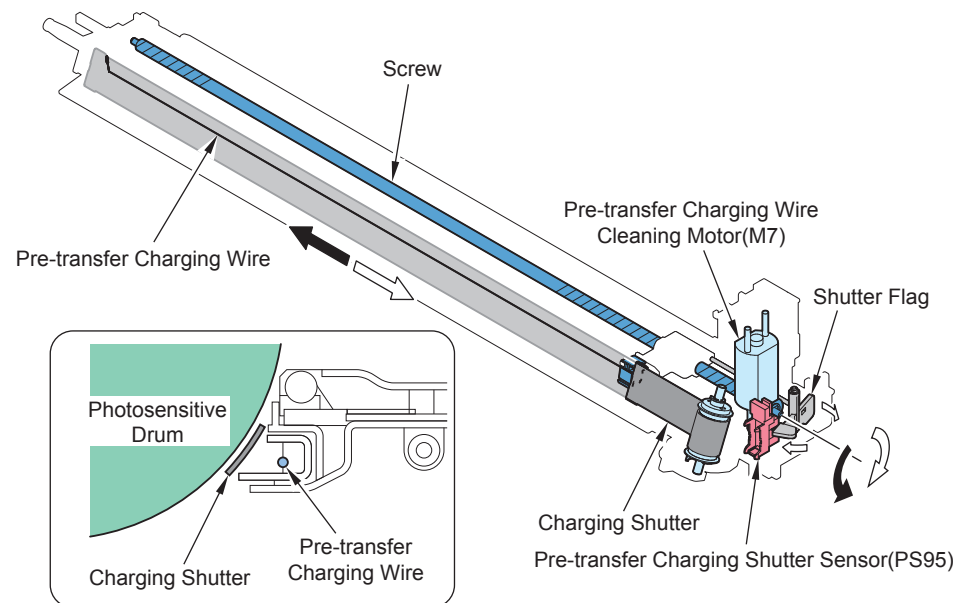
<Control description>

The shutter is opened or closed by the cleaning mechanism of the Pre-transfer Charging Wire.

The Pre-transfer Charging Shutter is made of fiber and usually taken up by the bobbin. The drive of the Pre-transfer Charging Wire Cleaning Motor (M7) moves the Cleaning Pad to the rear and the shutter taken up by the bobbin becomes extended to make the Shutter closed.

Because the Shutter comes between the Pre-transfer Charging Wire and the Photosensitive Drum, discharge products from the Primary Charging Assembly do not reach the Photosensitive Drum.

The Pre-transfer Charging Shutter Position Sensor (PS95) detects opening/close of the shutter.



F-2-86

## ● Transfer Bias Control

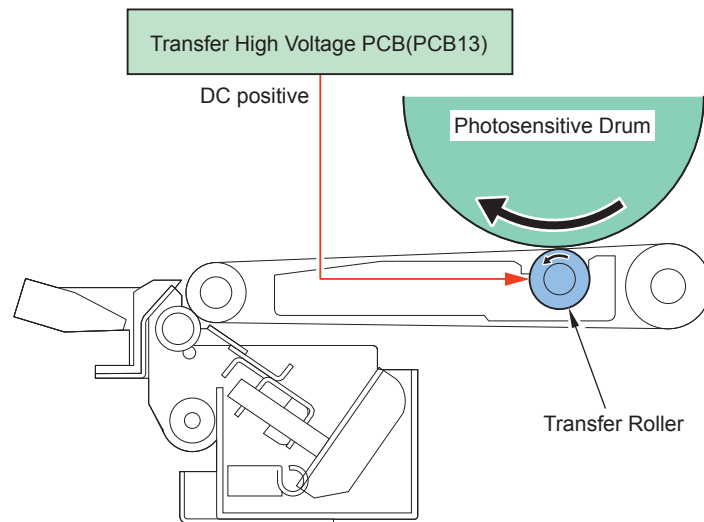
To transfer toner on the Photosensitive Drum to a paper.

The transfer bias (DC positive), which has been generated on the Transfer High Voltage PCB (PCB13), is applied to the Transfer Roller.

Following shows the 3 types of transfer bias:

- Print bias: the bias to be applied during printing
- Paper leading edge weak bias: the bias to be applied to the leading edge of the paper (to prevent failure in paper separation)
- Paper interval bias: the bias to be applied between sheets

The bias value is determined by the environment, the paper type and the mode table.



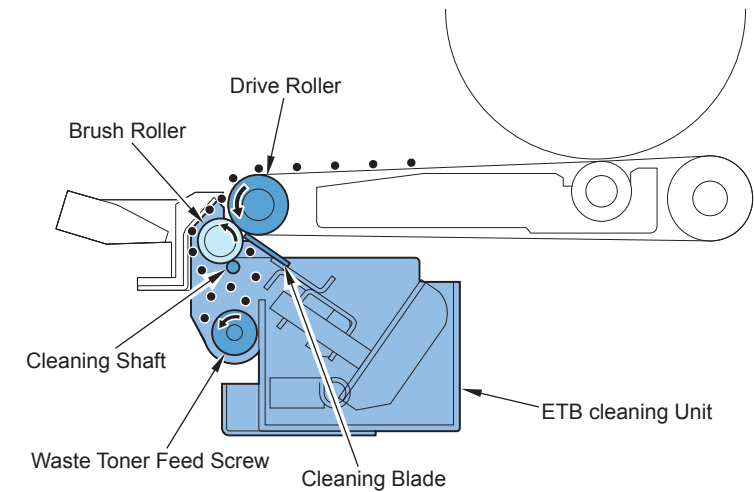
F-2-87

## ● ETB Cleaning Control

To prevent image failure caused by toner soil on the ETB, the residual toner on the Transfer Belt is removed.

<Control description>

- 1) The ETB Cleaning Blade scrapes toner on the ETB.
- 2) The scraped toner is fed to the Waste Toner Container.



F-2-88

<Related service mode>

- To clean the ETB (3-round idle rotation of the ETB)  
COPIER > FUNCTION > CLEANING > TBLT-CLN

## ETB Engagement/Disengagement Control

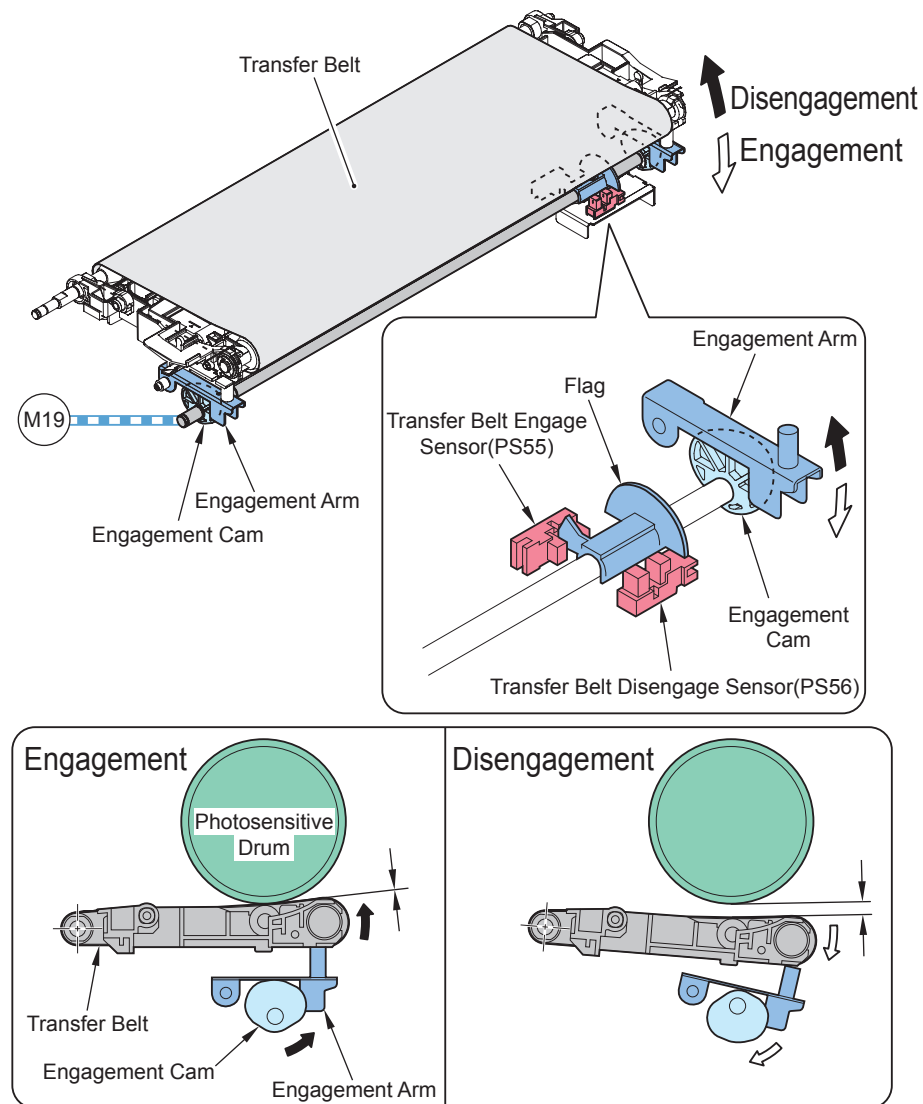
To prevent image failure caused by toner soil on the ETB, the ETB is engaged or disengaged with the Photosensitive Drum.

<Execution timing>

- To make the belt engaged: during printing
- To make the belt disengaged: any timing other than the above

<Control description>

- 1) Reverse rotation of the Duplex Feed Left Motor (M19) makes the Disengagement Cam rotate.
- 2) Rotation of the Disengagement Cam moves the Disengagement Arm up and down to make the Transfer Belt engaged/disengaged with the Photosensitive Drum.
- 3) Following 2 sensors detect position of the Transfer Belt.
  - Transfer Belt Engage Sensor (PS55): to detect engagement of the Transfer Belt
  - Transfer Belt Disengage Sensor (PS56): to detect disengagement (home position) of the Transfer Belt.



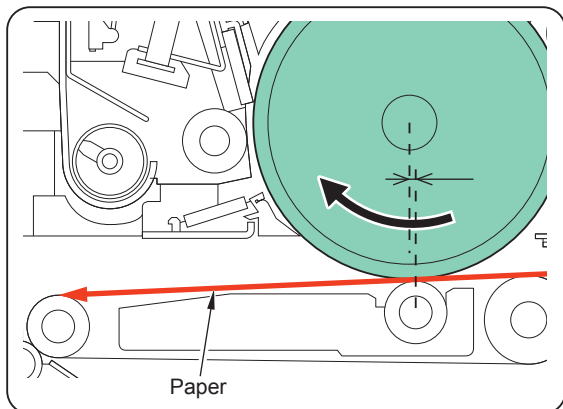
F-2-89

## ■ Separation

### ● Separation Control

<Separation from the Drum>

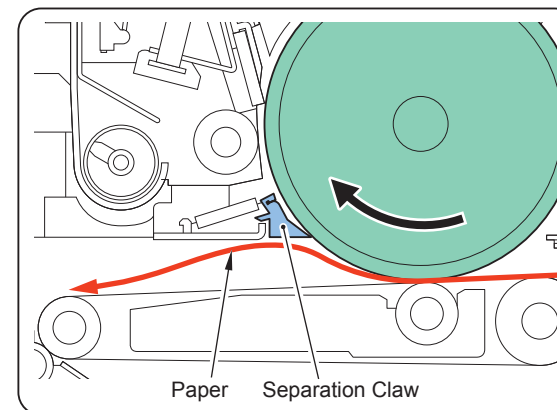
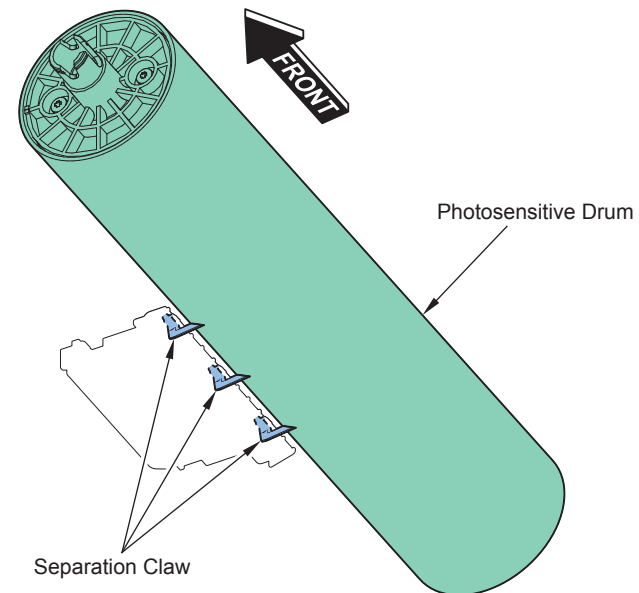
Separation is performed using the curvature separation method.



F-2-90

#### NOTE:

The Separation Claw separates sheets before entering the Drum Cleaning Unit. This effectively avoids failure in paper feed (double feed, etc.)

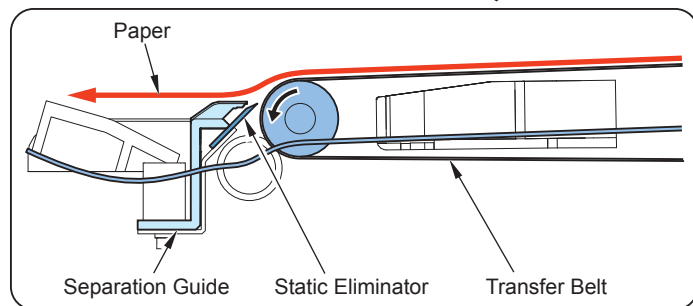
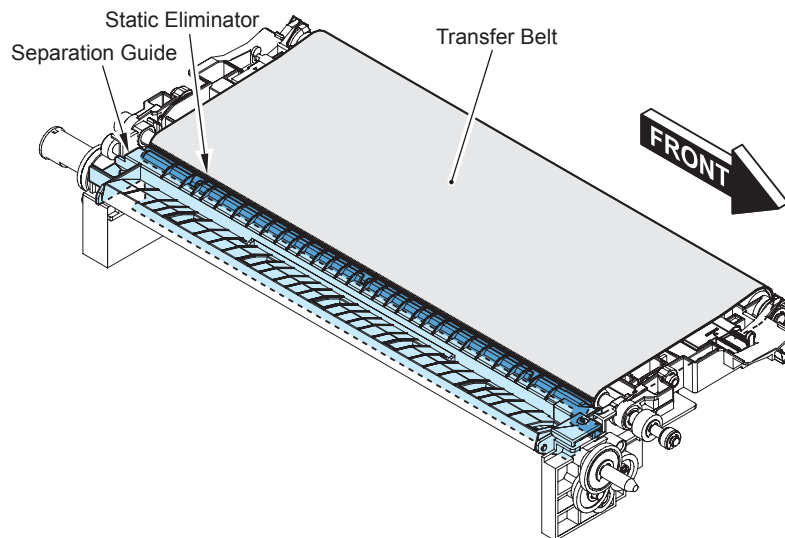


F-2-91

<Separation from the ETB>

Separation is performed using the curvature separation method and the Static Eliminator.

There is no bias for separation.



F-2-92

## ● Separation Claw Reciprocation Control

By moving the Separation Claw back and forth (reciprocation), scar on the drum caused by the Separation Claw can be prevented.

<Execution Timing>

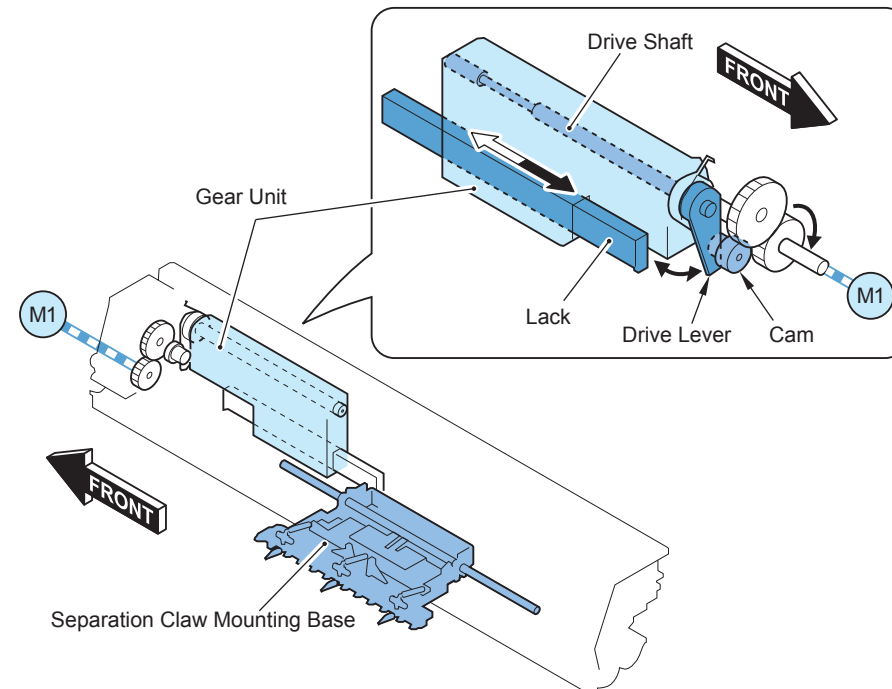
During printing (while the Developing Motor is driving)

<Control Description>

Making the Separation Claw move back and forth by transmitting the rotation force of the Developing Motor Drive via the cam and Gear Unit.

Reciprocation width: +/-25mm

- 1) The drive of the Developing Drive Motor makes the cam rotate.
- 2) The Drive Lever moves in a pendulum motion by the rotation of the cam, which makes the Drive Shaft rotate. (With the one-way bearing, the Drive Shaft rotates in only one direction.)
- 3) Making the Lack move back and forth by transmitting the rotating motion of the Drive Shaft via the Gear Unit. The Separation Mounting Base linked with the Lack moves back and forth.





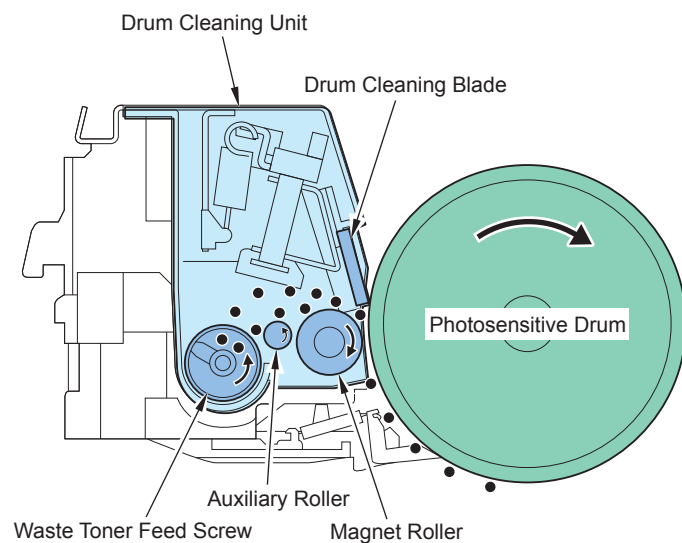
## ■ Drum Cleaning

### ● Drum Cleaning Control

The blade, which is in contact with the Drum, removes residual toner and paper dust on the Photosensitive Drum.

<Control description>

- 1) The drive of the Main Motor (M2) makes the Magnet Roller rotate.
- 2) The Magnet Roller forms a thin toner coating layer on the surface of the Photosensitive Drum.
- 3) The Drum Cleaning Blade scrapes residual toner on the surface of the Drum.
- 4) The Toner Collection Feeding Screw feeds the scraped waste toner to the Waste Toner Container.



F-2-94

### ● Separation Bias Control

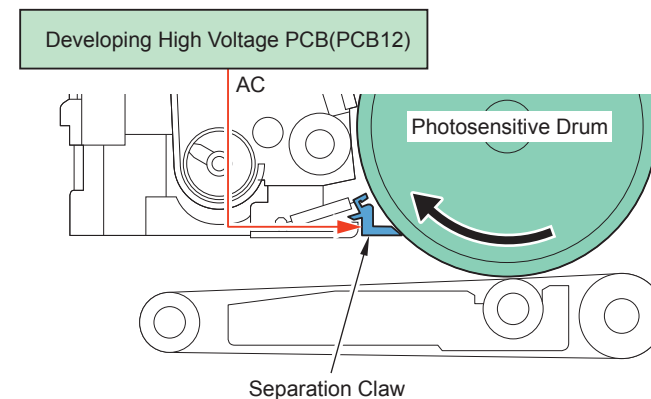
To prevent image soil caused by toner accumulated on the Drum Separation Claw, this control prevents attachment of toner on the Photosensitive Drum with the Drum Separation Claw.

<Execution timing>

When the developing bias is applied

The separation claw bias (AC), which has been generated on the Develop High Voltage PCB (PCB12), is applied to the Separation Claw so that vibration is given to the Separation Claw to prevent toner attachment.

The bias value is fixed.



F-2-95

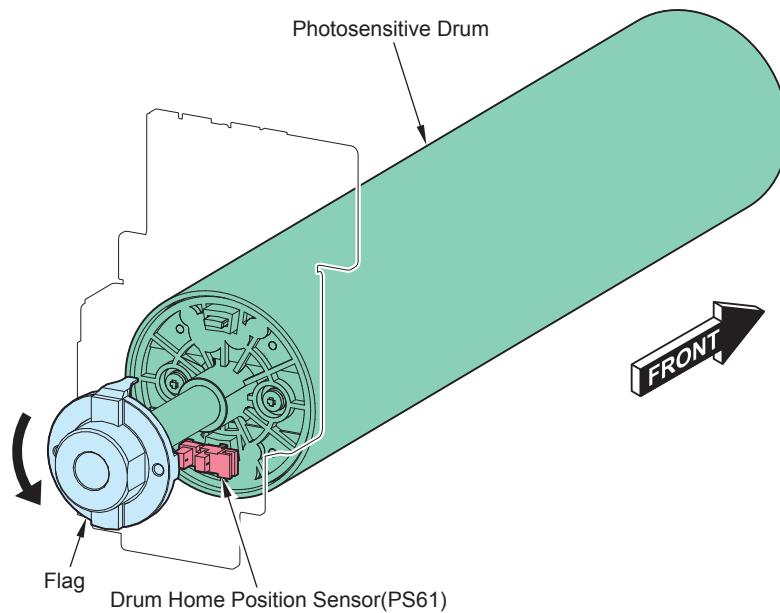
## ■ Drum-related Issues

### ● Drum HP Detection

To detect home position of the Photosensitive Drum.

There is a flag for HP detection on the shaft of the Photosensitive Drum. Once the Photosensitive Drum starts rotating, the flag passes through the Drum HP Sensor (PS61) and the home position of the Photosensitive Drum is detected.

This control is used during the D-max control, the D-half control and the 2D shading control.



F-2-96

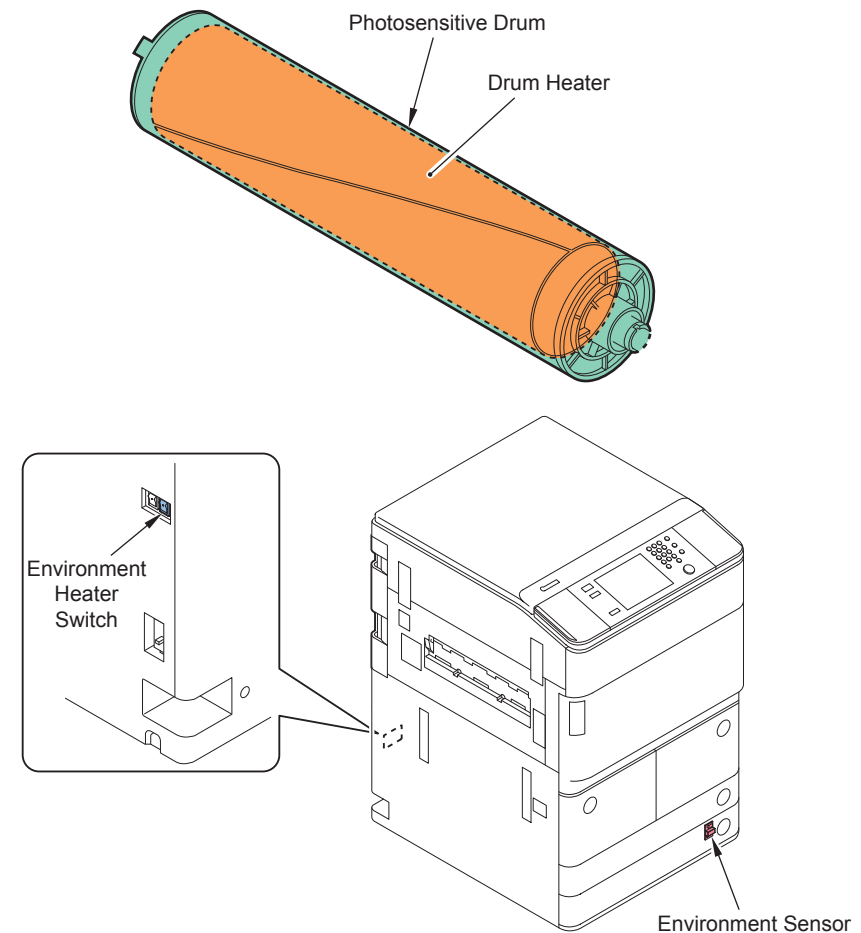
### ● Drum Heater Control

To make potential characteristic for charging or exposure stable by keeping the specified temperature of the Photosensitive Drum.

The Drum Heater is the flat heater located inside the Photosensitive Drum to keep moisture content on the surface of the Photosensitive Drum constant by turning ON the heater.

#### NOTE:

Temperature of the drum is detected by the Thermistor in the Drum Control PCB, and is controlled by turning ON/OFF the Drum Heater to make it 42 degC



F-2-97

<Operating condition>

Operating condition of the heater differs according to the status of the Environment Switch and the host machine.

A.2-dimensional shading OFF(default \*1)

<Environment Switch: OFF>

Mode		Main Power OFF		Sleep mode (low energy consumption) *3		Sleep mode (high energy consumption) *3		WarmUp (Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Environment control *1	Environment control *1	ON	ON
	Cassette	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

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<Environment Switch: ON>

Mode		Main Power OFF		Sleep mode (low energy consumption) *3		Sleep mode (high energy consumption) *3		WarmUp (Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	Environment control *1	Environment control *1	Environment control *1, *2	Environment control *1, *2	Environment control *1, *2	Environment control *1, *2	OFF	OFF	Environment control *1	Environment control *1	ON	ON
	Cassette	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

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\*1It can be switched by COPIR > OPTION > IMG-LSR > 2D-SHADE..

\*2It can be switched by COPIR > OPTION > IMG-MCON > DRM-H-SW.

\*3When sleep mode (high energy consumption) is set, the Cassette Heater/Reader Heater cannot be turned ON although the Environment Switch and the Cassette Heater Switch are ON.

When using the Cassette Heater and the Reader Heater at sleep state, set the sleep mode (low energy consumption).

Settings/Registration > Preferences > Timer/Energy Settings > Sleep Mode Energy Use > High/Low

## B.2-dimensional shading ON \*1]

&lt;Environment Switch: OFF&gt;

Mode		Main Power OFF		Sleep mode (low energy consumption) *3		Sleep mode (high energy consumption) *3		WarmUp (Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON *1	ON *1	ON	ON
	Cassette	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

T-2-37

&lt;Environment Switch: ON&gt;

Mode		Main Power OFF		Sleep mode (low energy consumption) *3		Sleep mode (high energy consumption) *3		WarmUp (Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	ON *1	ON *1	ON *1	ON *1	ON *1	ON *1	OFF	OFF	ON *1	ON *1	ON	ON
	Cassette	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

T-2-38

\*1It can be switched by COPIR &gt; OPTION &gt; IMG-LSR &gt; 2D-SHADE..

\*2It can be switched by COPIR &gt; OPTION &gt; IMG-MCON &gt; DRM-H-SW.

\*3When sleep mode (high energy consumption) is set, the Cassette Heater/Reader Heater cannot be turned ON although the Environment Switch and the Cassette Heater Switch are ON.

When using the Cassette Heater and the Reader Heater at sleep state, set the sleep mode (low energy consumption).

Settings/Registration &gt; Preferences &gt; Timer/Energy Settings &gt; Sleep Mode Energy Use &gt; High/Low

## &lt;Environment Control&gt;

Environment control 1: The condition of the heater at the time of turning OFF the main power continues.

Environment control 2: Whether to turn ON or OFF the heater is determined by the environment (moisture content) right before moving to sleep state, and the condition continues while the power is OFF or the machine is at sleep state.

Environment	Moisture content	Temperature/Humidity	Drum Heater
1	0.86	23 deg C 5%	OFF
2	1.73	23deg C 10%	
3	5.8	23 deg C 30%	
4	8.9	23 deg C 50%	
5	15	23 deg C 70%	ON
6	18	27 deg C 80%	
7	12.41	30 deg C 80%	

T-2-39

Environment control 3: Basically the heater is ON. ON or OFF of the heater can be switched depending on the moisture contents when the duration time of standby mode/energy saving mode is long (4 hours at minimum).

## &lt;Related service modes&gt;

COPIER > OPTION > IMG-MCON > DRM-H-SW: To set ON/OFF of the Drum Heater.

0: Normal mode (ON/OFF of the Drum Heater is determined when moving to sleep 1.) (Default)

1: Drum Heater ON mode \*(The Drum Heater must be turned ON when moving to sleep 1 while the 2-dimensional shading-related control is OFF.)

2: Energy saving mode (The Drum Heater is OFF when moving to sleep 1.)

\* The mode differs from 2-dimensional shading ON (image priority mode). This mode is for users who just want to turn ON the Drum Heater when startup time is delayed because of the increase of controls due to 2-dimensional shading ON.

COPIER > OPTION > IMG-LSR > 2D-SHADE: Image priority mode (2-dimensional shading).

ON/OFF

0: 2-dimensional shading OFF (Default)

1: 2-dimensional shading ON (The Drum Heater is turned ON at first time for the day, sleep, standby/energy saving, potential control, and 2-dimensional shading.)

## ■ Toner Supply Area

## ● Toner Container Detection

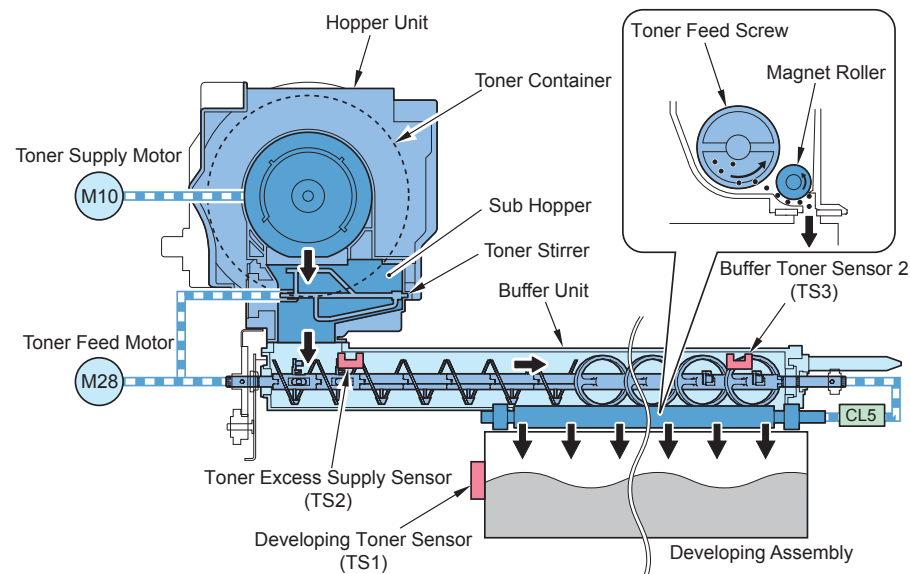
Toner Container detection is not performed with this machine.

## ● Toner Level Detection/Toner Supply Control

## Toner Supply Control

To supply toner in the Toner Container to the Developing Assembly.

The Magnet Roller helps toner supplied to the Developing Assembly uniformly in the longitudinal direction to form an even toner layer in the Developing Cylinder



F-2-98

Title	Description	Supply timing	Operation of the host machine
Supply to the Hopper	Toner in the Toner Container is supplied to the Buffer Unit.	When the Buffer Toner Sensor (TS3) detects absence of toner	To drive the Toner Supply Motor (M10). To be executed until TS3 detects presence of toner.
Supply to the Developing Assembly	Developer in the Buffer Unit is supplied to the Developing Assembly.	When the Developing Toner Sensor (TS1) detects absence of toner	To drive the Toner Feed Motor (M28). To be executed until TS1 detects presence of toner.

T-2-40

**NOTE:**

The Toner Excess Supply Sensor (TS2) detects amount of toner around the Buffer Inlet. If toner is supplied excessively from the Sub Hopper to the Buffer Unit (if there are toner clusters), toner in the Buffer may overflow.

If TS2 detects presence of toner, regardless of presence/absence detection of toner by TS3, the Toner Supply Motor (M10) is stopped so that toner supply to the Buffer is stopped to prevent toner leak

## &lt;Related error code&gt;

E020-0000 : Developing Assembly toner absent error

E020-0001 : Error in Developing Toner Sensor connection detection

E020-0002 : Error in Buffer Toner Sensor connection detection

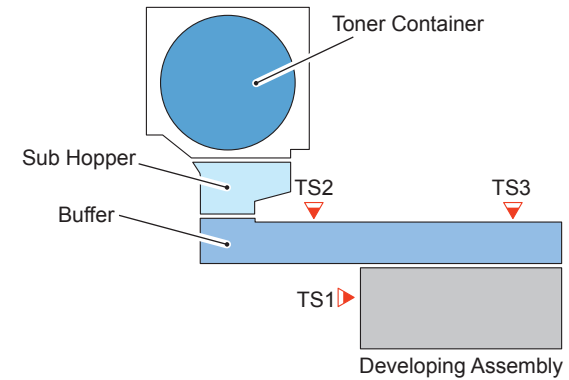
E020-0003 : Error in the Toner Excess Supply Sensor connection detection

E020-0004 : Error in Magnet Roller Clutch connection detection

E020-0020 : Error in Developing Assembly Toner Sensor Cleaning Scraper displacement (toner absence)

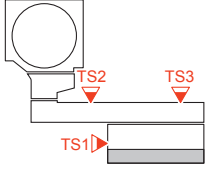
E020-0021 : Error in Developing Assembly Toner Sensor Cleaning Scraper displacement (toner presence)

## Toner Level Detection:



F-2-99

Toner level	Status	Message	Operation
100 to 25%		No	When TS3 detects absence of toner, the Toner Supply Motor (M10) is driven. Once TS3 detects presence of toner, M10 is stopped (to prevent toner leak).
25 to 10%		No	When TS3 detects absence of toner, the Toner Supply Motor (M10) is driven. Once TS3 detects presence of toner, M10 is stopped (to prevent toner leak).
10 to 5%		Replace the toner cartridge. (Continuous printing is enabled.)	In the case that toner presence failed to be detected 90 sec after the drive of M10 has been started, a message is displayed in the bottom of Control Panel because the system determines that there is no toner in the Toner Container. This state continues during printing and the Toner Container can be replaced during printing. After the Toner Container is replaced, the toner level returns to 100%.

Toner level	Status	Message	Operation
5% or less		Replace the toner cartridge. (Job is stopped.)	After "Replace the toner cartridge." message is displayed, and approx. 900 sheets *) are printed, toner stops to be supplied to the Developing Assembly and the message prompting to replace the Toner Container is displayed on the whole screen of Control Panel. After the Toner Container is replaced, the toner level returns to 100%.

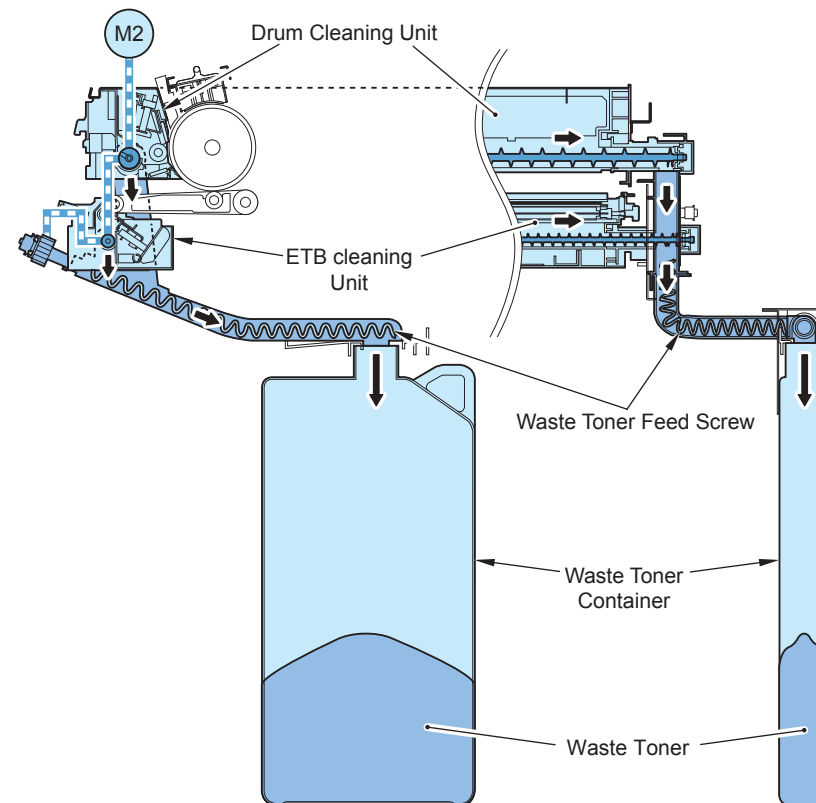
T-2-41

\*) The number 900 sheets is a logical value derived from calculation; thus, it varies approx. 30%. In addition, with Service Mode > COPIER > OPTION > FNC-SW > T-RUN-LV, approx. 140 sheets can be printed (with 30% of variation).

## ■ Waste Toner Feeding Area

### ● Waste Toner Full Level Detection

The waste toner of the Drum Cleaning Unit and the ETB Unit is fed to the Waste Toner Container. There is no sensor to detect toner level in the Waste Toner Container and the toner level is detected by the video count (1-count per 1 sheet with 6% image).



F-2-100

This machine performs the following controls.

1. "Black band control" in order to maintain the drum cleaning performance
2. "Low duty discharge control" in order to maintain the density stability in the case of continuous output of low duty image

Therefore the criterion of the full Waste Toner Container varies according to the environment and the image duty as shown in the following table.

Temperature/ Humidity	Moisture content	Image duty (%)					
		0 to less than 1.0	1.0 to less than 2.0	2.0 to less than 3.0	3.0 to less than 4.0	4.0 to less than 5.0	5.0 to 6.0
23 deg C / 5%	0.86	250,000 pages	1,000,000 pages	800,000 pages	700,000 pages	600,000 pages	
23 deg C / 10%	1.73						
23 deg C / 30%	5.8						
23 deg C / 50%	8.9						
27 deg C / 70%	15	100,000 pages	250,000 pages	600,000 pages			500,000 pages
28 deg C / 75%	18		120,000 pages	150,000 pages	300,000 pages	500,000 pages	
30 deg C / 80%	21.6		100,000 pages		150,000 pages	200,000 pages	

T-2-42

Status	Waste toner level	Operation
Warning for full level of waste toner	Approx. 83% of the full criterion	Printing can be continued
Full level of waste toner	Full criterion	Host machine is stopped(error display)

T-2-43

The Drive Gear escapes when a certain load is applied to the Waste Toner Feeding Screw and an error is displayed after the Host Machine has been stopped.

## ● Waste Toner Feed Screw Lock Detection

To detect lock state of the Waste Toner Feed Screw.

The drive by the Developing Motor (M2) is transmitted to the Screw Gear, which makes the Waste Toner Screw rotate. When this Screw Gear becomes unable to rotate, it slides sideways by the transmitted drive force.

The Screw Gear fails to rotate once the Waste Toner Screw is locked; therefore, the transmitted drive force makes the Screw Gear slide sideways. The Waste Toner Lock Detection Switch (SW5) is placed by the side of the Screw Gear and SW5 is pressed when the Screw Gear is moved. With this mechanism, it is detected that the Waste Toner Screw is locked.

<Related error code>

E013-0001 Error in Waste Toner Lock Detection Connector disconnection

E013-0002 Error in Waste Toner Feed Screw Lock detection

## ● Waste Toner Container Detection

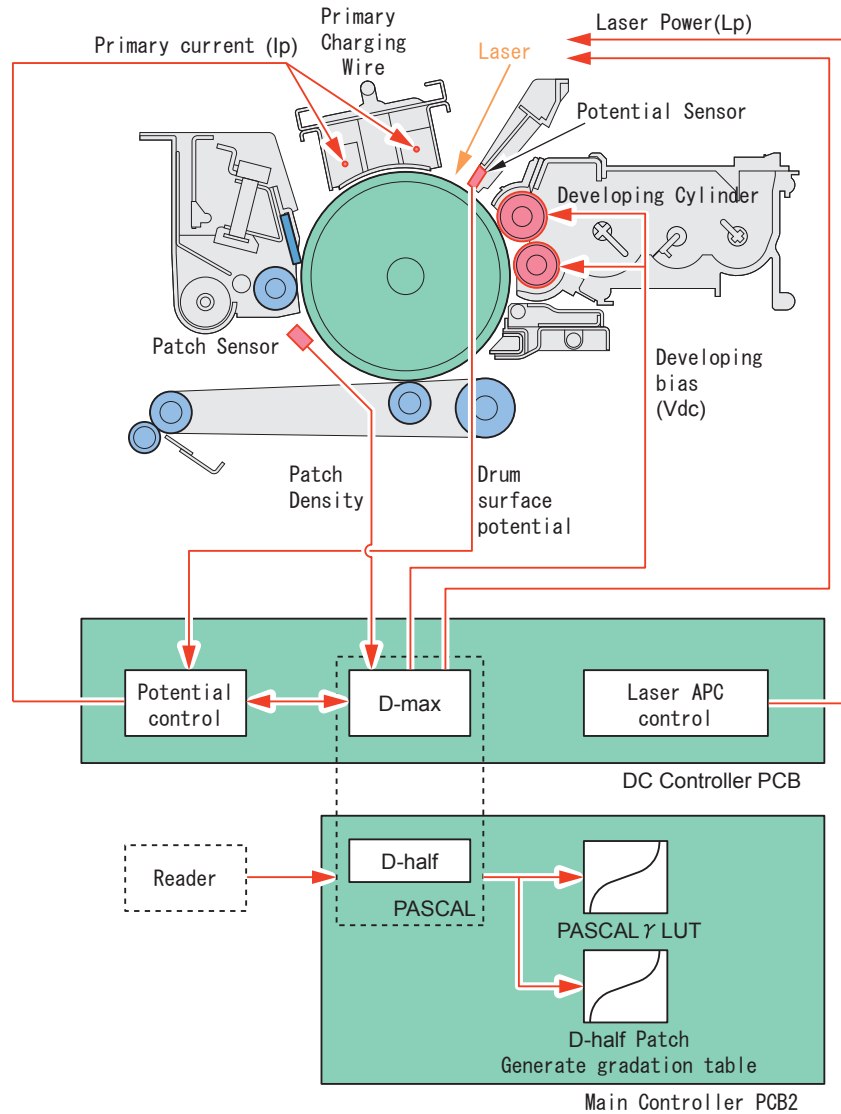
The Waste Toner Container detection is not performed with this machine.



## Image Stabilization Control

### Overview

This control prevents image failure due to change of the environment or deterioration of the Photosensitive Drum to ensure stabilized print.



F-2-101

## ● Execution Timing

Execution items for image stabilization control differ according to the environment and condition of image formation parts. Following shows the control items at each sequence.

\*70 deg C or lower in the fixing temperature, \*\*60 sec.70 deg C or lower in the fixing temperature, \*\*\*Fixing temperature remaining high at power OFF/ON

Control	Standard duration (second) Approx.	Timing												Remarks
		Warm-up rotation					Initial rotation	Paper interval	Interruption		Last rotation	Arbitrary		
		At startup*	Normal startup**	power OFF/ON***	Door open	Jam recovery			Forcible interruption at 2,000 sheets	Low duty ejection	Normal	PASCAL (Full correction)	PASCAL (Quick correction)	
Full Potential Control	8	○	×	×	×	×	(○)*2	×	(○)*3	×	(○)*1	○	○	*1 Operation Criteria Last rotation after the first job right after startup first time for the day takes 10 minutes or longer Last rotation after processing 1,500 sheets or more following the last potential control execution Last rotation after the first job following 90 minutes or more elapsed from the last potential control execution *2 Operation Criteria Every initial rotation for the job that start within 10 minutes after density judgment at normal startup mode (60 seconds startup) Initial rotation for the first job that starts after more than 10 minutes have passed from density judgment at normal startup mode (60 seconds startup) *3 Operation Criteria Forcible interruption when the accumulated value of the paper interval VL correction value exceeds 10V within 10 minutes after density judgment at normal startup mode (60 seconds startup)
APC Correction at Paper Interval	0.2	×	×	×	×	×	×	○ *5	×	×	×	×	×	*5 At every 20-sheet interval
APC Control at Warm-up Rotation	2	×	×	×	×	×	(○)*6	×	×	×	×	×	×	*6 Operation Criteria Initial rotation after the first job following 60 minutes or more elapsed from the last job completion
APC Correction at Last Rotation	2	×	×	×	×	×	×	×	×	×	(○)*7	×	×	*7 Operation Criteria Last rotation after the first job following 30 minutes or more elapsed from the last job completion
Drum Idle Rotation at First in the Day	60.0	○	×	×	×	×	×	×	×	×	×	×	×	
Charging Wire Cleaning	30	×	×	×	×	×	×	×	(○)*8	×	(○)*8	×	×	*8 Operation Criteria Last rotation after 1,500 sheets or more processed following the last Charging Wire cleaning execution Forcibly interruption at 2,000 sheets or more processed following the last Charging Wire cleaning execution

Control	Standard duration (second) Approx.	Timing											Remarks	
		Warm-up rotation					Initial rotation	Paper interval	Interruption		Last rotation	Arbitrary		
		At startup*	Normal startup**	power OFF/ ON***	Door open	Jam recovery			Forcible interruption at 2,000 sheets	Low duty ejection	Normal	PASCAL (Full correction)		PASCAL (Quick correction)
D-max Control* (including the belt background correction)	20	(○)*9	(○)*9	×	×	×	×	×	×	×	(○)*9	○	○	*9 Perform this control together at the time of potential control. When specified by service technician (user) at startup (in 2-dimensional shading) At last rotation after 6,000 sheets or more processed following the last D-max control execution
D-half Control* (including the belt background correction)	18	(○)*10	(○)*10	×	×	×	×	×	×	×	(○)*10	○	○	*10 Operation Criteria (performed together at the time of potential control / D-max control) When specified via service technician (user) at startup (in 2-dimensional shading mode) At last rotation after 6,000 sheets or more processed following the last D-max control execution
LED Intensity Correction / Belt Background Correction	3.5	○	○	×	○	○	×	×	×	×	×	×	×	
Idle Rotation at First in the Day	15 to 30	○	○	○	○	○	×	×	×	×	×	×	×	To stabilize toner toribology after long idle time
Low Duty Ejection	-	×	×	×	×	×	×	×	×	○	○	×	×	- To prevent toner deterioration during continuous Low DUTY image printing
Blank Band Control	*11	×	×	×	×	×	×	×	×	○	○	×	×	*11 When the predefined sheets were printed
Idle Rotation at First in the Day (H/H environment)	15(30)	(○)*12	○	×	×	×	×	×	×	×	×	×	×	*12Only when the environment is in high temperature / humidity
Contrast Potential Correction at Startup	1	×	○	×	×	×	×	×	×	×	×	×	×	
Disengagement of Transfer Unit	1	○	○	○	○	○	○	×	○	○	○	○	○	At jam recovery / after patch generation / at job completion
Weak Bias Control at Leading Edge		×	×	×	×	×	○	○	×	×	×	×	×	

T-2-44

## Potential Control

Perform the following controls according to the deterioration level of the Photosensitive Drum and the environmental change.

### 1. VD control

The primary current value ( $I_p$ ) is determined to become the target dark area potential (VD).

### 2. VL control

The laser power (LP) is determined to become the target bright area potential (VL).

### 3. Vdc control

Developing bias is determined by adding the "fogging removal potential (Vback)" (based on the environment) to the bright area potential (VL).

### Execution timing

- Last rotation after the first job right after startup first time for the day takes 10 minutes or longer
- Last rotation after processing 1,500 sheets or more following the last potential control execution
- Last rotation after the first job following 90 minutes or more elapsed from the last potential control execution
- Last rotation after the first job right after startup first time for the day takes 10 minutes or longer
- Every initial rotation for the job that start within 10 minutes after density judgment at normal startup mode (60 seconds startup)
- Initial rotation for the first job that starts after more than 10 minutes have passed from density judgment at normal startup mode (60 seconds startup)
- Forcible interruption when the accumulated value of the paper interval VL correction value exceeds 10V within 10 minutes after density judgment at normal startup mode (60 seconds startup).

#### NOTE:

At normal startup mode (60 sec. startup), simple potential control is executed to shorten the startup time (see Auxiliary Control > Simple Potential Control)

#### <Control description>

##### 1. VD control

1) The primary current ( $I_{p\_Target\_Pre}$ ), which has been determined in the last potential control<sup>1</sup>, is applied and the Potential Sensor measures drum surface potential ( $VD\_Pre$ ).

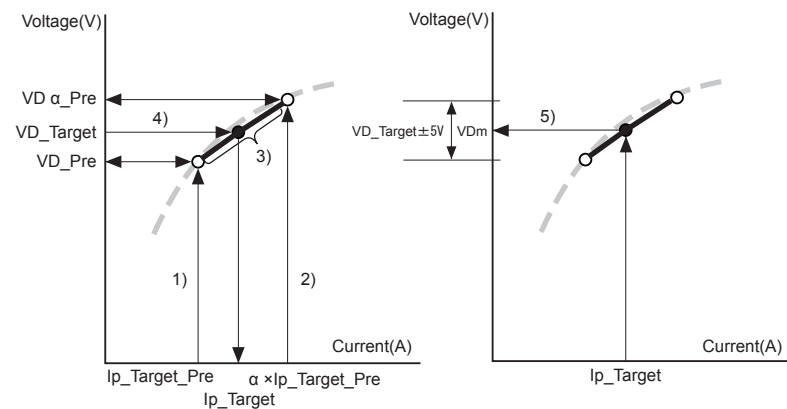
\*1: At the time of installation, the primary current adjusted in the factory is applied.

2) The drum surface potential ( $VD\_Pre$ ) and the target potential ( $VD\_Target$ ) are compared to apply the primary current ( $\alpha \times I_{p\_Target\_Pre}$ ), which makes the target potential ( $VD\_Target$ ) to be in range between the drum surface potential ( $VD\_Pre$ ) and the drum surface potential ( $VD\alpha\_Pre$ ), and then the drum surface potential ( $VD\alpha\_Pre$ ) at that moment is read.

3) The 2 points of measured dark area potentials are connected with a straight line to calculate dark area potential characteristics.

4) Based on the obtained dark area potential characteristics, the primary current ( $I_{p\_Target}$ ) is calculated, which can obtain the target potential ( $VD\_Target$ ).

5) The calculated primary current is applied and this operation is repeated until the drum surface potential ( $VD_m$ ) is within the range of the target potential  $\pm 5V$ . Potential measurement is executed up to 8 times and correction is executed up to 8 times.



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[When the drum surface potential ( $VD_m$ ) is not as follows:  $-5V \leq \text{target potential} \leq +5V$ ]  
Potential control error (VD) "E061-0101" occurs.

## 2. VL control

1) The laser power (LP\_Target\_Pre), which has been determined in the last bright area potential control<sup>1</sup>, is applied and the Potential Sensor measures the drum surface potential (VL\_Pre).

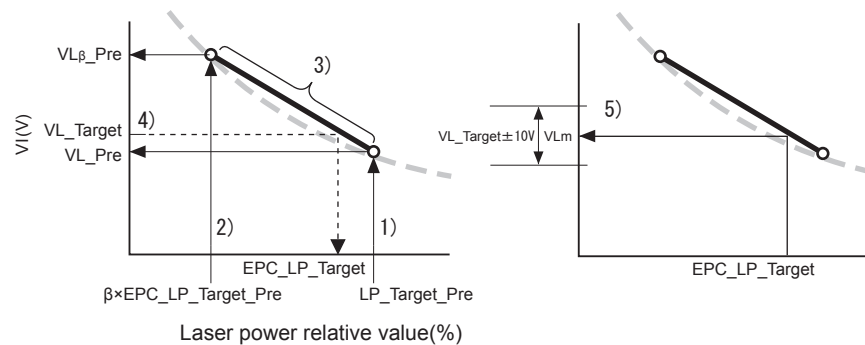
\*1: At the time of installation, the primary current adjusted in the factory is applied.

2) The drum surface potential (VL\_Pre) and the target potential (VL\_Target) are compared to apply the primary current ( $\beta \times \text{EPC\_LP\_Target\_Pre}$ ), which makes the target potential (VL\_Target) to be in range between the drum surface potential (VL\_Pre) and the drum surface potential ( $\text{VL}\beta\text{\_Pre}$ ), and then the drum surface potential ( $\text{VL}\beta\text{\_Pre}$ ) at that moment is read.

3) The 2 points of measured bright area potentials are connected with a straight line to calculate the bright area potential characteristics.

4) Based on the obtained bright area potential characteristics, the laser power (EPC\_LP\_Target) is calculated, which can obtain the target potential (VL\_Target).

5) The Drum is exposed with the calculated laser power and this operation is repeated until the drum surface potential (VLm) is within the range of the target potential  $\pm 10\text{V}$ . Potential measurement is executed up to 8 times and correction is executed up to 8 times.



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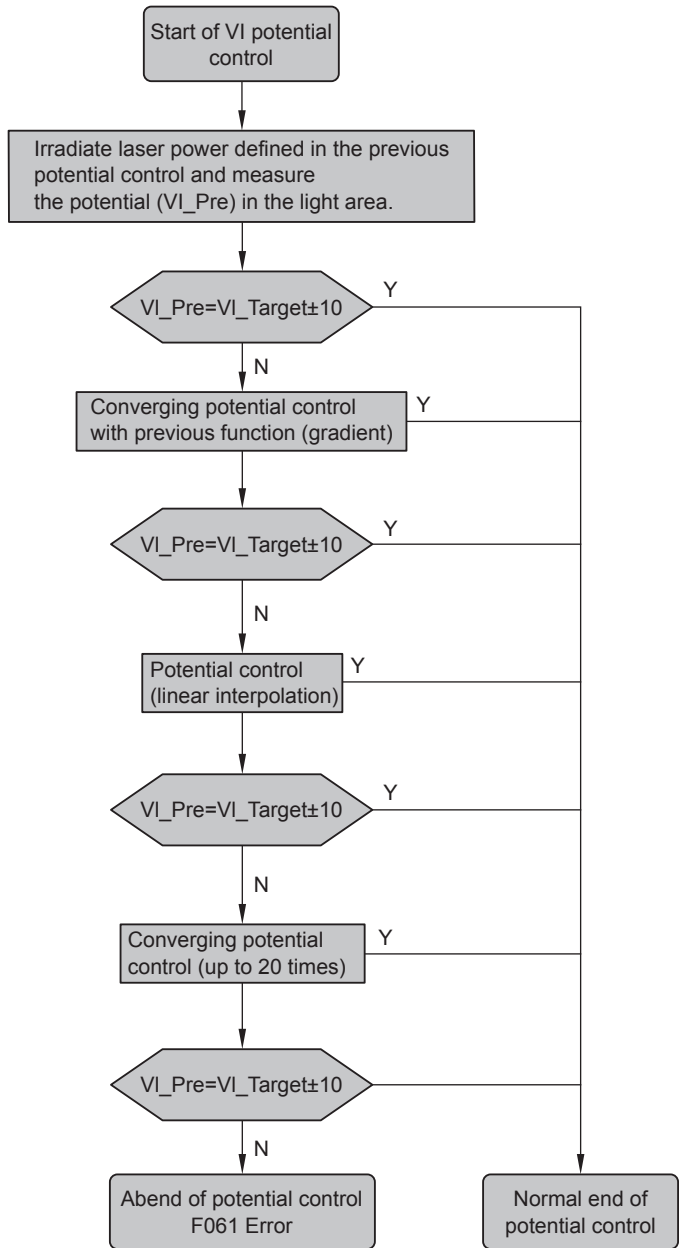
[When the drum surface potential is not as follows:  $-10\text{V} \leq \text{target potential} \leq +10\text{V}$ ]

- When the drum surface potential is as follows:  $-10\text{V} > \text{target potential} > -30\text{V}$  or  $+10\text{V} < \text{target potential} < +30\text{V}$   
The laser power (LP) when the previous potential control was succeeded (within  $\pm 10\text{V}$  target potential) is applied. Refer to the alarm code "32-0002" for the processing when the image is influenced.
- When the target potential is as follows:  $\text{target potential} \leq -30\text{V}$  or  $\text{target potential} \geq +30\text{V}$   
Potential control error (VL) "E061-0001" occurs.

## NOTE:

With this machine, laser APC control is executed to correct the bright area potential between sheets and jobs (see Auxiliary Control > Laser APC Control)

Lp is actually calculated by the laser power (LP) and the bright area potential characteristics that were obtained in the last VL control because executing VL control each time takes time. When the bright area potential measured value fails to be within the range of the target potential  $\pm 10\text{V}$ , follow the workflow as described below to obtain bright area potential characteristics by the foregoing VL control to calculate LP.



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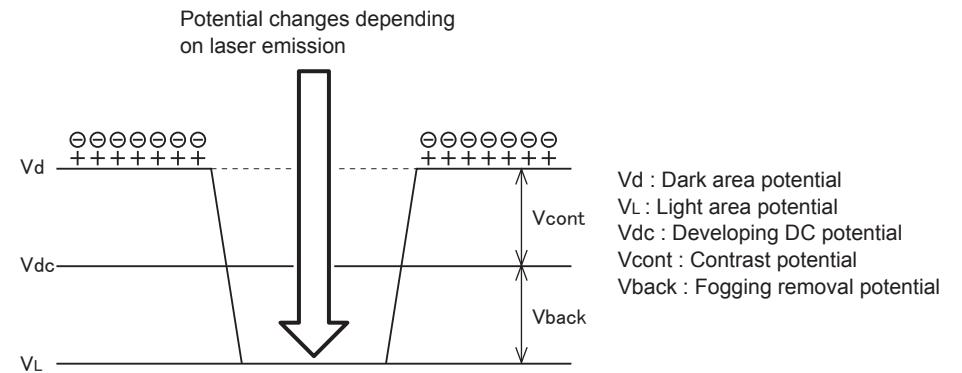
3. Determination of developing bias (Vdc)

Developing bias is determined by adding the Vback value (based on the environment table) to VL (bright area potential) determined in the foregoing control.

Developing bias (Vdc) = VL+Vback

VL: measured bright area potential determined by the potential control

Vback: the potential to remove foggy image that was determined in the environment table



F-2-105

**NOTE:**  
This machine executes D-max control; therefore, density correction value (offset) calculated in the D-max control is also reflected when the developing bias (Vdc) is calculated.

Developing bias (Vdc) = VL + Vback + DeltaVoffset  
Deltaoffset: density correction value determined by D-max control

Related error codes

E061: error in potential control

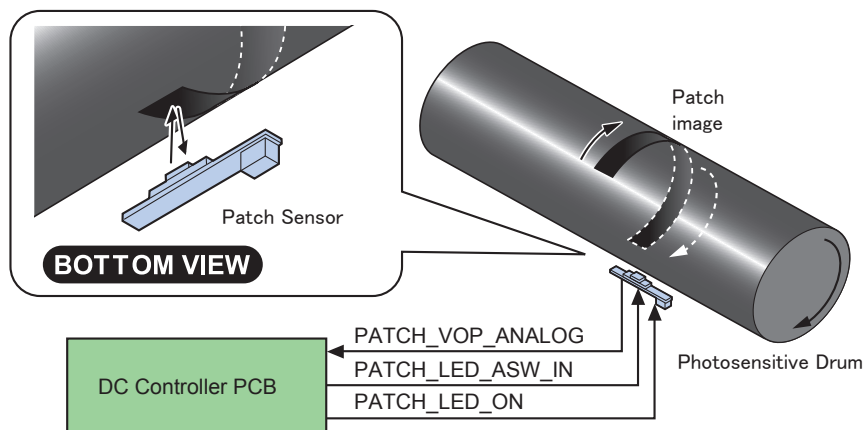
## Patch Detection

Toner density is detected by detection of the patch created on the Drum with the Patch Sensor.

### Parts configuration

The Patch Sensor consists of the light-emitting part (LED) and the light-receiving part.

- Light-emitting part (LED): to emit light to the patch image (PATCH\_VOP\_ANALOG signal)
- Reflected light detection part: to receive light reflected from patch image (PATCH\_LED\_ASW\_IN signal)



F-2-106

### Operation description

#### 1) LED light intensity correction

Reflected light is detected by the Patch Sensor by changing LED light intensity (input voltage) (6 points) while rotating the Drum to calculate LED light intensity characteristics. LED light intensity (input voltage) is calculated by the LED light intensity characteristics, which become the target reflected light intensity.

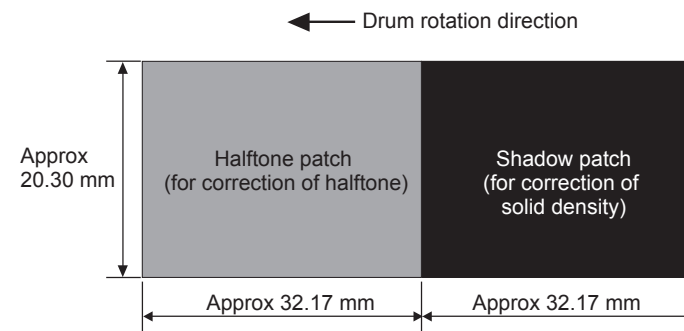
#### 2) Drum base correction

LED is emitted with the light intensity (input voltage) determined by the LED light intensity correction to measure reflected light intensity for a rotation of the Drum. Using the Drum HP Sensor as a reference, the reflected light intensity and the position on the Drum are saved in the memory on the DC Controller PCB. The patch density is calculated with this drum base correction value.

#### 3) A patch pattern is created on the DC Controller PCB to form the patch pattern on the Drum.

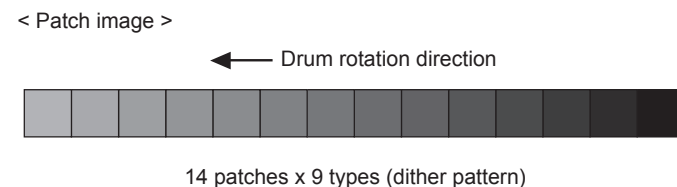
The patch pattern differs according to the control to be executed (D-max control/D-half control).

#### <Patch image at D-max control>



F-2-107

#### <Patch image at D-half control>



F-2-108

## D-max Control

This control determines developing contrast to keep a constant solid image density.

### Execution timing

- Last rotation after 6,000 sheets (or more) have been passed through since execution of the last D-max control.
- When service mode (COPIER>FUNCTION>MISC-P>DMAX-N) is executed
- Last rotation after 2000 sheets (or more) have been passed through since first time for the day after density judgment at normal startup mode (60 seconds startup)
- First power-on when Service Mode > COPIER>OPTION>FNC-SW>DMAX-SW is 2
- First power-on + last rotation when Service Mode > COPIER>OPTION>FNC-SW>DMAX-SW is 3

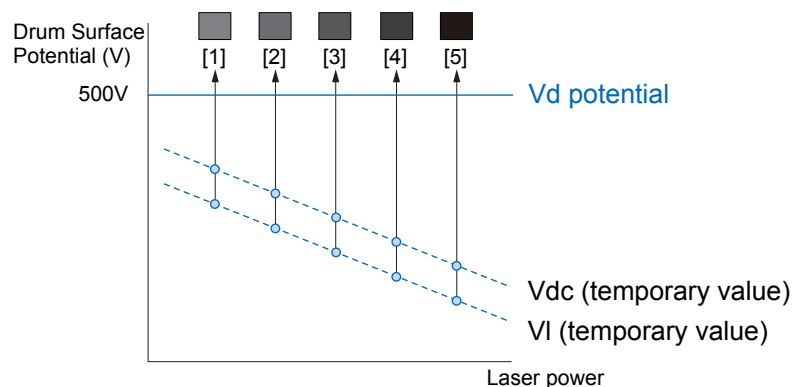
### Control description

D-max control is always executed together with potential control. Following shows a series of workflow.

1) Determination of the primary current (See "Full Potential Control > VD control".)

2) Patch image formation

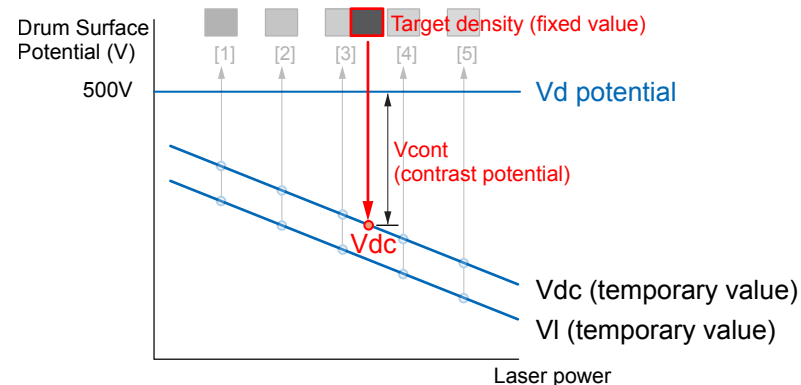
While the calculated primary current is applied, contrast potential ( $V_{cont}$ ) (actually the laser power ( $L_p$ ) and the developing bias ( $V_{dc}$ ) is applied to form 5 stages of D-max patches (values +/- 25 and +/- 50 with the D-max environment table value as the center value) on the Drum



F-2-109

3) Determination of contrast potential ( $V_{cont}$ )

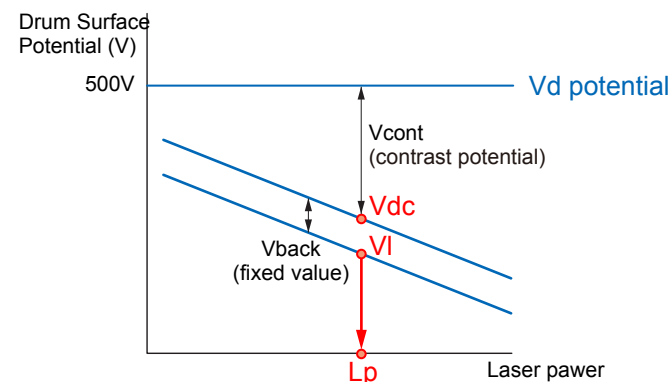
Patch image density is read by the Patch Sensor to determine the contrast potential ( $V_{cont}$ ) (that becomes the target density) using the obtained density characteristics.



F-2-110

4) Determination of developing DC ( $V_{dc}$ ) and bright area potential ( $V_L$ )

$V_{dc}$  and  $V_L$  are determined from the  $V_{cont}$  value and the  $V_{back}$  value (to be determined by the environment. Fixed values)



F-2-111

5) Determination of laser power ( $L_p$ ) (See "Full Potential Control > VL control".)

$V_L$  control is executed to calculate  $L_p$  that can obtain  $V_L$

Related error codes

Related service modes

COPIER > OPTION > FNC-SW > DMAX-SW: ON/OFF setting of the D-max control and the last rotation D-half control

COPIER > FUNCTION > MISC-P > DMAX-N: forced execution of the D-max control



## D-half Control

This control determines gradation correction value based on the image density detected by the Patch Sensor

Execution timing

- Last rotation after 6,000 sheets (or more) have been passed through since execution of the last D-half control
- When PASCAL (User mode > Settings/Registration > Adjustment/Maintenance > Image Quality Adjustment > Image Stabilization Control > PASCAL (Full/Quick Adjust)) is executed
- First power-on when Service Mode > COPIER>OPTION>FNC-SW>DMAX-SW is 2
- First power-on + last rotation when Service Mode > COPIER>OPTION>FNC-SW>DMAX-SW is 3

Control description

- 1)Based on the gradation data sent from the Main Controller, patch images (up to 9 patterns) are formed on the Drum.
- 2)Patch density is detected to feed the value back to the Main Controller.
- 3)The Main Controller corrects the gradation data (LUT table)<sup>\*1</sup>

\*1: Gradation data (LUT table) is generated when executing Full Adjust: Auto Adjust Gradation > Full Adjust

Related service modes

COPIER > OPTION > FNC-SW > DH-SW : To set ON/OFF of D-half control for plain paper group.

## PASCAL Control

This control stabilizes gradation density characteristics on the image.

This control is executed when the following is selected in user mode: Auto Adjust Gradation > Full Adjust

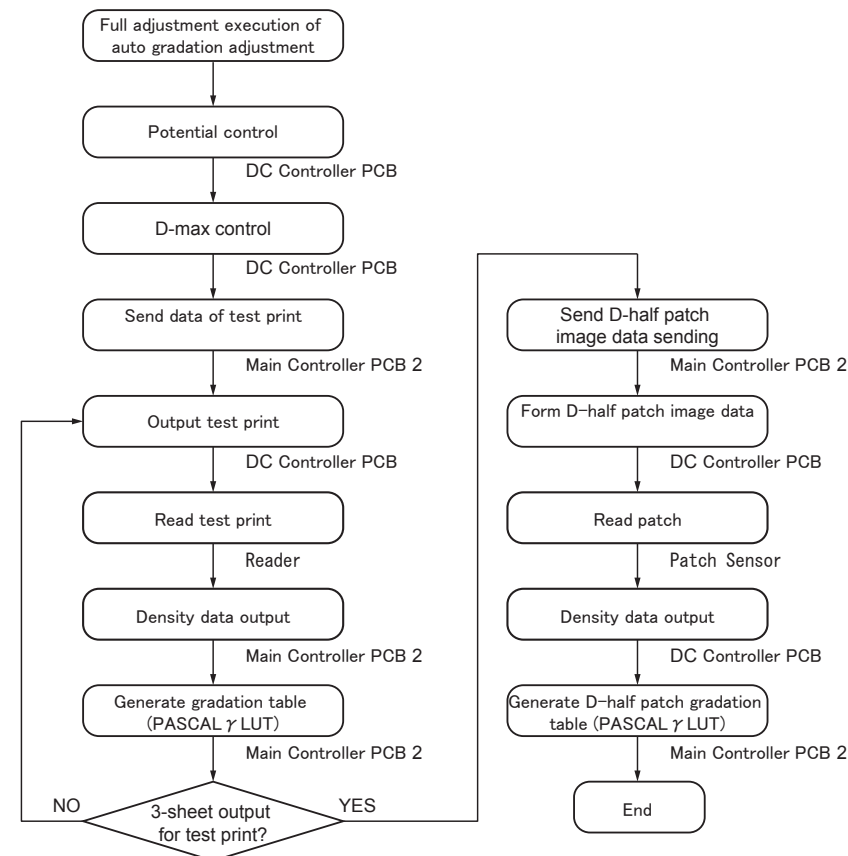
Patch pattern on the test print is scanned by the Reader to create a gradation table (PASCAL $\gamma$ LUT).

Then, a D-half patch gradation table is created to be used as the target in D-half control.

The foregoing table corrects image gradation characteristics caused by change of environment and deterioration of the Photosensitive Drum.

Execution timing

During execution of Full Adjust: User mode > Settings/Registration > Adjustment/Maintenance > Adjust Image Quality > Image Stabilization Control > Full Adjust



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## NOTE:

Since Inbox images are binary, gradation adjustment cannot be performed after being stored in Inbox. Gradation adjustment is performed on the rasterized data before they are stored in Inbox.

When the stored image is output after a long time, gradation adjustment is not performed on the basis of the environment at the time of output, so appropriate printing results may not be able to be obtained.

If the environment changes with time, it is advisable to store the data into Inbox just before output.

## ■ Auxiliary Control

● Startup Contrast Potential ( $V_{cont}$ ) Correction

Contrast potential ( $V_{cont}$ ) is corrected to keep a constant density and prevent light image caused by reduced toner charging amount in an energy-saving environment.

## NOTE:

Temperature in the Developing Assembly is reduced because the Drum Heater is turned OFF at sleep state in an energy-saving environment. This operation increases moisture content in the Developing Assembly and reduces toner charging amount.

## Execution timing

At the time of the normal startup mode (in the case that the two dimension shading control is OFF)

## NOTE:

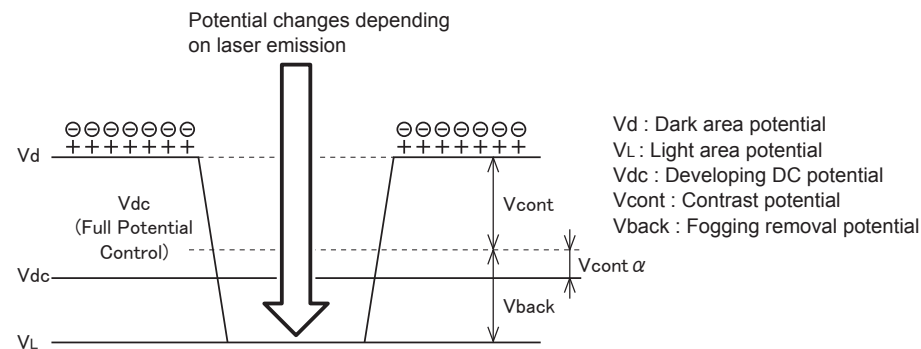
This control is not executed when the two dimension shading control is ON because the Drum Heater is turned ON.

## Control description

1) At the time of normal image formation, contrast potential ( $V_{cont\alpha}$ ) based on the environment table is added to the developing bias ( $V_{dc}$  (full potential control value)) determined by the full potential control to correct developing bias.

$$V_{dc} = V_{dc} (\text{potential control value}) - V_{cont\alpha}$$

2) The corrected contrast potential ( $V_{cont}$ ) is reset (making  $V_{cont\alpha}$  0) when the next full potential correction is executed.



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## ● Laser APC Control

This control corrects laser output control value to prevent change of surface potential by laser output.

### Correction type

- A. Between-sheet APC control: to keep constant bright area potential (VL) without reducing productivity during continuous jobs.
- B. Initial rotation APC to determine VL according to the laser and drum temperature characteristics.
- C. Last rotation APC control: to determine VL according to the laser and drum temperature characteristics.

### Execution timing

- A. Between-sheet APC control: at every paper interval of a job.
- B. Initial rotation APC control: to be executed during initial rotation of the first job after the machine has been left unattached for 60 minutes or more since execution of the last job.
- C. Last rotation APC control: to be executed during last rotation of the first job after the machine has been left unattached for 30 minutes or more since execution of the last job.

### Control description

- A. Between-sheet APC control
  - 1) Bright area potential is measured at every sheet interval by the Potential Sensor.
  - 2) Average sheet interval VL\_ave of the measured paper interval VL potential (for 20 sheet intervals) is calculated.
  - 3) Laser power correction value is determined by the difference between the measured potential VL (measured at the time of potential control) and the average paper interval VL\_ave in addition to the last bright area potential characteristics (gradient ( $\gamma$ )).

### Correction formula

$$LP\_after = LP\_before - (VL - VL\_ave) \times \gamma$$

LP\_after: laser power after correction

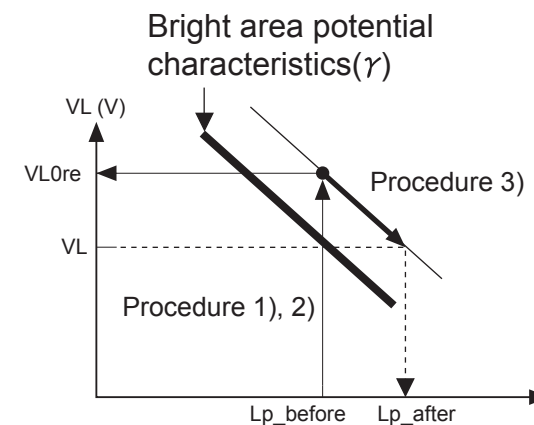
LP\_before: laser power before correction

VL: measured VL determined at the time of potential control

VL\_ave: average paper interval VL\_ave

$\gamma$ : gradient (control coefficient): gradient reciprocal of LP\_VI straight line in the range including VL target

VL target



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### B. Initial rotation APC control

- 1) Bright area potential VL is measured during initial rotation to correct laser power. The primary current value and developing bias value are fi
- 2) Correction is executed by following the same way as between-sheet APC control.

### C. Last rotation APC control

This correction follows the same way as initial rotation APC control

## Two Dimension Shading Control

Uneven potential on the Photosensitive Drum is corrected by laser exposure.

Execution timing

At the time of laser exposure (only when the two dimension shading control is ON. Default: OFF)

Control description

1) Potential data on the Drum surface is saved in EEPROM on the DC Controller PCB in the format supporting two-dimension coordinate (measured when the Drum was manufactured).

2) When the power is turned ON, EEPROM data is compared to RAM data. If there is any difference in the data, the EEPROM data is stored in the backup RAM.

### NOTE:

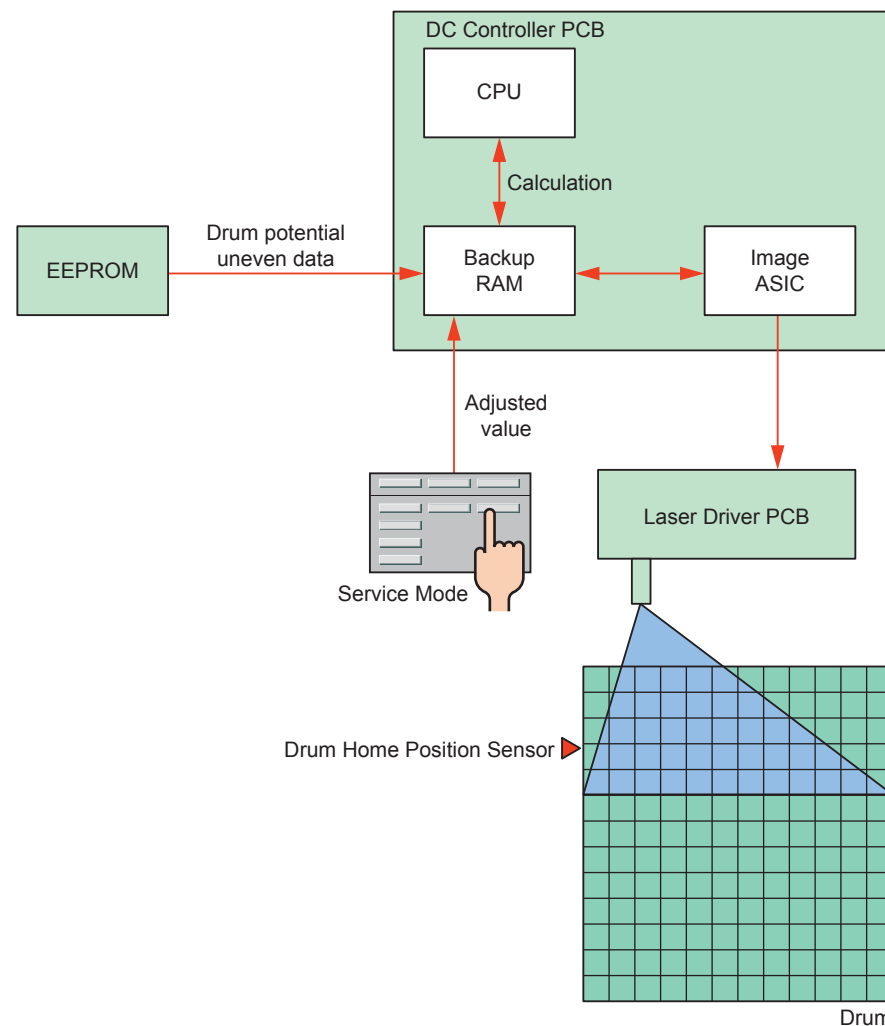
Whether the control is enabled can be checked with COPIER>DISPLAY>2D-SHD>2D-STTS.  
If 0 is displayed, check DRM-LOT number. When 0 is displayed, it means that the drum has not been registered; thus, execute FUNCTION/2D-SHADE/2D-READ to register the drum.

3) Potential data on the Drum surface is sent to the image ASIC and the image data is synchronized with the Drum home position, and then the uneven potential data is converted into light intensity to be sent to the Laser Driver PCB.

4) The Laser Driver PCB is exposed to remove uneven potential on the Drum.

### NOTE:

For Drum provided as a service part, EEPROM which stores potential unevenness data is included. Therefore, the EEPROM needs to be replaced when the Drum is replaced. As the life of the Drum advances, uneven density can occur when the halftone image is output despite correction of the drum uneven potential. In such a case, uneven density can be corrected by specifying a particular position in service mode. See Troubleshooting for procedure.  
FCOT (First Copy Time) is reduced to detect home position of the Drum by turning ON the two dimension shading.



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Related service modes

COPIER>DISPLAY>2D-SHD>2D-STTS : Display of 2D shading ON/OFF

COPIER>DISPLAY>2D-SHD>DRM-LOT : Display of Drum Lot number

COPIER>DISPLAY>2D-SHD>CHK-SUM : Display of checksum calculation result

COPIER>FUNCTION>2D-SHADE>M-LINE1/LINE2 : 2D shading horizontal scan correction

COPIER>FUNCTION>2D-SHADE>S-LINE1-4 : 2D shading vertical scan correction

COPIER>FUNCTION>2D-SHADE>SHD-P1-3 : 2D shading pattern output

COPIER>OPTION>IMG-LSR>2D-SW : Read 2D shading ROM

## ● White Band Control

Oppositely-charged toner on the Developing Sleeve is forcibly applied on the Drum and collected by the Cleaning Unit.

### NOTE:

Large-grained toner is less likely to be charged compared to small-grained toner and can be positively charged (opposite charging) in rare cases. Such oppositely-charged toner fails to be developed but remains on the Developing Sleeve, which causes image failure.

### Execution timing

Last rotation after every job

### Control description

Developing bias Vdc is increased once the image trailing edge passes through the developing position.

Vback is increased and the oppositely-charged toner on the Developing Cylinder is moved onto the Drum.

### Related service modes

COPIER>FUNCTION>MISC-P>WB : Reverse toner forcible eject: blank band

COPIER>ADJUST>MISC>TBSIS-WB : Setting of blank band ejection time

## ● Black Band Control

This control maintains the cleaning performance by providing sufficient amount of toner to the edge of the Cleaning Blade.

### NOTE:

Friction coefficient between the Blade and the Drum is increased unless sufficient amount of toner is applied on the Drum Cleaning Blade, which causes ride-up of the Blade. Although toner is properly applied to the center of the Blade by normal cleaning operation, toner is supplied insufficiently to the edge of the Blade.

### Execution timing

- Last rotation after the specified number of sheets<sup>\*1</sup> has been fed since execution of the last black band control.
- When low duty discharge control is executed.

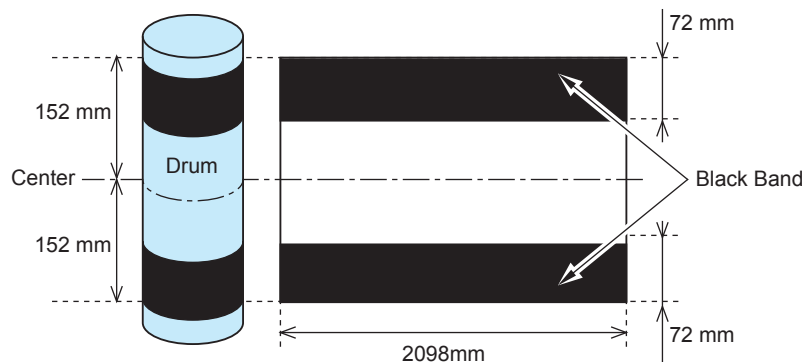
\*1: This value can be changed in service mode.

Moisture content	Interval (sheets)
12g or more	2,000

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## Control description

- 1) Black band described below is created on the Drum.
- 2) Black band is scraped by the Drum Cleaning Blade and toner is properly applied on the Cleaning Blade at that moment.
- 3) This control turns off the transfer high voltage and makes the Transfer Belt disengaged so that image is not applied on the Transfer Belt.



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## Related service modes

COPIER>OPTION>IMG-DEV>BB-CNT:Set Bk band output intvl: Cleaning Blade  
 COPIER>OPTION>CLEANING>CLN-ADJ:ON/OFF of cleaning black band sequence  
 COPIER>OPTION>CLEANING>CLN-SW:ON/OFF of cleaning black band sequence  
 COPIER>FUNCTION>MISC-P>BB : Toner forcible eject (black band)

## ● Low Duty Discharge Control

In the case of continuous output of low duty image, this control consumes toner at non-image area to maintain the density stability.

## Execution timing

While the video count for every page is accumulated, in the case that the average image duty is less than the threshold<sup>\*1</sup>, the ongoing job is interrupted at the time of last rotation of a job or the ongoing job is interrupting in the middle of the job to discharge the toner according to the average image duty.

\*1: Threshold is determined by the following environment table. The value can be changed in service mode

Moisture content	Temperature/Humidity	Threshold
0.86	23deg C/5%	1%
1.73	23deg C/10%	1%
5.8	23deg C/30%	1%
8.9	23deg C/50%	1%
15	23deg C/70%	2%
18	28deg C/80%	3.5%
21.6	30deg C/80%	5%

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## Control description

- 1) Video count on every page is retrieved.
- 2) The obtained video count is converted into A4 size and the value is accumulated.
- 3) Once the accumulated value reaches the threshold, the following patch is created on the Drum to discharge deteriorated toner.

## Related service modes

COPIER>OPTION>IMG-DEV>LWDTY-SW ON/OFF of low duty ejection Default ON  
 COPIER>OPTION>IMG-DEV>LWDTYADJ Set low duty ejection threshold value



## Servicing

### Periodically Replaced Parts

Parts Name	Parts Number	Piece	Expected life*	COUNTER (PRDC-1)	Remarks
Primary Charging Wire	FB4-3687	2	50**	PRM-WIRE	With spring FL3-4558
Primary Charging Wire cleaner	FL2-0462	2	50**	PRM-CLN	
Primary Charging Wire cleaner holder	FL2-2720	2	50**	PRM-CLN	
Grid Wire	FY1-0883	AR	50	PRM-GRID	
Pre-transfer Charging Wire	FB4-3687	1	50**	PO-WIRE	With spring FL3-4559
Pre-transfer Charging Wire cleaner	FL2-0462	1	50**	PO-CLN	
Pre-transfer Charging Wire cleaner holder	FL2-2720	1	50**	PO-CLN	

\*Unit: 10,000 sheets

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\*\* : In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets

### Consumable Parts

Parts Name	Parts Number	Piece	Expected life*	COUNTER (DRBL-1)	Remarks
Primary Charging Assembly	FM3-7288	1	150	PRM-UNIT	
Pre-transfer Charging Assembly	FM4-3149	1	150	PO-UNIT	
Pre-exposure Scraper	FC9-9153	2	50	EXP-SCRIP	
Drum Cleaning Blade	FC8-7085	1	100	CLN-BLD	Use by reversing at every 500000 sheets
Drum Front Side Seal/ Drum Rear Side Seal	FC8-7086	1each	50	BS-SL-F BS-SL-R	
Drum Separation Claw	FB4-8018	3	50	SP-CLAW	In a high temperature/ humidity environment (30 deg C/80%), it is 250000 sheets
Developing Assembly	FM4-0959	1	150**	DVG-CYL	
ETB	FC8-7160	1	50	TR-BLT	
Transfer Roller	FC8-7159	1	50	TR-ROLL	
Brush Roller	FC9-9022	1	50	T-CN-BRU	
ETB Cleaning Blade	FC6-1647	1	50	T-CLN-BD	

\*Unit: 10,000 sheets

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\*\* : In a high temperature/humidity environment (30 deg C/80%), it is 500000 sheets

### Periodical Servicing List

Parts/Area Name	Expected life*	Remarks
Toner Receptacle Tray	As needed	Remove toner on the tray.
Primary Charging Assembly Grid Wire	25	Clean with lint-free paper moistened with water.
Primary Charging Assembly Shield Plate	25	Clean with lint-free paper moistened with water.
Pre-transfer Charging Assembly Shield Plate	50	Clean with lint-free paper moistened with water.
Pre-transfer Charging Assembly Dust Collection Roller	50	Clean with lint-free paper moistened with alcohol.
Pre-transfer Charging Assembly Roller electrode area	50	Clean with lint-free paper moistened with alcohol.
Pre-transfer Charging Assembly Toner collection area	50	Remove toner in the toner collection area.
Drum Cleaning Unit Plate	50	Clean with lint-free paper moistened with alcohol.
Pre-exposure Scraper	As needed	Clean with lint-free paper moistened with alcohol.
Drum Cleaning Unit Toner collection area	50	Crumb toner clusters.
Drum Sliding Assembly	As needed	Apply lubricant at the Drum Sliding Assembly when abnormal sound is heard at the time of operation.
Drum Surface	30	Using lint-free paper, clean the drum with the drum cleaning powder (FY9-6024).
Drum Edge	25	Clean with lint-free paper moistened
Separation Claw Mounting Base	50	Clean with lint-free paper moistened with alcohol.
Patch Sensor	50	Clean in the single direction with a wet and tightly-wrung cotton swab. (Be sure to clean the surface of the sensor thoroughly.) Do not use alcohol when cleaning.
Process Unit Rear Guide	50	Clean with lint-free paper moistened with alcohol.
Developing Roller	50	Clean with lint-free paper moistened with alcohol.
Lower side of Cylinder.	50	Clean with lint-free paper moistened with alcohol.
Developing Sleeve Holder	50	Clean with lint-free paper moistened with alcohol.
The host machine surface below the Developing Assembly	As needed	Remove toner which was scattered at removal of Developing Assembly.
ETB Drive Roller	50	Clean with lint-free paper moistened with alcohol.
ETB Idler Roller	50	Clean with lint-free paper moistened with alcohol.
Waste Toner Container	50	Clean when the message is displayed.

\*Unit: 10,000 sheets

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## ■ When Replacing Parts

When replacing the Periodically Replaced Parts and Consumable Parts, be sure to clear the Parts Counter (COPIER > COUNTER > PRDC-1/DRBL-1)

### ● Primary Charging Wire

<Procedure of parts replacement>

see "Replacing the Primary Charging Wire," on p. 4-104.

<Procedure of adjustment>

- 1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PRM-WIRE)
- 2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)
- 3) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
- 4) Execute the potential control (COPIER>FUNCTION>DPC>DPC). Turn OFF and then ON the main power. (The potential control is executed at startup.)
- 5) Execute the potential control. (COPIER>FUNCTION>DPC>DPC)
- 6) Turn OFF and then ON the main power switch.

### ● Primary Charging Assembly

<Procedure of parts replacement>

see "Removing the Primary Charging Assembly," on p. 4-97.

<Procedure of adjustment>

- 1) Output a halftone image using the service mode.
  - TEST > PG > TYPE : 5
- 2) Execute the following procedure according to the density difference on the front and rear sides of the test print image.
  - When the front side test print image is dark, execute step 3.
  - When the rear side test print image is dark, execute step 4.
  - When there is no uneven density, execute step 5 and the following.

When the front side test print image is dark

#### NOTE:

- When the front side test print image is dark [1], execute step 3 until the density becomes even. When the density becomes even, execute step 5 and the following.
- When the adjustment screw is turned clockwise, the Charging Wire goes down and up (gap between grid and Charging Wire becomes narrow and wide). As a result, the density of output image becomes light.

#### CAUTION:

Be sure to adjust the dark side (density of the test print image) to be the light side.

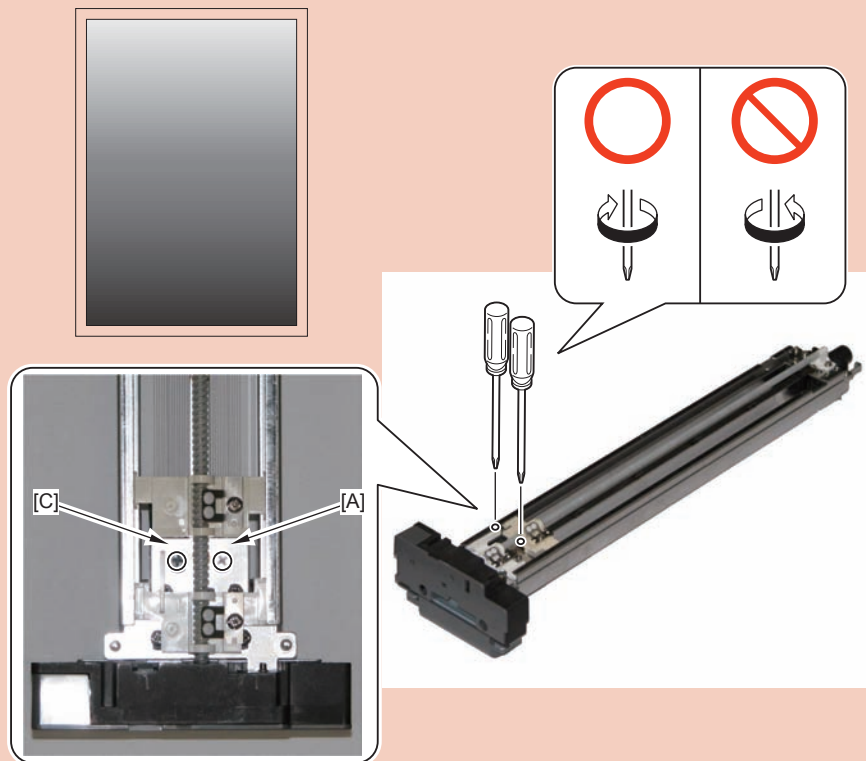


- 3) Make the resin screws [A] and [C] a full turn clockwise. While referring to the replacement procedure of the Primary Charging Assembly, install it to the main body, output a test print and check the image.

**CAUTION:**

Since uneven density might occur, be sure to adjust by turning the 2 adjustment screws with the same amount.

[1]



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When the rear side test print image is dark

**NOTE:**

- When the rear side test print image is dark [2], execute step 4 until the density becomes even. When the density becomes even, execute step 5 and the following.
- When the adjustment screw is turned clockwise, the Charging Wire goes down and up (gap between grid and Charging Wire becomes narrow and wide). As a result, the density of output image becomes light.

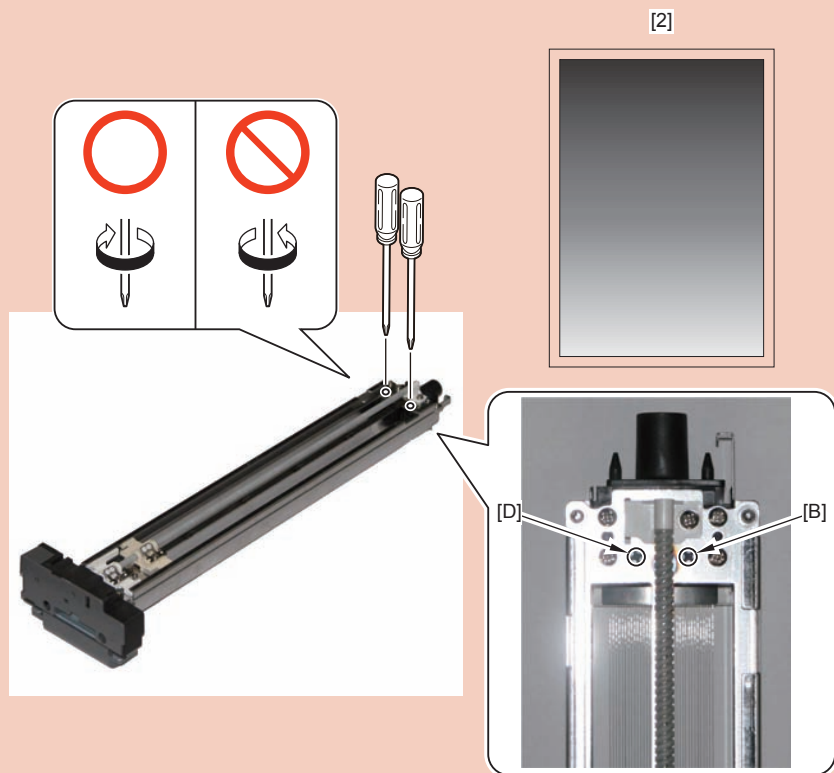
**CAUTION:**

Be sure to adjust the dark side (density of the test print image) to be the light side.

- 4) Make the resin screws [B] and [D] a full turn clockwise. While referring to the replacement procedure of the Primary Charging Assembly, install it to the main body, output a test print and check the image.

**CAUTION:**

Since uneven density might occur, be sure to adjust by turning the 2 adjustment screws with the same amount.



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- 5) Clean the Charging Wire using the service mode.  
(FUNCTION > CLAEING > WIRE-CLN) Time required: Approx. 30 sec.
- 6) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
- 7) Execute the potential control. (COPIER>FUNCTION>DPC>DPC)
- 8) Execute the density correction using the user mode.  
("Settings/Registration" > "Adjustment/Maintenance" > "Adjust Image Quality" > "Correct Density")

## ● Pre-transfer Charging Assembly

<Procedure of parts replacement>

see "Removing the Pre-transfer Charging Assembly," on p. 4-108.

<Procedure of adjustment>

- 1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>PO-UNIT)
- 2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)

## ● Pre-transfer Charging Wire

<Procedure of parts replacement>

see "Replacing the Pre-transfer Charging Wire," on p. 4-112.

<Procedure of adjustment>

- 1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PO-WIRE)
- 2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)

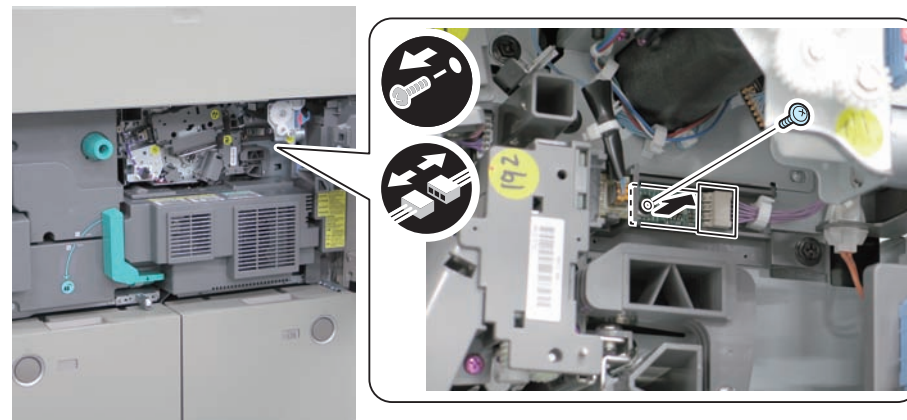
## ● Drum

<Procedure of parts replacement>

see "Removing the Photosensitive Drum," on p. 4-124.

<Procedure of adjustment>

- 1) Remove the EEROM.
  - 1 Screw
  - 1 Connector



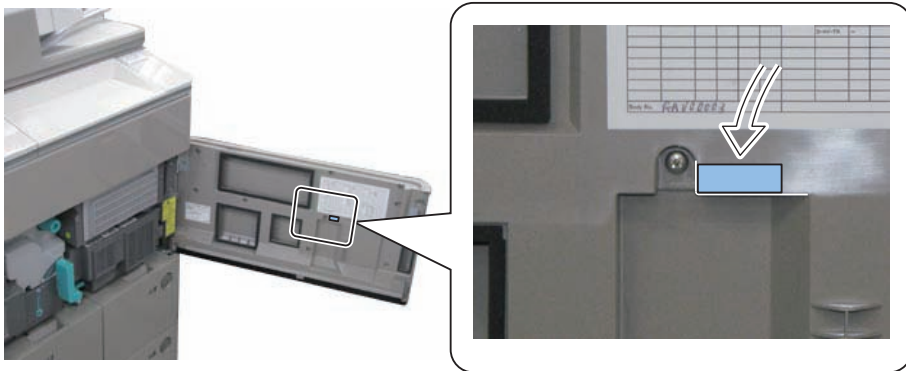
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3) Replace the ROM connected to the host machine with the drum ROM included in the drum.

**CAUTION:**

If the ROM is not replaced, the replaced drum and the drum-unique data stored in the ROM are not matched. As a result, the 2D shading is not functioned normally.

4) Affix the ID Label included in the drum to the inside of the Front Cover.



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- 5) Activate the drum replacement mode. (COPIER>FUNCTION>INSTALL>DRM-INIT)
- 6) Check the 2-dimensional shading ROM. (COPIER>FUNCTION>2D-SHADE>2D-READ)
- 6) Execute Auto Adjust Gradation.

## ● Drum Side Seals(Front and Rear)

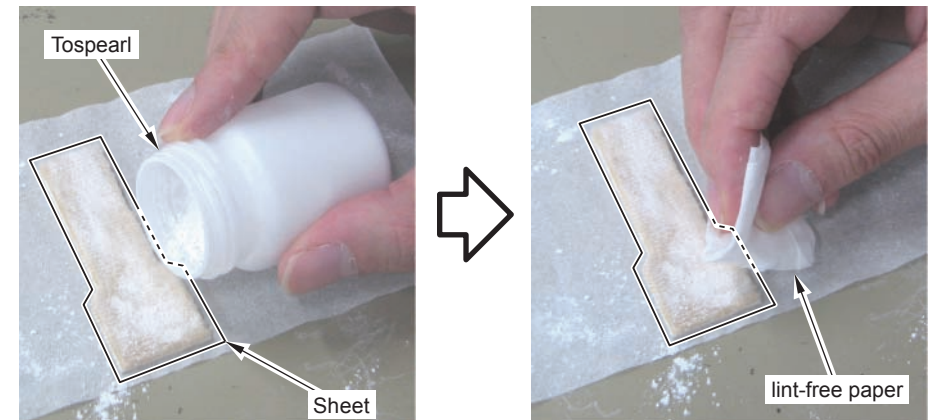
### <Procedure of parts replacement>

see "Removing the Side Seal," on p. 4-129.

### <Procedure of adjustment>

1) Applying Tospearl

Apply Tospearl on the surfaces of the Drum Side Seals (Front and Rear) and adhere it uniformly with lint-free paper. In order to reduce adhesion of toner at both ends of the Photosensitive Drum



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## ● Developing Assembly, Developing Cylinder

### <Procedure of parts replacement>

- see "Removing the Developing Assembly," on p. 4-130.

### <Procedure of adjustment>

- 1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>DVG-CYL)
- 2) Supplying Developing Assembly toner. (COPIER>FUNCTION>INSTALL>TONER-S)

## ● Potential Control PCB Unit

### <Procedure of parts replacement>

see "Removing the Potential Control PCB Unit," on p. 4-165.

### <Procedure of adjustment>

- 1) Adjust the Potential Sensor offset. (COPIER > FUNCTION > DPC > OFST)

## ● ETB

### <Procedure of parts replacement>

- see "Removing the ETB Unit," on p. 4-135.
- see "Removing the ETB," on p. 4-137.

### <Procedure of adjustment>

- 1) Clear the ETB control counter. (COPIER>FUNCTION>CLEAR>TR-BLT)  
Parts counter (COPIER>COUNTER>DRBL-1>TR-BLT) is also cleared coincidentally.

## ● Patch Sensor

### <Procedure of parts replacement>

see "Removing the Patch Sensor," on p. 4-151.

### <Procedure of adjustment>

- 1) Adjust the intensity of the Patch Sensor. (COPIER>FUNCTION>MISC-P>P-LED)

## ● Waste Toner Container

### <Procedure of parts replacement>

see "Removing the Waste Toner Container," on p. 4-143.

### <Procedure of adjustment>

- 1) Set the new Waste Toner Container.
- 2) Clear the waste toner counter. (COPIER>COUNTER>MISC>WST-TNR)

## ■ Major Adjustments

None

## ■ Troubleshooting

### ● Trailing Edge Shock Imaget

[Location]

ETB

[Cause]

Lines occur on the image due to shock when distortion on the belt is released while rotation speed between the ETB and drum differs

[Condition]

When replacing the ETB

[Field Remedy]

- 1) Output a halftone image with the following conditions and check the output image  
COPIER>TEST>PG>TYPE 6  
Select the cassette which the following paper is set: COPIER>TEST>PG>PG-PICK A3 (LDR) or larger.

With shock image: go to step 2

Without shock image: End

- 2) Measure a distance from the trailing edge of the shock image.

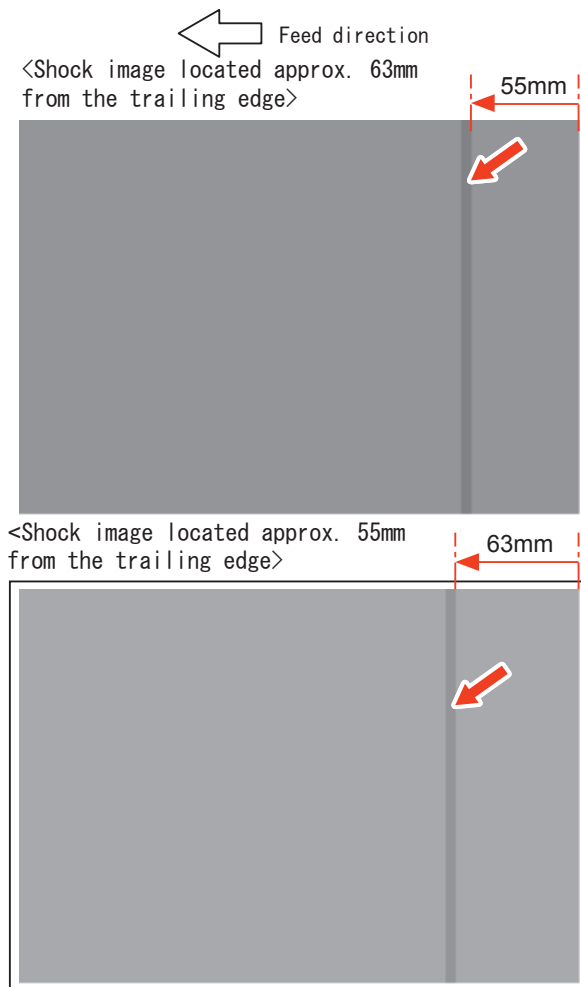
- 3) Adjust using the following service mode. COPIER > ADJUST > FEED-ADJ > TBLT-SPD:  
Adjust the Transfer Belt speed

Shock image is located approx. 55mm from the trailing edge: Adjust the value by +10 gradually.

Shock image is located approx. 63mm from the trailing edge: Adjust the value by -10 gradually

- 4) Output a halftone image with the condition described in step 1 again and check the image.  
With shock image: go to step 3.  
Without shock image: End

[Image Sample]



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## ● Uneven density correction by 2D shading

To correct uneven image density caused by uneven potential on the surface of the Drum.

### NOTE:

This machine performs two dimensional shading which replaces uneven potential of the Photosensitive Drum to the exposure amount to correct. (Default: two dimensional shading is disabled.) As the data of Drum's uneven potential, the data measured at the shipment of the Drum is used.

### CAUTION:

This adjustment is executed when the preferred image is not output even if the Primary Charging Wire height adjustment and secure watermark adjustment \* are performed.

\* Secure watermark adjustment: Function Settings>Common>Print Settings>Secure Watermark Settings>Adjust Background/Character Contrast

1) Check that the two dimensional shading is enabled.  
COPIER>OPTION>IMG-LSR>2D-SHADE 1: Enabled

2) Turn OFF and then ON the main power switch.

### CAUTION:

Be sure to turn OFF and then ON the main power switch after step 1. Uneven density may be reduced by the two dimensional shading correction at the startup.

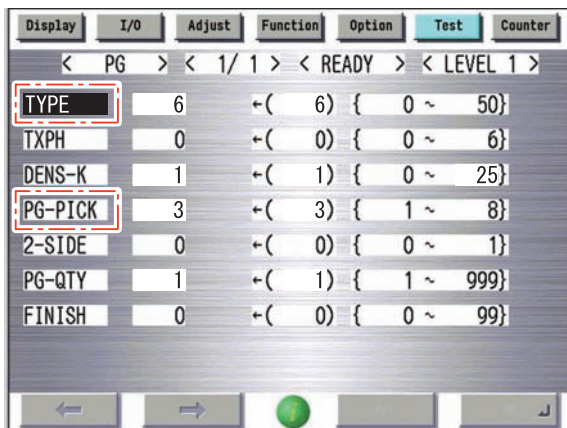
3) Output a halftone image with the following conditions and check if uneven density occurs.

COPIER>TEST>PG>TYPE 6

Select the cassette which the following paper is set: COPIER>TEST>PG>PG-PICK A3 (LDR) or larger.

When uneven density is seen: Go to step 4.

When uneven density is not seen: Procedure is ended.



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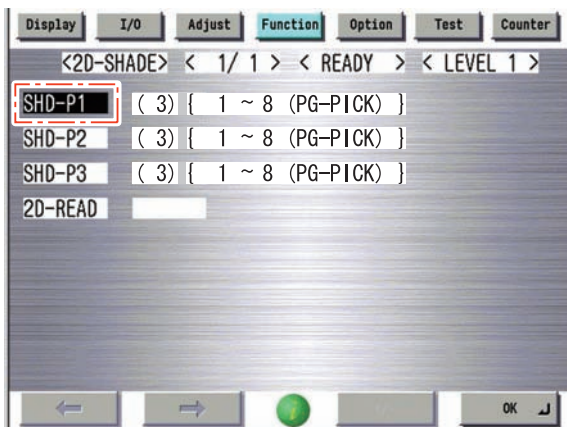
4) Output a test pattern for two dimensional shading.

COPIER>FUNCTION>2D-SHADE>SHD-P1

4-1) Set the cassette. Select the cassette which A3 (LDR) or larger paper is set.

Select "SHD-P1" and cassette using "numeric keypad".

4-2) Output 3 sheets of the test pattern.



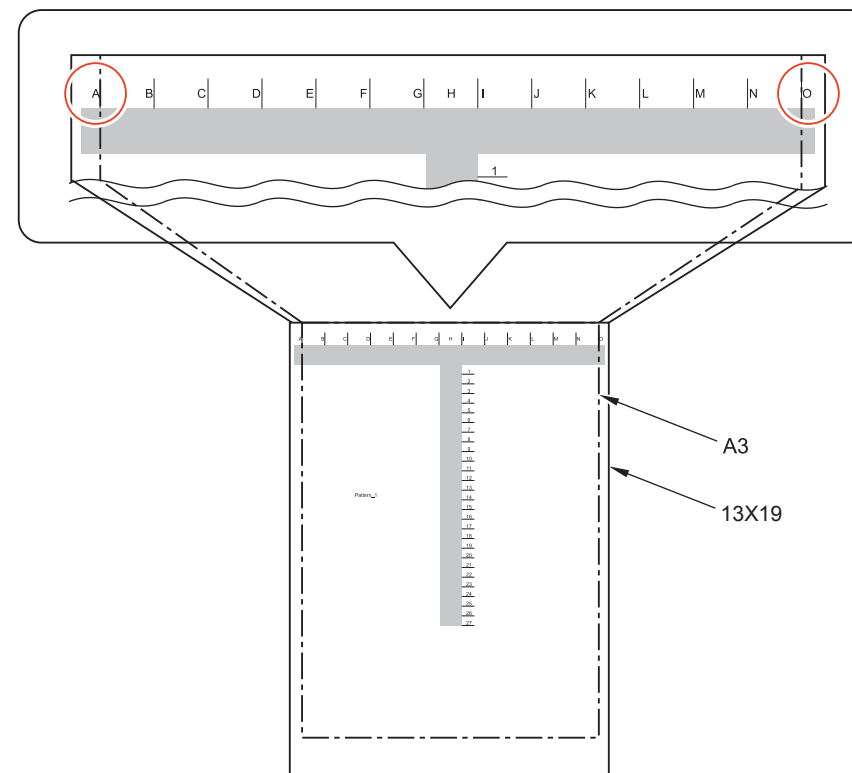
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#### CAUTION:

It is difficult to judge whether uneven potential of the Photosensitive Drum causes uneven density of the output image, so output 3 sheets of the test print and adjust the area where all 3 sheets have the same symptom.

(If the same symptom is seen on the same spot of all 3 sheets, it is possibly caused from the Drum.)

<Test pattern>



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**NOTE:**

For the test print, the following 3 types can be output, but basically set SHD-P1 to output. The following shows the use case of each test print.

COPIER>FUNCTION>2D-SHADE>SHD-P1

: When the image which uneven density occurs is the halftone image with light density

COPIER>FUNCTION>2D-SHADE>SHD-P2

: When the image which uneven density occurs is the halftone image with dark density

COPIER>FUNCTION>2D-SHADE>SHD-P3

: In case of the secure watermark image with uneven density

5) Check (T-shaped) halftone area of the output test print visually and adjust the area of uneven density.

5-1) Take a note to write down the values of the following service mode.

When the adjustment cannot be performed appropriately, these values are required to return to the initial values.

COPIER>FUNCTION>2D-SHADE>M-LINE1 (Level 2)

COPIER>FUNCTION>2D-SHADE>M-LINE2 (Level 2)

COPIER>FUNCTION>2D-SHADE>S-LINE1 (Level 2)

COPIER>FUNCTION>2D-SHADE>S-LINE2 (Level 2)

COPIER>FUNCTION>2D-SHADE>S-LINE3 (Level 2)

COPIER>FUNCTION>2D-SHADE>S-LINE4 (Level 2)

5-2) Adjust the target horizontal scanning direction (A to O) which uneven density is seen.

After selecting "M-LINE1/M-LINE2", select the target horizontal scanning window (A to O), and enter the numerical value using "numerical keypad".

COPIER>FUNCTION>2D-SHADE>M-LINE1 (Level 2) Horizontal scanning direction A to H

COPIER>FUNCTION>2D-SHADE>M-LINE2 (Level 2) Horizontal scanning direction I to O

**CAUTION:**

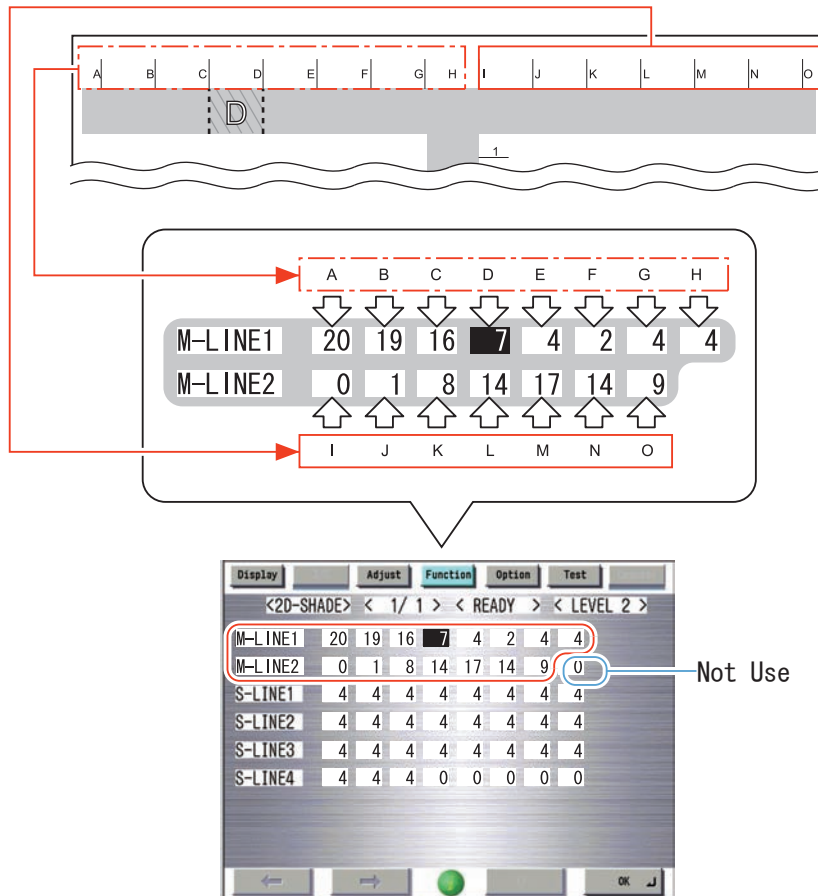
- Be sure to switch the screen after entering the value. Unless the screen is switched, the numerical value is not reflected. (Actually, the value is not reflected on the screen, but it is retained internally.)
- When the horizontal scanning direction (H line) is adjusted, the adjustment value of the vertical scanning direction (1 to 27) is also changed.
- As the value is larger, the density becomes lighter. As the value is smaller, the density becomes darker.
- Enter the adjustment value in a unit of +/- 30 gradually, output the test pattern and make adjustment while checking the test pattern. If the value is changed dramatically, the image error (while line) may occur.
- Be sure to make adjustment in order of horizontal and vertical scanning directions. If the adjustment is executed in the inverse order, it may not be executed correctly.
- Entering 96 or larger value can generate an error in potential control (E061). In the case of an error, adjust the setting value between 0 and 95



5-3) After the adjustment, output a test print and check the image.

When uneven density is seen: Go to 5-3).

When uneven density is not seen: Procedure is ended.



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5-4) Adjust the target vertical scanning direction (1 to 27) which uneven density is seen.

After selecting "S-LINE1 to 4", select the target vertical scanning window (1 to 27), and enter the numerical value using "numerical keypad".

COPIER>FUNCTION>2D-SHADE>S-LINE1 (Level 2) Vertical scanning direction 1 to 8

COPIER>FUNCTION>2D-SHADE>S-LINE2 (Level 2) Vertical scanning direction 9 to 16

COPIER>FUNCTION>2D-SHADE>S-LINE3 (Level 2) Vertical scanning direction 17 to 24

COPIER>FUNCTION>2D-SHADE>S-LINE4 (Level 2) Vertical scanning direction 25 to 32

#### CAUTION:

- Be sure to switch the screen after entering the value. Unless the screen is switched, the numerical value is not reflected. (Actually, the value is not reflected on the screen, but it is retained internally.)
- When the vertical scanning direction (25 and 26 lines) is adjusted, the adjustment value of the horizontal scanning direction (A to P) is also changed.

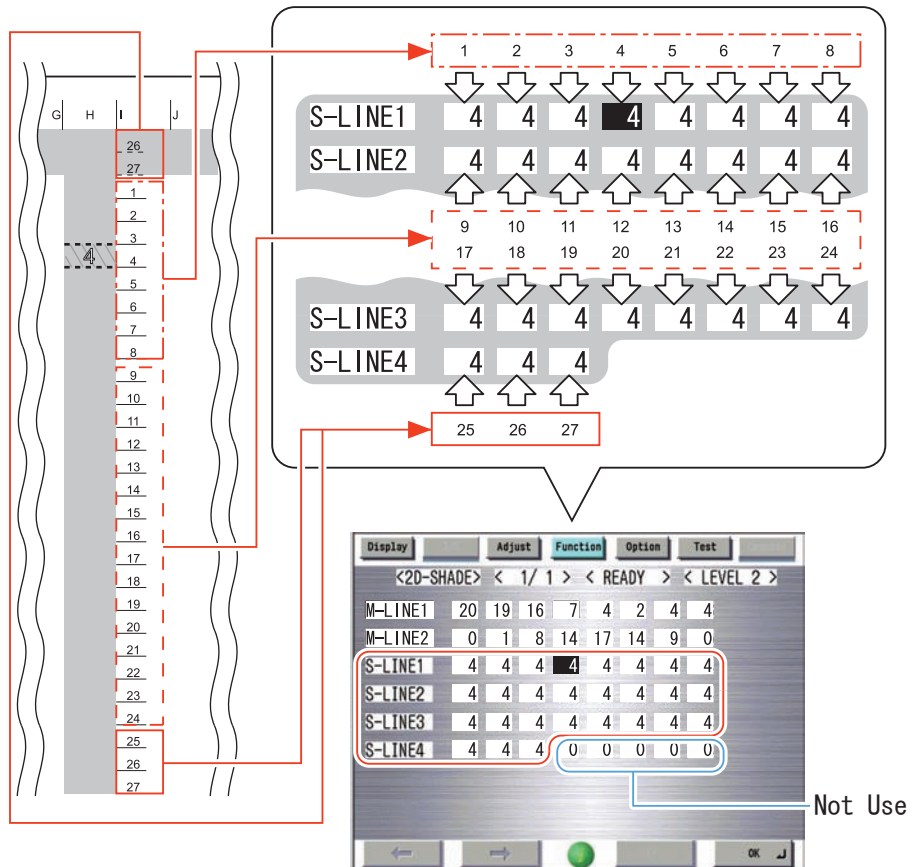
As the value is larger, the density becomes lighter. As the value is smaller, the density becomes darker.

Enter the adjustment value in a unit of +/- 30 gradually, output the test pattern and make adjustment while checking the test pattern. If the value is changed dramatically, the image error (while line) may occur.

5-5) After the adjustment, output a test print and check the image to complete the procedure.

**CAUTION:**

If the image cannot be adjusted correctly even with this adjustment procedure, reenter the values written in step 5-1.



F-2-127

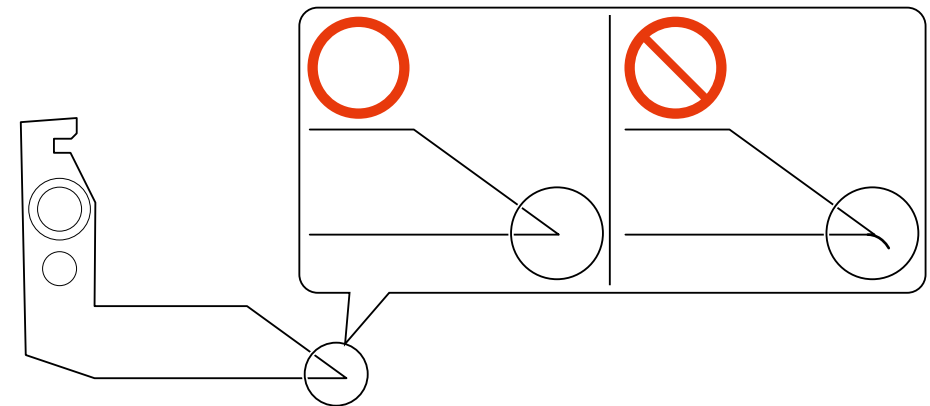
## ● Separation Failure Jam due to Deformation of Separation Claw

[Location]

Drum Separation Claw

[Cause]

When the paper enters to the drum at separation failure, the Separation Claw may be deformed. When the Separation Claw is deformed, the paper is easily caught by the leading edge of the Separation Claw when the paper (especially curled paper) is fed, and a jam (Jam Code: 0205) is likely to occur.



F-2-128

[Condition]

Job after a jam which occurs when the paper enters to the drum  
When using curled paper (when using backside of printed paper, etc.)

[Field Remedy]

Replace the Separation Claw.

**NOTE:**

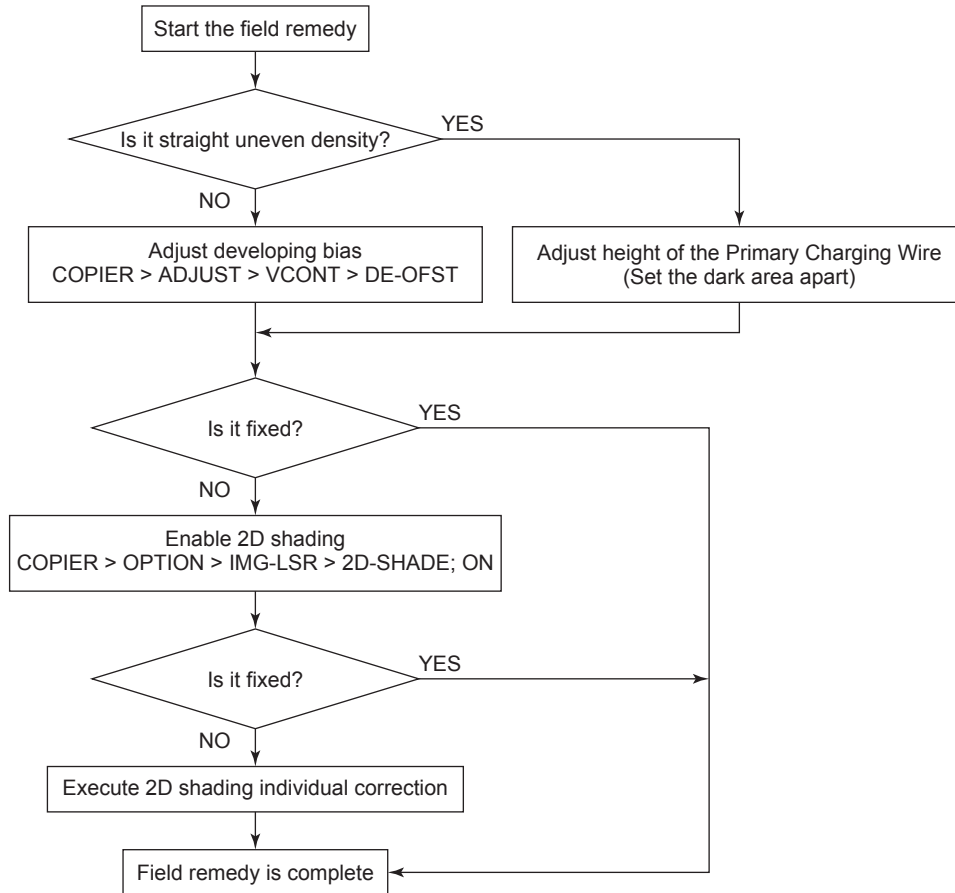
Replace the Separation Claw when a separation failure jam occurs even once..

### ● Uneven density

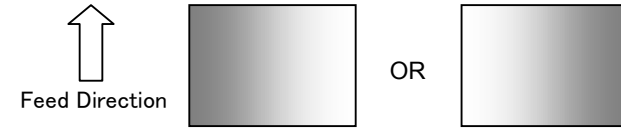
[Cause]

Uneven density occurs on the image because of uneven developing performance or change in drum characteristics due to wear.

[Field Remedy]

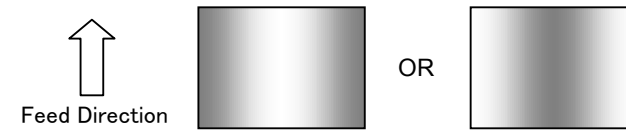


F-2-129



F-2-130

In the case of dark/light image at either the left or right side on the image in horizontal direction, adjust height of the Primary Charging Wire and check the output result. When making adjustment, execute the work while keeping the wire at dark area apart.



F-2-131

If it is not a straight uneven density, change the value of the following service mode in decrement of -10 and check the output result.

COPIER > ADJUST > VCONT > DE-OFST  
(Setting value: default 0, -10, -20, ...-50)

**CAUTION :**

Executing the above setting can generate smeared image or foggy image.

After switching the mode to enable 2D shading in the following service mode, turn OFF/ON the main power and check the output result.

(For detailed procedure, see "Troubleshooting > Uneven density correction by 2D shading > Step 1) to 3) (Refer to page 6-7)

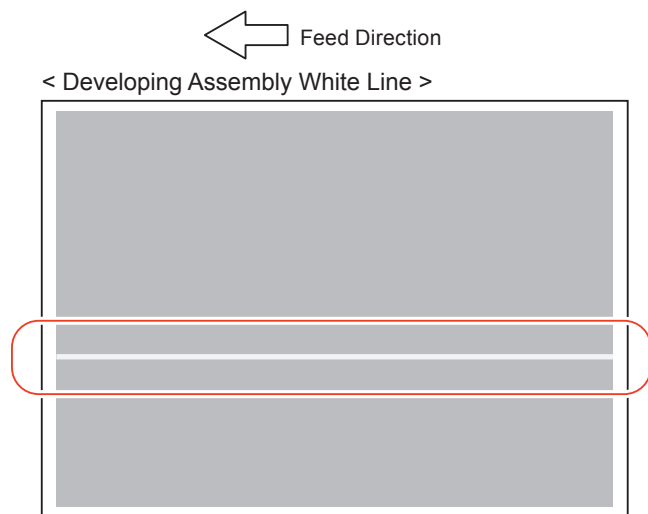
COPIER > OPTION > IMG-LSR > 2D-SHADE Setting value: 1 (ON)

Output the test pattern for 2D shading and adjust the uneven density area individually.

(For detailed procedure, see "Troubleshooting > Uneven density correction by 2D shading > Step 4) to 5) (Refer to page 6-7)

## ● White line (foreign matter between Developing Sleeves)

Sample image



F-2-132

[Location]

Developing Assembly

[Cause]

A line appears in toner coating when imperceptible foreign matter is caught between the 2 sleeves of the Developing Assembly. This can cause image failure of a white line in vertical scanning direction.

[Field Remedy]

1) Remove the Developing Assembly.

NOTE:

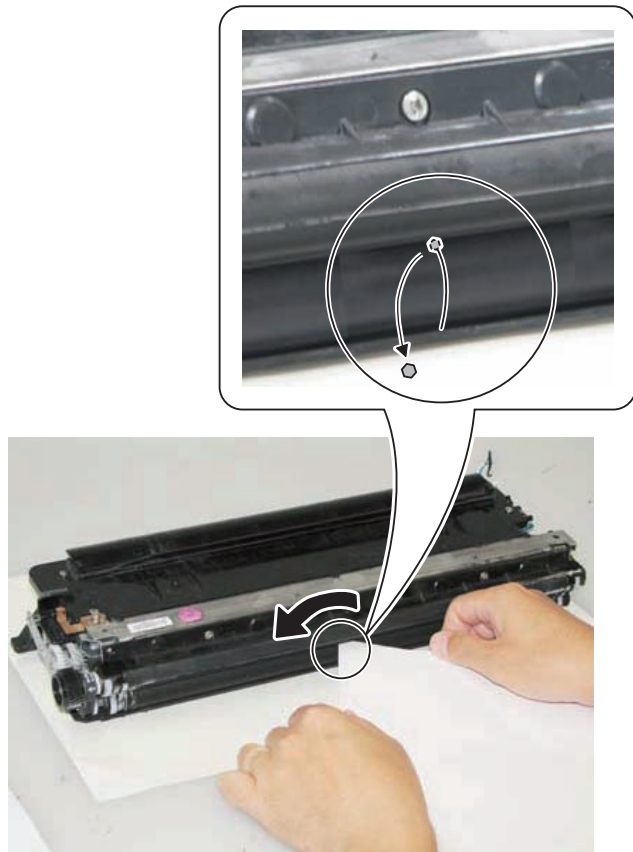
Be sure to place paper on a clean place and take out the foot of the Developing Assembly before placing the Developing Assembly.



F-2-133

## 2) Remove foreign matter caught between the sleeves.

Insert a corner of the paper between the sleeves and scrape out and remove foreign matter from the side.



F-2-134

**NOTE:**

The location of foreign matter can be easily identified by using a blower to blow excess toner between the sleeves.

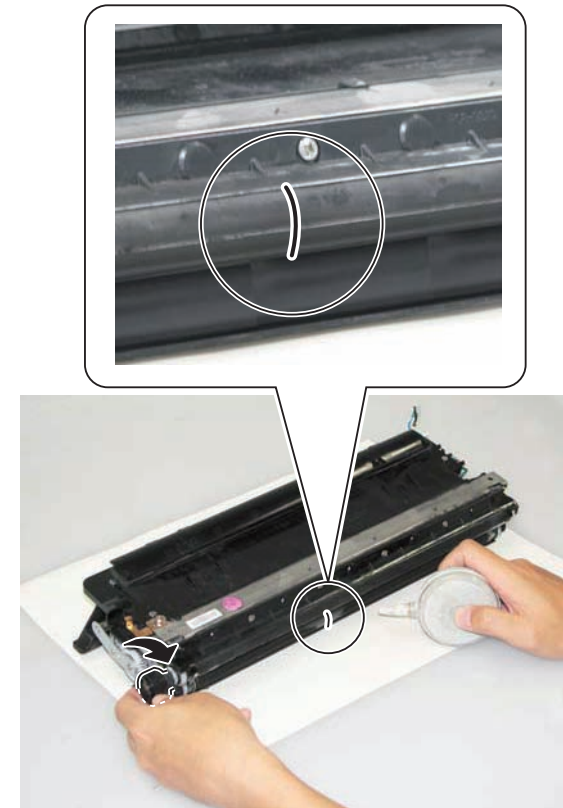
Be sure to use plain paper with around 75 g/m<sup>2</sup>. (Too thick paper may not be fit into the gap. Too thin paper can be folded or ripped.)

If it is difficult to insert paper, turn the gear clockwise and counterclockwise for 2 teeth so that it gets easier to insert paper between the sleeves. Do not turn the gear counterclockwise for half round or more (otherwise, it can cause image failure due to collected toner between the sleeve and the blade or between the sleeves)

## 3) Clean excess toner on the upper and lower sleeves.

Toner can be excessively attached because the toner is pushed to the sleeve when scraping out the foreign matter. Perform cleaning in the following steps because excess toner can cause uneven density.

3-1) While rotating the sleeve, blow the toner with the blower and then check for excess toner.



F-2-135

3-2) Pile up 3 sheets of lint-free paper and clean excess toner with the lint-free paper.

**NOTE:**

Do not apply force and lightly wipe out the excess toner. Rubbing the toner part can cause the rubbed part to be dark image.

- 3-3) Check if the toner blown by the blower is attached to the Developing Roller; if the toner is attached, wipe it with lint-free paper.  
(Otherwise, the toner is fused to the Roller that causes banding)



F-2-136

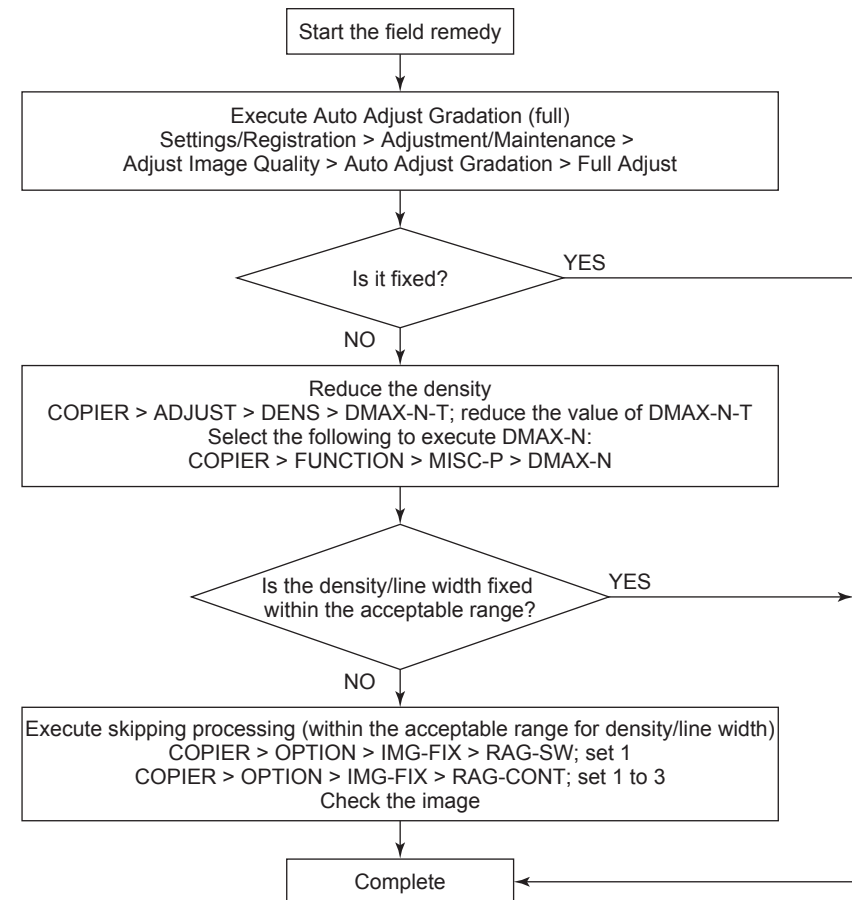
## ● Smearred image

[Cause]

Excess toner is transferred on the paper that causes toner collapse at the time of fixing, which can generate smearred image on the image. The following are assumed causes of smearred image:

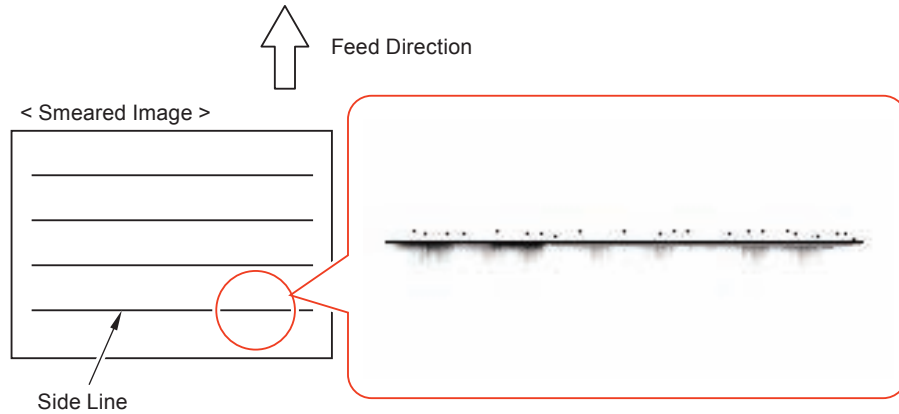
- When the paper type is changed
- Toner deterioration
- Rapid change in environment (High temperature <- -> Low temperature)

[Field Remedy]



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[Image]



F-2-138

Select the following to execute Full Adjust: “Settings/Registration > Adjustment Maintenance > Adjust Image > Auto Adjust Gradation < Full Adjust”;

- 1) COPIER > ADJUST > DENS > DMAX-N-T; reduce the value of DMAX-N-T from 895 (default) by -30.
- 2) Select the following to execute DMAX-N: COPIER > FUNCTION > MISC-P > DMAX-N; and then check the output result.

If the symptom is not improved, further reduce the value in step 1) by -30 and then execute step 2).

**CAUTION :**

Changing the above setting can cause reduced density or thinner line

If the smeared image is not improved within the acceptable range for density and line width, execute skipping process in the following procedure:

- 1) COPIER > OPTION > IMG-FIX > RAG-SW; change the value to 1
- 2) COPIER > OPTION > IMG-FIX > RAG-CONT; change to 1 and check the output result.
- 3) If the symptom is not improved, change the value in step 2) to 2, 3...and check the output result.

**CAUTION :**

Changing the above setting can cause minor skipping in the text part.

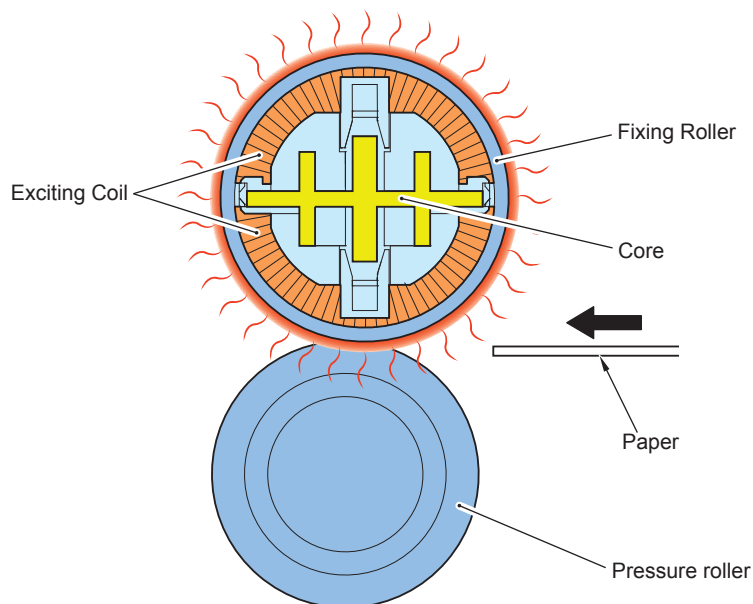
## Fixing

### Overview

#### Characteristics

##### 1) Whole-circumference IH heating method

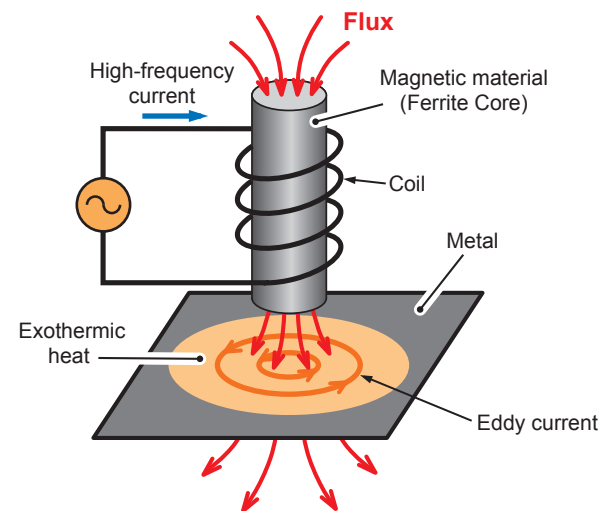
This machine uses the IH heating method to heat the whole circumference of the Fixing Roller. This method enables to shorten the warm-up time and high-speed printing.



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##### <IH (Induction Heating) method>

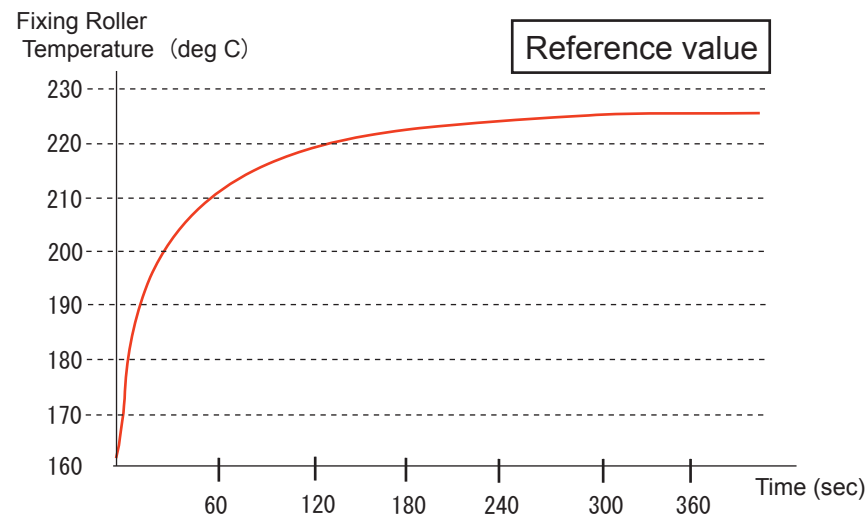
Supplying high frequency current to the coil inside the Heater Unit generates a high frequency magnetic field around the coil. By this magnetic field, an eddy current (induction current) runs through the Fixing Roller and the Fixing Roller generates electricity by itself.



F-2-140

##### 2) Using magnetic shunt alloy to prevent temperature rise at the edge of the Fixing Roller

This machine uses degaussing alloy as a material of the Fixing Roller to prevent temperature rise at the edge of the Fixing Roller (There is no control to cool the edge). Magnetic shunt alloy becomes less likely to generate electric current by electromagnetic induction because of its characteristic of losing magnetic property once it reaches a certain temperature (Curie temperature). This principle restricts excessive temperature rise of the Fixing Roller.



F-2-141



## 3) Making the Fixing Assembly as a unit

Maintenance performance has been improved by separating the Fixing Unit from the Host Machine to be assigned as a unit.

## 4) Saving energy

Improved toner allows reduction of fixing temperature that enables less energy consumption.

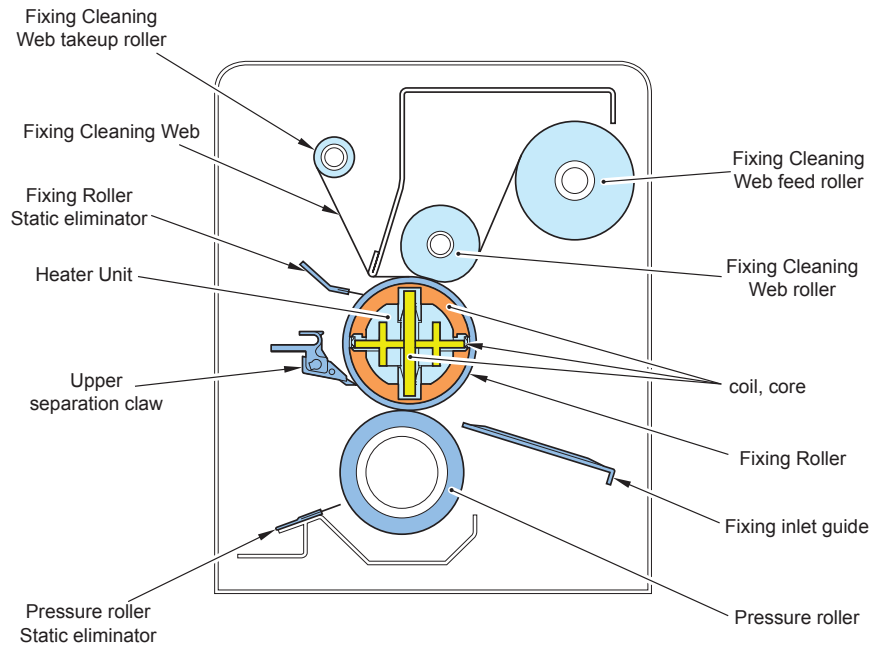
## ■ Specifications

Item		Function/method
Fixing method		Whole-circumference IH fixing method
Fixing Heater		IH heater
Fixing Roller		O/D: 40mm
Pressure Roller		O/D: 38mm
Control temperature		To be reduced accordingly from 195 deg C (at standby)
Fixing drive control		Switching the print speed and warm-up speed (low speed)
Thermistor	Fixing inlet side	Main Thermistor (contact type) The center of the Fixing Roller, Reciprocating width: 12mm Temperature control, Failure detection
	Fixing outlet side	Sub Thermistor (contact type) The rear of the Fixing Roller, No reciprocation Failure detection
Thermal Switch		2 pc. (non-contact type)
Protective function		Yes (detection by the Thermistor and the Thermal Switch)
Separation mechanism		Upper Separation Claw: contact type, Reciprocating width: 3mm
Static Eliminator		Fixing Roller/ Pressure Roller
Cleaning mechanism		Fixing Cleaning Web
Inlet guide height control		No
Bias application		No
Control to prevent temperature rise at the edge		No
Disengagement mechanism		No
idle rotation during standby		YES
Other controls		See "Controls" described later.

T-2-50

Parts configuration

Cross-section view

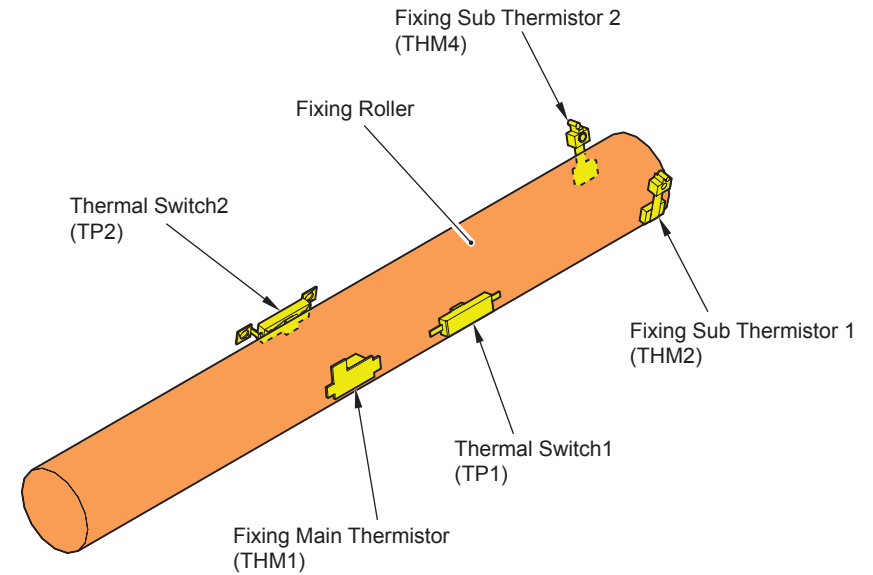


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Parts name	Function/method
Fixing Roller	Heating toner and paper To prevent abnormal temperature rise at the edge by using the degaussing alloy material
Pressure Roller	Pressing and feeding paper
Heater Unit	Whole Circumference IH Heater
Coil Core	To heat the whole circumference of the Fixing Roller
Fixing Cleaning Web	To remove residual toner on the surface of the Fixing Roller
Fixing Cleaning Web Roller	
Fixing Cleaning Web Take-up Roller	
Fixing Cleaning Web Feed Roller	
Upper Separation Claw	To separate paper from the Fixing Roller (to prevent paper-wrapping) Reciprocating width: 3mm
Fixing Inlet Guide	Paper Feed Guide to the Fixing Assembly
Fixing Roller Static Eliminator	To prevent leak, static offset and noise
Pressure Roller Static Eliminator	

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Thermistor, Thermal Switch

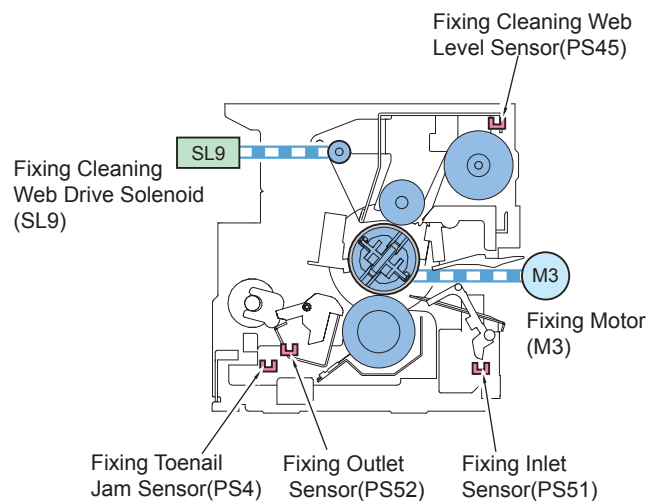


F-2-143

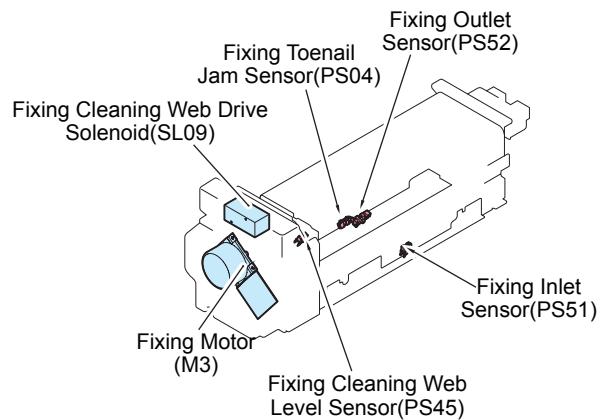
Code	Parts name	Function/method
THM1	Fixing Main Thermistor	Contact type temperature control, failure detection
THM2	Fixing Sub Thermistor 1	Contact type To detect failure with the coil at the fixing inlet side
THM4	Fixing Sub Thermistor 2	Contact type To detect failure with the coil at the fixing outlet side
TP1	Thermal Switch1	Non-Contact type (200 +/- 5 deg C) To prevent abnormal temperature rise(the fixing inlet side)
TP2	Thermal Switch2	Non-Contact type (200 +/- 5 deg C) To prevent abnormal temperature rise(the fixing outlet side)

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## Drive configuration



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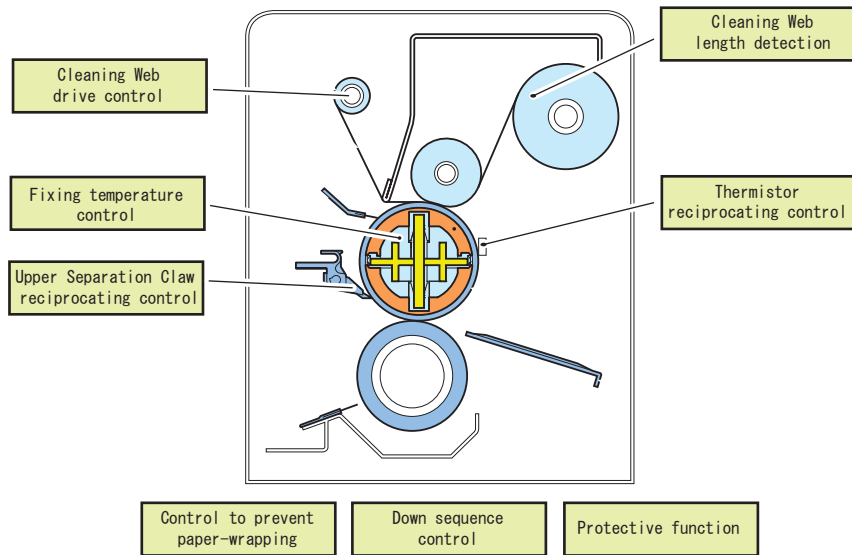


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Code	Parts name	Function/method
M3	Fixing Motor	To control drive of the Fixing Motor
SL9	Fixing Cleaning Web Drive Solenoid	To control drive of the Cleaning Web
PS4	Fixing Toenail Jam Sensor	To prevent scratches on Fixing Roller due to jam
PS45	Fixing Cleaning Web Level Sensor	To detect length of the Cleaning Web
PS51	Fixing Inlet Sensor	To detect paper wrapping and stationary
PS52	Fixing Outlet Sensor	

T-2-53

Controls  
Overview



F-2-146

NO	Control/Function	Overview
1	Fixing temperature control	To control temperature of the Fixing Roller to prevent fixing failure
2	Down sequence control	In the case of large difference between the target temperature and the detected temperature, this control drops productivity to prevent fixing failure and image failure.
3	Paper anti-wrapping control	To prevent failure of the Fixing Assembly caused by wrapping of paper around the Fixing Roller and the Pressure Roller.
4	Thermistor reciprocating control	To prevent scar on the Fixing Roller by the Main Thermistor, this control moves the Main Thermistor back and forth.
5	Upper Separation Claw reciprocating control	To prevent scar on the Fixing Roller by the Upper Separation Claw, this control moves the Upper Separation Claw back and forth.
6	Cleaning Web drive control	To prevent fixing offset, this control removes residual toner on the surface of the Fixing Roller.
7	Cleaning Web level detection	To detect level of the Cleaning Web.
8	Protective function	To detect error by Thermistor. To detect error by Thermoswitch.

T-2-54

Fixing temperature control

Overview

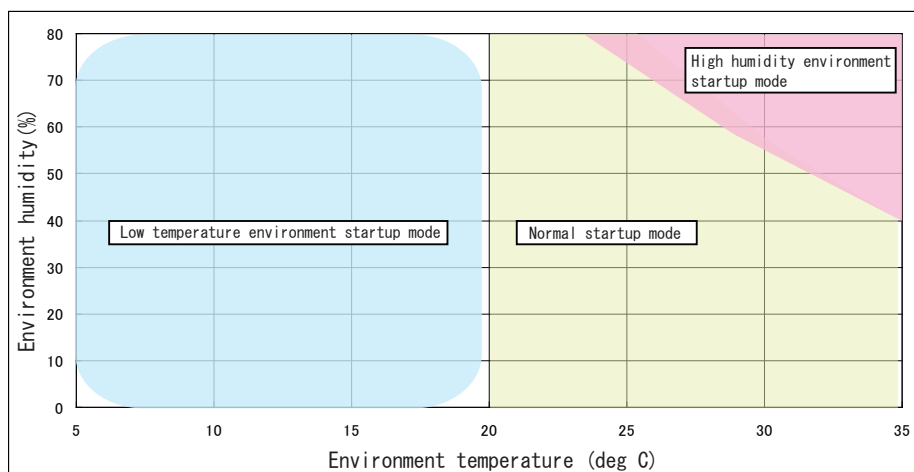
To prevent fixing failure, temperature control of the Fixing Roller is executed with the following timing.

NO	Temperature control	Overview
1	Temperature control during startup	To control temperature to reach the standby temperature. To be switched from the following 4 modes according to the environment temperature/ humidity and the temperature of the Fixing Roller: <ul style="list-style-type: none"> <li>• Normal startup mode</li> <li>• Low temperature environment startup mode</li> <li>• High humidity environment startup mode</li> <li>• Recovery mode</li> </ul>
2	Temperature control during standby	To control temperature so that printing can be performed immediately after receiving the print request signal
3	Temperature control during printing	To control temperature by the temperature table according to the paper type and the paper basis weight.
4	Other temperature adjustments	Following shows other temperature adjustments <ul style="list-style-type: none"> <li>• To control temperature for reducing power consumption.</li> </ul>

T-2-55

## ● Temperature control during startup

Temperature is controlled to reach the standby temperature.



F-2-147

### <Normal startup mode>

In the case of reaching the target temperature within 60 seconds due to quick temperature rise of the Fixing Roller, the target temperature is maintained to be shifted to the ready state once the potential control is completed.

Conditions			Target temperature	Target temperature reaching time
Environment temperature	Environment humidity	Fixing Roller temperature		
20 deg C or more	Low humidity environment(within 13g of absolute moisture content)	70 deg C or less	190 deg C	60 sec

T-2-56

### NOTE:

In the case of selecting the fixing improvement mode in the following service mode, the machine does not enter the startup state for 60 seconds and waits until the specified time.

COPIER> OPTION> BODY> FSPD-S1 :Selection of fixing improvement mode

### <Low temperature environment startup mode>

After it reaches the target temperature, the target temperature is maintained until completion of the potential control, and then the machine enters ready state.

Conditions			Target temperature	Target temperature reaching time
Environment temperature	Environment humidity	Fixing Roller temperature		
Less than 20 deg C	-	70 deg C or less	195 deg C	90 sec (reference value)

T-2-57

### <High humidity environment startup mode>

After it reaches the target temperature, the target temperature is maintained until completion of developing idle rotation as well as completion of the potential control, and then the machine enters ready state.

Conditions			Target temperature	Target temperature reaching time
Environment temperature	Environment humidity	Fixing Roller temperature		
-	humidity environment(13g or more of absolute moisture content)	70 deg C or less	190 deg C	90 sec (reference value)

T-2-58

### <Recovery mode>

The machine enters ready state once it reaches the target temperature.

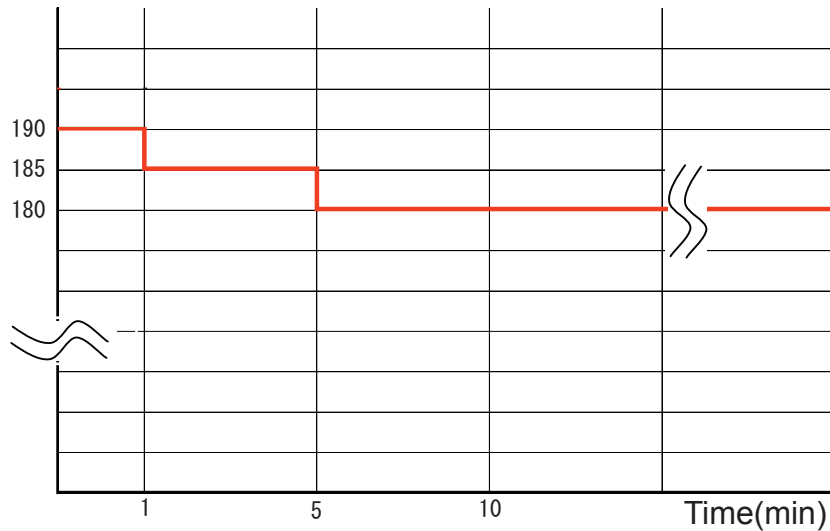
Conditions			Target temperature	Target temperature reaching time
Environment temperature	Environment humidity	Fixing Roller temperature		
-	-	70 deg C or more	195 deg C	60 sec or less

T-2-59

## ● Temperature Control for Standby

To provide measures against temperature rise of the coil/Main Body and save energy consumption, the target temperature is reduced step by step on a specified time basis until it reaches a certain temperature.

### Fixing Roller temperature(deg C)



F-2-148

The control temperature depends on the environment temperature/country. The details on the control temperature are shown below.

- Normal environment(20 degC or higher)

Destination	Time (minute)			
	0 to 1	1 to 5	5 to 10	10 and longer
All	195	195	190	190

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- Low temperature environment Lower than 20 degC

Destination	Time (minute)			
	0 to 5	5 to 10	10 to 20	20 and longer
All	195	195	195	185

T-2-61

#### NOTE:

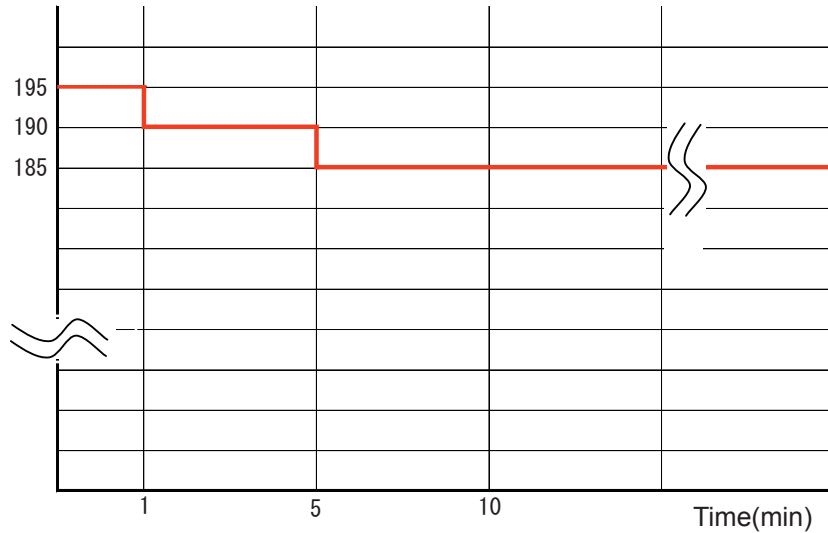
When restoring from the recovery mode, temperature control is conducted from the 2nd line of temperature control table.

● Temperature control during printing

The target temperature is reduced step by step on a specified time basis until it reaches a certain temperature.

This control reduces energy consumption to prevent temperature rise of the Fixing Roller.

Fixing Roller temperature(deg C)



F-2-149

The control temperature depends on the environment temperature/country/paper type. The details on the control temperature are shown below.

NOTE:

The following is the details of paper types shown in the following tables.

Paper type	Detail	Paper weight (g/m <sup>2</sup> )
A	Plain paper, recycled paper, color paper, pre-punched paper	64 to 90
B	Heavy paper (plain paper, recycled paper, color paper, pre-punched paper)	91 to 256
	Transparency, label paper, tracing paper, tab paper, postcard	All paper weight
C	Bond paper	All paper weight
D	Thin paper (plain paper, recycled paper, color paper, pre-punched paper)	52 to 63

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- Normal environment 20 deg C or higher

Destination	Paper Type	Time (minute)			
		0 to 1	1 to 5	5 to 10	10 and longer
100V machine	Plain paper	195	195	195	190
120V machine	Heavy paper	195	195	195	195
	Bond paper	215	215	215	215
	Thin paper	175	175	175	175
230V machine	Plain paper	195	195	195	190
	Heavy paper	195	195	195	195
	Bond paper	200	200	200	200
	Thin paper	175	175	175	175

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- Low temperature environment Lower than 20 deg C

Destination	Paper Type	Time (minute)			
		0 to 5	5 to 10	10 to 20	20 and longer
100V machine	Plain paper	200	200	198	198
120V machine	Heavy paper	200	200	200	200
	Bond paper	215	215	215	215
	Thin paper	185	185	185	185
230V machine	Plain paper	200	200	198	198
	Heavy paper	200	200	200	200
	Bond paper	200	200	200	200
	Thin paper	185	185	185	185

T-2-64

## ● Other temperature adjustments

<Energy Saver mode>

By pressing the energy saver key on the Control Panel, energy consumption is reduced by reducing the control temperature when the Fixing Unit is at standby state according to the energy saving rate.

**NOTE:**

To be recovered to the normal mode according to the recovery mode.

**NOTE:**

The energy saving rate can be changed from "Settings/Registration > Preferences > Timer/Energy Settings > Change Energy Saver Mode".  
(Default: -10%)

<Low power mode>

To save energy, in the case that no operation has been executed for a certain period of time, this machine is automatically to be in Low Energy Mode. Power distribution to the Fixing Unit is turned OFF in Low Energy Mode.

**NOTE:**

To be recovered to the normal mode according to the temperature control at warm-up.

**NOTE:**

The time to change to the low power mode can be changed from "Settings/Registration > Preferences > Timer/Energy Settings > Auto Sleep Time".  
(Default: 1 min.)

## ● Related Error Code

E000: Fixing Assembly low temperature error

E001: Fixing Assembly high temperature error

E002: Fixing Assembly temperature rise error

E003: Fixing Assembly temperature decrease error

E004: Fixing Power Supply error

**CAUTION:**

When any of the above Error Codes, E000 to E0004, is displayed, the error code display will not be cleared even though the Main Power Switch is turned OFF. In such a case, cancel the error by the following service mode and turn OFF and then ON the power.

COPIER>FUNCTION>CLEAR>ERR:Clear of error code

## ● Related Service Mode

Selection of fixing improvement mode

COPIER> OPTION> IMG-FX> FSPD-S1

Setting of paper wrinkle prevention mode

COPIER> OPTION> IMG-FIX> FX-WNKL



## Down sequence control

### Overview

In the case of great difference between the target temperature and the detected temperature at the start of printing or during printing, productivity is dropped to prevent fixing failure or image failure.

### Execution timing

- During printing
- At the start of printing and when the paper type is switched

### Control description

This control has the 3 types of down sequences according to the execution timing.

1) In the case of decrease in fixing temperature (during printing)

When the fixing temperature drops during the job, the productivity is dropped or the job is stopped to prevent fixing failure.

<Plain paper>

In case of plain paper, the fixing temperature of 100% productivity maintains, so the down sequence does not start.

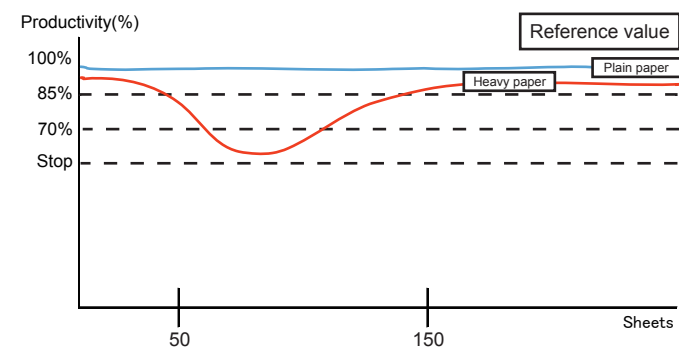
#### NOTE:

In case of the default print temperature, 100% productivity is maintained.

When the print temperature is reduced by the service mode, the down sequence may be started according to the use environment.

<Heavy paper>

Right after the startup (including restoration from the sleep mode), a whole Fixing Assembly is not warm enough, so the down sequence may be started. However, as printing continues sequentially, the temperature of the Fixing Assembly is increased and reaches to the temperature of the 100% productivity



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## 2) When printing is started and the paper type is switched

Because fixing temperature differs according to the paper type, switching the paper type causes downtime.

Up to 60 seconds downtime is expected with this machine (switching from heavy paper to thin paper). The following shows estimated downtime.

pattern of paper type switching	downtime (reference value)	Remarks
Plain paper -> Heavy paper	5 sec	-
Thin paper -> Heavy paper	10 sec	-
Heavy paper -> Plain paper	-	Switching the temperature control is conducted, but print operation continues, so downtime does not occur.
Heavy paper -> Thin paper	60 sec	-
Bond paper -> Heavy paper	-	Switching the temperature control is conducted, but print operation continues, so downtime does not occur.
Bond paper -> Plain paper	-	-
Bond paper -> Thin paper	60 sec	-
Thin paper -> Bond paper	80 sec	-
Plain paper -> Bond paper	30 sec	-
Heavy paper -> Bond paper	10 sec	-

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## 3) When the quality priority mode is specified

Due to the temperature rising at the edge of the Fixing Roller, image failure may occur on halftone printing. To prevent image failure, user can enable the following mode from "Settings/Registration".

Settings/Registration > xxxx > xxxx

With this mode, idle rotation is executed to keep constant temperature on the Fixing Roller when above the certain level of temperature difference between the center and the edge of the Fixing Roller is detected. During idle rotation, paper feed is stopped, so the productivity is reduced.

**NOTE:**

When the quality priority mode is specified, productivity may be extremely reduced depending on use conditions (paper size, paper type, and print image). In such a case, the level of production reduction can be changed by the following service mode.

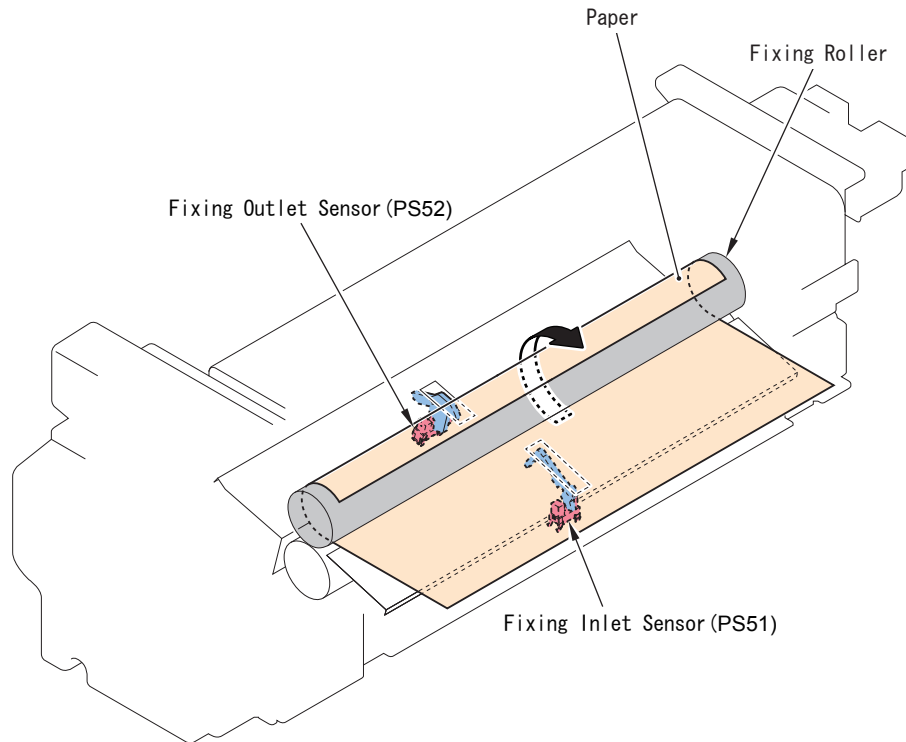
## ● Related Service Mode

- To change temperature threshold of down sequence with special paper  
COPIER> OPTION> IMG-FX> FIX-TEMP  
0 : Fixing priority, 1: Normal, 2: Productivity priority
- Set fixing/productivity: Plain paper A3+  
COPIER> OPTION> IMG-FX>FIX-TMP2
- Set fixing/productivity: Spcl ppr A3+  
COPIER> OPTION> IMG-FX>FIX-TMP3
- Set Img Quality Priority level:user mode  
COPIER> OPTION> IMG-FX>FX-IMGLV
- Curl reduction modes  
COPIER> OPTION> IMG-FX> TEMP-TBL2: to change control temperature for thin paper  
COPIER> OPTION> IMG-FX> TEMP-TBL: to change control temperature for plain paper  
COPIER> OPTION> IMG-FX> TEMP-TBL3: to change control temperature for heavy paper  
COPIER> OPTION> IMG-FX> TEMP-TBL4: to change control temperature for bond paper

## ■ Paper Anti-wrapping Control

### ● Overview

With this control, failure of the Fixing Assembly caused by paper wrapping around the Fixing Roller and the Pressure Roller is prevented.



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### ● Control description

In the case of delay jam at the fixing outlet, the DC Controller determines paper wrapping if the paper remains in the Fixing Assembly and executes the following.

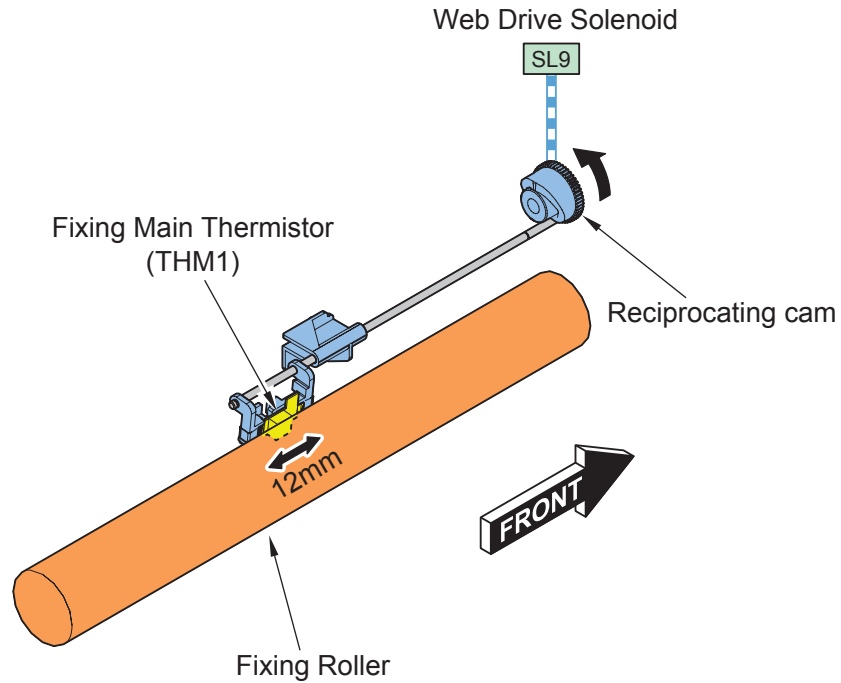
- The brake is applied to the Fixing Motor to immediately stop operation of the Fixing Motor (to minimize the paper wrapping level)
- Power distribution to the coil is stopped (to ensure safety).
- A jam is displayed.(Jam Code:0111)
- Cleaning of the Fixing Roller is executed (5 times of web cleaning)

#### NOTE:

Paper presence in the Fixing Assembly is determined by the paper detection log with the Fixing Inlet Sensor (to see whether the paper passes through the Sensor).

### ■ Thermistor reciprocating control

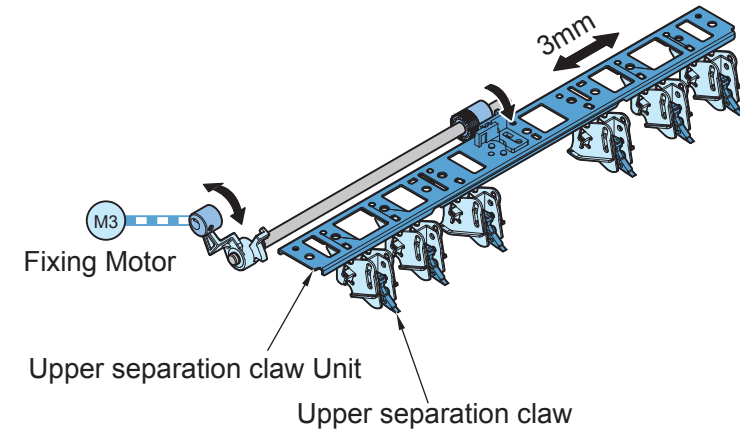
To prevent scar on the Fixing Roller by the Fixing Main Thermistor (THM01), the Fixing Main Thermistor is moved back and forth by 12mm in the shaft direction of the Fixing Roller. The drive of the Fixing Cleaning Web Drive Solenoid (SL09) is transmitted to the Reciprocating Cam.



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### ■ Upper separation claw reciprocating control

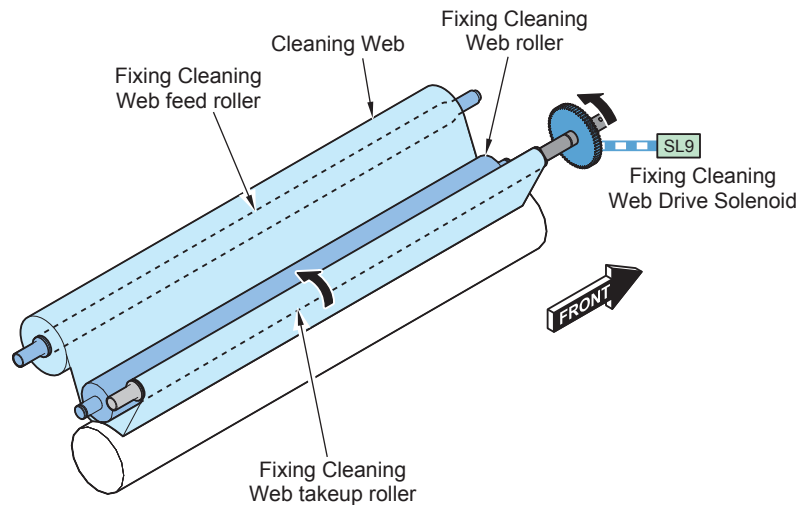
To prevent scar on the Fixing Roller by the Upper Separation Claw, the Upper Separation Claw is moved back and forth by 3mm in the direction of the Fixing Roller.



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## ■ Cleaning web drive control

To prevent fixing offset, the residual toner on the surface of the Fixing Roller is removed with the Cleaning Web.



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The take-up length of the Cleaning Web is determined by the paper size and the number of sheets (in 1 job).

Paper size	1st sheet	2nd sheet	3rd sheet	4th sheet or later
Small The size with less than 220mm length in feeding direction (LTR or less)	1-time	1-time	0-time	Repeat wrapping amount of the 1st to the 3rd sheet
Middle The size between 237mm and 364mm in feeding direction (B5R to LGL/B4)	1-time	1-time	1-time	
Large The size with 220mm or more length in feeding direction (B5R or more)	2-time	1-time	1-time	

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When the paper is stationed in the Fixing Unit due to a jam or an error, the Fixing Web Drive Solenoid is turned ON for 5 times at the time of recovery.

## ● Related Error Code

Error in connection of the Fixing Web Solenoid  
005-0001

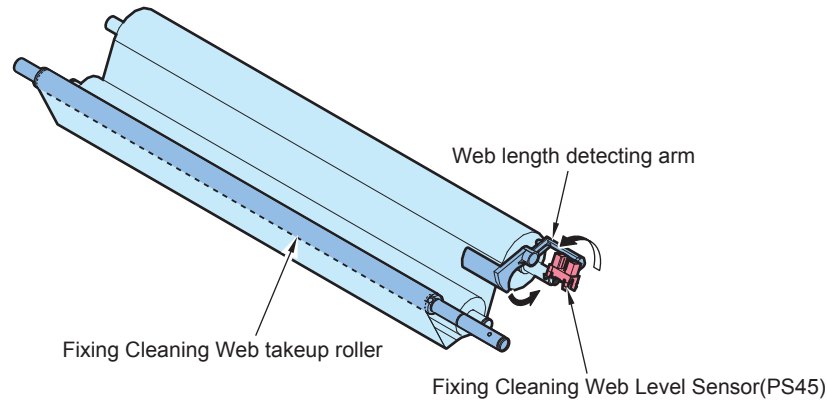
## ● Related Service Mode

To switch the number of times to turn ON the Fixing Web Drive Solenoid  
COPIER > OPTION > BODY > CBLTINVL

- 0: Normal [default]
- 1: 1.5 times of the normal mode
- 2: 0.5 times of the normal mode
- 3: 0.75 times of the normal mode

## ■ Cleaning web length detection

When the length of the Cleaning Web is reduced, the Web Level Detection Arm is moved in the direction of the arrow to block the light path of the Fixing Cleaning Web Level Detection Sensor (PS45). When the Fixing Web Drive Solenoid has been turned ON for 4 times after the detection by this sensor, a fixing web length warning message is displayed on the Control Panel.



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After the display of the fixing web length warning message, the number of turning ON the Fixing Cleaning Web Drive Solenoid is to be counted.

The Error Code "E005-0000" is displayed once the counter value reaches 2000 (3000 sheets of copy/print in A4 size)

In the case of replacing the Fixing Cleaning Web, be sure to clear the Fixing Web Counter by the following Service Mode

Fixing Cleaning Web take-up counter after the level warning

COPIER >COUNTER >MISC >FIX-WEB

Fixing Cleaning Web take-up counter

COPIER >COUNTER >DRBL-1>FX-WEB

### Related Error Code

Error in absence of the Fixing Web

E005-0000:After the advance notice detection for the absence of the Fixing Web, the web has continued to be pulled for 2000 times.

## ■ Protective function

### ● Detecting an Error Using the Thermistor

In the event of the following, the machine will set the DC power (12 V) used to drive the AC relay (found on the fixing heater power supply PCB), thereby stopping the AC power to the fixing heater.

- the main thermistor (THM1)/sub thermistor1 (THM2)/sub thermistor2 (THM4) has detected overheating.
- the difference between temperature of each thermistors has deviated from a specific value.

### ● Detecting an Error Using the Thermal Switch

In response to a deviation in temperature (200 +/-5 deg C), bimetal contact of the thermal switch (TP1; non-contact type/TP2; non-contact type) will open to cut the power supply line (12 V) used to drive the AC relay on the fixing heater power supply PCB, thereby stopping the AC power to the fixing heater.

Once the contact point of the Thermal Switch is open, it will not be recovered even though the high temperature becomes to be normal temperature. Be sure to eliminate the cause of the error, and then replace the Thermal Switch.

## Servicing

### Periodically Replaced Parts

No	Parts name	Parts Number	Piece	Expected life	Remarks
1	Main Thermistor Unit	FK2-7692-000	1	500,000 sheets	
2	Sub Thermistor	FK2-7693-000	2	500,000 sheets	

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### Consumable Parts

No	Parts name	Parts Number	Piece	Expected life	Remarks
1	Fixing Cleaning Web	FC5-2286-000	1	500,000 sheets	
2	Fixing Roller	FL3-3602-000	1	600,000 sheets	
3	Fixing Roller Insulating Bush	FC9-8069-000	2	600,000 sheets	
4	Pressure Roller	FM4-3158-000	1	600,000 sheets	
5	Pressure Roller Static Eliminator	FC9-6170-000	1	600,000 sheets	
6	Fixing Roller Thrust Retainer	FC6-3501-000	2	500,000 sheets	Be sure to replace it together with the Fixing Roller.
7	Upper separation claw	FB5-3625-000	6	500,000 sheets	

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### Periodical Servicing List

Parts/Area Name	Piece	Operation Interval	Remarks
Fixing inlet guide	1	500,000 sheets	Clean with lint-free paper moistened with alcohol.
Fixing Right Stay	1		Clean with lint-free paper moistened with alcohol.
Dowel	4		Clean with lint-free paper moistened with alcohol.
Dowel Holder	4		Clean with lint-free paper moistened with alcohol.
Fixing oil pan	1		Dry wipe
Upper separation claw	6		Clean with lint-free paper moistened with alcohol.
Fixing RollerStatic eliminator	1		Dry wipe
Fixing inlet Sensor Flag	1		Clean with lint-free paper moistened with alcohol.
Inner Delivery Roller	4		Clean with lint-free paper moistened with alcohol.

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## When Replacing Parts

### Fixing Roller

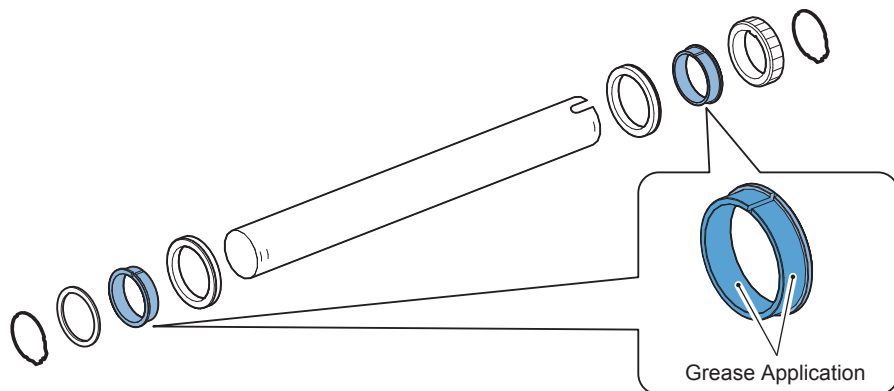
#### <Procedure of parts replacement>

see "Removing the Fixing Roller, Insulating Bush and Thrust Stopper," on p. 4-185.

#### <Procedure of adjustment>

##### 1) Grease Application

Apply approx. 230 mg of grease (MOLYKOTE HP-300; CK-8012) to inner circumference and outer circumference of the Insulating Bushing so that all circumferences are covered with white film. If grease is not applied, abnormal noise may occur, or the Fixing Roller Thrust Retainer may come off or be damaged.

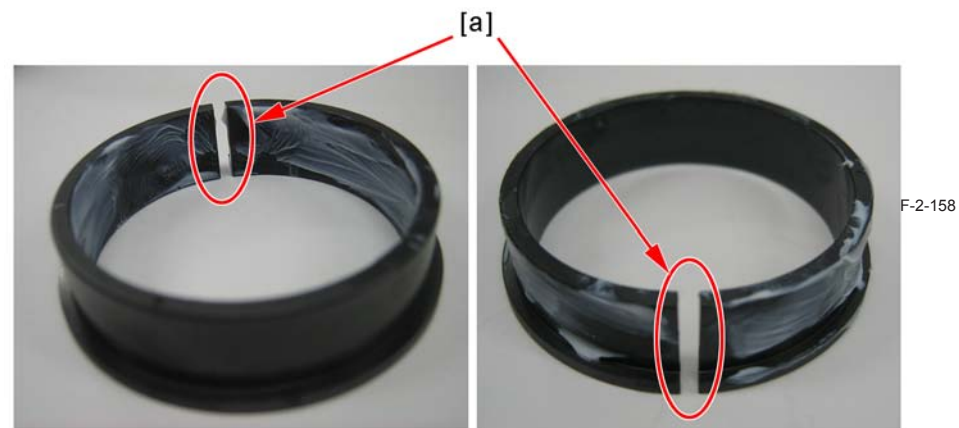


- As a rough standard, see the following for the amount of grease to be applied (approx. 230 mg).



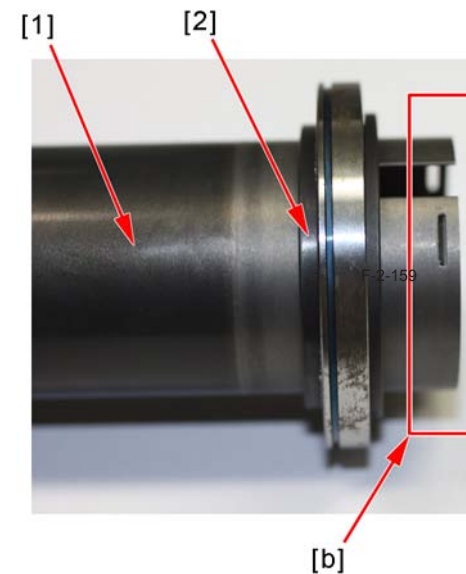
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- When applying grease, pay attention not to get it accumulated in the cut [a].



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- When installing the Insulating Bushing [2] to the Fixing Roller [1], wipe off excess grease adhered to the end face of the Fixing Roller (including the groove on the edge) [b]. Otherwise, grease may adhere to the Fixing Roller Thrust Retainer or be scattered from the Fixing Roller.



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##### 2) Clear the counter

COPIER > COUNTER > DRBL-1 > FX-UP-RL



### ● Main Thermistor

- Clear the counter  
COPIER >COUNTER > PRDC-1 >FIX-TH1

### ● Sub Thermistor1,2

- Clear the counter  
COPIER >COUNTER > PRDC-1 >FIX-TH2

## Troubleshooting

### Paper wrinkle

#### <Location>

Fixing Roller, Pressure Roller

#### <Cause>

Right after the startup, temperature is different between the center and the edge of the Fixing Roller (temperature: center > edge).

Because a slippery solid black image does not match to the nip shape when it is fed, the center of paper is pulled toward the feeding direction, causing paper wrinkle.

#### <Condition>

Timing: Approx. 20 sheets immediately after the startup first time for the day

Paper size: Paper size larger than B4

#### <Field Remedy>

Normally, when printing to paper larger than A3 or LDR size paper at the start of printing in a high humidity environment, control temperature is increased by performing idle rotation. Paper wrinkle which occurs at this time can be decreased, but first copy time becomes longer. In other cases, idle rotation is not performed.

If paper wrinkle occurs on paper larger than B4, increase the setting value from 2 in increments of 1 until paper wrinkle is alleviated.

If paper wrinkle occurs on B4 size paper, increase the setting value from 4 in increments of 1 until paper wrinkle is alleviated.

COPIER>OPTION>BODY>FX-WNKL

#### [Setting values]

0: OFF

1: When paper is larger than A3/LDR size paper in a high humidity environment, idle rotation is performed for up to 20 seconds. (Default)

2: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 10 seconds, whereas it is performed for up to 20 seconds when paper size is 304.8×457.2 mm (12"×18")/330.2×482.6 mm (13"×19").

3: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 20 seconds, whereas it is performed for up to 40 seconds when paper size is 304.8×457.2 mm (12"×18")/330.2×482.6 mm (13"×19").

4: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 20 seconds.

5: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 40 seconds.

6: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 60 seconds.

## ● Checking nip width

In the case of paper wrinkle or fixing failure, check that the fixing nip width is within the specified range. Note that the fixing nip width of this equipment cannot be adjusted in the field.

1) Print approx. 20 sheets of A4 size paper.

2) Set A4 size plain paper/recycled paper on the Multi-purpose Tray.

3) COPIER > Function > FIXING > NIP-CHK

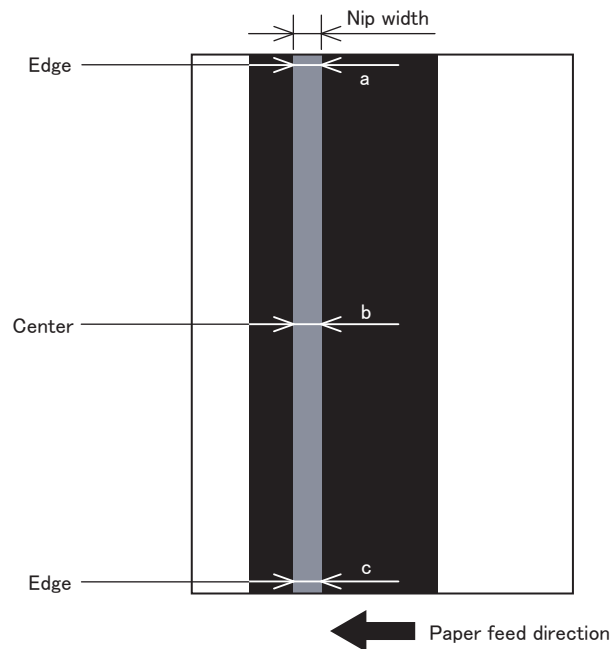
A sheet is stopped once in a state held by the Fixing Nip area, and is delivered approx. 20 seconds later.

4) Measure the nip width of delivered sheet.

If the nip widths are as follow it is judged as normal: 7.0 to 8.0 mm at the center (b), and difference between front(a) and rear(b) is within 0.5 mm.

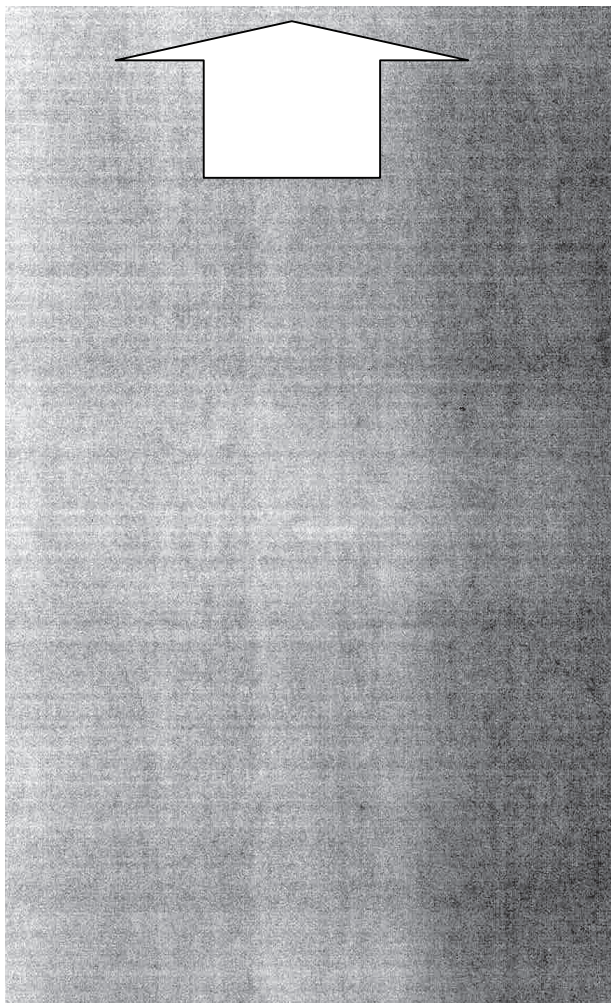
In the case of failure, check if there are any damaged parts (\*), and replace the damaged parts (if any).

\* Gear, Bearing, Fixing Roller, Pressure Roller and Fixing Assembly



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## ● Image failure due to the temperature rising at the edge of the Fixing Roller (crepe mark)



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### <Location of Trouble>

Fixing Roller, Pressure Roller

### <Cause>

This is the symptom which image error like crepe mark occurs when temperature at the edge of the Fixing Roller rises.

When the temperature rising at the edge occurs, the edge of the Pressure Roller made with rubber expands, giving the following influences on papers.

- Feed speed at the edge is increased, compared with the speed at the center.
- Tension is applied in the direction of both edges.

As it get close to the trailing edge, fixing is performed while a paper is distorted, causing an image error.

### <Conditions>

Although all images have a possibility to have the error because the cause is temperature rising at the edge, the symptom is mainly significant with halftone images. The following shows estimated error occurrence with halftone image.

- When printing 200 sheets or more of small size paper continuously (approx. 1000 sheets in A4 size)
- When printing a large size sheet right after printing 100 sheets or more of small size paper continuously

### <Field Remedy>

1) Go through the following: Settings/Registration > XXX > XXX; and turn ON the item.

By doing so, image error (crepe mark) will not occur.

With this setting, temperature difference between the center and the edge of the Fixing Roller is detected, and start idle rotation when temperature rising at the edge tends to occur.

During idle rotation, paper feed is stopped to keep constant temperature on the Fixing Roller, so the productivity is reduced.

2) Switching the image priority mode level.

When the image priority mode is specified, productivity may be extremely reduced depending on use conditions (paper size, paper type, and print image).

In such a case, change the level of production reduction by the following service mode.

COPIER >OPTION >IMG-FIX > FIX-IMGLV

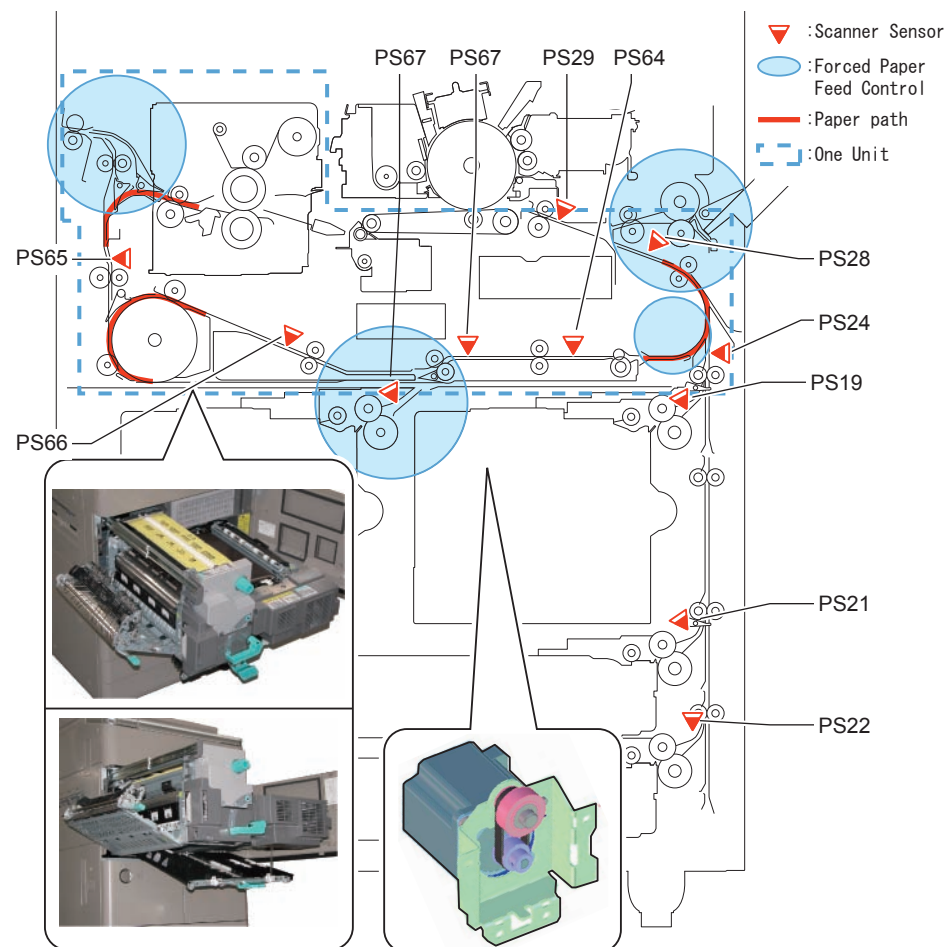
[Setting values] 0: xxx, 1: xxx, 2: xxx

## Pickup / Feed System

### Overview

#### Overview

- Improved productivity (75ppm -> 105ppm)  
This feature is enabled by using highly-sensitive Scanner Sensor.
- Supported media (heavy paper) (52g/m<sup>2</sup> -> 256g/m<sup>2</sup>)  
This feature is enabled by making gentler curve of the pre-registration path, reverse path and duplex merging path.  
This feature is enabled by increasing pressure of the Pickup Roller.
- Support of large size: 13" x 19" inch (330.2mm x 482.6mm)  
This feature is enabled by broadening the feeding path width.
- Improved jam processing performance  
This feature is enabled by making the Fixing/Feed Assembly and the Duplex Assembly as one unit as well as making the Delivery Unit and the Door of the Fixing Assembly as one unit.  
This feature is enabled by using forcible paper feed control that feeds paper to the position where the jammed paper is easily removed in the case of paper jam.
- Increased pickup capacity of the Multi-purpose Tray (50 sheets -> 100 sheets)  
Simple retard method is used for pickup.  
Stacking capacity has increased from 50 sheets to 100 sheets thanks to the pickup tray that moves up and down.
- Reduced noise  
This feature is enabled by using a belt-type motor.



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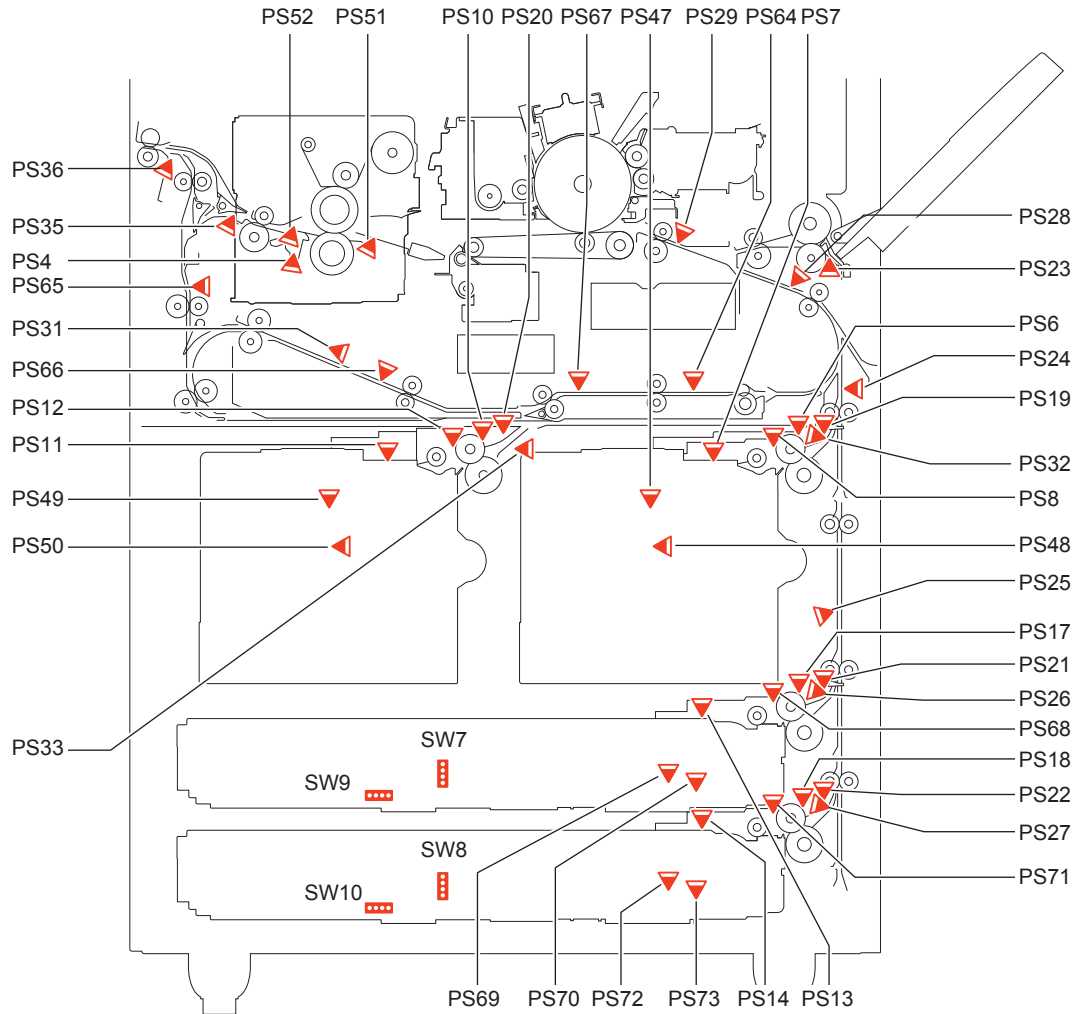
## Specifications

Item	Function/Method	
Paper Storage Method	Front Loading Method	
Pickup Method	Separation Retard Method	
Paper Feed Standard	Center	
Paper Loading Capacity	Left/Right Deck	1500 sheets (80 g/m <sup>2</sup> )
	Cassette 3/4	550 sheets (80 g/m <sup>2</sup> )
	Multi-purpose Tray	100 sheets (80 g/m <sup>2</sup> )
Paper Size	Left/Right Deck	A4,B5,LTR
	Cassette 3/4	A3 B4,A4,A4R,B5,B5R,A5R,8K(270.0 x 390.0mm),16K(270.0 x 195.0mm),LDR(279.4 x 431.8mm),LGL(215.9 x 355.6mm),LTR(279.4 x 215.9mm),LTRR(215.9 x 279.4mm),STMTR(139.7 x 215.9mm),EXE(267.0 x 184.0mm),12" x 18"(304.8 x 457.2mm),12" x 18"(304.8 x 457.2mm),SRA3(320 x 450mm),13" x 19"(330.2 x 482.6mm)
	Multi-purpose Tray	Size that can be loaded to cassette, Postcard, Reply Postcard, 4 On 1 Postcard, Envelope, Irregular size (100 x 148 mm to 330.2 x 487.7 mm)
Paper Grammage	Left/Right Deck	52g/m <sup>2</sup> -220g/m <sup>2</sup>
	Cassette 3/4	52g/m <sup>2</sup> -220g/m <sup>2</sup>
	Multi-purpose Tray	52g/m <sup>2</sup> -256g/m <sup>2</sup> (Duplex printing 52g/m <sup>2</sup> -220g/m <sup>2</sup> )
Paper Size Switching	Left/Right Deck	Service Switching
	Cassette 3/4	Auto size detection
	Multi-purpose Tray	Depends on user
Paper Size Switching	Through path	
Transparency detection	Available	

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Parts configuration

Switch/Sensor 1



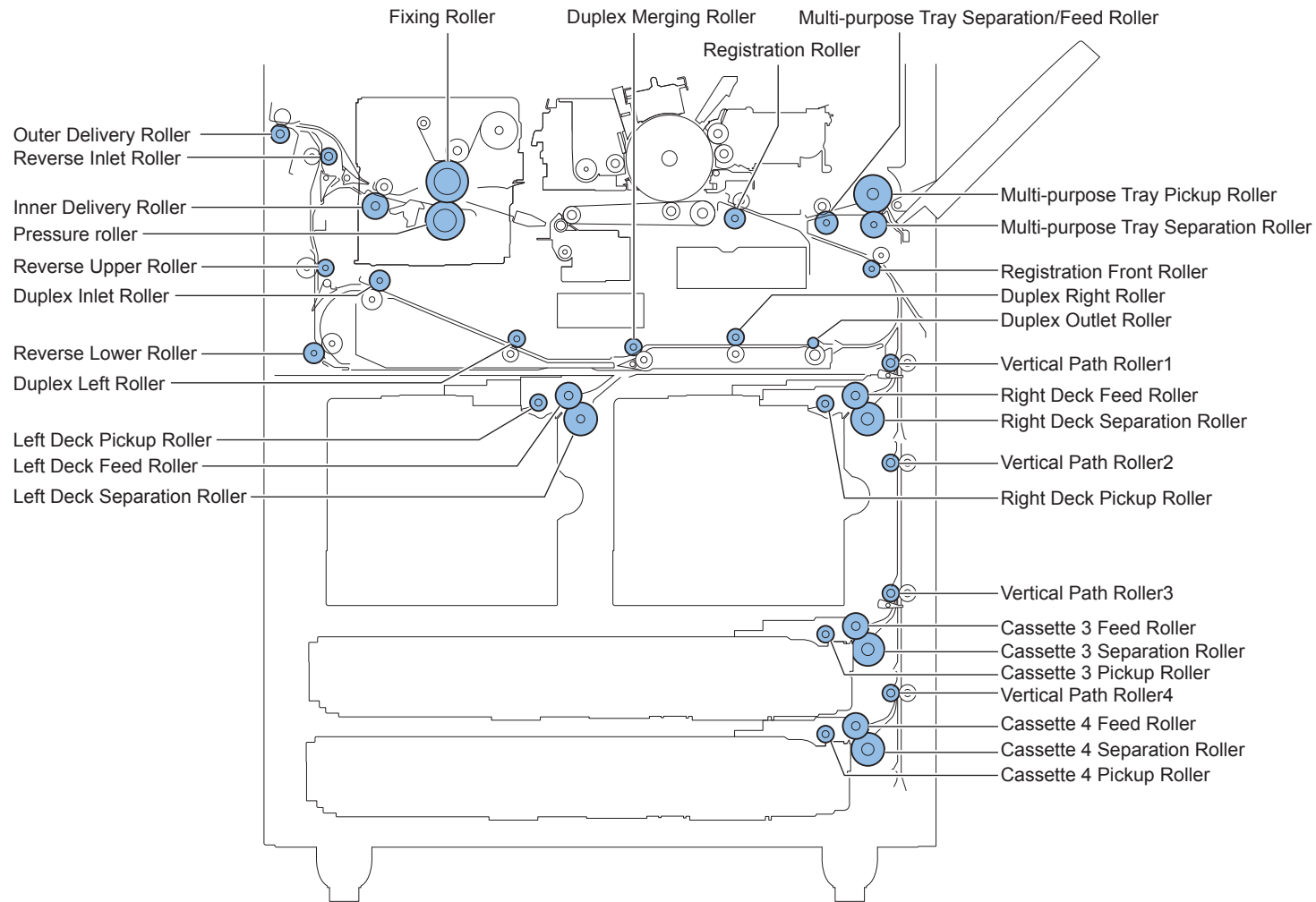
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PS No.	Sensor No.
PS2	Vertical Path Cover Open/Close Sensor
PS3	Multi-purpose Cover Open/Close Sensor
PS4	Fixing Toenail Jam Sensor
PS6	Right Deck Paper Height Sensor
PS7	Right Deck Paper Sensor
PS8	Right Deck Upper Limit Sensor
PS10	Left Deck Paper Height Sensor
PS11	Left Deck Paper Sensor
PS12	Left Deck Paper Height Sensor
PS13/14	Cassette 3 Paper Sensor / Cassette 4 Paper Sensor
PS17/18	Cassette 3 Paper Height Sensor / Cassette 4 Paper Height Sensor
PS19*	Right Deck Pull Out Sensor
PS20*	Left Deck Pickup Sensor 2
PS21*	Vertical Path Sensor3
PS22*	Vertical Path Sensor4
PS23	Multi-purpose Tray Paper Sensor
PS24*/PS25	Vertical Path Sensor1/Vertical Path Sensor2
PS26/PS27	Cassette 3 Pickup Sensor/Cassette 4 Pickup Sensor
PS28*	Writing Gudging Sensor
PS29*	Registration Sensor
PS31	Side Registration Sensor
PS32	Right Pickup Sensor
PS33	Left Deck Pull Out Sensor
PS35	Inner Delivery Sensor
PS36	Outer Delivery Sensor
PS47/48	Right Deck Paper Level Sensor 1/2
PS49/50	Left Deck Paper Level Sensor 1/2
PS51/PS52	Fixing Inlet Sensor/Fixing Outlet Sensor
PS64*	Duplex Outlet Sensor
PS65*	Reverse Vertical Path Sensor
PS66*	Duplex Left Sensor
PS67*	Duplex Merging Sensor
PS68	Cassette 3 Upper Limit Sensor
PS69	Cassette 3 Paper Level Sensor 1
PS70	Cassette 3 Paper Level Sensor 2
PS71	Cassette 4 Upper Limit Sensor
PS72	Cassette 4 Paper Level Sensor 1
PS73	Cassette 4 Paper Level Sensor 2
SW7	Cassette 3 Paper Width Detection Switch
SW8	Cassette 4 Paper Width Detection Switch
SW9	Cassette 3 Paper Length Detection Switch
SW10	Cassette 4 Paper Length Detection Switch

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\*Scanner Sensor

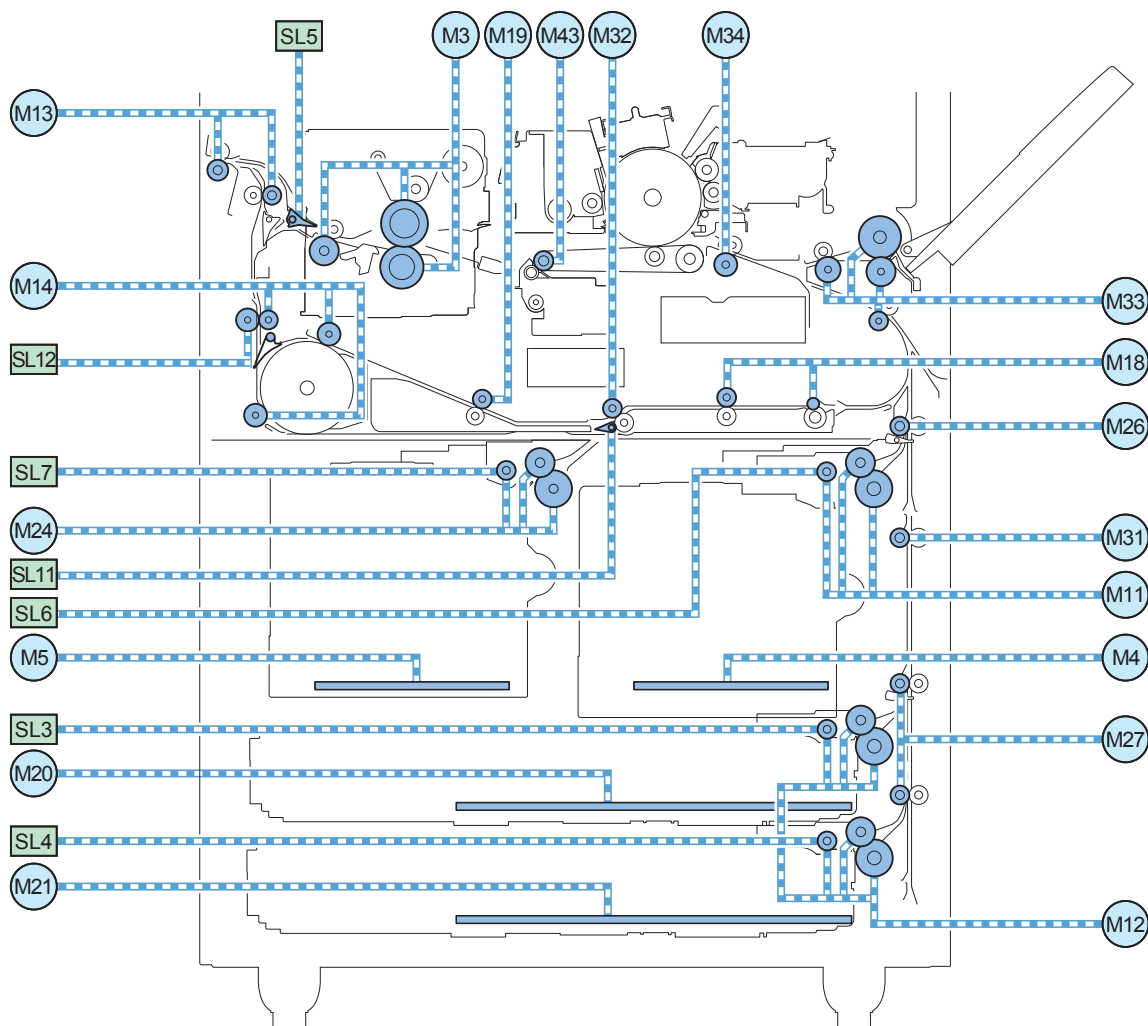
## Roller



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## Drive Configuration

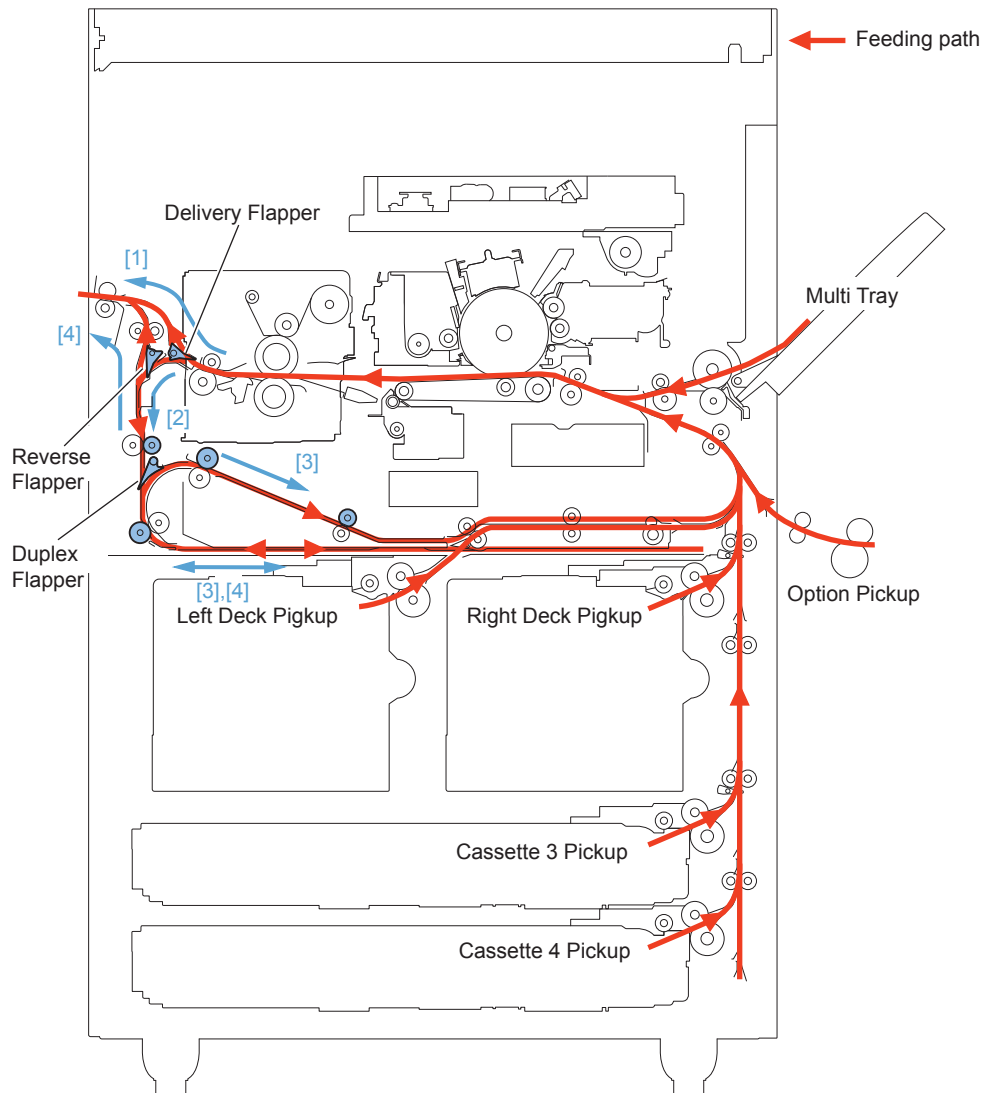


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No.	Name
M3	Fixing Motor
M4	Right Deck Lifter Motor
M5	Left Deck Lifter Motor
M11	Right Deck Pickup Motor
M12	Cassette3/4 Pickup Motor
M13	Delivery Motor
M14	Reverse Motor
M18	Duplex Feed Right Motor
M19	Duplex Feed Left Motor
M20	Cassette3 Lifter Motor
M21	Cassette4 Lifter Motor
M24	Left Deck Pickup Motor
M26	Vertical Path Upper Motor
M27	Vertical Path Lower Motor
M31	Vertical Path Middle Motor
M32	Duplex Feed Merging Motor
M33	Multi-purpose Registration Front Motor
M34	Registration Motor
M43	ETB Motor
SL3	Cassette 3 Pickup Solenoid
SL4	Cassette 4 Pickup Solenoid
SL5	Reverse Upper Flapper Solenoid
SL6	Right Deck Pickup Solenoid
SL7	Left Deck Pickup Solenoid
SL11	Left Deck Merging Solenoid
SL12	Reverse Detachment Solenoid

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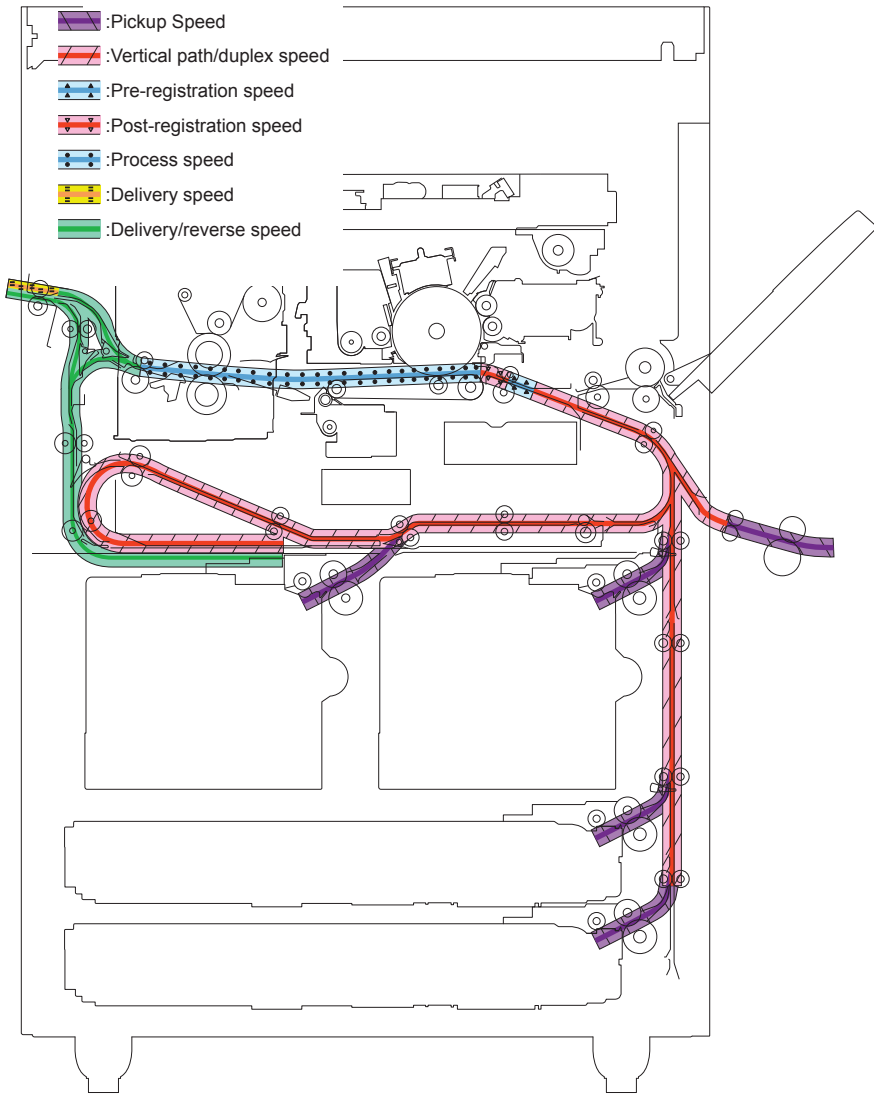
## Paper path



- [1] 1-side face-up delivery, duplex face-down delivery
- [2] 1-side face-down delivery, duplex printing
- [3] Duplex printing
- [4] 1-side face-down delivery

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Interval speed

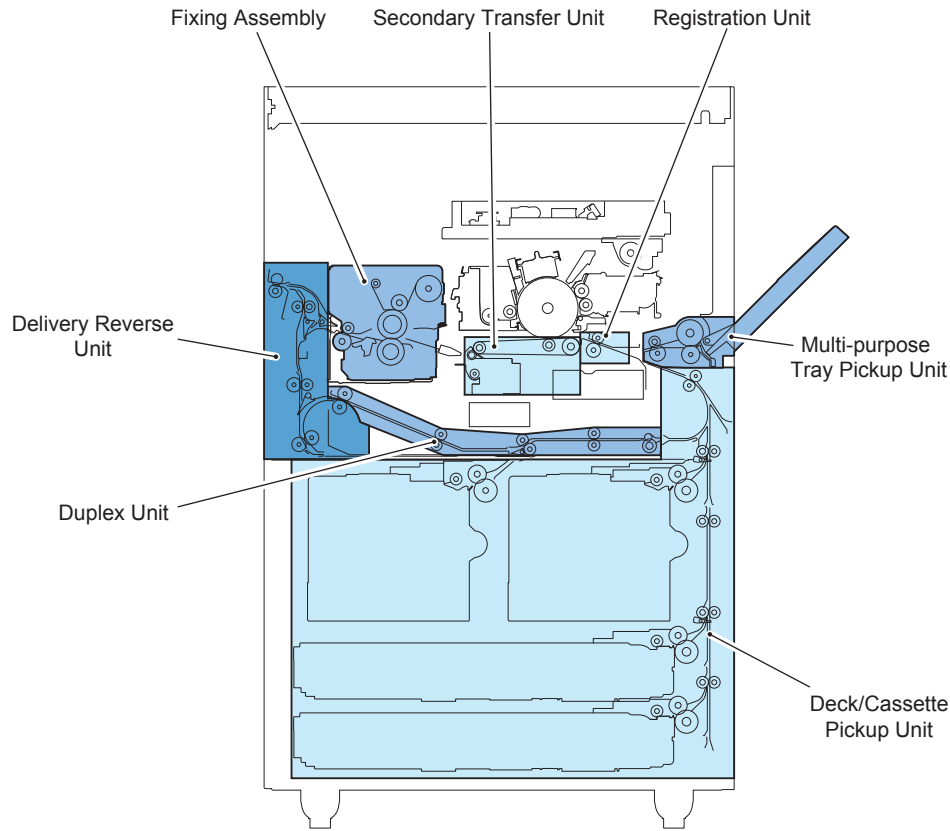


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Model	ImageRUNNER ADVANCE		
	8105/8095/8085 [mm/s]		
[ppm]	105	95	85
Pickup speed	500		
Vertical path/duplex speed	750		
Pre-registration speed	500		
Post-registration speed	750		
Process speed	500		
Delivery speed	1100		
Delivery/Reverse speed	1100		

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■ Various types of control



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Unit	Control
Deck/cassette pickup unit	Basic Movement
	Deck/Cassette detection
	Paper Size Detection
	Paper Level Detection
	Paper Detection
	Pickup Retry Control
	Pickup Retry Control
Multi-purpose pickup tray unit	Basic Movement
	Paper Detection
Pre-registration/Registration Unit	Pre-registration Control
	Basic Movement
	Registration Deceleration Control
Delivery unit/Duplex unit	Registration Acceleration Control
	Face-up Delivery
	Face-down Delivery
	Basic Movement
	Side Registration Control
Jam detection	Circulation quantity and limit
	Jam Code List
	Forced Paper Feed Control

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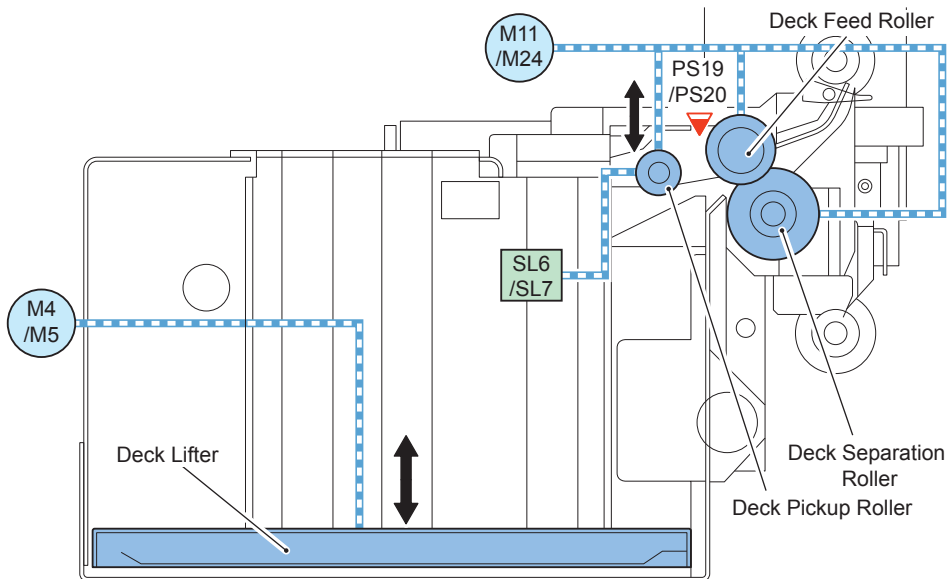
## Deck/Cassette Pickup Unit

### Basic Movement

When Deck/Cassette is installed, Motor drives to maintain the height which paper surface attaches to Pickup Roller (This is the height of Pickup Roller when Pickup Solenoid is OFF). If the Pickup Motor (M11/M12/M24) is turned ON, the Pickup Roller will rotate and the paper will be fed.

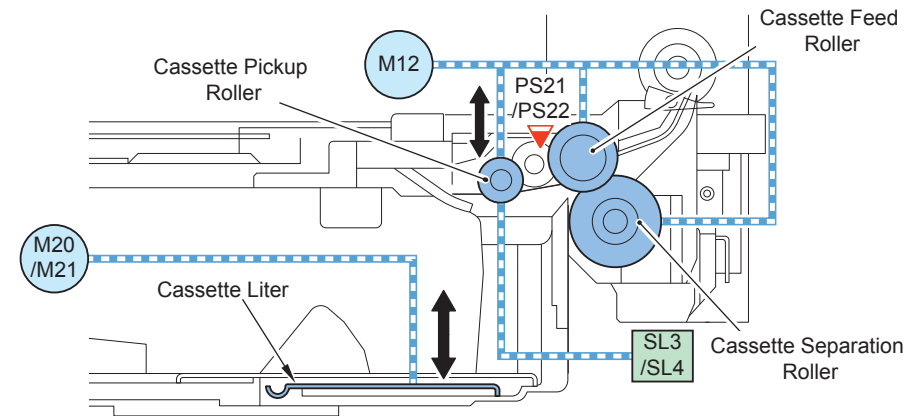
When the Pickup Sensor (PS19/PS20/PS21/PS22) detects paper, the Pickup Solenoid (SL3/SL4/SL6/SL7) will turn ON, and Pickup Roller will draw away from paper surface. Only 1 sheet of paper is sent to feed path by the Feed Roller and the Separation Roller, and fed to Vertical Path Roller.

### Deck



F-2-169

### Cassette



F-2-170

#### NOTE:

The same single motor is used as a pickup motor for both Cassette 3 and Cassette 4. The drive is transmitted to Cassette 3 when the motor is in normal rotation and the drive is transmitted to Cassette 4 when the motor is in reverse rotation. The drive is switched by the One-way Clutch.

#### NOTE:Service Mode

(Lv.1) COPIER > OPTION > FEED-SW

DK1-TURN (ON/OFF of Pickup Roller Post-Rotation on Right Deck)

DK2-TURN (ON/OFF of Pickup Roller Post-Rotation on Left Deck)

DK3-TURN (ON/OFF of Pickup Roller Post-Rotation on Cassette3)

DK4-TURN (ON/OFF of Pickup Roller Post-Rotation on Cassette4)

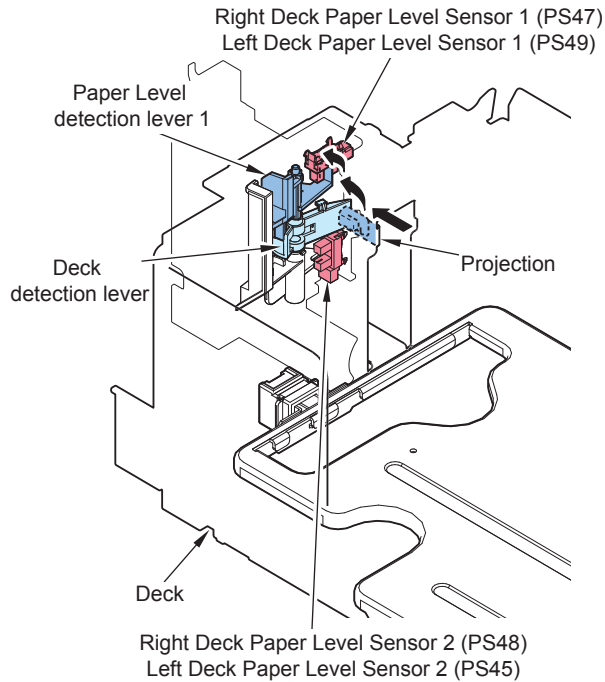
Setting Value 0: OFF (Default), 1: ON

## Deck/Cassette detection

Whether Deck/Cassette is installed is detected

### Deck

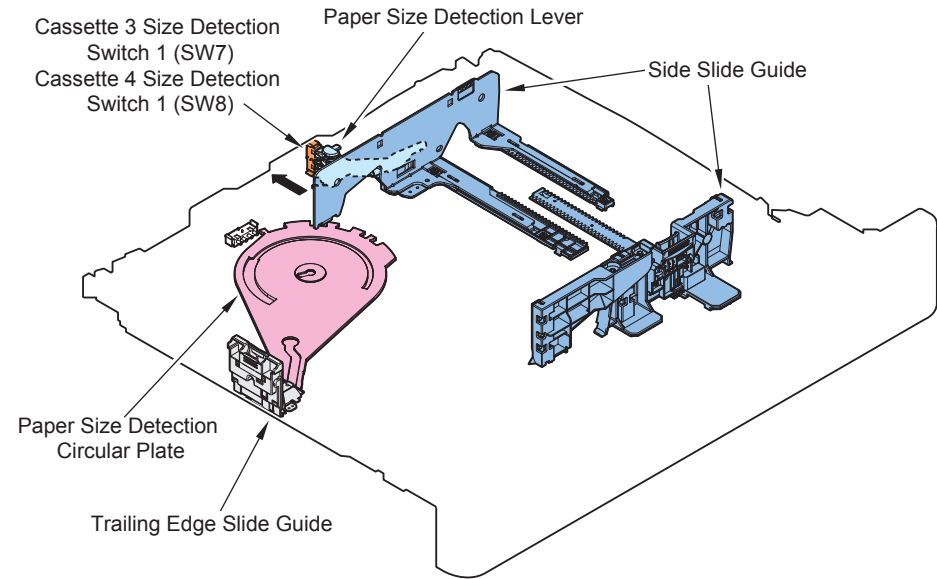
Deck is detected by Paper Level Sensor. When light from 2 Paper Level Sensors is not blocked, it is detected as no deck installed



F-2-171

### Cassette

Cassette is detected by Paper Size Detection Switch. When all actuators of the Paper Size Detection Switch (SW14/SW16) are not pressed, it is detected as no cassette installed



F-2-172

## ■ Paper Size Detection

### ● Deck

Set in Service Mode.

There is no mechanism to detect paper size.

NOTE:Service Mode

(Lv.1) COPIER > OPTION > CST > P-SZ-C1 (Right Deck Paper setting)

(Lv.1) COPIER > OPTION > CST > P-SZ-C2 (Left Deck Paper setting)

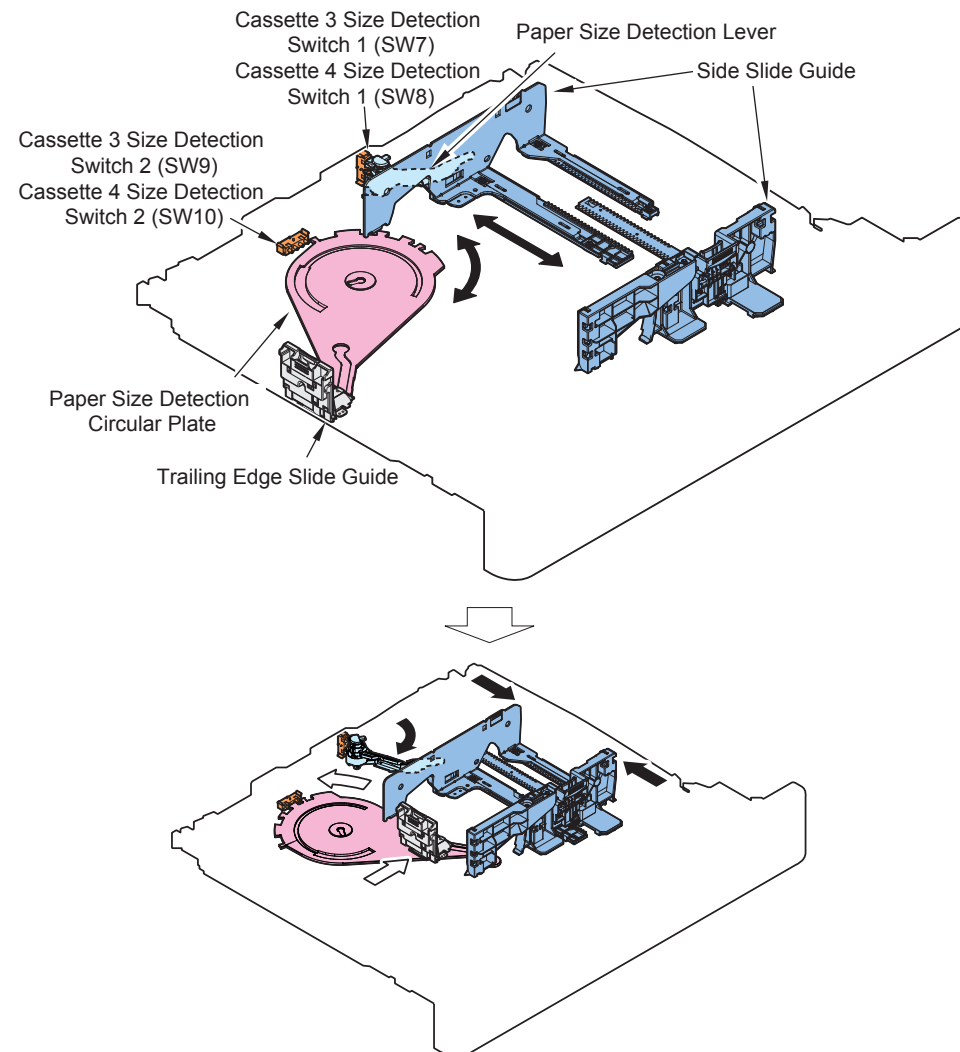
Setting Value

0: A4 (default), 1: B5, 2: LTR

### ● Cassette

Paper size in cassette 3/4 is each detected by 2 paper size detection switches.

ON/OFF of 4-actuator in the Host Machine changes according to the Paper Size Detection Circular Plate/ Lever Position linked to Trailing Edge/Side Slide Guide. Paper size is detected by two 4-actuator ON/OFF combinations. And, if all 4-actuator are OFF is detected, it means no-cassette.

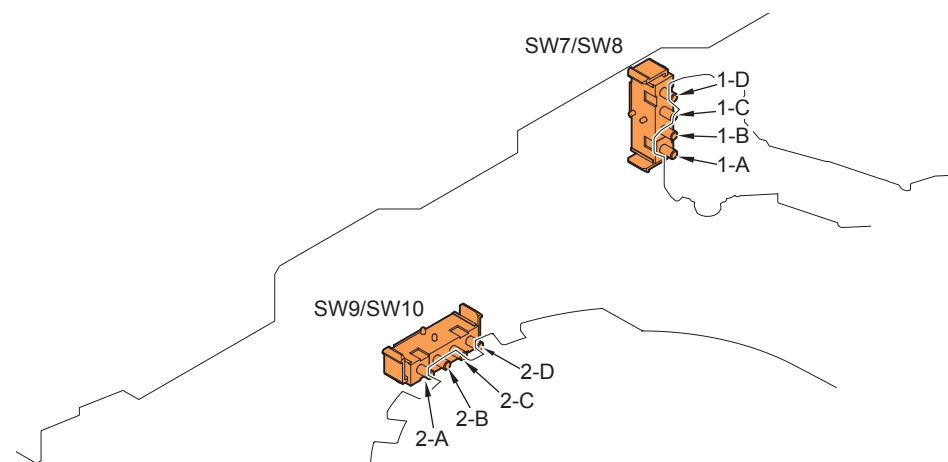


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## Paper size detection Switch

Paper Size	Width (mm)	Length (mm)	Width SW7/SW8				Length SW9/SW10			
			1-A	1-B	1-C	1-D	2-A	2-B	2-C	2-D
B5	257.0	182.0	ON	-	-	ON	ON	ON	ON	ON
EXEC	267.0	184.0	ON	-	-	ON	ON	ON	ON	ON
16K	270.0	195.0	ON	-	-	ON	-	ON	ON	ON
A5-R	148.5	210.0	-	ON	-	ON	ON	-	ON	ON
A4	297.0	210.0	ON	-	ON	ON	ON	-	ON	ON
STMT-R	139.7	215.9	-	ON	-	ON	ON	-	ON	ON
LTR	279.4	215.9	ON	-	-	ON	ON	-	ON	ON
B5-R	182.0	257.0	-	ON	-	ON	ON	-	ON	-
16K-R	195.0	270.0	ON	ON	-	ON	ON	ON	-	ON
			-	ON	-	ON	ON	ON	-	ON
LTR-R	215.9	279.4	ON	ON	-	ON	-	ON	ON	ON
			ON	ON	-	ON	-	ON	ON	-
A4-R	210.0	297.0	ON	ON	-	ON	-	-	ON	ON
LGL	215.9	355.6	ON	ON	-	ON	ON	ON	-	-
B4	257.0	364.0	ON	-	-	ON	ON	ON	ON	-
8K	270.0	390.0	ON	-	-	ON	-	-	ON	ON
A3	297.0	420.0	ON	-	ON	ON	-	ON	-	-
LDR	279.4	431.8	ON	-	-	ON	-	-	ON	-
SRA3	320.0	450.0	ON	-	ON	-	-	-	-	ON
12 x 18	304.8	457.2	ON	-	ON	ON	-	-	-	ON
13 x 19	330.2	483.0	ON	-	ON	-	-	-	-	-
K_LGL	268.0	190.0	ON	-	-	ON	ON	ON	ON	ON
K_LGL-R	190.0	268.0	-	ON	-	ON	ON	ON	-	ON
G_LTR	267.0	203.0	ON	-	-	ON	-	ON	ON	ON
G_LTR-R	203.0	267.0	ON	ON	-	ON	ON	ON	-	ON
G_LGL	203.2	330.2	ON	ON	-	ON	-	ON	ON	-
OFI	216.0	317.0	ON	ON	-	ON	ON	ON	-	-
E_OFI	220.0	320.0	ON	ON	-	ON	ON	ON	-	-
M_OFI	216.0	341.0	ON	ON	-	ON	ON	-	ON	ON
B_OFI	216.0	355.0	ON	ON	-	ON	ON	ON	-	-
A_OFI	220.0	340.0	ON	ON	-	ON	-	-	ON	ON
FOLIO	216.0	330.0	ON	ON	-	ON	-	ON	ON	-
FLSP	216.0	330.0	ON	ON	-	ON	-	ON	ON	-
A_FLSP	206.0	337.0	ON	ON	-	ON	-	-	ON	ON
A_LTR	280.0	220.0	ON	-	-	ON	ON	-	ON	ON
A_LTR-R	220.0	280.0	ON	ON	-	ON	-	ON	ON	-
A_LGL	220.0	340.0	ON	ON	-	ON	-	-	ON	ON
FA4	216.0	343.0	ON	ON	-	ON	ON	-	-	ON
FB4	216.0	330.0	ON	ON	-	ON	-	ON	ON	-

T-2-75



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### NOTE:

- Settings/registration  
Settings/registration (Top) > Preferences > Paper Settings > A5R/STMTR Original Selection  
Setting value   Cassette3: A5R, STMTR       Cassette4: A5R, STMTR
- Settings/registration (Top) > Preferences > Paper Settings > B5/EXEC Original Selection  
Setting value   Cassette3: B5, EXEC       Cassette4: B5, EXEC
- Settings/registration (Top) > Preferences > Paper Settings > Register Custom Size  
Setting value   X: 148.0 to 487.7 mm, Y: 100.0 to 330.2 mm (Maximum 5 pieces)
- Related Service Mode  
(Lv.1) COPIER > OPTION > CST  
CST3-P1 (Cassette3 paper size setting (A5R/STMTR))  
CST4-P1 (Cassette4 paper size setting (A5R/STMTR))  
Setting value       0: A5R, 1: STMTR
- CST3-P2 (Cassette3 paper size setting (B5/EXEC))  
CST4-P2 (Cassette4 paper size setting (B5/EXEC))  
Setting value       0: B5, 1: EXEC



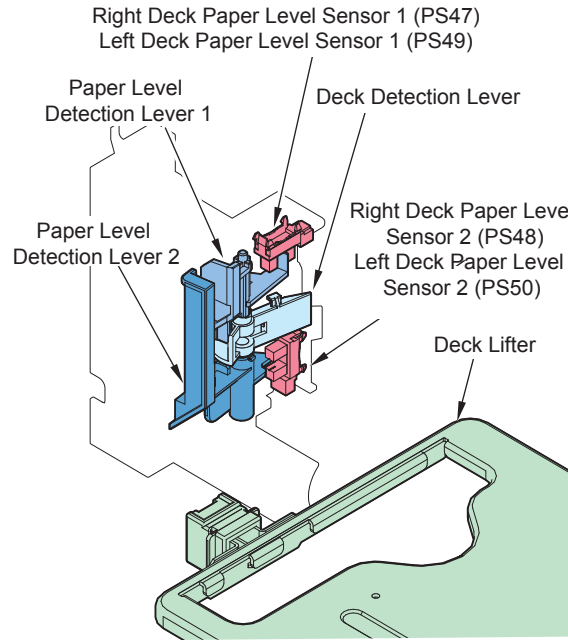
## Paper Level Detection

Paper level is detected by two Paper Level sensors in each cassette

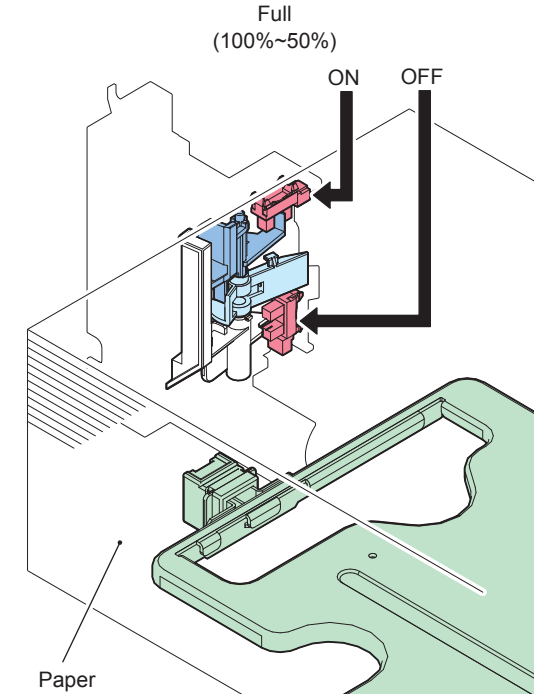
### Deck

	Right Deck Paper Level Sensor 1 (PS47) Left Deck Paper Level Sensor 1 (PS49)	Right Deck Paper Level Sensor 2 (PS48) Left Deck Paper Level Sensor 2 (PS50)	Control Panel Screen Display
Full (100%~50%)	ON	OFF	
Half (50%~25%)	ON	ON	
Few (25% or less)	OFF	ON	

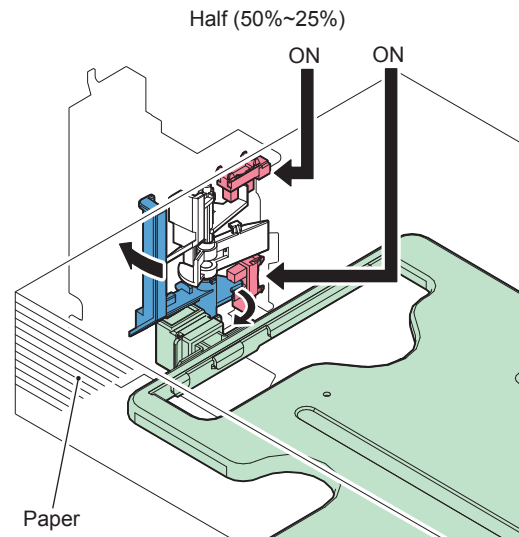
T-2-76



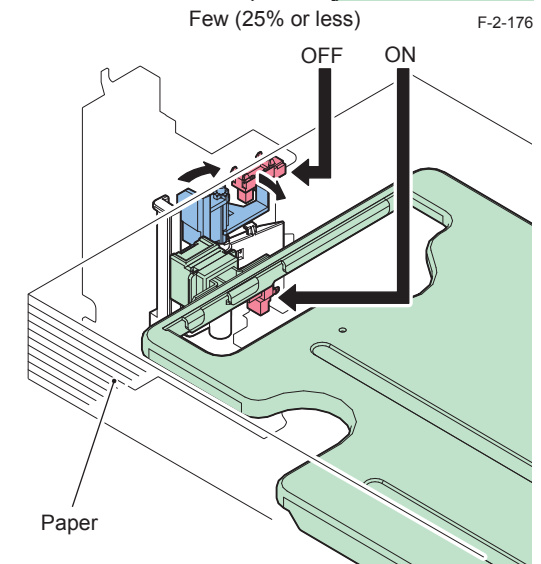
F-2-175



F-2-176

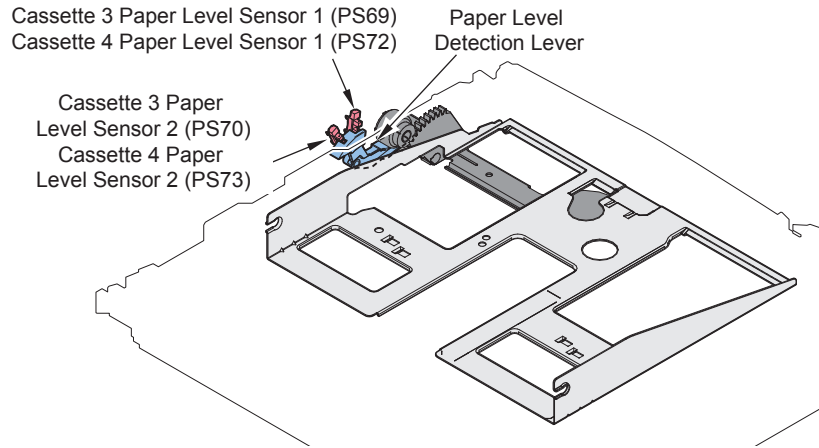


F-2-177



F-2-178

Cassette

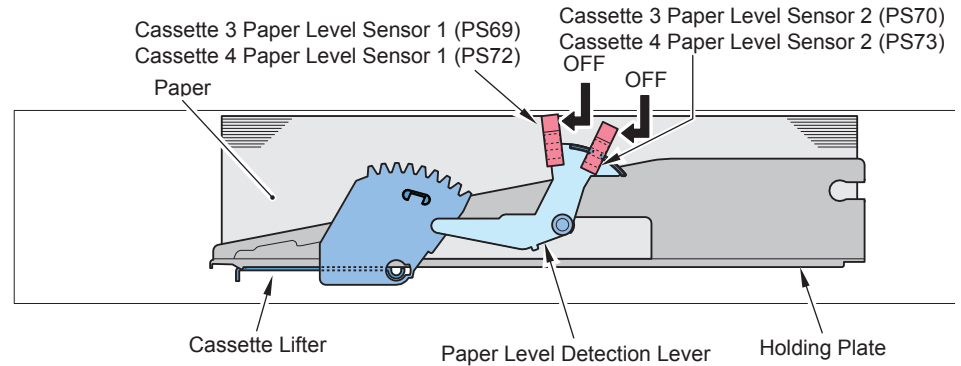


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	Cassette 3 Paper Level Sensor 1 (PS69) Cassette 4 Paper Level Sensor 1 (PS72)	Cassette 3 Paper Level Sensor 2 (PS70) Cassette 4 Paper Level Sensor 2 (PS73)	Control Panel Screen Display
Full (100%~50%)	OFF	OFF	
Half (50%~25%)	OFF	ON	
Few (25% or less)	ON	ON	

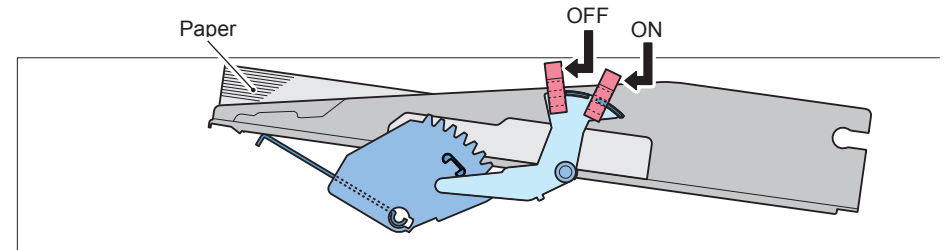
T-2-77

• Full (100%~50%)



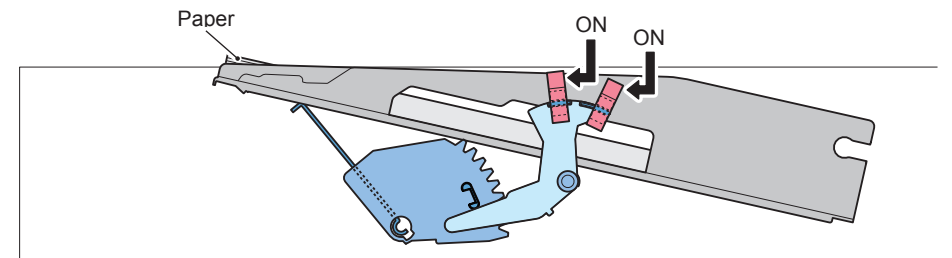
F-2-180

• Half (50%~25%)



F-2-181

• Few (25% or less)



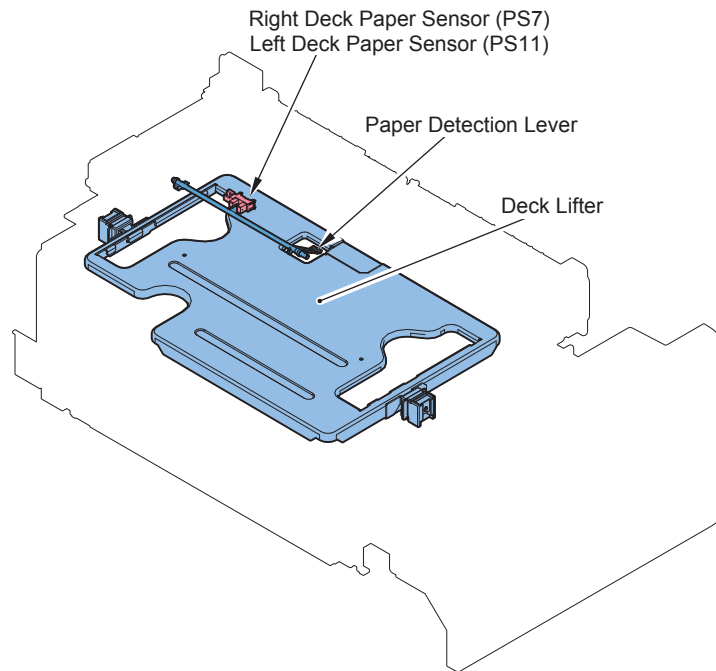
F-2-182

## ■ Paper Detection

If paper is present, the Detection Lever is pushed upward when lifter ascends, and Paper Sensor is turned OFF.

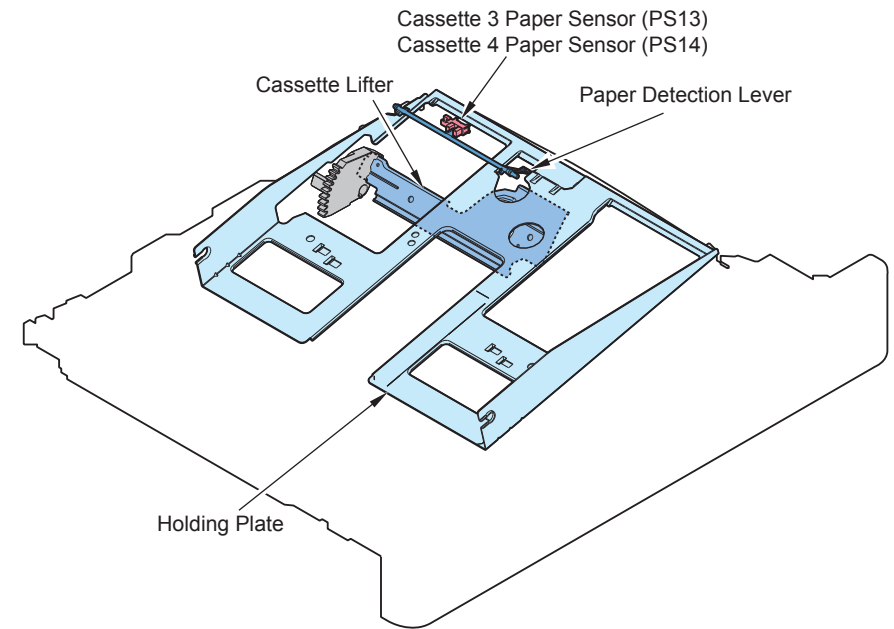
If paper finishes, the Detection Lever enters lifter hole, and Paper Sensor is turned ON

### ● Deck



F-2-183

### ● Cassette



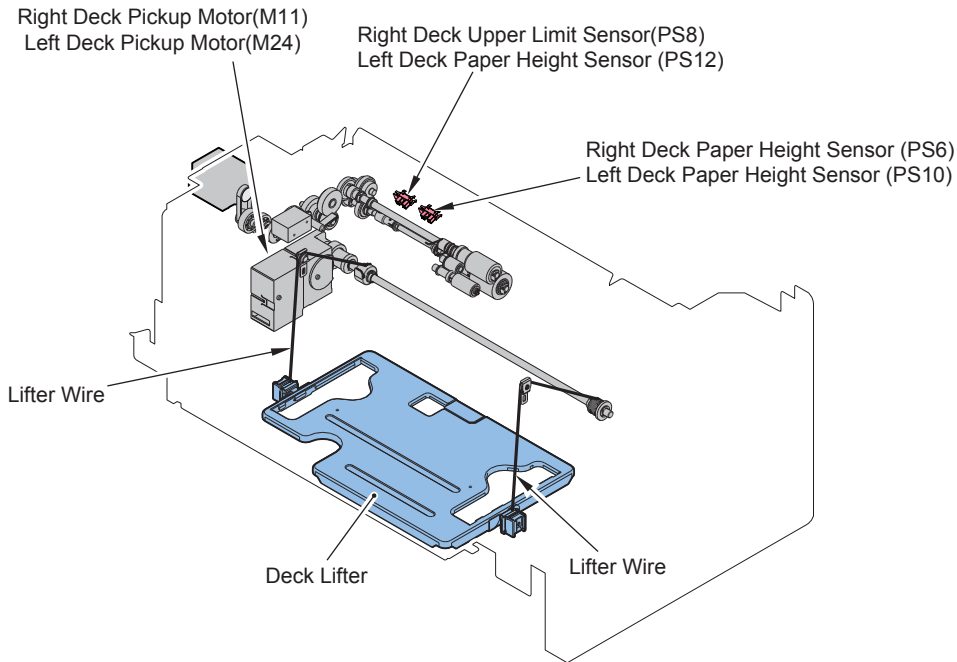
F-2-184

## Lifter Control

Paper is lifted to the pickup position by the Lifter.

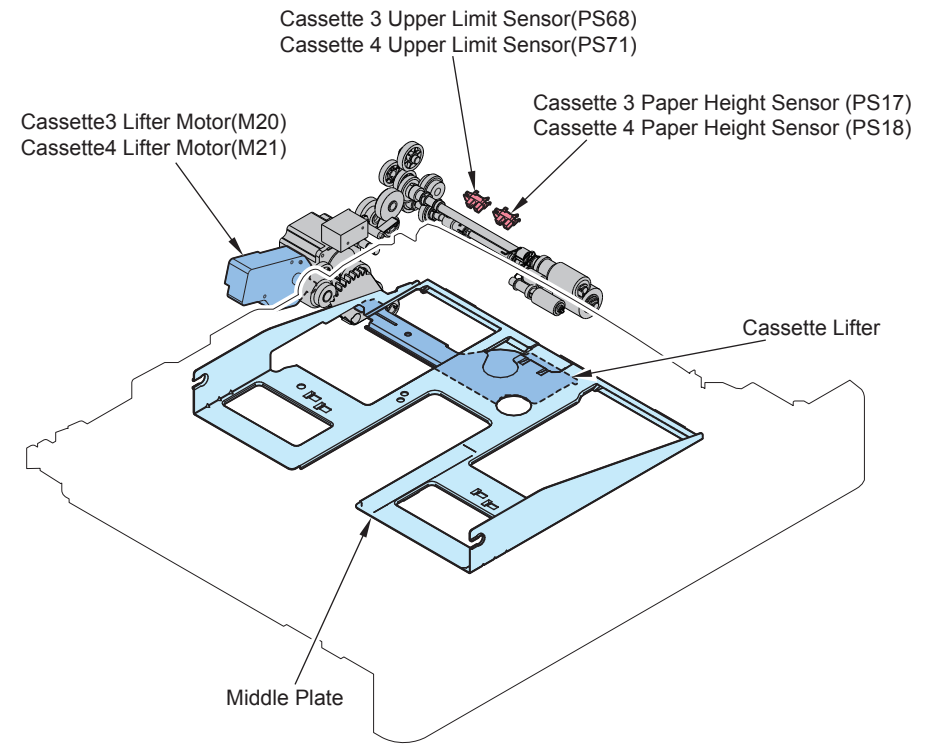
In the machine configuration with the Deck / Cassette set, the Pickup Motor is driven to raise the Lifter to fit the paper level to the height of the pickup position. The Lifter is also raised when the Paper Level Sensor went OFF during the pickup operation.

## Deck



F-2-185

## Cassette



F-2-186

### ● Lifter Error Detection

In case due to some reason the lifter keep ascending even the Paper Surface Height Sensor is turned ON, the Upper Limit Sensor is provided to prevent damage in this equipment due to the error in ascending.

And, if the lifter starts ascending, but not detected by the Paper Surface Sensor and the Upper Limit Sensor within 3 minutes, the alarm corresponds to the concerned Pickup Cassette will be triggered. The alarm will release if the corresponding deck/cassette is open or closed, or the power is turned OFF/ON.

### ■ Pickup Retry Control

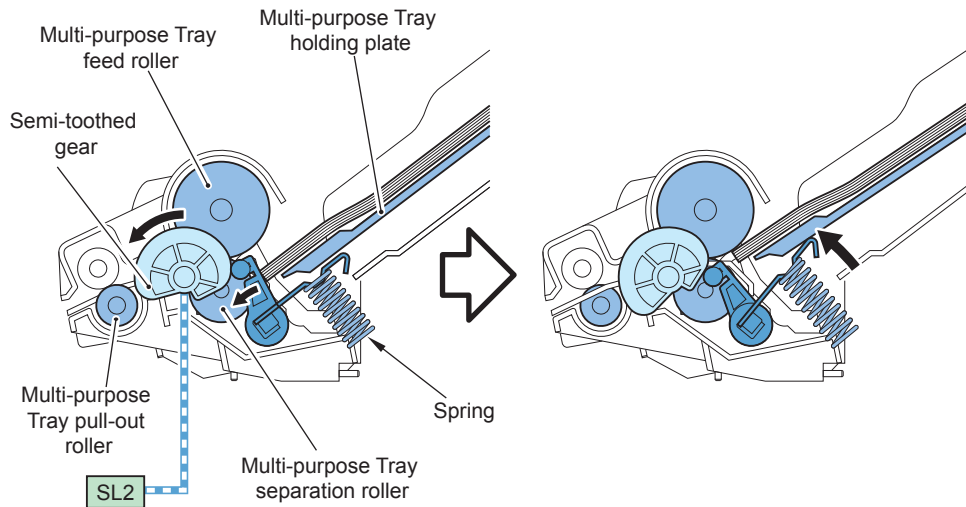
If paper leading edge is not detected by Pickup sensor within the specified time after pickup movement starts, it is not immediately determined as jam, and re-pickup movement will be executed.

During pickup retry, the Pickup Motor will be repeatedly turned ON/OFF with the Pickup Roller is in descended condition.

## Multi-purpose Tray Pickup Unit

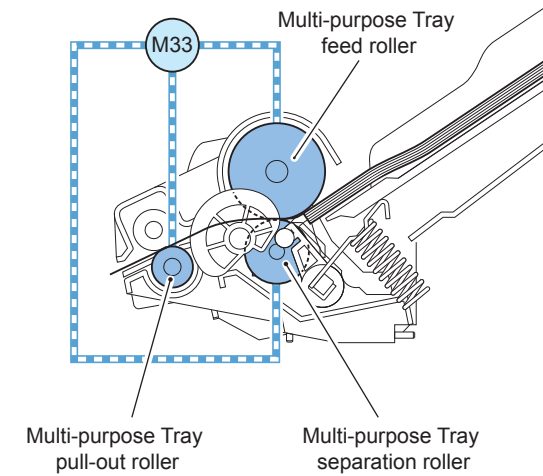
### Basic Movement

- 1) If the Multi-purpose Pickup Solenoid (SL2) is turned ON, the semi-toothed gear will rotate.
- 2) The holding plate Fixing Members will be released and the holding plate will ascend.



F-2-187

- 3) When the Pre-registration Multi-purpose Tray Drive Motor drives, the Multi-purpose Pull Out Roller and the Multi-purpose Feed Roller/Multi-purpose Separation Roller will rotate, and only 1 sheet of paper will be picked up/fed.



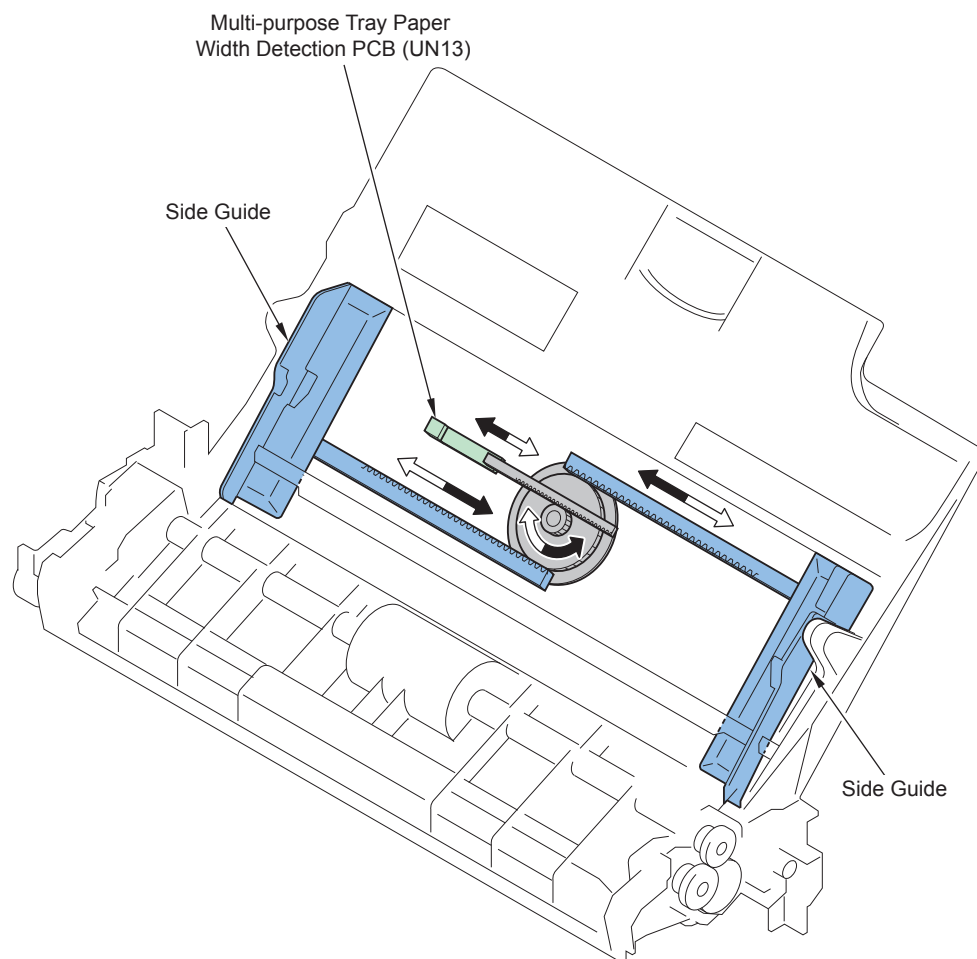
F-2-188

## Paper Size Detection

The setting is performed the Side Guide Plate and size code setting (or irregular size setting assignment) by and the Control Panel Unit.

Paper width is detected by the outputted value from the Variable Resistor Assembly (Multi-purpose Tray Paper Width Detection PCB (UN13)) which is linked to movement of the Side Guide Plate.

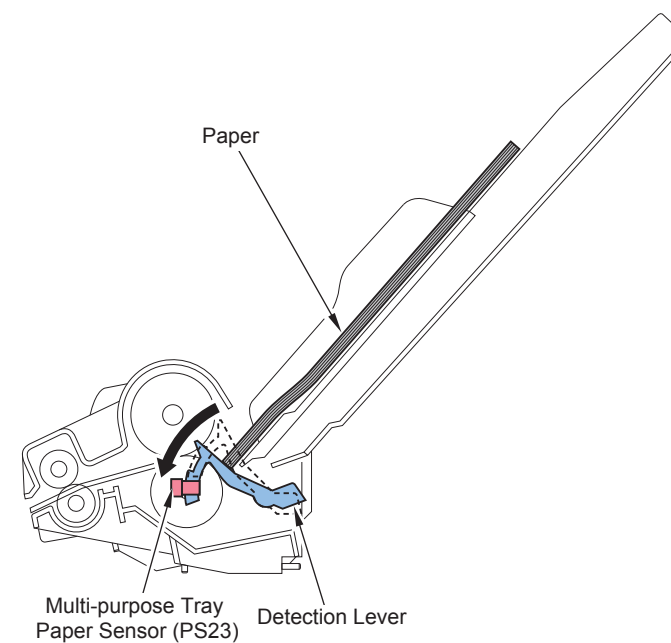
Setting of the Side Guide Plate on the Multi-purpose Pickup Tray is executed by users after paper is set.



F-2-189

## Paper Detection

When paper is set, Paper Presence Detection Lever will be pushed, and the Multi-purpose Tray Paper Sensor (PS23) will turn ON.



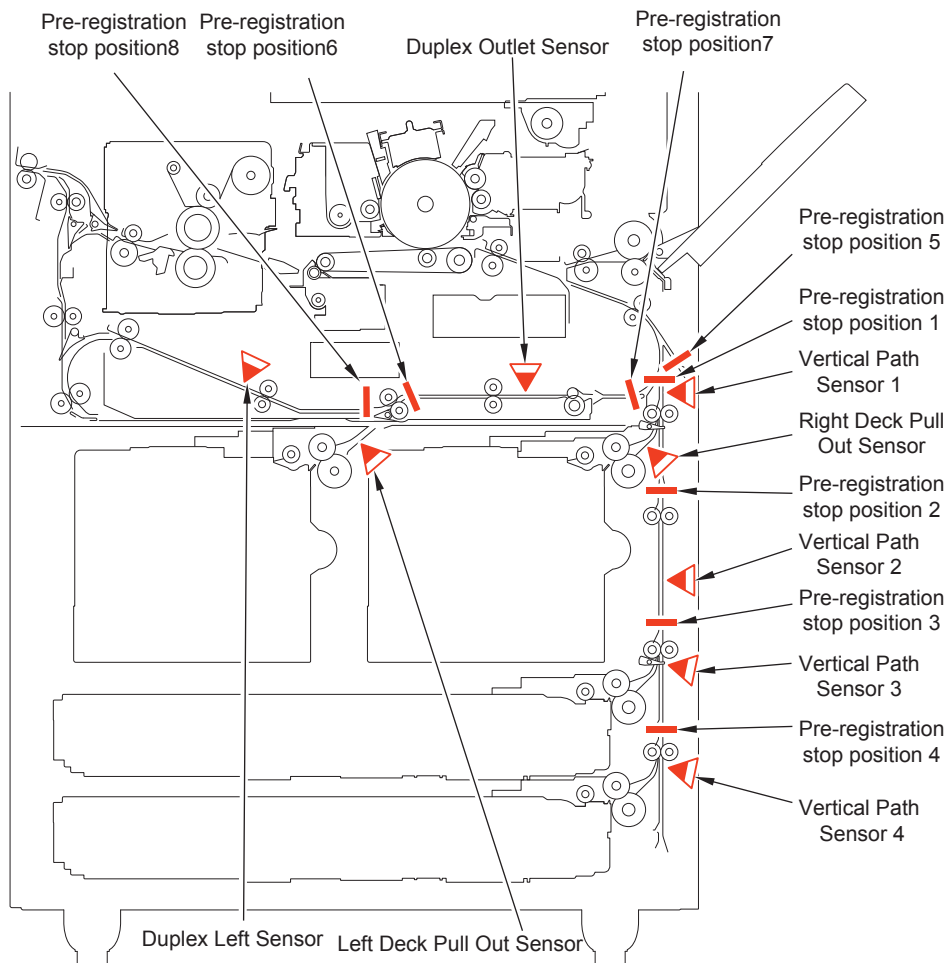
F-2-190

## Registration Unit

### Pre-registration Control

Pickup processing time can vary depending on the paper type and paper size in use as well as the environment. Therefore, the machine executes pre-registration control to ease such variation.

After the paper is picked up from the pickup cassette, the following reference sensor is used as a reference to feed the paper for a specified distance, and then the paper is stopped at the pre-registration position.



F-2-191

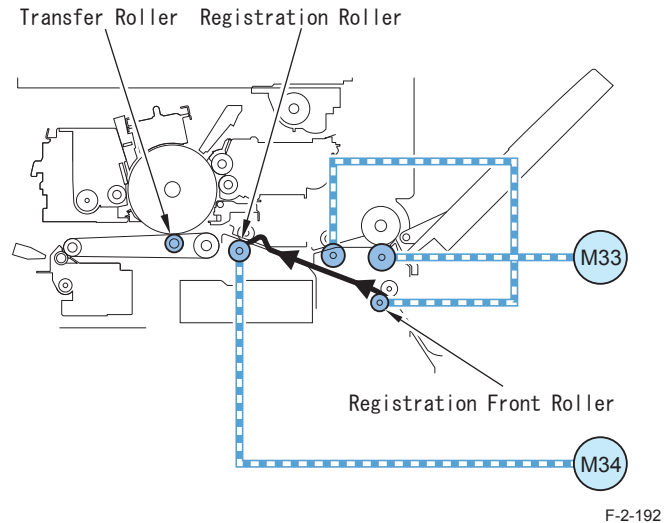
Stop position name	Pickup Assembly	Paper size	Reference sensor	Stop position
Pre-registration stop position 1	Right Deck	Size LTR (215.9mm)	Vertical Path Sensor1(PS24)	Vertical Path Roller 1 Downstream 10mm
	Cassette3			
	Cassette4			
Pre-registration stop position 2	Cassette3	LTRR=< Size =< A4R	Vertical Path Sensor2(PS25)	Vertical Path Roller 2 Downstream 10mm
	Cassette4			
Pre-registration stop position 3	Cassette3	LTRR(279.4mm)< Size =< LTR LTTR < Size < LDRR(431.8mm)	Vertical Path Sensor3(PS26)	Vertical Path Roller 3 Downstream 10mm
	Cassette3 Cassette4			
Pre-registration stop position 4	Cassette4	LDRR < Size	Vertical Path Sensor4(PS27)	Vertical Path Roller 4 Downstream 10mm
Pre-registration stop position 5	OP Deck	All Size	Option Deck Pull Out Sensor	Vertical Path Upper Roller 1 Downstream 10mm
Pre-registration stop position 6	Left Deck	Size =< LTR	Left Deck Pull Out Sensor(PS33)	Duplex Merging Roller Downstream 10mm
Pre-registration stop position 7	Lrft Deck	Size =< LTR	Duplex Outlet Sensor(PS64)	Duplex Outlet Sensor(PS64) Downstream 10mm
Pre-registration stop position 8	-	Size =< LTR	Duplex Left Sensor(PS66)	Duplex Merging Roller Upstream 20mm

T-2-78



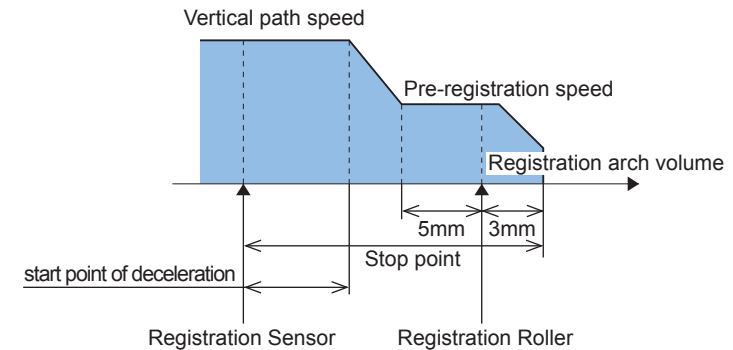
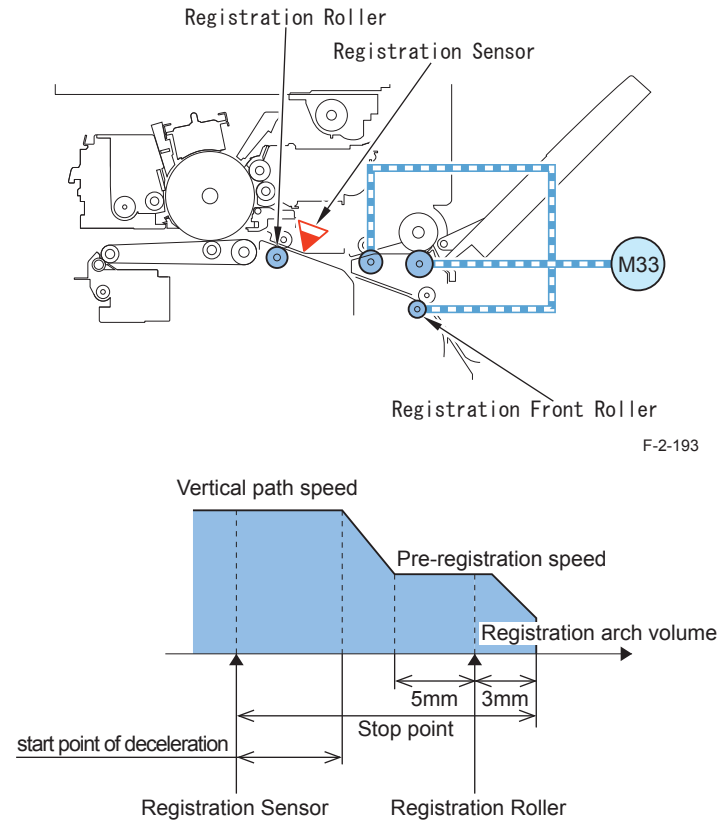
## Registration Control

The Registration Motor (M34) is rotated to make the image on the drum and the paper to be aligned at the specified position and feeds the paper to the Transfer Assembly. The rotating speed of the Registration Motor (M34) is increased to be higher than the process speed and then reduced to meet the process speed.



## Registration Deceleration Control

This control reduces speed of Multi-purpose Tray Registration Front Motor (M33) (Registration feed speed) by using Registration Sensor (PS29) as a reference and pushes the paper against the Registration Roller to reduce hitting noise.



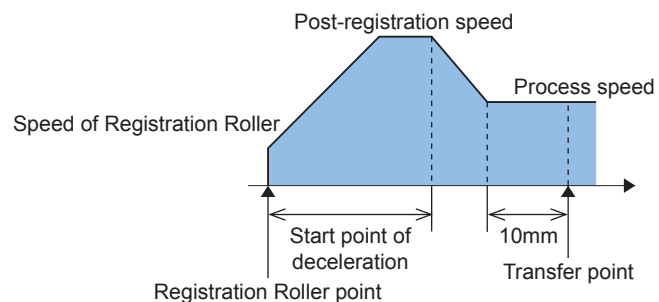
F-2-194

Model	ImageRUNNER ADVANCE 8105/8095/8085		
PPM	105	95	85
Vertical path speed	750[mm/s]		
Registration feed speed	500[mm/s]		
start point of deceleration	4.5[mm]		
stop point	23[mm] (20mm (distance between the Registration Sensor and the Registration Roller) +3mm (registration arch volume))		

T-2-79

## Registration Acceleration Control

The Registration Motor (M34) is rotated to make the image on the drum and the paper to be aligned at the specified position and feeds the paper to the Transfer Assembly. The rotating speed of the Registration Motor (M34) is increased to be higher than the process speed and then reduced to meet the process speed.



F-2-195

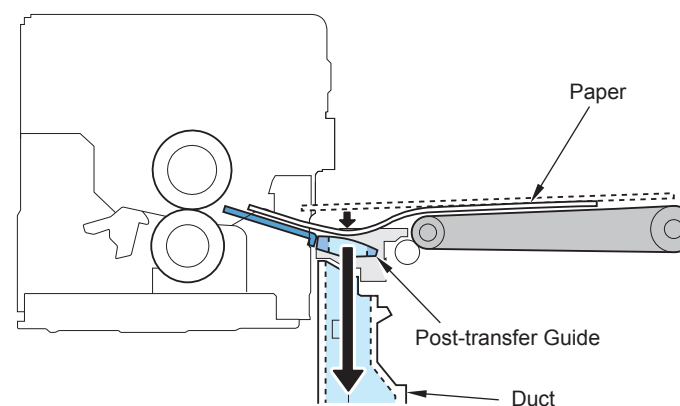
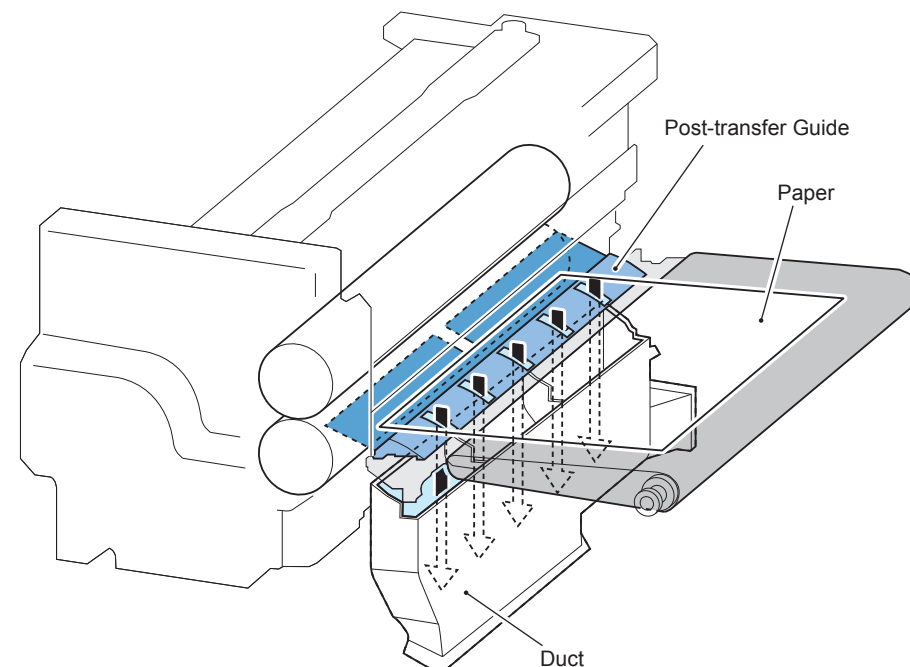
Model	ImageRUNNER ADVANCE 8105/8095/8085		
PPM	105	95	85
Post-registration speed	750[mm/s]		
Process speed	500[mm/s]		
start point of deceleration	45.5[mm]		

T-2-80

## Transfer

### Post-transfer Guide Attraction Control

With this machine, paper is attracted to the Post-transfer Guide by exhaust from the Image Formation System Exhaust Fan (FM3). Therefore, behavior of papers between transfer and fixing becomes stable, which increase the paper feed capabilities.



F-2-196

## Delivery/Reverse Unit

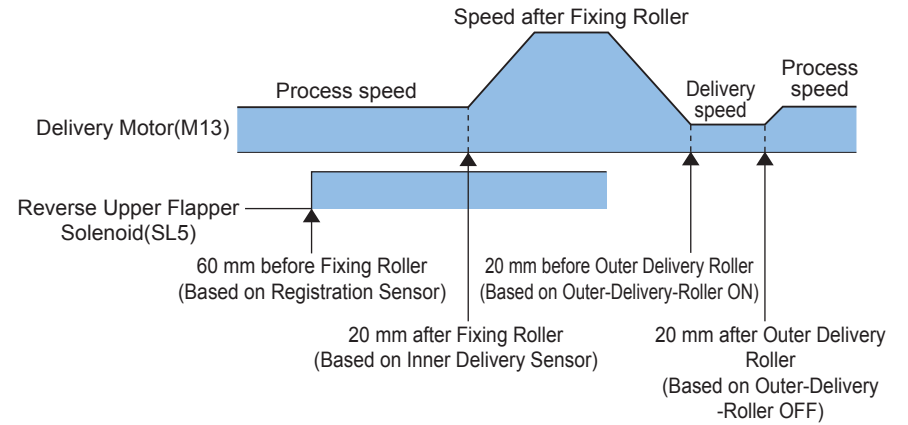
### Basic Operation

#### Face-up Delivery

- 1) The Reverse Upper Flapper Solenoid (SL5) is turned ON to switch the feeding path to the Delivery Assembly side.
- 2) Rotating speed of the Delivery Motor (M13) is increased once the paper's trailing edge passes through the Fixing Roller (fixing-through speed)
- 3) Feeding speed is reduced to meet the delivery speed once the paper's trailing edge reaches the specified position.

**NOTE:**

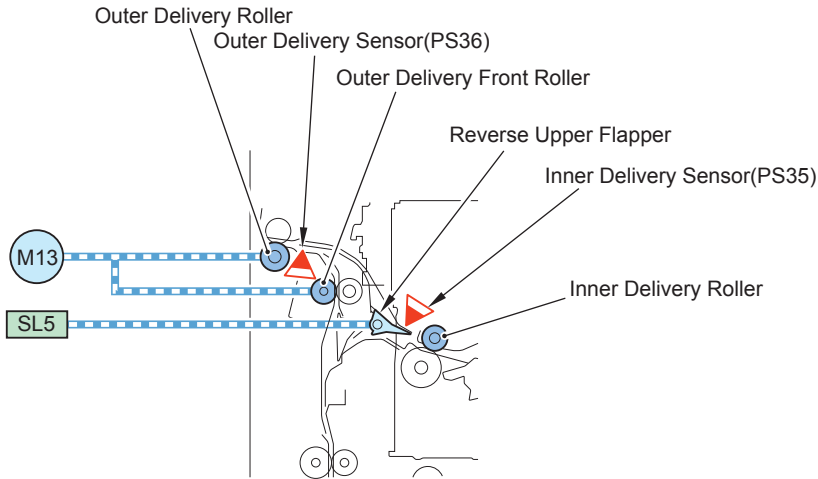
Delivery speed is changed according to the paper size. Delivery speed remains the same if no delivery option is connected.



F-2-198

Model	ImageRUNNER ADVANCE 8105/8095/8085 [mm/s]		
PPM	105	95	85
Process speed	500		
Speed after Fixing Roller	1100		
Delivery speed	1100		

T-2-81

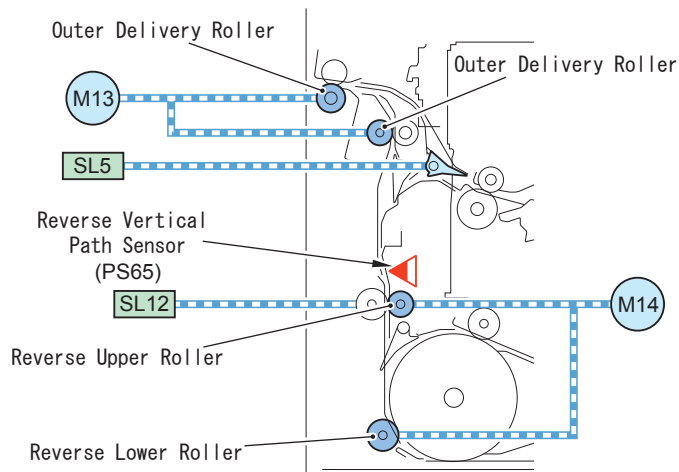
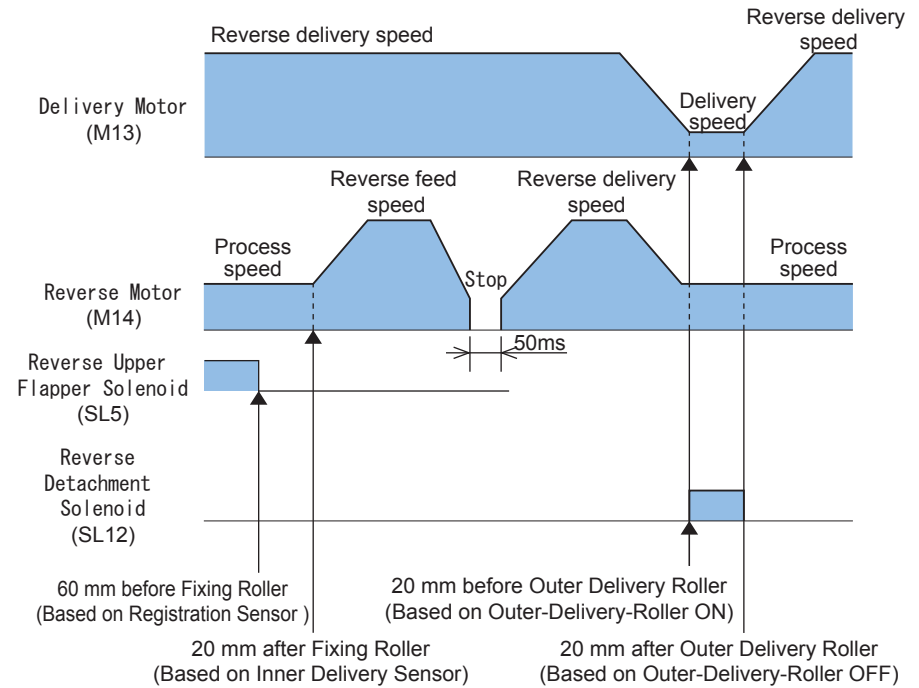


F-2-197

### Face-down Delivery

- 1) The Reverse Upper Flapper Solenoid (SL5) is turned OFF to switch the feeding path to the Delivery Assembly side.
- 2) Rotating speed of the Reverse Motor (M14) is increased (reverse feed speed) once the trailing edge of the preceding paper passes through the Fixing Roller to make the paper stopped/rotate reversely at the reverse position (reverse delivery speed)
- 3) In the case that the paper size is B5R or larger, once the leading edge of the preceding paper reaches the Outer Delivery Roller, the Reverse Detachment Solenoid (SL12) is turned ON to be prepared for entry of the succeeding paper and make the Reverse Roller disengaged.
- 4) Succeeding paper is fed to the reverse path to make the Reverse Motor (M14) stopped/rotate normally.
- 5) In the case that the paper size is B5R or larger, once the trailing edge of the preceding paper passes through the Reverse Upper Roller, the Reverse Detachment Solenoid is turned OFF to make the Reverse Upper Roller engaged.
- 6) Succeeding paper is fed to the reverse stop position.
- 7) Once the trailing edge of the preceding paper reaches the specified position, rotating speed of the Delivery Motor (M13) is reduced.

**NOTE:**  
 Delivery speed is changed according to the paper size. Delivery speed remains the same if no delivery option is connected.



F-2-199

F-2-200

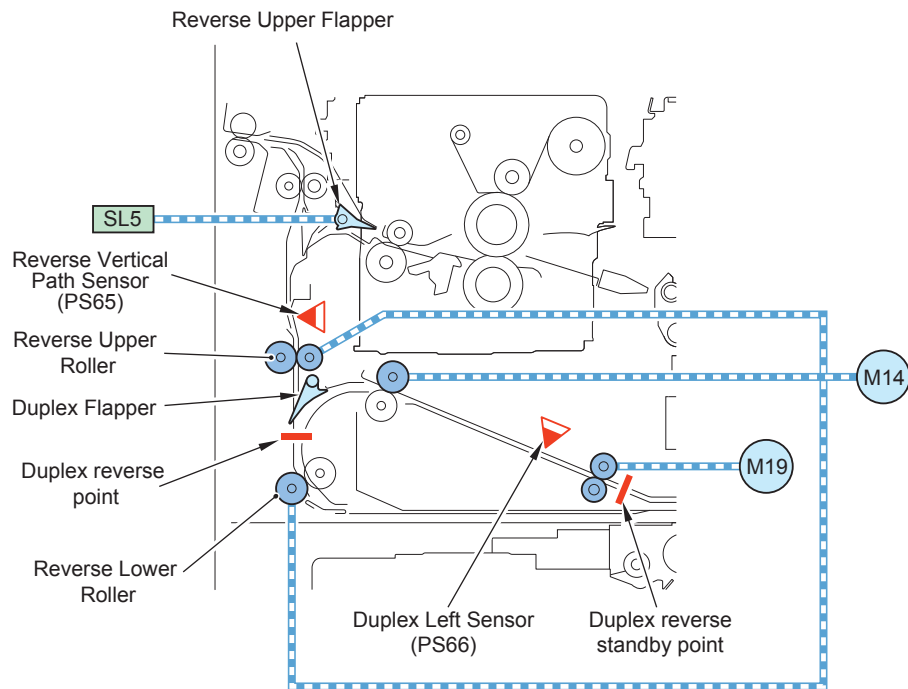
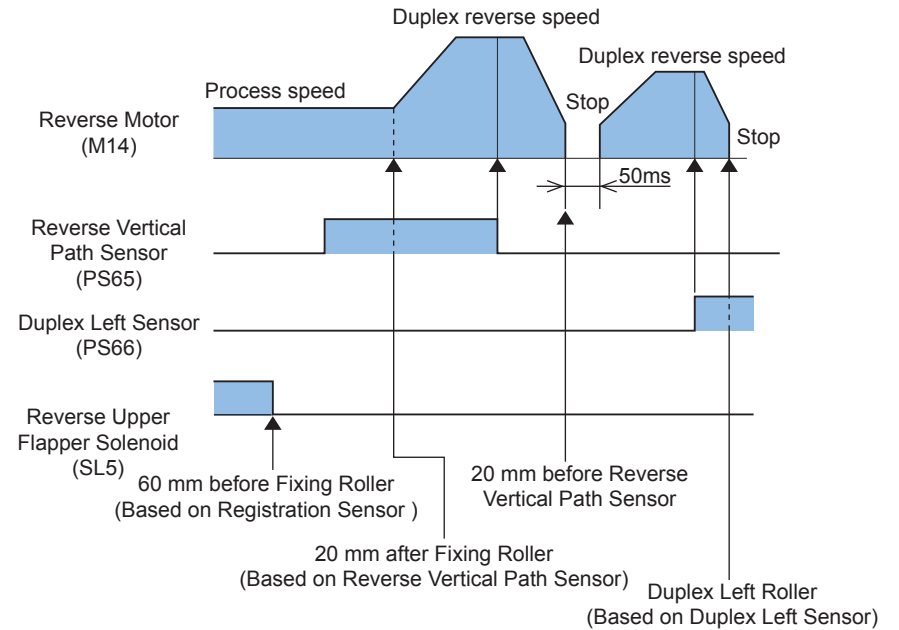
Model	ImageRUNNER ADVANCE 8105/8095/8085 [mm/s]		
PPM	105	95	85
Process speed	500		
Reverse feed speed	1100		
Reverse delivery speed	1100		
Delivery speed	1100		

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## Duplex Unit

### Basic Operation

- 1) The Reverse Upper Flapper Solenoid (SL5) is turned OFF to switch the feeding path to the Reverse Assembly side.
- 2) When the paper's trailing edge passes through the Fixing Roller, rotating speed of the Reverse Motor (M14) is increased (duplex pull-in speed) to make the paper stopped at the duplex reverse position.
- 3) The Reverse Motor is driven by the duplex pull-in speed to feed the paper to the Duplex Assembly (the flapper feeds the paper to the Duplex Assembly). Then, the Duplex Left Sensor (P66) detects the paper's leading edge, and the paper is fed for a specified distance to stop at the position of Duplex Left Roller.



F-2-201

F-2-202

Model	ImageRUNNER ADVANCE 8105/8095/8085 [mm/s]		
PPM	105	95	85
Process speed	500		
Duplex feed speed	1100		
Duplex reserve speed	750		
Duplex delivery speed	750		

T-2-83

## Side Registration Control

In the case of printing the 2nd side of the 2-sided print, side registration displacement level is measured to adjust the write start timing and correct side registration.

<Execution timing>

When the paper is stopped at the duplex standby position

<Control description>

Side Registration Sensor (PS31) detects side registration.

The side registration control executes detection of the home position as well as operation and detection of the standby position.

### 1.Home position operation

Side Registration Unit is moved to the home position.

Home position: at 13mm from the nominal dimension of A4 size

Timing

- When the main power is turned ON/when the Front Cover is closed/at the recovery from JAM process/at job completion

### 2.Standby position operation

The unit is moved to the side registration standby position (10 mm front) corresponding the paper size.

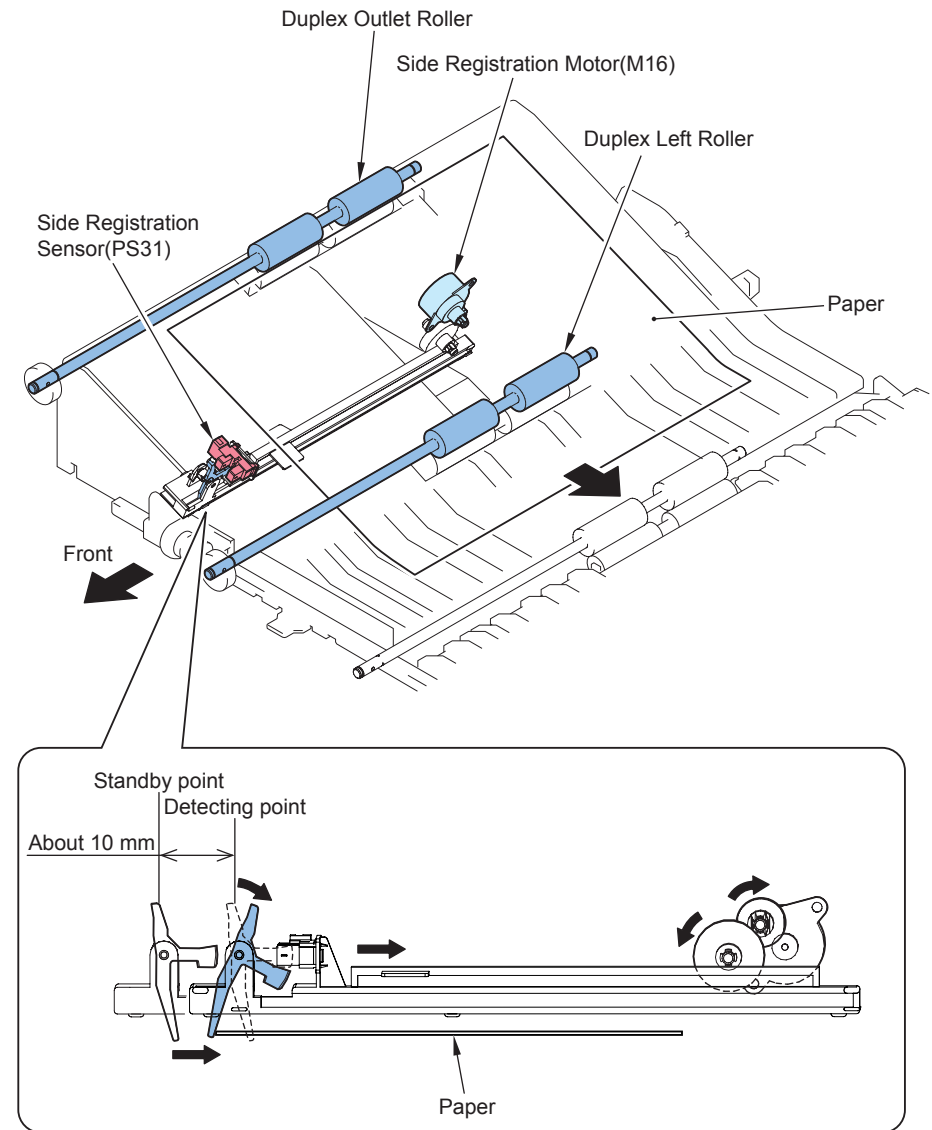
### 3. Detection operation

The Side Registration Motor (M16) is driven until Side Registration Sensor(PS31) is turned OFF to detect side registration displacement level from the travel distance.

4. The displacement level measured for side registration correction is converted into pixels to adjust the laser write start timing according to the displaced direction.

The write start timing is pushed forward when the paper is displaced to the front.

The write start timing is pushed back when the paper is displaced to the rear.

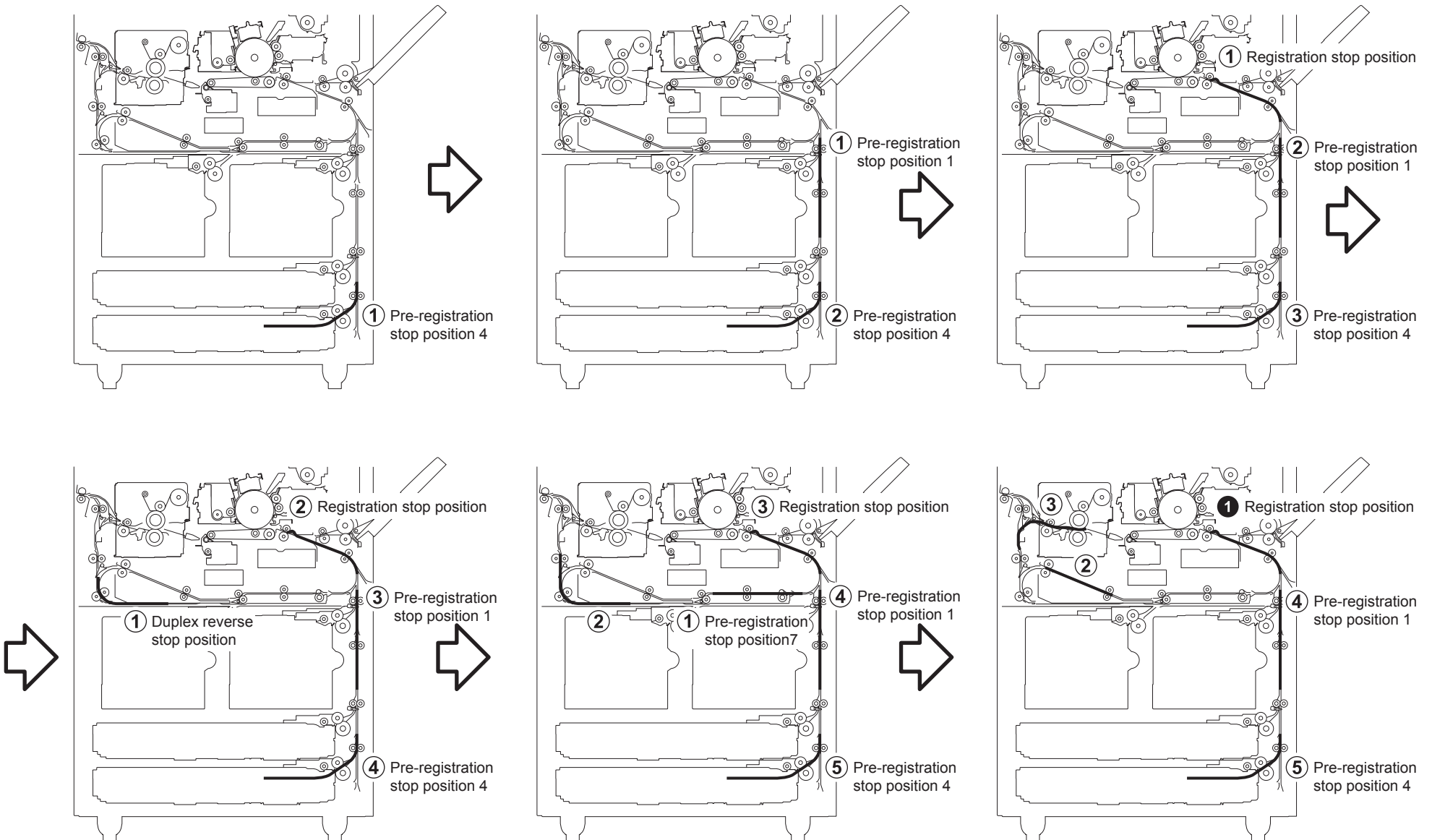


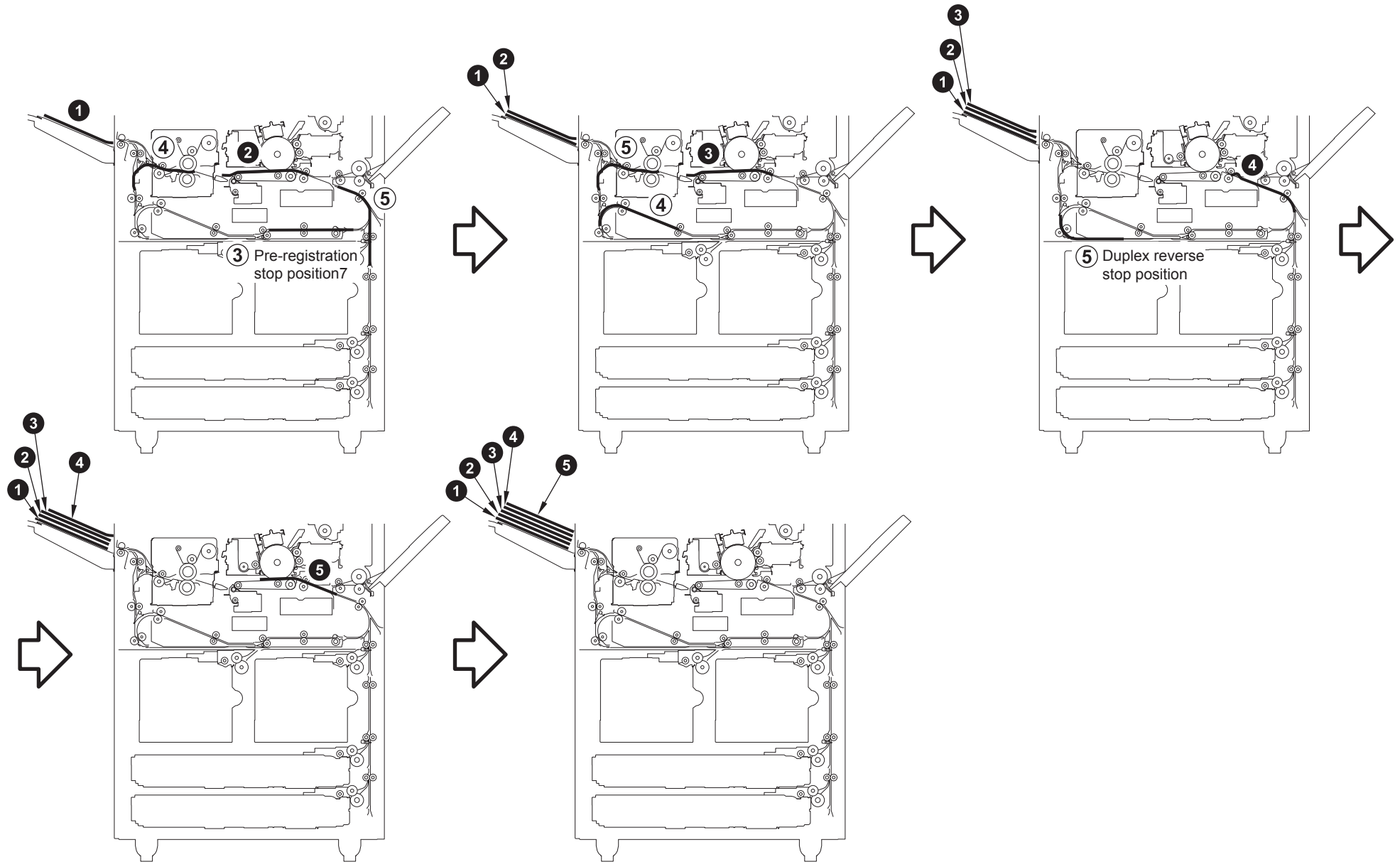
F-2-203

## Circulation quantity and limit

The numbers in white background and the numbers in black background show each the first page and second page.

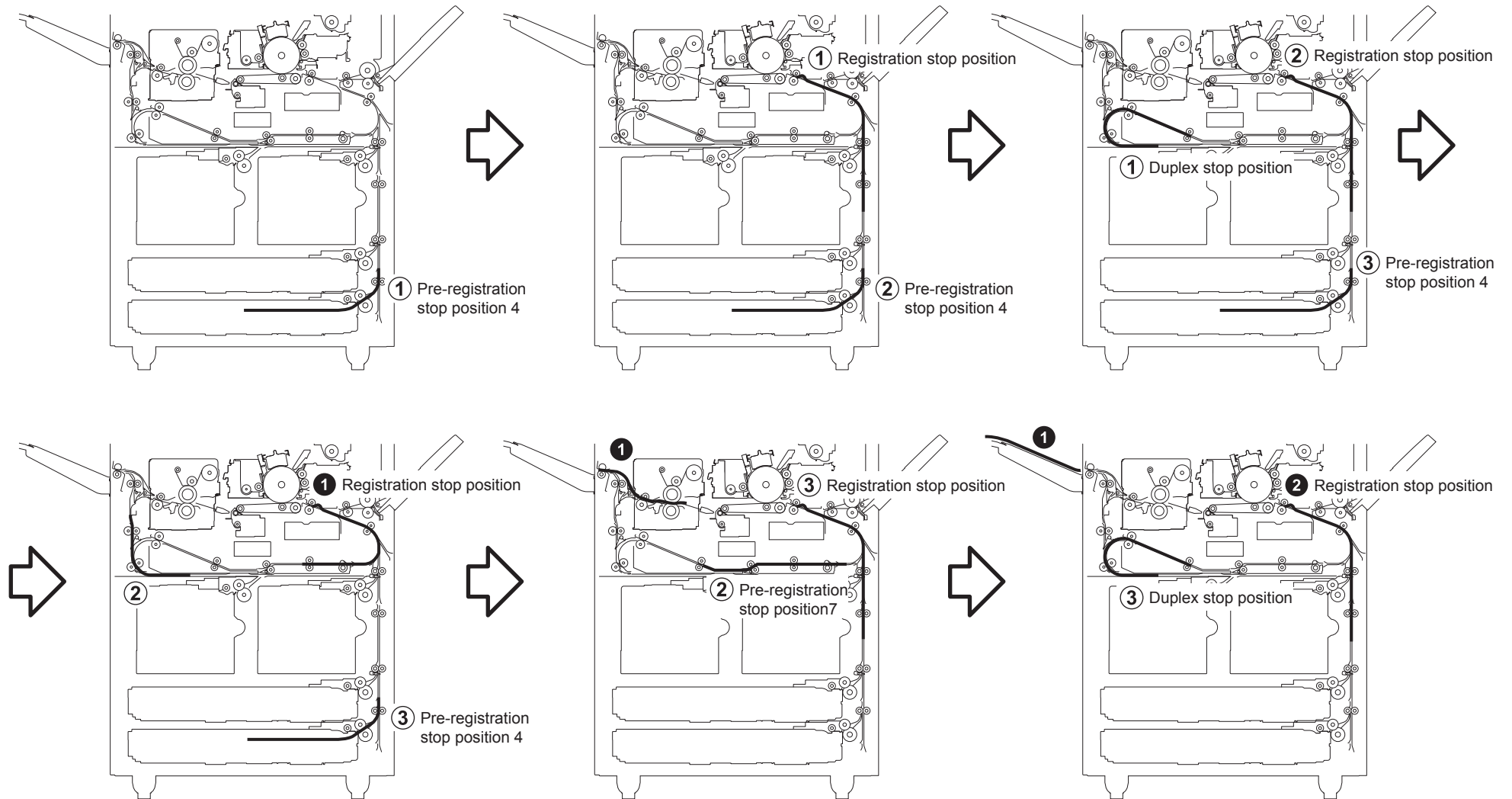
### Less than 314 mm in size/5 sheets in circulation (B5 to A4R)



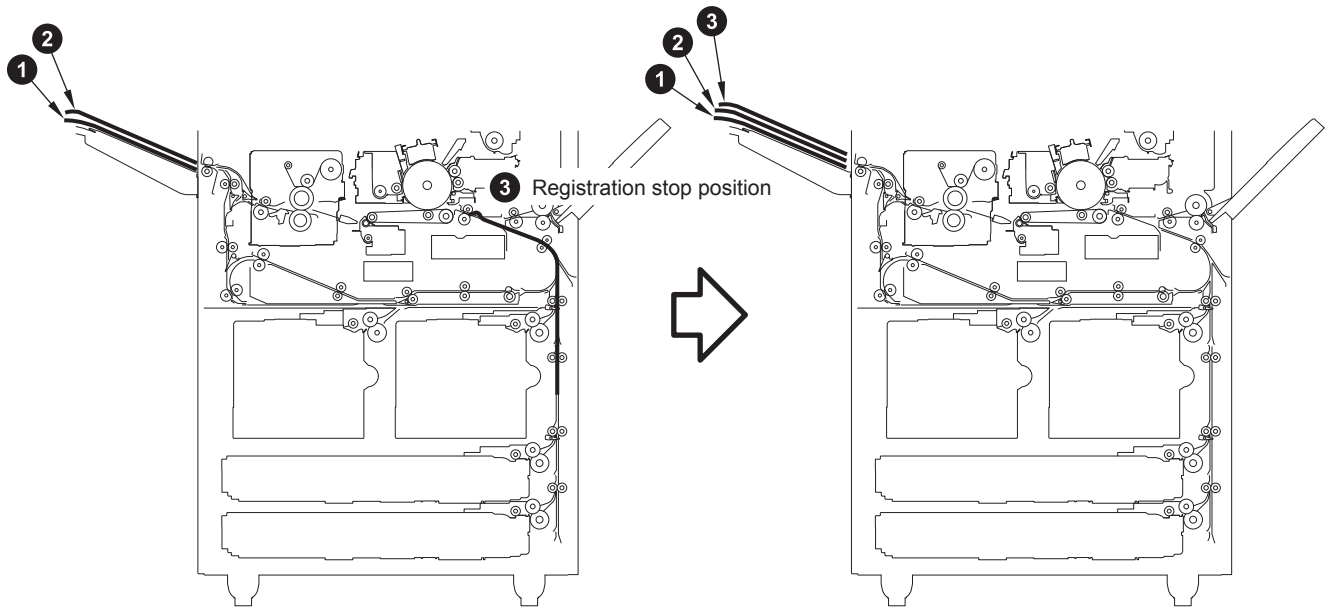




● Exceeds 314 mm in size/3 sheets in circulation (B4 to 19.2 inch(483.0))



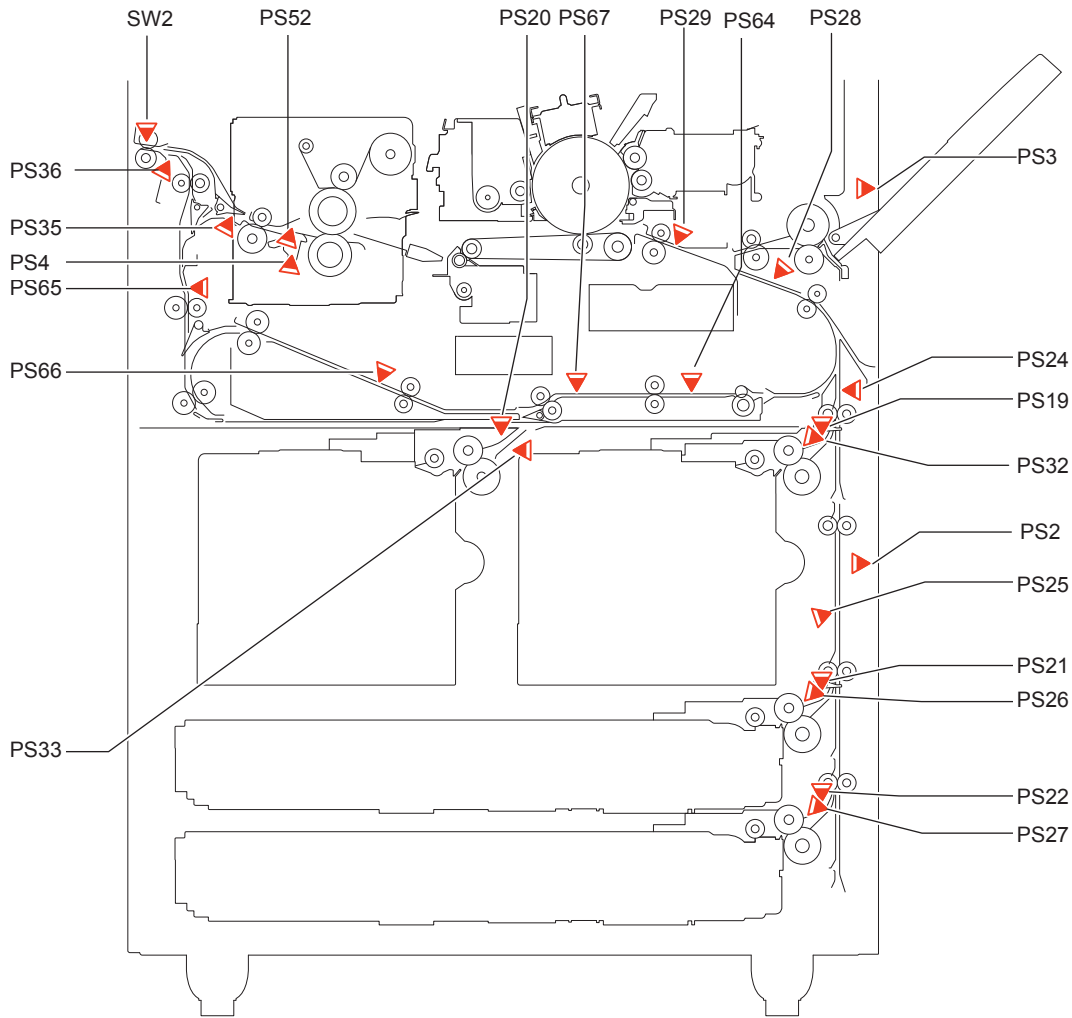
F-2-206



F-2-207

# Jam Detection

## Jam Code List



F-2-208

## Jam in Feed System

xx = 01: Delay, 02: Stationary, 0A: Residue

Yes: Detects, -: Does not detect

Sensor No.	Sensor name		Jam type			
			Delay	Stationary	Residue	
xx01	PS19	Right Deck Pickup Sensor 1	Yes	-		
xx02	PS32	Right Deck Pull Out Sensor	Yes	Yes	Yes	
xx03	PS24	Vertical Path Sensor1	Yes	Yes	Yes	
xx04	PS28	Multi-purpose Paper Last paper Sensor	Yes	Yes	Yes	
xx05	PS29	Registration Sensor	Yes	Yes	Yes	
xx06	PS20	Left Deck Pickup Sensor 2	Yes	-	-	
xx07	PS33	Left Deck Pull Out Sensor	Yes	Yes	Yes	
xx08	PS67	Duplex Merging Sensor	Yes	Yes	Yes	
xx09	PS64	Duplex Outlet Sensor	Yes	Yes	Yes	
xx0A	PS21	Cassette 3 Pickup Sensor 1	Yes	-	-	
xx0B	PS26	Vertical Path Sensor3	Yes	Yes	Yes	
xx0C	PS25	Vertical Path Sensor2	Yes	Yes	Yes	
xx0D	PS22	Cassette 4 Pickup Sensor 1	Yes	-	-	
xx0E	PS27	Vertical Path Sensor4	Yes	Yes	Yes	
xx11	PS52	Fixing Outlet Sensor	Yes	Yes	Yes	
xx12	PS35	Inner Delivery Sensor	Yes	Yes	Yes	
xx13	PS36	Outer Delivery Sensor	Yes	Yes	Yes	
xx14	PS65	Reverse Vertical Path Sensor	Yes	Yes	Yes	
xx15	PS66	Duplex Left Sensor	Yes	Yes	Yes	
xx17	PS1	Deck Pickup Roller	Paer Deck / POD Deck	Yes	-	-
xx18	PS6	Deck Pull Out Sensor	Paer Deck / POD Deck	Yes	Yes	Yes
0305	PS29	Registration Sensor	early timing jam			

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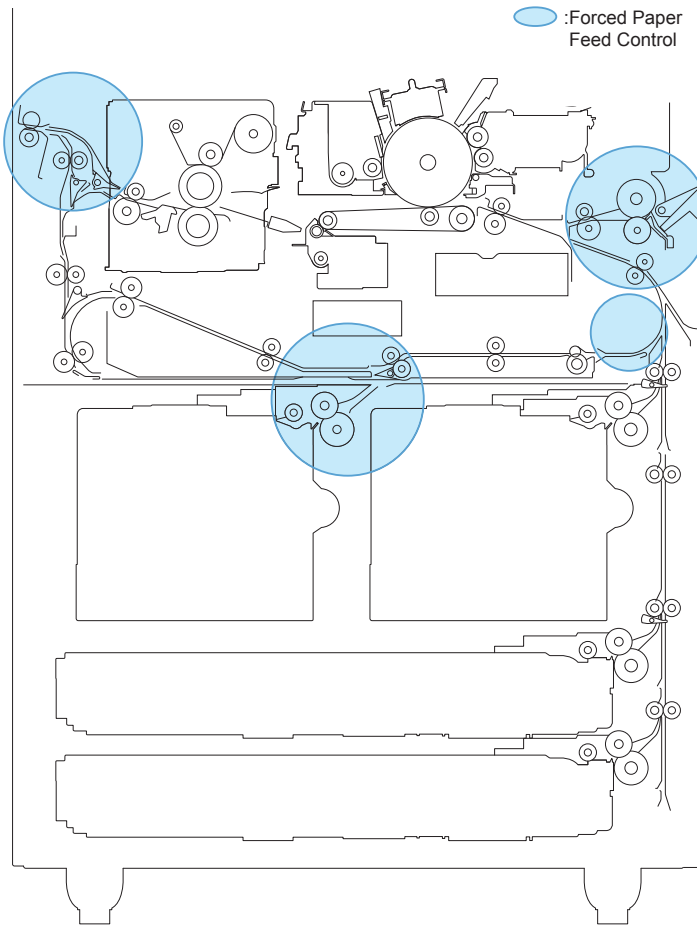
## Other Jams

Sensor No.	Sensor name		Jam type
0B01	SW2	Front Door Open Detection Switch	Door Open jam
0B02	PS3	Vertical Path Cover Open/Close Sensor	Door Open jam
0B03	PS2	Multi-purpose Cover Open/Close Sensor	Door Open jam
0CA1	-	FeedSts time out jam	REFEED command is not received. (Former: E240-0001)
0CA2	-	RefeedStart time out jam	RefeedStart command is not received. (Former: E240-0002)
0CA3	-	ImageSet time out jam	ImageSet command is not received. (Former: E240-0003)
0CA4		PageComplete time out jam	PageCompletemcommand is not received. (Former: E240-0004)
0CA5	-	Fixing temperature control time out jam	-
0C10	PS4	Fixing Toenail Jam Sensor	Fixing Toenail Jam

T-2-85

## Forced Paper Feed Control

If there is paper in the following place after jam is detected, the paper will be forcedly fed to downstream direction. This control suppresses paper damage during jam handling.



F-2-209

## ● Servicing

### ■ Periodically Replaced Parts

None

### ■ Consumable Parts

Parts Name	Parts Number	Piece	Expected life*	COUNTER (DRBL-1)	Remarks
Right Deck Pickup Roller	FC5-2524	1	50	C1-PU-RL	
Right Deck Feed Roller	FC5-2526	1	50	C2-PU-RL	
Right Deck Separation Roller	FC5-2528	1	50	C1-FD-RL	
Left Deck Pickup Roller	FC5-2524	1	50	C2-FD-RL	
Left Deck Feed Roller	FC5-2526	1	50	C1-SP-RL	
Left Deck Separation Roller	FC5-2528	1	50	C2-SP-RL	
Cassette 3 Pickup Roller	FC5-2524	1	50	C3-PU-RL	
Cassette 3 Feed Roller	FC5-2526	1	50	C3-FD-RL	
Cassette 3 Separation Roller	FC5-2528	1	50	C3-SP-RL	
Cassette 4 Pickup Roller	FC5-2524	1	50	C4-PU-RL	
Cassette 4 Feed Roller	FC5-2526	1	50	C4-FD-RL	
Cassette 4 Separation Roller	FC5-2528	1	50	C4-SP-RL	
Multi-purpose Tray Separation Roller	FB1-8581	1	12	M-FD-RL	
Multi-purpose Tray Feed Roller	FC6-6661	1	12	M-SP-RL	

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\*Unit: 10,000 sheets

### ■ Periodical Servicing List

Parts/Area Name	Expected life*	Remarks
Feed Guide	50	Remove paper lint with lint-free paper and cleaning tool.
Pre-registration Guide	50	Clean with lint-free paper moistened with alcohol.
Rollers/wheels	50	Clean with lint-free paper moistened with alcohol.
Separation Static Eliminator	50	Remove paper lint (toner) with Blower.
Duplex Unit Cleaning Brush	50	Using Blower, remove paper lint which was collected by Cleaning Brush.
Registration Unit Magnet	50	Clean with lint-free paper moistened with alcohol.
Scanner Sensor(Pickup Assembly)	100*	Using Blower, remove paper lint Left Deck Pickup Sensor 2 (PS20), Right Deck Pickup Sensor 2 (PS19), Cassette 3 Pickup Sensor 2 (PS21), Cassette 4 Pickup Sensor 1 (PS22) * when replacing Separation Roller
Scanner Sensor(Feeding Assembly)	100	Using Blower, remove paper lint Vertical Path Sensor 1 (PS24), the Multi-purpose Tray Last Paper Sensor (PS28), the Registration Sensor (PS29), Reverse Vertical Path Sensor (PS65), Duplex Outlet Sensor (PS64), Duplex Merge Sensor (PS67), and Duplex Left Sensor (PS66)

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\*Unit: 10,000 sheets

### ■ When Replacing Parts

When replacing the Periodically Replaced Parts and Consumable Parts, be sure to clear the Parts Counter (COPIER > COUNTER > PRDC-1/DRBL-1)

### ■ Major Adjustments

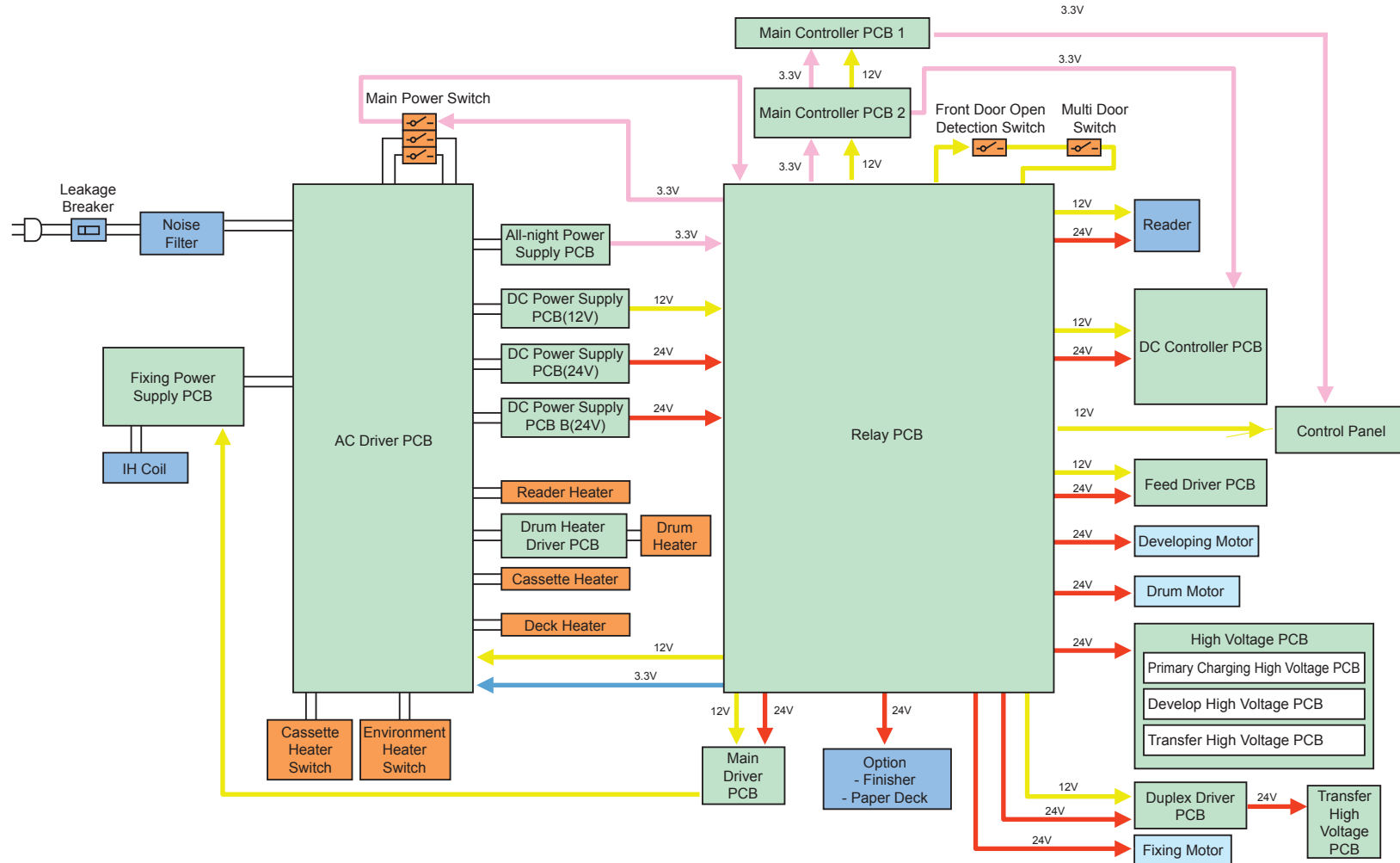
None

### ■ Troubleshooting

None

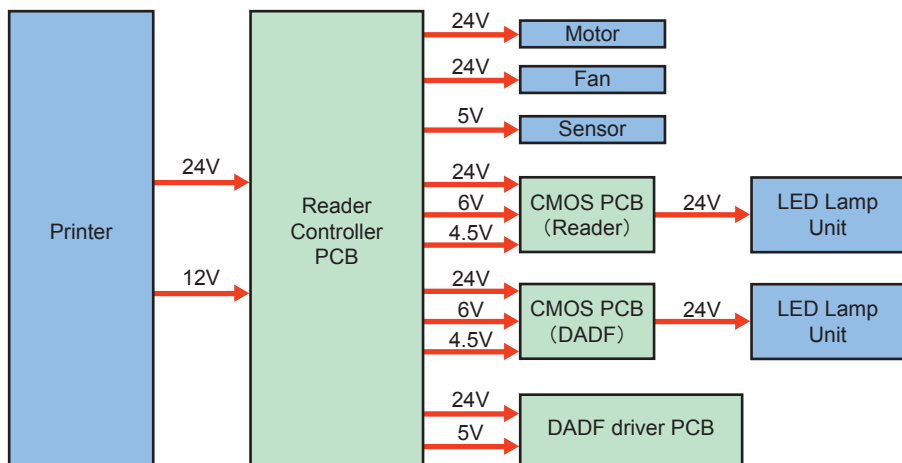
# External Auxiliary System

- Overview
- Power Supply Configuration
- Power Supply Configuration inside the Host Machine



F-2-210

● Power Configuration of the Reader Unit



F-2-211

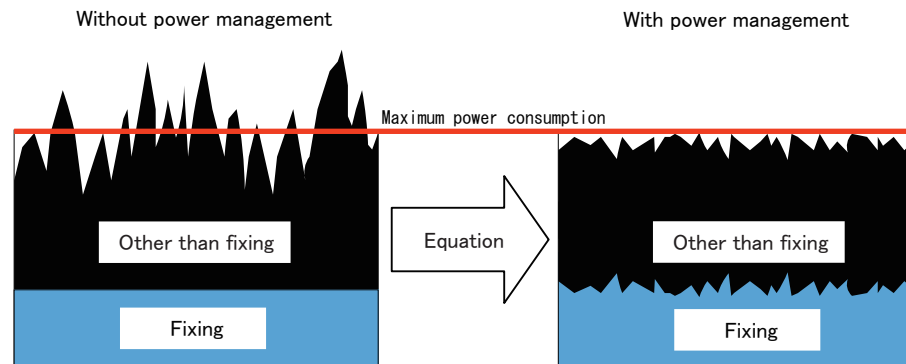
● Controls

■ Power supply control

● Electric Power Management

<Over View>

By equating the electric power in the machine, the maximum power consumption is reduced in comparison with the conventional models (iR7105/7095/7086 series).

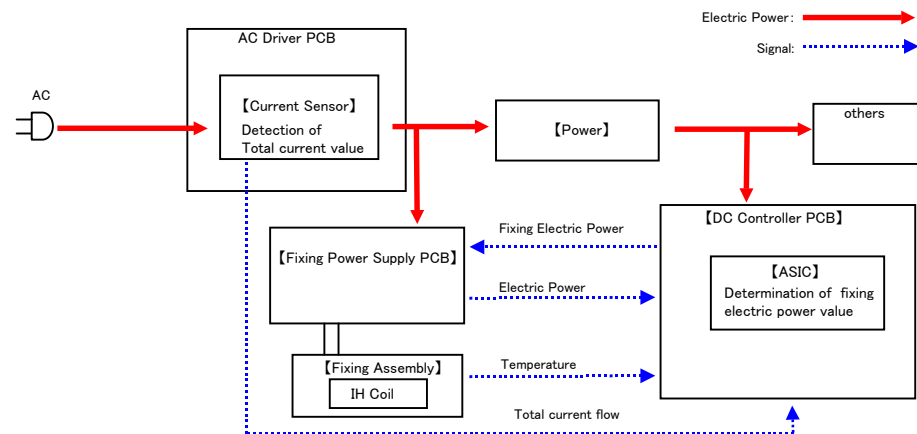


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## &lt;Control description&gt;

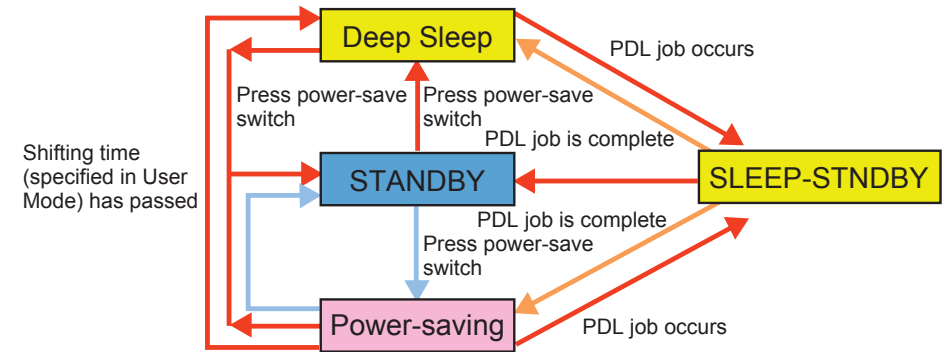
This machine executes electric power management to prevent temporary power shortage. The electric power management detects current value of the entire product with the Current Sensor. In the case that the current value is likely to exceed the electric power reference value, the DC Controller temporarily reduces electric power supply to the fixing area to compensate for power shortage.



F-2-213

Current Sensor : Converts the flux occurred by current to the voltage.

## ● Energy saver function



F-2-214

**Sleep standby**

The mode that can start operation immediately. All power is supplied in this mode, but display on the Control Panel is OFF.

**Energy Saver**

The mode to reduce energy consumption by reducing the control temperature when the Fixing Unit is at standby state according to the energy saving rate (this mode can be changed in Settings/registration "Change Energy Saver Mode" Default: -10%).

**Deep Sleep**

The state that only 3.3V on the All-night Power Supply PCB is supplied. To be shifted to the standby mode when the next job is generated.

- Print job
- Pressing the power key on the Control Panel

## Distribution of Power and the Switches

The power of this machine is supplied to each load side by linking with the following switches, etc.

### A. 2-dimensional shading OFF(default\*1)

<Environment Switch: OFF>

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Environment control *1	Environment control *1	ON	ON
	Cassette	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

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<Environment Switch: ON>

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	Environment control *1	Environment control *1	Environment control *1*2	Environment control *1*2	Environment control *1*2	Environment control *1*2	OFF	OFF	Environment control *1	Environment control *1	ON	ON
	Cassette	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

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## B. 2-dimensional shading ON \*1]

&lt;Environment Switch: OFF&gt;

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON *1	ON *1	ON	ON
	Cassette	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

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&lt;Environment Switch: ON&gt;

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	ON *1	ON *1	ON *1	ON *1	ON *1	ON *1	OFF	OFF	ON *1	ON *1	ON	ON
	Cassette	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

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\*1 It can be switched by COPIR &gt; OPTION &gt; IMG-MCON &gt; 2D-SHADE..

\*2 It can be switched by COPIR &gt; OPTION &gt; IMG-MCON &gt; DRM-H-SW.

\*3 When sleep mode (high energy consumption) is set, the Cassette Heater/Reader Heater cannot be turned ON although the Environment Switch and the Cassette Heater Switch are ON.  
When using the Cassette Heater and the Reader Heater at sleep state, set the sleep mode (low energy consumption). Settings/Registration > Preferences > Timer/Energy Settings > Sleep Mode Energy Use > High/Low

## &lt;Environment Control&gt;

Environment control 1: The condition of the heater at the time of turning OFF the main power continues.

Environment control 2: Whether to turn ON or OFF the heater is determined by the environment (moisture content) right before moving to sleep state, and the condition continues while the power is OFF or the machine is at sleep state.

Environment	Moisture content	Temperature/Humidity	Drum Heater
1	0.86	23 deg C 5%	OFF
2	1.73	23deg C 10%	
3	5.8	23 deg C 30%	
4	8.9	23 deg C 50%	
5	15	23 deg C 70%	ON
6	18	27 deg C 80%	
7	12.41	30 deg C 80%	

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Environment control 3: Basically the heater is ON. ON or OFF of the heater can be switched depending on the moisture contents when the duration time of standby mode/energy saving mode is long (4 hours at minimum).

## &lt;Related service modes&gt;

COPIER > OPTION > IMG-MCON > DRM-H-SW: To set ON/OFF of the Drum Heater.

0: Normal mode (ON/OFF of the Drum Heater is determined when moving to sleep 1.)  
(Default)

1: Drum Heater ON mode \*(The Drum Heater must be turned ON when moving to sleep 1 while the 2-dimensional shading-related control is OFF.)

2: Energy saving mode (The Drum Heater is OFF when moving to sleep 1.)

\* The mode differs from 2-dimensional shading ON (image priority mode). This mode is for users who just want to turn ON the Drum Heater when startup time is delayed because of the increase of controls due to 2-dimensional shading ON.

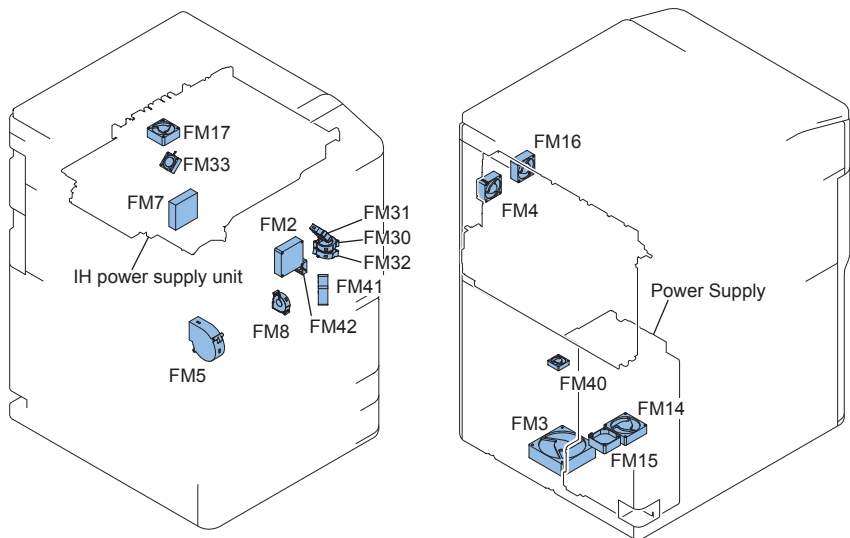
COPIER > OPTION > IMG-LSR > 2D-SHADE: Image priority mode (2-dimensional shading). ON/OFF

0: 2-dimensional shading OFF (Default)

1: 2-dimensional shading ON (The Drum Heater is turned ON at first time for the day, sleep, standby/energy saving, potential control, and 2-dimensional shading.)

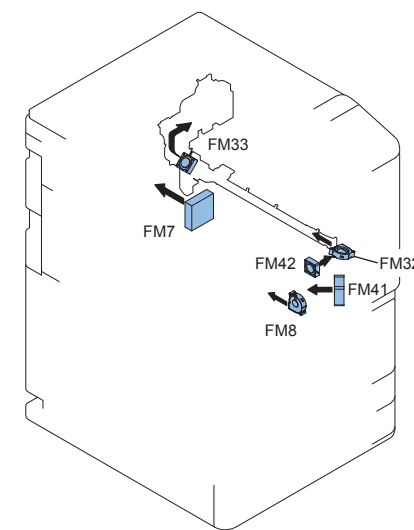
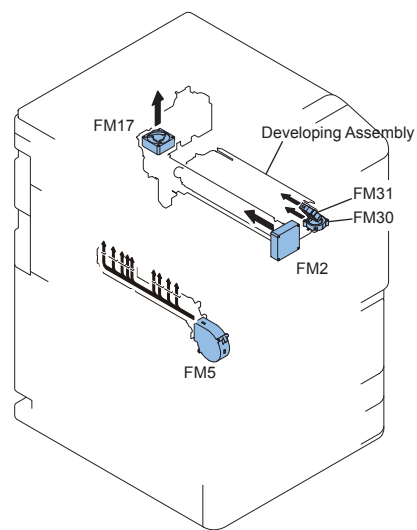
Fan Control

Location of Fans



F-2-215

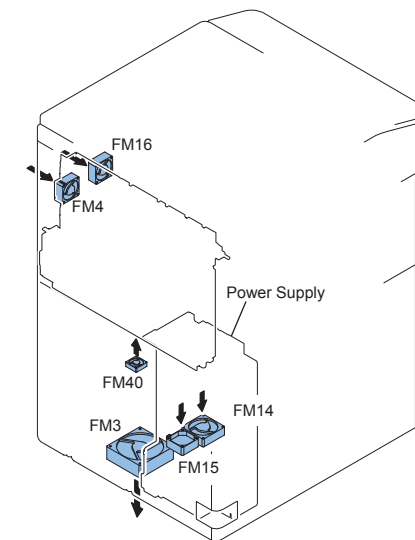
Airflow



F-2-216

Circuit code	Name	Function	Error/Alarm code
FM2	Primary Charging Air-supply Fan	To intake air around the Primary Charging Assembly	E824-0000
FM3	Making Image Exhaust Fan	To exhaust air in the image formation area	E806-0000
FM4	Main Controller Cooling Fan	To cool the Main Controller PCB	E880-0001
FM5	Paper Cooling Fan	To cool the paper passing through the delivery area	33-0001
FM7	Fixing Power Supply Cooling Fan	To cool the fixing power supply	E804-0001
FM8	Transfer Cleaner Cooling Fan	To cool the Transfer Cleaner / To cool the Duplex Feed Guide	E820-0002
FM14	Power Supply Cooling Fan 1	To cool the power supply	E804-0000
FM15	Power Supply Cooling Fan 2	To cool the power supply	E804-0000
FM16	Laser Scanner Cooling Fan	To cool the Laser Scanner	E121-0001
FM17	Primary Charging Exhaust Fan	To exhaust air around the Primary Charging Assembly	33-0027
FM30	Developer Lower Cooling Fan	To cool the Developing Unit	E820-0000
FM31	Developer Upper Cooling Fan	To cool the Developing Unit	E820-0001
FM32	Pre-transfer Charging Unit Air-supply Fan	To intake air around the Pre-transfer Charging Assembly	33-0026
FM33	Pre-transfer Charging Unit Exhaust Fan	To exhaust air around the Pre-transfer Charging Assembly	33-0026
FM40	Feed Driver Cooling Fan	To cool the Feed Driver	33-0013
FM41	Duplex Driver Cooling Fan	To cool the Duplex Driver	33-0028
FM42	Registration Motor/Duplex Motor Cooling Fan	To cool the Duplex Motor and the Registration Motor	33-0002

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### Fan Sequence

NO.	NAME	WAIT UP	INTR	STBY	PRINT	LSTR	JAM	ERR	Power saving	DEEP Sleep
FM2	Primary Charging Air-supply Fan		■		■				■	
FM3	Making Image Exhaust Fan		■		■				■	
FM4	Main Controller Cooling Fan	Controller control								
FM5	Paper Cooling Fan				■				■	
FM7	Fixing Power Supply Cooling Fan		■		■				■	
FM8	Transfer Cleaner Cooling Fan				■				■	
FM14	Power Supply Cooling Fan 1				■				■	
FM15	Power Supply Cooling Fan 2				■				■	
FM16	Laser Scanner Cooling Fan				■				■	
FM17	Primary Charging Exhaust Fan		■		■				■	
FM30	Developer Lower Cooling Fan		■		■				■	
FM31	Developer Upper Cooling Fan		■		■				■	
FM32	Pre-transfer Charging Unit Air-supply Fan		■		■				■	
FM33	Pre-transfer Charging Unit Exhaust Fan		■		■				■	
FM40	Feed Driver Cooling Fan				■				■	
FM41	Duplex Driver Cooling Fan				■				■	
FM42	Registration Motor / Duplex Motor Cooling Fan				■				■	

■ : Full speed  
 ■ : half speed

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### Counter control

Count-up timing differs according to the following.

- Print mode (1-sided page, 2nd side of 2-sided page, 1st side of 2-sided page)
- Delivery position (Finisher).

Delivery position		Print mode	
		1-sided print/2nd side of 2-sided print	1st side of the 2-sided print
Count-up timing			
1	In the case of the Host Machine only	Reference Sensor: External Delivery Sensor (PS36)	Reference Sensor: Small (when the length is up to LTR) -> Duplex Left Sensor (PS66)
2	Staple Finisher-D1 / Booklet Finisher-D1	Tray A (Upper Tray)	Reference Sensor: Feed Path Sensor (S102)
		Tray B (Lower Tray)	
		Saddle area	Reference Sensor: Saddle inlet sensor (S201)
3	Staple Finisher-F1 / Booklet Finisher-F1	Tray A (Upper Tray)	Reference Sensor: Upper delivery sensor (PS5)
		Tray B (Lower Tray)	Reference Sensor: Lower delivery sensor (PS6)
		Saddle area	Reference Sensor: Saddle inlet sensor (PS101)
4	Booklet Trimmer-D1	Reference Sensor: Saddle inlet sensor (PS101)	Large (when the length is A4R or more) -> Reverse Vertical Path Sensor (PS65)

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Default counters for each country (model) are listed below.

Target	Display number of each counter (in service mode) / item						Country code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	
100V Japan model Type 1 (Conventional method)	Total 1	"1	"1	"1	"1	"1	JP
	101	0	0	0	0	0	
100V Japan model (New method)	Total 2	Copy (Total 2)	Total A2	"1	"1	"1	JP
	102	202	127	0	0	0	
120V Taiwan model	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	"1	"1	TW
	101	103	201	203	0	0	

Target	Display number of each counter (in service mode) / item						Country code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	
120V UL model Type 1 (Conventional method)	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	**	**	US
	101	103	201	203	0	0	
120V UL model Type 2 (New method)	Total 2	Copy (Total 2)	**	**	**	**	US
	102	202	0	0	0	0	
230V General model	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	**	**	SG/KO/ CN
	101	103	201	203	0	0	
240V UK model Type 1 (Conventional method)	Total (Black/ Large)	Total (Black/ Small)	Scan (Total 1)	Print (Total 1)	**	**	GB
	112	113	501	301	0	0	
240V UK model Type 2 (New method)	Total 1	**	**	**	**	**	GB
	101	0	0	0	0	0	
240V CA model	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	**	**	AU
	101	103	201	203	0	0	
230V FRN model Type 1 (Conventional method)	Total (Black/ Large)	Total (Black/ Small)	Scan (Total 1)	Print (Total 1)	**	**	FR
	112	113	501	301	0	0	
230V FRN model Type 2 (New method)	Total 1	**	**	**	**	**	FR
	101	0	0	0	0	0	
230V GER model Type 1 (Conventional method)	Total (Black/ Large)	Total (Black/ Small)	Scan (Total 1)	Print (Total 1)	**	**	DE
	112	113	501	301	0	0	
230V GER model Type 2 (New method)	Total 1	**	**	**	**	**	DE
	101	0	0	0	0	0	
230V AMS model Type 1 (Conventional method)	Total (Black/ Large)	Total (Black/ Small)	Scan (Total 1)	Print (Total 1)	**	**	ES/SE/ PT/NO/ DK/FI/ PL/HU/ CZ/SI/ GR/EE/ RU/NL/ SK/RO/ HR/BG/ TR
	112	113	501	301	0	0	

Target	Display number of each counter (in service mode) / item						Country code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	
230V AMS model Type 2 (New method)	Total 1	**	**	**	**	**	ES/SE/ PT/NO/ DK/FI/ PL/HU/ CZ/SI/ GR/EE/ RU/NL/ SK/RO/ HR/BG/ TR
	101	0	0	0	0	0	
230V ITA model Type 1 (Conventional method)	Total (Black/ Large)	Total (Black/ Small)	Scan (Total 1)	Print (Total 1)	**	**	IT
	112	113	501	301	0	0	
230V ITA model Type 2 (New method)	Total 1	**	**	**	**	**	IT
	101	0	0	0	0	0	

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## &lt;Explanation of the list&gt;

- Large: Large size paper (when paper length exceeds 364 mm in paper feed direction)
  - Small: Small size paper (when paper length is 364 mm or less in paper feed direction)
  - Total: Copy + Print; 1 count up
  - 2-Sided: 1 count up when auto 2-sided copy
  - Country code change of CONFIG is executed from COPIER > OPTION > FNC-SW > CONFIG.
  - Three-digit number in the counter column shows the setting value of the following service mode items.  
COPIER > OPTION > USER > COUNTER 1 to 8
  - COUNTER2 to 8 can be changed from the service mode (COPIER > OPTION > USER).
- \*1: Nothing is displayed as default. However, you can change this setting from the service mode.

## Servicing

### ■ Periodically Replaced Parts

No	Parts name	Parts Number	Piece	Expected life	Remarks
1	Ozone Filter	FL3-2134-000	1	6000,000 sheets	
2	Dustproof Filter	FC8-9564-000	1	2000,000 sheets	

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### ■ Consumable Parts

None

### ■ Periodical Servicing

None

## ■ When Replacing Parts

### ● DC Controller PCB

Get in service mode to enter all the latest service mode values written on the label at the back of the Front Cover.

[<Procedure of parts replacement>](#)

see "Removing the DC Controller PCB," on p. 4-234.

[<Procedure of adjustment>](#)

#### 1. Before Replacing

- 1) Backup of the Service Mode data  
COPIER > FUNCTION > SYSTEM > DSRAMBUP

#### 2. After Replacing

- 1) Restoring the backup data  
COPIER > FUNCTION > SYSTEM > DSRAMRES
- 2) Switch OFF and then ON the main power.
- 3) Execute auto gradation adjustment.
- 4) Test print



## Troubleshooting

### Adjusting rotation of the Upright Control Panel Arm

If rotation of the Upright Control Panel Arm has become loose, retighten the Fixation Screws securing the Arm Rotation Adjustment Ring according to the following procedure.

<Procedure>

- 1) Remove the Shaft Support Cover (Left) and the Shaft Support Cover (Right).
- 2) Open the DADF and retighten the 2 Fixation Screws securing the Arm Rotation Adjustment Ring.

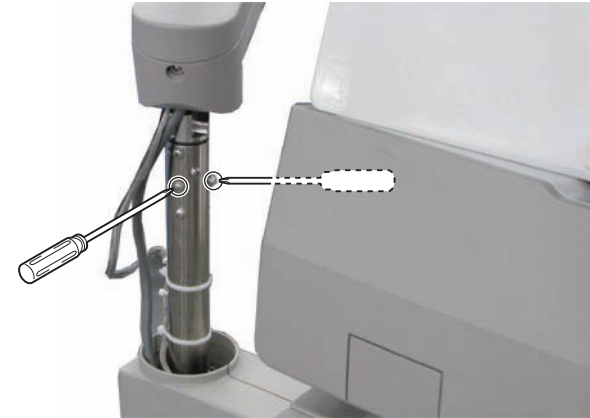


F-2-219

#### NOTE:

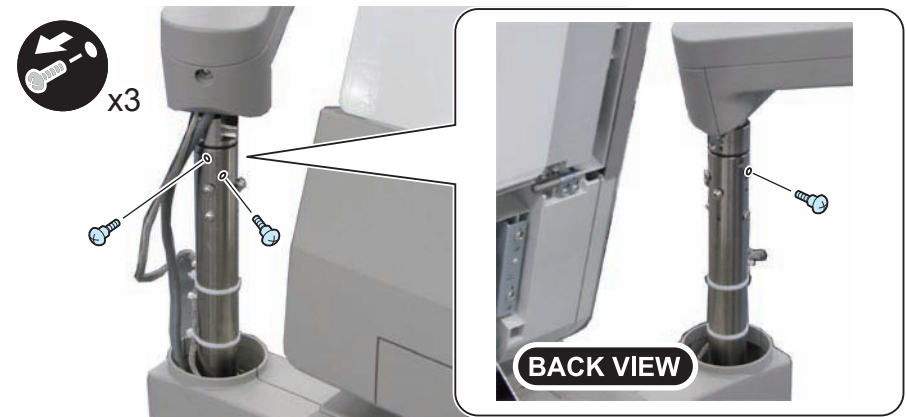
If rotation of the arm is still loose after retightening the Fixation Screws according to “Adjusting rotation of the Upright Control Panel Arm”, change the phase difference between the Arm Rotation Adjustment Ring and the Fixation Screws according to the following procedure.

- 1) Open the DADF and loosen the 2 Fixation Screws securing the Arm Rotation Adjustment Ring.



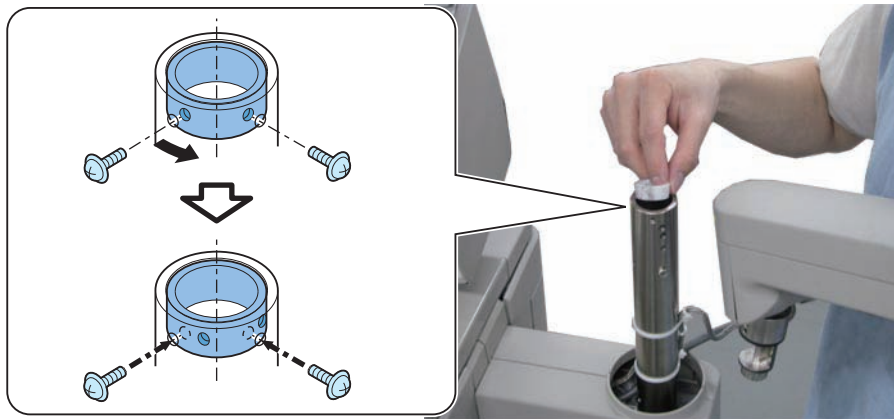
F-2-220

- 2) Remove the 3 Stepped Screws securing the Arm Shaft.



F-2-221

- 3) Pull out the Upright Control Panel and the Arm Shaft, and rotate the Arm Rotation Adjustment Ring to change the phase so that the Fixation Screws do not contact with the dents formed by tightening the screws.



F-2-222

- 4) Insert the Upright Control Panel and the Arm Shaft, and retighten the 2 screws loosened in step 3.

## MEAP

### Changes

#### Overview

Functions and specifications which were added in Ver.50.xx or later firmware are introduced here.

#### SSL Always Enabled

Although SSL setting of the device is disabled, SSL is always enabled when accessing to SMS.

Due to this specification change, URL for accessing to SMS was changed as follows.

Old URL    http://< Device IP Address>:8000/sms/  
New URL    https://< Device IP Address>:8443/sms/

When accessing to the old URL, the new URL is redirected.

#### Message Display by USB Driver Setting Change

By starting, stopping and uninstalling the MEAP application, driver settings of the USB device may be changed. Due to this setting change, when the device needs to be restarted, a message prompting to restart is displayed.

The screenshot displays the MEAP Application Management interface. At the top, it shows 'Service Management Service' and 'Device Serial Number: ZZZ00424'. The main content area is titled 'MEAP Application Management' and includes a warning message: 'You need to restart the device to have driver settings of the USB device take effect.' Below this is a table of installed applications:

Application Name	Version	Installed on	Status	Start	Uninstall	License
Application A	2.0.0	2010 09/29	Stopped	Start	Uninstall	Unnecessary
Application B	2.0.0	2010 09/29	Stopped	Start	Uninstall	Unnecessary
Application C	2.0.0	2010 09/29	Stopped	Start	Uninstall	Unnecessary

Below the application table is a 'Resource Information' section with a table showing usage for various resources:

Resource Name	Amount Used	Remaining	Percent Used
Storage	29512 KB	1019064 KB	3%
Memory	3584 KB	127488 KB	3%
Threads	33	223	13%
Sockets	33	223	13%
File Descriptors	27	229	11%

The interface also includes a sidebar with navigation options like 'MEAP Application Management', 'System Management', and 'MEAP Application Log Management'. The footer shows 'meap' logo and 'Version 3.0.3.8 Copyright CANON INC. 2010 All Rights Reserved'.

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### Addition of Functions

#### 3 functions

For the built-in applications in iR-ADV models, 3 functions (services) were added. These functions support the platform which was reinforced in terms of management. In detail, information which the MEAP applications manage respectively (setting information, user setting information, a bunch of keys, and log) can be managed effectively and collectively. These 3 functions are shown below.

##### 1) MEAP User Preference Service (MEAP Spec Ver 56)

Management service of customized information for each user which MEAP application retains

##### 2) MEAP Application Configuration Service (MEAP Spec Ver 57)

Management service of the application's setting information

##### 3) MEAP Application Log Service (MEAP Spec Ver 58)

Service to collect the application log (debug log and authentication log)

#### Note:

- Registration method of application data to each service and its usage method are disclosed in MEAP SDK V.4.3. However, as for the authentication log only, they are disclosed in MEAP Login SDK V.3.1.

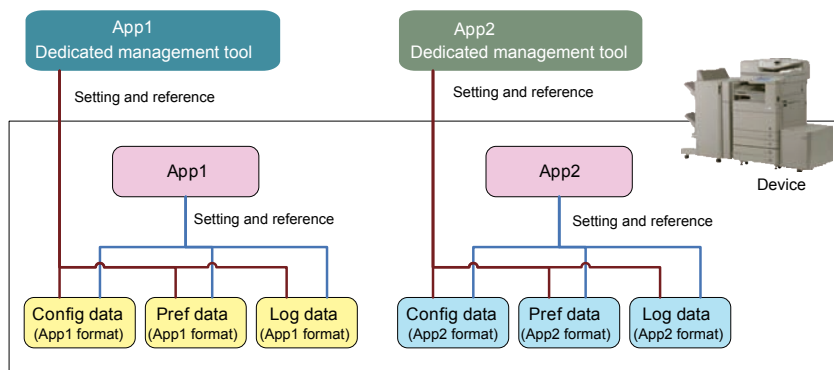
Management service of the application data which was stored in each service is provided.

- iW EMC Plug-in(DAM Plug-in)、RUI、SMS

## Differences in MEAP Application Data Management when Using New Functions

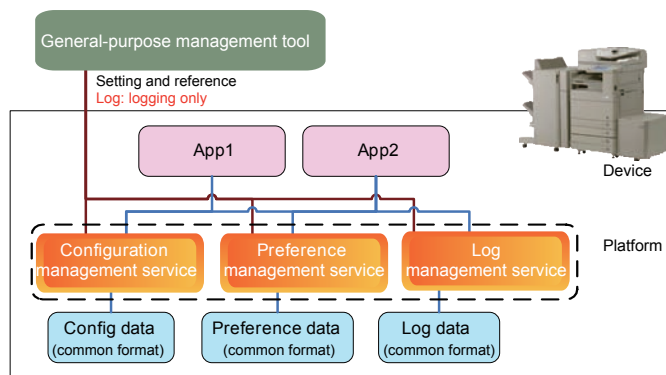
By using the 3 functions which were newly added, MEAP applications can be managed collectively as follows. (Only for MEAP applications which support new functions)

Devices and MEAP applications which do not support new functions



F-2-224

Devices and MEAP applications which support new functions



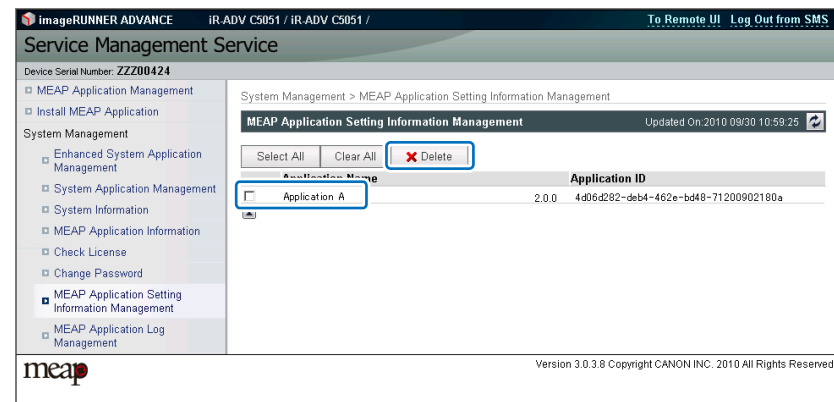
F-2-225

## Addition of SMS Functions

Due to the foregoing additional 3 functions, functions for MEAP application were added to SMS.

### Management of the MEAP application's setting information

MEAP application's setting information management function which the application data can be deleted was added.

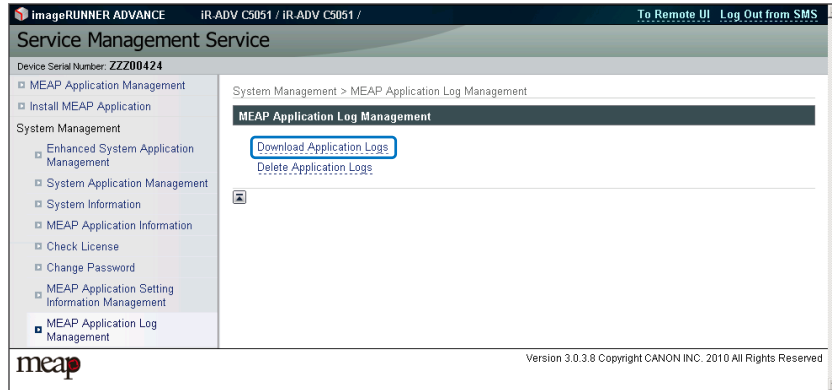


F-2-226

### ● Log management of MEAP application

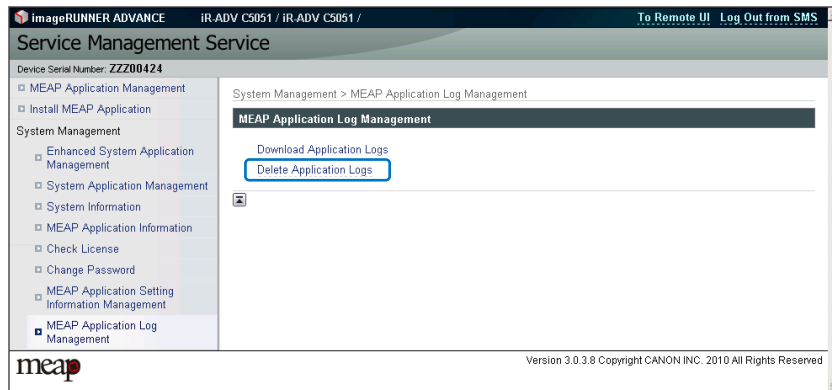
Log management function which the MEAP application log can be downloaded and/or deleted was added.

Screen example: Download of MEAP application log



F-2-227

Screen example: Deletion of MEAP application log



F-2-228

### ■ Authentication Information Sharing Function

#### ● Sharing the authentication information

Authentication information at login and authentication information for MEAP application were managed separately, so it was very inconvenient because authentication was executed many times.

In the MEAP environment, the unified authentication function which authentication information can be shared even between MEAP applications was added.

Supported MEAP Specifications is Ver.59 and both device and MEAP application need to support this version in order to use this function.

There are 2 types for authentication information sharing: Volatile Credential which the registered information is discarded at logout or shutdown of the device, and Persistent Credential which the registered information is not discarded even at logout.

#### ● Volatile Credential

Volatile Credential is used when sharing the authentication information between applications which log in (authenticate) to the same security domain.

Credential is registered using a login application, so the application which accesses to the security domain used for authentication by login application can use the Credential.

#### ● Persistent Credential

Persistent Credential is used to help entry of authentication information when logging in (authenticating) to a different security domain.

Credential is registered using a general MEAP application, so the authentication information can be reused when the same user logs in for the second time or later.

#### ● Comparison of functions

		Volatile Credential	Persistent Credential
Registered information		Character strings and arbitrary Java object	Character strings only User ID/ Password/Domain/Arbitrary character strings
Lifetime	Registration	At login (login application), and at any timing registered by application	At any timing registered by application
	Deletion	Can be used until logout/shutdown.	Can be used until deletion by application or management tool.
Encryption of Credential data		Not supported	Data retained on the HDD is encrypted.
Store (Save) to		Memory in the device	HDD in the device

T-2-97

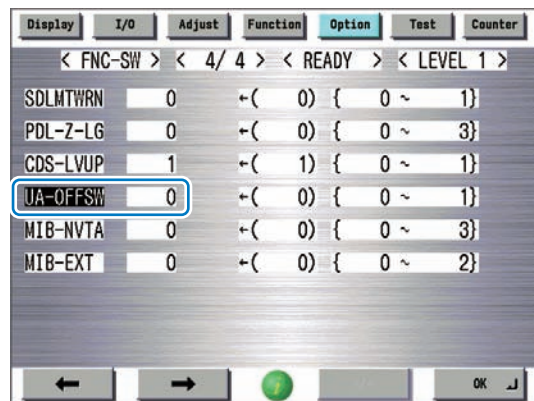
## Service mode

For the reason of security, if not preferring to use Volatile Credential, it can be disabled using the service mode. (Persistent Credential cannot be disabled.)

Service switch can be found in the following.

[SERVICE MODE] LEVEL1 > [COPIER] > [Option] > [FNC-SW] > [UA-OFFSW]

Setting value: 0 = Enabled, 1 = Disabled



F-2-229

## Function Supporting Deep Sleep Mode

Once the device shifted to the deep sleep mode, the USB device could not be controlled after recovery from the deep sleep mode. For this reason, it was necessary to control the application not to shift to the deep sleep mode.

With this function, the USB device control is enabled after recovery from the deep sleep mode as in the case when the USB device is inserted and removed (occurrence of disconnection/connection event) at recovery from the deep sleep mode.

In addition, this function enables the USB device control after shifting to the deep sleep mode, so the application needs to perform reconnection processing.

This function can be used with the device which MEAP Specifications Ver.54 is supported.

## Checking the Operating Environment

### Outline

This section lists the requirements on the operating environment for the maintenance.

#### Note:

- Cookies must be enabled for each session.
- Java Script must be enabled in all environments.
- The required web server functions for each server are built into the MEAP device, so there is no need to configure them separately.

#### CAUTION:

For the following operations in the combined environment of Windows XP and Internet Explorer 6, Java 2 Runtime Environment Standard Edition 1.5 or later is required.

- User registration / edit in SSO-H local device
- Use of remote login in SSO-H.

### SMS

The following system environments are required in order to enable SMS access.

Operating System	Supported browser
Windows 2000 Professional	Microsoft Internet Explorer 6 SP1
Windows XP Professional	Microsoft Internet Explorer 7
Windows Vista SP2	Microsoft Internet Explorer 8
Windows 7	Microsoft Internet Explorer 8
Mac OS X 10.3	Safari 1.3.2
Mac OS X 10.4	Safari 2.0.4
Mac OS X 10.5	Safari 3.1.2
Mac OS X 10.6	Safari 4.0.3

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## SSO-H Management

When using SSO-H for the login service, required system environments are different in domain authentication or local device authentication.

See the following for system requirements in each of authentication methods:

### Note:

- In case either of the following OS is installed in a client computer, Java Runtime Environment should be installed separately.
  - Windows 2000 Professional Japanese version (Service Pack 4 and later)
  - Windows XP Professional Japanese version (Service Pack 1a and later)
  - Windows Server 2003 Japanese version, Windows Server 2003 R2 Japanese version
- Visit the URL of Sun Microsystems (US) to learn how to obtain Java Runtime Environment.
- Accesses via IPv6 communication from a client computer require Java 2 Runtime Environment Standard Edition 1.5 and later.
- If [Internet Option]>[Securities]>[Customizing Levels]>[Run ActiveX controller and Plug-in] is disabled in a computer, Internet Explorer prompts the warning message, "Java Runtime Environment not Installed".
- Use Update 6 or later for Java Runtime Environment 6.

## Domain authentication management

In order to use domain authentication in SSO-H, the following system environments are required.

- The following Windows servers are installed under Active Directory, and DNS server for name resolution.
  - Microsoft Windows 2000 Server SP4
  - Microsoft Windows Server 2003 SP2
  - Microsoft Windows Server 2003 R2 SP2
  - Microsoft Windows Server 2008 SP2
  - Microsoft Windows Server 2008 R2
- Windows 2000/2003 Domain Name System (DNS) access privileges
- Domain controller access privileges

System environments for administrator and ordinary user

Operating System	Supported browser	Java Runtime Environment
Windows 2000 Professional SP4	Microsoft Internet Explorer 6 SP1	Sun Java Runtime Environment 1.4 or later
Windows XP Professional SP3	Microsoft Internet Explorer 7	
Windows Vista SP2	Microsoft Internet Explorer 8	
Windows 7	Microsoft Internet Explorer 8	
Windows Server 2003 SP2	Microsoft Internet Explorer 7	
Windows Server 2003 R2 SP2	Microsoft Internet Explorer 7	
Windows Server 2008 SP2	Microsoft Internet Explorer 8	
Windows Server 2008 R2	Microsoft Internet Explorer 8	
Mac OS X v10.3	Safari 1.3.2	Sun Java Runtime Environment 5.0
Mac OS X v10.4	Safari 2.0.4	
Mac OS X v10.5	Safari 3.1.2	
Mac OS X v10.6	Safari 4.0.3	

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System environments for administrator and ordinary user (when using IPv6 communication)

Operating System	Supported browser	Java Runtime Environment
Windows XP Professional SP3	Microsoft Internet Explorer 7	Sun Java Runtime Environment 1.5 or later
Windows Vista SP2	Microsoft Internet Explorer 8	
Windows 7	Microsoft Internet Explorer 8	
Windows Server 2003 SP2	Microsoft Internet Explorer 7	
Windows Server 2003 R2 SP2	Microsoft Internet Explorer 7	
Windows Server 2008 SP2	Microsoft Internet Explorer 8	
Windows Server 2008 R2	Microsoft Internet Explorer 8	

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**Note:**

- Visit the URL of Sun Microsystems (US) to learn how to obtain Java Runtime Environment.
- Accesses via IPv6 communication from a client computer require Java 2 Runtime Environment Standard Edition 1.5 and later.
- Use "User Logon Name (Windows 2000 or older)" registered in Active Directory as the user name for domain authentication.
- For domain authentication, set a user name only with 1-byte alphanumeric characters and symbols of - (hyphen), \_ (underbar), and % (percent). iR device will reject login with a user name including a forbidden character.
- For domain authentication, the time setting should be synchronized between Active Directory server and the device (as well as the PC to be logged in). If the time is different for 5 minutes or more, a login error is triggered in domain authentication (the setting of allowable time difference can be changed).
- A domain authentication manager should be registered when domain authentication is used. If not registered, setting or management is disabled for some applications. How to register the manager depends on system environments.
  - When not using imageWARE/iW Accounting Manager, a user belonging to "Canon Peripheral Admins" group on Active Directory will be authorized as the domain authentication manager. Follow Active Directory Operation Manual to create "Canon Peripheral Admins" group before registering the manager.

## Network ports used

Port No.	Application
53	Communication with DNS server (fixed)
88	Kerberos authentication with KDC (Key Distribution Center)
389	Communication with directory service using LDAP (default is 389, may be changed to any port on LDAP service side)

T-2-101

## Local Device Authentication Management

For user registration / edit in Local Authentication, following system requirements must be satisfied.

System environments for administrator and ordinary user

Operating System	Supported browser	Java Runtime Environment
Windows 2000 Professional SP4	Microsoft Internet Explorer 6 SP1	Sun Java Runtime Environment 1.4 or later
Windows XP Professional SP3	Microsoft Internet Explorer 7	
Windows Vista SP2	Microsoft Internet Explorer 8	
Windows 7	Microsoft Internet Explorer 8	
Windows Server 2003 SP2	Microsoft Internet Explorer 7	
Windows Server 2003 R2 SP2	Microsoft Internet Explorer 7	
Windows Server 2008 SP2	Microsoft Internet Explorer 8	
Windows Server 2008 R2	Microsoft Internet Explorer 8	
Mac OS X v10.3	Safari 1.3.2	Sun Java Runtime Environment 5.0
Mac OS X v10.4	Safari 2.0.4	
Mac OS X v10.5	Safari 3.1.2	
Mac OS X v10.6	Safari 4.0.3	

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System environments for administrator and ordinary user (when using IPv6 communication)

Operating System	Supported browser	Java Runtime Environment
Windows XP Professional SP3	Microsoft Internet Explorer 7	Sun Java Runtime Environment 1.5 or later
Windows Vista SP2	Microsoft Internet Explorer 8	
Windows 7	Microsoft Internet Explorer 8	
Windows Server 2003 SP2	Microsoft Internet Explorer 7	
Windows Server 2003 R2 SP2	Microsoft Internet Explorer 7	
Windows Server 2008 SP2	Microsoft Internet Explorer 8	
Windows Server 2008 R2	Microsoft Internet Explorer 8	

T-2-103

**Note:**

- Visit the URL of Sun Microsystems (US) to learn how to obtain Java Runtime Environment.
- Accesses via IPv6 communication from a client computer require Java 2 Runtime Environment Standard Edition 1.5 and later.

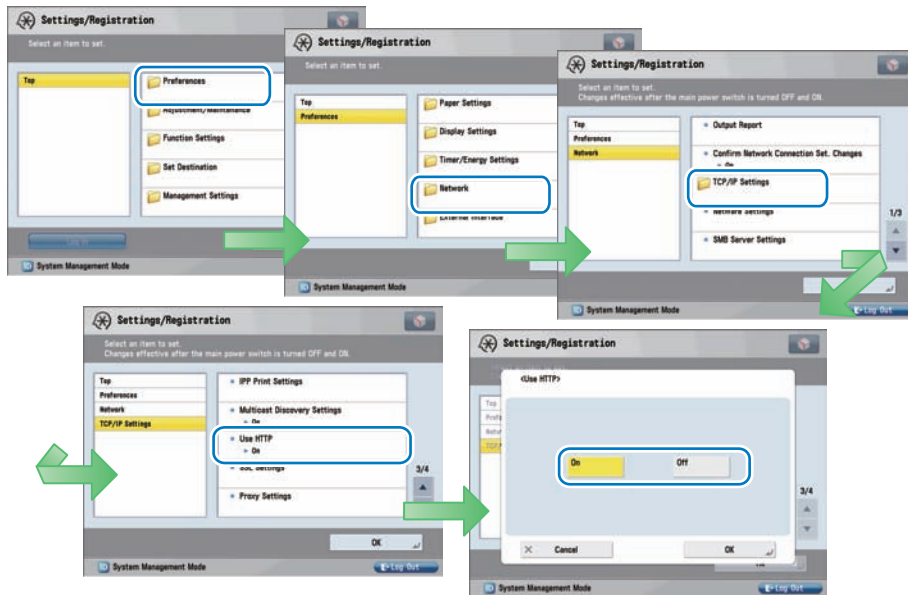


## Setting Up the Network

### Network configuration process

To support a MEAP-enabled iR device via network (SMS, etc.), set up the network setting on the touch panel of the iR device (this setting is [ON] by default).

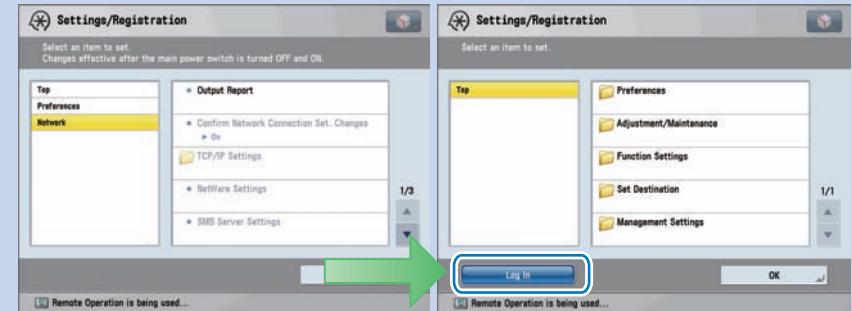
- 1) Press [Settings/Registration] button, select [Preferences] > [Network] > [TCP/IP Settings] > [Use HTTP] and press [On] button.



F-2-230

Note:

In iR-ADV series, the System Manager ID and the System PIN are configured by default, so “Network” and the items that follow are grayed out and cannot be selected. Return to the top screen, press “Login” button at the lower left of the screen, login as the system manager, and configure the settings. The default setting for the System Manager ID is “7654321”, and the password is “7654321”.

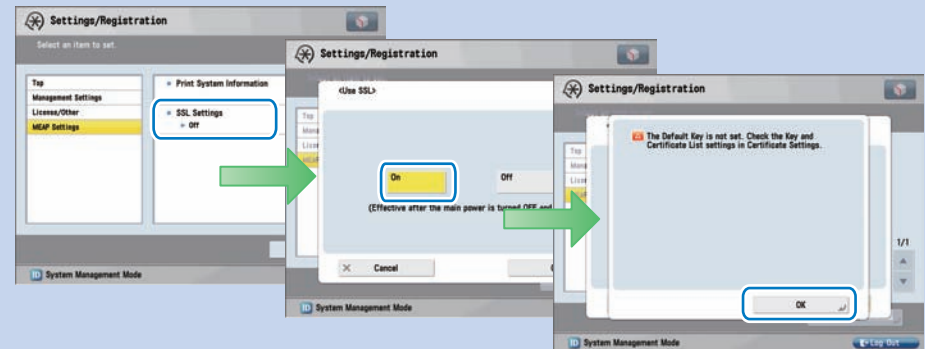


F-2-231

Note:

When using SSL, press [Settings/ Registration] button, select [Management Settings]>[License / Other] > [MEAP Settings] > [SSL Settings] and press [On] button. (This setting is applied to SSL setting on RUI. Vice versa, [On] set for SSL on RUI is also applied to the touch panel.)

When [Use SSL] is set to On, the message dialog, [The Default Key is not set. Check the Key and Certificate List settings in Certificate Setting.], is shown. Press [OK] button for this message.



F-2-232

- 2) Press [OK] button to return to Main Menu screen.
- 3) Restart the device.

**CAUTION:**

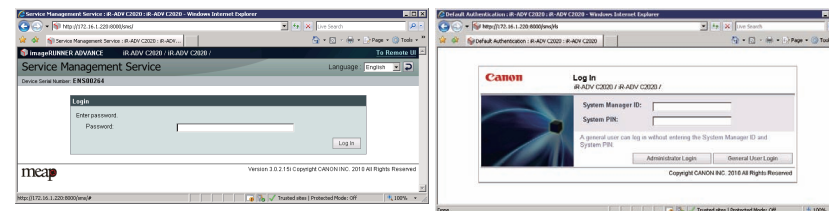
- The setting [ Use HTTP ] is not actually enabled/disabled until you have restarted the device.
- You cannot make a connection through a proxy server. If a proxy server is in use, enter the IP address of the MEAP device in the Exceptions field for the browser. Open Internet Options dialog of Internet Explorer and select Connections tab, LAN Settings button, Use a proxy server option, and Advanced button of Proxy server group. Proxy Settings dialog will opens. The Exceptions field is in the dialog. As network settings vary among environments, consult the network administrator.
- If Cookie and JavaScript are not enabled in the Web browser, you will not be able to use SMS.
- To type text using the Web browser, use the characters compatible with the MEAP device's touch panel display. The MEAP device may not properly recognize some characters.
- When [Use SSL] is made available, it is necessary to set the key and the certificate necessary for the SSL communication. Set the key and the certificate by SSL with [SSL Settings] that exists in [Preferences] > [Network] > [TCP/IP Settings] > [SSL Settings] on the iR device.

## Login to SMS

### Outline

SMS login may be done by entering a password for authentication, or by authentication via the Remote Login Service (RLS) login window (RLS authentication). Settings can be changed to allow either only one of these methods or both of them.

SMS login window (password auth) RLS login window (user name/ password auth)



F-2-233

Login method	Authentication method	Authentication service name	Users who may log in
Password authentication	Password authentication	SMS Installer Service (Password Authentication)	Users who know the SMS login password
RLS login	SSO-H	SMS Installer Service (Remote Login Service Authentication)	Users registered as administrators with SSO-H

T-2-104

**Note:**

If Default Authentication is selected as the device authentication method, 'RLS Authentication' is not selectable as SMS Login method. Also, if 'RLS Authentication' is selected, the device authentication method (Default Authentication, SDL, SSO) cannot be changed.

## ■ Key Pair and Server Certificate when Using Encrypted SSL Communication

### ● SSL Connection for SMS

SMS is always SSL-connected, so it is required to set a key pair and server certificate as the Default Key. When deleting [Default Key] (pre-installed key pair and server certificate) from the Default Key, SMS cannot be accessed.

### ● When SMS Cannot Be Accessed

If [Default Key] is deleted by mistake or setting [Default Key] is forgotten, URL which SMS can be accessed ([http:// <IP address of the machine> :8443/sms/](http://<IP address of the machine> :8443/sms/)) cannot be accessed.

In this case, perform the following.

1. Try to access from [http:// <IP address of the machine> :8000/sms/](http://<IP address of the machine> :8000/sms/).
2. Check whether to display “HTTP 500 internal server error”.
3. When the message is displayed, set a key pair and server certificate required for encrypted SSL communication with the following procedures.
  - 1) Select [Settings/Registration] > [Preferences] > [Network] > [TCP/IP Settings] > [SSL Settings].
  - 2) Select [Key and Certificate].
  - 3) After selecting [Default Key] (pre-installed key pair and server certificate), select [ Set as the Default Key ].
  - 4) Select [Yes] > [OK].

#### Note:

- For detailed procedures of the Default Key setting, refer to [e-Manual > Security].
- As for SMS, by setting a Default Key, encrypted SSL communication is always executed regardless of the following setting: [Management Settings] (Settings/Registration) > [MEAP Settings] > [SSL Settings]: ON/OFF.

## ■ Login by Password Authentication

In the SMS login window, enter the password for authentication. Only one password can be registered with SMS. The login procedures are as follows.

- 1) Access SMS from the browser of a PC on the same network as the MEAP device. The URL is as follows.

URL: <https://<MEAP Device IP address>:8443/sms/>

Ex.) <https://172.16.188.240:8443/sms/>

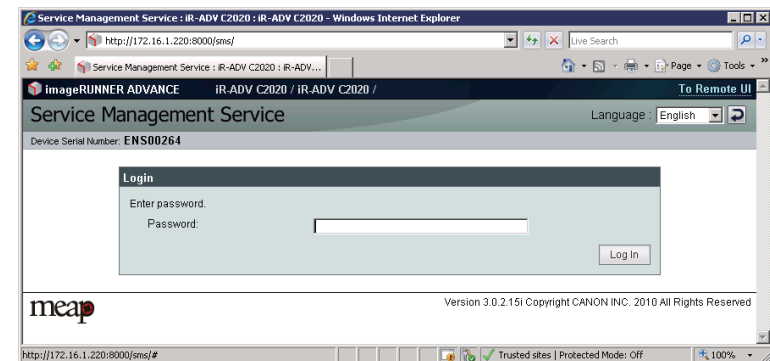
#### Note:

- To encrypt the password information input when logging in, SSL of the login screen was made effective. However, it is redirected to new URL (effective SSL) even when accessing with URL (non-SSL) before.

#### Note:

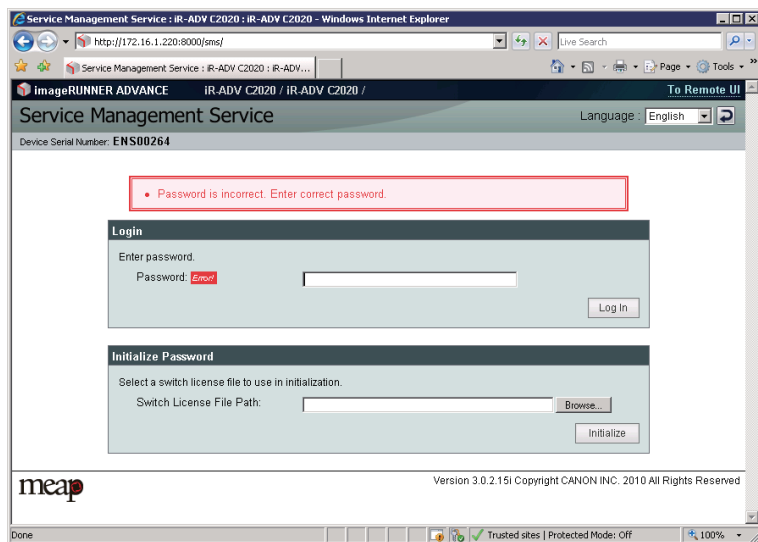
The default password is “MeapSmsLogin.” (The password is case-sensitive.) When you want to change the display original language, change in the box in the right of the screen.

This setting is not affect by the setting of the language of the device.



F-2-234

- 2) If the wrong password is entered, the following window is displayed. The user's system administrator may have changed the password, so confirm the password with the system administrator. Note that there is no special password for service.



F-2-235

## ■ Login by RLS Authentication

Login without using the SMS login window but by entering the user ID and password for authentication in the RLS (Remote Login Service) window. The user information (user name and password) used is the information for domain authentication or local device authentication. The login procedures are as follows.

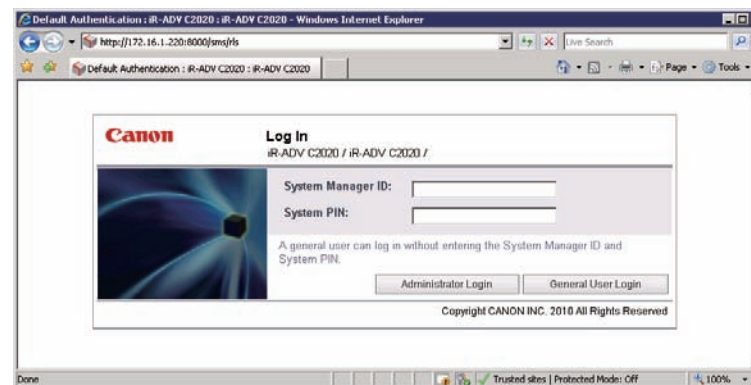
- 1) Access SMS by RLS Authentication from the PC browser on the same network as the MEAP device.

URL: <https://<IP address of MEAP device>:8443/sms/rls/>

Ex.) <https://172.16.188.240:8443/sms/rls/>

### Note:

- To encrypt the password information input when logging in, SSL of the login screen was made effective. However, it is redirected to new URL (effective SSL) even when accessing with URL (non-SSL) before.



F-2-236

### Note:

- When the device authentication method used is domain authentication, enter the user name, password and login destination registered with Active Directory and then click 'Log In'.
- If the authentication method used is local device authentication, enter the user name, password and login destination registered in the device and click 'Log In'. - When using SDL as the login service, enter the user information registered in the device, as per local device authentication.
- The user information is set as below for local device authentication by default. Both are case sensitive.
  - User Name: Administrator
  - Password: password

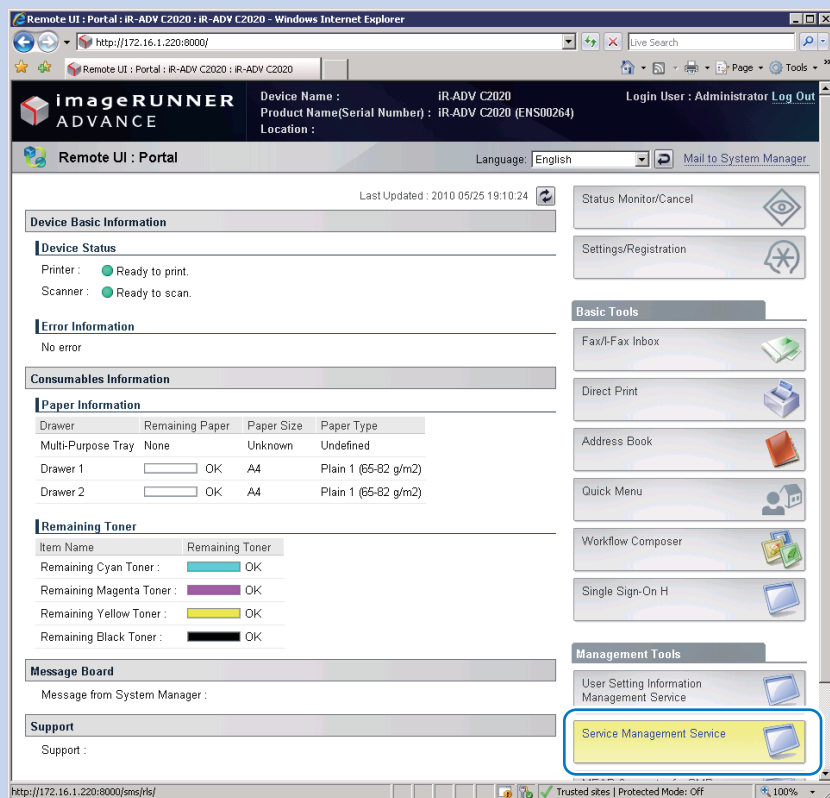
## Note:

- Only the following users may use SMS via RLS.
  - In the case of domain authentication, users belonging to the Canon Peripheral Admins Group.
  - For local device authentication, users with Administrator or Device Admin authority.
- SMS Access can be gained also from Remote UI.

Access Remote UI and click on SMS shortcut shown on the lower right of the screen to gain access to SMS.

When only the password authentication is enabled, the password authentication screen is shown.

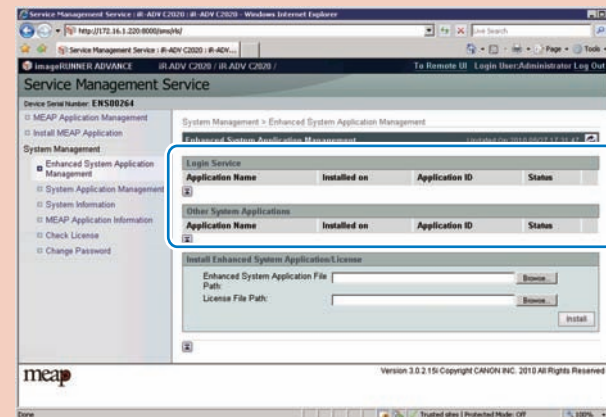
When only the RLS authentication is enabled, no further authentication is needed to access SMS. This is because users have already authorized upon accessing to Remote UI.



F-2-237

## CAUTION:

In case that the login method to a device is set to SSO-H, if you log in SMS with RLS authentication, no selection is displayed although it is the screen to change the login method.



F-2-238

This is the specification to prevent the inconsistent setting which enables to stop SMS Installer Service (Password Authentication) by changing the login method to Default Authentication.

When you want to change the login method to a device, log in the SMS with the password authentication.

## Initial Display Languages of SMS

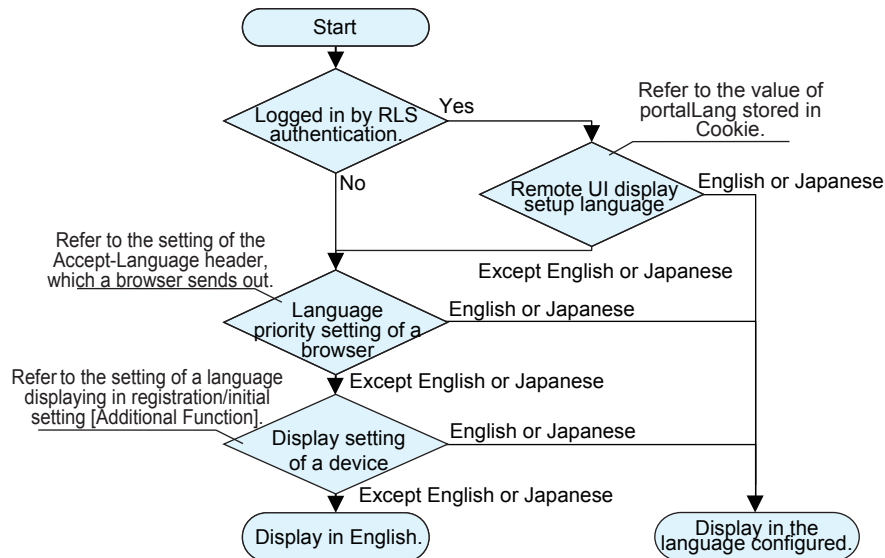
SMS supports English and Japanese. Display language can be changed with selecting by the drop down list on a login page.

The initial display language at the time of accessing SMS depends on the setting.

In former SMS, the language setting of "initial setting/registration (user mode)" was used.

However, when the language setting is other than English or Japanese, it displays in English.

After changed, it will be as follows.



F-2-239

## When accessing by SMS Installer Service (Password Authentication)

It is referred in order of the language priority (setting of the Accept-Language header which a browser sends out) and the display-language setting in the "user mode". When the language setup is other than English or Japanese, it is displayed in English.

## When accessing by SMS Installer Service (Remote Login Service Authentication).

Initial display language is set by the language setting (value of portalLang storing in Cookie) selected by the remote UI screen. When the setting is other than English or Japanese, Selection of display language is performed in a similar way with the SMS Installer Service (Password Authentication) mentioned above.

## Setting the method to login to SMS

### Outline

The SMS login method settings are done by setting the login Start/ Stop via the other login method. In other words, the password authentication Start/ Stop setting is done by first logging in with RLS authentication, and the RLS authentication Start/ Stop setting is done by first logging in with password authentication. The Start/ Stop combinations of the two login methods are as follows.

Combination of Login Methods

	Start RLS Authentication	Stop RLS Authentication
Start Password Authentication	Login available with either method	Login available only with
Stop Password Authentication	Login available only with RLS Authentication	Setting unavailable

T-2-105

### CAUTION:

If only login via RLS is programmed, login may be disabled for the following reasons.

- Authentication server is down
- Network problem, no communication with authentication server

In the event of either of these cases, try the following.

1. If local device authentication is active, try logging in with local device authentication.
2. If only domain authentication is active, launch in MEAP safe mode from the device service mode.

After launching in MEAP safe mode, the Default Authentication will become active, and you will be able to login to SMS with password authentication. After logging into SMS, set the password authentication login to ON (active) and restore the device from MEAP safe mode to normal mode. Until the problem blocking authentication is resolved, log into SMS with password authentication.

## Setting for login by Password Authentication

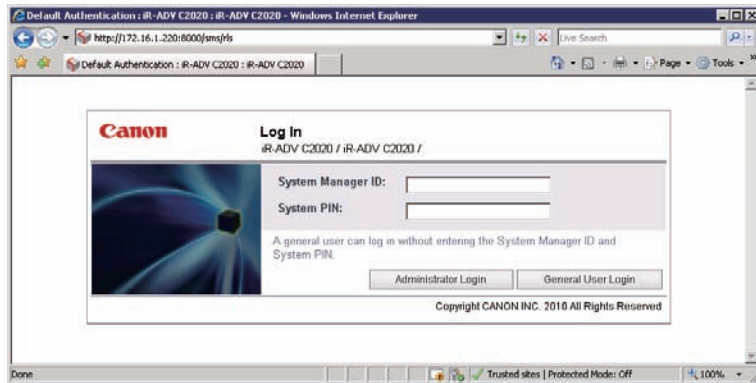
The procedures for changing the password authentication Start/ stop settings are as follows.

1) Access SMS by RLS Authentication from the PC browser on the same network as the MEAP device.

URL: https://<IP address of MEAP device>:8443/sms/rls/

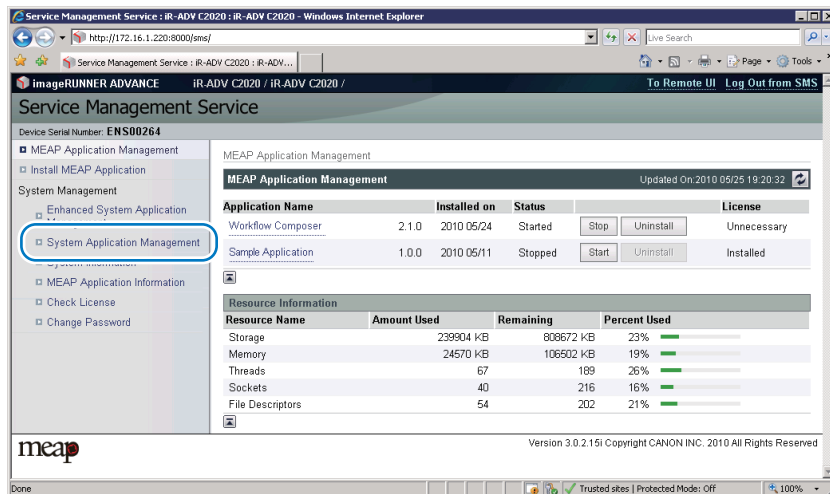
Ex.) https://172.16.188.240:8443/sms/rls/

Login screen (In case authentication method is SSO-H)



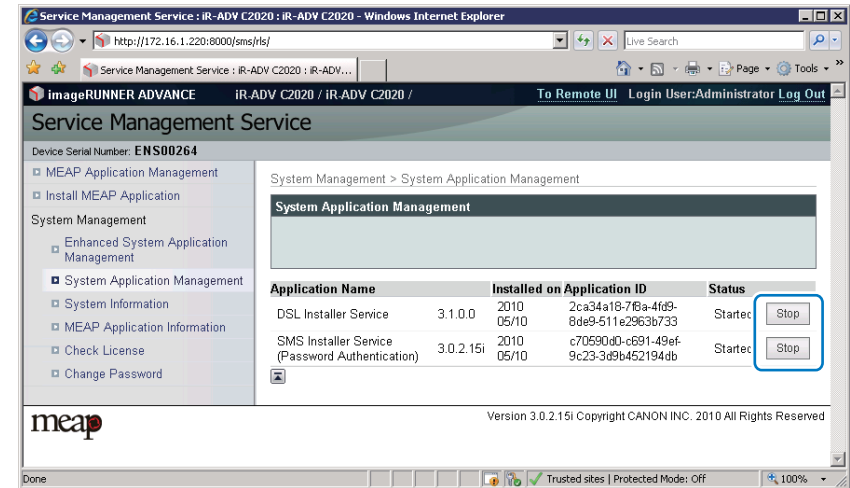
F-2-240

2) Select [System Application Management]



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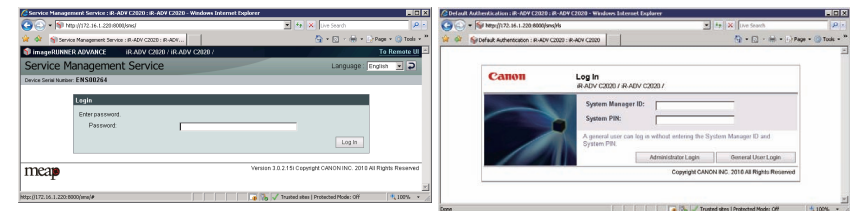
3) Click [Start] or [Stop] button shown in Status field of SMS Installer Service (Password Authentication) to check if the status is changed.



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4) Logout once and login again to check to see that the setting is applied properly. When clicking [Stop] to change the status to [Start], another password authentication login screen is firstly shown. When trying to access the password authentication screen after clicking [Start] to change the status to [Stop], the user is automatically redirected to RLS authentication screen.

Password authentication started screen and Password authentication stopped screen



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## Setting for login by RLS Authentication

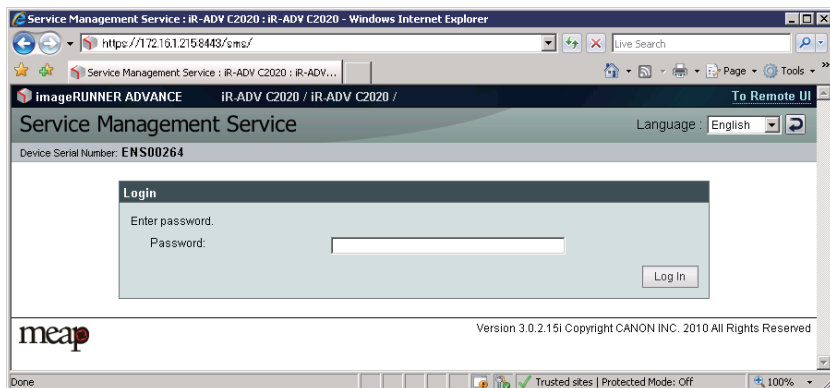
The procedures for changing the RLS authentication Start/ Stop settings are as follows.

- 1) In order to make a setting for Login by RLS Authentication, you need to Login by Password Authentication.

URL: https://<IP address of MEAP device>:8443/sms/rls/

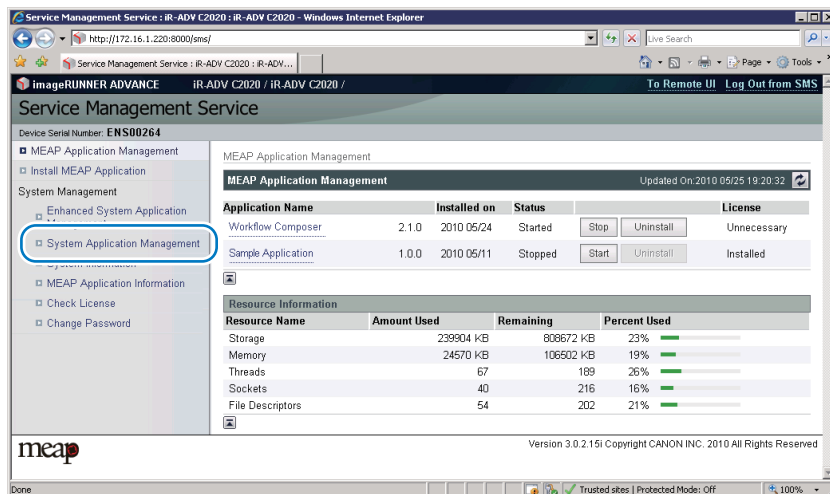
Ex.) https://172.16.188.240:8443/sms/rls

Login screen by Password Authentication



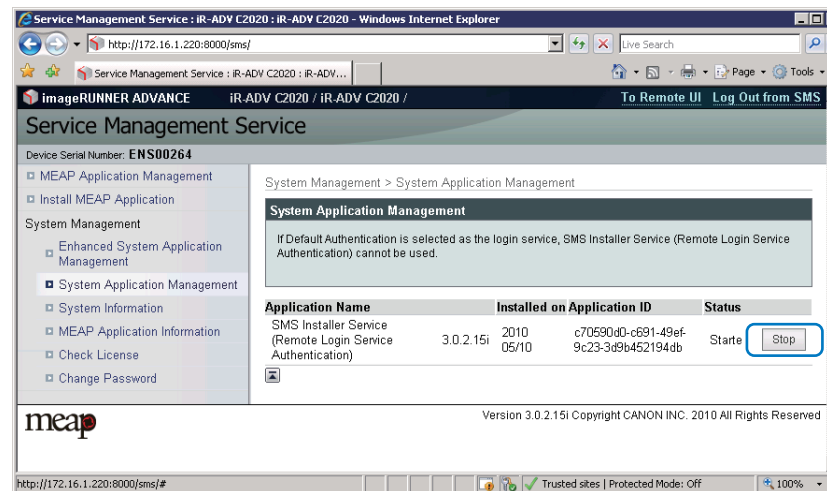
F-2-244

- 2) Select [System Application Management] on System Management menu.



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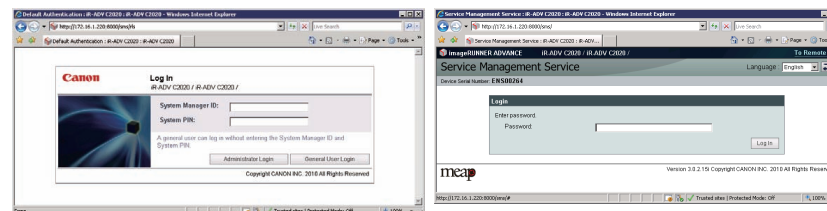
- 3) Click on [Start] or [Stop] button shown on Status field of SMS Installer Service (Remote Login Service Authentication) to check if the status is changed.



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- 4) Log out and then log in again and access via the RLS authentication login window. When RLS authentication is set to [Start], another RLS login screen is firstly shown. When accessing to RLS status screen with the setting of [Stop], the user will be redirected to the password authentication screen.

RLS authentication started screen and RLS authentication stopped screen

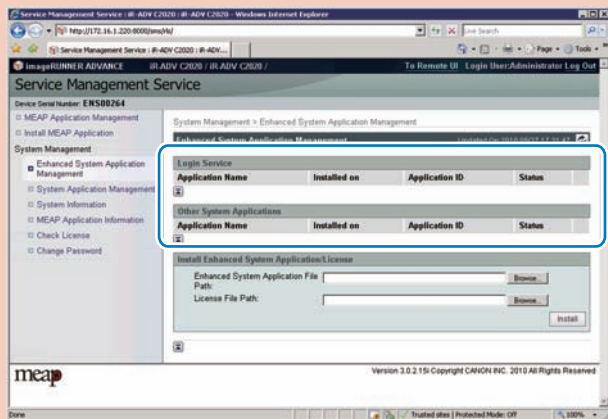


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**CAUTION:**

In case that the login method to a device is set to SSO-H, if you log in SMS with RLS authentication, no selection is displayed although it is the screen to change the login method.



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This is the specification to prevent the inconsistent setting which enables to stop SMS Installer Service (Password Authentication) by changing the login method to Default Authentication.

When you want to change the login method to a device, log in the SMS with the password authentication.

## ● Checking MEAP Application Management Page

### ■ About MEAP Application Management Page

Application Management page shows [resource information] for information of the whole device resources including Amount Used, Remaining, and Percent Used.

This function enables users to judge the remaining resources before installing the additional application. Such resource information is shown based on the manifest header stated at the top of each application, which declares the resources required in the application. Therefore, the information does not necessarily show the resources actually in use.

The following resource information is shown:

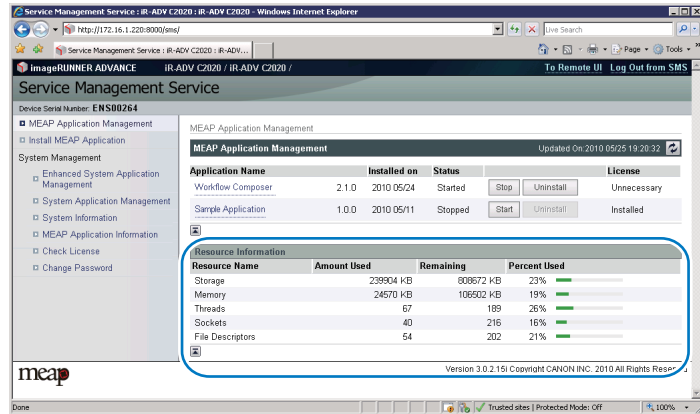
- storage
- memory
- thread
- socket
- file descriptor

You will not be able to install an application if the size of the remaining disk space falls short of the size declared by the application. Moreover, the specifications have been designed so that an application will not be able to start up if there is a shortage of memory for any of the foregoing items (i.e., memory, thread, socket, file descriptor).

Follow the steps below to check the remaining memory:

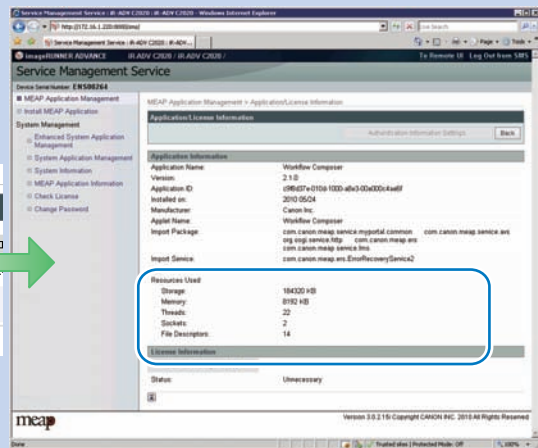
- 1) Log in to SMS.
- 2) Click [MEAP Application Management].
- 3) Check [Resource Information] for information of the whole device resources.

- Amount Used
- Remaining
- Percent Used



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**Note:**  
Older iR models show resource information required in each application in List of Application page (corresponding to MEAP Application Management page of this model). When checking the resource information of each application in this model, click on the application name in MEAP Application Management page.

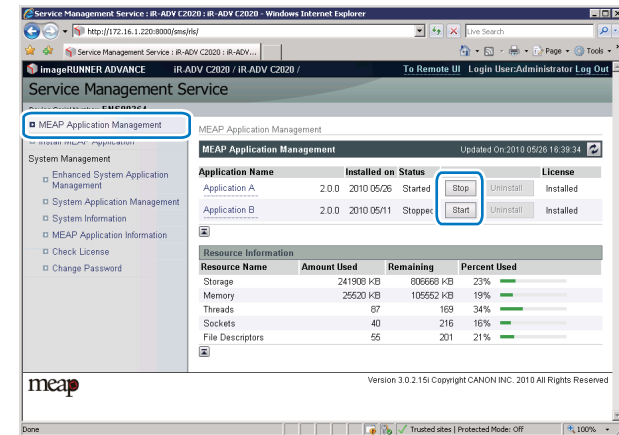


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## Starting and Stopping a MEAP Application

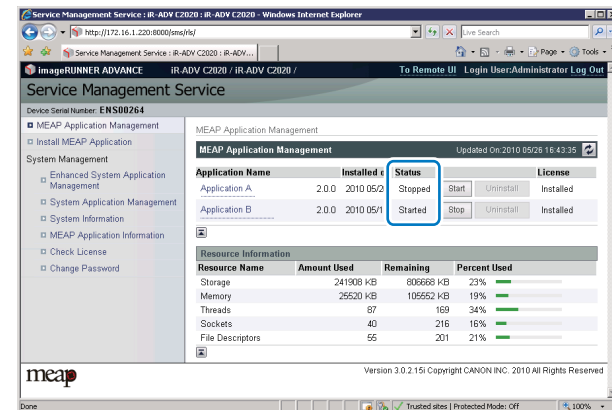
### Procedure to start and stop a MEAP application

- 1) Log in to the SMS. (Refer to 'Login to SMS' in this manual.)
- 2) Click [Application List]. (If the Application List is already being displayed, this operation is not necessary.)
- 3) Click [Start] or [Stop] button shown for the MEAP application to be started or stopped.



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- 4) Check to see that the status of the MEAP application in question is either [Started] or [Stopped.]



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## Checking the Platform Information

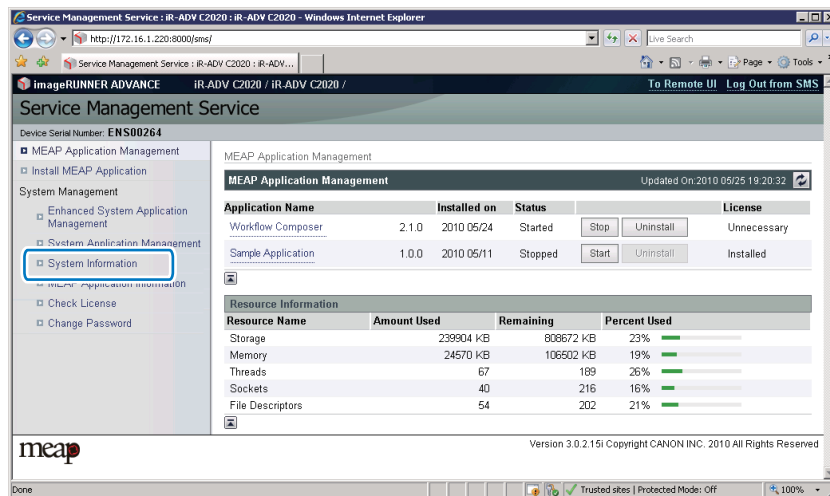
### The check procedure of the platform information

This screen allows users to check MEAP-Contents versions, MEAP Specifications for the device and others.

**CAUTION:**

- Some applications may not be installed to some MEAP devices of specific specifications. (See 'MEAP Specifications').

- 1) Log in to SMS.
- 2) Click [System Management] > [System Info] tab.



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## MEAP Specifications

### What is MEAP Specifications (MEAP Spec Version)?

MEAP Specifications is one of the information required to judge whether MEAP applications can be operated or not. With MEAP Specifications, you can prevent an application that uses a specific function of device from being installed onto the device that does not have the function.

### About Name

MEAP Specification is shown as 'MEAP Specifications' in the screen to check the version on the side of device that supports MEAP (counter confirmation button) and MEAP platform (SMS). On the other hand, in the manifest file of MEAP application, it is shown as 'MeapSpecVersion' (described in the same way in the SDK document) (Note) 'MEAP Specifications' hereafter in this document.

### Mechanism

MEAP platform judges whether MEAP applications can be operated on it using on the 2 information below:

- Device Specification ID
- MEAP Specifications

Device Specification ID shows information such as the original functions of MFP (including print, scan, and copy), and one that differs by model such as maximum copy number, thus each model has a different ID. (It is easy to determine the IDs for this reason.) MEAP application declares 1 or more Device Specification ID required for its execution. Declaration of multiple Device Specification IDs means that the application is operable in all the models declared. Upon installation of MEAP application in (using) SMS or MEAP Enterprise Service Manager, matching of Device Specification ID is executed on the side of MEAP platform machine. The machine which doesn't support the ID declared by the application rejects installation of such an application.

Meanwhile, MEAP Specifications shows other information than defined by Device Specification

ID above, including network and security. Thus each model does not always have the same version.

MEAP application declares 1 or more MEAP Specifications required for its execution. Declaration of multiple Device Specification IDs means that the application is operable in all the environments declared. Upon installation of MEAP application in SMS or MEAP

Enterprise Service Manager, matching of MEAP Specifications is executed on the side of MEAP platform machine. The machine which doesn't support the version declared by the application rejects installation of such an application.

MEAP Specifications for each model

Product Name	Initial MEAP SpecVer	Remarks
iR-ADV C5051 iR-ADV C5045 iR-ADV C5035 iR-ADV C5030	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45	Ver.37.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46  Ver.38.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 49  Ver.50.xx or later 5,6,7,9,10,11,13,14,15,17,18,19,25,26,27,29, 30,31,32,33,34,35,36,37,38,39,40,41,42,44,4 5,46,47,49,50,51,52,53,54,55,56,57,58,59
iR-ADV C9075 iR-ADV C9070 iR-ADV C9065 iR-ADV C9060 iR-ADV C7065 iR-ADV C7055	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45	Ver.37.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46  Ver.38.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 49  Ver.50.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59
iR-ADV 6075 iR-ADV 6065 iR-ADV 6055	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49	Ver.20.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59
iR-ADV 8105 PRO iR-ADV 8095 PRO iR-ADV 8085 PRO	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49	Ver.20.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59

Product Name	Initial MEAP SpecVer	Remarks
iR-ADV C2030	5, 6, 7, 9, 10, 11, 13, 14, 15, 17,	Ver.10.xx or later
iR-ADV C2025	18, 19, 25, 26, 27, 29, 30, 31, 32,	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19,25,
iR-ADV C2020	33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49	26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 53

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#### MEAP Specifications List

Ver	Description
1	MEAP basic function
2	MEAP Spec Version 1 function and SSL/TSL + Proxy
5	MEAP Spec Version 1 function and CPCA V2 + ERS (Error Recovery Service) + New SSL/TSL
6	Reserved
7	MEAP Spec Version 5 function and Compact PDF + OCR PDF (Text Searchable) + USB Host (Buffering of Interrupt Transfer)
9	Reserved
10	MEAP Spec Version 5 function and USB-Host (Exception + Clear Feature + Set Feature+ Hot Plug) + WINS address acquisition using MIB Agent + Timer Service + SSL client authentication
11	MEAP Spec Version 5 function and AMS
13	MEAP Spec Version 5 function and J2ME1.1 Support + Encrypted PDF + Trace and smooth PDF + CTK2.0
14	Device signature PDF
15	IMI + ERS (API addition for IMI) , IPv6, Extended encryption function (AES/RC4)
17	Acquiring images of JBIG format
18	Parsing XML documents (XML parser)
19	Enhancement of IMI function (IMI Version1.2 series)
25	API to access the HID/Mass Storage class devices.
26	MEAP driver preference function
27	Symbols that can be used with MibAgent added. (symbols for IPv6 address acquisition)
29	IMI API added (IMI version 1.2.1 enabled)
30	Extended address book function. (e-mail/group/i-FAX/file)
31	Integrated ERS function
32	Extended Imaging function (function to generate PDF/OOXML (PowerPoint) with visible signature)
33	Extended function for imageRUNNER / iR ADVANCE series (API for address book/ CTK/ TopMenu)
34	Extended IMI Box function (v1.3.0)
35	Extended SIS function (function to check the network cable status, function to check PS print server unit status)
36	Reserved
37	CLS (Contextual Login Service) Supporting API Added
38	imageRUNNER / iR ADVANCE Series administrative privileges supported
39	MEAP Specifications added according to Jcrypto API Specification Change
40	ImagingAPI (Creation API of Visible Signature PDF) added
41	Reserved
42	Reserved

Ver	Description
44	imageRUNNER / iR ADVANCE Series Remote Address Book Supported, RemoteFAX Supported.
45	Addition of API that allows acquisition of the HID installation status
46	Multilingualization of the USB keyboard of the System Driver
47	Addition of API which executes a print order from the MEAP application of the IMI encryption PDF document
48	ID expressing the scan function for iR-ADV C2030/C2025/C2020 series
49	Reserved
50	SecurityOptionalPackage
51	IMI function expansion of iR-ADV C5051 series (Ver.50.xx or later) or later
52	(iR-ADV C5051 series (Ver.50.xx or later)) Addition of registered API to enable SSL communication setting (On/Off) for each URL
53	Disclosure of registration/deletion function to/from Quick Menu
54	Function to notify an event to the application at recovery from the sleep mode.
55	System account release function
56	MEAP User Preference Service
57	MEAP Application Configuration Service
58	MEAP Application Log Service
59	Reserved

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## MEAP Application System Information

### Outline

Information about an application installed in the device is called MEAP application system information. This information should be obtained for reporting troubles because multiple information items can be collectively confirmed.

The following sections describe the details of information items. Each item is shown or printed by application.

#### Note:

The system information shown on the screen and the system information printed in the MEAP device's user mode are exactly the same.

### Checking the System Information of a MEAP Application with SMS

- 1) Log in to SMS.
- 2) On System Management menu, click [System Info].
- 3) Click [Details] button.

The screenshot shows the Service Management Service web interface in Internet Explorer. The browser address bar shows the URL http://172.16.1.220:8000/sms/. The page title is "Service Management Service : iR-ADV C2020 : iR-ADV C2020 /". The main content area displays "System Information" for the device "ENS00264". The "System Information" section is updated on 2010/05/25 19:16:55. It includes a "Platform Information" table and a "Service Information" table. The "Platform Information" table lists MEAP Specifications (5,6,7,9,10,11,13,14,15,17,18,19,25,26,27,29,30,31,32,33,34,35,36,37,38,39,40,41,42,44,45,46,47,48,49,53) and Java Virtual Machine (05.03.4). The "Service Information" table lists installed services:

Application Name	Version	Installed on	Application ID	Status
DSL Installer Service	3.1.0.0	2010/05/10	2ca34a18-7ba-4f09-8de9-511e2963b733	Started
SMS Installer Service	3.0.2.15i	2010/05/10	c70590d0-c691-49e9-c23-3d9b452194db	Started
Service Management Service	2.9.0.7	2010/05/10	c6b78400-9a49-45a7-a06e-9aa393e62267	Started

The footer of the page displays the MEAP logo and the text "Version 3.0.2.15i Copyright CANON INC. 2010 All Rights Reserved".

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- 4) System information of each application (including system applications) is shown in an additional window. Copy and paste all the information in a file to attach to AR reports as text information. This function is useful to check status information of each application.

## ■ Printing the System Information of a MEAP Application

MEAP system information can be printed out with iR device for confirmation.

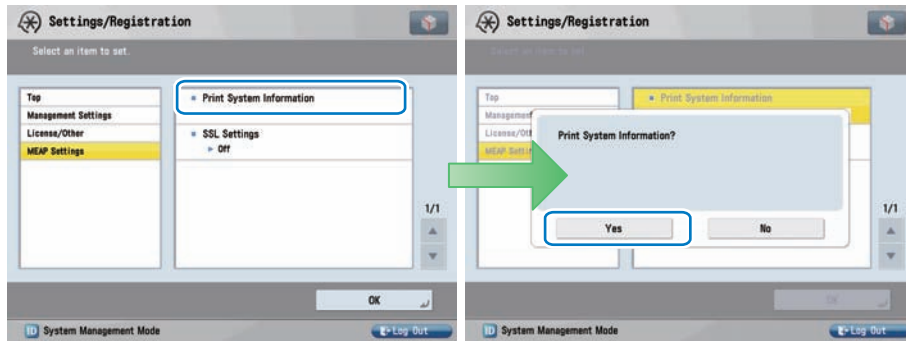
Follow the steps below when confirming information:

- 1) Select [ Settings/ Registration ] > [ Management Settings ] > [ License/ Other ] > [ MEAP Settings ] > [ Print System Information ] .

Note:

When System Manager ID and PIN are set, go to Top screen and log in as System Manager to continue jobs.

- 2) Press [ Yes ] button.



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Note:

MEAP system information was printed out in PDL format conventionally. However, the information has been printed out in text format instead of PDL format, enabling iR devices without PDL installation to print out information (iR C3220 and later).

## ■ Content of MEAP system information

Application System Information

```
Application Name: C-Cabinet Gateway for MEAP
Application ID/System Application Name: 03a46668-63e4-4636-9cbb-492b6cef05d5
Application Version: 1.0.0
Status: Resolved
Installed on: Tue Oct 21 14:00:11 GMT+09:00 2003
Vendor : Canon Inc.
License Status : Installed
Maximum Memory Usage : 1024
Registered Service :
```

### ● Application Name

It is the name (bundle-name) declared in a statement within the application program. It may not necessarily be identical to the name of the program.

### ● Application ID/System Application Name

Application ID (application-id) items which are declared on the declaration statement in the application program are printed.

### ● Application Version

It is the version of the application (bundle-version) declared in a statement within the application program.

### ● Status

It indicates the status of the application in question; specifically, Installed: the application has been installed.

Active: the application is being in use. Resolved: the application is at rest.

### ● Installed On

It indicates the date on which the application was installed.

### ● Vendor

It is the name of the vendor that developed the application, and is the name (bundle-vendor) declared in a statement within the application program.

## ● License Status

It indicates the status of the license; specifically, None: no license is needed.

Not Installed: no license has been installed.

Installed: the appropriate license has been installed. Invalid: the license has been invalidated.

Overlimit: the license has been used beyond its permitted limit.

## ● License Expires After

It indicates the date after which the license expires. If the status of the license is 'none', this item will not be printed.

## ● License Upper Limit

It indicates the limit imposed on individual counter readings. If the status of the license is 'none', this item will not be printed.

## ● Counter Value

It is the current counter reading of a specific counter. If the status of the license is 'none', this item will not be printed.

## ● Maximum Memory Usage

It indicates the maximum amount of memory that the application uses. It is the amount (maximum memory usage) declared in a statement within the application program, and is expressed in kilobytes.

## ● Registered Service

It is a list of services that have been registered by the application with the MEAP framework. Some services may not have printable data.

## ● Installing an Application

### ■ Resource

When 1 MEAP application operates, the resource volume allocated to each device is as follows (loaded resource list). Since the following value is an estimate, when installing the MEAP applications, it needs to check the available resource of SMS.

Since the indication of SMS resource volume fluctuates by the login service (authentication function) and configuration (future model), which the user selected, it may show a bigger value than the following values.

List of Available Resources

Product Name		Storage	Memory	Thread	Socket	File Description
iR-ADV C5051 series		1024MB	128MB	256	256	256
iR-ADV C9075 series		1024MB	128MB	256	256	256
iR-ADV 6075 series		1024MB	128MB	256	256	256
iR-ADV 8105 PRO series		1024MB	128MB	256	256	256
iR-ADV C2030/ C2025/ C2020 Series	Flash model	220MB	32MB	162	128	128
	HDD model	1024MB	128MB	256	256	256

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#### Note:

- As for memory, check the available resource when starting up the application. For other resources other than memory, check them when installing.
- Some applications call for a specific set of conditions for installation. For details, see the User's Guide that comes with the individual applications.
- Maximum installable application is up to 20 even if the remaining resource is adequate. (However, the Send function consumes 1, it must be 19 in practice.) Authentication application is not included in this number.
- The MEAP application, which can be started simultaneously, is up to 19. (Authentication application is not included in this number.)

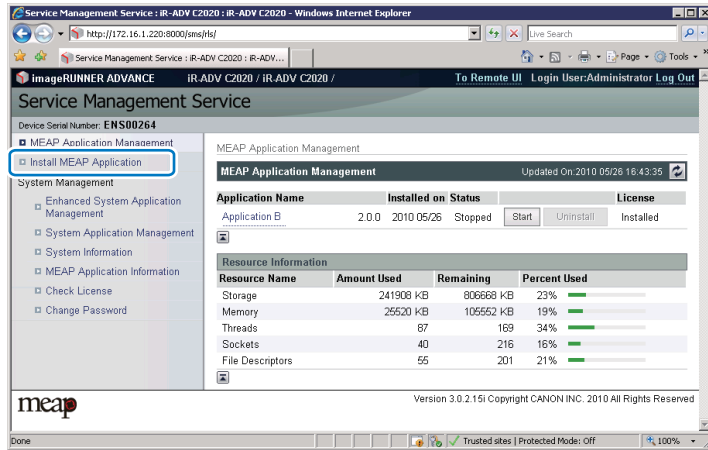
#### CAUTION:

To install an application, the user needs to use the following URL when accessing the license control system to obtain a license file. In doing so, he/she needs to register the license access number of the application and the serial number of the device.

<http://www.canon.com/lms/license/>

## Procedure to install applications

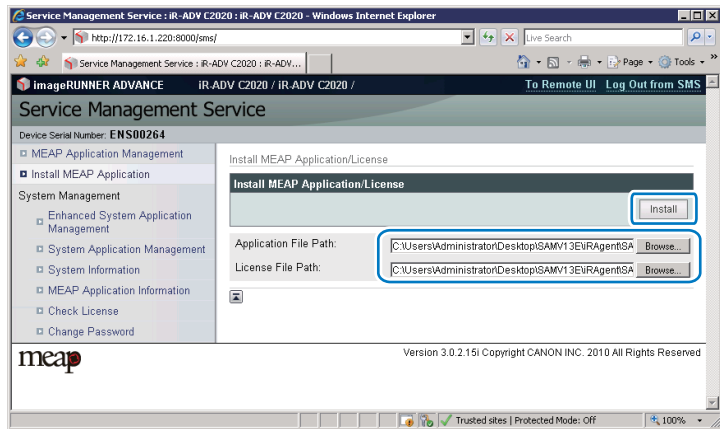
- 1) Long on to SMS.
- 2) Click [Install MEAP Application] on the menu.



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- 3) Check [ Install MEAP Application/License ]page appears.
- 4) Click [Browse..] button, and select the application file and the license file of the application; then, click [OK] button.

**Note:**  
 Application File: identified by the extension “jar”.  
 License File: identified by the extension “lic”.

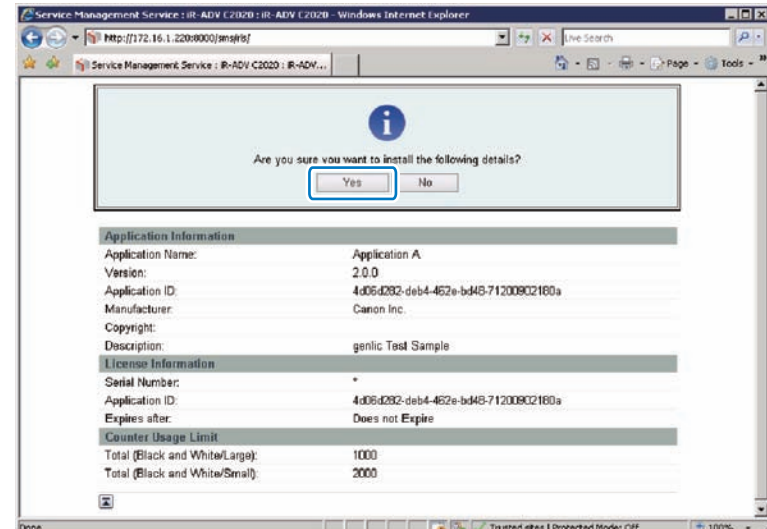


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**CAUTION:**

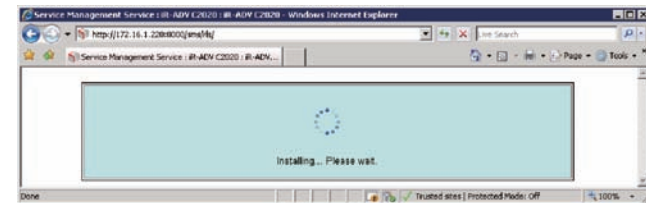
- You cannot install only the license.
- You will not be able to install the application without using the appropriate license. Be sure to select its license file.
- If you are adding a license to an existing application, see Chapter 0, “Adding a License File.” in this manual.
- If you are updating an existing application, stop the application; then, install the new application or its license file. You will not be able to update an application while it is running.

- 5) Check the contents of the Confirm page; then, click [OK] button.



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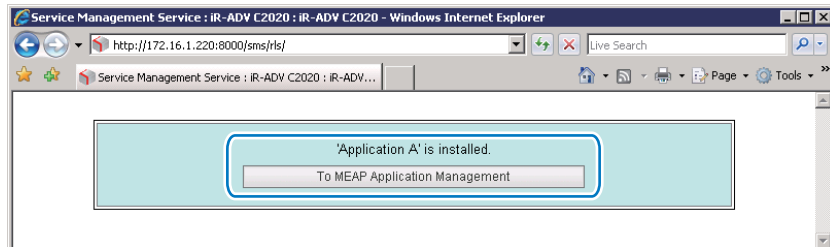
- 6) Some applications show a screen to indicate the terms of agreement. Read the terms, and click [OK].
- 7) Check the message "Installing...Please wait." appears, beginning the installation.



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- 8) Upon installation completed, click [To MEAP Application Management] button shown on the screen to view MEAP Application Management page.



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**Note:**

To use the application that you have just installed, you must make sure that the application status is Started.

**Note:**

The license file is provided in text file format, enabling to view in a text editor. The application ID and device serial number shown in the file allow users to confirm which device to install with the license file.

Note that any changes added to the license file may disable installation. Cares should be taken when confirming the contents of the license file.

**Sample file**

```

LicenseFile-Version: 1
LicenseFile-Id: 8b52c16d-e826-405f-a02a-0c547423ade0
Application-Id: 4d06d282-deb4-462e-bd48-712020100510
Serial-No: XYZ00123
Validated-Period: 60

MaximumBWSCAN1: 1000, STOP
MaximumBWSCAN2: 900, STOP
MaximumBWSCAN3: 800, STOP
MaximumBWSCAN4: 700, STOP
MaximumPrintedImpressions-BW-Large: 1000, stop
MaximumPrintedImpressions-BW-Small: 2000, nonstop

Uh/wwLTGMm4vjBT9ItvLq592kLDwPjM+sYjw3ATBMT/xpBPKESM11CLPRsgw/yk+
YJ7Hy+vvoImxCFen5hqwHqofWJ2a2qg9Pt1CzaE3/wx76Acdy2DnGmt1yb01cqd1
Lk/N4-LH3HTc416YRvPLu4vqFznl/3rvc/wLEiygwMA/7iFOImG2aL1KK01H061
dScd1xxsBwd1p31QtjgrFqmxE4b1ZL1HB5mUAhSxYnx0FDVxgXjg4kv1F6TwmM
Cuy7Y41bvkkUq8R75f+T1YMYueq6+X7AX9mkVHRR4PDZPZmkpX2f1fZSM506
UwcnHqg5M10Bgg3jQ2CFXC4063Gj/zW2NOSMzncQ7Bw01wuoa,1Std7vy0Fbz19C
ef0uzR6j11jwxgwAwg/mr6w7r1DwLc7MUHOTV/1mN1Z7kF1gvgh2z2dHi6ktvptM
xUwM1vmoEqb8F73ko2blghoocXsFgdFKLpsCiwPe1sRkb2Qqs644PB0Ecscj1Xcc
dQjsu+dGLtXLkLFRld1Bknw1xc6ZI3pCH7b5vH21mQFR6k4rBtcrnhf18Zwut
Q9Y1ur/yv1sbkPafHqjJNW==
  
```

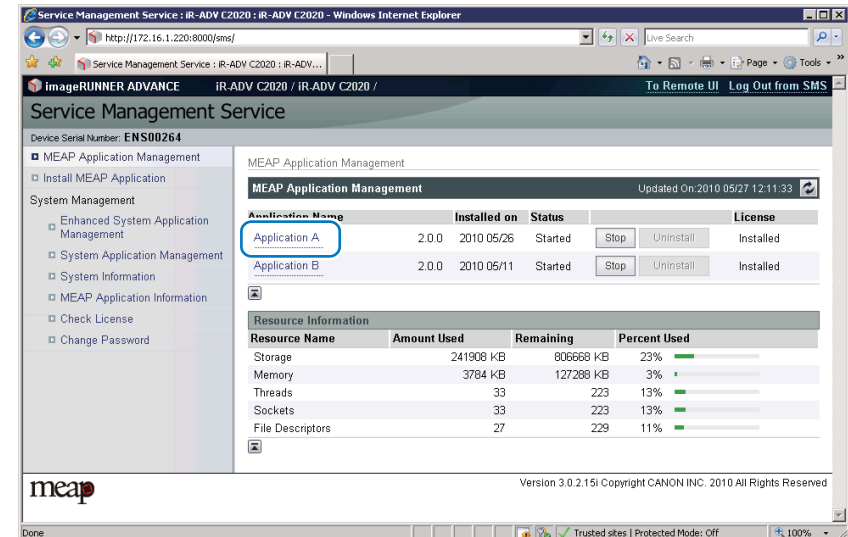
License File ID  
Application ID  
Serial Number  
Validated Period  
Counter informations

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## Adding a License File

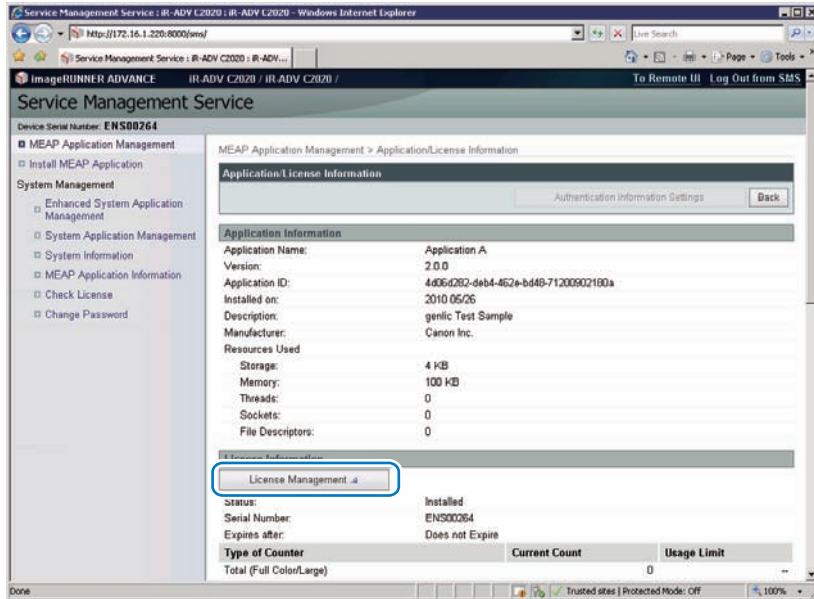
### Procedure adding a license file

- 1) Log on to SMS.
- 2) On MEAP Application Management, click the name of the application to which you want to add a license file.



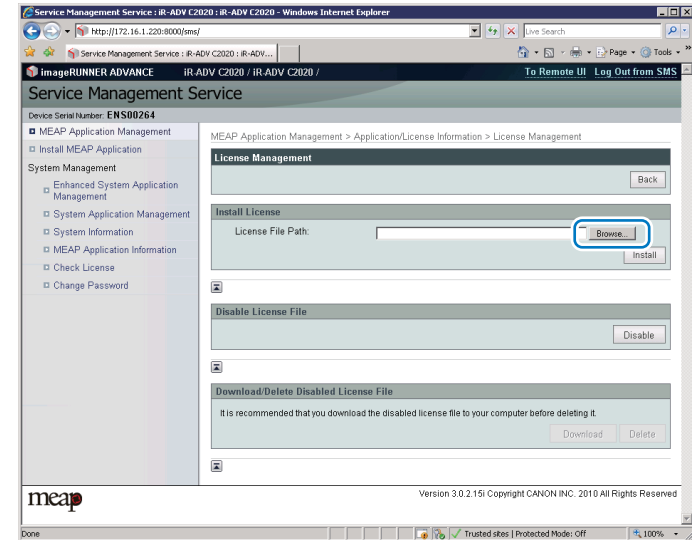
F-2-262

- 3) In [Application / License Information] page shown on the screen, click [License Management] button.



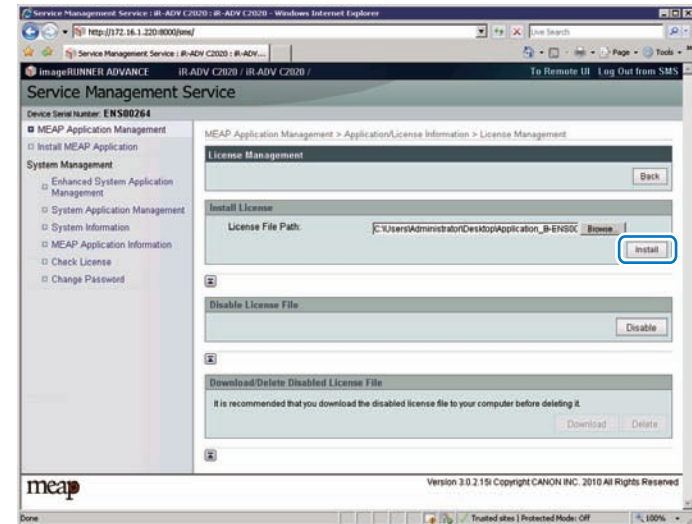
F-2-263

- 4) Click [ Browse ] button, and select the license file you want to install.



F-2-264

- 5) Click [ Install ] button.



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- 6) Check the content of the confirmation page, and click [OK] button

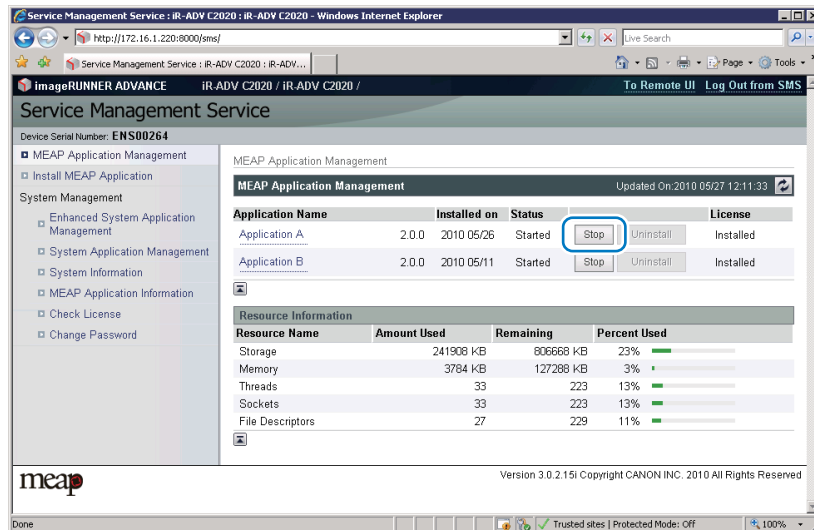
## Disabling a License File

### Procedure disabling a license file (suspending a license)

#### CAUTION:

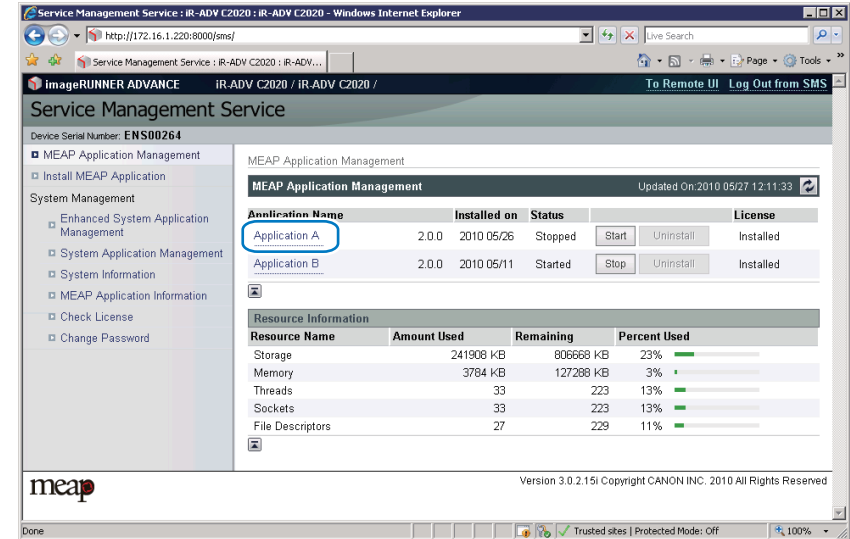
- To invalidate (or suspend) a license, you must first stop the application in question.
- Once suspended, the status of the license will be 'Not Installed', and its application will no longer be available for use.
- You can later restore a suspended license file as long as you are doing so on the same iR, the device with the same device serial number.
- When replacing the device due to lease up or trouble, use the license for forwarding (see Chapter 0, "License for forwarding.").

1) Stop the application you want to uninstall on MEAP Application Management page.



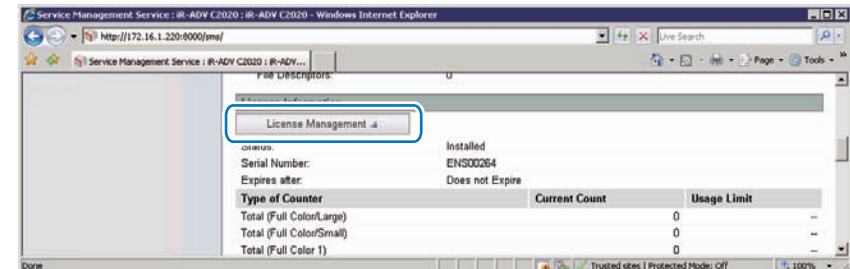
F-2-266

2) Click the name of the application that you want to disable.



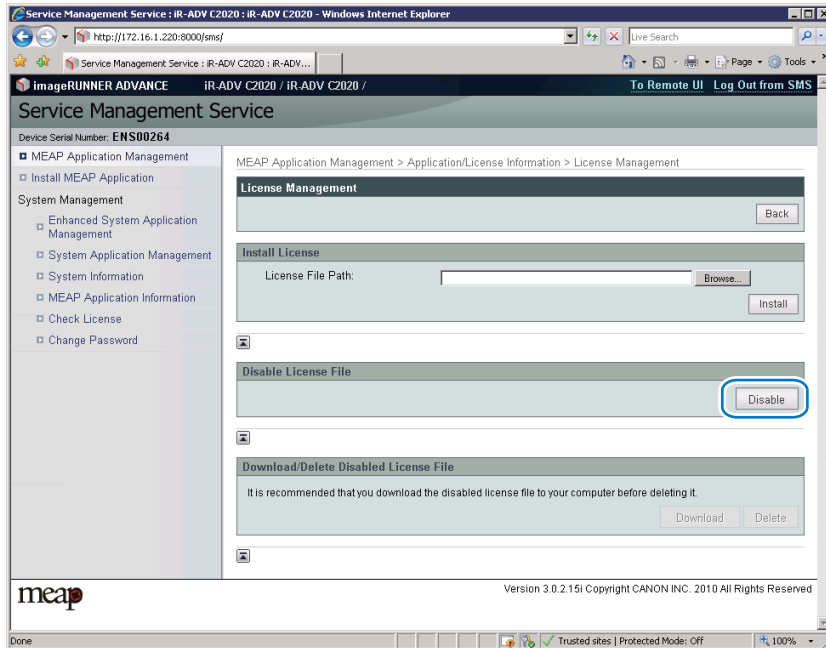
F-2-267

3) On Application/ License Information page, click [License Management] button.



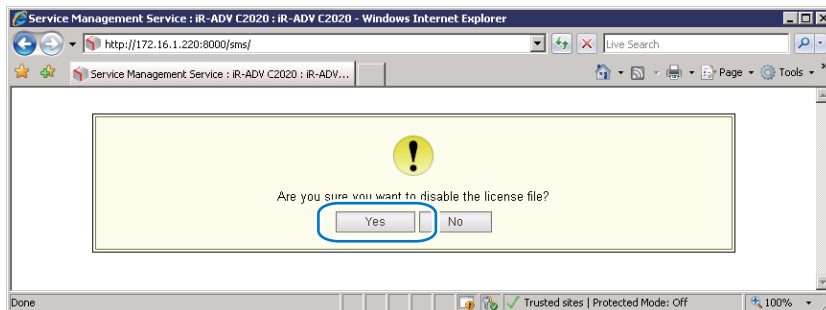
F-2-268

4) License Management page appears. Click [Disable] button.



F-2-269

5) Click [Yes].



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## Downloading / Removing an Invalidated License File

### Outline

You must remove the invalidated license file before uninstalling an application. If reinstallation is a possibility, you may download the license file to a PC for storage. To download or delete a license file, first disable it.

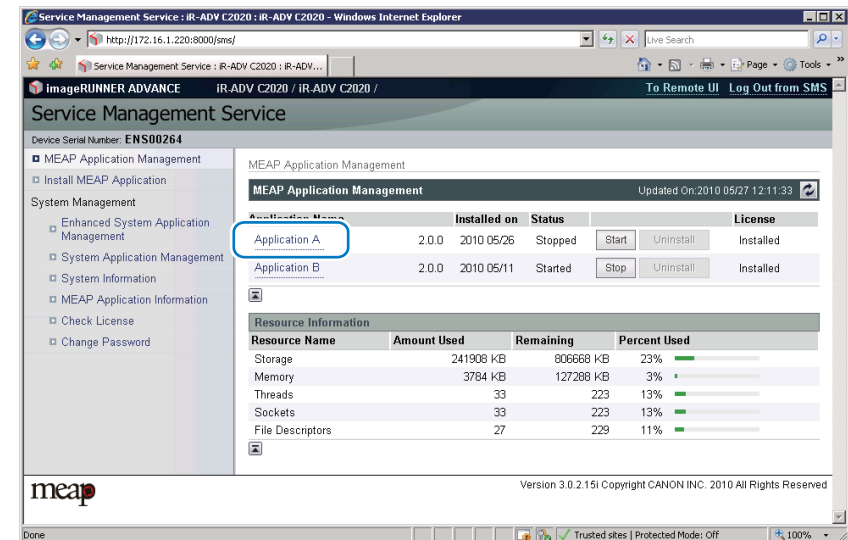
#### WARNING:

Once you have removed an invalidated license file, you will no longer be able to download it from the MEAP device.

### Procedure downloading / removing an invalidated license file

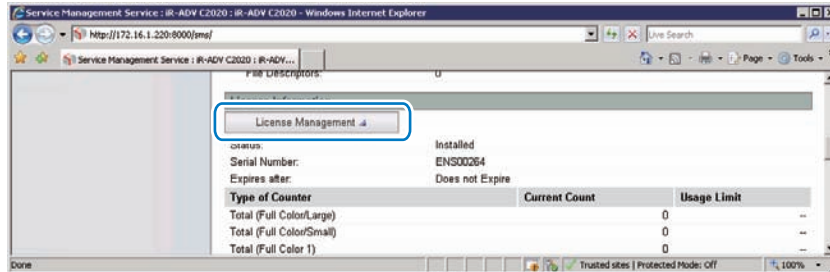
The downloaded license file can be used for reinstallation only in the same iR device (with the same device serial number).

- 1) Login to SMS.
- 2) Application List page appears. On MEAP Application Management page, click the name of the application you want.



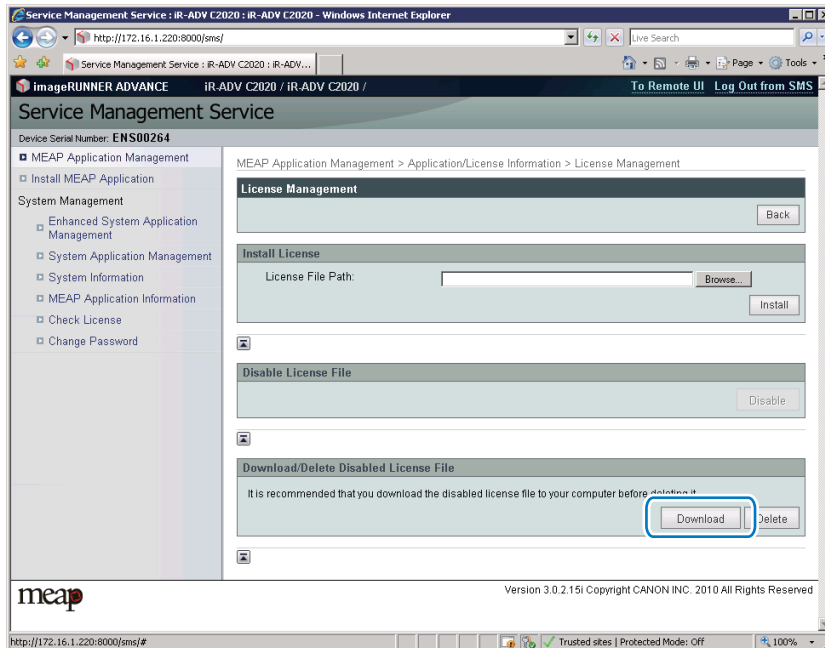
F-2-271

- 3) Check Application/ License Information page appears.
- 4) On Application / License Information page, click [License Management] button.



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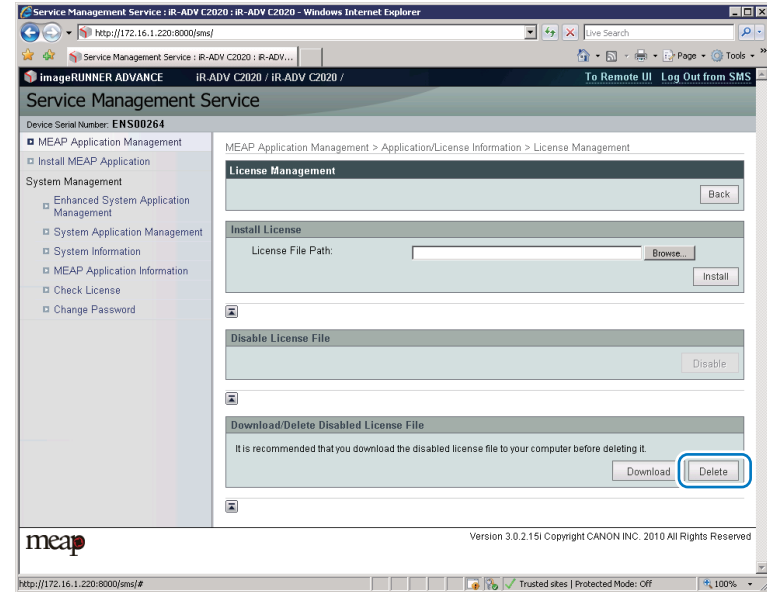
- 5) License Management page appears. To download, click [Download] button.



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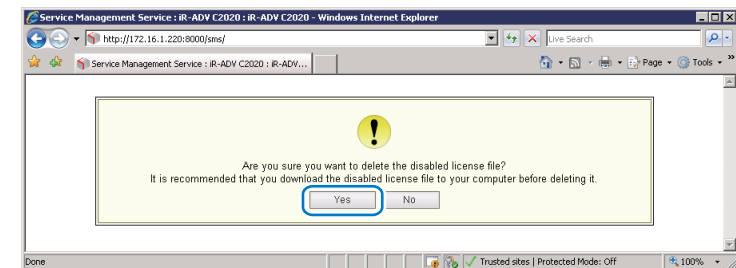
- 6) When you have selected [Download] button, specify where you want to store the file by following the instructions on the screen.

- 7) To delete, click [Delete] button.



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- 8) When the dialog to confirm deletion is shown, click [Yes] button.



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**WARNING:**

Without the license file, an application cannot be reinstalled even to the MEAP de-vice that the application had been installed last time. Download and save the license file before deleting the application.

## Reusable license

### Outline

When reinstalling, Disable License file should be downloaded (see Chapter 0, “Disabling a License File .” and see Chapter 0, “Downloading / Removing an Invalidated License File.” in this manual) or a license for reinstallation should be obtained from LMS, before reinstallation. This specification aims to prevent misuse of applications.

To increase convenience of users, only application with unlimited validity date and application counter (e.g. Portal Service, SDL, SSO) has been made to be able to install as many times as needed by the same license file. This kind of license is called 'Reusable license'.

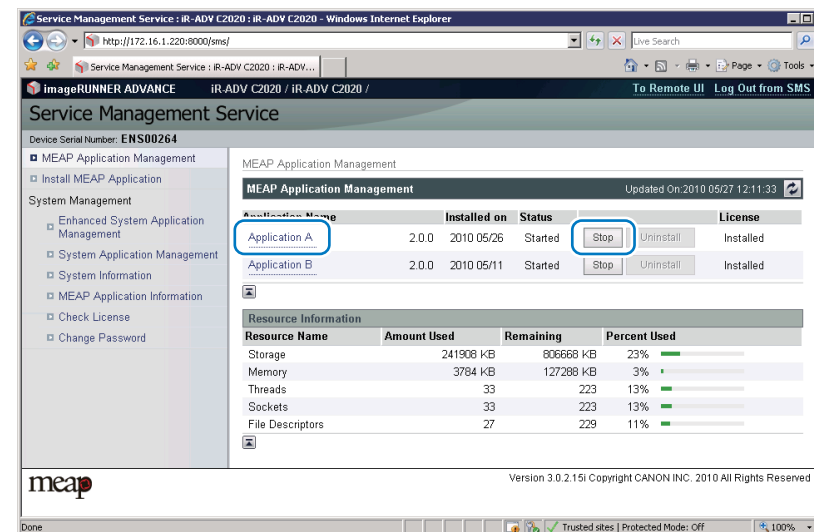
## License for forwarding

### Outline

When the device is replaced due to lease up or trouble, it is possible to continue using the current license information of MEAP application by forwarding it to a new device. Service engineers are responsible for license transfer as this task requires the SMS hidden page (not open to users).

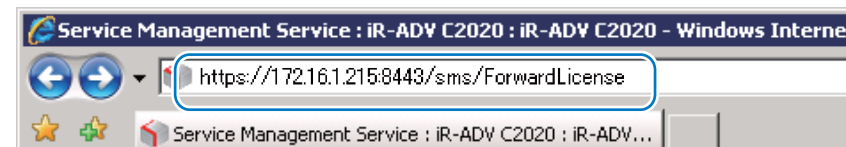
### Procedure to create license for forwarding

- 1) Log in to SMS, stop the application to be forwarded (see Chapter 0, “Starting and Stopping a MEAP Application.” in this manual).



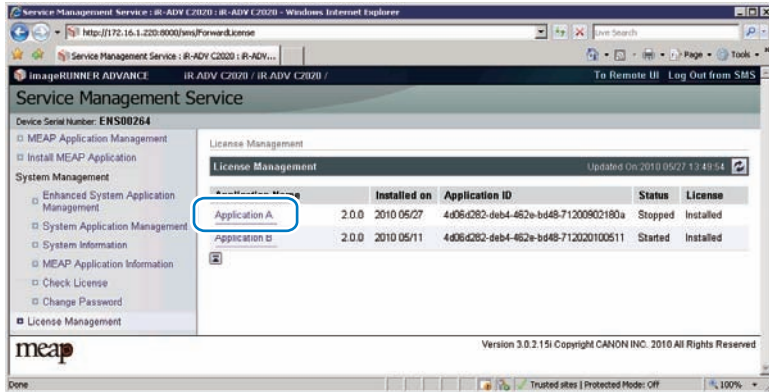
F-2-276

- 2) Move to the download page of license forwarded for the device as sender ([https:// IP address of device: 8443/sms/ForwardLicense](https://172.16.1.215:8443/sms/ForwardLicense)).



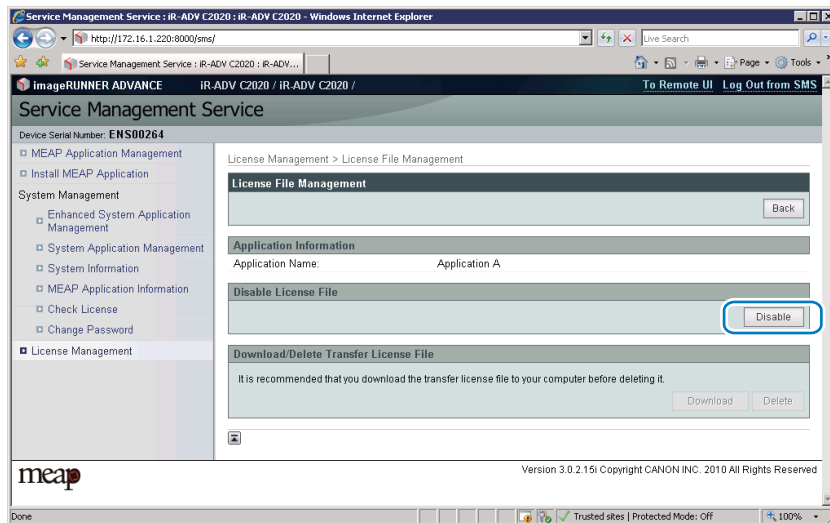
F-2-277

3) Specify the application to be forwarded.



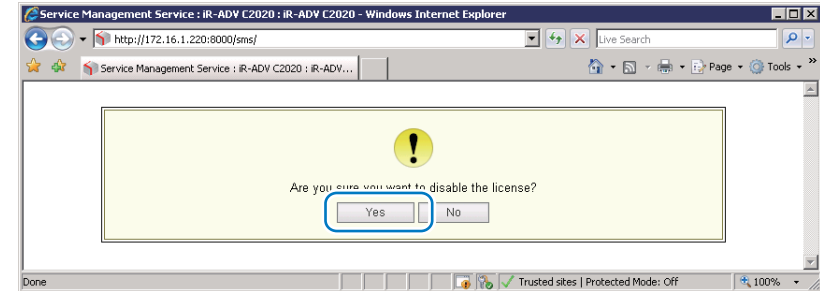
F-2-278

4) Click [Create] at Create Transfer License File.



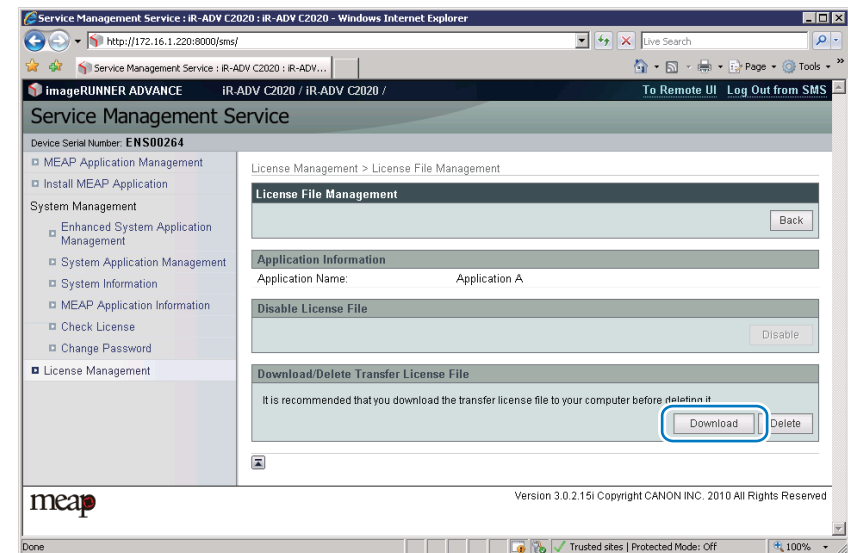
F-2-279

5) The window to confirm whether to create a transfer licence will be displayed. Click [OK].



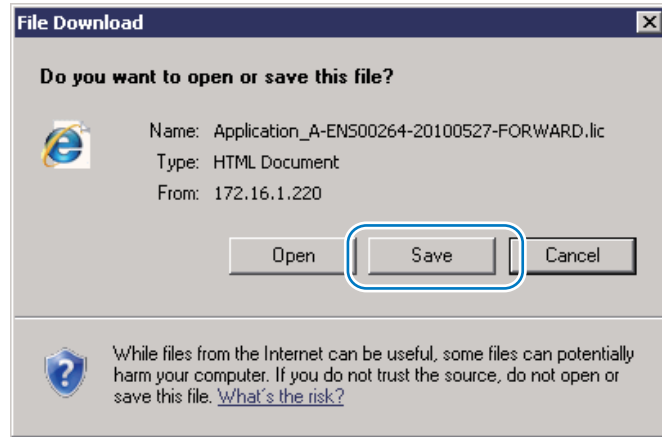
F-2-280

6) Icon of license file for forwarding is displayed in the box of license search file downloading. Click [Download].



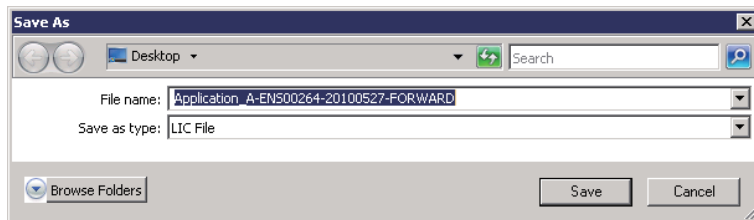
F-2-281

7) The dialogue [File Download] is displayed. Click [Save].



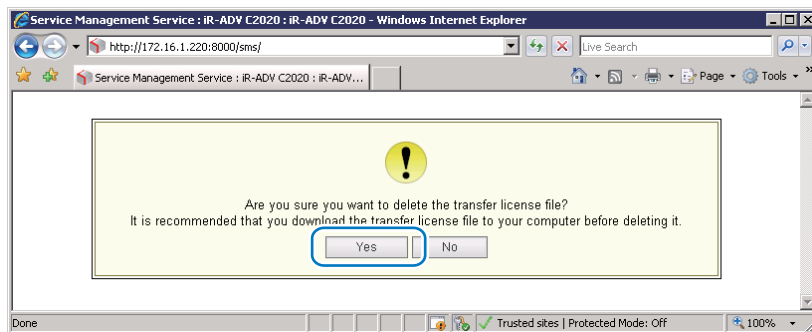
F-2-282

8) Specify the download destination, click [Save].



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9) After downloading the license file for forwarding, click [Delete] to display the confirmation screen and click [Yes] to delete the file (in consideration of breakage of license for forwarding, deleting disabled license can be executed after all steps have been completed).



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10) Log out of SMS.

11) Since this downloaded transfer license is the file only to prove the license invalidation, it cannot be used for installation to the other device as it is. Send the transfer license to the service support contact of your nearest sales company to request issuance of the new license for installation in the new device.

**Note:**

When requesting issuance of license for forwarding, inform the sales company of the name of product name and serial No. of the device as sender, and of the name of product name and serial No. of the forwarding destination.

12) Install application using the license for forwarding issued by the sales company.

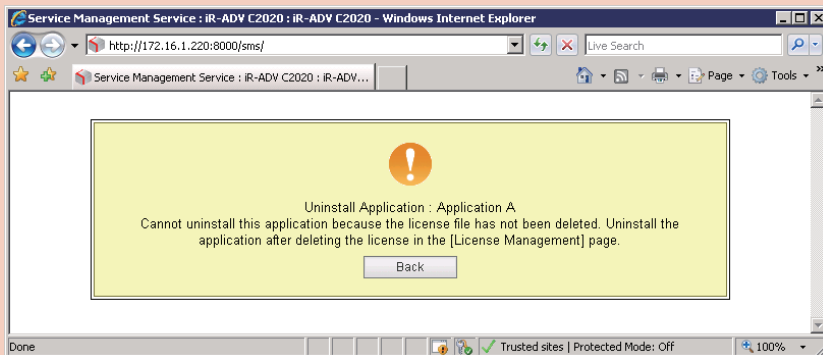


## Uninstalling an Application

### Procedure to uninstall an application

#### CAUTION:

- To uninstall a MEAP application, the license status should be set to “Not Installed” (to be deleted). When a user tries to uninstall an application before deleting the license, the following message is shown. Refer to the sections of “Disabling a License File” and “Downloading / Removing an Invalidated License File” of this manual to delete the license file.

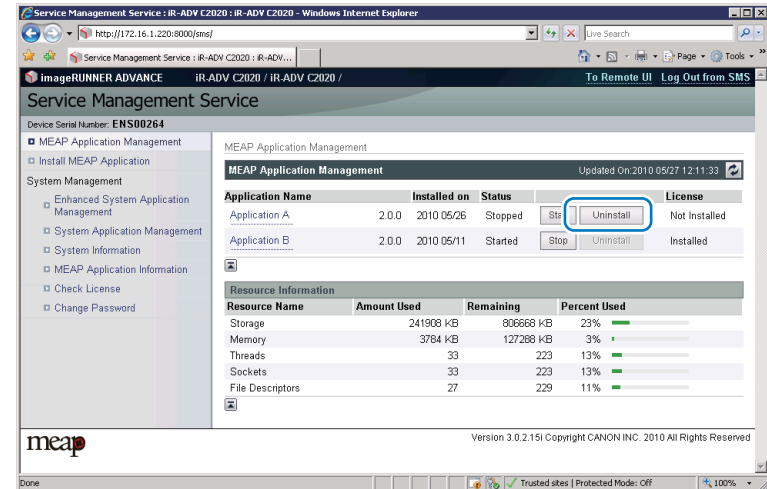


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- Dimmed [Uninstall] button shows that the selected application cannot be removed.
- If the application you are uninstalling is associated with another application, a message will appear to indicate that the package exported by the application will no longer be available. Uninstalling such an application may also disable its associated applications.

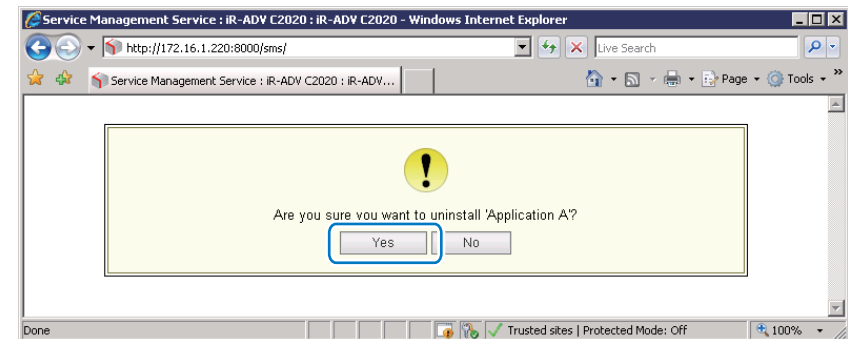
- 1) Log in to SMS to click [MEAP Application Management] on the menu.
- 2) [MEAP Application Management] page is shown.

- 3) Click [Uninstall] button for the application to be uninstalled.



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- 4) Check the application name to be uninstalled shown on the screen to click [Yes] button. Upon [Yes] button clicked, uninstallation process is started.



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## Login Service

### About Login Service

The login service is started up to authenticate the user when MEAP-enabled iR device is booted up. Login service changes and install/ uninstall are carried out from the 'System Management' page. The pre-install applications and those provided on the accessory CD are as follows. Default Authentication is used as the default at the time of shipment from the factory.

#### CAUTION:

- When the login service is set to SSO-H, Department ID management needs to be [OFF] before changes can be made. To use SSO-H local device authentication and Department ID management at the same time, after allocation of the department ID to the Administrator, switch the authentication method to local device authentication and then turn Department ID management ON.
- To use Department ID management in domain authentication, the option image-WARE accounting manager is required.
- When the setting is SSO-H, the card reader for the option controller card cannot be used.
- When using SSO-H, the clock settings of the server managing the Active Directory and the MEAP device (and the PC used to log in), must be matched. If there is a time difference of greater than five minutes in the clock settings, an error will be generated when login is attempted.
- When the setting is SSO-H, start up takes a little longer when compared to Default Authentication (because of the time required for object initialization).
- To use the SEND function when the setting is for SSO-H, when sending email, mail addresses need to be programmed against each user. If they are not, email cannot be sent. Note, however, that when sending i-Fax, the mail addresses set in the device are used.
- This device does not support SDL, conventional SSO and Security Agent. In addition these are not packaged in Administrator's CD.

### Default Authentication overview

This login service is selected when the department ID management is enabled or no authentication function is set. Set the department ID management to [ON] on Setting / Registration (Additional Functions mode) of this device and register 7-digit ID and PIN by department. This setting restricts the use of this device only to users keying the registered ID and PIN. Department IDs/ and PINs can be registered on the touch panel of this device or Remote UI.

### SSO-H (Single Sign-On-H) overview

This is a merger of the existing SDL and SSO login services and has the following features.

- Both the domain authentication and local device authentication login services can be used.
- There is no need to have a separate SA server.
- Login is not via SA, so SSO-H refers directly to DNS for authentication.
- Kerberos and NTLM protocols are supported.
- The following three authentication methods may be selected from.
  - Domain authentication
  - Local device authentication
  - Domain authentication + local authentication

#### CAUTION:

- The system configuration is different from previous SSO, so individual management is required.
- Data porting of user information that was being used with the earlier SSO local device authentication and SDL can be done by exporting/ importing. However, application settings information cannot be ported.

## Authentication methods of SSO-H

SSO-H can use multiple authentication methods, and the user can toggle between them from a Web browser. (Refer to the MEAP Authentication System Settings Guide 'User Authentication Method Settings'.)

### CAUTION:

The factory shipment setting is 'Domain authentication + local device authentication'. In order to provide increased security, as soon as SSO is used, it is recommended that the administrator's user name and password in local device authentication be changed from the factory shipment settings as soon as possible.

### Local device authentication

This is an authentication method that is used for single iR devices. The authenticating users are registered in the iR device's database. User management is performed on the Web application provided by the device, or from the imageWARE Enterprise Management Console/ iW Management Console. The login destination is [This device].

### Domain authentication

This is a form of user authentication which operates in collaboration with the domain controller on the Active Directory environment network and, as soon as the iR device is logged into, carries out authentication of the domain on the network. In addition to users belonging to the domain that includes the iR device, users belonging to domains that have a reliable relationship with the domain (multi-domain) can also be authenticated. The domain name of the login destination can be selected by the users themselves upon login.

The function makes use of options iW EMC Accounting Management Plug-in to enable analysis and management of the iR device usage status.

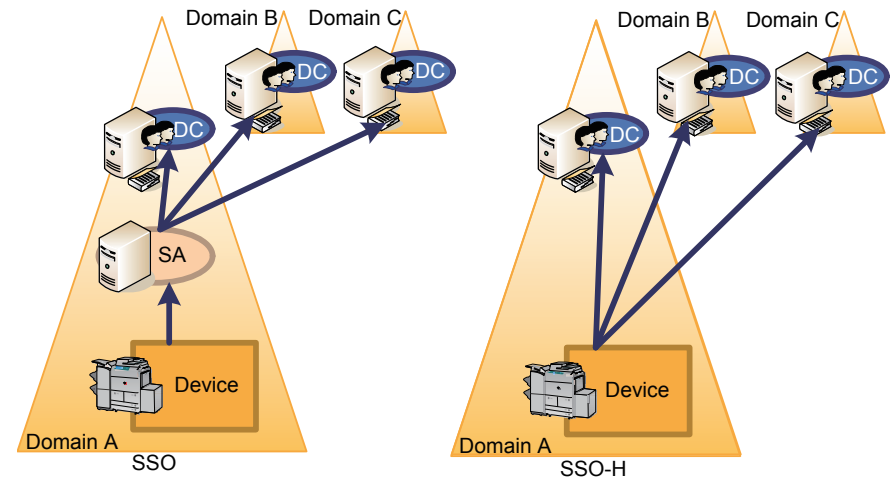
The protocol used is as follows.

- Kerberos : LLS / RLS / ILS
- NTLMV2 : WLS (Web Service Login Service)

User information acquisition is done by LDAP, so the Active Directory LDAP port needs to be made accessible. If LDAP connection fails, the authentication will end in error.

No. of supported domains: 200 (unchanged from SSO) Site access supported.

### Differences from conventional SSO

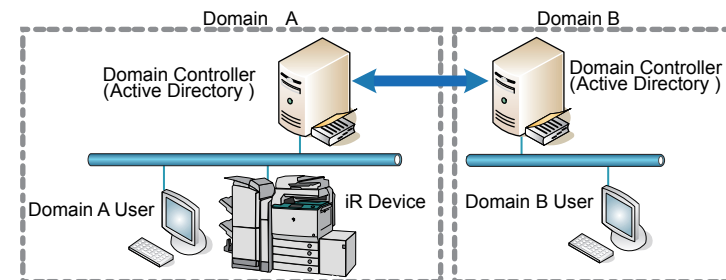


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### Domain authentication + local device authentication

This is a user authentication method that provides both domain authentication and local device authentication functionalities. Principally, domain users who are registered/ managed by the Active Directory are authenticated by domain authentication, and local device authentication can be used when it is necessary to authenticate a temporary user that cannot be added to the Active Directory. Also, should there be any kind of a problem with the domain controller or Security Agent (SSO only), local device authentication can be used in emergency situations, while waiting for normal status to be restored.

In the figure shown below, users belonging to Domain A, which includes the iR device, and users belonging to Domain B, which has a reliable relationship with Domain A, can be authenticated, and users registered with the iR device itself can also be registered. The login destination (domain name or [This device]) is selected by the user upon login.



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**CAUTION:**

- To run domain authentication and Department ID management at the same time, the options Net Spot Accountant, iW Accounting Manager or iW EMC Accounting Management Plug-in are required. If domain authentication is selected as the authentication method without linkage to these systems, login will be disabled and Department ID management will not come ON. If Department ID management cannot be turned ON when using domain authentication and login is disabled, switch the login service to Default Authentication and turn Department ID management OFF.
- In order to link local device authentication and Department ID management and manage print pages and scan pages per department ID, Department ID management must be set ON. To run local device authentication and Department ID management at the same time, the information registered in local device authentication must match the Department ID management user information (department ID and password).
- In local device authentication the card reader for the option control card cannot be used.

### ● Linkage with Department ID management when using SSO-H

SSO-H has collaborative linkage with imageWARE/iW Enterprise Management Console Access Management Plug-in, imageWARE/iW Enterprise Management Console Accounting Management Plug-in. Only when used with 'Local device authentication', can department ID/ passwords be allocated to users.

In the event that these are allocated, authentication can be performed even when the main unit's department management is ON. Department ID and department passwords are not allocated to domain users.

When the main unit's department management function is ON, domain users cannot be authenticated.

**Note:**

With SSO, linkage with imageWARE/iW Enterprise Management Console Accounting Management Plug-in was assumed and department management linkage was enabled even in domain authentication, but with SSO-H, this is now unsupported.

### ● System Manager Linkage (automatic ID allocation to System Managers)

SSO provided the automated function conventionally on Security Agent (hereinafter "SA") to authenticate System Manager by allocating IDs set on SA to domain authentication managers (users belonging to Canon Peripheral Admins group). However, SSO-H does not support this function.

### ■ Access Mode in Sites

With SSO-H, access to Active Directory within site can be prioritized or restricted, so there is a setting called 'Access Mode in Sites'. Sites programmed in Active Directory comprise multiple subnets. In this mode, SSO-H uses site information to access the same site as the device, or the subnet Active Directory.

- The SSO-H default setting is with the site internal access mode OFF.
- Access Active Directory within same site only.
- If there is no Active Directory within the same site, or if connection fails, there will be an authentication error.
- Access another site if Active Directory within the same site cannot be located.
- If there is no Active Directory within the same site, or if connection fails, an Active Directory external to the site will be accessed.
- If all attempts to access Active Directory fail, there will be an authentication error.

The operating specifications of the site internal access mode are as described below.

When first logging in to the login service after booting iR, the domain controller (DC) is obtained from the site list.

However, upon the first login, even if the site functionality is active, connection to DC is random. (This is because, if connection to DC should fail, the site to which the device belongs cannot be ascertained.)

If the device IP address or the domain name are changed, the site settings are acquired once more.

In this mode, at the first login (first authentication of domain to which the device belongs) LDAP-Bind is performed directly to DC and site information acquired by LDAP from DC.

From the acquired site list, the site to which the device subnet belongs is extracted and this becomes the site to which device belongs. Active Directory address is acquired (retrieved from DNS)

## Note:

- The Active Directory subnet is assumed to be the same subnet as the device sub-net.
- In the Active Directory addresses, the Active Directories of the same site are listed.
- Active Directories of the same subnet as the device are listed first.
- If there is no Active Directory with the same subnet as the device, Active Directories belonging to different subnets than the device are listed.
- The Active Directories within the same site are accessed in order. Note, however, that where there are multiple Active Directories within the same site, access to those Active Directories will be in the order in which the address list was obtained.
- If there is no Active Directory within the same site, if access outside of the site is programmed, Active Directories outside of the site will be accessed in the order in which the address list was obtained.

## Site list acquisition

After booting up, upon the first login by LLS or ILS/ RLS, the site list is obtained from the Active Directory. In order to obtain the site list from the Active Directory, Active Directory needs to be accessed in LDAP, so SASL-Kerberos-Bind is used by the login user account. If authentication by Active Directory should fail, an authentication error will be generated and the site list will be acquired again from Active Directory upon the next login.

In SSO-H, the Active Directory to be accessed when acquiring the site list cannot be specified. In other words, if there is no site list, which site's Active Directory is accessed depends upon the order of the Active Directory addresses returned by DNS. Therefore, when acquiring the site list, LDAP may access the Active Directory of a different site. Therefore, in such cases, it is sometimes necessary to access across sites or subnets, which means that LDAP protocol needs to have continuity across sites (subnets) (normally, LDAP is port No. 389). Further, if connection with Active Directory fails when acquiring site information, another Active Directory will be accessed.

Site information, once it has been acquired, is cached within the device. The life settings of the cache can be set so that site information in the cache is updated upon the first login after the device boots up, or so that the cache is not updated once acquired.

## Settings for access mode in sites

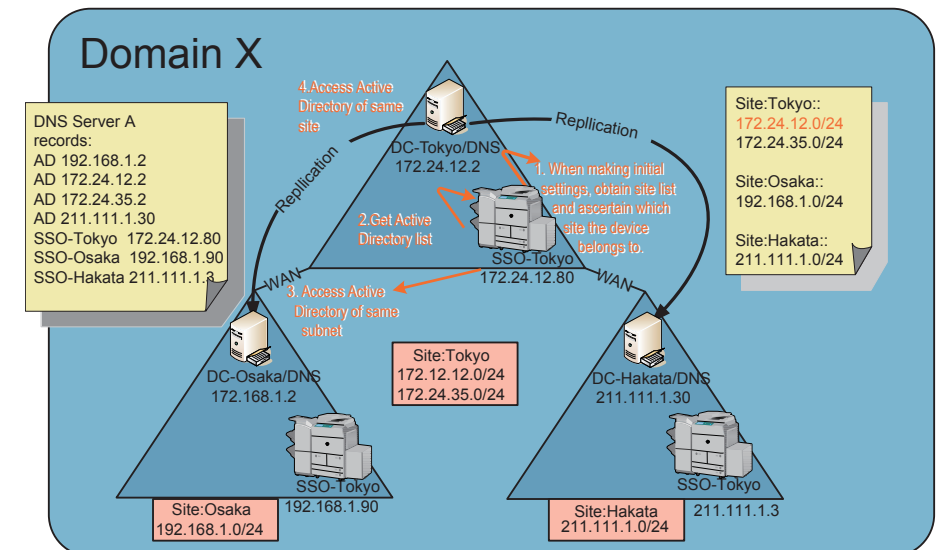
Switching between site internal access mode/ non site internal access mode, as well as detailed mode settings, are done via DMS or iWEMC.

### Site internal access mode settings window (DMS)

Access Mode in Sites	
* Effective at the time of domain authentication	
<b>Access Mode in Sites:</b>	<input checked="" type="checkbox"/> Set access mode in sites * Retrieve the site information from the Active Directory in order to access the domains within the sites.
<b>Retrieve Site Information:</b>	<input type="radio"/> Only at First Time <input type="radio"/> Every time when device starts up * Specify the timing to retrieve the Active Directory site information.
<b>Site Access Range:</b>	<input type="radio"/> Only site of device <input type="radio"/> Access other sites in addition to site of device * Refer to the site information to specify the range for accessing domains.

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The figure below shows a sample of processing Access Mode in Sites.  
Sample of Processing Access Mode in Sites



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- 1) SSO-Tokyo acquires site lists from Active Directories.

Note, however, that the Active Directories accessed in order to acquire site lists are in the order in which they were returned by DNS, so there is no guarantee that the same Active Directory will be accessed as in the initial settings (upon device settings or changes to NW settings, etc.).

[Site subnet list]

Site: Tokyo: = 172.24.12.0/24, 172.24.35.0/24

Site: Osaka: = 192.168.1.0/24

Site: Hakata: = 211.111.1.0/24

As a result, since SSO-Tokyo is 172.24.12.80, the subnet is 172.24.12.0/24, and is judged as belonging to site Tokyo.

- 2) The DNS server obtains its Active Directory list from the primary or secondary DNS, as set in the device.

[Active Directory]

172.24.12.2, 172.24.35.2, 192.168.1.2, 211.111.1.30

- 3) Of the Active Directories in 2), above, the ones that belong to the same site (Tokyo) are 172.24.12.2 and 172.24.35.2.

Of these, the Active Directory that is the same subnet as SS-Tokyo is 172.24.12.2.

Therefore, this one will be accessed.

- 4) If access fails at step 3), above, the other Active Directory of the same site, 172.24.35.2, will be accessed.
- 5) If access fails at step 4), above, also, SSO-Osaka and SSO-Hakata will be accessed (the order will depend on the order of the Active Directories in DNS). Note, however, that this is an optional operation.

### ● Logging into other domains at multi-domain

At multi-domain, if another domain is logged into, based on the site/ subnet information retrieved in the home domain, the Active Directories of the login destination domain/ KDC address list are computed. In the event that the domain controller IP addresses of other domains are outside of the site access range, and only the domain controller within the site is programmed for access, an error message will be displayed to the effect that the site information is incorrect.

### ■ Environment confirmation

Refer to the section of "Checking the Operating Environment" of this manual for system requirements needed in each login service.

### ■ Specification of SSO-H

Item	Specification
No. of local device users	Up to 5000
Maximum number of domains	200 domains ("this device" not included)
Supported device	All the MEAP-enabled iR devices (different SSO-H versions are supported depending on machine types)
IPv6	Authentication provided in IPv6 supports AD/KDC/DNS of Windows Server 2008 only)
Memory (KB) / thread (numbers)	3584/33
Supported Active Directory	Windows 2000 Server SP4/ Windows Server 2003 SP1/ Windows Server 2003 R2/ Windows 2008 Server(64BitOS not supported)
Availability of Department Management Linkage	Available only in local authentication
Site access	Supported

T-2-109

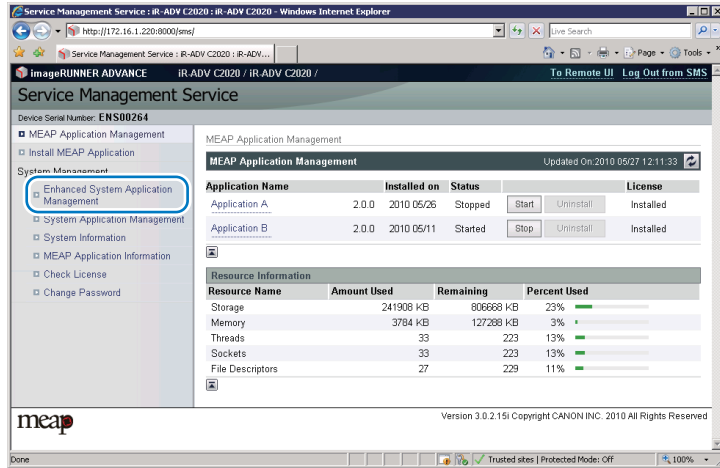
### ● SSO/SDL handling

Conventional SSO and SDL are not packaged in Administrator's CD of this model. In addition, this model does not support older versions of SSO or SDL released in the past.

# Changing Login Services

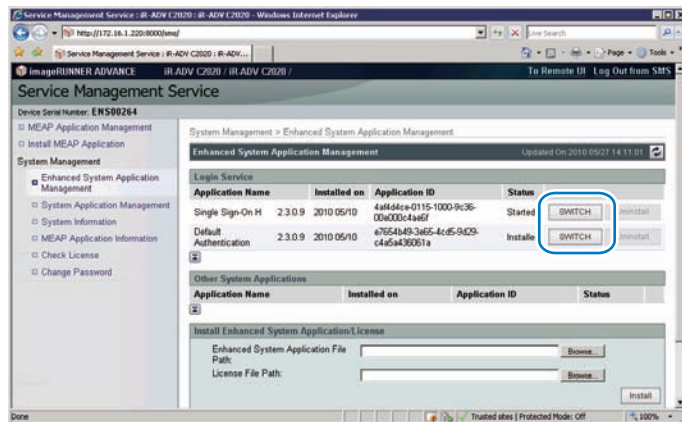
## Steps to Change Login Services

1) Click [ Enhanced System Application Management] on [System Management ].



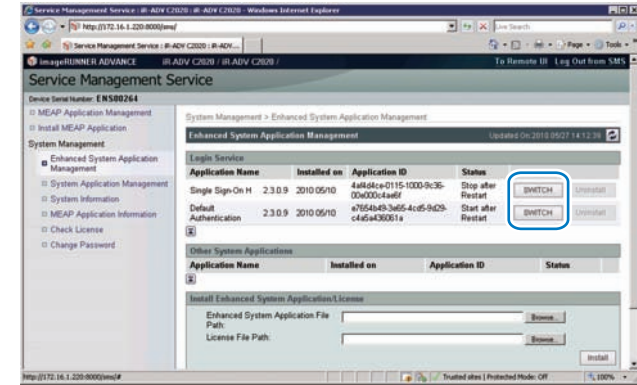
F-2-292

2) A page will appear showing the various selections you can make for the login service. Click [SWITCH] button for the login service to be used.



F-2-293

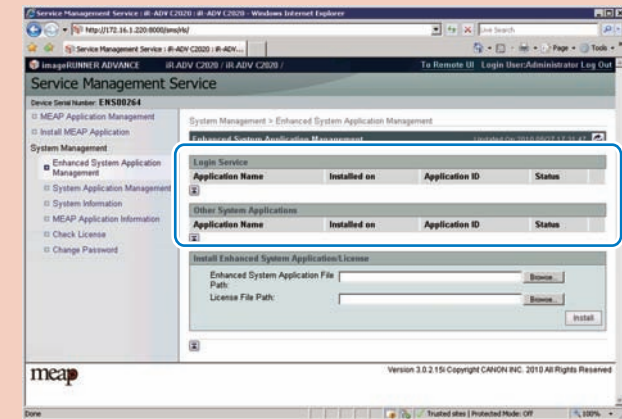
3) When login service application you have selected turns to Start after Restart, restart the device.



F-2-294

**CAUTION:**

In case that the login method to a device is set to SSO-H, if you log in SMS with RLS authentication, no selection is displayed although it is the screen to change the login method.



F-2-295

This is the specification to prevent the inconsistent setting which enables to stop SMS Installer Service (Password Authentication) by changing the login method to Default Authentication.

When you want to change the login method to a device, log in the SMS with the password authentication.

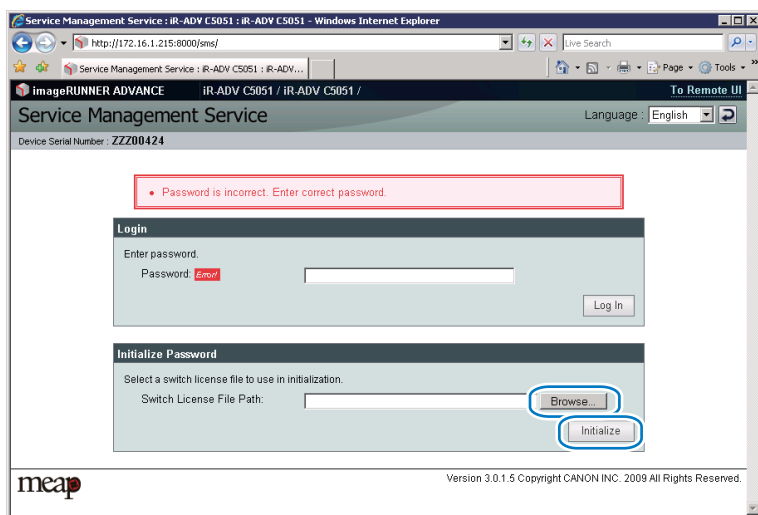
## Initializing the Password

### Outline

When a user forgets the password to log in to SMS, initialize it to the default value of "MeapSmsLogin" using the switch license for initializing passwords. Follow the steps below:

### Procedure to initialize the SMS login password

- 1) Get the switch license for initializing the password.  
Request the support of the regional headquarters of the Canon for switch license for initializing the password presenting the device serial number.
- 2) Click [Login] button leaving Password field blank or entering incorrect password. The Return to install Password Settings area appears. Click [Browse...] button and select the switch license file prepared in advance.



F-2-296

- 3) When you click [Initialize] button, the confirmation message appears. Click [OK] button. Then Login page opens. Enter the default password 'MeapSmsLogin' to log in. The password is case-sensitive.

#### Note:

If you click [Cancel] button, the Login page opens without initializing the password.

## Backup of the MEAP Application Area and Recovery of the Backup Data Using SST

### Outline

When replacing or formatting the hard disk drive, the data in the MEAP application area needs to be temporarily saved to your PC.

This chapter describes information on backing up the data in the MEAP application area and recovering the backup data.

In the case of MEAP-installed devices, the application is license-managed, so the application needs to be reinstalled and reconfigured when replacing or formatting the hard disk drive. In that case, a license for reinstallation needs to be downloaded and the customer data and configuration information need to be recovered, and these procedures pose heavy burdens on the service technician.

The area used for the MEAP application can be easily saved/recovered by using the backup function of SST (Service Support Tool).

This greatly reduces the work burden on the service technician.

Please note that the application cannot be illegally copied because the backup data can be recovered only when the iR device has the same serial number.

#### WARNING:

You must not perform any other work (including checking operation) until the HDD has been backed up. This arrangement is to prevent a mismatch of MEAP counter readings and the HDD contents, and any fault in operation arising as the result of failure to observe this will not be covered by the guarantee of operation.

#### Note:

The application that is installed with a reusable license can be reinstalled by using the same license.



## ■ Backup Item Automatically Copied

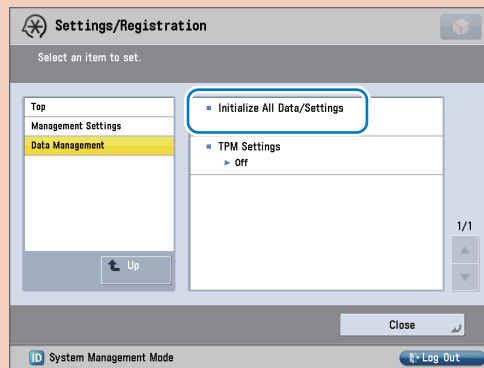
### ● The following data are backed up using SST:

The following data are backed up (saved as Meapbackup.bin) using SST.

- MEAP applications.
- Setup data generated by MEAP applications (Note that image data stored in BOX will not be saved for MEAP applications using BOX function).
- User information data registered for local device authentication in SSO-H
- SMS password

#### WARNING:

Do not execute [Initialize All Data/Settings] in user mode during the period from backup using SST to recovery of the data.



F-2-297

When [Initialize All Data/Settings] is executed, the key used to combine encrypted backup data (SMS, password, etc.) is initialized, which makes it impossible to combine the data. It means that SMS cannot be accessed even when the backup data has been recovered using SST. If [Initialize All Data/Settings] was executed and SMS cannot be accessed, the SMS login password needs to be initialized by following the procedure shown in "When SMS Cannot Be Accessed" in "Login to SMS" in this manual.

### ● Data backed up using SST in the case of iR-ADV devices

In the case of iR-ADV devices, menus are implemented as MEAP application. Therefore the following items can be also backed up (stored as Meapbackup.bin).

- Setting items of each menu in the main menu ( Copy, Scan and Send, Fax, Scan and Store, Access Stored Files, Fax/I-Fax Inbox, ).
  - Favorite settings
  - Default settings
  - Settings of option shortcuts
  - Previous settings
- Settings of quick menu
  - Button size information
  - Wallpaper settings
  - Quick menu button information
  - Restrict quick menu use

## ■ Requirements for Backup Using the SST

The following conditions must be met for use of the function:

### 1) Device Firmware Version

Device Firmware Version for SST (Ver4.2x)

	Boot ROM	System	SST
iR-ADV C2030/C2020 series	Boot ROM is not equipped.	Already supported since the 1st version.	The version supporting the corresponding devices.
imageRUNNER ADVANCE series other than iR-ADV C2030/C2020 series	Already supported since the 1st version.	Already supported since the 1st version.	The version supporting the corresponding devices.

T-2-110

### 2) SST Version

Version 4.2.x or later. An earlier version will not permit the use of the function. If needed, upgrade the SST.

### 3) Space for backup

To back up the HDD of the iR, the PC must have approx 1024MB of free space at maximum. Sizes of backup files depend on actual data capacities to be backed up.

## ■ Procedure for backing up the MEAP application area using SST

### 1) Switching Login Service / Backup of Login User Information

If SSO-H is used for the login service, switch to default authentication before backing up the user information. Although SST will back up local device user information, it is recommended to export the user information just in case. For local device user information backup, go to User Management page of SSO-H site and export the data. (The SSO-H login page opens with the URL "https://<device IP address>:8443/sso/").

#### CAUTION:

- If a hard disk of a system that uses SSO-H is formatted without changing the login service to the default authentication, the error message "The login service must be set again with SMS" appears and the system cannot start up when you attempt to restart the system after formatting.
- If this problem occurs, change the login service to SSO-H with SMS. If you cannot access to SMS since you do not have the IP address of the device, start the system with FIXIP mode -hold down the numeric keys 1 and 7 and turn the power switch on. The IP address "172.16.1.100" will be automatically assigned for the device. Then log in to SMS specifying the address.

### 2) Starting the device in Download Mode

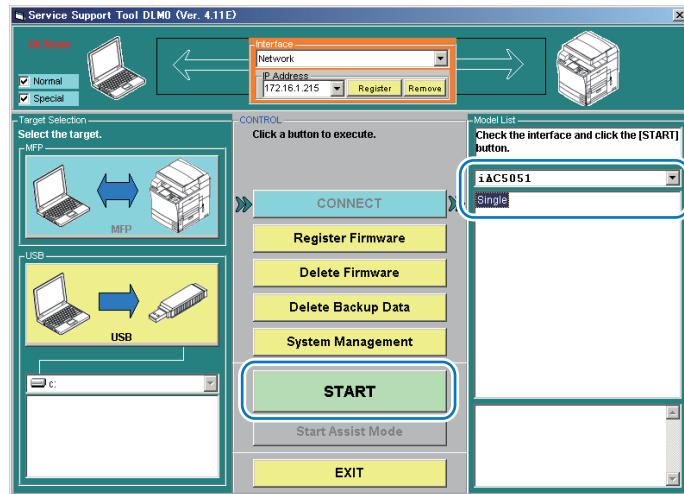
Press [2] and [8] buttons at the same time on the control panel and turn on the main power switch to start the device in Download Mode. Note that SST backup function is enabled only in Download Mode.

### 3) Connecting the main unit to the PC to start SST

Connect the main unit to the PC with SST installed using the crossing cable and the like to start SST on the PC.

## 4) Connecting the device using SST

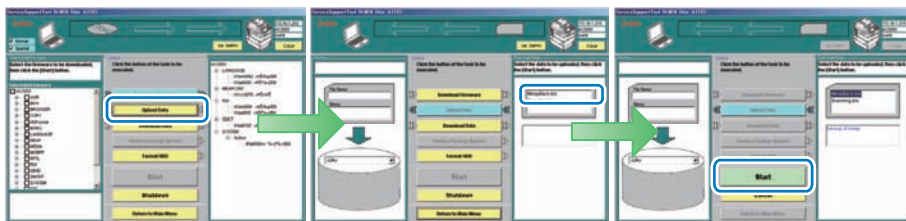
When starting SST, select the target device type as Single and click [Start] button.



F-2-298

## 5) Generating backup data to transfer it to the PC (uploading)

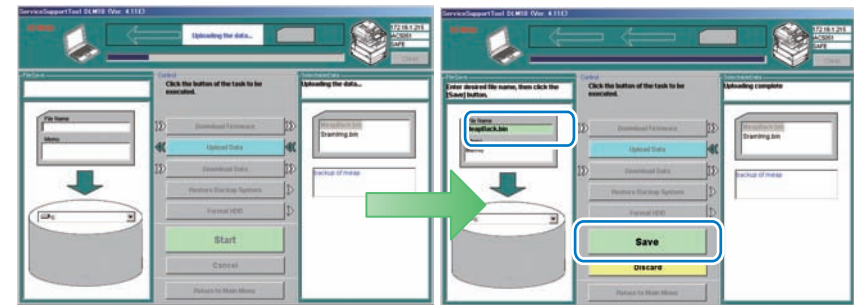
Click [Upload Data] button of SST and select "Meapback.bin" as the item to be backed up to click [Start] button.



F-2-299

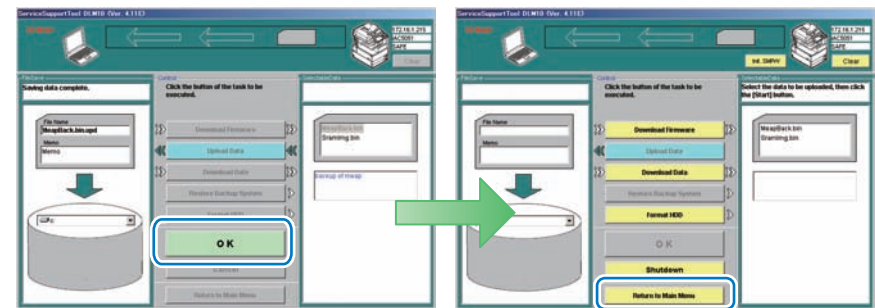
## 6) Saving backup data

Upon the backup data transferred to the PC, enter an appropriate file name and click [OK] to save the backup data on the PC.



F-2-300

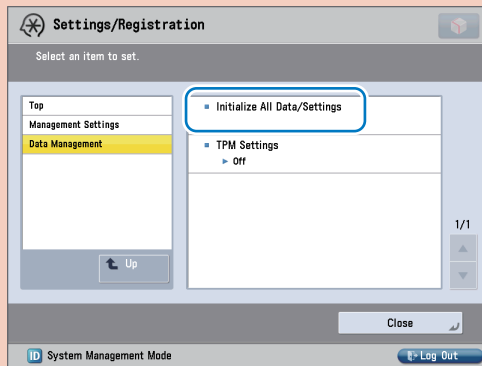
When the file is successfully saved, click [OK] button, and then click [Return to Menu] button.



F-2-301

**WARNING:**

Do not execute [Initialize All Data/Settings] in user mode during the period from backup using SST to recovery of the data.



F-2-302

When [Initialize All Data/Settings] is executed, the key used to combine encrypted backup data (SMS, password, etc.) is initialized, which makes it impossible to combine the data. It means that SMS cannot be accessed even when the backup data has been recovered using SST. If [Initialize All Data/Settings] was executed and SMS cannot be accessed, the SMS login password needs to be initialized by following the procedure shown in "When SMS Cannot Be Accessed" in "Login to SMS" in this manual.

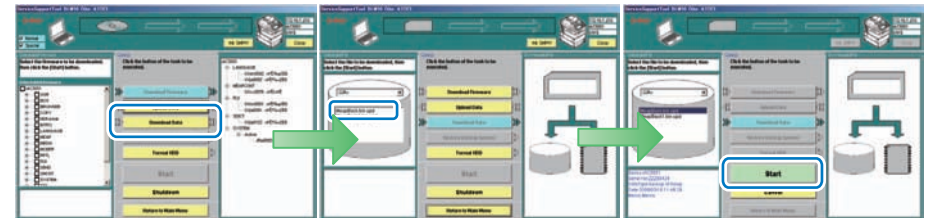
## ■ Procedures to Restore Backup Data

### 1) Connecting to the device

Connect the device using SST by following step 1 to step 4 of the Procedure for backing up the MEAP application area using SST.

### 2) Restoring backup file

Click [Upload Data] button and select the data backed up in the previous step (Meapback.bin) to click [Start Restoring Data]. Note that the data backed up in a different version cannot be restored.



F-2-303

### 3) Transferring Data

When the data is successfully transferred, click the [OK] button shown on the screen. To continue other jobs, click [Return to Menu] button.



F-2-304

4) Turn off and on the main power switch of the device to gain access in SMS to check that MEAP applications are surely restored.

5) Restore the backup data and setting saved. Note that the user information of the local device is included in the backup data, thus does not need to be restored.

## Formatting and Replacing the HDD

### Outline

If the HDD is broken or does not function correctly due to failure of the system (excluding the MEAP application), it needs to be formatted or replaced.

When the HDD is formatted or replaced, the files of the MEAP application stored in it will be lost, so make a backup of the MEAP application area according to "Procedure for backing up the MEAP application area using SST" if possible. If a backup cannot be made, the MEAP application and the license files need to be reinstalled.

As for the MEAP counter information, it will not be lost because it is backed up just like the conventional counter.

If a backup cannot be made, a special license file (a license file for installation with the expiration date carried over from the current counter value) is required to reinstall the MEAP application. This special license file is treated as a service tool and cannot be obtained by a general user.

In order to obtain a special license file, a service technician needs to contact a person in charge of support of a sales company.

When contacting the person in charge of support, the service technician also needs to provide the serial number of the device and the name of the MEAP application installed.

In the support departments of regional headquarters of Canon, all license files of the applications that have been issued are filed according to device serial numbers, enabling you to obtain a series of license files through a single screen as long as you can identify the serial number of the device in question.

**Note:**

The application that is installed with a reusable license can be reinstalled by using the same license.

### Formatting the HDD

#### Formatting the HDD

Follow the following procedure to format the HDD.

1) Connecting to the device

Connect the device using SST by following step 1 to step 4 of "Procedure for backing up the MEAP application area using SST".

2) Formatting the HDD

Select "Format HDD" from SST menu to format the HDD.

**Note:**

HDD can be formatted also by starting Download mode using the USB memory and executing formatting from the displayed menu.

## ■ HDD replacement procedure

### ● Outline

The procedure for replacing the HDD differs according to whether the HDD functions normally or not.

### ● If the MEAP application area cannot be backed up

If the HDD does not function correctly due to failure or for other reason, the MEAP application area cannot be backed up. It is therefore necessary to reinstall the application after replacing the HDD or the Flash PCB. The procedure is shown below.

#### 1) Preparation for replacement

Copy a set of license files for reinstalling the MEAP application (special licenses and reusable licenses) to a laptop for service operation.

Register a set of system files of a target product to SST. Or, prepare USB thumb drive of the System file transfer settlement.

#### 2) Replacing the drive

Prepare the necessary service parts of the HDD, and replace the drive.

#### 3) Formatting HDD

Format the HDD referring to Formatting the HDD.

#### 4) Reinstalling the MEAP application

When the device has started normally, obtain the jar files of the MEAP applications from the user, and install them using the license files for reinstallation.

Installation method is the same as normal installation.

#### 5) Importing user information

As necessary, make login service selections and import user information.

#### Note:

When you replace the HDD without uninstalling MEAP applications, make sure to reinstall the previously installed applications. Unless reinstalling them, MEAP counter will not be released and the message "The number of applications that can be installed has exceeded the limit. Try to install this application after uninstalling other applications." is displayed so that the installation of new applications may not be accepted. If you want to install new applications in this case, once reinstall the applications in-stalled before formatting and uninstall unnecessary applications.

### ● If the MEAP application area can be backed up

If the MEAP application area can be backed up, it can be recovered after replacing the HDD or the Flash PCB, so it is not necessary to prepare the special licenses for reinstallation.

#### 1) Preparation for replacement

Back up the MEAP application area of the device according to the procedure for backing up the MEAP application area using SST.

#### 2) Replacing the drive

Prepare the necessary service parts of the HDD, and replace the drive.

#### 3) Formatting HDD

Format the HDD referring to Formatting the HDD.

#### 4) Restoring the backup file

Restore the backup data referring to the Procedures to Restore Backup Data.

#### 5) Importing user information

As necessary, make login service selections and import user information.

## MEAP Safe Mode (level 2)

### Outline

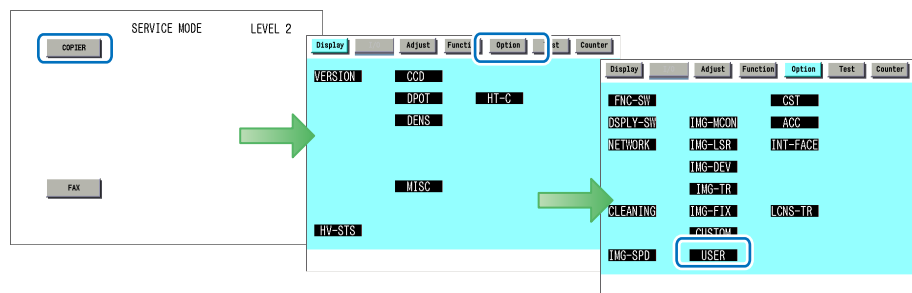
Use safe mode if you need to start up the system without worrying about extra applications. It will start up only those system software files (including SMS) that normally start up as default files while preventing MEAP applications and the like from starting up.

When you have made changes and restart the device, the control panel will indicate 'MPSF' in its lower right corner. The MEAP applications that may have been active before you shut down the equipment will not start up on their own. Make use of safe mode when restoring the system software as when MEAP applications or services cause a fault as the result of a conflict or wrong sequence of registration/use. You can access to SMS in this condition so that you can take necessary measures, for example, you can stop application that may cause the trouble.

If default authentication has been selected, the mode of authentication remains valid; otherwise, the message "The login service must be set again with SMS" appears. Change the login service as necessary.

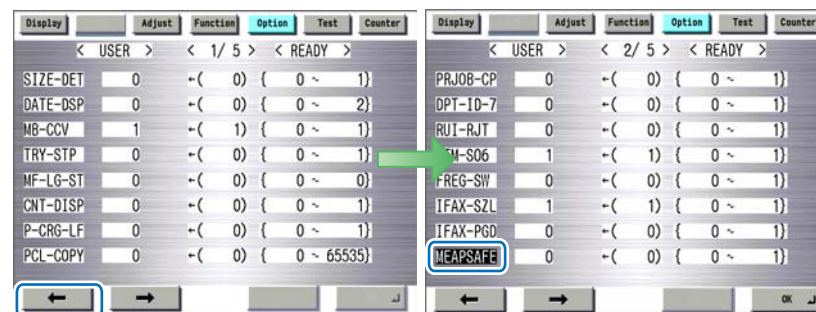
### Starting in Safe Mode

- 1) Start [SERVICE MODE] in Level 2.
- 2) Press [COPIER] > [Option] > [USER] buttons.



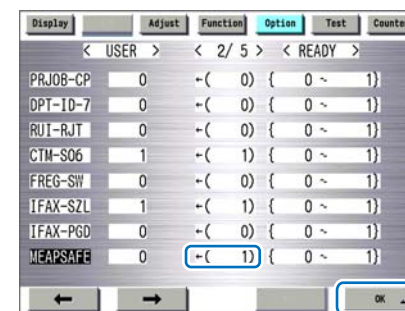
F-2-305

- 3) Press **←** or **→** button for several times until [MEAPSAFE] button is shown. Click [MEAPSAFE] button.



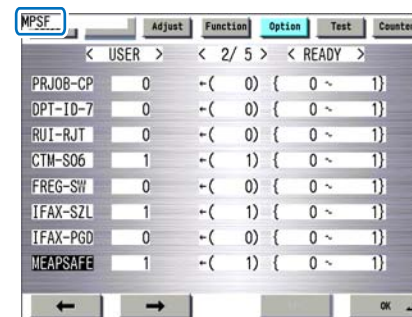
F-2-306

- 4) Press the 1 key on the control panel keypad to change the setting to '1'; then, click [OK] button.



F-2-307

- 5) Check that the notation 'MPSF' has appeared in the upper left corner of the screen; then, restart the device.



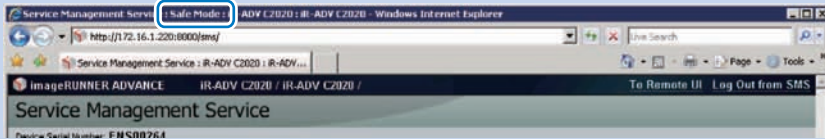
F-2-308

**Note:**

If accessed to SMS in MEAP SAFE mode, the device started mode is shown on the title bar of the browser.

Example of display when starting in MEAP SAFE mode:

Service Management Service : <Device Name>:<Product Name>: Safe Mode

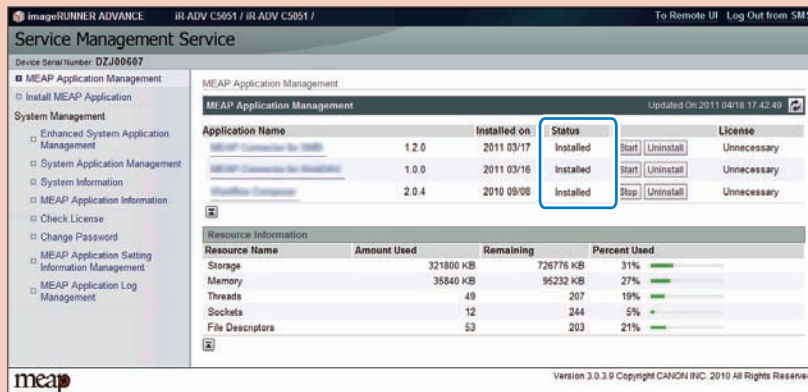


F-2-309

**WARNING :**

If the device has been started in the MEAP SAFE mode, all MEAP applications stop and the status becomes "Installed".

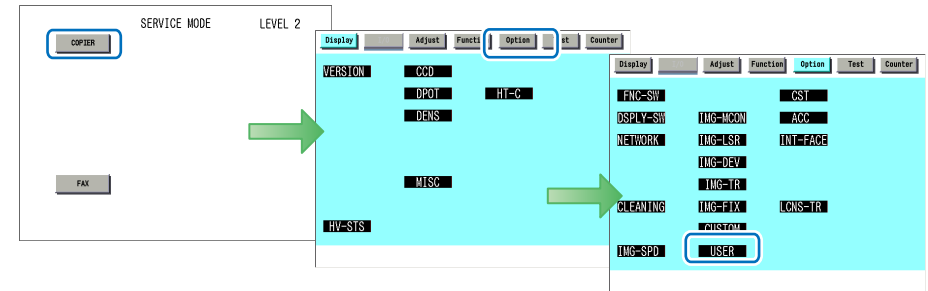
This status remains unchanged even if the MEAP SAFE mode is cancelled and the device is started again in normal mode. It is therefore necessary to access SMS after normal startup, and start the MEAP application.



F-2-310

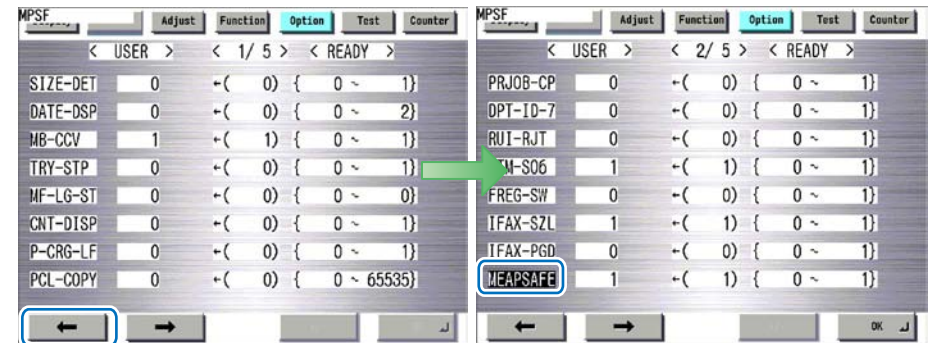
**How to cancel MEAP SAFE mode**

- 1) Startup level 2 of [ SERVICE MODE ].
- 2) Press [ COPIER ] > [ Option ] > [ USER ].



F-2-311

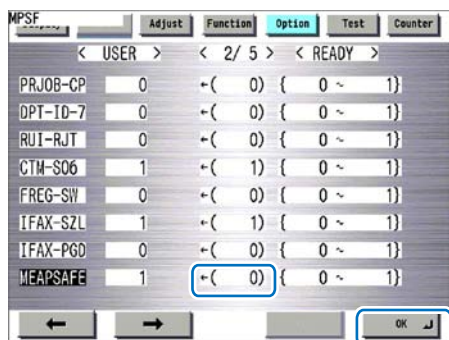
- 3) Press ← or → button for several times until [ MEAPSAFE ] is shown. Click [ MEAPSAFE ].



F-2-312

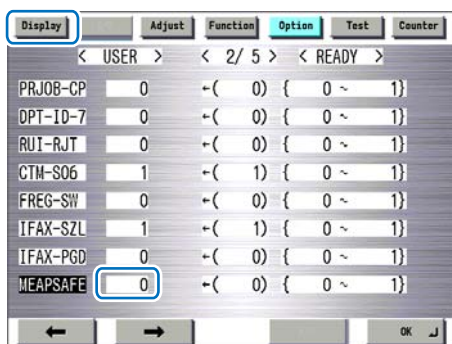


- 4) Press the 0 key on the control panel keypad to change the setting to '0'; then, click [ OK ] button.



F-2-313

- 5) Check that the notation 'MPSF' has appeared in the upper left corner of the screen; then, restart the device.



F-2-314

## Collection of MEAP Console Logs

### Overview

When debugging a MEAP application, console logs need to be collected in some cases. The following shows how to collect MEAP console logs using commercially available terminal software and service mode.

### What to Prepare

- PC connected with the same network as the device
- Commercially available terminal software

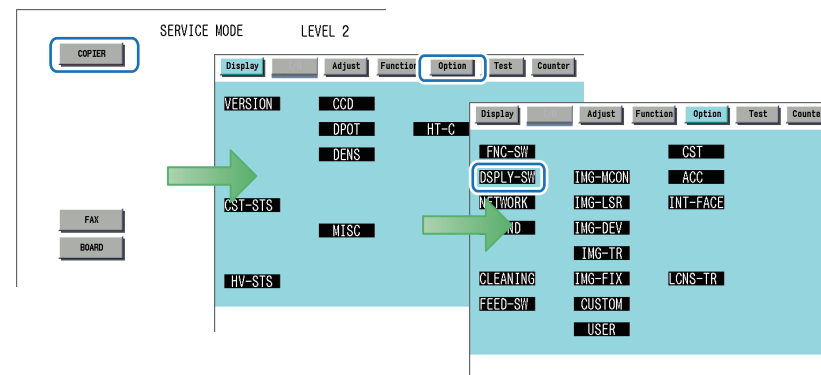
Note:

In the procedure shown in this manual, "Tera Term Pro" and "Hyper Terminal" are used as the terminal software.

### Work Procedure

#### Device Setting Procedure

- 1) Start [ SERVICE MODE ] in Level 1.
- 2) Press [ COPIER ] > [ Option ] > [ DSPLY-SW ] buttons.



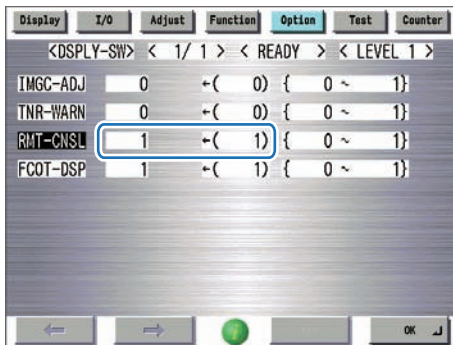
F-2-315

3) Press [ RMT-CNSL ] button.



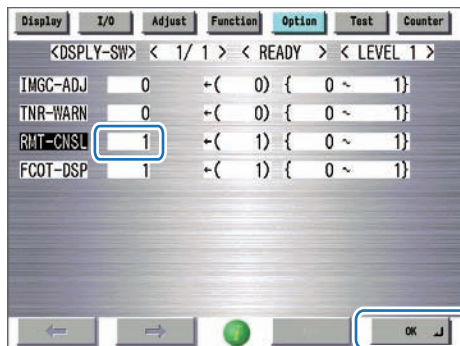
F-2-316

4) Press either 1 (activate remote console function) on control panel (the numerical value input in the field is displayed), and press [ OK ] button.



F-2-317

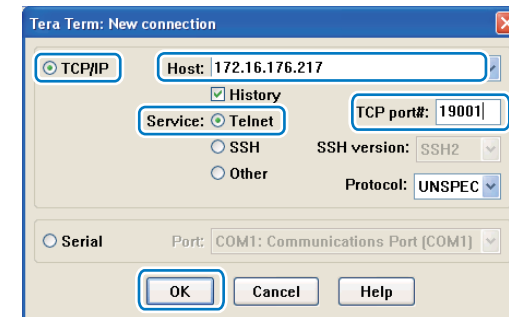
5) Check to see that it is reflected in setting field, and restart the device.



F-2-318

### ● PC setting procedure (when Tera Term is used)

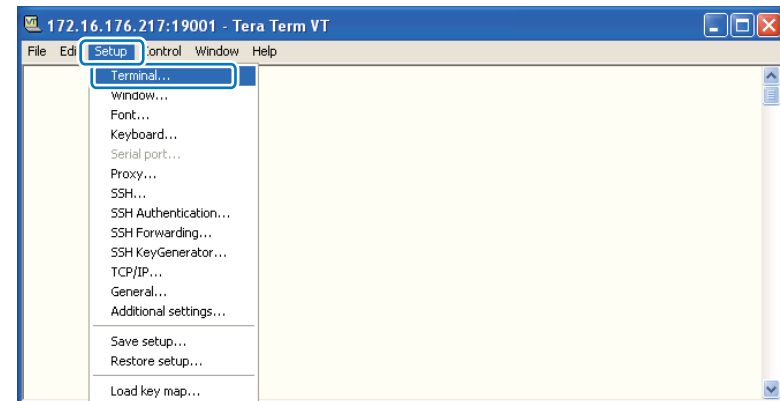
- 1) Install the terminal software on the PC.
- 2) Start the terminal software, make the following settings, and then click the "OK" button.



F-2-319

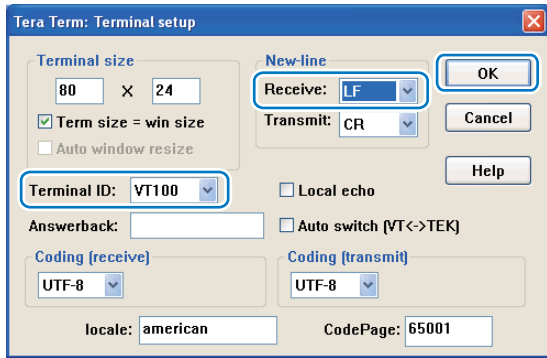
Connection : Select [TCP/IP] (Default)  
 Host : Device Host Name or IP Address  
 Service : Select "Telnet"  
 TCP port# : Enter 19001

3) The connection window will open. Select [Terminal...] from the [Setup] menu.



F-2-320

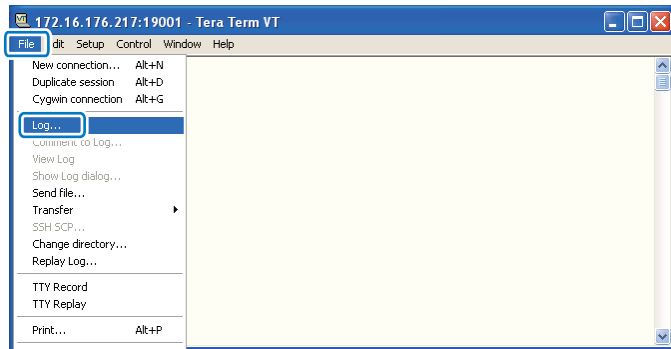
4) The terminal setting screen will appear. Make the following settings, and then click the "OK" button.



F-2-321

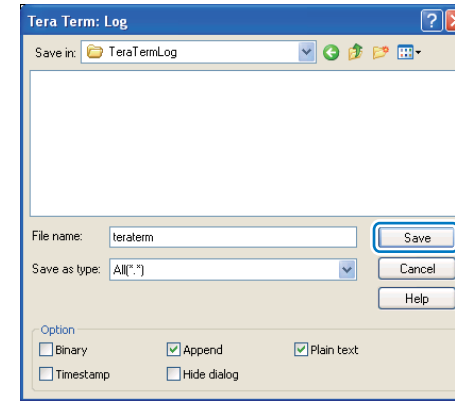
Terminal ID : VT100  
New-line Receive : LF

5) Select [Log...] from the [File] menu.



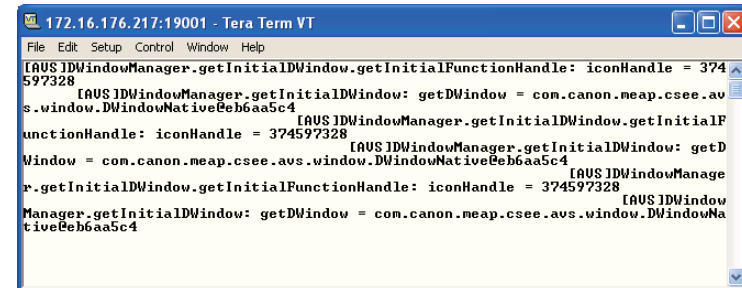
F-2-322

6) The dialog for specifying the save destination of the log file will appear. Set the save destination path and the file name, and then click the [Save] button.



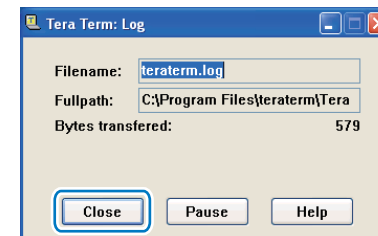
F-2-323

7) Perform the operation whose log you want to collect.



F-2-324

8) Click the [Close] button in the log dialog.



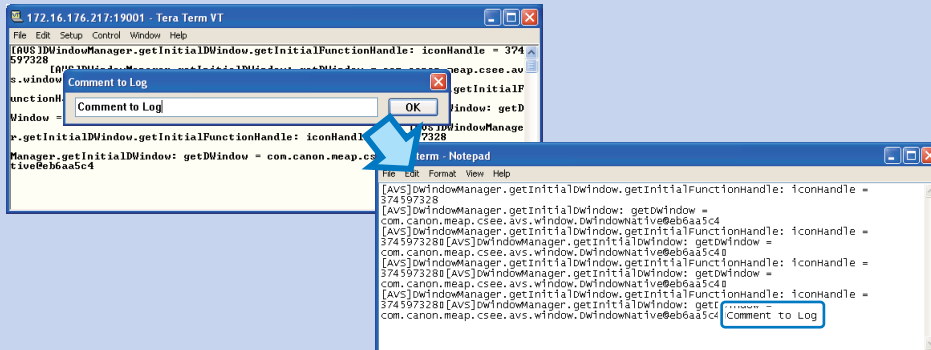
F-2-325

Note:  
To suspend log collection, click the [Pause] button.

Note:  
While collecting logs, the following operations are available from the [File] menu.

#### Comment to Log...

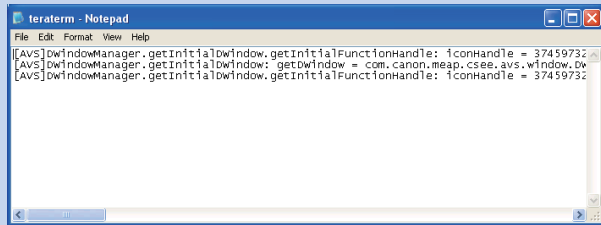
You can add a comment to the log being collected. The added comment is reflected in the log file.



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#### Show Log dialog...

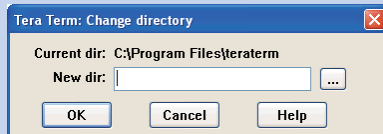
The logs that have been collected are pasted on Notepad and displayed.



F-2-327

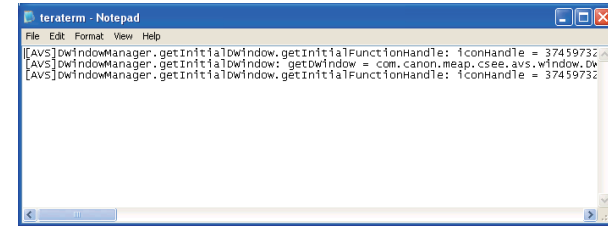
#### Change directory...

The preliminarily set save destination of the log file can be changed.



F-2-328

9) Open the file saved in the save destination, and check that the logs are stored correctly.



F-2-329

#### Note:

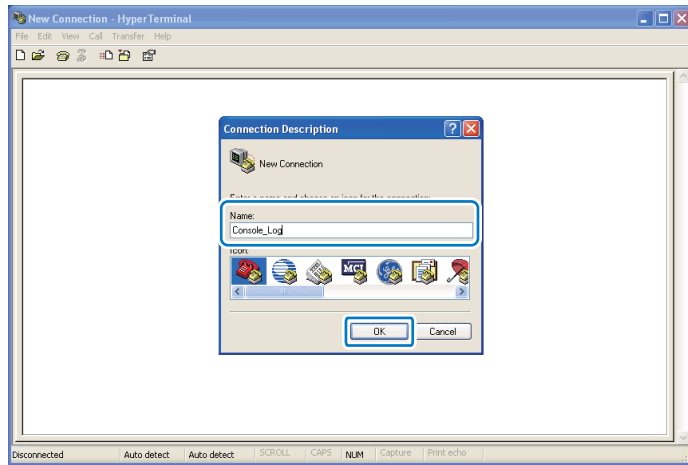
Depending on the MEAP application, the log output setting needs to be made in order to collect logs.

#### CAUTION:

After collecting logs, the remote console function of the device needs to be disabled (select [SERVICE MODE] LEVEL1 > [COPIER] > [Option] > [DSPLY-SW] > [RMT-CNSL] > 0, and restart the device).

● PC setting procedure (when Hyper Terminal is used)

1) Start Hyper Terminal, set the connection name in the [Connect Description] dialog that appears on the screen, and then click the OK button.



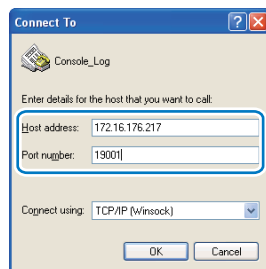
F-2-330

2) Set [TCP/IP(Winsock)] for [Connect using].



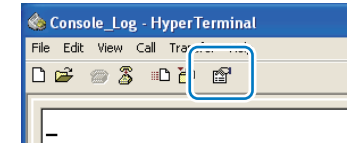
F-2-331

3) Enter the IP address of the target device in [Host address], and enter "19001" (fixed) in [Port number].



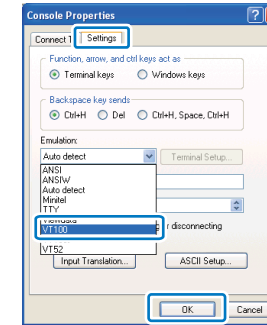
F-2-332

4) Click the "Properties" icon on the Hyper Terminal screen.



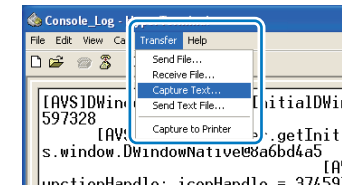
F-2-333

5) The [Console Properties] dialog will appear. Select the [Settings] tab, select [VT100] for [Emulation], and then click the [OK] button.



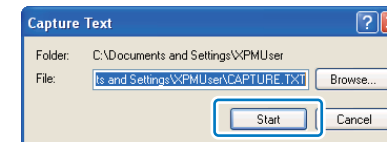
F-2-334

6) Return to the Hyper Terminal window, and select [Transfer] > [Capture Text...] from the menu.



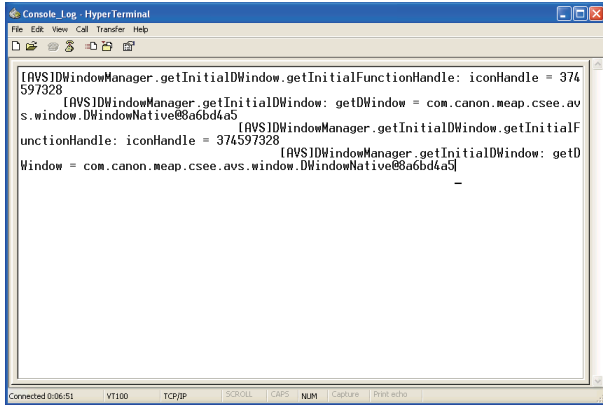
F-2-335

7) The dialog for specifying the save destination of the log file will appear. Specify the save destination.



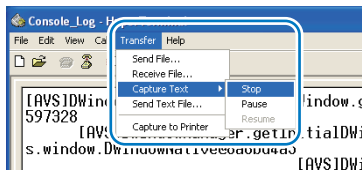
F-2-336

8) Perform the operation whose log you want to collect.



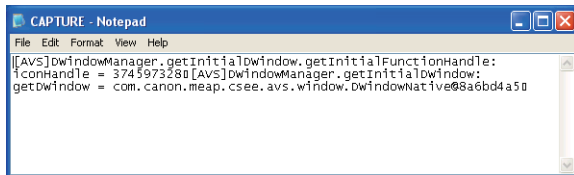
F-2-337

9) Select [Transfer] > [Capture Text...] > [Stop] from the menu.



F-2-338

10) Open the file saved in the save destination, and check that the logs are stored correctly.



F-2-339

**Note:**

Depending on the MEAP application, the log output setting needs to be made in order to collect logs.

**CAUTION:**

After collecting logs, the remote console function of the device needs to be disabled (select [SERVICE MODE] LEVEL1 > [COPIER] > [Option] > [DSPLY-SW] > [RMT-CNSL] > 0, and restart the device).

## Setting HTTP port for MEAP application (level 2)

### Outline

For the ports in which the MEAP application uses, the default is 8000 for the port on HTTP server, and 8443 for the port on HTTPS server. In the case that these ports have already used by the customer who is to introduce this application, the MEAP application cannot use the HTTP (or HTTPS) server(s).

By changing the following ports to use, however, the MEAP application can be used as well as the existing system.

### HTTP server

Setting value is 0 through 65535 [the value at factory shipment/after clearing RAM: 8000]

**Note:**

Do not use port number "8080" when PS print server unit is connected. If the port is used, you can not see the page for RUI of the device with MEAP authentication application. (port "8080" is reserved for redirecting from PS print server unit to device.)

### HTTPS server

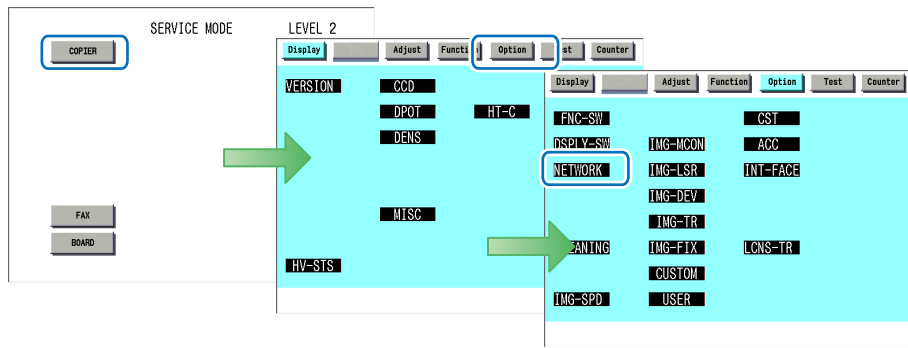
Setting value is 0 through 65535 [the value at factory shipment/after clearing RAM: 8443]

**Note:**

As for port on HTTPS server, it only applies to the device that supports SSL function.

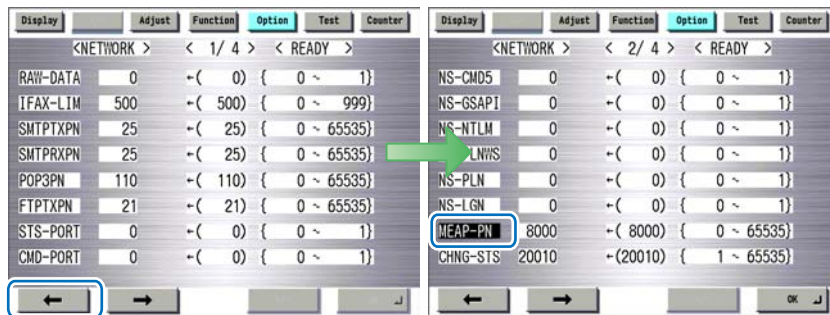
## Port setup procedure of HTTP Server

- 1) Start [SERVICE MODE] in Level 2.
- 2) Press [COPIER] > [Option] > [NETWORK] buttons.



F-2-340

- 3) Press ← or → button until [MEAP-PN] is shown on the screen. Press [MEAP-PN] button.



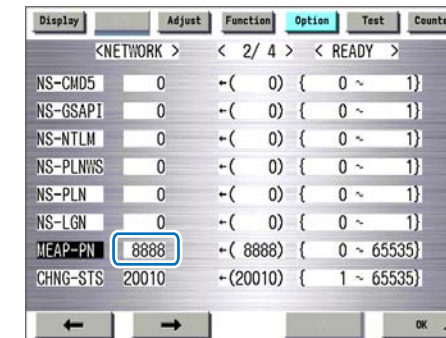
F-2-341

- 4) Press the port number to specify on the control panel (the numerical value input in the field is displayed), and press [OK] button.



F-2-342

- 5) Check to see that it is reflected in setting field, and turn off the main power, and then, restart the device.



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## Port setup procedure of HTTPS Server

- 1) Start [SERVICE MODE] in Level 2.
- 2) Press [COPIER] > [Option] > [NETWORK] buttons.
- 3) Press **←** or **→** button until [MEAP-SSL] is shown on the screen. Press [MEAP-SSL] button.



F-2-344

- 4) Press the port number to specify on the control panel (the numerical value input in the field is displayed), and press [OK] button.



F-2-345

- 5) Check to see that it is reflected in setting field, and turn off the main power, and then, restart the device.



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## Using USB Devices

### USB Driver

#### Two types of USB drivers

While the USB driver that can be used in iR series is only the USB driver designed exclusively for MEAP application (hereinafter referred to as “MEAP driver”), not only MEAP driver but also USB system driver (hereinafter referred to as “system driver”) can be used in iR-ADV series.

System driver and MEAP driver cannot be used together. When either of them is used, the other driver cannot be used.

#### USB driver setting (iR-ADV series):

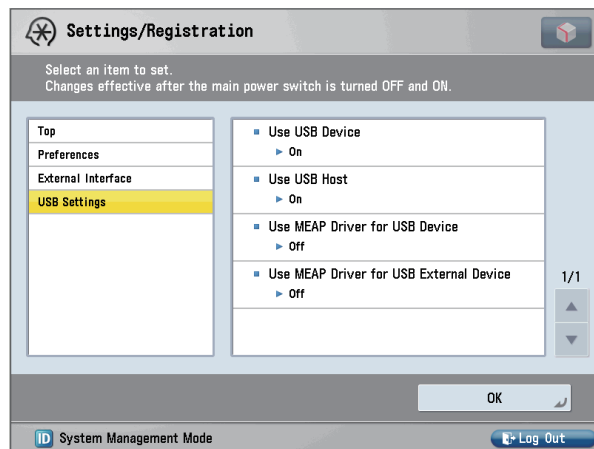
System driver is active by default in iR-ADV series.

The driver can be changed in Settings/Registration (user mode).

Usually, It is not necessary to change the setting because it is specified in the MEAP application side.

Only in the case of a special MEAP application, it is necessary to change the USB driver setting.

For details, refer to specifications of MEAP application side.



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Operating mode settings [Use MEAP driver as USB input device]	Conventional USB keyboard enabled MEAP application	Software keyboard application (System Driver/ MEAP Driver)	System driver supported MEAP application
ON * MEAP driver (conventional compatibility mode)	Can use USB keyboard. Can work only on the conventional applications that support the MEAP application driver.	Cannot use USB keyboards. (Device cannot be detected.)	Cannot use USB keyboards.
OFF (*default) * Native driver	Cannot use USB keyboards. (Device cannot be detected.)	Can use USB keyboards.	Can use USB keyboards. Via software keyboards only.

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#### Note:

When any settings changes are made, the device must be restarted.

#### Setting the USB driver for each USB device (MEAP driver preference registration)

If it is set to use the system driver, the conventional applications that support the MEAP application driver cannot use the USB input device.

Therefore, for the USB drivers used by USB devices/MEAP applications, there is setting function (MEAP driver preference registration) to give priority to the MEAP driver.

If you register the ID of the USB device by using this function, the USB device can use the MEAP driver despite the Additional Function settings.

Using this function requires the conditions below:

- Supported MEAP SpecVer: 26
- Describe the idVendeor(VID) and idProdtc(PID) of USB device in the manifest or activate/deactivate the VID and PID by calling API from MEAP applications.

The driver setting that is used in a manifest file is reflected in the following timing.

When registering from a manifest file.

- The registration will be enabled when an application is activated and device is restarted.
- The registration will be disabled when an application is stopped and device is restarted.

**Note:**

You can display/check the used driver setting at "USB device report print" described below regardless of whether it is registered from a manifest file or is registered from API.

Availability for MEAP application of the USB device A (either HID keyboard or Mass Storage) plugged to iR device

Registration status of USB device A	USB Setting [Use MEAP driver for USB input device]	Native application	MEAP application		
			System driver supported application	System driver not supported/ conventional application	Application with VID/PID declared in Manifest for x
Not registered	OFF	YES	YES	NO	
	ON	NO	NO	YES	
Registered	OFF	NO	NO	YES	YES
	ON	NO	NO	YES	YES

YES: USB device available      NO: USB device not available

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Availability for MEAP applications of USB devices B and C (either HID keyboard or Mass Storage) plugged to iR device

Registration status of USB device B	Setting to use MEAP driver (Additional Functions mode)	USB device	Native application	MEAP application		
				System driver supported application	System driver not supported / conventional application	Application with VID/PID declared in Manifest for B
Registered	Not used (Native driver to be used)	B	YES	YES	NO	
		C	YES	YES	NO	
	To be used	B	NO	NO	YES	
		C	NO	NO	YES	
Not registered	Not used (Native driver to be used)	B	NO	NO	YES	YES
		C	YES	YES	NO	NO
	To be used	B	NO	NO	YES	YES
		C	NO	NO	YES	YES

YES: USB device available      NO: USB device not available

T-2-113

## ● Specifications for the use of USB keyboards

Characters that could be entered on the software keyboard displayed on the conventional control panel can be entered using a USB connected keyboard.

- When the software keyboard window is displayed, characters can be entered from the USB keyboard (in-line entry not possible).
- When the software keyboard window is not displayed, entered characters will not be remembered.
- The characters, which can be entered from a USB keyboard, is only a character, which can be entered from the software keyboard.
- Even if characters are entered from the USB keyboard, the software keyboard window will not change (the corresponding key does not invert or change color).
- Input from the USB keyboard can be accepted at the same time as input from the software keyboard or numeric keys.
- Since the device supports Plug and Play, the USB keyboard can be disconnected/connected freely. However, do not disconnect and connect during in deep sleep (when in sleep with setting "low" at "the power consumption in sleep"). It is out of an operation guarantee to disconnect and connect the USB keyboard in deep sleep.
- When USB device is attached to iR device, iR devices do not shift to deep sleep mode.
- Keyboard layout changes according to the keyboard layout settings in the Settings/Registration screen. In addition, function keys and ten keys which are not displayed in the software keyboard cannot be used. (Keyboard which the operation check was conducted is 84-key Keyboard, but this does not mean that the operation of all 84-key Keyboards is guaranteed.)

**Note:**

The factory shipment default setting is to enable the use of native (main unit functionality) USB keyboards. Therefore, in order to use MEAP application keyboards, [Use MEAP driver for USB input device] under [System management settings (initial settings/ registration)] needs to be set to ON (factory shipment setting is OFF). Operations change as described below in accordance with ON/ OFF settings.

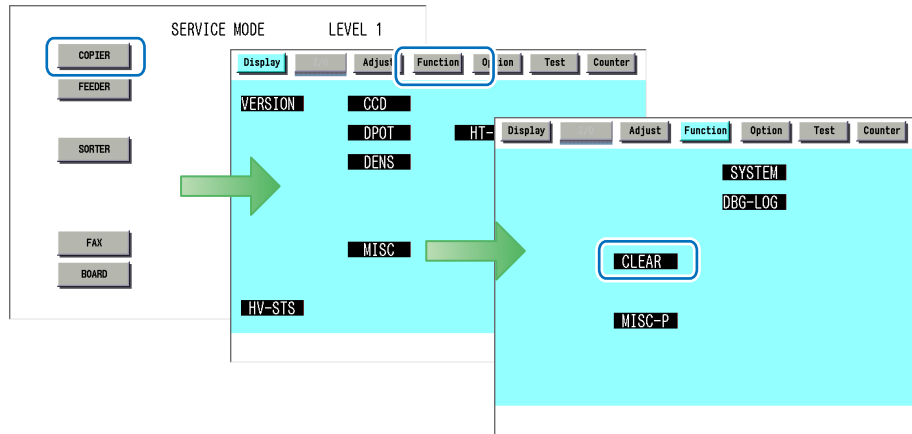
- ON: when using MEAP application keyboard
- OFF: when using native (main unit functionality) keyboard (factory shipment default)

## Initialization of MEAP driver priority registration

When any trouble occurs regarding USB driver settings and it is necessary to reset the setting information, you can reset the MEAP driver preference registration by using service mode.

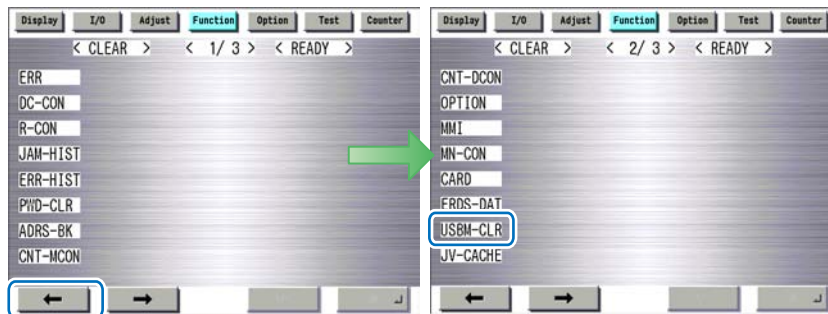
### Steps to initialize preference use registration

- 1) Start [SERVICE MODE] in Level 1.
- 2) Press [COPIER] > [Function] > [CLEAR] > button.



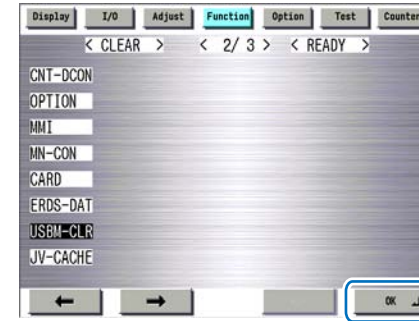
F-2-348

- 3) Press [←] or [→] button for several times until [USBM-CLR] is shown on the screen. Press [USBM-CLR] button.



F-2-349

- 4) Press [OK] button to restart this device.



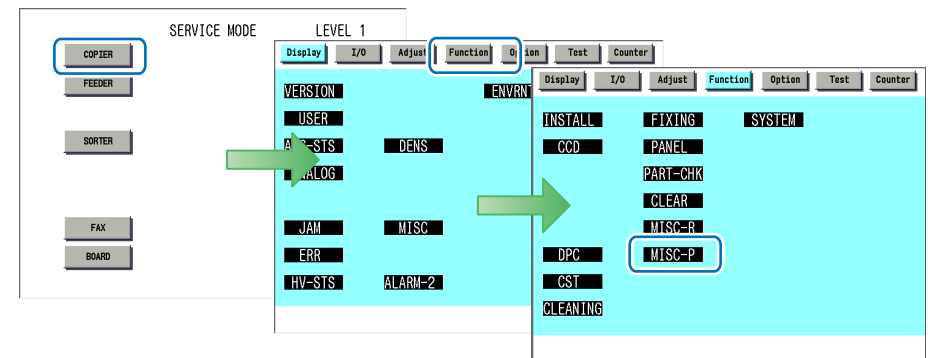
F-2-350

## USB Device report print

To check the vendor IDs (idVendor) and the product IDs (idProduct) registered in this device by means of declaration in Manifest file of MEAP applications, output the USB Device report print.

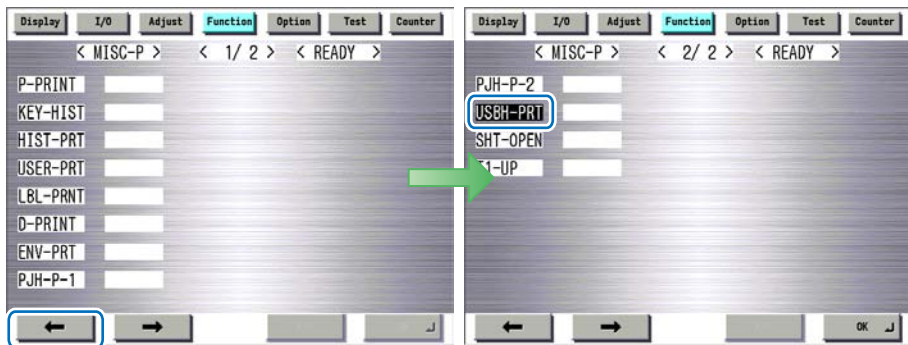
### Steps to output the USB Device report print

- 1) Start [SERVICE MODE] in Level 1.
- 2) Press [COPIER] > [Function] > [MISC-P] > button.



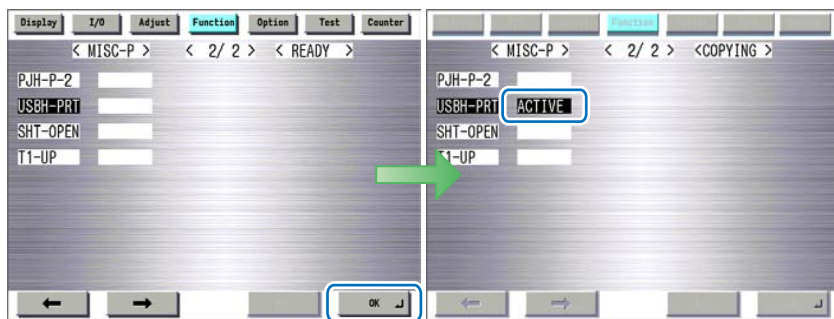
F-2-351

3) Press **←** or **→** button for several times until [USBH-PRT] is shown. Press [USBH-PRT] button.



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4) When pressing [OK] button, [ACTIVE] blinks on the status field.



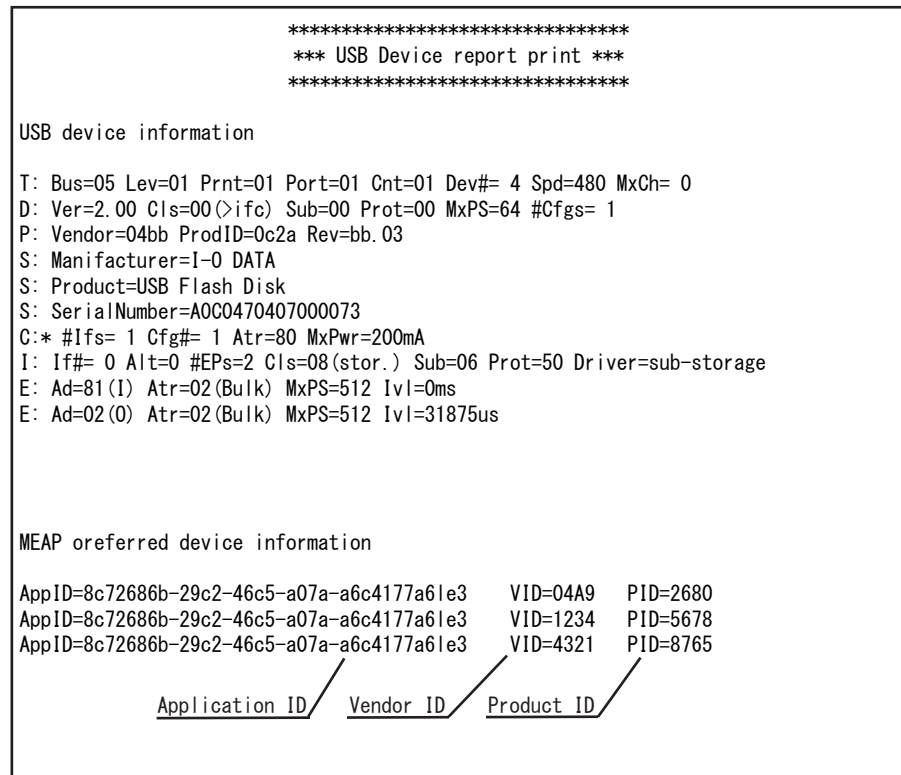
F-2-353

5) When [OK] is shown on the status field, the status print is output. Check the contents of the print.



F-2-354

Example of output result



F-2-355

● USB device information Content

Display the information of the USB device, which the device recognized. If not displayed, there may be some fault occurred. Some of standard optional devices are not displayed on a report. The details of each item are as follows.

T : Topology

Internal hierarchical structure, which a USB device is connected, is shown. The number of a connected bus, the hierarchical structure and connection speed can be indicated.

D : Device

Information of USB devices is shown.

**P : Product**

Product information of USB devices is shown. Vendor ID and Product ID can be recognized here.

**S : String**

The character string embedded in a USB device is shown. A manufacture name and a product name can be recognized here.

**C : Configure**

The configuration information of a USB device is shown. \* mark is to know whether it is active.

**I : Interface**

The interface information of a USB device is shown. Interface class and the driver to handle can be recognized.

The value and the content of Driver are as follows.

Labeling	Content
usbhid	It is displayed when the USB system driver is assigned to the input device connected.
usb-storage	It is displayed when storage devices (USB memory storage etc.) are connected.
irda-usb IrDA	It is displayed when the dongle is connected.
hub	It is displayed when HUB is connected.
gpusb	It is displayed when the USB driver only for MEAP application is assigned to the input device connected.
gpusbex	It is displayed when a USB device, which specific vendor ID/ Product ID are preferentially registered using a manifest and MEAP API, is connected and the USB driver only for MEAP application is assigned.

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**E:Endpoint**

The Endpoint information of a USB device is shown.

Right or wrong of report output

Connecting device	User installation	Report printing
HID	Available	Yes
Storage	Available	Yes
FAX	Not available	No
USB Device Port	IrDA	Not available
	Multimedia Card Reader	Not available
	IC Card Reader	Not available
Image Data Analyzer Board-A1	Not available	No
Hub	Internal Hub*	Not available
	External Hub	Available

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\* USB Device Port-B1 Hub for device ports installed at the introduction

**● The content of MEAP preferred device information**

Display the information of the application or a USB device, which preferentially registered with MEAP application.

By seeing this information, it can check which Application ID of the MEAP application is in the status using a specific USB device.

AppID : Application ID

VID : Vendor ID

PID : Product ID

## Reference material

### Glossary

Terms & Acronyms	Definitions and Explanations
Application	A program unit to provide users with solutions.
Application ID	An identifier assigned to each application. A unique ID is assigned to each MEAP application.
Applet (Applet Type Application)	A MEAP application type created in Java. This type of applications show buttons on the touch panel display.
Code Sign	Information to check if an application is genuine. An application marketed in the normal procedure has a code sign assigned by LMS. MEAP platform rejects applications without Canon code signs for being installed or executed on the device.
CPCA (Common Peripheral Controlling Architecture)	Common Peripheral Controlling Architecture. CPCA defines an object model of peripheral devices. A client can control a device by creating or modifying objects in the device.
CPCA Java CL (Class Library)	CPCA Java Class Library. A Java class library, which is used to control a device.
Default Authentication -Department ID Management	The login service used when the department ID control is used but other authentication controls are not used. When the Department ID control is turned on, the login dialog prompts the users to enter the department ID and password. The dialog appears the initial screen of both the control panel on the MEAP device and Remote UI
Device Specification ID	ID allocated to each device type. This represents CPCA API specification and the version number to use MFP generic functions or obtain information including maximum allowable copies.
Esplet (Esplet Type Application)	A MEAP application type created in Java. This type of applications do not show user interfaces either on Local UI or Web. Esplet is a coined word created by Canon, consisting of [Espresso] or Italian coffee and [let] derived from Applet/Service.
File Description	An identifier for the OS to identify the destination file requested by a program. A program descriptor includes an identifier and information such as a file name and size, which helps OS to judge the file to be edited.
HID class	HID stands for Human Interface Device, representing man-machine interfaces of PC components and peripheral devices. HID class means USB class classified as HID.
iR Native application	The functionalities that existing imageRUNNER has such as Copy, Universal Send and Mailbox.
ISV (Independent Software Vendor)	Independent Software Vender. Software manufacturer who develops and/or sells applications and tools but does not entire computer systems. Refers application developer in this document.

Terms & Acronyms	Definitions and Explanations
J2ME (Java2 Platform Micro Edition)	Java 2 Platform Micro Edition. One of Java Platforms licensed by Sun Microsystems, Inc. It is applied for MEAP. Other devices such as cellular phones and PDA.
J2RE (Java 2 Runtime Environment)	A set of basic programs to run applications developed in the programming language of Java2. This set includes Java virtual machine providing runtime environment for Java applications among others. Java applets do not require J2RE since these are executed on Web browsers using Java runtime environment provided on browsers. However, standalone Java applications require Java runtime environment such as J2RE for execution. Runtime environments can be downloaded for free of charge from the Web site of Sun Microsystems, the Java developer.
Java	A programming language developed by Sun Microsystems, in the U. S. A. Low dependent on models and OSES and runs on various platforms. Taking advantage of this feature, many applications that runs on web servers uses Java. The MEAP platform uses J2ME - a type of Java.
JavaScript	A script language developed by Netscape Communications, in the U.S. A., runs on web browsers such as Netscape Navigator and Internet Explorer. Allows web designers to create interactive pages with HTML files such as animated buttons and display of timetables.
Java VM (Java Virtual Machine)	JAVA Virtual Machine. The Java byte code interpreter. The Virtual Machine acts as an interpreter for processing the byte code using the native instruction set.
License Access Number	A number issued for accessing license file. The Licensing server requires entries of application ID, expiration date/times information, and the number of access numbers, to issue license access numbers
Licensae File	A software manufacture of a MEAP application provides the users with the license files. Specifies the terms of agreement that a user concludes with the manufacturer. Required for installing a MEAP application.
LMS (License Management System)	The license is required for installing a MEAP application in a MEAPenabled iR device. LMS is the server issuing [License Files] as well as license access numbers.
Login Service	Manages user information of MEAP device. Authenticates users with user names and passwords. Three login services are available for MEAP device - Default Authentication, which provides department ID control, SDL (Simple Device Login) and SSO (Single Sign-On).
Mass Storage class	Mass Storage means a storage device with large capacity, generally secondary storage devices. Mass Storage class means USB class classified in the secondary storage device group.
MEAP (Multifunction Embedded Application Platform)	Multifunctional Embedded Application Platform. Provides an environment for executing application programs on a peripheral device. Uses the Java platform (J2ME - Java 2 platform Micro Edition) to run Java application for MEAP.
MEAP Contents	Required to install an MEAP application to a MEAP device.

Terms & Acronyms	Definitions and Explanations
MEAP Specifications (MEAP Spec Version)	MEAP Spec Version, the term used for the SDK. The version number that shows the APIs of the MEAP platform other than CPCA, such as network and security. The version number is not assigned for each device model. MEAP Application Runs on MEAP platform. Consists of application files (*.jar) and the license file (*.lic).
MEAP-enabled iR device	imageRUNNER (iR) devices with built-in MEAP platform.
MFP (Multi Function Peripheral)	Multi Function Peripheral. Peripheral device that supports more than one function, such as digital copier, printer, scanner, and fax.
OSGi (Open Service Gateway Initiative)	Open Service Gateway Initiative. See "http://www.osgi.org/".
Portal Service	The web portal to gain access to a MEAP-enabled device. This service has been integrated in Remote UI top page in iR ADVANCE series.
Protocol	A set of rules applied to data transmission procedures over network. Major communication protocols include: <ul style="list-style-type: none"> <li>• FTP: File Transfer Protocol. This is a communication protocol or protocol implemented commands to provide file transfer between a host and clients over TCP/IP network.</li> <li>• DHCP: An upward compatible protocol of BOOTP. This communication protocol allocates a dynamic IP address to each client machine upon communication startup on TCP/IP network and collects the allocated IP address when communication is completed. The server allocates one of multiple IP addresses and notifies the setup information to a client.</li> <li>• BOOTP: A communication protocol to automatically load setup information including IP address and a domain name from the server to a client on TCP/IP network.</li> <li>• RARP: A communication protocol to request IP address information via the network adaptor address (MAC address) of a client.</li> <li>• IPP: A communication protocol to execute remote printing between the print server and clients via Internet.</li> <li>• TCP/IP: A standard communication protocol required to access to Internet and other large-scale network.</li> </ul>
Proxy Server	Provides functions to store data fetched from remote servers. When a user request to display a web page that has been displayed and stored in the proxy, the proxy server read the stored data but does not access the remote server where the original page is present, for efficient access services. When a proxy server receives a URL from a PC, it searches the file in the cache and sends it to the PC if the requested file is found. If the requested file is not stored in the cache, it accesses the remote server of the URL to acquire the file and, at the same time, stores the acquired file in the cache so that the proxy server can quickly send the file at the next request.
Redistribution module	A built-in module of an application created with SDK. Applications without this module cannot work on MEAP platform.

Terms & Acronyms	Definitions and Explanations
SDK (Software Development Kit)	The kit containing information and tools required for software development.
Service	A functional unit or an application program working on MEAP platform. [Applications] are generally termed [Services] in Java world.
Servlet (Servlet Type Application)	A MEAP application type created in Java. This type of applications is designed to show user interface on the Web browser.
SMS (Service Management Service)	The web-base service to provide user interfaces for application life cycle management.
Socket	A virtual interface of an application for network communication. A user only needs to specify a socket as a unit of an address and a port from an application. This establishes the network connection for data transmission, eliminating complication related to detailed communication procedures.
SSO-H (Single Sign-On H)	Login service providing features of both local device authentication and domain authentication. The former is the method that iR device independently authorizes users; whereas the latter is that iR device links to the domain controller on the network in the Active Directory environment to authorize users.
Thread	A unit for program execution. A multi-task system allowing multiple programs to run concurrently assigns a memory space and other resources independently to each program, providing users with a feel as if only a program is running. At least one thread is generated upon a program generated.
URL (Uniform Resource Locator)	The method to denote Web page locations on Internet and the like. For instance, a URL on the Web is denoted as [http://www.w3.org/default.html]. [http] at the beginning means that an address following this is in a web page on the Internet.
USB	Abbreviation of Universal Serial Bus. This is the interface standard to link between information devices.
USB system driver	The general-purpose driver that control the behavior of the device, there are HID class driver, Mass Storage class driver and so on.

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## Option for exclusive individual measure

### Display Setting of Copy Icon (level2)

Make a setting as to whether to display/hide the copy screen (copy tab) on the control panel.  
This is the specification for users who want to customize hiding it on control panel.

Default value

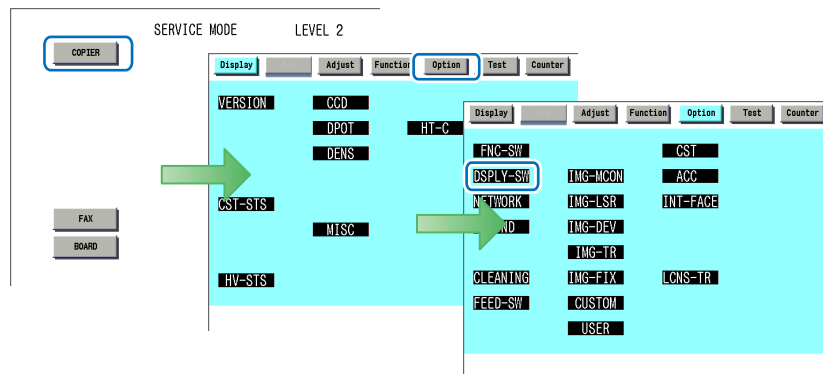
1: display

Setting range, item

0: hide 1: display

### Setting Procedure

- 1) Start [SERVICE MODE] in Level 2.
- 2) Press [COPIER] > [Option] > [DSPLY-SW] button.



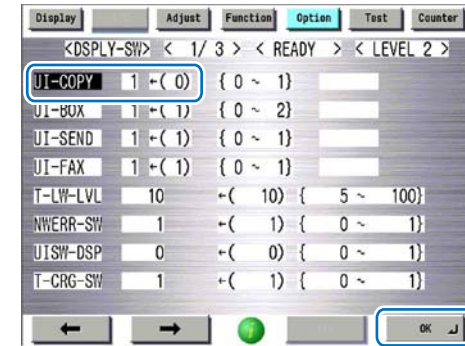
F-2-356

- 3) Press [UI-COPY].



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- 4) Press either 0 (hide) or 1 (display) on control panel (the numerical value input in the field is displayed), and press [OK] button.



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- 5) Check to see that it is reflected in setting field, and restart the device.



## ■ Error at starting up the MEAP application/Setting to hide JAM screen (level 2)

In the case that operation is restricted by MEAP application, hide the warning screen of error/JAM (such as JAM screen, door opening, no-toner). In the case that these errors occur, there will be a display indicating 'call the service personnel' etc.

### Note:

Part of the warning screens is displayed if shifting to the device screen.

- As for the screens for jam and no-toner, the warning screen (animation) can be displayed by pressing the followings: [Device Screen] > [Recovery Procedure]
- As for the screen for door opening, the warning screen cannot be displayed because there is no display for [[Device Screen] > [Recovery Procedure]

### Default value

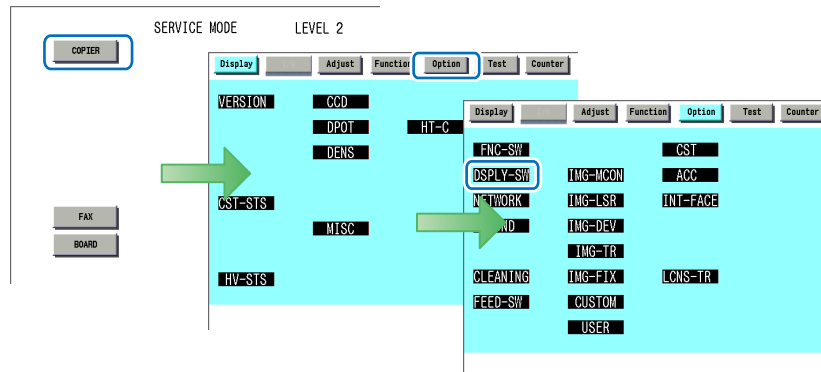
1: No activation of warning display

### Setting range, item

0: display warning screen 1: hide warning screen

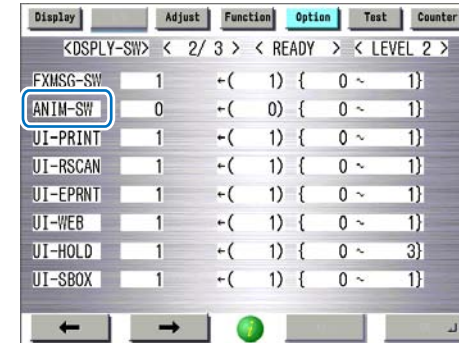
## ● Setting Procedure

- 1) Start [SERVICE MODE] in Level 2.
- 2) Press [COPIER] > [Option] > [DSPLY-SW] button.



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- 3) Press [ANIM-SW] button.



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- 4) Press either 0 (display warning screen) or 1 (hide warning screen) on control panel (the numerical value input in the field is displayed), and press [OK] button.



F-2-361

- 5) Check to see that it is reflected in setting field, and restart the device.

## Embedded RDS

### Product Overview

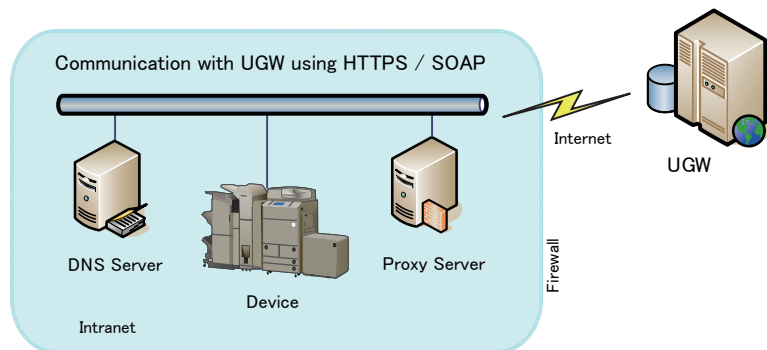
#### Overview

Embedded RDS (hereafter, referred to as E-RDS, which stands for EMBEDDED-RDS) is a network module embedded with a customer's device and enables e-Maintenance / imageWARE Remote (Remote Diagnosis System), which can collect and transmit status changes, counter values, error logs, and consumable information such as the toner low/ out of the device to a remote maintenance server called UGW (Universal Gateway Server) via Internet.

The following device information/ status can be monitored.

- Service mode counter (Billing counts)
- Global click counter
- Parts counter
- Mode counter
- Firmware info
- Environment log
- Service call error log
- Jam log
- Alarm log
- Status changes (Toner low/ out, etc.)

Since high confidentiality is required for the information shown above, it performs communication between a device and a server using HTTPS/SOAP protocol.



The e-Maintenance/ imageWARE Remote system using E-RDS

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#### Features and benefits

E-RDS embedded with a network module in advance can realize a front-end processing of e-Maintenance/ imageWARE Remote system without attaching any extra hardware equipment.

#### Major Functions

##### Service Call Button

If a user touches Service call button when corrupt image, paper jam, or/and other problems has occurred, E-RDS generates an alarm and notifies it to UGW.

Moreover, E-RDS also notifies cancellation and the completion of the request

##### Service Browser

Service browser is a web browsing functionality only for service persons in charge, and is used for referring to the FAQ contents which is connected to UGW.

To grasp a device of which service browser has been enabled, E-RDS sends browser information to UGW in the following cases.

- When the service browser is enabled in the condition where it had been disabled (OFF)
- When a license for Web Browser option is entered / transferred

##### Service mode menu Transmission

E-RDS sends the target service mode menu data to UGW in the following cases.

- When a specific alarm and service call error are detected
- When the setting for [COPIER] > [ADJUST] data is changed by the Service mode menu
- When a communication test is executed for the first time (when no Service mode data has been sent)

## Limitations

### Service Mode Menu Transmission Function

- 1) At the time of transmission when an alarm / service call error is detected, even if the alarm log or service call log detected is the target code for service mode menu transmission, transmission of service mode menu data is not performed in the following cases.
  - An alarm log or service call log which has been detected by E-RDS as an unsent log at the time of power-on
  - An alarm log or service call log waiting for retry after its transmission failed
  - When service mode menu transmission (when an alarm log or service call error was detected) failed
  - Service mode menu data of which processing for acquisition has been already performed when an alarm or service call error subject to service mode menu transmission occurred
  
- 2) When an alarm / service call error occurred continuously AND when time correction / change was performed to the device main unit during the target log transmission processing, a link number may be applied to the old log although it should be applied to the new log.
  
- 3) Transmission of the data of changes made in service mode menu settings is not performed instantly, but performed when a specified period of 60 minutes elapse after the change of service mode menu settings is detected or when a communication test is performed at the time of power-on. (There is a time lag.)
  
- 4) When service mode menu settings ([COPIER] > [ADJUST]) are made, transmission is performed even when no change is made in the target data to be transmitted. Transmission of service mode data is also performed when changes are made in the service mode setting value not subject to transmission (items other than Level 1, 2) or when settlement of a value is performed without changing the setting value.
  
- 5) When a communication test is performed for the first time in the condition where the service mode menu transmission function is set to ON, service mode menu transmission is included in the communication test, and it therefore takes longer time until results are displayed than the communication test performed in the condition where the function is set to OFF because acquisition / transmission of service mode menu data are performed.

## Service cautions

- 1) After performing the following service actions, it is necessary to perform initializing E-RDS settings : [SERVICE MODE] > [COPIER] > [Function] > [CLEAR] > [ERDS-DAT] and communication test : [SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [COM-TEST]. Failure to do so will result that the counter transmitting value to the UGW may become unusual.
  - System upgrade
  - HDD format and system installation
  - [SERVICE MODE] > [COPIER] > [Function] > [CLEAR] > [MN-CON]  
: RAM clear of MNCON PCB SRAM Board
 Also, after replacing the main controller board, all settings must be reprogrammed.
  
- 2) The following settings in service mode must not be change unless there are specific instructions to do so. Changing these values will cause error in communication with UGW.
  - Set port number of UGW  
[SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [RGW-PORT]  
Default : 443
  
  - URL setting of UGW  
[SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [RGW-ADR]  
Default : <https://a01.ugwdevice.net/ugw/agentif010>

## E-RDS Setup

### Confirmation and preparation in advance

To monitor a device with e-Maintenance/ imageWARE Remote, the following settings are required.

#### (1) Advance confirmation

Confirm with the UGW administrator that the device to be monitored with e-Maintenance/ imageWARE Remote is registered in the UGW.

#### (2) Advance preparations

Interview the user's system administrator in advance to find out the following information about the network.

##### Information item 1

IP address settings

- Automatic setting : DHCP, RARP, BOOTP
- Manual setting : IP address, subnet mask and gateway address to be set

##### Information item 2

Is there a DNS server in use?

If there is a DNS server in use, find out the following.

- Primary DNS server address
- Secondary DNS server address

##### Information item 3

Is there a proxy server?

If there is a proxy server in use, find out the following.

- Proxy server address
- Port No. for proxy server

##### Information item 4

Is proxy server authentication required?

If proxy server authentication is required, find out the following.

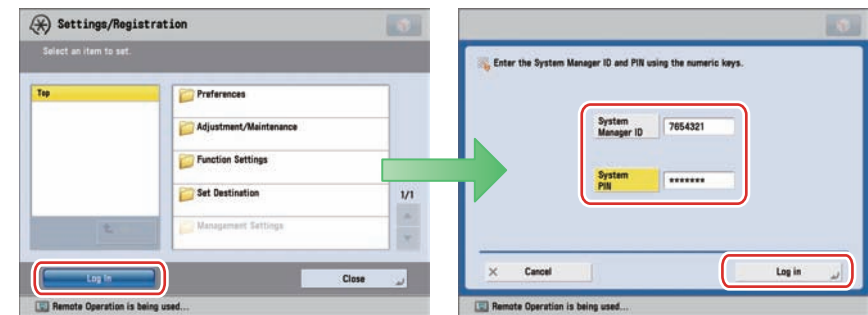
- User name and password required for proxy authentication

#### (3) Network settings

Based on the results of the information obtained in (2) Advance preparations, make the iR device network related settings in accordance with the following procedures.

##### 1) Displaying the Settings / Registration screen

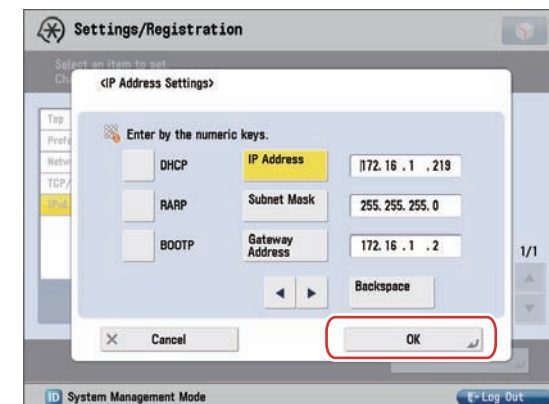
1. Touch the [Settings / Registration (User Mode)] button.
2. When a system management department ID and system management password are set up, touch the [Log In] button and enter the system management department ID and password to perform a log-in.



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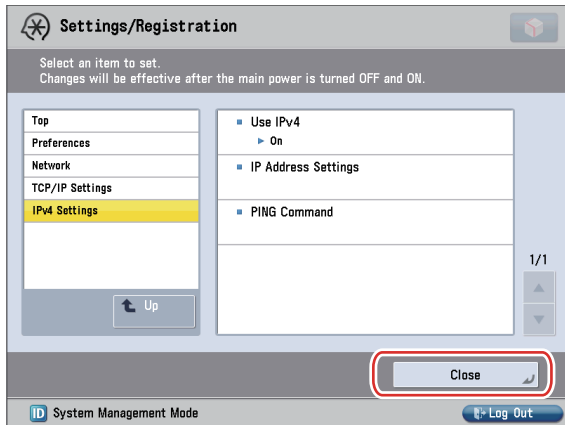
##### 2) Setting IP address-related items

1. Touch the [Preferences] > [Network] > [TCP/IP Settings] > [IPv4 Settings] > [IP Address Settings] buttons.
2. Set the IP address based on the result obtained in Information item 1 under "(2) Advance preparations", and touch the [OK] button.
  - For automatic acquisition, select from [DHCP], [RARP], [BOOTP].
  - For manual setting, set the IP address, subnet mask and gateway address.



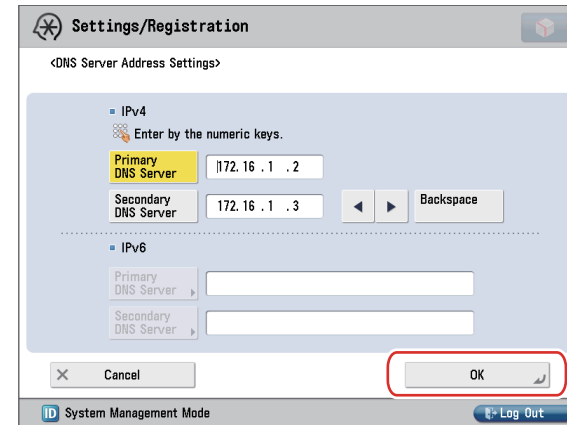
F-2-364

3. When DNS settings and proxy settings are not made, touch the [Close] button to reboot the device.



F-2-365

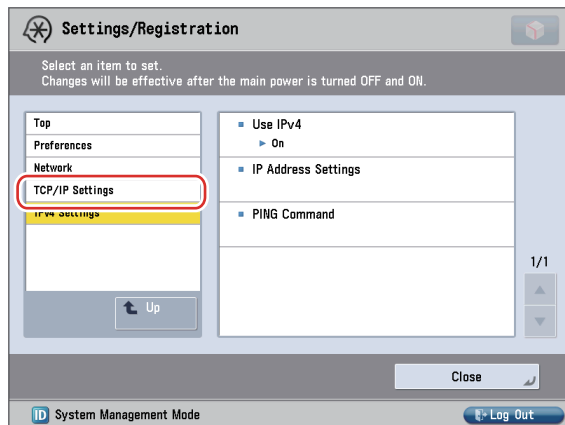
3. Set the DNS server address based on the result obtained in Information item 2 under "(2) Advance preparations", and touch the [OK] button.
- Select [Primary DNS Server] and make settings.
  - When the secondary DNS server is installed, select [Secondary DNS Server] and make settings.



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### 3) DNS Settings

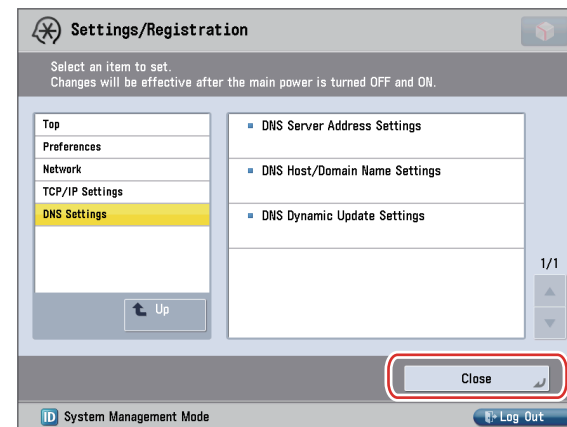
1. Select [TCP/IP Settings] from breadcrumbs of the left columns, and then Touch it.



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2. Touch the [TCP/IP Settings] > [DNS Settings] > [DNS Server Address Settings] buttons.

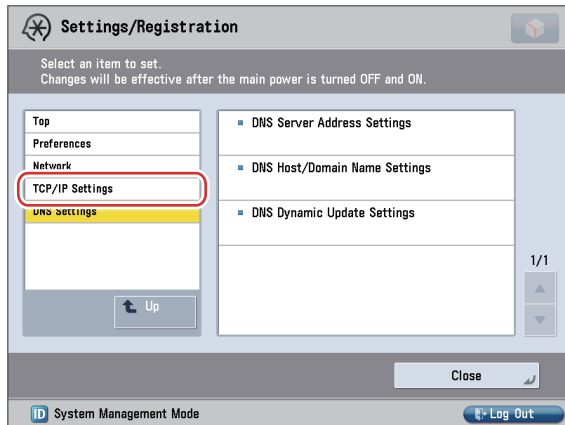
4. When proxy settings are not made, touch the [Close] button to reboot the device.



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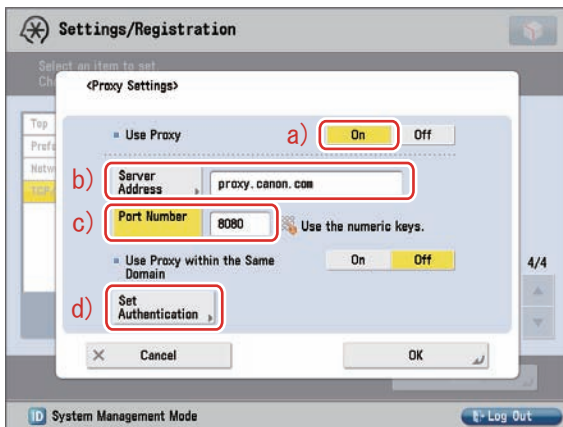
## 4) Proxy Settings

1. Select [TCP/IP Settings] from breadcrumbs of the left columns, and then Touch it.



F-2-369

2. Touch the [TCP/IP Settings] > [Proxy Settings].
3. Set the proxy server based on the result obtained in Information item 3 under "(2) Advance preparations".
  - a) Use Proxy to [On].
  - b) Enter the server address.
  - c) Enter port Number (Validation: 1 to 65,535).

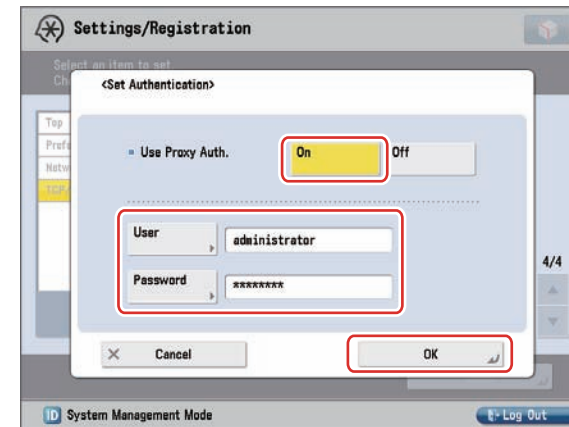


F-2-370

- d) If proxy server authentication is required, Touch [Set Authentication].(see figure above)

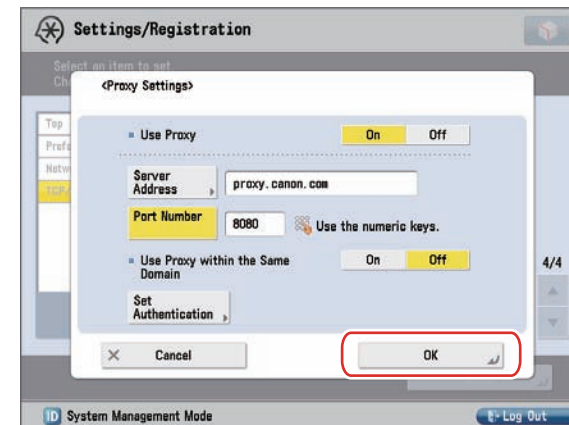
- e) Set the following items based on the result obtained in Information item 4 under "(2) Advance preparations".

- Set Use Proxy Authentication to [On].
- Enter User name and Password, and touch the [OK] button.



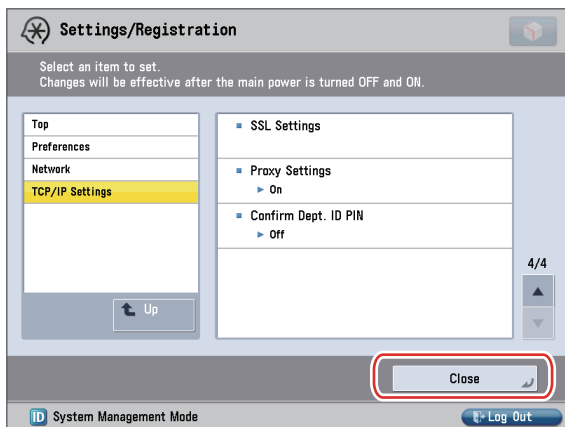
F-2-371

- f) Touch the [OK] button.



F-2-372

4. Touch the [Close] button.



F-2-373

5. Reboot the device.

**CAUTION:**

When changes are made to the above-mentioned network settings, be sure to reboot the device.

## E-RDS-related setting items

### E-RDS setting items

Item	Description
E-RDS ([Lv.1] COPIER > Function > INSTALL)	Set use/no use of E-RDS function 0: Function not used / 1: Function used e-Maintenance/ imageWARE Remote system to send device information, counter data, error statuses to the UGW. Default : 0 (Function not used)
RGW-ADR ([Lv.1] COPIER > Function > INSTALL)	URL setting of UGW Max 128 characters Default : https://a01.ugwdevice.net/ugw/agentif01
RGW-PORT ([Lv.1] COPIER > Function > INSTALL)	Set port number of UGW Validation : 1 to 65535 Default : 443
COM-TEST ([Lv.1] COPIER > Function > INSTALL)	Execution of a communication test with UGW / Display of the result Perform Communication test with UGW and set "OK!" or "NG!" as the result.
COM-LOG ([Lv.1] COPIER > Function > INSTALL)	Display of detailed information about a communication error with UGW Error information of a connection failure with UGW is displayed. Error occurrence date and time, error code, and detailed error information are displayed. Max 30 latest loggings retained Max 128 characters for Error information.
ERDS-DAT ([Lv.1] COPIER > Function > CLEAR)	Initialization of E-RDS SRAM data
CA-KEY ([Lv.2] COPIER > Function > CLEAR)	Initialization of CA certificate When the power is turned OFF/ON after execution, the CA certificate in the factory setting is automatically installed.

T-2-117

## SERVICE CALL BUTTON setting items

Item	Description
SCALL-SW ([Lv.1] COPIER > Option > USER)	Display/hide of repair request button 0: Hide / 1: Display To set whether to display or hide the repair-request button on the Control Panel. Default : 0 (Hide)
SCALLCMP ([Lv.1] COPIER > Option > USER)	Set of repair request complete notice When this item is set (when [OK] is touched regardless of whether 0 or 1 is set), service call completion is notified to UGW and the service call status retained internally is cleared. Default : 0

T-2-118

## SERVICE BROWSER setting items

Item	Description
BRWS-ACT ([Lv.1] COPIER > Function > INSTALL)	Execution of activation / inactivation of service browsing Browsing info is sent to UGW when OFF (BRWS-ACT=0) is changed to ACTIVE. Setting result is displayed as "OK!" or "NG!".
BRWS-STS ([Lv.1] COPIER > Display > USER)	Display of Service Browser use status 0: OFF / 1: Active / 2: Suspend Default : 0 (OFF)

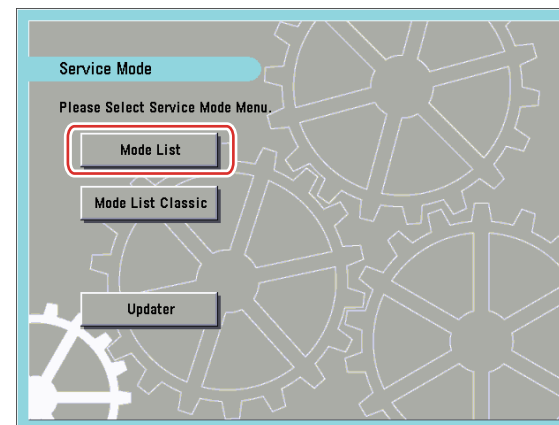
T-2-119

### NOTE:

Generally, once service browsing is enabled, it cannot be disabled again.  
To disable service browsing, clear SRAM.


## Steps to E-RDS settings

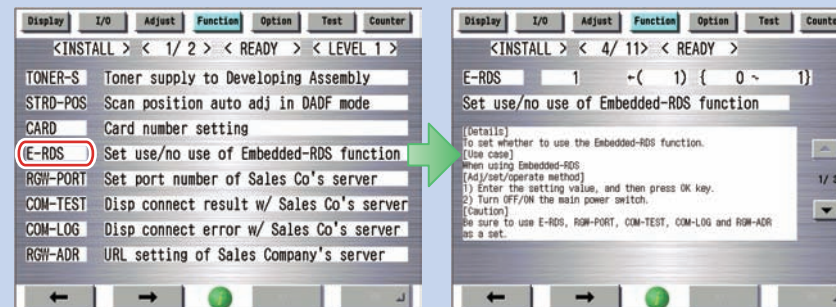
- Start [Service Mode] at Level 1.
  - Press [Settings/Registration (User Mode)] button on the control panel.
  - Press [2] and [8] buttons at a time on the control panel.
  - Press [Settings/Registration (User Mode)] button on the control panel.
  - [Service Mode] screen is shown. Touch the [Mode List] button.



F-2-374

### NOTE:

When [Mode List] is selected, touching the  button at the center of the lower side of the screen displays explanation of each item or detailed operation guide.  
In case of [Mode List Classic], this button is not appeared.



F-2-375



2. Select [COPIER] > [Function] > [CLEAR] > [ERDS-DAT] and touch the [OK] button.

This operation initializes the E-RDS settings to factory setting values.

For the setting values to be initialized, see the section of “Initializing E-RDS settings”.



F-2-376

3. Perform installation or deletion of the CA certificate if necessary, and reboot the device.

- Installation of the CA certificate: Perform installation from SST.
- Deletion of the CA certificate: When the following operation is performed, the CA certificate in the factory setting is automatically installed.

(1) Start [Service Mode] at Level 2.

- 1) Press [Settings/Registration (User Mode)] button on the control panel.
- 2) Press [2] and [8] buttons at a time on the control panel.
- 3) Press [Settings/Registration (User Mode)] button on the control panel.
- 4) Touch the [Mode List] button on the [Service Mode] screen.
- 5) Press [Settings/Registration (User Mode)] button on the control panel.
- 6) Press [2] button on the control panel.

(2) Select [COPIER] > [Function] > [CLEAR] > [CA-KEY] and touch the [OK] button.

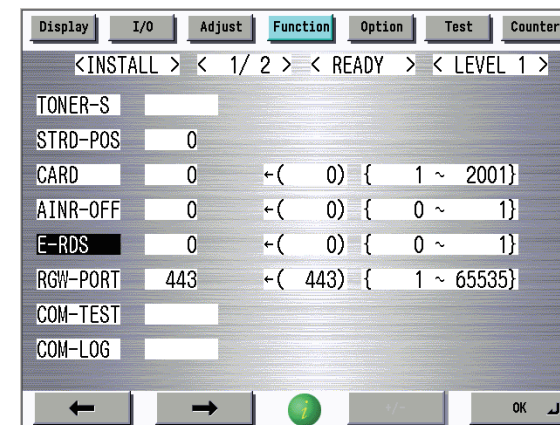


F-2-377

(3) Reboot the device.

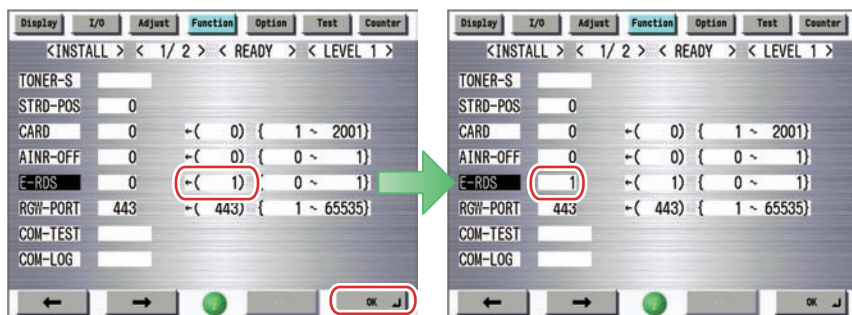
4. Activate [SERVICE MODE] in LEVEL 1. (See 1. for the procedure.)

5. Select [COPIER] > [Function] > [INSTALL] > [E-RDS].



F-2-378

6. Touch the numeric button [1] on the control panel (the setting value is changed to 1) and touch the [OK] button. (The data is reflected to the setting value field.)



F-2-379

#### CAUTION:

The following settings i.e. RGW-PORT and RGW-ADR in Service mode must not be changed unless there are specific instructions to do so.

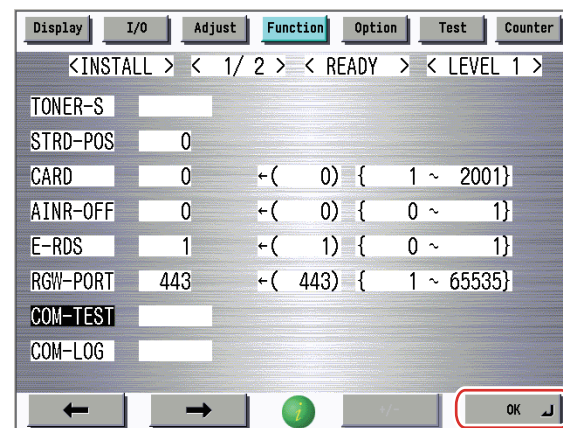
Changing these values will cause error in communication with UGW.



F-2-380

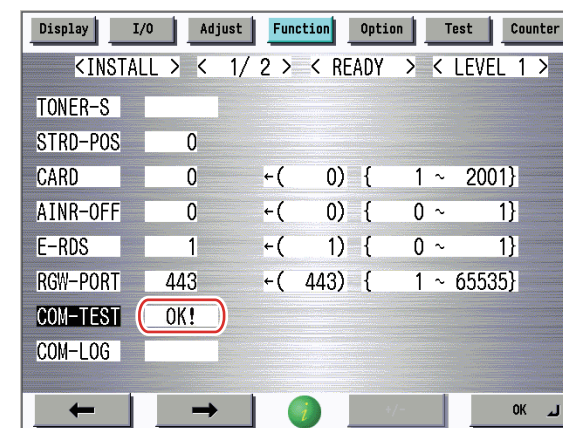
7. Select [COM-TEST] and then touch [OK].

This initiates the communication test between the device and the UGW.



F-2-381

If the communication is successful, "OK!" is displayed. If "NG!" (failed) appears, refer to the "Troubleshooting" and repeat until "OK!" is displayed.



F-2-382

#### NOTE:

The communication results with UGW can be distinguished by referring to the COM-LOG. By performing the communication test with UGW, E-RDS acquires schedule information and starts monitoring and meter reads operation.

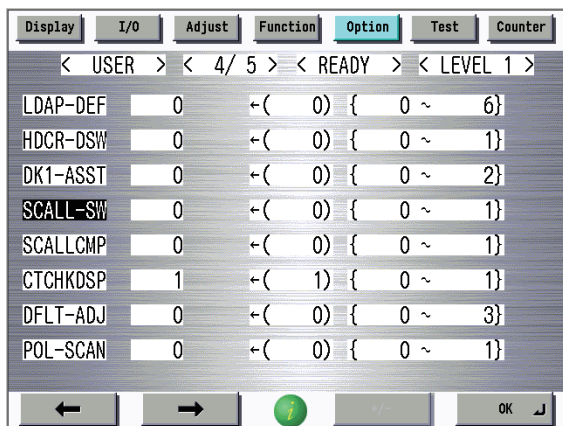
## Steps to Service Call button settings

### Settings to display the service call button

1. Start [Service Mode] at Level 1.

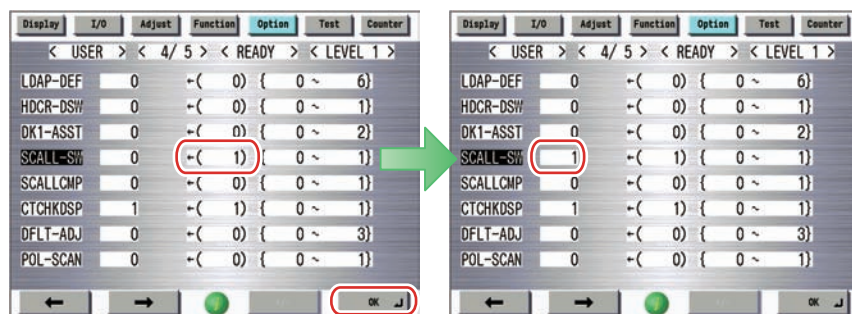
For the procedures, see “Steps to E-RDS settings - step 1.”.

2. Select [COPIER] > [Option] > [USER] > [SCALL-SW].



F-2-383

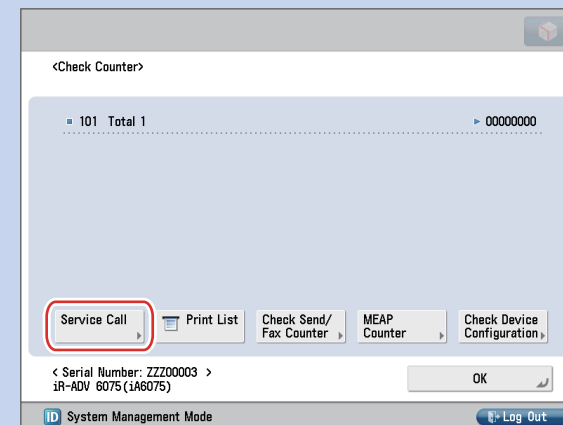
3. Touch the numeric button [1] on the control panel (the setting value is changed to 1) and touch the [OK] button. (The data is reflected to the setting value field.)



F-2-384

#### NOTE:

When the function is enabled, the [Service Call] button is displayed on the bottom of the counter check screen (displayed by touching the counter check button).



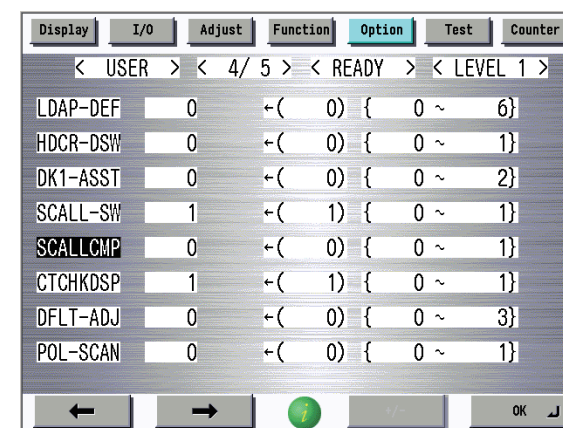
F-2-385

### Steps for settings of service call completion

1. Start [Service Mode] at Level 1.

For the procedures, see “Steps to E-RDS settings - step 1.”.

2. Select [COPIER] > [Option] > [USER] > [SCALLCMP].

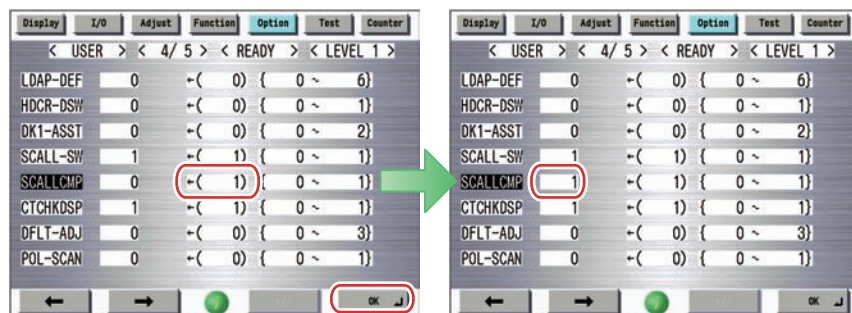


F-2-386

- Touch the numeric button [1] or [0] on the control panel (the setting value is changed to 1 or 0) and touch the [OK] button. (The data is reflected to the setting value field.)

**NOTE:**

E-RDS generates an alarm of service call completion at this timing, and sends the alarm to UGW.



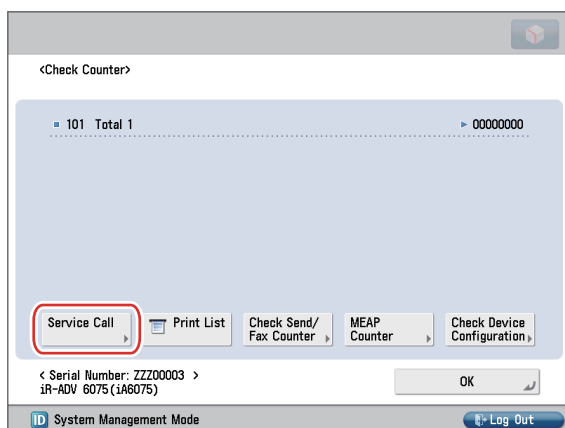
F-2-387

**NOTE:**

In the current condition, touching the [OK] button completes the service call regardless of whether 0 or 1 is set.

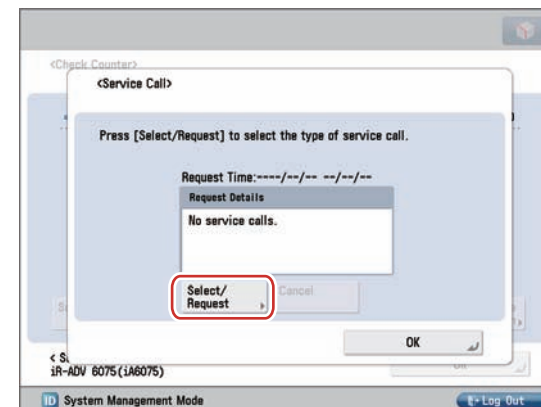
## ● Steps for service call settings

- Touch the [Counter Check] button on the control panel to display the counter check screen, and touch the [Service Call] button.



F-2-388

- Touch the [Select/ Request] button.



F-2-389

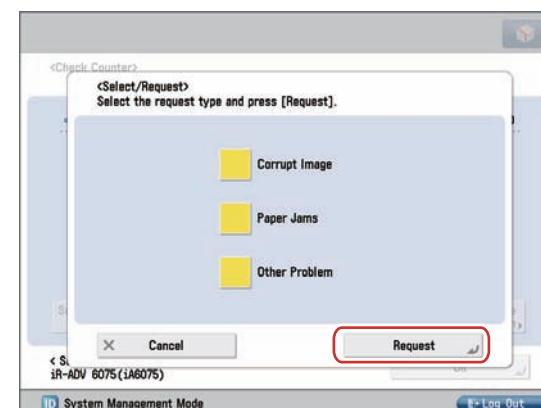
**CAUTION:**

When a service call has been already requested, another service call cannot be sent. The previous service call needs to be canceled, or a service person needs to perform processing for service call completion.

- Select the request details and touch the [Request] button.

**NOTE:**

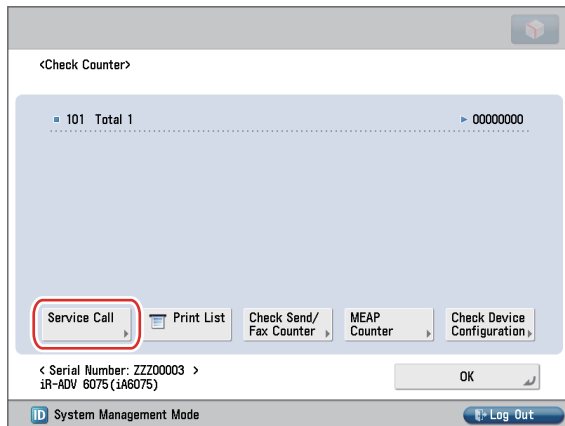
E-RDS generates an alarm of service call request at this timing, and sends the alarm to UGW.



F-2-390

## Steps for settings of service call cancellation

1. Touch the [Counter Check] button on the control panel to display the counter check screen, and touch the [Service Call] button.

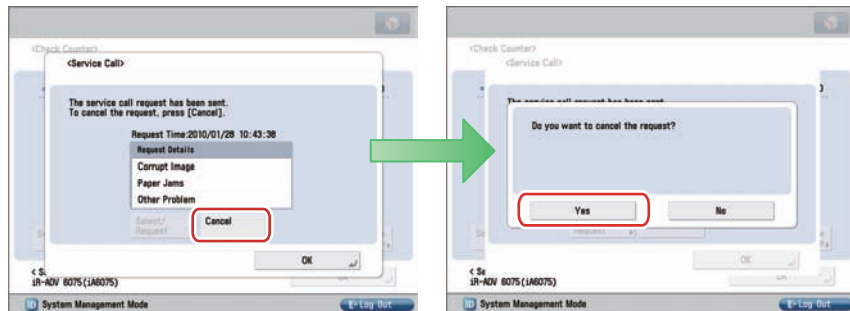


F-2-391

2. Touch the [Cancel] button, and touch the [Yes] button in the check screen.

### NOTE:

E-RDS generates an alarm of service call cancellation at this timing, and sends the alarm to UGW.



F-2-392

## Steps to Service Browser settings

1. Start [Service Mode] at Level 1.  
For the procedures, see "Steps to E-RDS settings - step 1."
2. Select [COPIER] > [Function] > [INSTALL] > [BRWS-ACT] and then touch [OK].

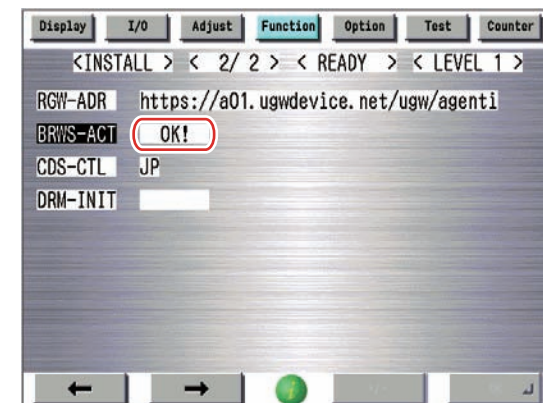
### NOTE:

E-RDS sends browser information to UGW at this timing.



F-2-393

If the connection is established with UGW successfully, "OK!" is displayed. When "NG!" is displayed, perform the steps referring to "Troubleshooting" until connection is established with UGW.



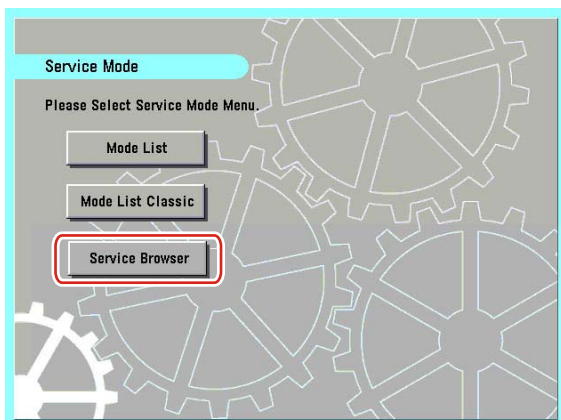
F-2-394

3. Reboot the device.
4. Make sure that "1 (: ACTIVE)" is set under [COPIER] > [Display] > [USER] > [BRWS-STX].



F-2-395

5. When the above-shown setting values are enabled, [Service Browser] is displayed in the Service Mode screen.



F-2-396

## ■ Initializing E-RDS settings

It is possible to return E-RDS Settings to factory-shipments value.

### ● Initialization procedure

1. Start [Service Mode] at Level 1.  
For the procedures, see "Steps to E-RDS settings - step 1."
2. Select [COPIER] > [Function] > [CLEAR] > [ERDS-DAT] and then touch [OK].



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### ● Setting values and data to be initialized

The following E-RDS settings, internal data, and Alarm filtering information are initialized.

- COPIER > Function > INSTALL > E-RDS
- COPIER > Function > INSTALL > RGW-ADR
- COPIER > Function > INSTALL > RGW-PORT
- COPIER > Function > INSTALL > COM-LOG

#### CAUTION:

In case of replacing the CA certificate file, even if initialization of E-RDS is executed, the status is not returned to the factory default.

When installing the certificate file other than the factory default CA certificate file, it is required to delete the certificate file after E-RDS initialization and install the factory default CA certificate file.

For detailed procedures, see "Steps to E-RDS settings - step 3."

## FAQ

### No.1

Q: In what case does a communication test with UGW fail?

A: The following cases can be considered in the becoming case.

1. Name resolution was failed due to an incorrect host name or DNS server has been halted.
2. Network cable is blocked off.
3. Proxy server settings is not correct.

### No.2

Q: Let me know the interval of data transmitting from E-RDS to the UGW, and what data size is sent to the UGW?

A: The schedule of data transmitting, the start time are determined by settings in the UGW side. The timing is once per 16 hours by default, and counter data volume could be maximum 250 bytes.

### No.3

Q: Some part of information seems to be suppressed as screens passes: Settings/Registration > Preferences > Network > TCP/ IP Settings, when the device is connected with a PS server unit. How the authentication information such as CA certificate is dealt?

A: Although the device's been connected with the PS server unit, the data of the e-Maintenance/ imageWARE Remote system is able to pass through to the PS server unit. Therefore the e-Maintenance/ imageWARE Remote system functions normally even if the PS server unit is connected.

The screen of IP Address settings is disabled though, the item related to authentication can be enabled.

### No.4

Q: Does error-retry carry out at the time of a communication error with the UGW?

A: The retry of SOAP communication is performed as follows.

- As for postAlert data, three times of data which failed transmitting to the UGW can be stored in RAMDISK and will be resent at the predetermined interval. When forth error occurred continuously, its data is stored in the HDD after eliminating the oldest data. The retry data will be sent at interval of 5 \* n minutes. (n: retries, 5, 10, 15minutes...up to 30 min)
- As to postJamLog, postServiceCallLog and postAlarmLog, these retries depend on the CPCA data which saved internally. Therefore if the data remains, these retries will be done.

- When a SOAP transmission error occurs to postServiceModeMenu (only when settings are changed), service mode menu data is obtained and transmitted for every retry.
- When a SOAP transmission error occurs to postBrowserInfo (only when the license status is changed in the Web browser option), browser information is saved in retry information and the data is transmitted at the time of retry. However, when rebooting a device for which retry information is being set, browser information is again obtained and transmitted. In any cases, a retry is performed at interval of 5\*n minutes (n: retries, 5, 10, 15 minutes) up to 30 minutes.

### No.5

Q: How many log-data can be stored?

A: Up to 30 log data can be accumulated. The data size of error information is maximum 128 bytes.

### No.6

Q: Although Microsoft ISA as a proxy server is introduced, the authentication check is failed. Can E-RDS adopt with Microsoft ISA?

A: "Integrated" authentication is used for Microsoft ISA though, E-RDS must comply with "Basic". Therefore if you can change to "Basic" authentication on the server, the authentication with E-RDS can be done.

### No.7

Q: Can I turn the device power off during the e-Maintenance/ imageWARE Remote system operation?

A: While operating the e-Maintenance/ imageWARE Remote system, the power of the device must be ON. If power OFF is needed, do not leave the device power OFF for long time. It will become "Device is busy, try later" errors if the power supply of network equipment such as HUB is made prolonged OFF.

### No.8

Q: Although a Service call error may not be notified to UGW, the reason is what?

A: If a service technician in charge turns off the power supply of a device immediately after error occurred once, It may be unable to notify to UGW because data processing does not take a time from the controller of the device to NIC though, the data will be saved on the RAM.

If the power supply is blocked off while starting up, the data will be inevitably deleted.

## No.9

Q: How does E-RDS operate while the device is placed in the sleep mode?

A: While being in Real Deep Sleep, and if data to be sent is in E-RDS, the system wakes up asleep, then starts to send the data to the UGW. The system also waits for completion of data transmission and let the device to shift to asleep status again.

However, transition time to the Real Deep Sleep depends on the device, and the transition to sleep won't be done if the next data transmission will be done within 10 minutes.

## No.10

Q: Is E-RDS compatible with Section counter (Department counter)?

A: No, E-RDS does not support Section counter.

## No.11

Q: Is there any setting to be made on the device side to enable the service mode menu transmission function? Moreover, what is Service mode menu set as the object of transmission?

A: No steps peculiar to Transmitting Service mode menu.

Following Service mode data will be sent to UGW at each event mentioned below.

Transmission timing	Transmitting data			Error retry			
When the following alarm is detected.  Alarm codes for transmission: 0x060002, // Fixing 0x060004 - 0x069999, // Fixing 0x090005 - 0x099999, // Dram 0x100006 - 0x109999, // Development 0x300001 - 0x309999 // High voltage	COPIER	DISPLAY	ANALOG	No			
HV-ST5							
CCD							
DPOT							
DENS							
FIXING							
SENSOR							
MISC							
HT-C							
HV-TR							
P-PASCAL							
When the following service call error is detected.  Error codes for transmission: E000 - E00F, // Fixing E020, // Development ATR E060 - E06F // High voltage			COPIER		DISPLAY	ANALOG	No
HV-ST5							
CCD							
DPOT							
DENS							
FIXING							
SENSOR							
MISC							
HT-C							
HV-TR							
P-PASCAL							

Transmission timing	Transmitting data			Error retry
When a value is set to [COPIER - ADJUST] subordinate's Service mode menu. (Transmission will be done at 60 min, later of setting)	COPIER	ADJUST		Yes
When the first communication test is done.	COPIER	DISPLAY	ANALOG	No
			HV-ST5	
			CCD	
			DPOT	
			DENS	
			FIXING	
			SENSOR	
			MISC	
			HT-C	
			HV-TR	
			P-PASCAL	
		ADJUST		

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## NOTE:

Target transmission data are only the items under LEVEL1 and 2 in the service mode.

## No.12

Q: What service browser data is transmitted to UGW by E-RDS in what timing?

A: The service browser data to be transmitted and the transmission timing are shown below.

Transmission timing	Detailed procedure	Transmission information	Error occurs
When operation is performed to enable service browsing*  (Only when the operation to enable service browsing is performed in the condition where [disabling:OFF] is set)	1) Make service browser settings in the service mode menu. 2) Send browser information to UGW. 3) When OK is received from UGW, set "enabling: 1: Active". (To use the setting, it is necessary to reboot the device)	Service browser mode: [Register]  WEB browser option: [ON] or [OFF] according to the license status	Retransmission is not performed. The service browser mode is not enabled.  ("Disabling [OFF]" continues to be set.)



Transmission timing	Detailed procedure	Transmission information	Error occurs
When the Web browser option license is entered / transferred  (However, the case when "disabling of service browser [OFF]" is set is excluded)	1) When the power is turned ON, check the license condition of the WEB browser option. 2) Send browser information to UGW when the license status is OFF=>ON due to entry of a license or when it is ON=>OFF due to license transfer.	Service browser mode: Enabling [Active] or Stopping [Suspend]  WEB browser option: [ON] or [OFF] according to the license status	Retransmission is repeated until it finishes successfully.

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\* For detailed procedures, see "Steps to Service Browser settings".

## Troubleshooting

### No.1

#### Symptom: A communication test (COM-TEST) results NG!

Cause: Initial settings or network conditions is incomplete.

Remedy1: Check and take actions mentioned below.

#### 1) Check network connections

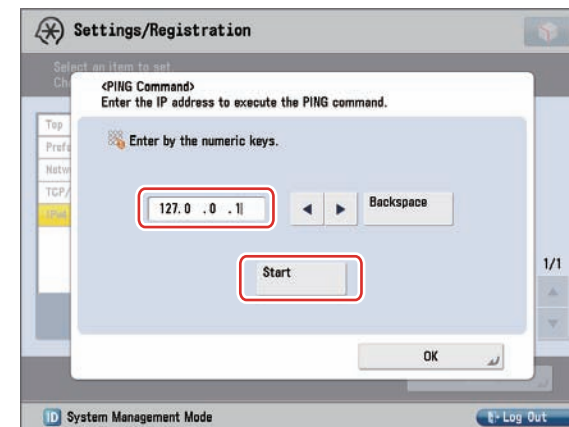
Is the status indicator LED for the HUB port to which the main unit is connected ON?

YES: Proceed to Step 2).

NO: Check that the network cable is properly connected.

#### 2) Confirm loop back address

(a) Select [Settings / Registration (User Mode)] > [Preferences] > [Network] > [TCP/IP Settings] > [IPv4 Settings] > [PING Command], enter "127.0.0.1", and touch the [Start] button.

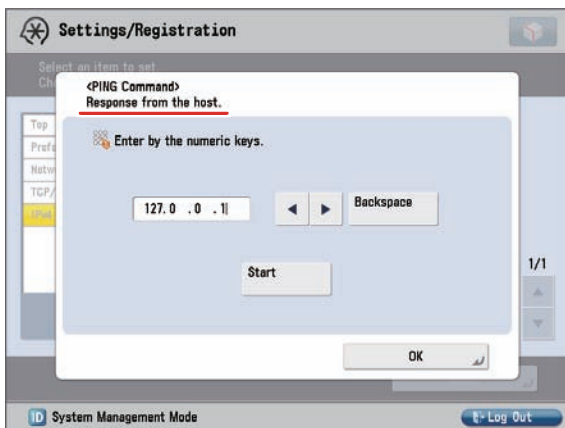


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Is the response from the host displayed? (see following figure)

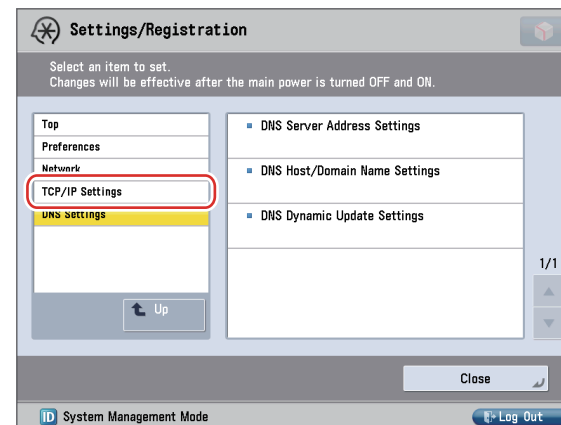
YES: Proceed to Step 3).

NO: There is a possibility that the main unit's network settings are wrong. Check the details of the IPv4 settings once more.



F-2-399

(b) Select [TCP/IP Settings] from breadcrumbs of the left columns, and then Touch it.



F-2-401

3) Confirmation from another PC connected to same network.

(a) Request the user to ping the main unit from a PC connected to same network.

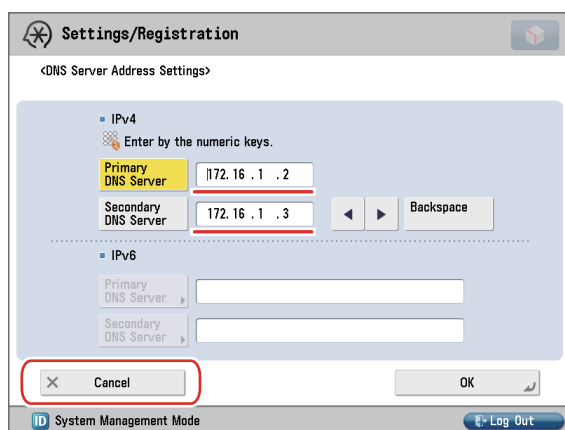
Does the main unit respond?

YES: Proceed to Step 4).

NO: Confirm the details of the main unit's IP address and subnet mask settings.

4) Confirm DNS connection

(a) Select [Settings / Registration (User Mode)] > [Preferences] > [Network] > [TCP/IP Settings] > [DNS Settings] > [DNS Server Address Settings], write down the primary and secondary addresses of the DNS server, and touch the [Cancel] button.



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(c) Select [TCP/IP Settings] > [IPv4 Settings] > [PING Command], enter the primary DNS server noted down in step a) as the IP address, and touch the [Start] button.

Is the response from the host displayed?

YES: Proceed to Remedy2.

NO: Enter the secondary DNS server noted down in step a) as the IP address, and then touch Start.

Is the response from the host displayed?

YES: Proceed to Remedy2.

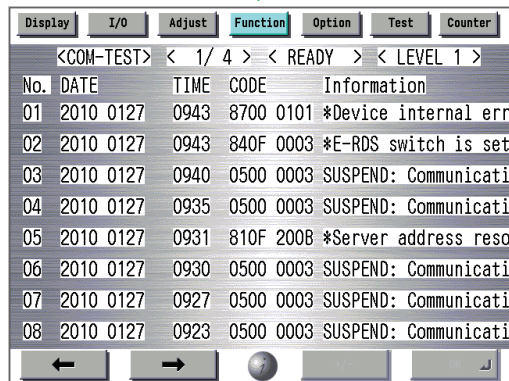
NO: There is a possibility that the DNS server address is wrong. Reconfirm the address with the user's system administrator.

## Remedy2: Troubleshooting using communication log

## 1) Start [Service Mode] at Level 1.

- 1) Press [Settings/Registration (User Mode)] button on the control panel.
- 2) Press [2] and [8] buttons at a time on the control panel.
- 3) Press [Settings/Registration (User Mode)] button on the control panel.
- 4) [Service Mode] screen is shown. Touch the [Mode List] button.

## 2) Select [COPIER] &gt; [Function] &gt; [INSTALL] &gt; [COM-LOG] and touch the blank field on the right side. The communication log list screen is displayed.

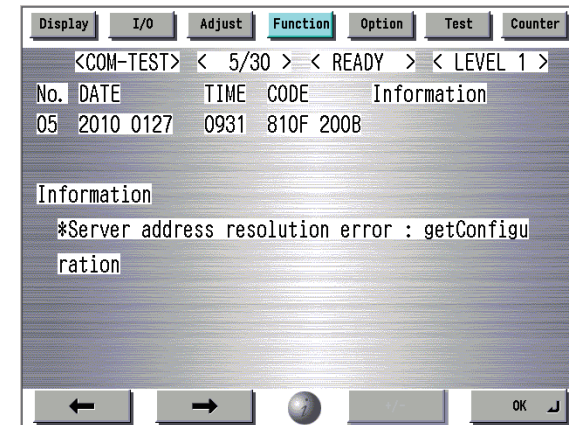


F-2-402

## NOTE:

- Only the initial part of error information is displayed in the communication log list screen.
- In the log, text strings that start with \* are communication test (COM-TEST) error logs.

## 3) When each line is selected, the communication log detailed screen is displayed as shown in the figure below. (Example: No.05)



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## NOTE:

- A detailed description of the error appears below 'Information'. (Max 128 characters)
- Touch the [OK] button to return to the log screen.

## 4) When a message is displayed, take an appropriate action referring to "Error code and strings".

## No.2

**Symptom:** A communication test results NG! even if network setting is set properly.

**Causes:** The network environment is inappropriate, or RGW-ADR or RGW-PORT settings for E-EDS have been changed.

**Remedy:** The following points should be checked.

- 1) Check network conditions such as proxy server settings and so on.
- 2) Check the E-RDS setting values.

- Check the communication log from COM-LOG.
- Check whether RGW-ADR or RGW-PORT settings has changed. If RGW-ADR or RGW-PORT settings has changed, restore initial values. For initial values, see "E-RDS setting items".

## No.3

**Symptom:** Registration information of an E-RDS is once deleted from the UGW server, and is re-registered after that. If a communication test is not performed, then device information on the UGW becomes invalid.

**Causes:** When registration of the E-RDS is deleted from the UGW, the status will be changed to that the communication test has not completed because related information has lost from a database.

So, device information will also become invalid if that condition will be left for seven days without performing the communication test.

**Remedy:** Perform a communication test before becoming the invalidity state.

## No.4

**Symptom:** There was a log, indicating "Device is not ready, try later" in error details of COM-LOG list.

**Cause:** A certain problem occurred in networking.

**Remedy:** Check and take actions mentioned below.

- 1) Check networking conditions and connections.
- 2) Turn on the power supply of a device and perform a communication test ([SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [COM-TEST]) about 60 seconds later.

## No.5

**Symptom:** "Unknown error" is displayed though a communication test has done successfully.

**Cause:** A certain problem was in the server side, or possibly a network load has been added.

**Remedy:** Try again after a period of time. If the same error persists, check the UGW status with a network and UGW administrator.

## No.6

**Symptom:** Enabling Service Browser (BRWS-ACT) results NG!

**Cause:** A communication test with UGW has not been performed, or a communication test result is NG!

**Remedy:** Perform a communication test ([SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [COM-TEST]), and check that the test with UGW finishes successfully.

## Error code and strings

The following error information is output in the communication error log details display screen. (Here, "a server" means UGW.)

For No.1 and No.2, only character strings of errors are displayed as error information.

The error information except above, these are displayed in the following form.

[\*] [Error strings] [Method name] [Error details provided by UGW]

\* : Error strings head "\*" is added to the error generated by the communication test.

No.	Code	Error strings	Cause	Remedy
1	0500 0003	SUSPEND: Communication test is not performed.	The communication test had not been performed, though E-RDS is enabled.	Perform a communication test (COM-TEST).
2	0xxx 00F2	Event Registration is Failed	Processing (event processing) within the device has failed.	Turn the device OFF/ ON. If the error persists, replace the device system software. (Upgrade)
3	8xxx 2001	URL Scheme error (not https)	The header of the URL of the registered UGW is not in https format.	Check that the value of URL of UGW (RGW-ADR) is https://a01. ugwdevice.net/ugw/agentif010.
4	8xxx 200A	Server connection error	<ul style="list-style-type: none"> <li>• TCP/IP communication fault</li> <li>• The IP address of device is not set.</li> </ul>	Check the network connection, as per the initial procedures described in the troubleshooting.
5	8xxx 2002	URL server specified is illegal	A URL different to that specified by the UGW has been set.	Check that the value of URL of UGW (RGW-ADR) is https://a01. ugwdevice.net/ugw/agentif010.
6	8xxx 2014	Proxy connection error	Could not connect to proxy server due to improper address.	Check proxy server address and re- enter as needed.
7	8xxx 201E	Proxy authentication error	Proxy authentication is failed.	Check the user name and password required in order to login to the proxy, and re-enter as needed.
8	8xxx 2015	Proxy address resolution error	Could not connect to proxy server due to name resolution error of proxy address.	Check that the proxy server name is correct. If the proxy server name is correct, check the DNS connection, as per the initial procedures described in the troubleshooting.
9	8xxx 2028	Server certificate error	<ul style="list-style-type: none"> <li>• No route certificate installed in device.</li> <li>• Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device.</li> </ul>	Install the latest device system software. (Upgrade)

No.	Code	Error strings	Cause	Remedy
10	8xxx 2029	Server certificate verify error	The server certificate verification error occurred.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
11	8xxx 2046	Server certificate expired	<ul style="list-style-type: none"> <li>The route certificate registered with the device has expired.</li> <li>Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device.</li> <li>The device time and date is outside of the certificated period.</li> </ul>	Check that the device time and date are correctly set. If the device time and date are correct, upgrade to the latest system software.
12	8xxx 2000	Unknown error	Some other kind of communication error has occurred.	Try again after a period of time. If the error persists, check the UGW status with the UGW administrator.
13	8xxx 2063	SOAP Fault	SOAP communication error has occurred.	Check that the value of port number of UGW (RGW-PORT) is 443.
14	8xxx 2004	Server response error (NULL)	Communication with UGW has been successful, but an error of some sort has prevented UGW from responding. When (Null) is displayed at the end of the message, this indicates that there has been an error in the HTTPS communication method.	Try again after a period of time. If the error persists, check the UGW status with the UGW administrator.
15	8xxx 2004	Server response error ([Hexadecimal]) [Error detailed in the UGW] *1	Communication with UGW has been successful, but an error of some sort has prevented UGW from responding.	Try again after a period of time. Check detailed error code (hexadecimal) from UGW displayed after the message.
16	8xxx 0101 - 0A01	Device internal error	An internal error, such as memory unavailable, etc., has occurred during a device internal error phase.	Turn the device OFF/ ON. Or replace the device system software. (Upgrade)
17	8xxx 0201 - 0204, 0206	Server schedule is invalid	During the communication test, there has been some kind of error in the schedule values passed from UGW.	When the error occurs, report the details to the support section. And then, after the UGW side has responded, try the communication test again.

No.	Code	Error strings	Cause	Remedy
18	8xxx 2047	Server response time out	Due to network congestion, etc., the response from UGW does not come within the specified time. (HTTPS level time out)	If this error occurs when the communication test is being run or Service Browser is being set, try again after a period of time.
19	8xxx 2048	Service not found	There is a mistake in the UGW URL, and UGW cannot be accessed. (Path is wrong)	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
20	0xxx 0003	E-RDS switch is set OFF	A communication test has been attempted with the E-RDS switch being OFF.	Set E-RDS switch (E-RDS) to 1, and then perform a communication test (COM-TEST).
21	0xxx 0003	Server schedule is not exist	Blank schedule data have been received from UGW.	Check the device settings status with the UGW administrator.
22	8xxx 2003	Network is not ready, try later	Communication attempted without confirming network connection, just after booting up a device in which the network preparations are not ready.	Check the network connection, as per the initial procedures described in the troubleshooting. Perform a communication test (COM-TEST) about 60 seconds later, after turn on the device.
23	8xxx 2052	URL error	The data which is not URL is inputted into URL field.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
24	8xxx 200B	Server address resolution error	Server address name resolution has failed.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
25	0xxx 0003	Communication test is not performed	Communication test has not completed.	Perform and complete a communication test (COM-TEST).
26	8xxx 0221	Server specified list is too big	Alert filtering error: The number of elements of the list specified by the server is over restriction value.	The number of elements of alert filtering is specified correctly.
27	8xxx 0222	Server specified list is wrong	Alert filtering error: Unjust value is included in the element of the list specified by the server.	The element of alert filtering is specified with the right value.
28	xxxx xxxx	SUSPEND: Initialize Failure!	Internal error occurred at the initiating E-RDS.	Turn the device OFF/ ON.
29	8300 0306	SRAM version unmatched!	Improper value is written in at the head of the Main Controller PCB 2 SRAM domain of E-RDS.	Turn the device OFF/ ON.
30	8300 0306	SRAM AeRDS version unmatched!	Improper value is written in at the head of the Main Controller PCB 2 SRAM domain of Ae-RDS.	Turn the device OFF/ ON.
31	8xxx 0304	Device is busy, try later	The semaphore consumption error at the time of a communication test.	Try again a communication test after a period of time.

No.	Code	Error strings	Cause	Remedy
32	8xxx 0207 - 0208	Internal Schedule is broken	The schedule data in the inside of E-RDS is not right.	Perform a communication test (COM-TEST).
33	8xxx 0004	Operation is not supported	Method which E-RDS is not supporting attempted.	Contact help desk
34	8xxx 0709	Tracking ID is not match	When upgrading firmware, the TrackingID notified by Updater differs from the thing of UGW designates.	Contact help desk

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\*1. [Hexadecimal]: indicates an error code returned from UGW.

[Error details in UGW]: indicates error details returned from UGW.

## Updater

### Overview

Updater provides functions that enable network communication with Content Delivery System (hereinafter CDS) to install firmware, MEAP applications and system options.

#### Firmware Installation

Updater function enables users to distribute firmware through CDS via Internet. Particularly on e-Maintenance/UGW (called NETEYE in Japan)-enabled devices, firmware can be updated remotely, which effectively slashes costs incurred in field services.

#### MEAP Application/System Option Installation

By linking devices to CDS and License Management System (providing the function to manage licenses; hereinafter LMS), applications can be installed in devices via Updater, regardless of those not embedded (MEAP application) or embedded (system options) in devices.

### Installing Firmware

With link to Updater, service technicians provide firmware install services in the following 3 methods.

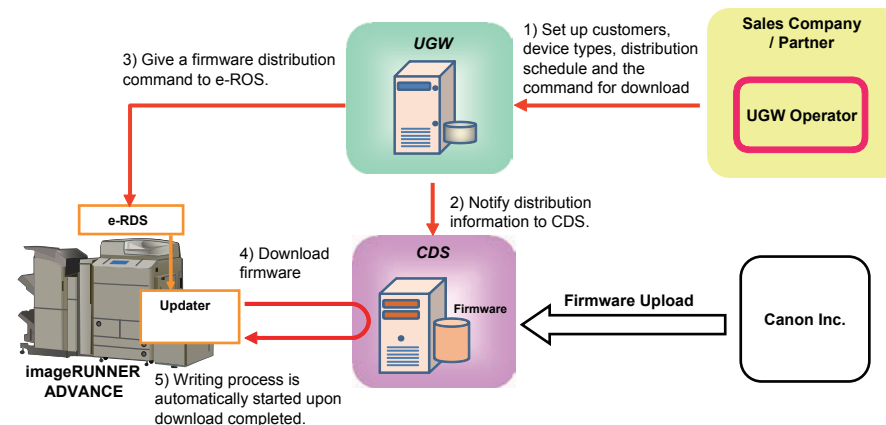
Distribution Method	Download Commanded by:	Update Timing	Downloadable Firmware Versions		
			Previous Ver	Current Ver	Newer Ver
a. UGW-linked Download / Update (Full-remote update)	UGW	Auto	No	Yes	Yes*1
b. UGW-linked Download (Remote Distribution / Update)	UGW	Manual	Yes	Yes	Yes
c. Manual Download / Update (On-site Update via Service mode)	Local UI	Auto	No	Yes	Yes*1
		Manual	Yes	Yes	Yes

\*1: You can select the version allowed Remote Update.

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#### a. UGW-linked Download and Update (Full-Remote Update)

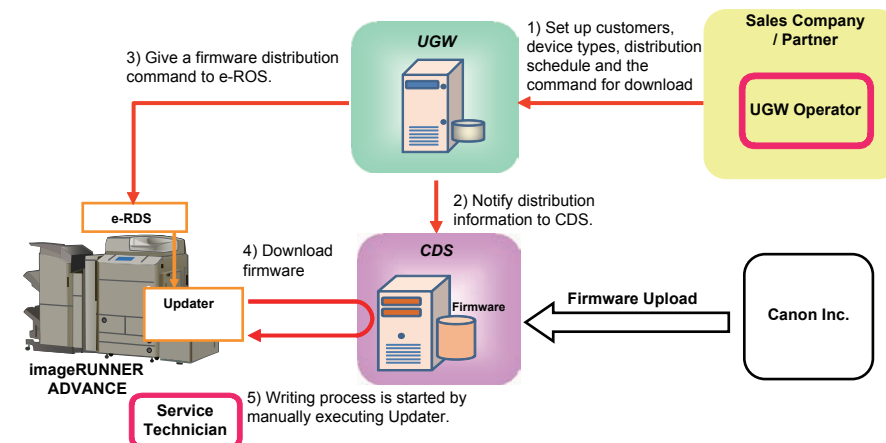
If the device is linked to UGW and the distribution schedule and update setting are registered on UGW in advance, full remote firmware update is available on an imageRUNNER ADVANCE-series device. Upon downloaded from CDS, the firmware is updated on the device.



F-2-404

#### b. UGW-linked Download (Remote Distribution / Update)

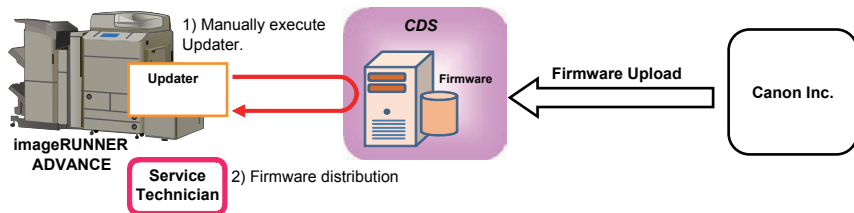
If the device is linked to UGW and the distribution schedule is registered on UGW in advance, firmware can be distributed to an imageRUNNER ADVANCE-series device before a service technician actually visits the customer site. This allows the service technician to update the firmware manually immediately after completing device inspection.



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c. Manual Download and Update (On-site Update via Service Mode)

If an imageRUNNER ADVANCE-series device has connection with the external network, a service technician can gain access to CDS via Service mode to download and update firmware. This allows service technicians to update the firmware as needed on the customer site even without PCs.



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**NOTE:**  
“External network” here means the network connecting the device to CDS via Internet.

**NOTE:**  
Users are able to gain firmware distribution in the following 4 methods by introducing CDS. See User Manual for detailed information.

Distribution Method	Download Commanded by	Update Timing	Downloadable Firmware Versions		
			Previous Ver	Current Ver	Newer Ver
Manual download/update via Local UI	Local UI	Auto	No	No	Yes *1
		Manual	No	No	Yes *1
Manual download/upload via Remote UI	Remote UI	Auto	No	No	Yes *1
		Manual	No	No	Yes *1
Special download/upload via Remote UI	Remote UI	-	Specific version only (Obtain it separately)		
Periodical update via Local UI	Local UI	Auto	No	No	Yes *1

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\*1: Only the latest version of Remote update-enabled version is downloadable.

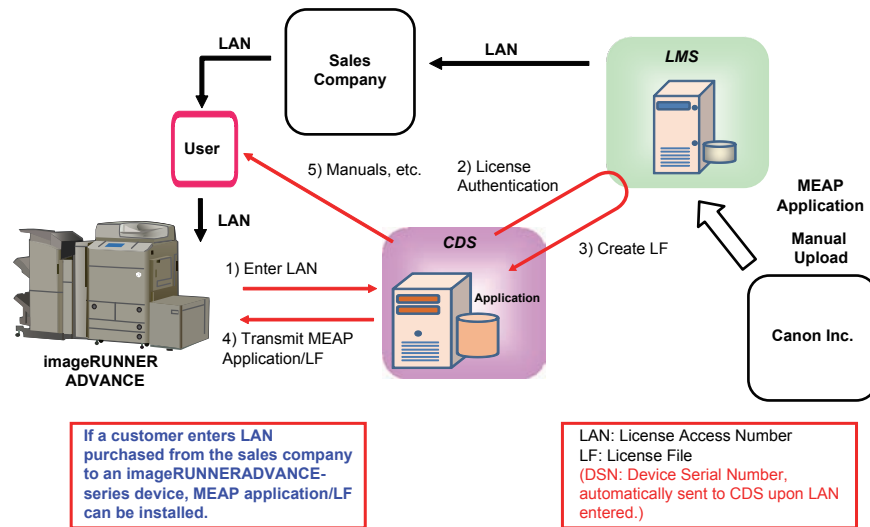
## Installing MEAP Application/System Option

The following is the installation method of MEAP application/system option which is enabled by applying CDS.

a. LMS-linked MEAP Application/System Option Installation

If an imageRUNNER ADVANCE-series device is connected to the external network, user or service technician can gain access to CDS from User mode to install a MEAP application or a system option.

Installing MEAP Application



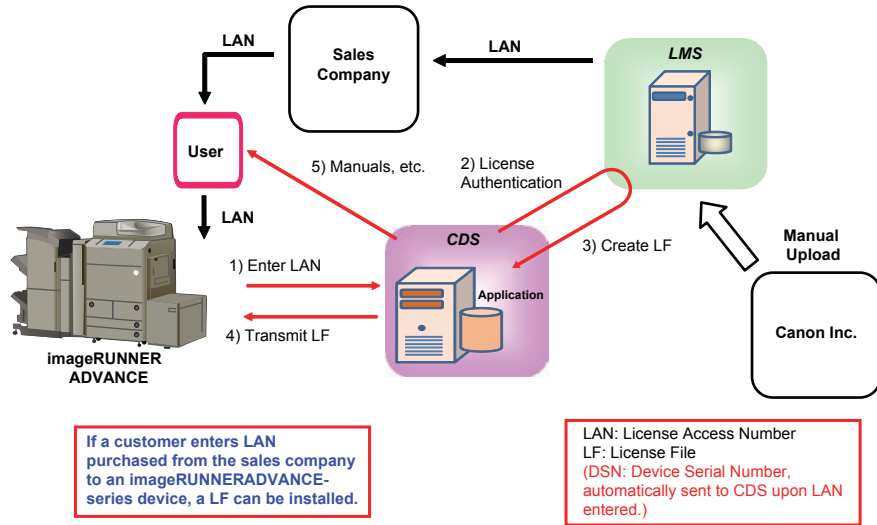
If a customer enters LAN purchased from the sales company to an imageRUNNERADVANCE-series device, MEAP application/LF can be installed.

LAN: License Access Number  
LF: License File  
(DSN: Device Serial Number, automatically sent to CDS upon LAN entered.)

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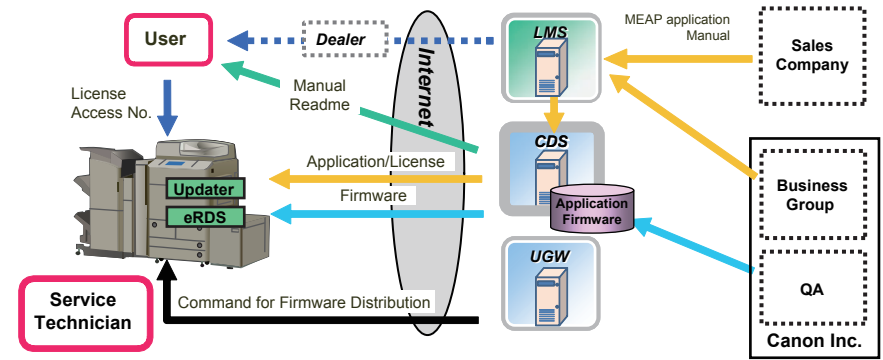
Installing System Option



F-2-408

System Configuration

The figure below schematically shows the system configuration.



F-2-409

## List of Functions

The matrix below shows the list of functions provided by Updater.

Category	Function	Service Mode	User Mode	Remote UI	UGW-linked
Firmware	Checking firmware compatibility	Yes	-	-	-
	Checking special firmware	Yes	-	-	-
	Checking latest firmware version	-	Yes	Yes	-
	Registering/deleting firmware distribution schedule	Yes	Yes	Yes	-
	Confirming and downloading firmware	Yes	Yes	Yes	Yes
	Updating downloaded firmware	Yes	Yes	Yes	-
	Cancelling downloaded firmware	Yes	Yes	Yes	-
	Acquiring firmware distribution information registered from UGW	-	-	-	Yes
	Notifying firmware version information	-	-	-	Yes
	Periodical update*	-	Yes	-	-
MEAP application/system option	Inquiring license for MEAP application/system option	-	Yes	Yes	-
	Installing MEAP application / system option	-	Yes	Yes	-
System Management	Settings	Yes	-	-	-
	Testing communications	Yes	Yes	Yes	-
	Displaying update logs	Yes	Yes	Yes	-
Internal system error notification	Displaying system logs	Yes	Yes	Yes	-
	Notifying internal system error occurrence to distribution server	Yes	Yes	Yes	Yes

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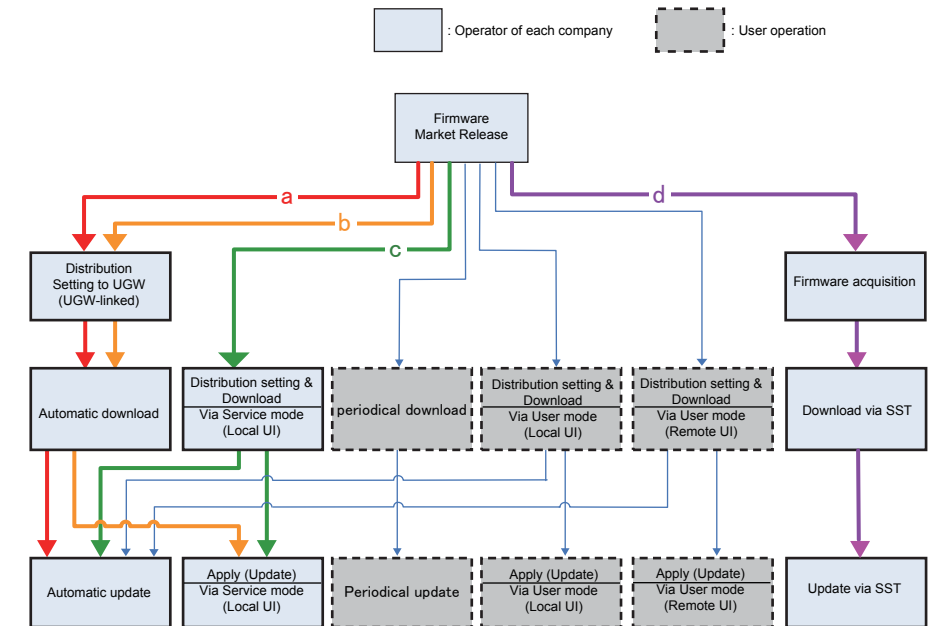
\*Functioning supports periodical update with a device after firmware version V50.00.

## Distribution Flow

### Firmware Installation Flow

Service technicians provide firmware install services in the following 4 methods.

- a: UGW-linked download and update
- b: UGW-linked download
- c: Manual download and update
- d: Update via SST



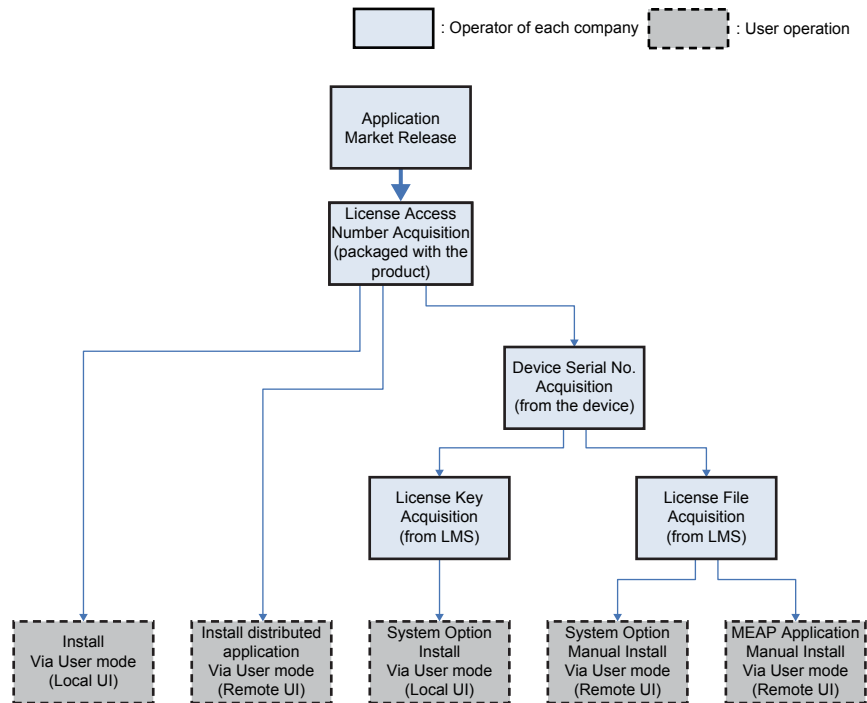
F-2-410

\*1: Schedules for UGW-linked distribution are maintained on CDS.

\*Functioning supports periodical update with a device after firmware version V50.00.

## MEAP Application/System Option Installation Flow

MEAP application/system option installation method using service mode is not provided. Be sure to use the user mode to install.



F-2-411

## Limitations and Cautions

### Limitations

#### Changing Date/Time on Device

When a user changes the date/time setting on the device (including change of the setting according to daylight saving time), the firmware distribution may not be performed as scheduled.

But there is not the problem if it is time adjustment of several minutes with NTP servers.

#### Change of Setting from Service mode

Any settings from Service mode will be enabled after restarting the device.

### Cautions

#### Concurrent use of Updater functions

Multiple users cannot use Updater functions on a device concurrently by using it together with Remote UI.

#### Coexistence of Remote UI and other tools

Users logged in SMS (Service Management Service) are unable to use Update functions from Remote UI.

#### Using Updater function from Remote UI

Upon the following operations done, Updater functions are suspended from Remote UI for certain duration.

- When a user exits Web browser without clicking [Portal] or [Log Out] button in the setting of Remote Login Service via SMS
- When a user exits Web browser without clicking [Portal] button in the setting of not to use Remote Login Service via SMS.
- When a user exits Web browser without clicking [Log out from SMS] or [To Remote UI] button.

### Wait for EOJ (end of job) Function

Firmware update will be triggered only after the following jobs are completed.

This is the Updater-specific specification.

Job/Function type	Receiving	Printing	Queued print jobs	Sending	Queued send jobs
COPY	-	Wait for EOJ	Wait for EOJ	-	-
PRINT	Wait for EOJ (end of job)	Wait for EOJ	Wait for EOJ	-	-
FAX	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ
I-FAX Receipt	Cancel processing to trigger update *	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ
Report Print	-	Wait for EOJ	Wait for EOJ	-	-
SEND	-	-	-	Cancel processing to trigger update *	Cancel processing to trigger update *

T-2-126

\*The data are guaranteed even if cut off in the middle of a job. It becomes the recovery object after the device reboot and carry out send / reception again.

Even during transfer, Pull SCAN job processing is cancelled soon after scanning is completed.

Firmware update is cancelled if the jobs are not completed within 10 minutes. If this occurs, the error code, 8x001106, will be returned (different numbers will be shown for x depending on the execution modes).

Firmware update is executed if the jobs stated above are not in the queue.

Follow the shutdown sequence to reboot the device after the firmware is updated.

#### Caution:

The following firmware versions do not support Wait for EOJ Function.

- iR-ADV V5000 series: V40.17 or earlier
- iR-ADV V7000/9000 series: V40.18 or earlier

For the versions above, triggering firmware update will cancel all COPY/PDL jobs submitted and/or queued. Only jobs with power-off safeguard (Fax/ I-Fax/ Auto-Report Print) are recovered after reboot.

## Overview of Preparation

The following should be prepared before using Updater.

- For updating of firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)	Periodical update validation
UGW-linked Download and Update	Yes	Yes	Yes	-	-	-
UGW-linked Download	Yes	Yes	Yes	-	-	-
Manual Download and Update	Yes	Yes	-	-	-	-
Manual Download and Update via Local UI	Yes	Yes	-	Yes	-	-
Manual Download and Update via Remote UI	Yes	Yes	-	Yes	-	-
Special Download and Update via Remote UI	Yes	-	-	-	Yes	-
Periodical update	Yes	Yes	-	-	-	Yes

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- For Install of Application

Installation Method	Network Settings	Enabling [Install Application/Options] Button of User Mode
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

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## Setting Sales Company's HQ

When using devices input in the markets listed below, the default setting of Sales Company's HQ should be changed before obtaining firmware distributed from CDS. Unless the setting is changed properly, the desired firmware may not be able to be selected.

Market	Default Setting of Sales Company's HQ	Setting of Sales Company's HQ after Change
Canada	US	CA
Latin America	US/SG	LA
Hong Kong	SG	HK

T-2-129

Go to the following screen to change the setting of Sales Company's HQ.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER > FUNCTION > INSTALL > CDS-CTL
--------------------	--	---------------------------------------

### NOTE:

The list below shows the setting of Sales Company's HQ for CDS-CTS by market. Check and adhere to the appropriate setting for your market.

<List of Sales Company's HQ and the settings for CDS-CTL>

Japan = JP	China = CN
USA = US	Hong Kong = HK
Singapore = SG	Australia = AU
Europe = NL	Canada = CA
Korea = KR	Latin America = LA

## Network Settings

### Connecting to External Network

The method of connecting to external network is similar to a normal network connection method. Refer to user manual of the device for details.

**NOTE:**

- See User Manual for how to connect the device to the external network.
- Before using UGW link or User mode, see the sections below to prepare as required.  
"Enabling UGW Link"  
"Enabling [Update Firmware] Button of User Mode"  
"Enabling [Install Application/Options] Button of User Mode"

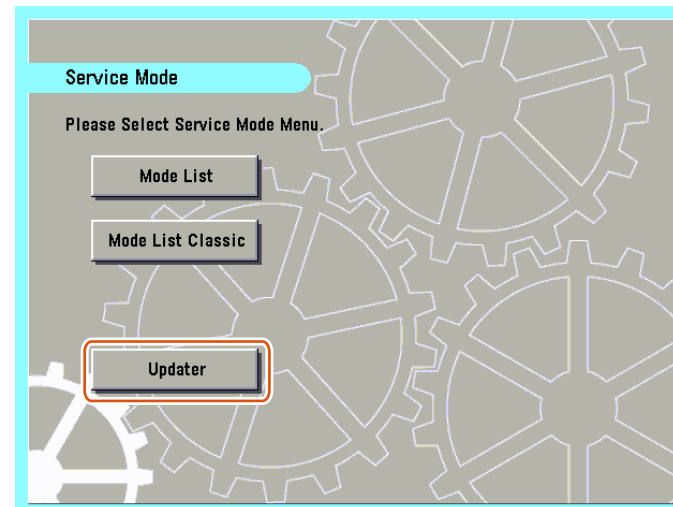
**NOTE:**

"External Network" here means the network connecting the device to CDS via Internet.

### Confirming URL Setting of Distribution Server

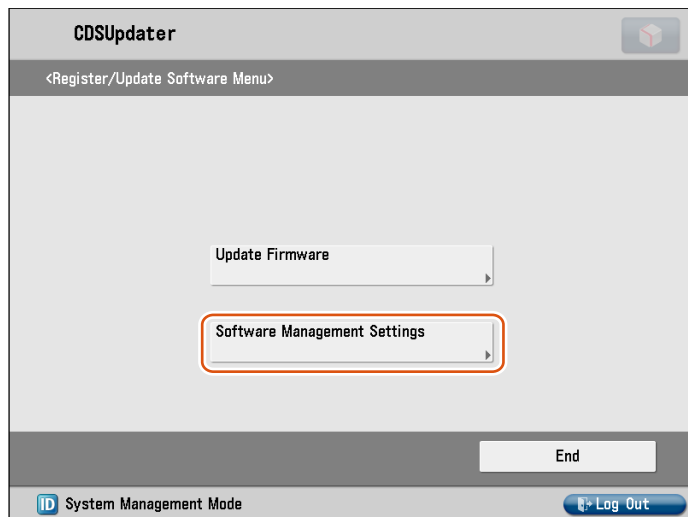
This section describes how to confirm the URL setting of the distribution server.

1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User Mode)] button on the control panel.
  - 2). Press [2] and [8] buttons at a time on the control panel.
  - 3). Press [Setting/Registration (User Mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.
2. Press [Updater] button.



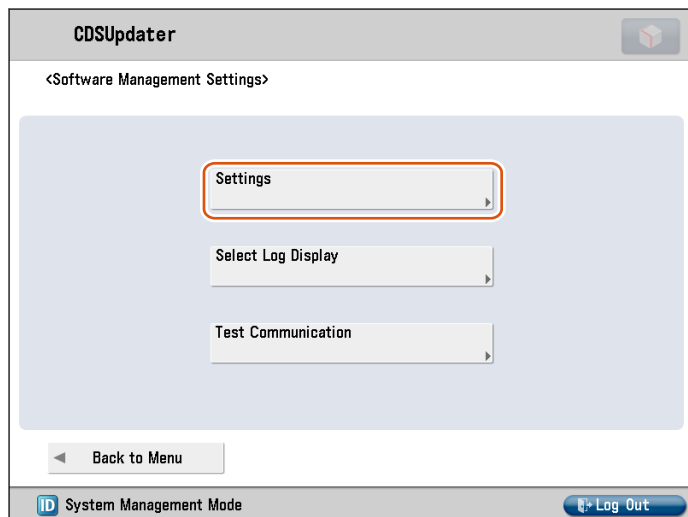
F-2-412

3. Press [Software Management Settings] button.



F-2-413

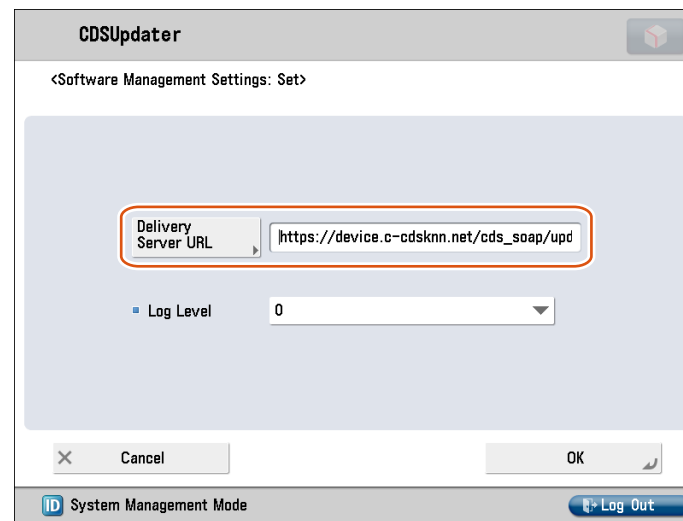
4. Press [Settings] button.



F-2-414

5. Ensure to enter "https://device.c-cdsknn.net/cds\_soap/updaterif" in the field beside the [Delivery Server URL] button.

If the URL is not entered or a wrong URL is entered in the field, click [Delivery Server URL] button to show the virtual keypad. Check the URL and enter the correct one.



F-2-415

6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

## Communication Test

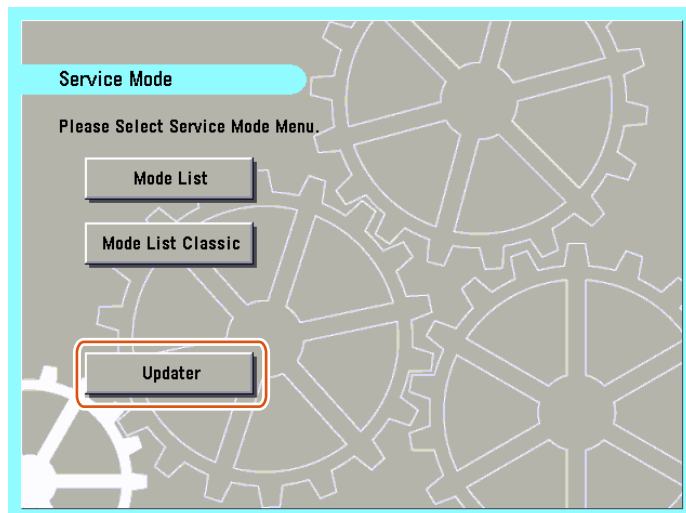
This section describes how to check if the communication is normally done to the distribution server and/or the file server.

### NOTE:

CDS and RDS are another servers. You need the communication test of CDS by all means even if You succeed in a communication test of the Embedded RDS.

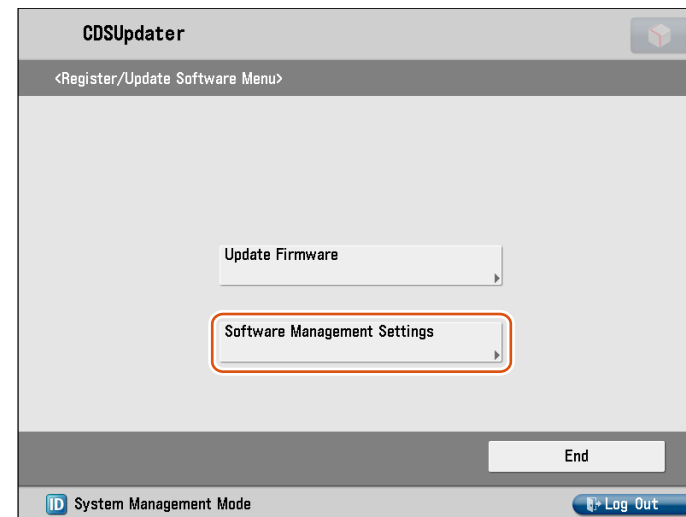
1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User Mode)] button on the control panel.
  - 2). Press [2] and [8] buttons at a time on the control panel.
  - 3). Press [Setting/Registration (User Mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.

2. Press [Updater] button.



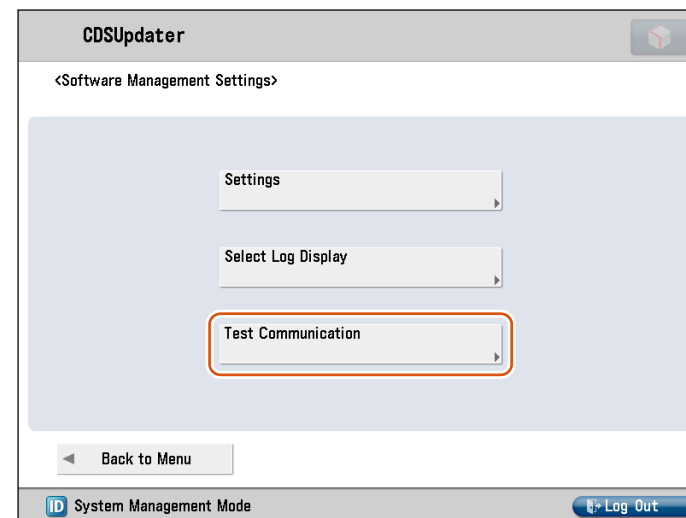
F-2-416

3. Press [Software Management Settings] button.



F-2-417

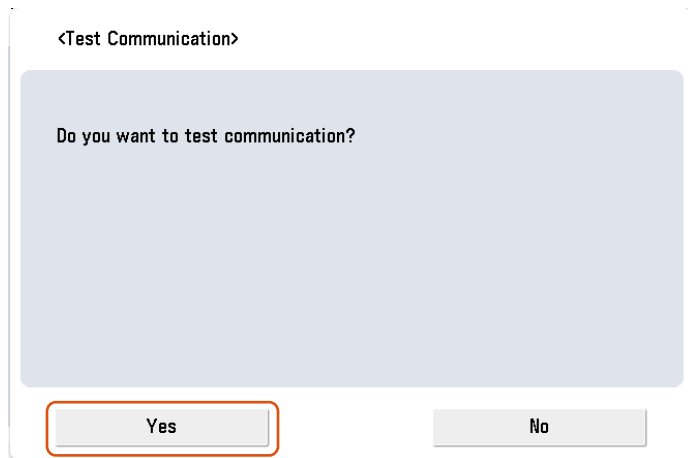
4. Press [Test Communication] button.



F-2-418



5. Press [Yes] button.

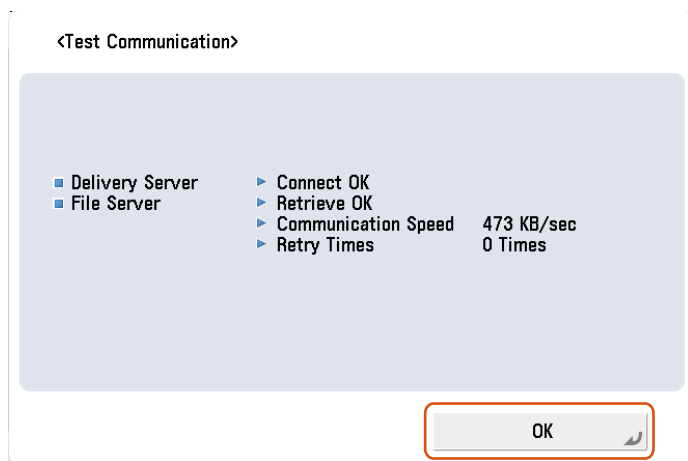


F-2-419

Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).

Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown. Press [OK] button to exit this operation.



F-2-420

## Enabling UGW Link

When installing the firmware in the method of "UGW-linked Download and Update" or "UGW-linked Download", the following should be set before actually using UGW link.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-UGW (0 -> 1)
	Setting of UGW WebPortal	In [Customer Management] screen, set [Do not distribute firmware] to [Distribute firmware].
Sales Company's HQ	Setting of Authorities on UGW WebPortal	See "Analysis>Firmware Distribution Information" to grant the appropriate authorities to each account.

### NOTE:

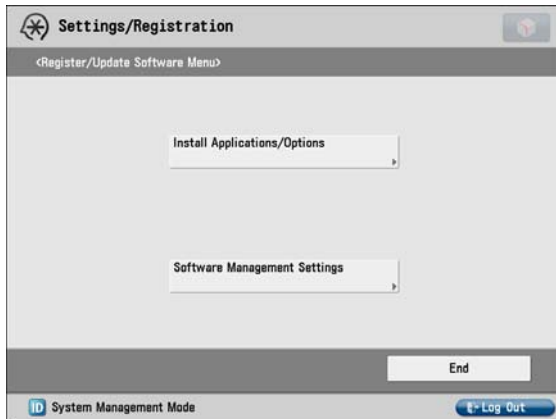
- See "imageWARE Remote Operator's Manual / e-Maintenance Business Operation Manual" for how to operate UGW WebPortal.
- [Distribute Firmware] should be set on [Customer Management] screen for staff in charge of setting for [Enter customer information] or [Command for firmware distribution] in order to allow them to select the desired device on [Firmware Distribution Information] screen.
- If [Distribute Firmware] is not shown on [Customer Management] screen of UGW WebPortal, appropriate authorities may not be set to each account in Firmware Distribution Information. Contact the Sales Company HQ concerned for confirmation.

## Enabling [Update Firmware] Button of User Mode

To allow users to install firmware using Updater, the setting of firmware installation should be set to ON for users in advance.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-FIRM (0 -> 1)
--------------------	--	---

- User Mode screen for Updater when the setting is not enabled (CDS-FIRM(0)):



F-2-421

- User Mode screen for Updater when the setting is enabled (CDS-FIRM(1)):



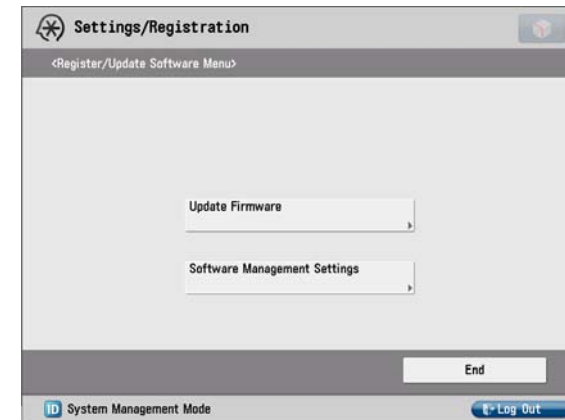
F-2-422

## Enabling [Install Application/Options] Button of User Mode

To allow users to install applications using Updater, the setting of application installation should be set to ON for users in advance.

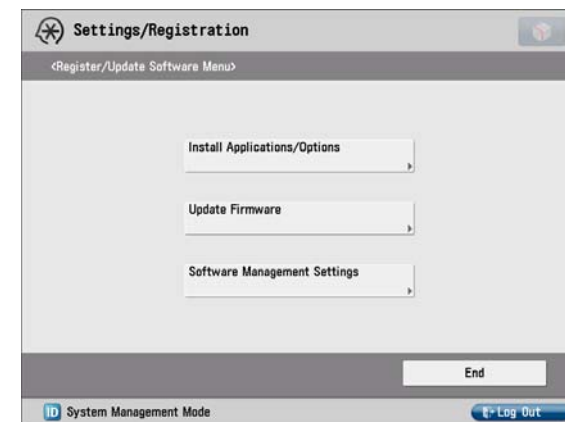
Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-MEAP (0 -> 1)
--------------------	--	---

- User Mode screen of Updater when the setting is not enabled (CDS-MEAP(0)):



F-2-423

- User Mode screen of Updater when the setting is enabled (CDS-MEAP(1)):



F-2-424

## Enabling [Manual Update] Button of User Mode (Remote UI)

To allow users to install firmware from Updater using the file on Local PCs, the setting of firmware installation should be set to ON for users in advance.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >LOCLFIRM (0 -> 1)
--------------------	--	---

- Remote UI screen of Updater when the setting is not enabled (LOCLFIRM (0)):

imageRUNNER ADVANCE iR-ADV C7055 / iR-ADV C7055 / To Portal Login User:7654321 Log Out

**Register/Update Software**

Device Serial Number: FNZ00126

Install Application/Option

- Manual Installation
- Delivered Installation

Confirm Delivery Server

- Display Logs/Communication Test

Install Application/Option > Manual Installation

**Manual Installation** Next >

License File Path:  Browse...

Application File Path:  Browse...

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F-2-425

- Remote UI screen of Updater when the setting is enabled (LOCLFIRM (1)):

imageRUNNER ADVANCE iR-ADV C7055 / iR-ADV C7055 / To Portal Login User:7654321 Log Out

**Register/Update Software**

Device Serial Number: FNZ00126

Install Application/Option

- Manual Installation
- Delivered Installation

Update Firmware

- Manual Update

Confirm Delivery Server

- Display Logs/Communication Test

Install Application/Option > Manual Installation

**Manual Installation** Next >

License File Path:  Browse...

Application File Path:  Browse...

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- Periodical validation

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-LVUP (0 -> 1)
--------------------	--	---

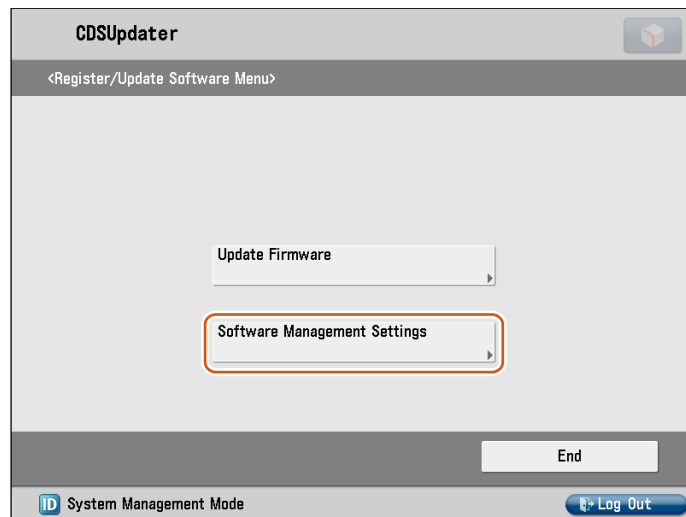
## System Management Operations

### Various Setting

#### Setting URL of Distribution Server

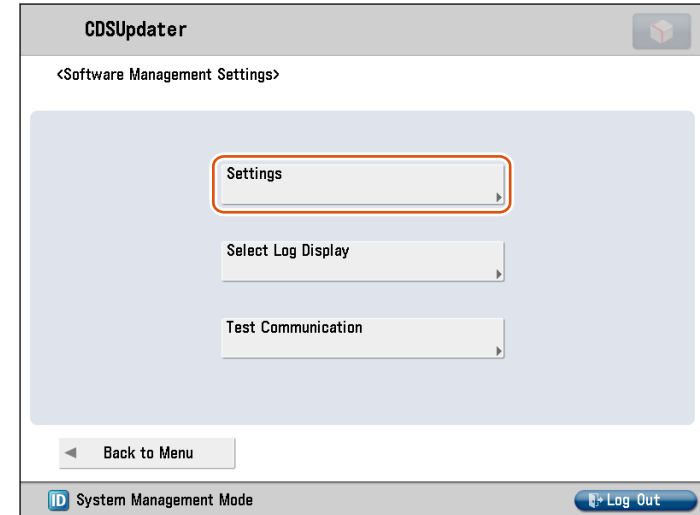
This section describes how to set URL of the distribution server.

1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User Mode)] button on the control panel.
  - 2). Press [2] and [8] buttons at a time on the control panel.
  - 3). Press [Setting/Registration (User Mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



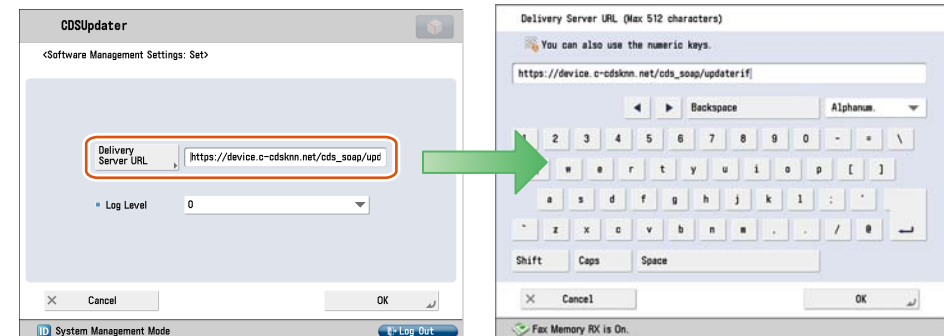
F-2-427

4. Press [Settings] button.



F-2-428

5. Press [Delivery Server URL] to show the virtual keypad. Enter the URL.



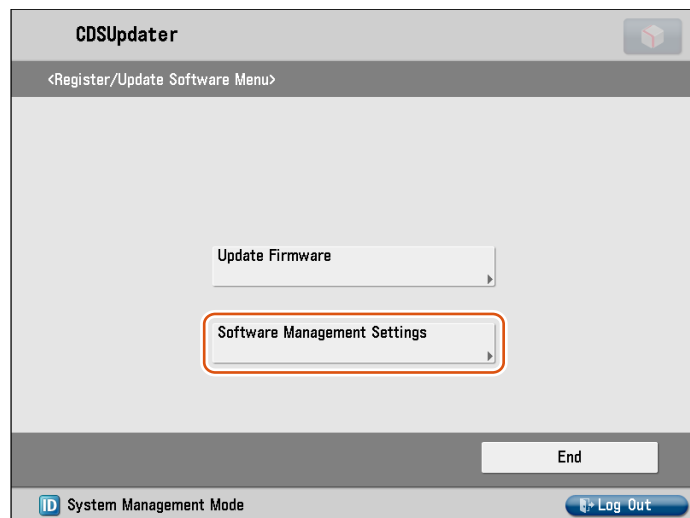
F-2-429

- [Delivery Server URL]:  
Enter the "https://device.c-cdsknn.net/cds\_soap/updaterif"
6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

## Setting Log Level

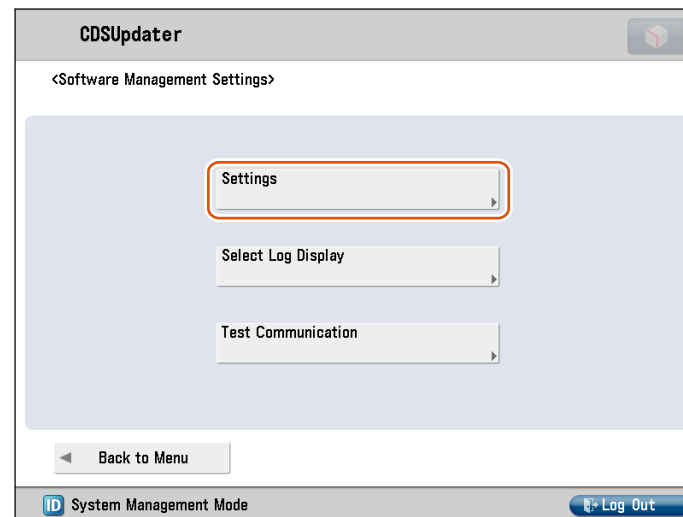
This section describes how to set system log levels.

1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User Mode)] button on the control panel.
  - 2). Press [2] and [8] buttons at a time on the control panel.
  - 3). Press [Setting/Registration (User Mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



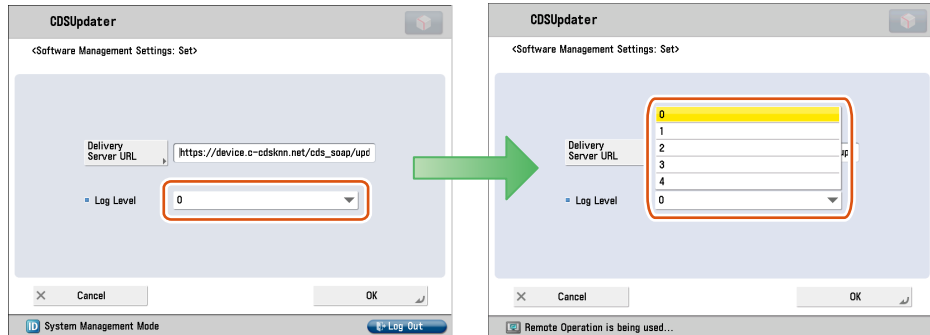
F-2-430

4. Press [Settings] button.



F-2-431

5. Select a log level from [Log Level] dropdown list.



F-2-432

- [Log Level]:  
Select one of 5 levels ranging from [0] to [4].  
See the table below for logs output in each level.

Log Level	Log Output				
	Trace	Information	Important Message	Ordinary Error	System Error
0	-	-	-	-	Yes
1	-	-	-	Yes	Yes
2	-	-	Yes	Yes	Yes
3	-	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes

T-2-130

**NOTE:**  
This list shows the contents of the Log Output.

Log Output	Description
Trace	Detailed logs for debug
Information	Logs related to operations done on the system
Important Message	Update logs output by firmware type Installation logs by MEAP application Logs related to enabled functions by system option
Ordinary Error	Logs for ordinary errors
System Error	Logs for internal system errors

T-2-131

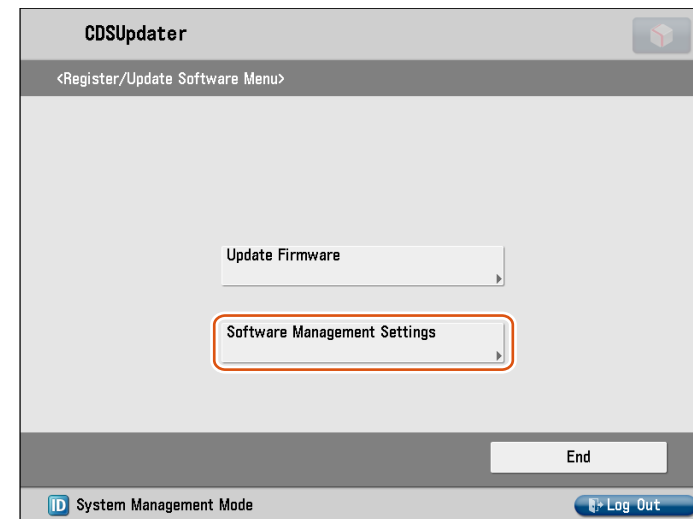
6. Press [OK] button to set the selected log level. Now the log level is successfully set.

## Displaying Logs

### Update Logs

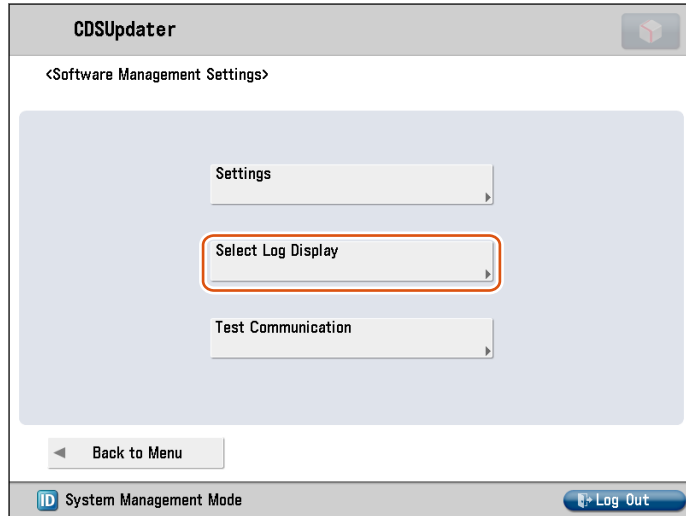
This section describes how to confirm System Option/MEAP Application Installation Logs and Firmware Update Logs.

1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User Mode)] button on the control panel.
  - 2). Press [2] and [8] buttons at a time on the control panel.
  - 3). Press [Setting/Registration (User Mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



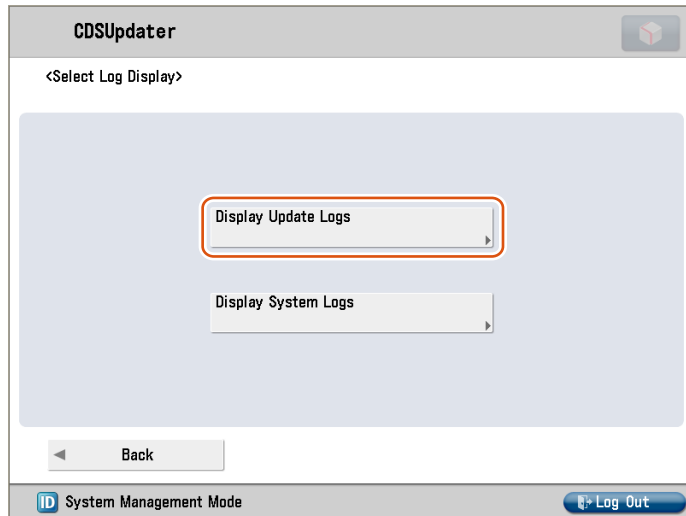
F-2-433

4. Press [Select Log Display] button.



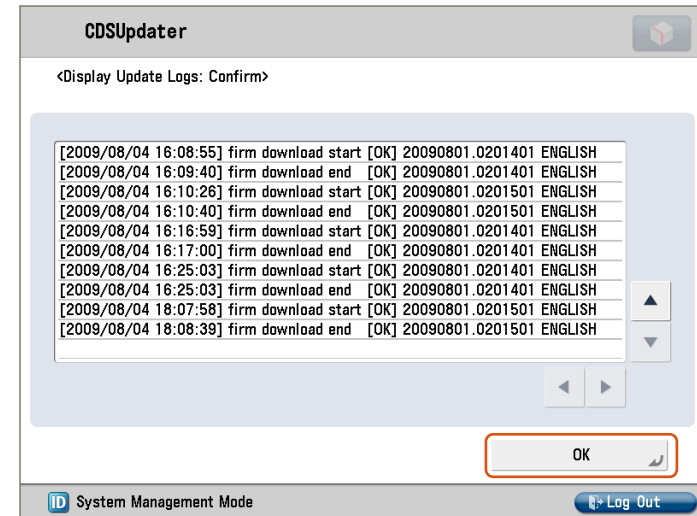
F-2-434

5. Press [Display Update Logs] button.



F-2-435

6. System Option/MEAP Application Installation Logs and Firmware Update Logs are shown. Press [OK] button to exit this operation.



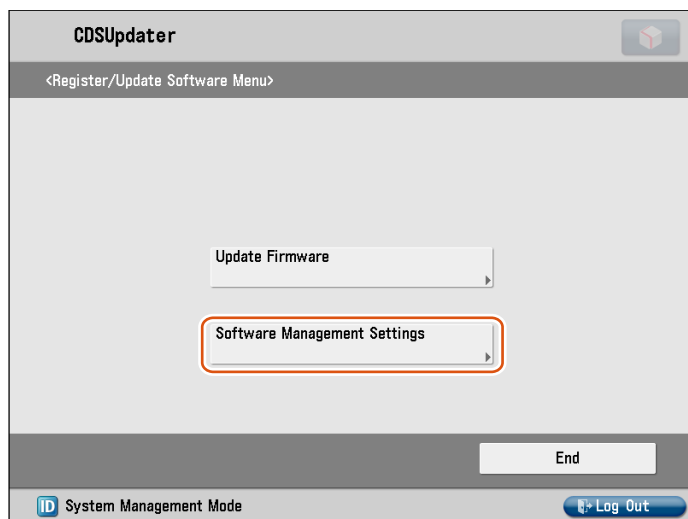
F-2-436

## System Logs

This section describes how to confirm System Logs.

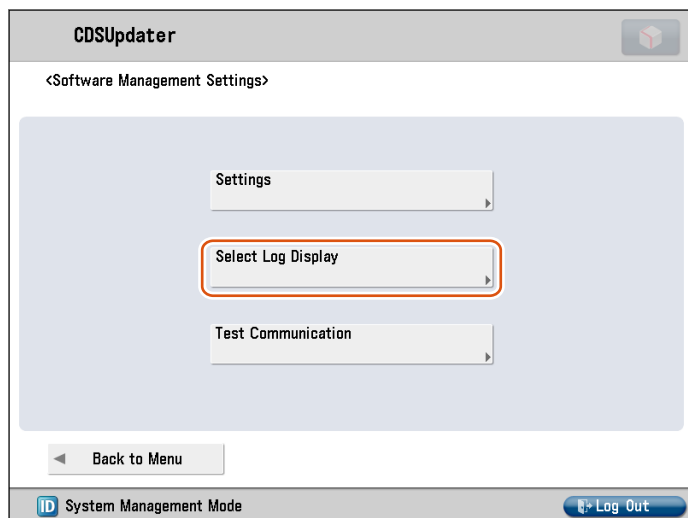
1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User Mode)] button on the control panel.
  - 2). Press [2] and [8] buttons at a time on the control panel.
  - 3). Press [Setting/Registration (User Mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.
2. Press [Updater] button.

3. Press [Software Management Settings] button.



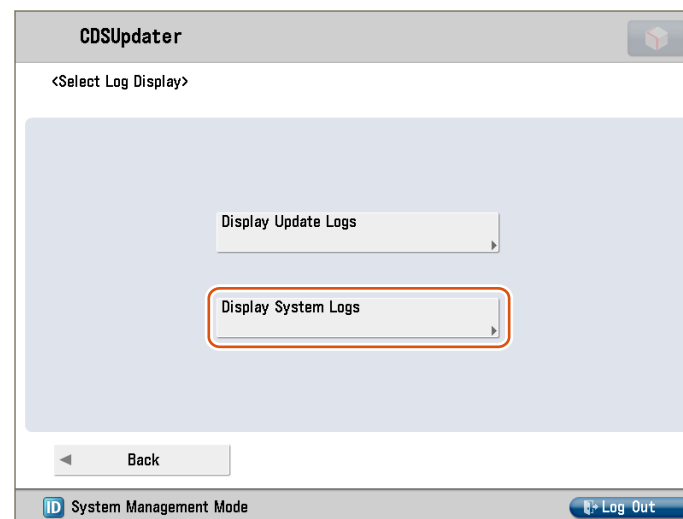
F-2-437

4. Press [Select Log Display] button.



F-2-438

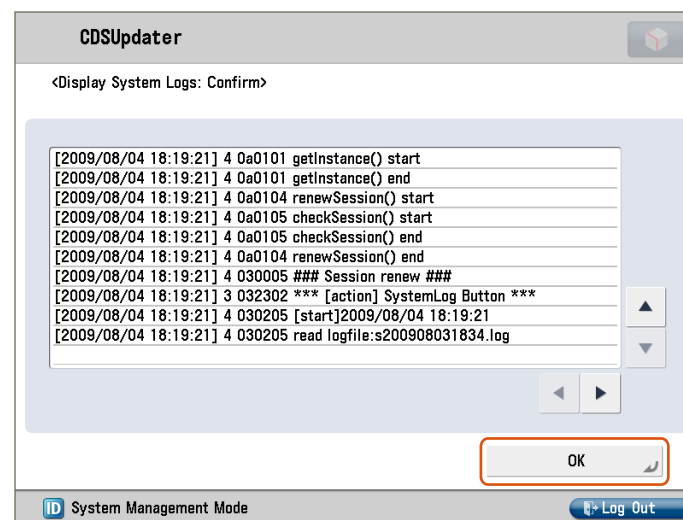
5. Press [Display System Logs] button.



F-2-439

6. Updater internal logs are displayed.

Press [OK] button to exit this operation.



F-2-440

NOTE:  
See Chapter6 "Debug Logs" for how to obtain System Log.



## Communication Test

This section describes how to check if the communication is normally done to the distribution server and/or the file server.

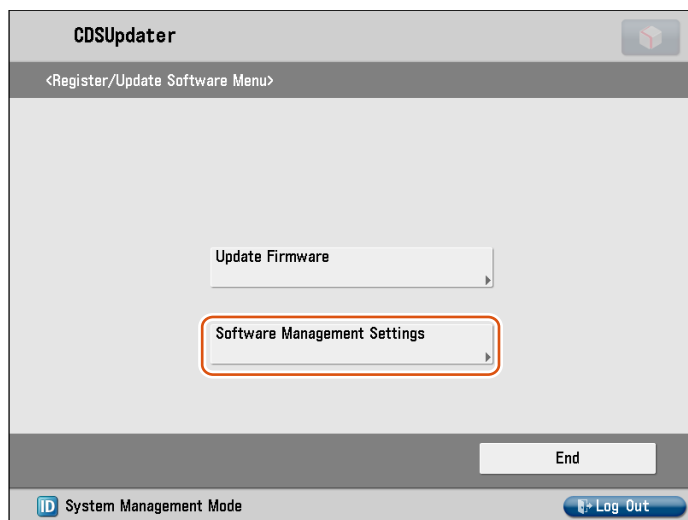
1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User Mode)] button on the control panel.
  - 2). Press [2] and [8] buttons at a time on the control panel.
  - 3). Press [Setting/Registration (User Mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.

### NOTE:

CDS and RDS are another servers.  
You need the communication test of CDS by all means even if You succeed in a communication test of the RDS.

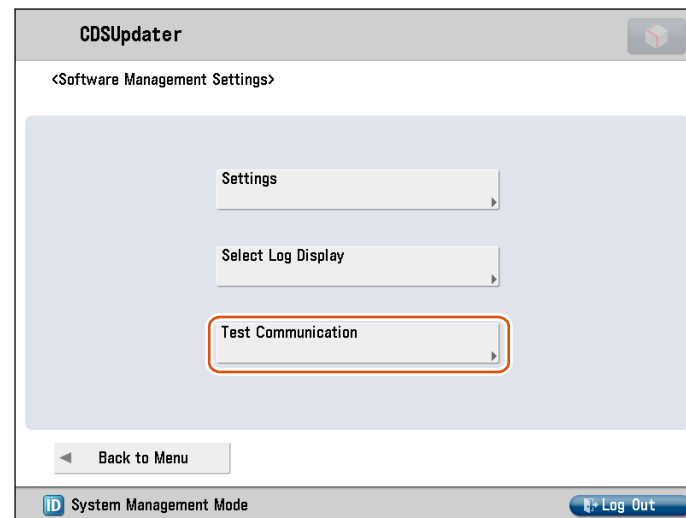
2. Press [Updater] button.

3. Press [Software Management Settings] button.



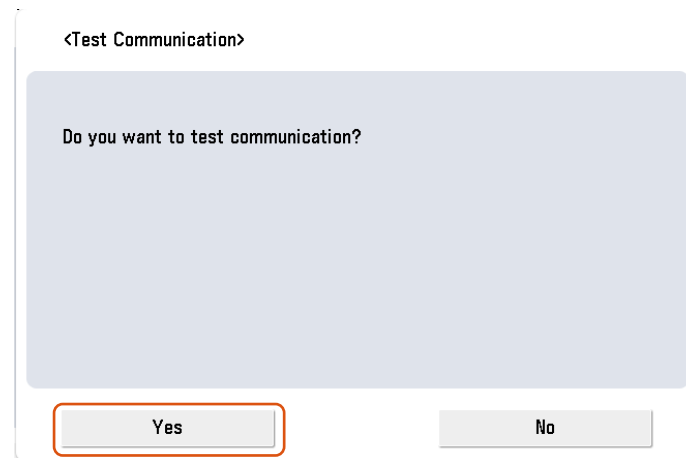
F-2-441

4. Press [Test Communication] button.



F-2-442

5. Press [Yes] button.

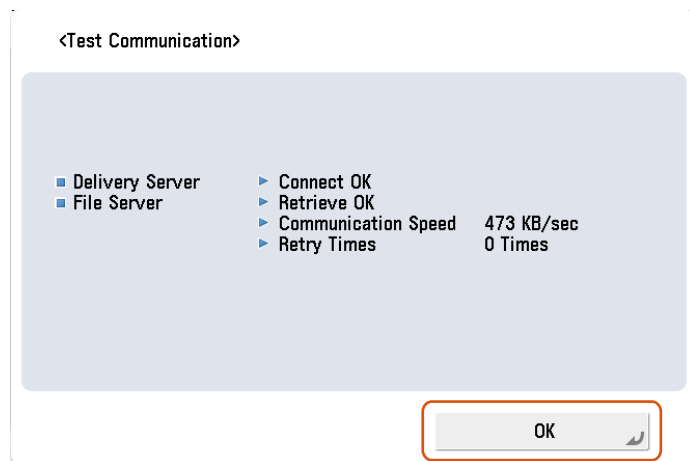


F-2-443

Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).

Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown.  
Press [OK] button to exit this operation.



F-2-444

## Upgrading Updater

The firmware installed in the device should be also upgraded when upgrading Updater. See "Overview" in chapter 3 of this manual for how to update firmware.

The setting information and logs (update logs/system logs) are inherited in the upgraded version.

## Formatting Hard Disk

Since Updater is a MEAP application, its contents can be temporarily saved in the MEAP application storage area on PC via SST during formatting or replacing HDD. See MEAP Service Manual for further information.

The settings initialized in format or replacement should be restored. See "Overview of Preparation" in chapter 2 of this manual for details.

**NOTE:**

When formatting or replacing HDD, distribution schedule, downloaded firmware (not updated yet) and logs (update/system logs) will be deleted.

## How to Replace Controller Boards

The steps are different depending on which of 2 controller boards are to be replaced.

- Main Controller Board PCB 1

No steps follow.

- Main Controller Board PCB 2 (including SRAM)

The network and service mode setting should be set again after initialization. See "Overview of Preparation" in chapter 2 of this manual for details.

## How to Replace Devices

All settings should be set again because no data are inherited. See "Overview of Preparation" in chapter 2 of this manual for details.

## FAQ on Installing Firmware

No.1

Q: Is it also possible to downgrade firmware with using CDS?

A: Firmware can be downgraded in some methods shown in the table below.

If download and update are performed consecutively, firmware can't be downgraded.

Distribution Method	Downgrade Possibility
UGW-linked Download and Update	No
UGW-linked Download	Yes
Manual Download and Update(Timing to Apply : Manual)	Yes
Manual Download and Update(Timing to Apply : Automatic)	No

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No.2

Q: When installing firmware, does it take less time in "manual download and update" compared to "update via SST"?

A: It depends on the number of devices to update firmware.

When updating the firmware on a device, it takes more time in "manual download and update" compared to "update via SST" (It depend on network environment.).

As for the time to update firmware to multiple devices, "manual download and update" takes less time compared to "update via SST" because updating the firmware to multiple devices can be executed simultaneously.

When the network line of the user is slow, update via CDS becomes slow in comparison with the SST. Because speed is displayed by a communication test, You refer to it.

As for the aim of the downloading time, transmission rate is 6 or 7 minutes in the case of 1000KB/sec. (There is a difference in a device and a version of Firmware, accessories and the quantity of the language files).

No.3

Q: How can we confirm that the firmware is properly updated after "UGW-linked download and update" done?

A: You can confirm this in E-mail or the Device List on UGW-linked screen.

E-mail to notify firmware update will be sent from CDS server to the addresses set as destinations at the time of distribution setting to notify update completion.

On UGW-linked screen, search the device of your interest on [Select Device] screen to find the distribution status per device as shown in the search result.

No.4

Q: In the course of "UGW-linked download", what will happen if the user downloads the firmware before the service technician update the firmware downloaded with "UGW-linked download" before?

A: The previously downloaded firmware in the method of "UGW-linked download" will be overridden by the subsequently downloaded one.

This is because only one downloaded firmware can be held on the device.

The firmware downloaded in the method of "Service mode-linked download" and "UGW-linked download" can be checked/deleted from User mode, but cannot be updated, so it cannot be updated by the user unnoticed by the service technician.

No.5

Q: What happens if the user registers another distribution schedule when the distribution schedule has been set in "manual download and update"?

A: The distribution schedule subsequently registered by the user will override the existing schedule. This is because only one distribution schedule can be held. Any existing distribution schedule is deleted and the newly registered distribution schedule is made valid.

No.6

Q: How is an individual response edition of firmware distributed?

A: Any individual response edition of firmware can be installed in all the methods provided by service technicians. Before installing the individual response edition, ensure to obtain the ID and password separately.

No.7

Q: If the device is down during firmware update, can the device be started using the older firmware version?

A: No, it is impossible to start the device using older versions. If this occurs, the service technician in charge should reinstall the firmware via SST. See "Troubleshooting on Firmware Installation" in chapter 6 of this manual for details.

No.8

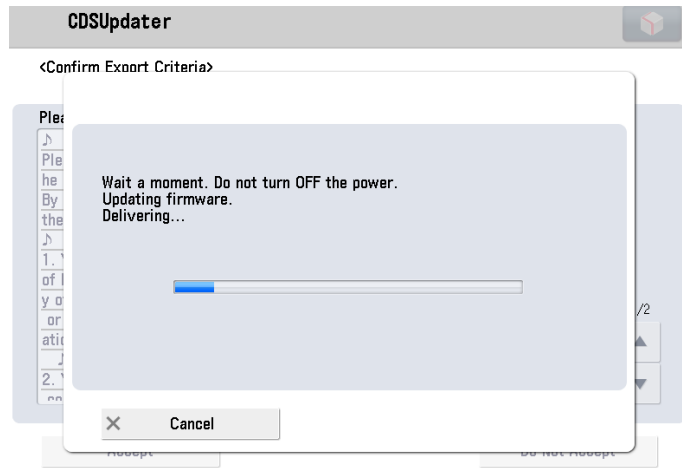
Q: If the device is down during firmware download, is it possible to download the firmware again?

A: Firmware cannot be downloaded again automatically. Instead, the error is notified in E-mail. The user should register the firmware distribution schedule again accordingly.

No.9

Q: Can we cancel the operation during firmware download?

A: Yes. [Cancel] button is shown.



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No.10

Q: E-mail is sent to users to notify update completion. Can service technicians also receive such a notification?

A: Yes. The notification E-mail is also set for the service technician in charge if the user enters his/her E-mail address at the time of firmware distribution setting.

Multiple E-mail addresses can be entered in the field. Delimit each E-mail address with “,” (comma) or “;” (semicolon) when you enter multiple E-mail addresses in the field.

No.11

Q: How long does the firmware update take?

A: Approx. 30 min. However, this does not include the download time. Download time relies on the network environment.

## FAQ on Installing MEAP Application/System Option

No.1

Q: What happens if a MEAP application is installed in the system with insufficient HDD free space?

A: An error message is shown. Upon starting installation, the MEAP application checks the required space against free space to judge installation availability.

No.2

Q: Can we cancel the operation during installation of MEAP application?

A: Yes. [Cancel] button is shown.

No.3

Q: Is the device automatically restarted after the system option is enabled?

A: The device is not automatically restarted. Users should restart the device manually.

## FAQ on General Matters of Updater

### No.1

#### Q: What preparation is needed in each installation method?

A: See the table below for preparation required in each installation method.

- For updating firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)	Periodical update validation
UGW-linked Download and Update	Yes	Yes	Yes	-	-	-
UGW-linked Download	Yes	Yes	Yes	-	-	-
Manual Download and Update	Yes	Yes	-	-	-	-
Manual Download and Update via Local UI	Yes	Yes	-	Yes	-	-
Manual Download and Update via Remote UI	Yes	Yes	-	Yes	-	-
Special Download and Update via Remote UI	Yes	-	-	-	Yes	-
Periodical update	Yes	Yes	-	-	-	Yes

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- For install Application

Installation Method	Network Settings	Enabling [Install Application/Options] Button of User Mode
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

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### No.2

#### Q: How can operations using Updater be masked on the users' side?

A: Be sure to perform the following from the service mode.

- Masking Firmware Installation

Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-FIRM (1 -> 0)
Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >LOCLFIRM (1 -> 0)

- Masking Application Installation

Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-MEAP (1 -> 0)
---------------------------------------	---

### No.3

#### Q: Can the communication be cancelled during the communication test?

A: Yes. During the communication test, "Cancel" button is displayed.



# Periodic Service

- Periodical Service Operation Item



## Periodical Service Operation Item

◆: Replacement (Periodical replacement) ●: Replacement (Consumable parts) Δ: Cleaning ×: Lubrication □: Adjustment ■: Inspection

No.	Category	Part Name	Part No	Number	Interval										Counter		Remark		
					At installation	120K	250K	300K	500K	600K	1000K	1500K	2000K	6000K				As needed	
1	Process Unit	Primary Charging Assembly	FM3-7288	1									●			DRBL-1	PRM-UNIT		
2		Primary Charging Wire	FL3-4558	2					◆								PRDC-1	PRM-WIRE	With spring:FL3-4558.In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets
3		Primary Charging Wire cleaner	FL2-0462	2					◆								PRDC-1	PRM-CLN	In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets
4		Primary Charging Wire cleaner holder	FL2-2720	2					◆							In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets			
5		Grid Wire	FY1-0883	AR			Δ		●								PRDC-1	PRM-GRID	Clean with lint-free paper moistened with water.
6		Pre-transfer Charging Assembly	FM4-3149	1										●			DRBL-1	PO-UNIT	
7		Pre-transfer Charging Wire	FL3-4559	1					◆								PRDC-1	PO-WIRE	With spring:FL3-4558.In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets
8		Pre-transfer Charging Wire cleaner	FL2-0462	1					◆								PRDC-1	PO-CLN	
9		Pre-transfer Charging Wire cleaner holder	FL2-2720	1					◆										
10		Developing Assembly	FM4-0959	1										●			DRBL-1	DVG-CYL	
11		Drum Cleaning Blade	FL3-5187	1										●			DRBL-1	CLN-BLD	The blade movement is reversed at every 300 thousand sheets (1-sided).
12		Drum Separation Claw	FB4-8018	3										●			DRBL-1	SP-CLAW	In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets
13		Drum Front Side Seal	FC8-7086	1										●			DRBL-1	BS-SL-F	
14		Drum Rear Side Seal	FC8-7086	1										●			DRBL-1	BS-SL-R	
15		Scraper	FC9-9153	2										●		Δ	DRBL-1	EXP-SCRP	Clean with lint-free paper moistened with alcohol.
16		Dustproof Glass	-	1												Δ	-	-	Clean with lint-free paper moistened with alcohol.
17		Primary Charging Assembly Shield Plate	-	3			Δ										-	-	Clean with lint-free paper moistened with water.
18		Pre-transfer Charging Assembly Shield Plate	-	2						Δ							-	-	Clean with lint-free paper moistened with water.
19		Pre-transfer Charging AssemblyDust Collection Roller	-	1						Δ							-	-	Clean with lint-free paper moistened with alcohol.
20		Pre-transfer Charging Assembly Roller electrode area	-	1						Δ							-	-	Clean with lint-free paper moistened with alcohol.
21		Pre-transfer Charging AssemblyToner collection area	-	1						Δ							-	-	Remove toner in the toner collection area.
22		Drum Cleaning Unit Plate	-	1						Δ							-	-	Clean with lint-free paper moistened with alcohol.
23		Toner collection area	-	1						Δ							-	-	Crumb toner clusters.
24		Separation Claw Mounting Base	-	1						Δ							-	-	Clean with lint-free paper moistened with alcohol.
25		Patch Sensor	-	1						Δ							-	-	Clean in the single direction with a wet and tightly-wrung cotton swab.
26		Process Unit Rear Guide	-	1						Δ							-	-	Clean with lint-free paper moistened with alcohol.
27		Drum Sliding Assembly	-	1												×	-	-	Apply lubricant at the Drum Sliding Assembly when abnormal sound is heard at the time of operation (FY9-6008).

◆: Replacement (Periodical replacement) ●: Replacement (Consumable parts) Δ: Cleaning ✕: Lubrication □: Adjustment ■: Inspection

No.	Category	Part Name	Part No	Number	Interval										Counter		Remark	
					At installation	120K	250K	300K	500K	600K	1000K	1500K	2000K	6000K				As needed
28	Process Unit	Drum Face	-	1				Δ										Using lint-free paper, clean the drum with the drum cleaning powder (FY9-6024).
29		Drum Edge	-	1			Δ											Clean with lint-free paper moistened
30		The host machine surface below the Developing Assembly	-	1											Δ	-	-	Remove toner which was scattered at removal of Developing Assembly.
31		Developing Roller	-	4					Δ							-	-	Clean with lint-free paper moistened with alcohol.
32		Developing Sleeve Holder	-	2					Δ							-	-	Clean with lint-free paper moistened with alcohol.
33		Lower side of Cylinder.	-	1					Δ							-	-	Clean with lint-free paper moistened with alcohol.
34		Toner Receptacle Tray	-	1											Δ	-	-	Remove toner on the tray.
35	Waste Toner Container	-	1					Δ							-	-	Clean when the message is displayed.	
36	Image Formation System	ETB	FC8-7160	1					●						DRBL-1	TR-BLT		
37		Transfer Roller	FC8-7159	1					●						DRBL-1	TR-ROLL		
38		Brush Roller	FC9-9022	1					●						DRBL-1	T-CN-BRU		
39		ETB Cleaning Blade	FC6-1647	1					●						DRBL-1	T-CLN-BD		
40		ETB Driver Roller	-	1					Δ						-	-		Clean with lint-free paper moistened with alcohol.
41		ETB Idler Roller	-	1					Δ						-	-		Clean with lint-free paper moistened with alcohol.
42	Fixing System	Fixing Cleaning Web	FC5-2286	1					●						DRBL-1	FX-WEB		
43		Fixing Cleaning Web Guide	-						Δ						-	-		Clean with lint-free paper moistened with alcohol.
44		Fixing Roller	FL3-3601	1						●					DRBL-1	FX-UP-RL		
45		Fixing Roller Insulating Bush	FC9-8069	2						●					DRBL-1	FX-IN-BS		
46		Fixing Roller Thrust retainer	FC6-3501	2						●					DRBL-1	FX-RTNR		Be sure to replace it together with the Fixing Roller.
47		Fixing Main Thermistor (THM1)	FK2-7692	1					◆						PRDC-1	FIX-TH1		
48		Fixing Sub Thermistor 1(THM2)	FK2-7693	1					◆						PRDC-1	FIX-TH2		
49		Fixing Sub Thermistor 2(THM4)	FK2-7693	1					◆						PRDC-1	FIX-TH2		
50		Pressure Roller Unit	FM4-3158	1						●					DRBL-1	FX-LW-RL		
51		Pressure Roller Static Eliminator	FC9-6170	1						●					DRBL-1	FX-L-STC		
52		Fixing Inlet Guide	-	1					Δ						-	-		Clean with solvent and lint-free paper. Also, remove paper lint covered on the Inlet Sensor Flag.
53		Fixing Oil Receiver	-	1					Δ						-	-		Dry wiping
54		Fixing Right Stay	-	1					Δ						-	-		Clean with solvent and lint-free paper.
55	Dowel	-	4					Δ						-	-		Clean with solvent and lint-free paper.	
56	Dowel Holder	-	4					Δ						-	-		Clean with solvent and lint-free paper.	
57	Fixing Inlet Sensor Flag	-	1					Δ						-	-		Clean with solvent and lint-free paper.	
58	Fixing Roller Static Eliminator	-	1					Δ						-	-		Dry wiping	
59	Inner Delivery Roller	-	4					Δ						-	-		Clean with solvent and lint-free paper.	

◆: Replacement (Periodical replacement) ●: Replacement (Consumable parts) Δ: Cleaning ✕: Lubrication □: Adjustment ■: Inspection

No.	Category	Part Name	Part No	Number	Interval								Counter	Remark					
					At installation	120K	250K	300K	500K	600K	1000K	1500K			2000K	6000K	As needed		
60	Pickup/Feeding System	Upper Separation Claw	FB5-3625	6					●							DRBL-1	DLV-UCLW	Clean this part when it is not replaced. Clean with solvent and lint-free paper.	
61		Cassette 3 Pickup Roller / Cassette 4 Pickup Roller	FC5-2524	2					●								DRBL-1	3: C3-PU-RL 4: C4-PU-RL	Actual use in terms of number of prints. 1 pc. each (3/4)
62		Cassette 3 Feed Roller / Cassette 4 Feed Roller	FC5-2526	2					●								DRBL-1	3: C3-FD-RL 4: C4-FD-RL	Actual use in terms of number of prints. 1 pc. each (3/4)
63		Cassette 3 Separation Roller / Cassette 4 Separation Roller	FC5-2528	2					●								DRBL-1	3: C3-SP-RL 4: C4-SP-RL	Actual use in terms of number of prints. 1 pc. each (3/4)
64		Right Deck Pickup Roller / Left Deck Pickup Roller	FC5-2524	2					●								DRBL-1	Right: C1-PU-RL Left: C2-PU-RL	Actual use in terms of number of prints. 1 pc. each (Left/Right)
65		Right Deck Feed Roller / Left Deck Feed Roller	FC5-2526	2					●								DRBL-1	Right: C1-FD-RL Left: C2-FD-RL	Actual use in terms of number of prints. 1 pc. each (Left/Right)
66		Right Deck Separation Roller / Left Deck Separation Roller	FC5-2528	2					●								DRBL-1	Right: C1-SP-RL Left: C2-SP-RL	Actual use in terms of number of prints. 1 pc. each (Left/Right)
67		Multi-purpose Tray Separation Roller	FC6-6661	1	●												DRBL-1	M-SP-RL	Actual use in terms of number of prints.
68		Multi-purpose Tray Feed Roller	FB1-8581	1	●												DRBL-1	M-FD-RL	Actual use in terms of number of prints.
69		Feed Guide	-	-					Δ								-	-	Remove paper lint with lint-free paper and cleaning tool.
70		Rollers/wheels	-	-					Δ								-	-	Clean with lint-free paper moistened with alcohol.
71		Separation Static Eliminator	-	1					Δ								-	-	Remove paper lint (toner) with Blower.
72		Duplex Unit Cleaning Brush	-	2					Δ								-	-	Using Blower, remove paper lint which was collected by Cleaning Brush.
73		Registration Unit Magnet	-	1					Δ								-	-	Clean with lint-free paper moistened with alcohol.
74	Scanner Sensor(Pickup Assembly)	-	4									Δ	*			-	-	Using Blower, remove paper lint Left Deck Pickup Sensor 2 (PS20),Right Deck Pickup Sensor 2 (PS19) ,Cassette 3 Pickup Sensor 2 (PS21),Cassette 4 Pickup Sensor 1 (PS22) * when replacing Separation Roller	
75	Scanner Sensor(Feeding Assembly)	-	7									Δ				-	-	Using Blower, remove paper lint Vertical Path Sensor 1 (PS24) ,the Multi-purpose Tray Last Paper Sensor (PS28),the Registration Sensor (PS29),Reverse Vertical Path Sensor (PS65),Duplex Outlet Sensor (PS64), Duplex Merge Sensor (PS67), and Duplex Left Sensor (PS66)	
76	Filter	Ozone Filter	FL3-2134	1											◆	PRDC-1	OZ-FIL1		
77		Dustproof Filter	FC8-9564	1											◆	PRDC-1	AR-FIL1		

T-3-1

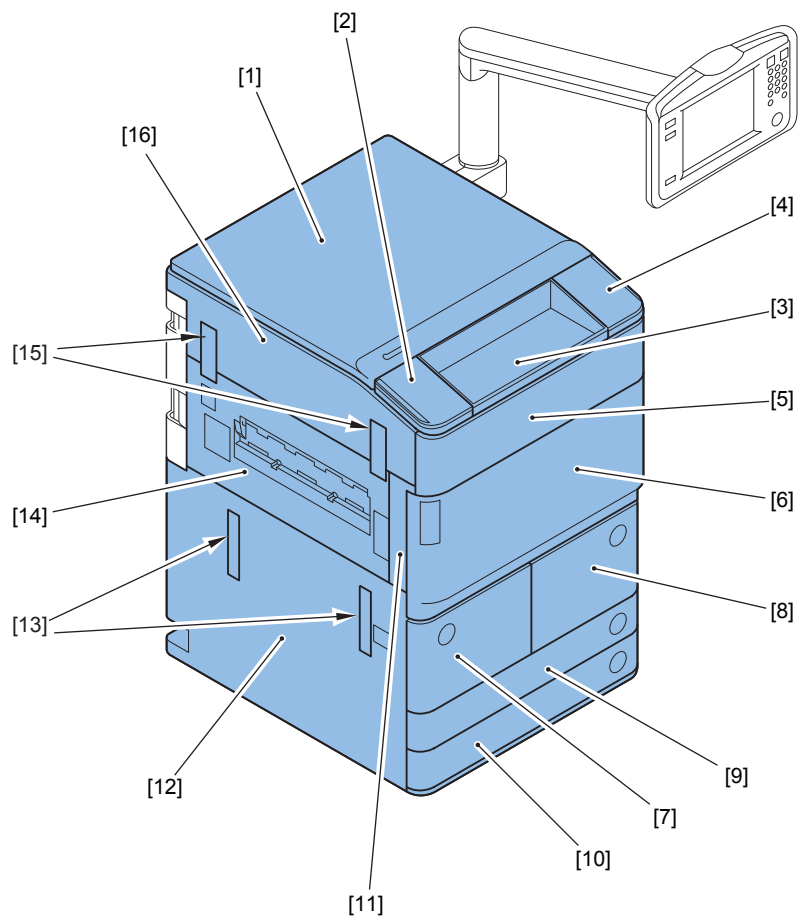
# 4

## Parts Replacement and Cleaning

- List of Parts
- Main Controller
- Laser Exposure System
- Image Formation System
- Fixing
- Pickup/Feed System
- External Auxiliary System

## List of Parts

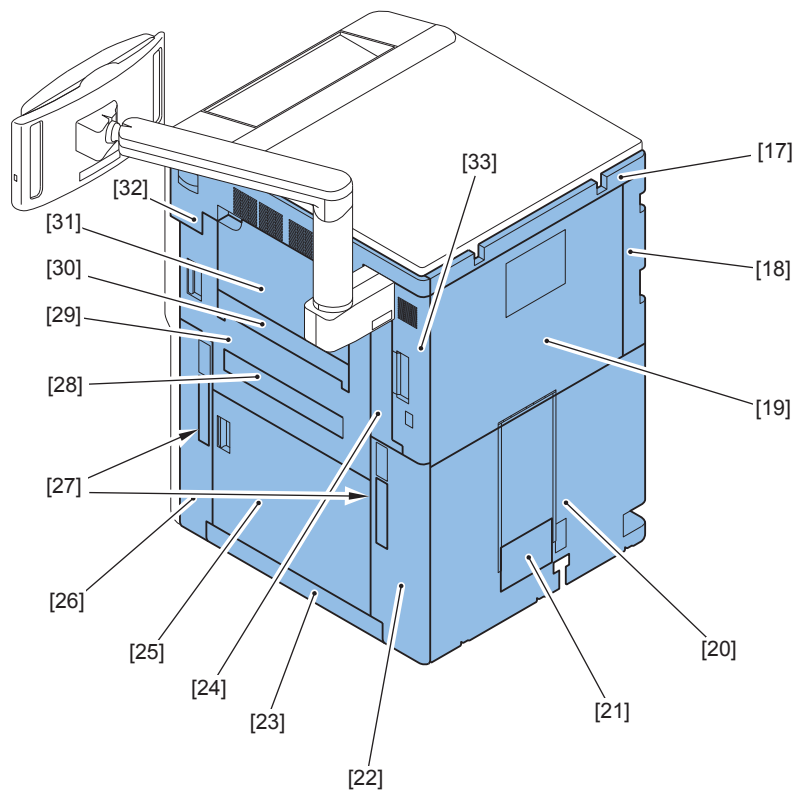
## List of External / Internal Cover



F-4-1

No	Name	Service Parts No.	Reference
[1]	Upper Cover	FM3-9953	
[2]	Upper Left Cover	FC9-0376	
[3]	Upper Middle Cover	FM3-9909	
[4]	Upper Right Cover	FC8-2366	
[5]	Toner Exchange Cover	FL3-3812	
[6]	Front Cover	FC8-9562	
[7]	Deck Left Cover	FC8-7354	
[8]	Deck Right Cover	FC8-7353	
[9]	Cassette Front Cover	FC8-2495	
[10]	Cassette Front Cover	FC8-2495	
[11]	Left Front Cover	FC9-7044	
[12]	Left Lower Cover	FC9-0152	
[13]	Left Handle Cover	FC8-7033	
[14]	Delivery Cover	FC9-0156	
[15]	Finisher Connector Cover	FC9-9103	
[16]	Left Upper Cover	FC9-0155	

T-4-1

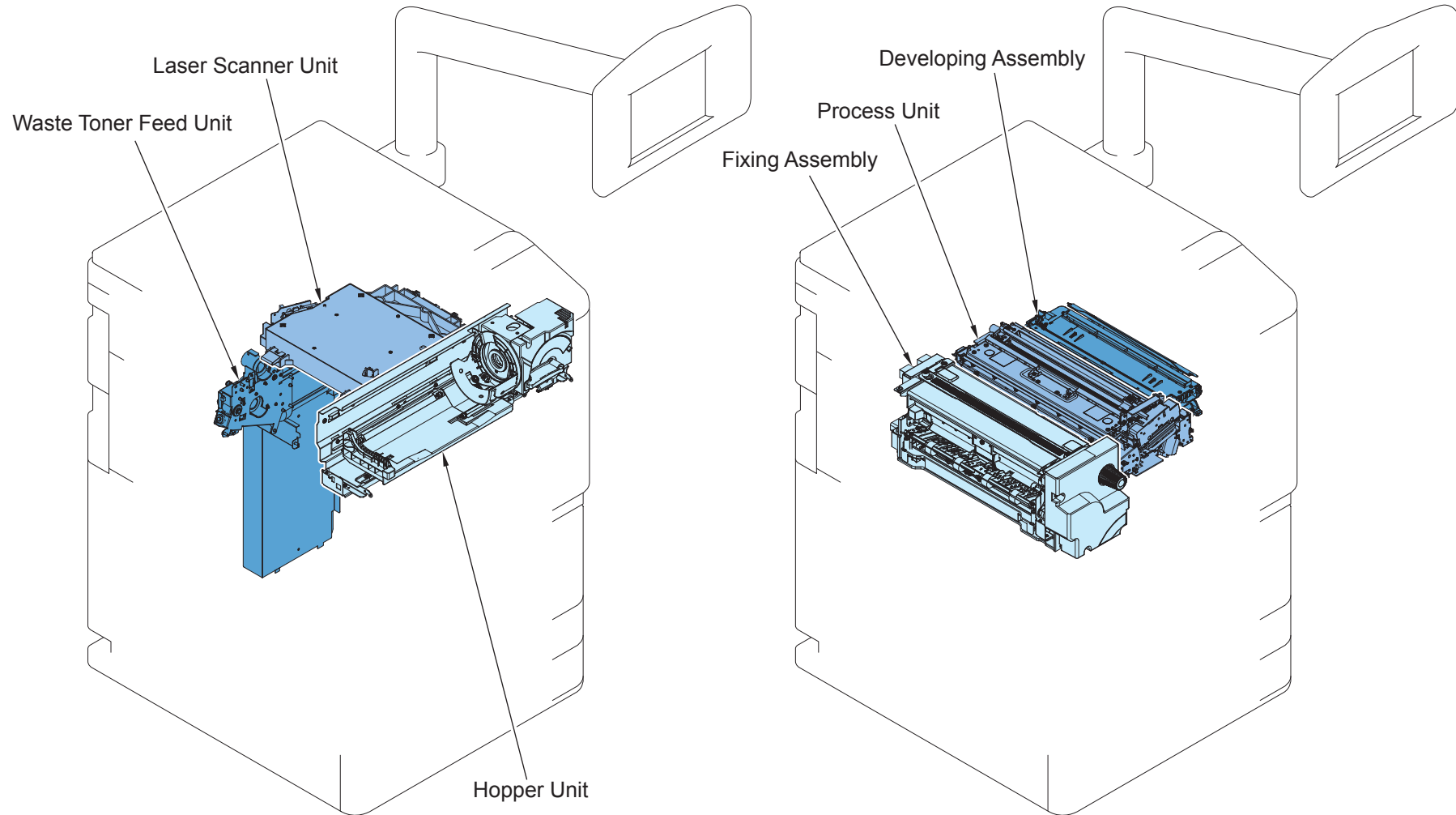


F-4-2

No	Name	Service Parts No.	Reference
[17]	Upper Rear Cover	FC9-5464	
[18]	Left Rear Cover	FC9-0080	
[19]	Rear Upper Cover	FC8-7016	
[20]	Rear Lower Cover	FC8-9566	
[21]	Filter Cover	FL3-2142	
[22]	Waste Toner Container Cover	FC9-0157	
[23]	Right Lower Cover	FC9-0078	
[24]	Right Rear Cover 2	FC9-0081	
[25]	Vertical Path Cover	FC8-7347	
[26]	Right Front Cover	FC9-0077	
[27]	Right Handle Cover	FC8-7033	
[28]	Duplex Delivery Cover	FC8-9353	
[29]	Right Cover	FC8-7290	
[30]	MP Pickup Tray Sub Cover	FL3-5030	
[31]	MP Pickup Tray	FC8-7274	
[32]	Right Upper Cover	FC9-0088	
[33]	Right Rear Cover 1	FC9-0079	

T-4-2

## List of Main Unit

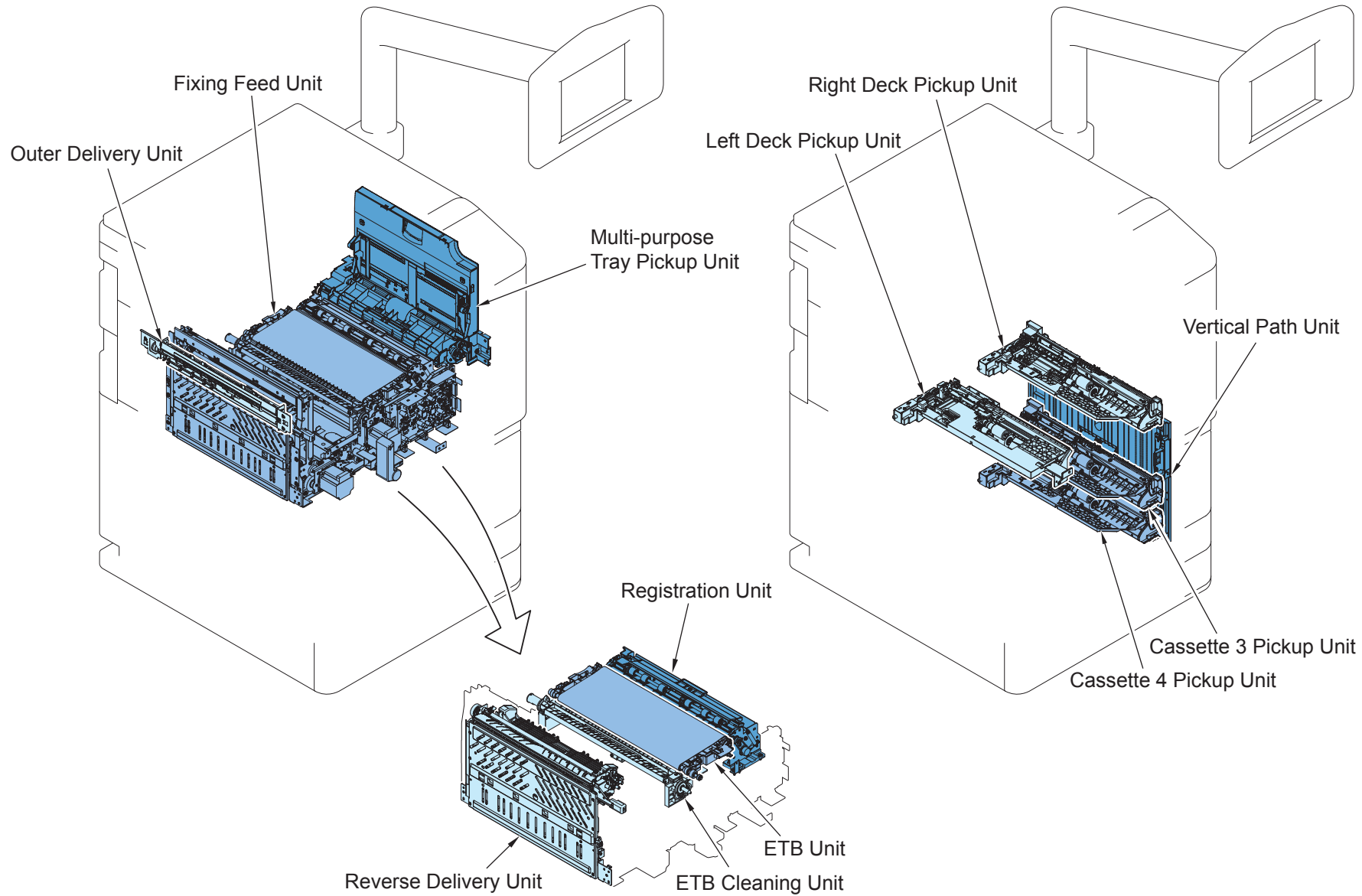


F-4-3

No	Name	Service Parts No.	Reference
[1]	Waste Toner Feed Unit	FM4-0899	"Removing the Waste Toner Feed Unit"(page 4-167).
[2]	Laser Scanner Unit	FM3-7531	"Removing the Laser Scanner Unit"(page 4-93).
[3]	Hopper Unit	FM4-0883	"Removing the Hopper Unit"(page 4-158).
[4]	Fixing Assembly	NPN	"Removing the Fixing Assembly"(page 4-176).
[5]	Process Unit	FM3-7291	"Removing the Process Unit"(page 4-115).
[6]	Developing Assembly	FM4-0959	"Removing the Developing Assembly"(page 4-130).

T-4-3

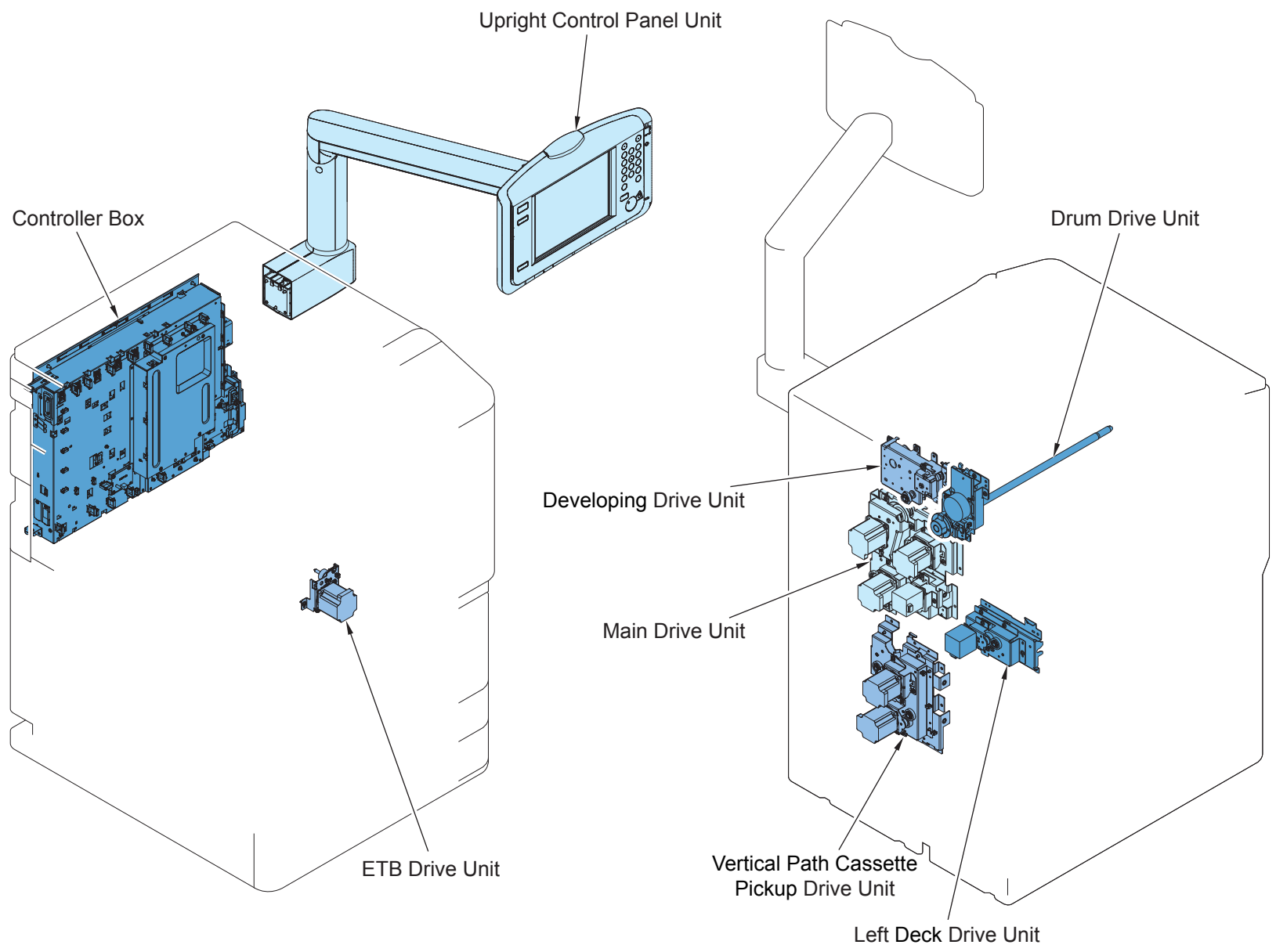




F-4-4

No	Name	Service Parts No.	Reference
[7]	Outer Delivery Unit	FM3-7379	
[8]	Fixing Feed Unit	NPN	
[9]	Multi-purpose Tray Pickup Unit	FM3-7367	
[10]	Left Deck Pickup Unit	FM4-0964	"Removing the Left Deck Pickup Unit"(page 4-218).
[11]	Right Deck Pickup Unit	FM4-0963	"Removing the Right Deck Pickup Unit"(page 4-219).
[12]	Vertical Path Unit	FM4-0943	
[13]	Cassette 3 Pickup Unit	FM4-0963	"Removing the Cassettes 3 and 4 Pickup Unit"(page 4-220).
[14]	Cassette 4 Pickup Unit	FM4-0963	"Removing the Cassettes 3 and 4 Pickup Unit"(page 4-220).
[15]	Registration Unit	FM4-5156	"Removing the Registration Unit"(page 4-224).
[16]	Reverse Delivery Unit	FM4-5316	
[17]	ETB Cleaning Unit	FM4-0913	"Removing the ETB Unit"(page 4-135).
[18]	ETB Unit	FM4-0916	"Removing the ETB Unit"(page 4-135).

T-4-4



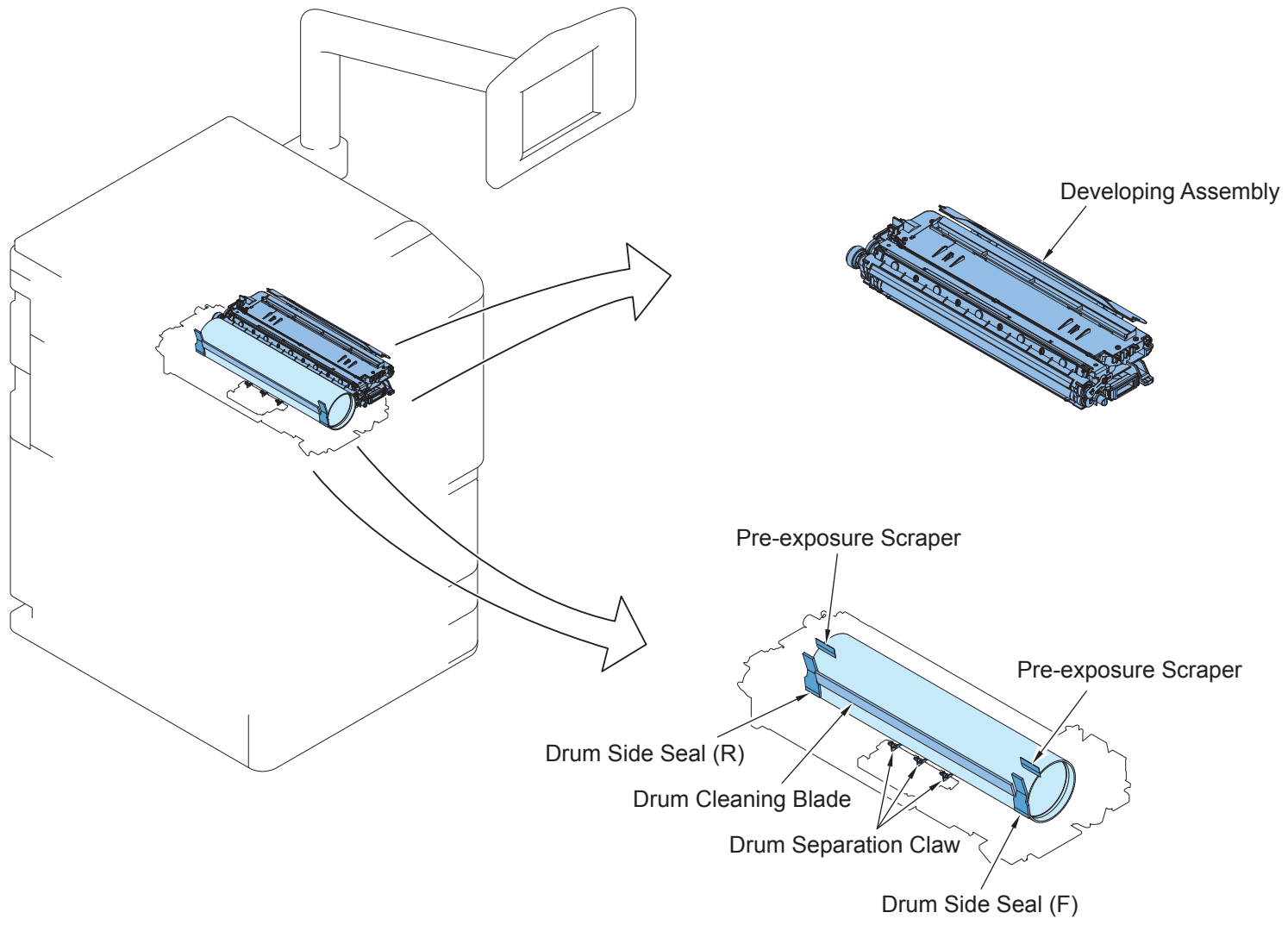
F-4-5

No	Name	Service Parts No.	Reference
[19]	Upright Control Panel Unit	FM3-4810	
[20]	Controller Box	NPN	
[21]	Drum Drive Unit	FM4-0975	"Removing the Drum Drive Unit"(page 4-171).
[22]	Developing Drive Unit	FM3-7386	"Removing the Developing Drive Unit"(page 4-173).
[23]	Main Drive Unit	NPN	"Removing the Main Drive Unit"(page 4-228).
[24]	Vertical Path Cassette Pickup Drive Unit	FM3-7374	"Removing the Vertical Path Cassette Pickup Drive Unit"(page 4-221).
[25]	Left Deck Drive Unit		"Removing the Left Deck Pickup Drive Unit"(page 4-227).
[26]	ETB Drive Unit	NPN	"Removing the ETB Drive Unit"(page 4-153).

T-4-5

# Periodic Replacing Parts,Durable Parts,Cleaning Parts

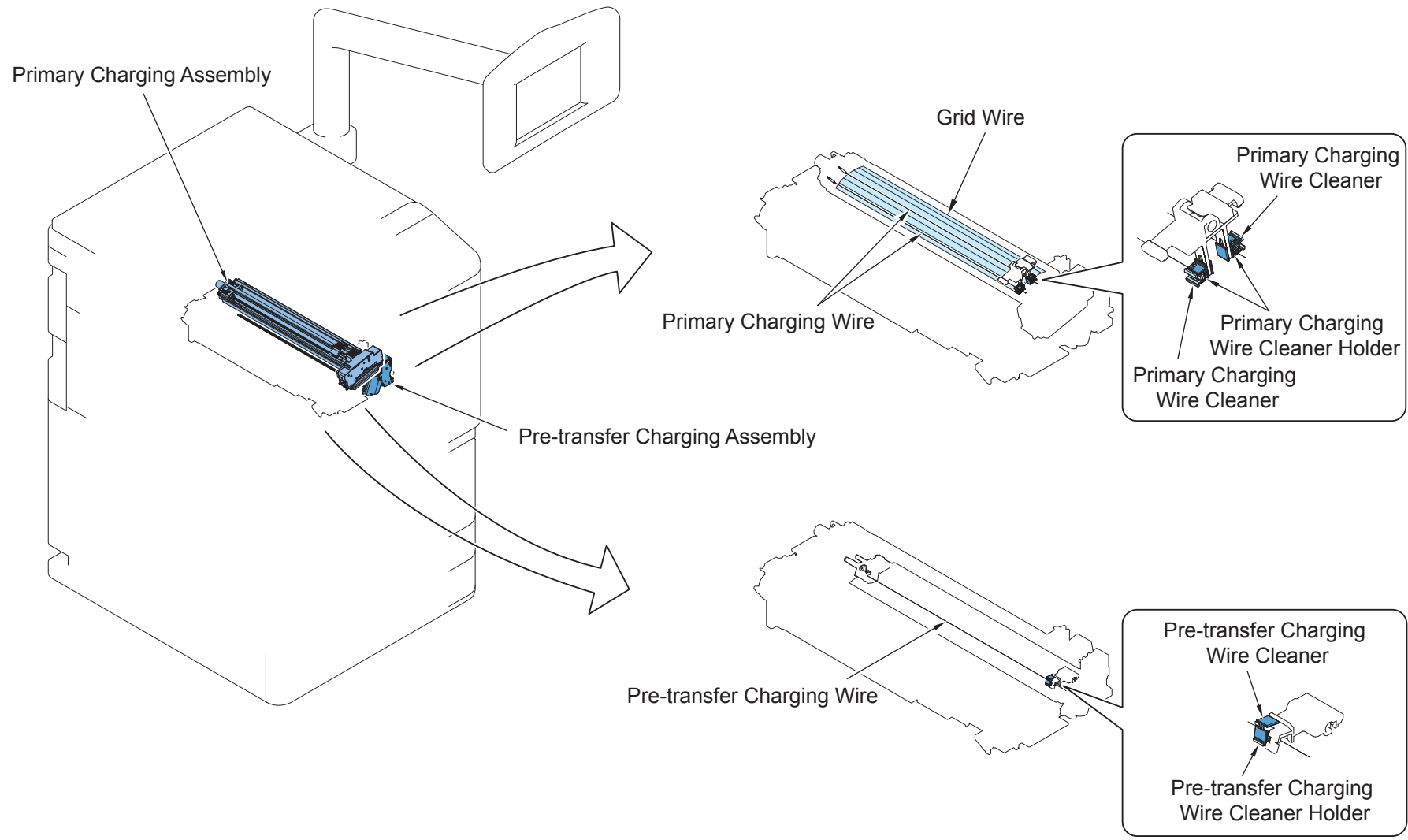
## Periodic Replacing Parts,Durable Parts



F-4-6

No	Name	Main Unit	Service Parts No.	Reference	Adjustment during parts replacement
[1]	Developing Assembly	Developing Assembly	FM3-7297	"Removing the Developing Assembly"(page 4-130).	"Developing Assembly"(page 5-10).
[2]	Drum Side Seal(Rear)	Process Uni	FC8-7086	"Removing the Side Seal"(page 4-129).	-
[3]	Drum Cleaning Blade	Process Unit	FC8-7086	"Removing the Drum Cleaning Blade"(page 4-119).	-
[4]	Drum Separation Claw	Process Unit	FB4-8018-010	"Removing the Cleaner Separation Claw"(page 4-129).	-
[5]	Drum Side Seal(Front)	Process Unit	FC8-7085	"Removing the Side Seal"(page 4-129).	-
[6]	Pre-exposure Scraper	Drum Cleaning Unit	FC9-9153	"Replacing the Pre-exposure Plastic Film"(page 4-122).	

T-4-6

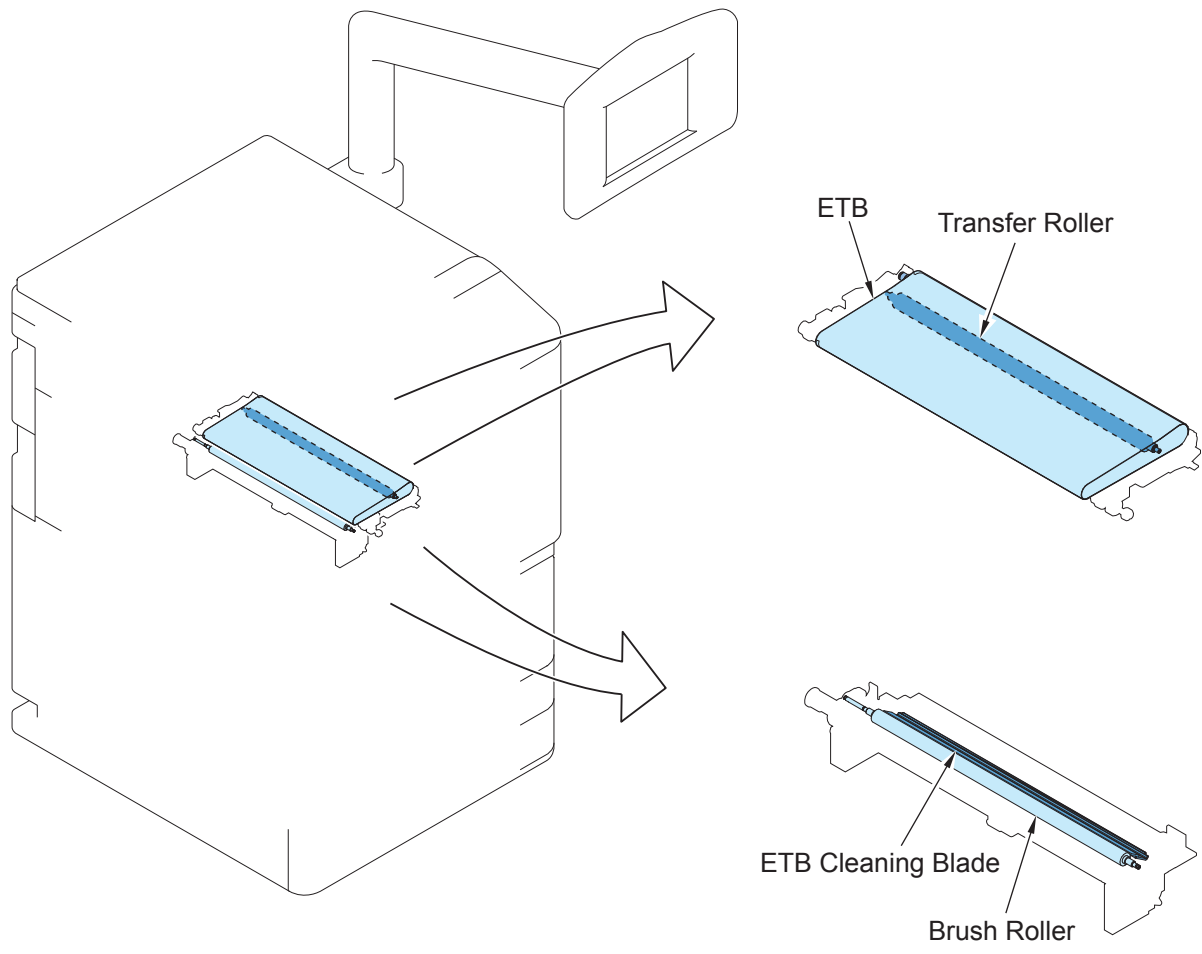


F-4-7

No	Name	Main Unit	Service Parts No.	Reference	Adjustment during parts replacement
[1]	Primary Charging Assembly	Process Unit	FM3-7288	"Removing the Primary Charging Assembly"(page 4-97).	"Primary Charging Assembly"(page 5-7).
[2]	Pre-transfer Charging Assembly	Process Unit	FM4-3149	"Removing the Pre-transfer Charging Assembly"(page 4-108).	"Pre-transfer Charging Assembly"(page 5-9).
[3]	Primary Charging Wire	Primary Charging Assembly	FB4-3687 FL3-4558	"Replacing the Primary Charging Wire"(page 4-104). Primary Charging Wire(with Spring)	"Primary Charging Wire"(page 5-7).
[4]	Pre-transfer Charging Wire	Pre-transfer Charging Assembly	FB4-3687 FL3-4559	"Replacing the Pre-transfer Charging Wire"(page 4-112). Pre-transfer Charging Wire(with Spring)	"Pre-transfer Charging Wire"(page 5-9).
[5]	Primary Charging Wire Cleaner	Primary Charging Assembly	FL2-0462	"Removing the Primary Charging Wire Cleaner, Cleaner Holder (Right/Left)"(page 4-98).	-
[6]	Primary Charging Wire Cleaner Holder	Primary Charging Assembly	FL2-2720	"Removing the Primary Charging Wire Cleaner, Cleaner Holder (Right/Left)"(page 4-98).	-
[7]	Grid Wire	Primary Charging Assembly	FY1-0883	"Replacing the Primary Charging Assembly Grid Wire"(page 4-101).	-
[8]	Pre-transfer Charging Wire Cleaner	Pre-transfer Charging Assembly	FL2-0462	"Removing the Pre-transfer Charging Wire Cleaner, Cleaner Holder"(page 4-109).	-
[9]	Pre-transfer Charging Wire Cleaner Holder	Pre-transfer Charging Assembly	FL2-2720	"Removing the Pre-transfer Charging Wire Cleaner, Cleaner Holder"(page 4-109).	-

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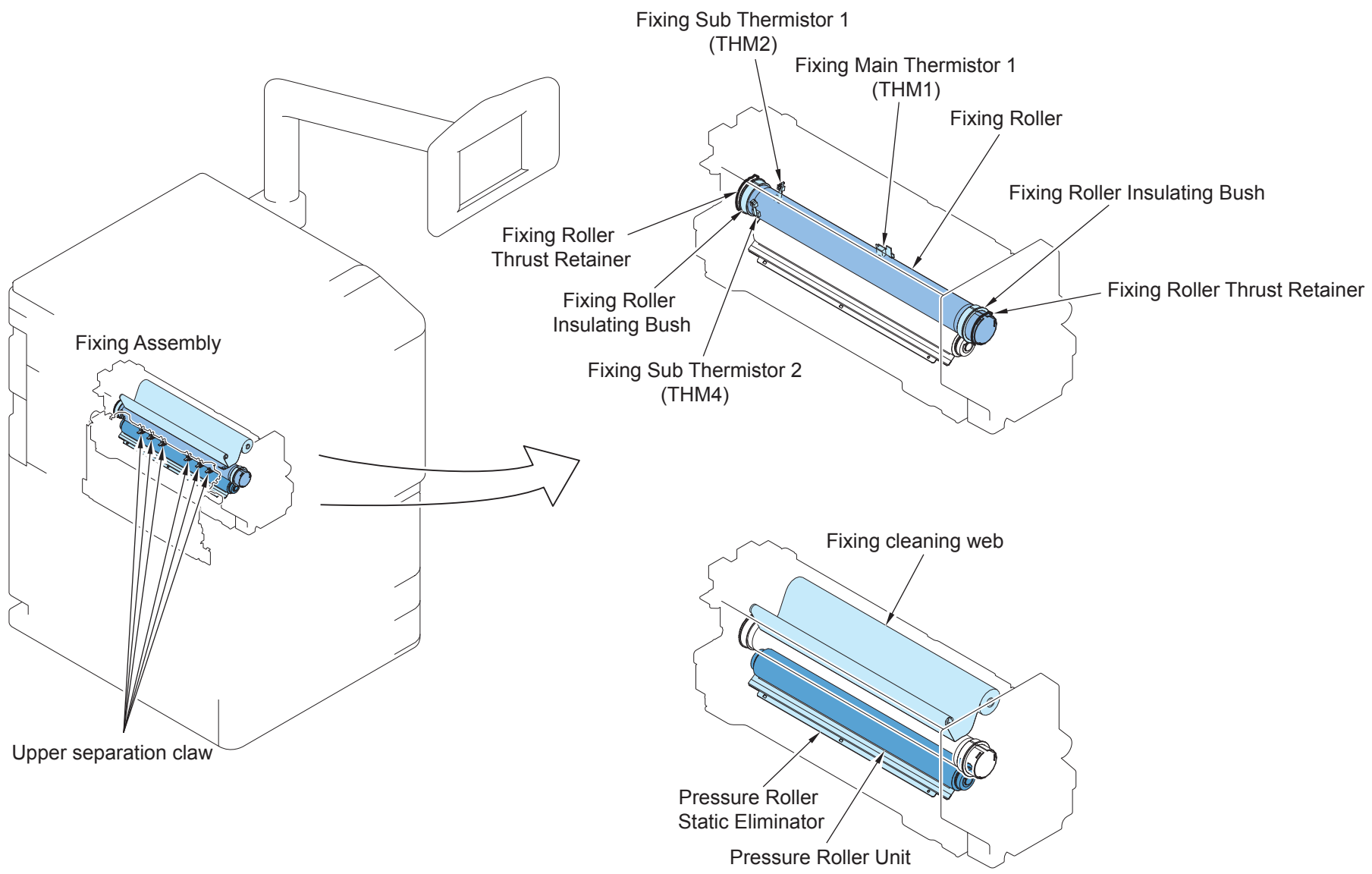




F-4-8

No	Name	Main Unit	Service Parts No.	Reference	Adjustment during parts replacement
[1]	ETB	ETB Unit	FC8-7160	"Removing the ETB Unit"(page 4-135).	-
[2]	Transfer Roller	ETB Unit	FC8-7159	"Removing the Transfer Roller"(page 4-139).	-
[3]	ETB Cleaning Blade	ETB Cleaning Unit	FC6-1647	"Removing the ETB Cleaning Blade"(page 4-140).	-
[4]	Brush Roller	ETB Cleaning Unit	FC9-9022	"Removing the ETB Brush Roller"(page 4-140).	-

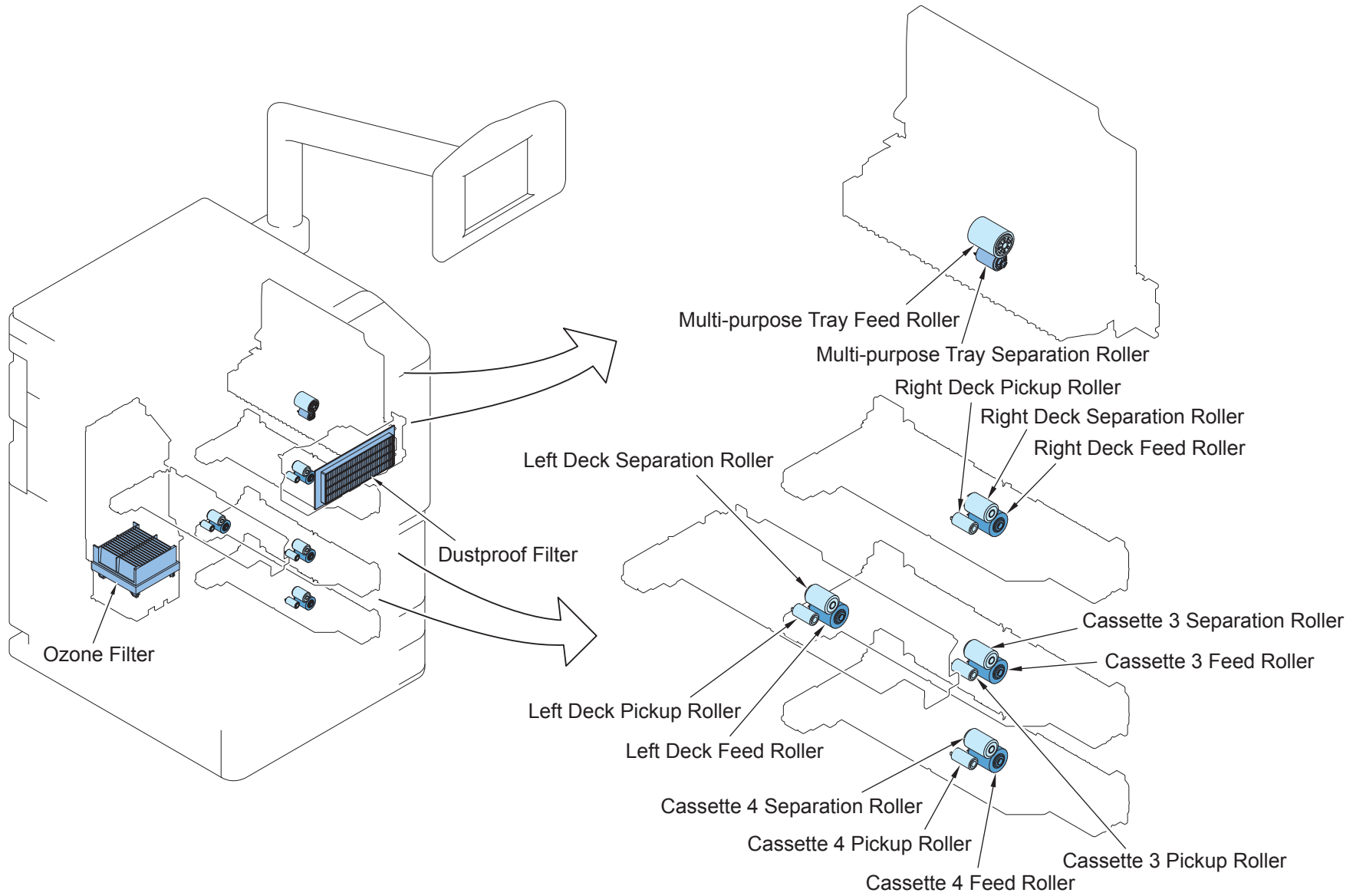
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F-4-9

No	Name	Main Unit	Service Parts No.	Reference	Adjustment during parts replacement
[1]	Fixing Sub Thermister 1(THM2)	Fixing Assembly	FK2-7693	"Removing the Sub Thermistor 1"(page 4-191).	-
[2]	Fixing Main Thermister(THM1)	Fixing Assembly	FK2-7692	"Removing the Main Thermistor"(page 4-190).	-
[3]	Fixing Roller	Fixing Assembly	FL3-3602	"Removing the Fixing Roller, Insulating Bush and Thrust Stopper"(page 4-185).	"Fixing Roller"(page 5-11).
[4]	Fixing Roller Insulating Bushing	Fixing Assembly	FC9-8069	"Removing the Fixing Roller, Insulating Bush and Thrust Stopper"(page 4-185).	-
[5]	Fixing Roller Thrust Retainer	Fixing Assembly	FC6-3501	"Removing the Fixing Roller, Insulating Bush and Thrust Stopper"(page 4-185).	-
[6]	Fixing Sub Thermister 2(THM4)	Fixing Assembly	FK2-7693	"Removing the Sub Thermistor 2"(page 4-192).	-
[7]	Fixing Cleaning Web	Fixing Assembly	FC5-2286	"Removing the Fixing Cleaning Web"(page 4-180).	-
[8]	Pressure Roller Static Eliminator	Fixing Assembly	FC9-6170	"Removing the Pressure Roller Static Eliminator"(page 4-189).	-
[9]	Pressure Roller Unit	Fixing Assembly	FM4-3158	"Removing the Pressure Roller"(page 4-188).	-
[10]	Upper Separation Claw	Fixing Assembly	FB5-3625	"Removing the Upper Separation Claw"(page 4-193).	-

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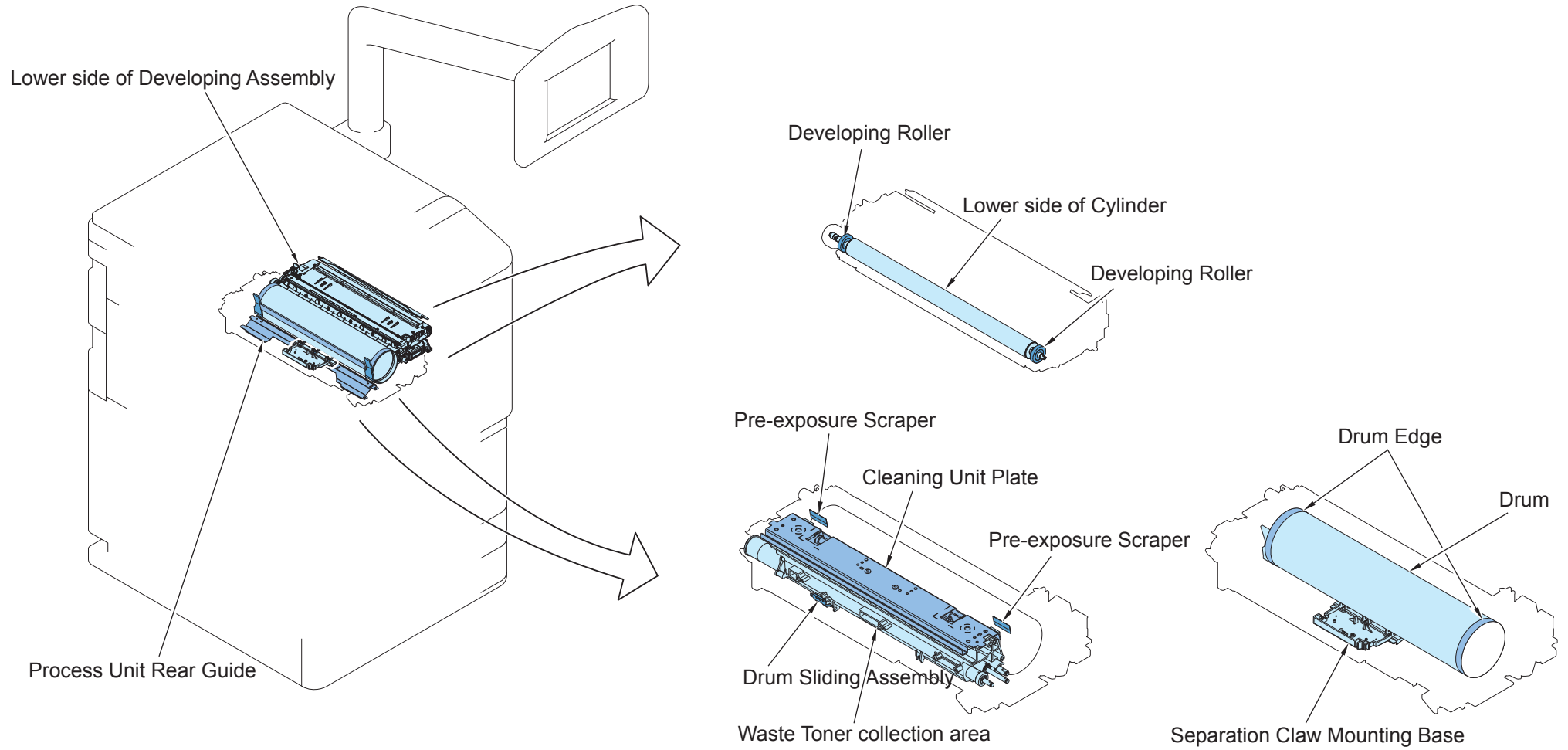


F-4-10

No	Name	Main Unit	Service Parts No.	Reference	Adjustment during parts replacement
[1]	Multi-purpose Tray Feed Roller	Multi-purpose Pickup Unit	FB1-8581	"Removing the Multi-purpose Tray Feed Roller"(page 4-206).	-
[2]	Multi-purpose Tray Separation Roller	Multi-purpose Pickup Unit	FC6-6661	"Removing the Multi-purpose Tray Separation Roller"(page 4-208).	-
[3]	Right Deck Pickup Roller	Right Deck Pickup Unit	FC5-2524	"Removing the Right Deck Pickup Roller"(page 4-199).	-
[4]	Right Deck Separation Roller	Right Deck Pickup Unit	FC5-2528	"Removing the Right Deck Separation Roller /Cleaning the Right Deck Pickup Sensor 2 (PS19)"(page 4-200).	-
[5]	Right Deck Feed Roller	Right Deck Pickup Unit	FC5-2526	"Removing the Right Deck Feed Roller"(page 4-200).	-
[6]	Left Deck Separation Roller	Left Deck Pickup Unit	FC5-2528	"Removing the Left Deck Separation Roller /Cleaning the Left Deck Pickup Sensor 2 (PS20)"(page 4-199).	-
[7]	Left Deck Pickup Roller	Left Deck Pickup Unit	FC5-2524	"Removing the Left Deck Pickup Roller"(page 4-197).	-
[8]	Left Deck Feed Roller	Left Deck Pickup Unit	FC5-2526	"Removing the Left Deck Feed Roller"(page 4-198).	-
[9]	Cassette 3 Separation Roller	Cassette 3 Pickup Unit	FC5-2528	"Removing the Upper Cassette Separation Roller /Cleaning the Cassette 3 Pickup Sensor 2 (PS21)"(page 4-203).	-
[10]	Cassette 3 Feed Roller	Cassette 3 Pickup Unit	FC5-2526	"Removing the Upper Cassette Feed Roller"(page 4-202).	-
[11]	Cassette 3 Pickup Roller	Cassette 3 Pickup Unit	FC5-2524	"Removing the Upper Cassette Pickup Roller"(page 4-202).	-
[12]	Cassette 4 Separation Roller	Cassette 4 Pickup Unit	FC5-2528	"Removing the Lower Cassette Separation Roller /Cleaning the Cassette 4 Pickup Sensor 1 (PS22)"(page 4-205).	-
[13]	Cassette 4 Feed Roller	Cassette 4 Pickup Unit	FC5-2526	"Removing the Lower Cassette Feed Roller"(page 4-205).	-
[14]	Cassette 4 Pickup Roller	Cassette 4 Pickup Unit	FC5-2524	"Removing the Lower Cassette Pickup Roller"(page 4-204).	-
[15]	Dustproof Filter	Product configuration	FC8-9564	"Removing the Filter (for primary charging)"(page 4-233).	-
[16]	Ozone Filter	Product configuration	FL3-2134	"Removing the Ozone Filter"(page 4-233).	-

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List of Cleaning Parts

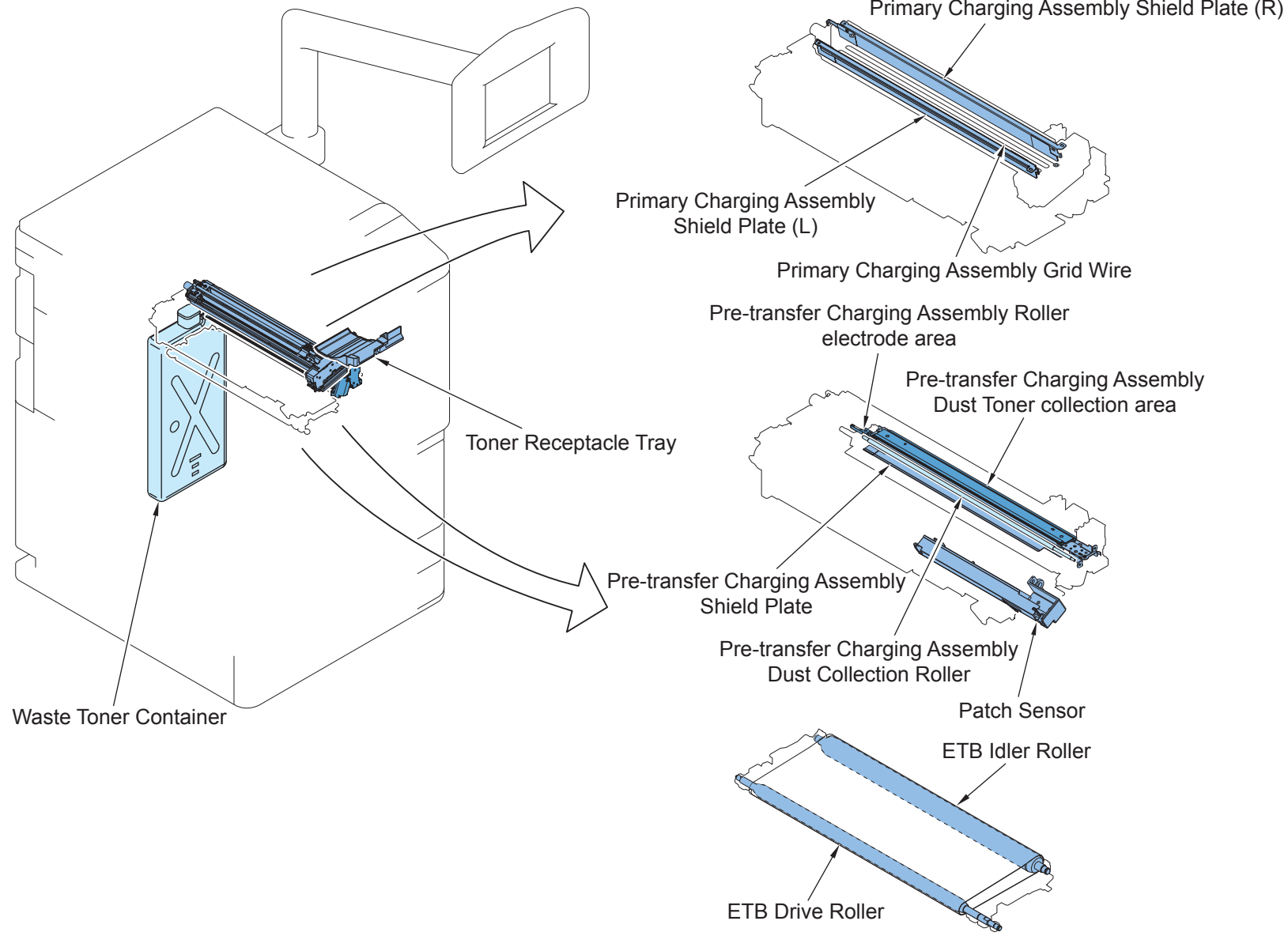


F-4-11

No	Name	Main Unit	Reference
[1]	Cleaning Unit Plate	Drum Cleaning Unit	"Cleaning the Drum Cleaning Unit"(page 4-121).
[2]	Pre-exposure Scraper	Drum Cleaning Unit	"Cleaning the Drum Cleaning Unit"(page 4-121).
[3]	Waste Toner Collection Area	Drum Cleaning Unit	"Cleaning the Drum Cleaning Unit"(page 4-121).
[4]	Separation Claw Mounting Base	Process Unit	"Cleaning the Process Unit"(page 4-117).
[5]	Process Unit Rear Guide	Process Unit	"Cleaning the Process Unit"(page 4-117).
[6]	Drum Sliding Assembly	Process Unit	"Cleaning the Process Unit"(page 4-117).
[7]	Drum	Process Unit	"Cleaning Photosensitive Drum"(page 4-127).
[8]	Drum Edge	Process Unit	"Cleaning the Drum edges"(page 4-128).
[9]	Lower side of Developing Assembly	Developing Assembly	"Cleaning the Developing Assembly"(page 4-133).
[10]	Developing Roller	Developing Assembly	"Cleaning the Developing Assembly"(page 4-133).
[11]	Lower side of Cylinder	Developing Assembly	"Cleaning the Developing Assembly"(page 4-133).

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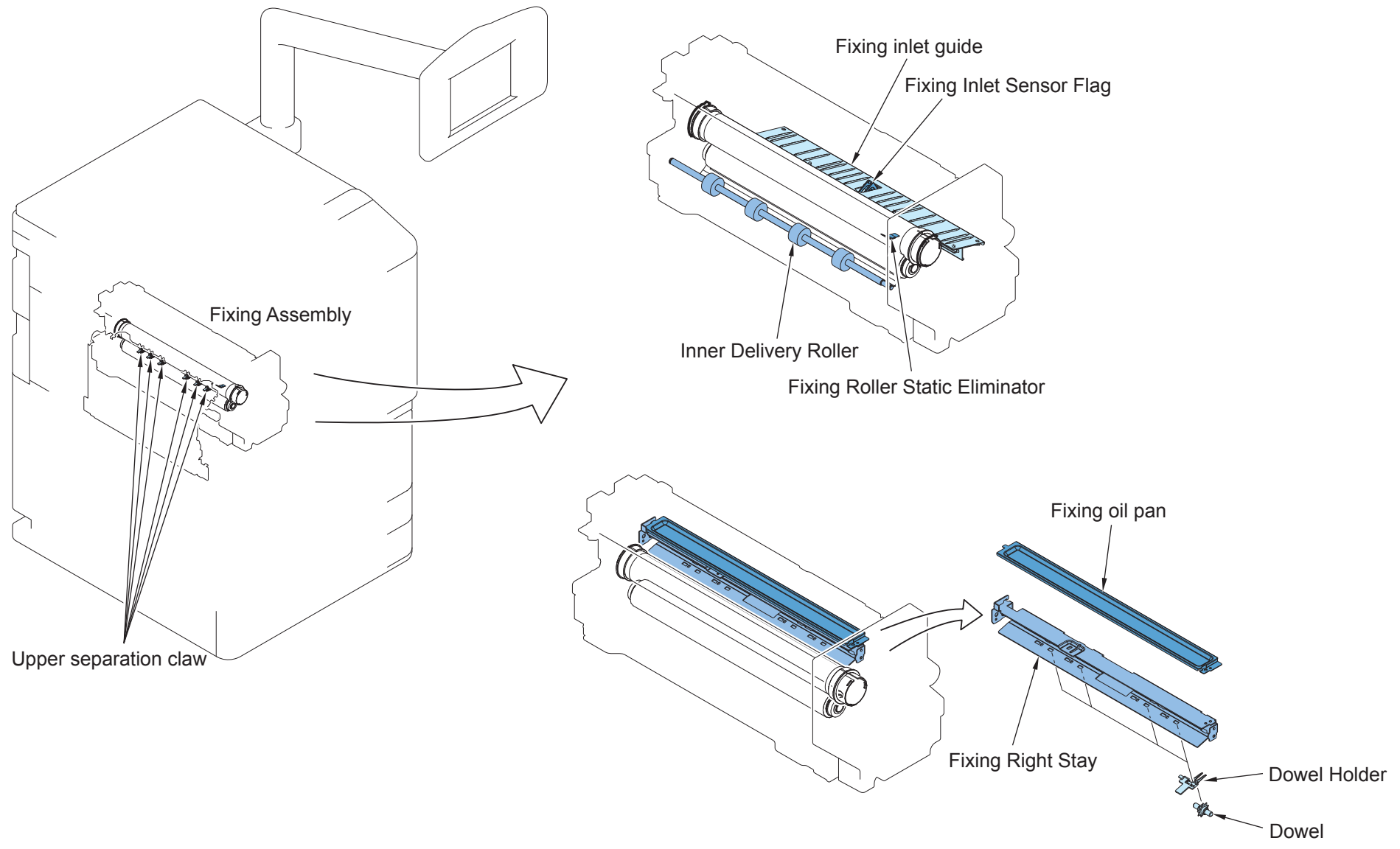




F-4-12

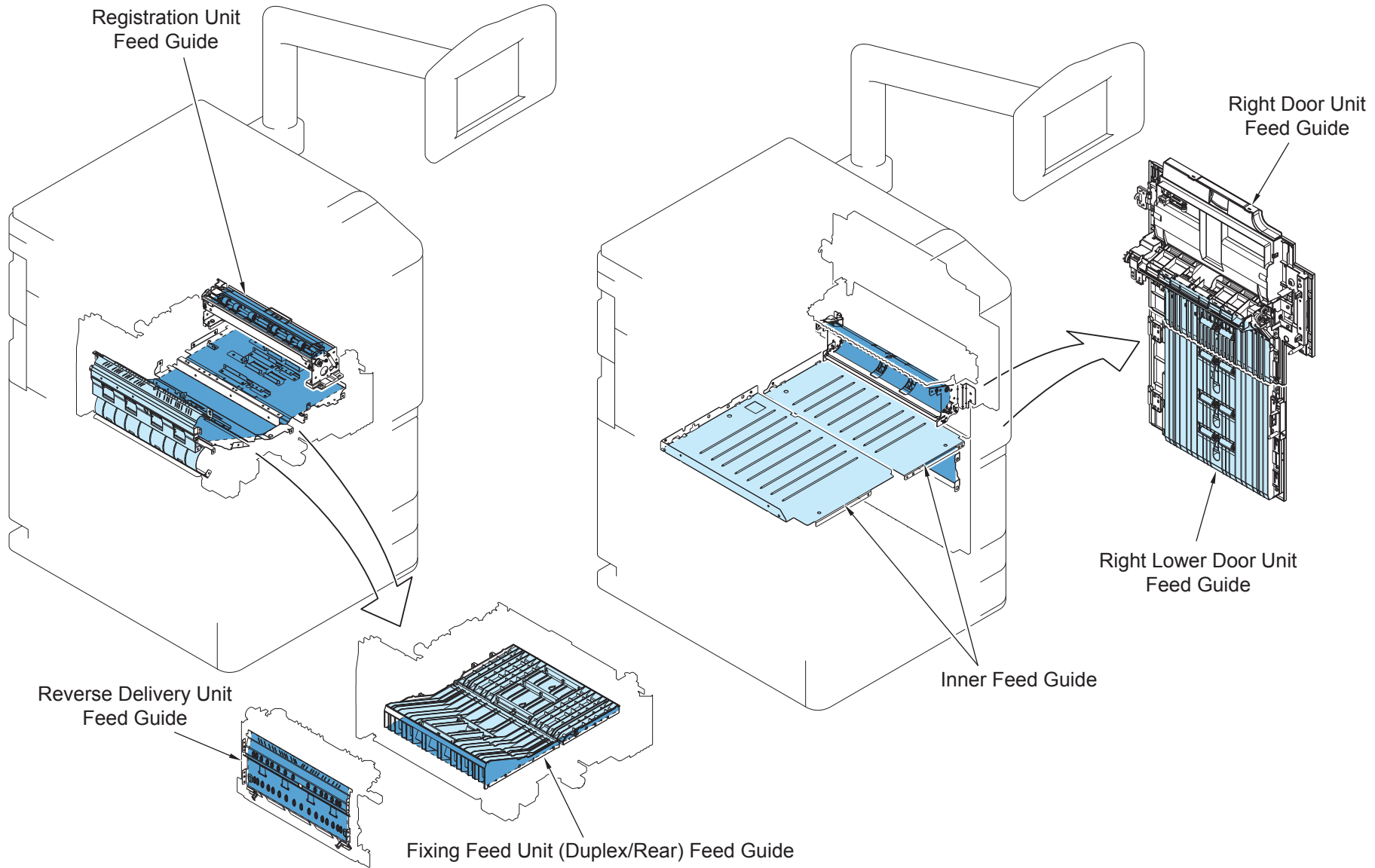
No	Name	Main Unit	Reference
[1]	Primary Charging Assembly Grid Wire	Primary Charging Assembly	"Cleaning the Primary Charging Assembly Grid Wire"(page 4-107).
[2]	Primary Charging Assembly Shield Plate	Primary Charging Assembly	"Cleaning the Primary Charging Assembly Grid Wire"(page 4-107).
[3]	Pre-transfer Charging Assembly Shield Plate	Pre-transfer Charging Assembly	"Cleaning the Pre-transfer Charging Wire"(page 4-114).
[4]	Pre-transfer Charging Assembly Dust Collection Roller	Pre-transfer Charging Assembly	"Cleaning the Pre-transfer Charging Wire"(page 4-114).
[5]	Pre-transfer Charging Assembly Roller Electrode Area	Pre-transfer Charging Assembly	"Cleaning the Pre-transfer Charging Wire"(page 4-114).
[6]	Drum Cleaning Unit Toner Collection Area	Drum Cleaning Unit	"Cleaning the Pre-transfer Charging Wire"(page 4-114).
[7]	Patch Sensor	Process Unit	"Cleaning the Process Unit"(page 4-117).
[8]	ETB Drive Roller	ETB	"Cleaning the ETB"(page 4-138).
[9]	ETB Idler Roller	ETB	"Cleaning the ETB"(page 4-138).
[10]	Toner Receptacle Tray	Hopper Unit	"Removing the Toner Receptacle Tray"(page 4-157).
[11]	Waste Toner Container	Hopper Unit	"Removing the Waste Toner Feed Unit"(page 4-167).

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No	Name	Main Unit	Reference
[1]	Fixing Inlet Guide	Fixing Assembly	"Cleaning the Fixing Inlet Guide,Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder"(page 4-178).
[2]	Fixing Right Stay	Fixing Assembly	"Cleaning the Fixing Inlet Guide,Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder"(page 4-178).
[3]	Dowel	Fixing Assembly	"Cleaning the Fixing Inlet Guide,Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder"(page 4-178).
[4]	Dowel Holder	Fixing Assembly	"Cleaning the Fixing Inlet Guide,Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder"(page 4-178).
[5]	Fixing Oil Pan	Fixing Assembly	"Cleaning the Fixing Oil Pan"(page 4-180).
[6]	Upper Separation Claw	Fixing Assembly	"Cleaning the Upper Separation Claw"(page 4-194).
[7]	Fixing Roller Static Eliminator	Fixing Assembly	"Cleaning the Fixing Roller Static Eliminator"(page 4-182).
[8]	Fixing Inlet Sensor Flag	Fixing Assembly	"Cleaning the Fixing Inlet Guide,Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder"(page 4-178).
[9]	Inner Delivery Roller	Fixing Assembly	"Cleaning the Inner Delivery Roller"(page 4-179).

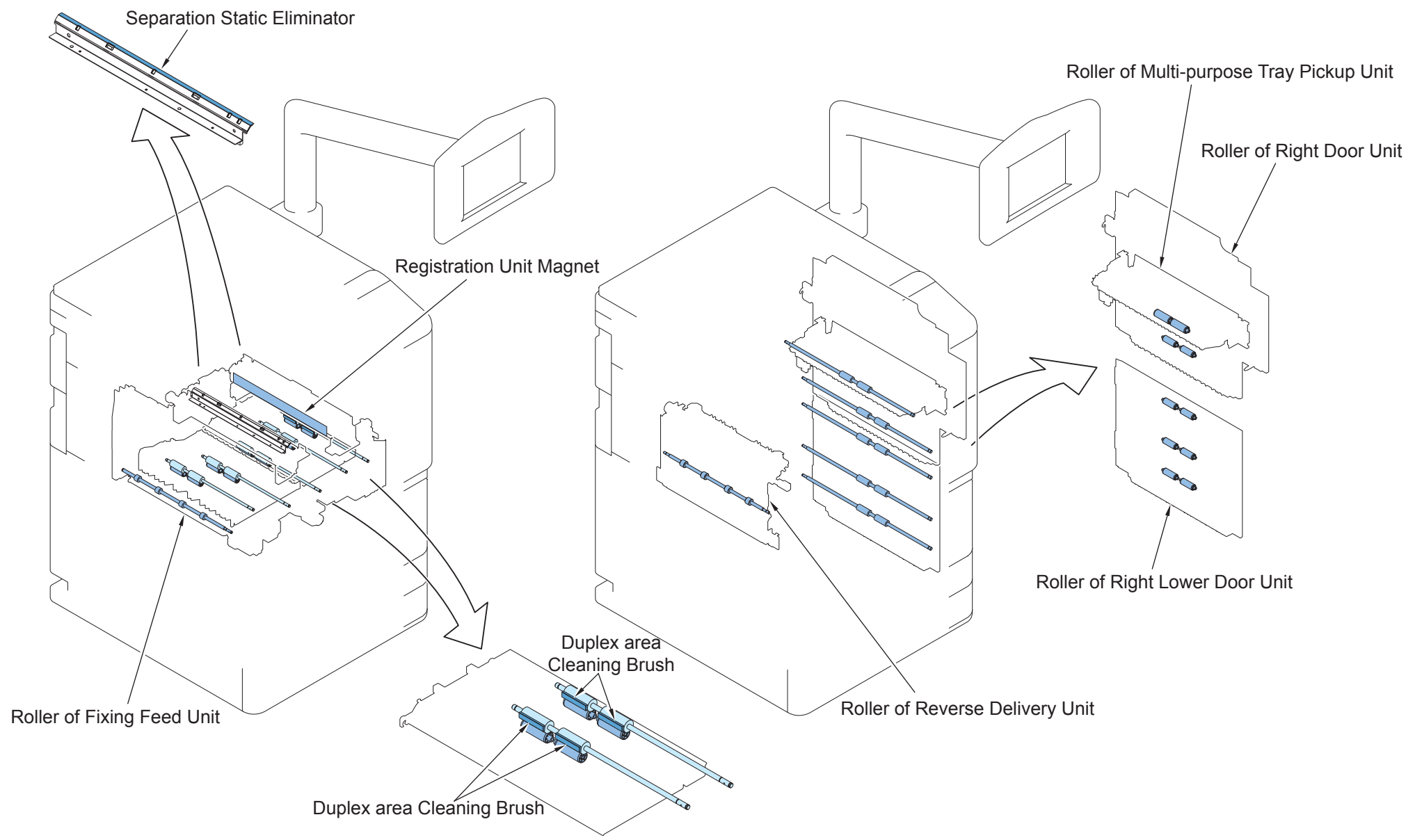
T-4-13



F-4-14

No	Name	Main Unit	Reference
[1]	Registration Unit Feed Guide	Registration Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[2]	Reverse Delivery Unit Feed Guide	Reverse Delivery Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[3]	Fixing Feed Unit (Duplex/Rear)Feed Guide	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[4]	Inner Feed Guide	Product Specification	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[5]	Right Door Unit Feed Guide	Right Door Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[6]	Right Lower Door Unit Feed Guide	Right Lower Door Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).

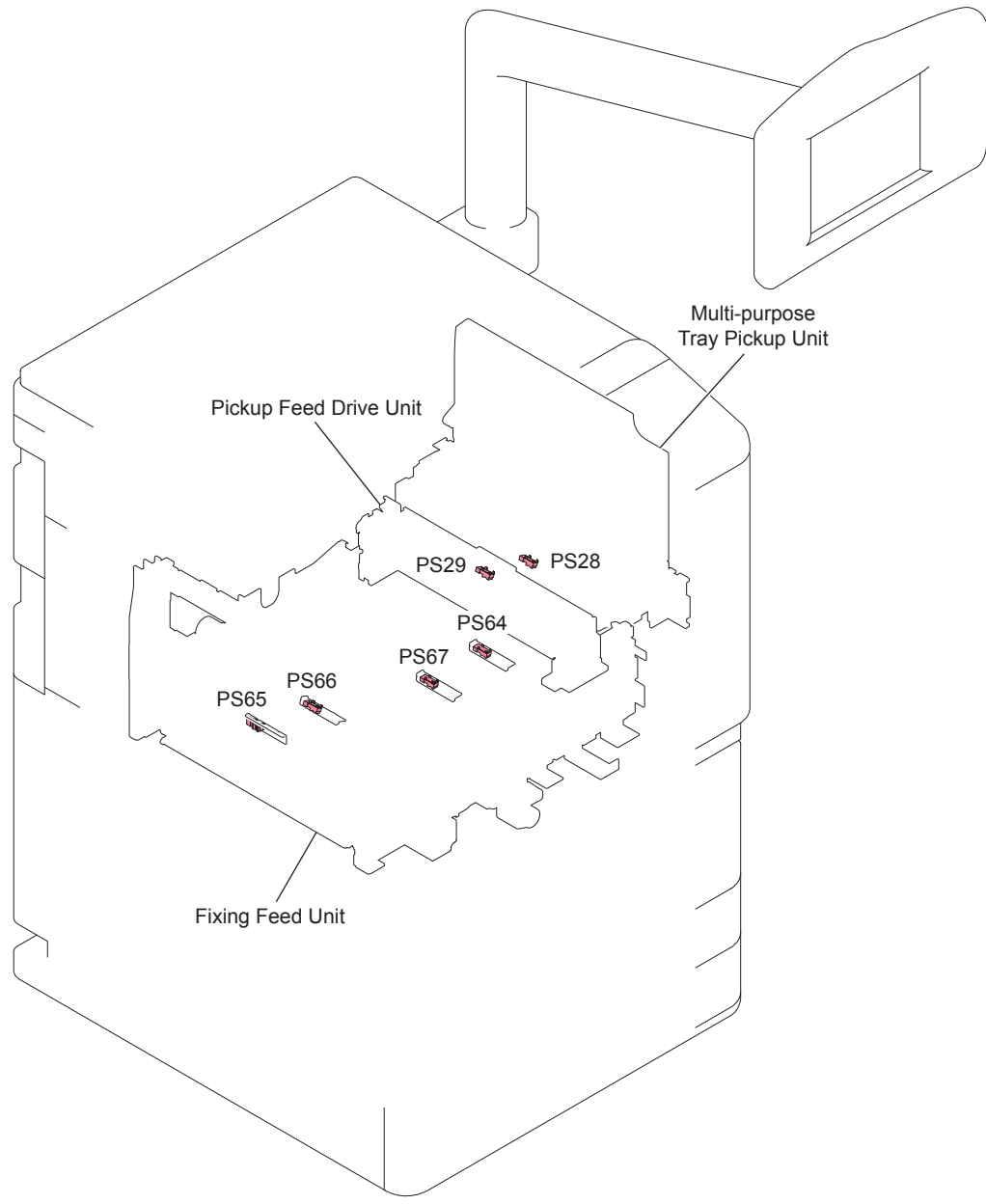
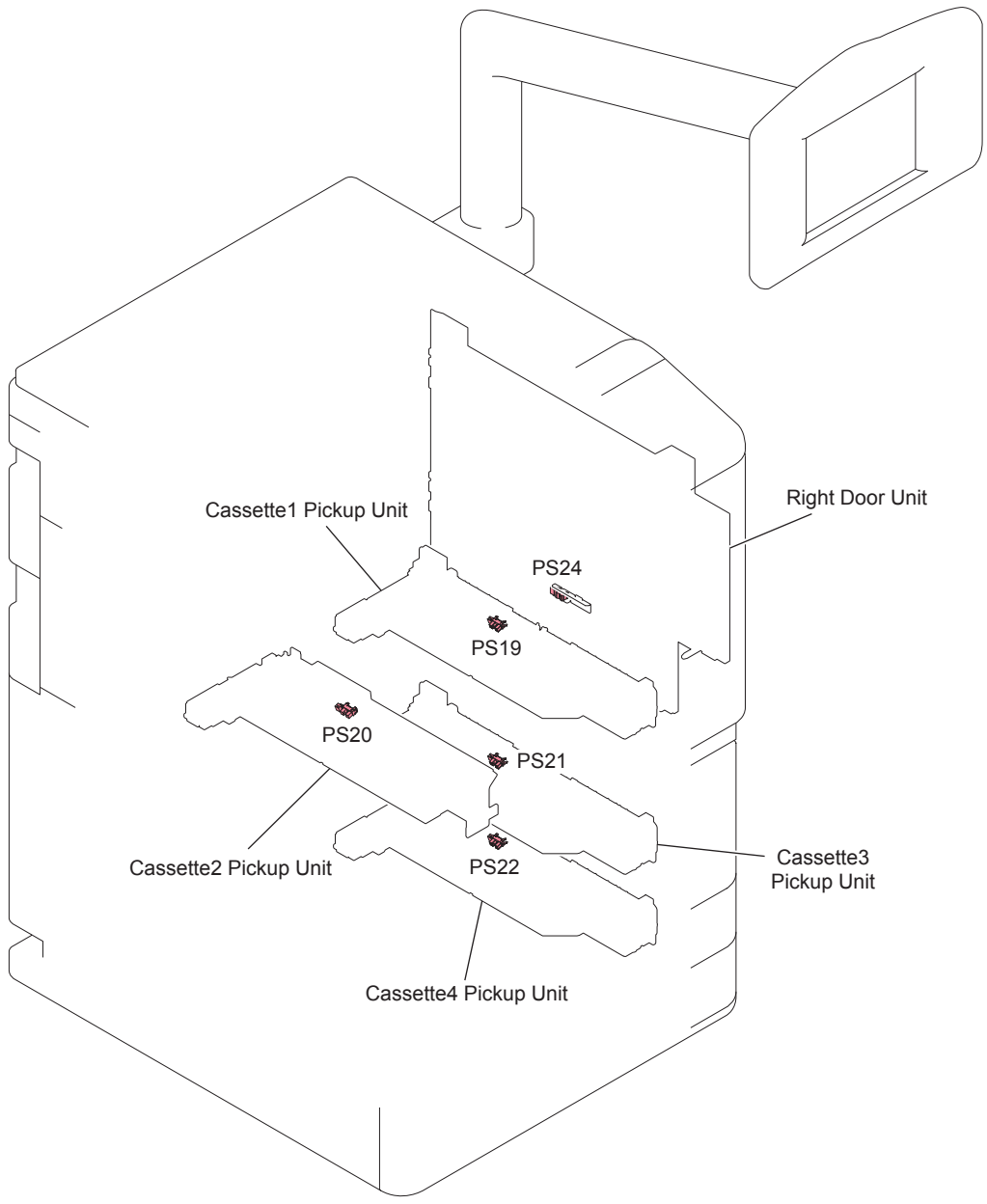
T-4-14



No	Name	Main Unit	Reference
[1]	Roller of Fixing Feed Unit	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[2]	Registration Unit Magnet	Registration Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[3]	Roller of Multi-purpose Tray Pickup Unit	Multi-purpose Tray Pickup Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[4]	Roller of Right Door Unit	Right Door Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[5]	Roller of Right Lower Door Unit	Right Lower Door Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[6]	Roller of Reverse Delivery Unit	Reverse Delivery Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[7]	Duplex area Cleaning Brush	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
[8]	Separation Static Eliminator	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).

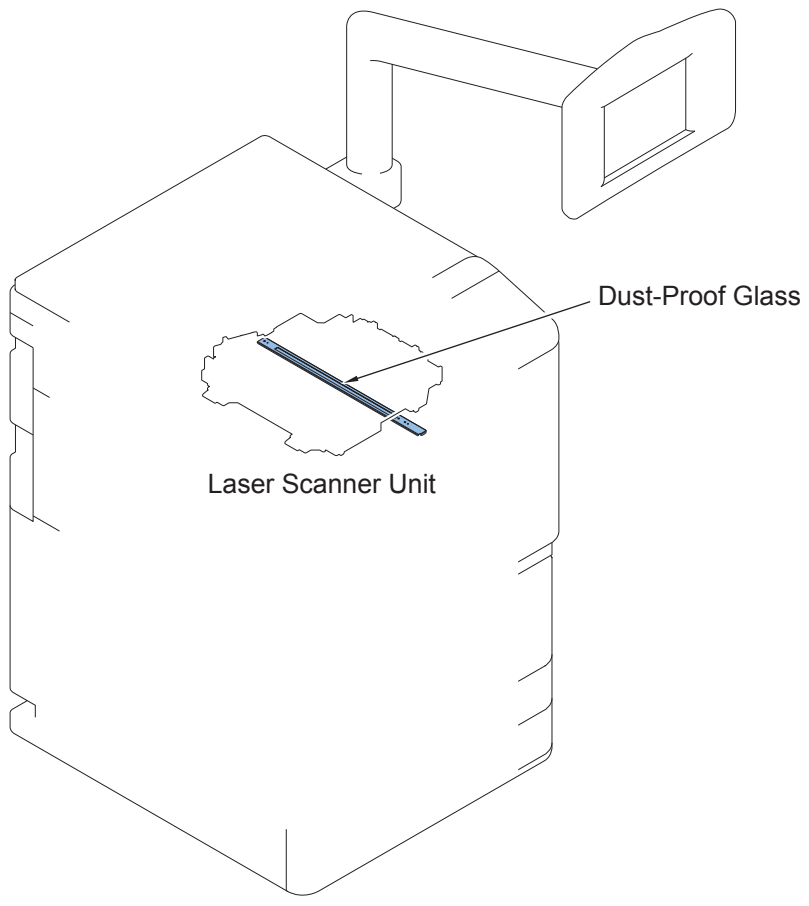
T-4-15





No	Name	Main Unit	Reference
PS19	Right Deck Pickup Sensor 1	Right Deck Unit	"Removing the Right Deck Separation Roller /Cleaning the Right Deck Pickup Sensor 2 (PS19)"(page 4-200).
PS20	Left Deck Pickup Sensor 2	Left Deck Unit	"Removing the Left Deck Separation Roller /Cleaning the Left Deck Pickup Sensor 2 (PS20)"(page 4-199).
PS21	Cassette 3 Pickup Sensor 2	Cassette 3 Pickup Unit	"Removing the Upper Cassette Separation Roller /Cleaning the Cassette 3 Pickup Sensor 2 (PS21)"(page 4-203).
PS22	Cassette 4 Pickup Sensor 1	Cassette 4 Pickup Uni	"Removing the Lower Cassette Separation Roller /Cleaning the Cassette 4 Pickup Sensor 1 (PS22)"(page 4-205).
PS24	Vertical Path Sensor 1	Vertical Path Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
PS28	Multi-purpose Tray Last Paper Sensor	Multi-purpose Tray Pickup Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
PS29	Registration Sensor	Pickup Feed Drive Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
PS64	Duplex Outlet Sensor	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
PS66	Duplex Left Sensor	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).
PS67	Duplex Merging Sensor	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-209).

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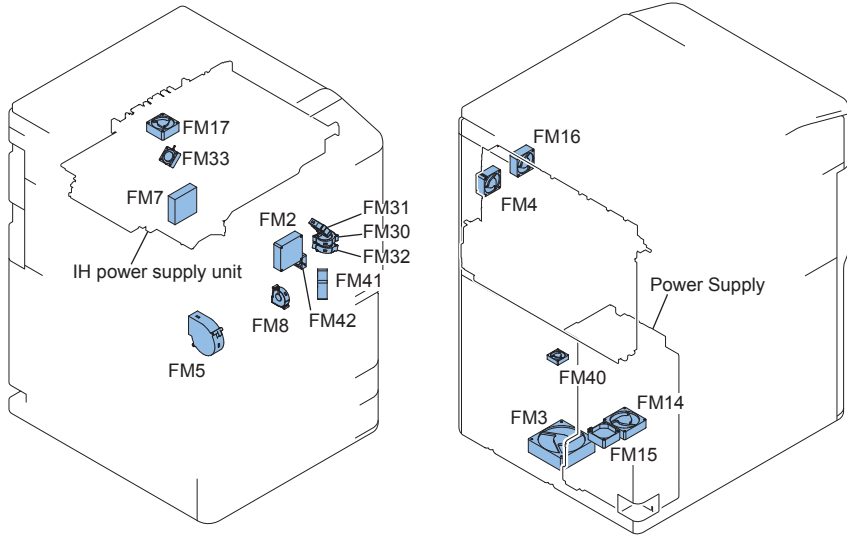


F-4-17

No	Name	Main Unit	Reference
[1]	Dustproof Glass	Product Configuration	"Cleaning the Dust Collecting Glass"(page 4-96).

T-4-17

# List of Fan

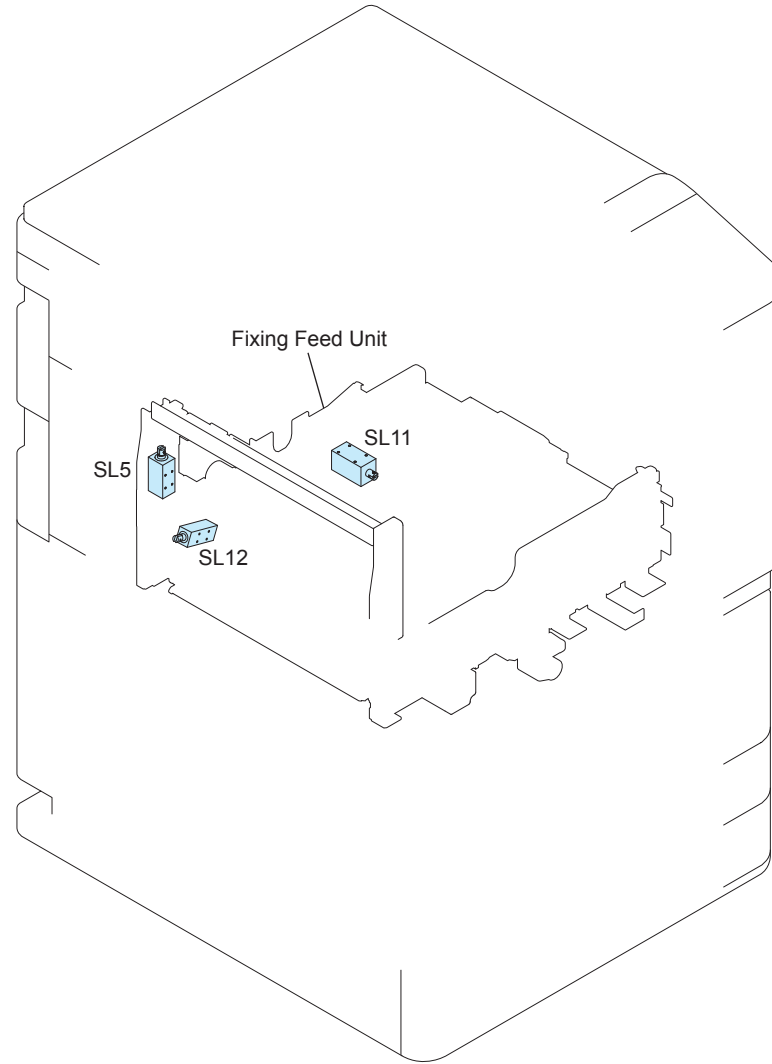
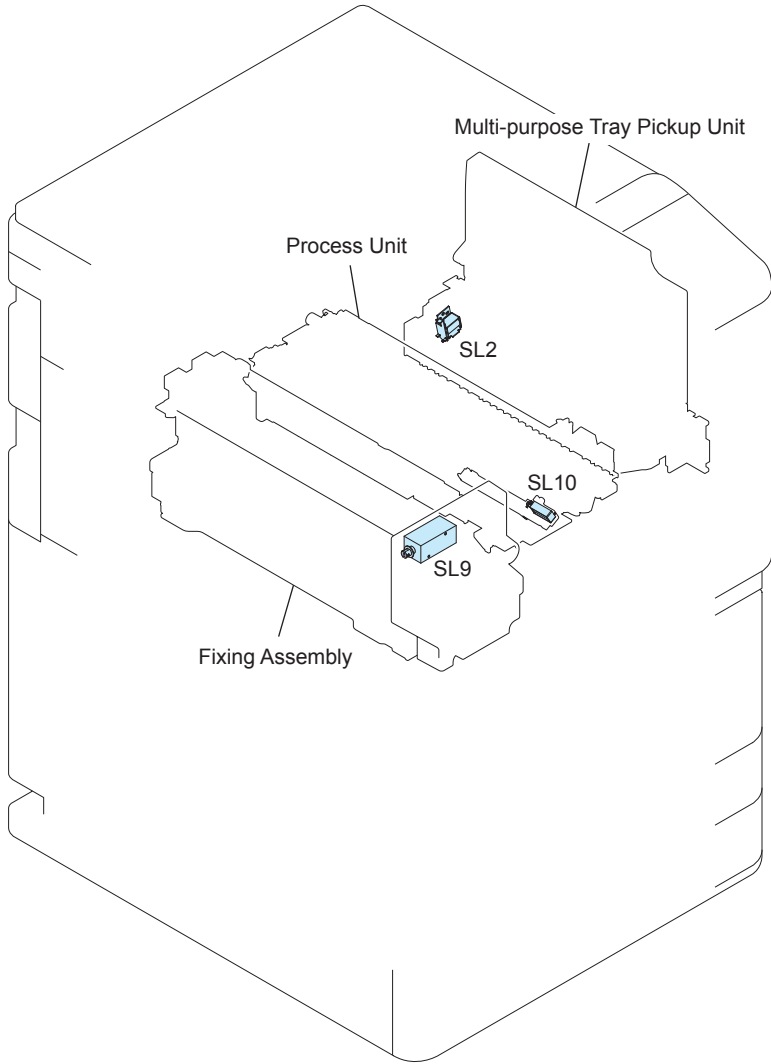


F-4-18

No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
FM2	Primary Charging Assembly Air Supply Fan	Product configuration	FK2-7678		
FM3	Making Image Exhaust Fan	Product configuration	FL3-3866		
FM4	Main Controller Cooling Fan	Product configuration	FK2-8276		
FM5	Paper Cooling Fan	Product configuration	FH6-1548		
FM7	Fixing Power Supply Cooling Fan	Product configuration	FK2-7678		
FM8	Transfer Cleaner Cooling Fan	Product configuration	FK2-3149		
FM14	Power Supply Cooling Fan 1	Product configuration	FK2-0360		
FM15	Power Supply Cooling Fan 2	Product configuration	FK2-2064		
FM16	Laser Scanner Cooling Fan	Product configuration	FK2-3100		
FM17	Primary Charging Assembly Exhaust Fan	Product configuration	FK2-3100		
FM30	Developing Assembly Lower Cooling Fan	Product configuration	FK2-3149		
FM31	Developing Assembly Upper Cooling Fan	Product configuration	FK2-3149		
FM32	Pre-transfer Charging Assembly Air Supply Fan	Product configuration	FK2-3149		
FM33	Pre-transfer Charging Assembly Exhaust Fan	Product configuration	FK2-7241		
FM40	Feed Driver Cooling Fan	Product configuration	FK2-7241		
FM41	Duplex Driver Cooling Fan	Product configuration	FK2-3100		
FM42	Registration Motor/Duplex Motor Cooling Fan	Product configuration	FK2-7241		

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# List of Clutch / Solenoid

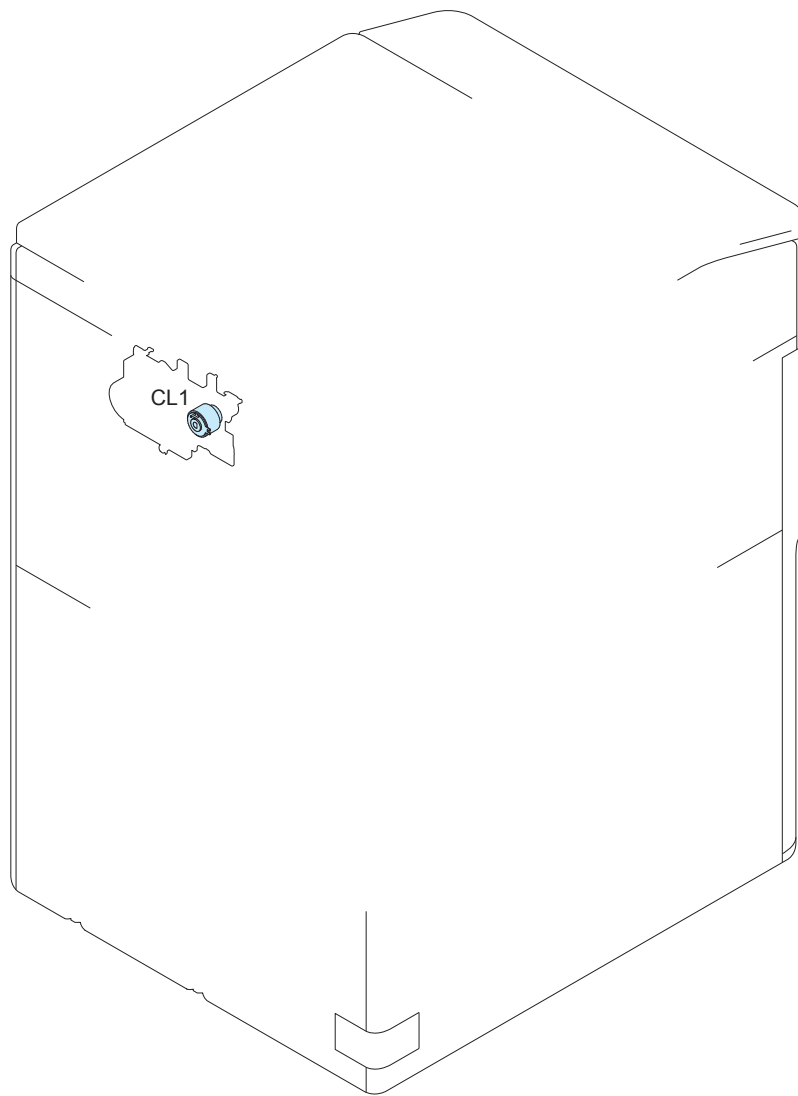
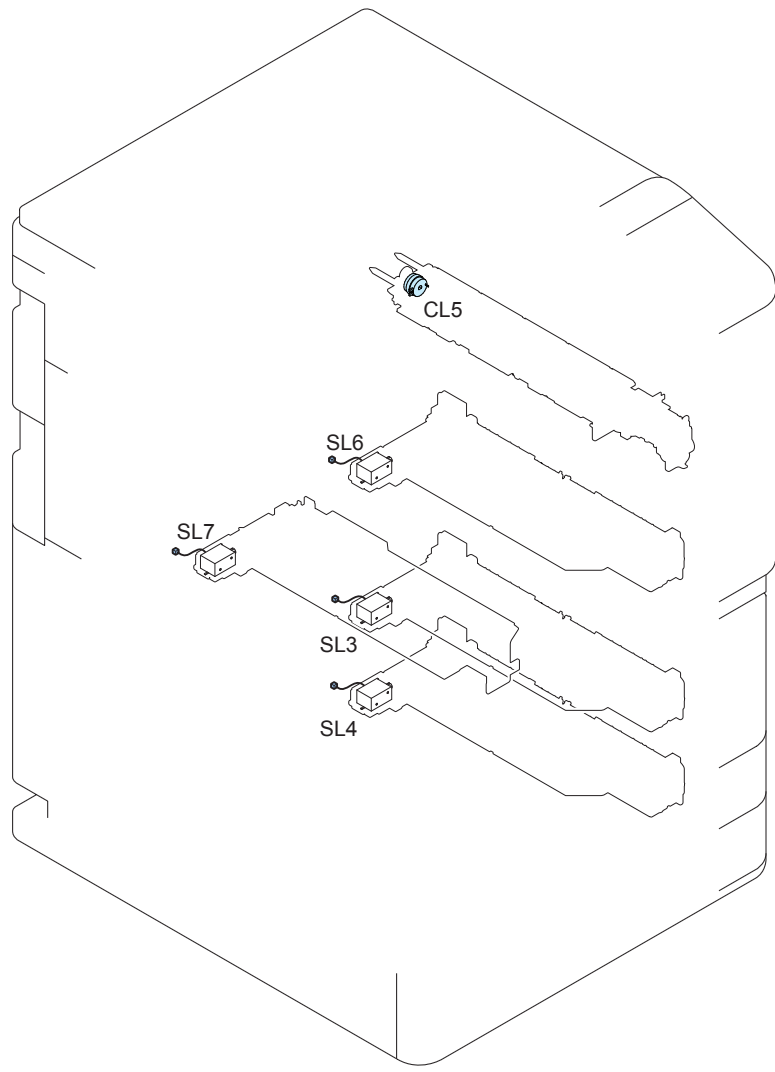


F-4-19

No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
SL2	Multi-purpose Tray Pickup Solenoid	Multi-purpose Pickup Unit	FK2-0115		-
SL5	Reverse Upper Flapper Solenoid	Fixing Feed Unit	FM4-5141		-
SL9	Fixing Cleaning Web Drive Solenoid	Fixing Assembly	FK2-0839		-
SL10	Patch Sensor Shutter Solenoid	Process Unit	FL3-5029		-
SL11	Left Deck Merging Solenoid	Fixing Feed Unit	FM4-0889		-
SL12	Reverse Detachment Solenoid	Fixing Feed Unit	FM4-5152		-

T-4-19



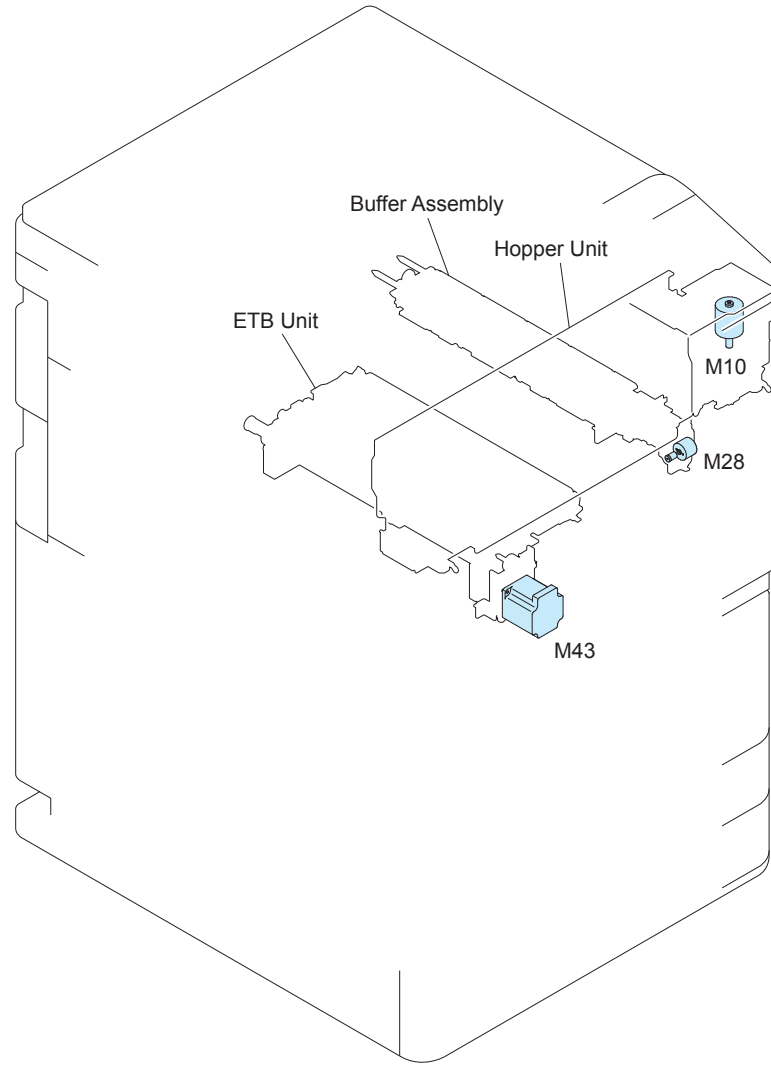
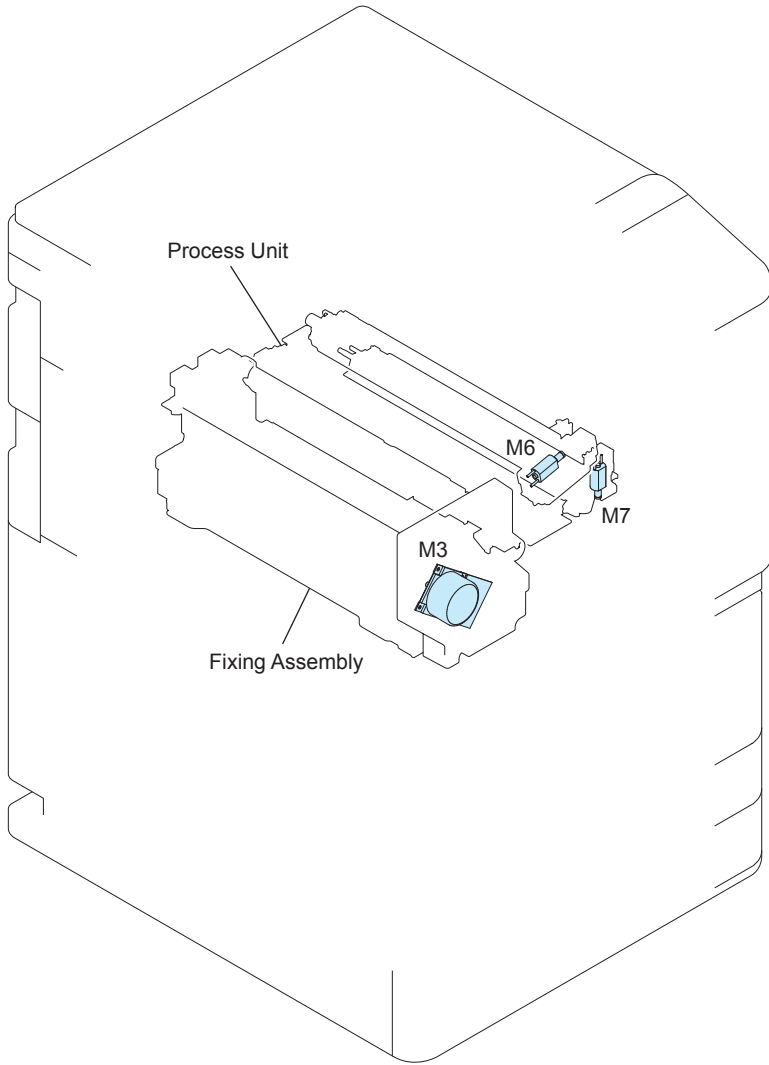


F-4-20

No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
CL1	Developing Clutch	Developing Assembly	FK2-7684		
SL3	Cassette 3 Pickup Solenoid	Cassette 3 Pickup Unit	FL3-4906		-
SL4	Cassette 4 Pickup Solenoid	Cassette 4 Pickup Unit	FL3-4906		-
CL5	Magnet Roller Clutch	Hopper Unit	FK2-7685		
SL6	Right Deck Pickup Solenoid	Right Deck Pickup Unit	FL3-4906		-
SL7	Left Deck Pickup Solenoid	Left Deck Pickup Unit	FL3-4906		-

T-4-20

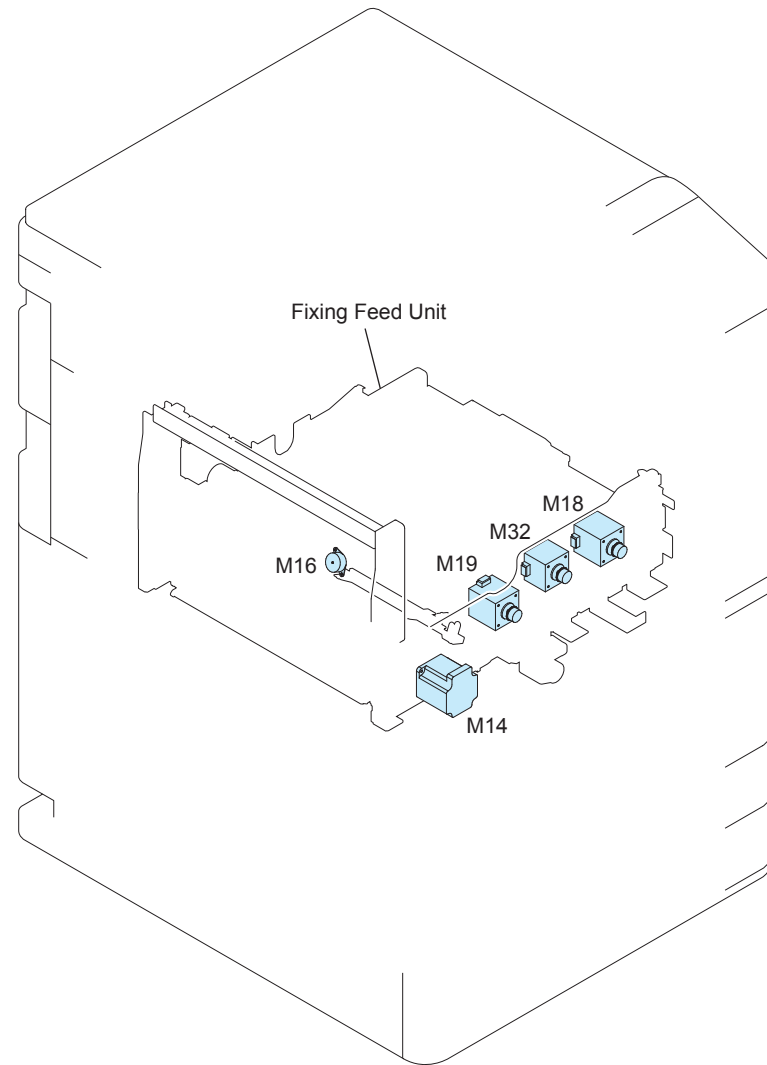
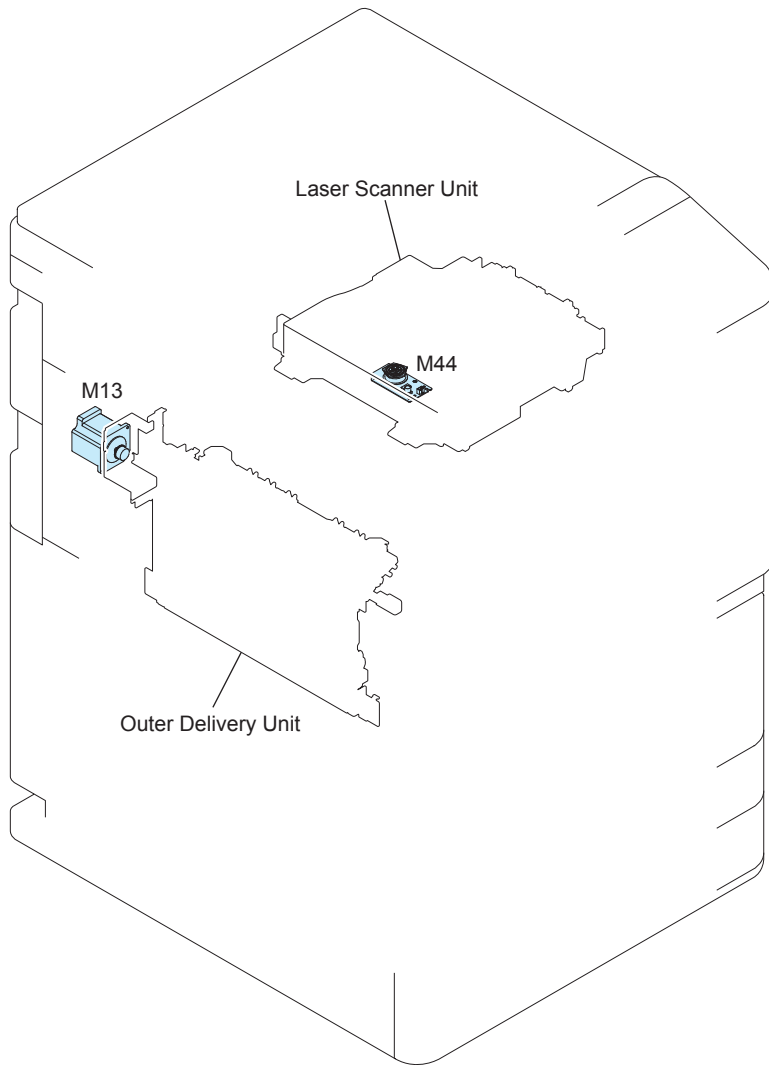
# List of Motor



F-4-21

No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
M3	Fixing Motor	Fixing Assembly	FK2-7670		-
M6	Primary Charging Wire Cleaning Motor	Process Unit	FL2-0991		-
M7	Pre-transfer Charging Wire Cleaning Motor	Process Unit	FL2-0991		-
M10	Toner Supply Motor	Hopper Unit	FM4-5309		-
M28	Toner Feed Motor	Hopper Unit	FM4-0956		-
M43	ETB Motor	ETB Unit	FK2-7719		-

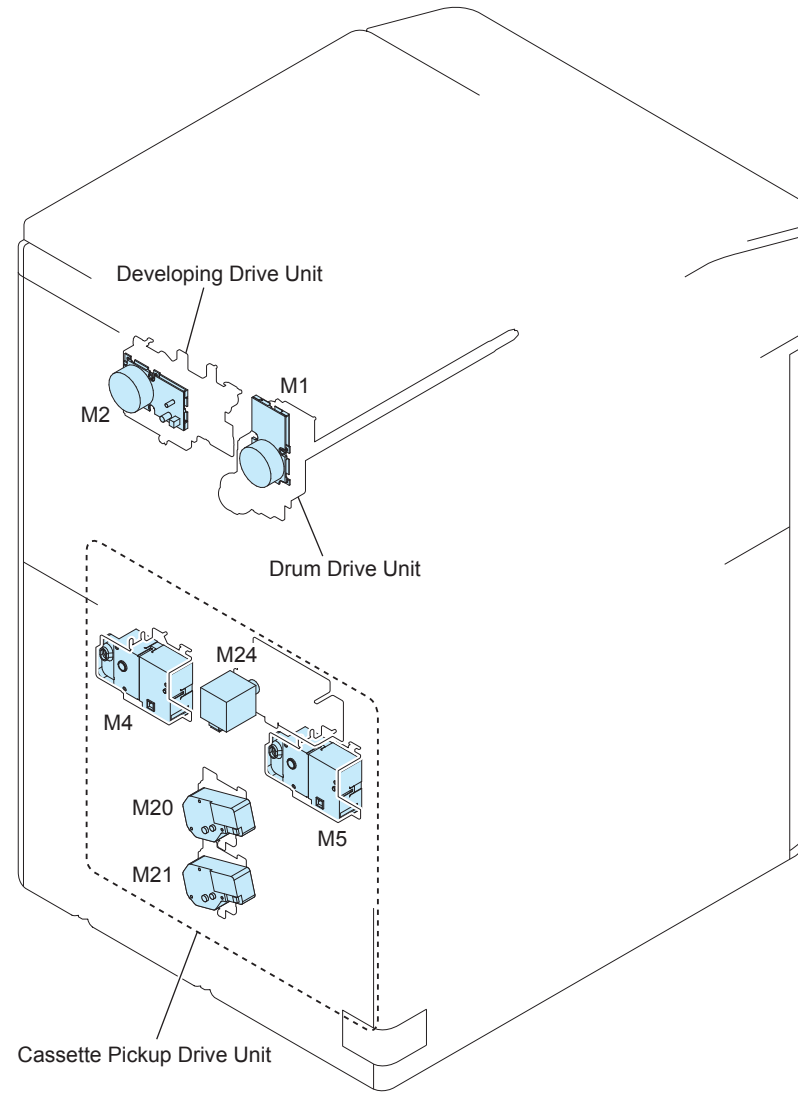
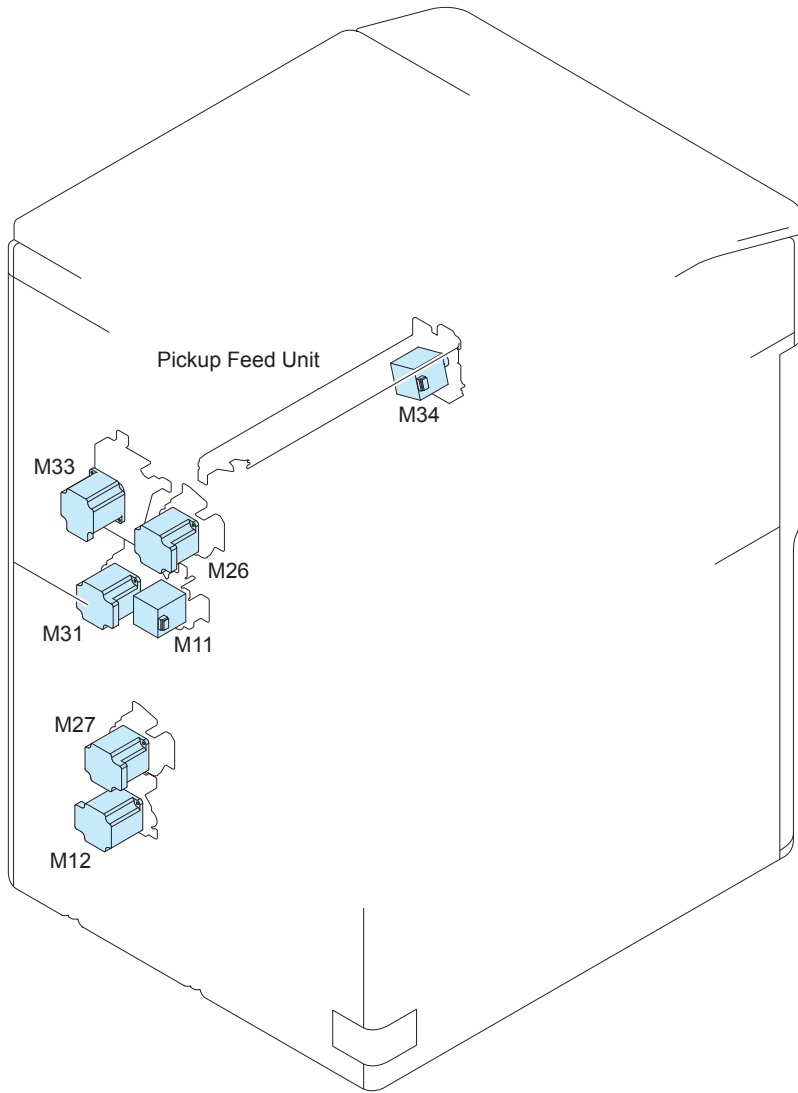
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F-4-22

No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
M13	Delivery Motor	Outer Delivery Unit	FK2-7675		-
M14	Reverse Motor	Fixing Feed Unit	FK2-7675		-
M16	Side Registration Motor	Fixing Feed Unit	FK2-2069		-
M18	Duplex Feed Right Motor	Fixing Feed Unit	FK2-7674		-
M19	Duplex Feed Left Motor	Fixing Feed Unit	FK2-7674		-
M32	Duplex Feed Merging Motor	Fixing Feed Unit	FK2-7674		-
M44	Polygon Motor	Laser Scanner Unit	Laser Scanner Unit: FM3-7531		-

T-4-22

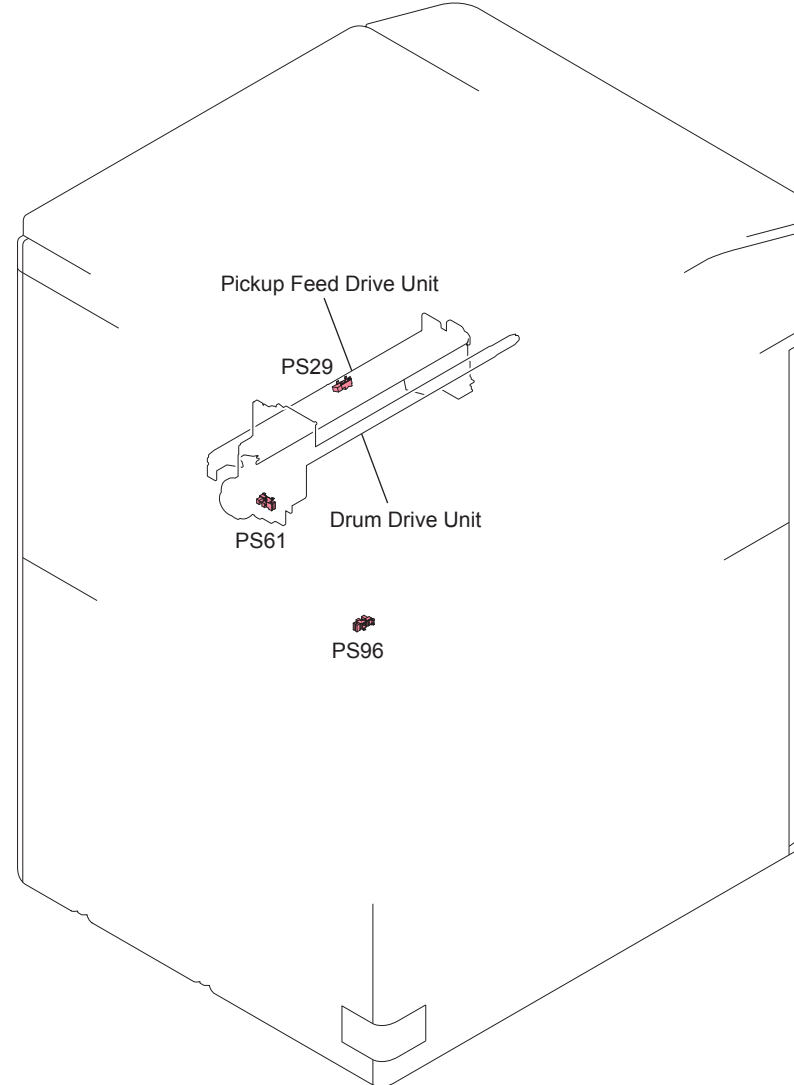
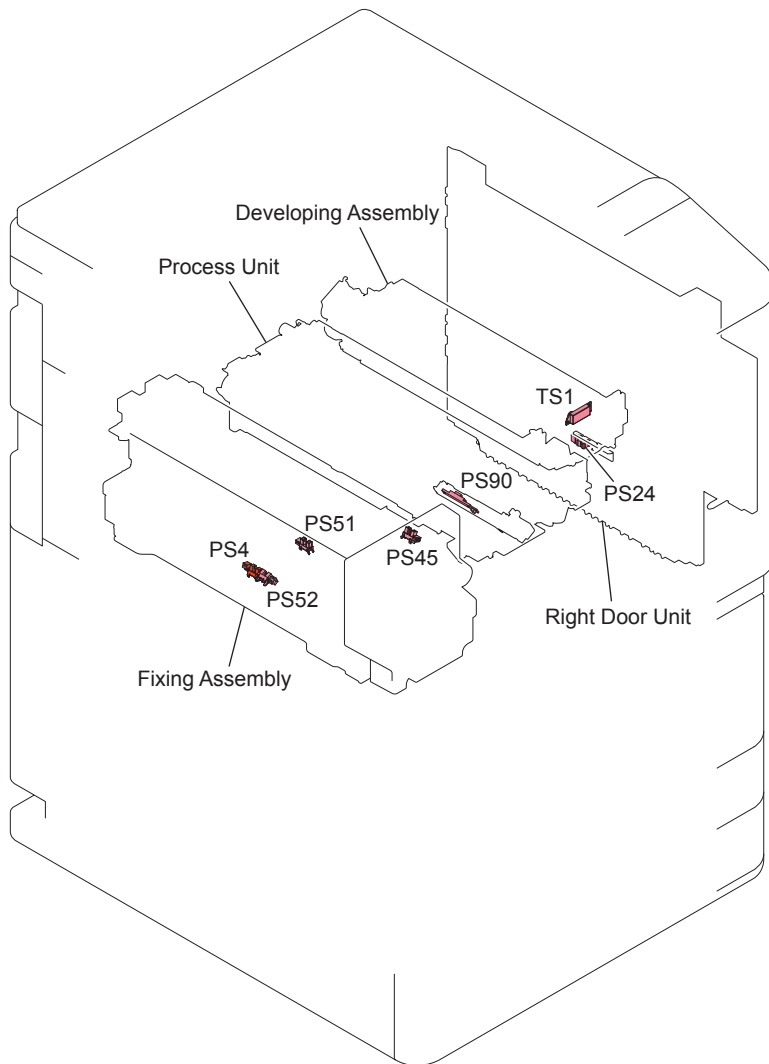


F-4-23

No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
M1	Drum Motor	Drum Drive Unit	FK2-7671		-
M2	Developing Motor	Developing Assembly Drive Unit	FK2-7667		-
M4	Right Deck Lifter Motor	Cassette Pickup Drive Unit	FM2-4663		-
M5	Left Deck Lifter Motor	Cassette Pickup Drive Unit	FM2-4663		-
M11	Right Deck Pickup Motor	Pickup Feed Unit	FK2-7674		-
M12	Cassette 3,4 Pickup Motor	Pickup Feed Unit	FK2-7675		-
M20	Cassette 3 Lifter Motor	Cassette Pickup Drive Unit	FK2-0016		-
M21	Cassette 4 Lifter Motor	Cassette Pickup Drive Unit	FK2-0016		-
M24	Left Deck Pickup Motor	Cassette Pickup Drive Unit	FK2-7674		-
M26	Vertical Path Upper Motor	Pickup Feed Unit	FK2-7675		-
M27	Vertical Path Lower Motor	Pickup Feed Unit	FK2-7675		-
M31	Vertical Path Middle Motor	Pickup Feed Unit	FK2-7675		-
M33	Multi-purpose Tray Registration Front Motor	Pickup Feed Unit	FK2-7675		-
M34	Registration Motor	Pickup Feed Unit	FK2-7674		-

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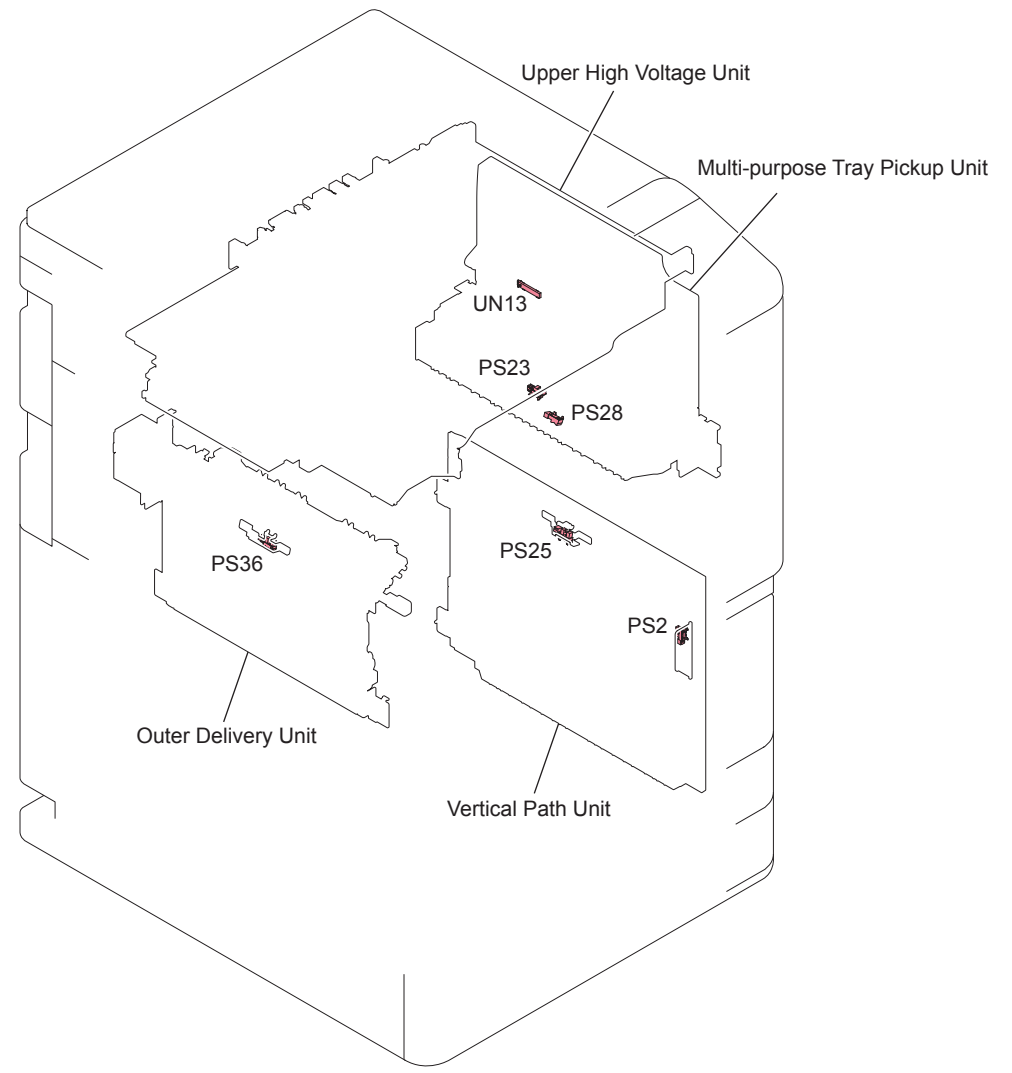
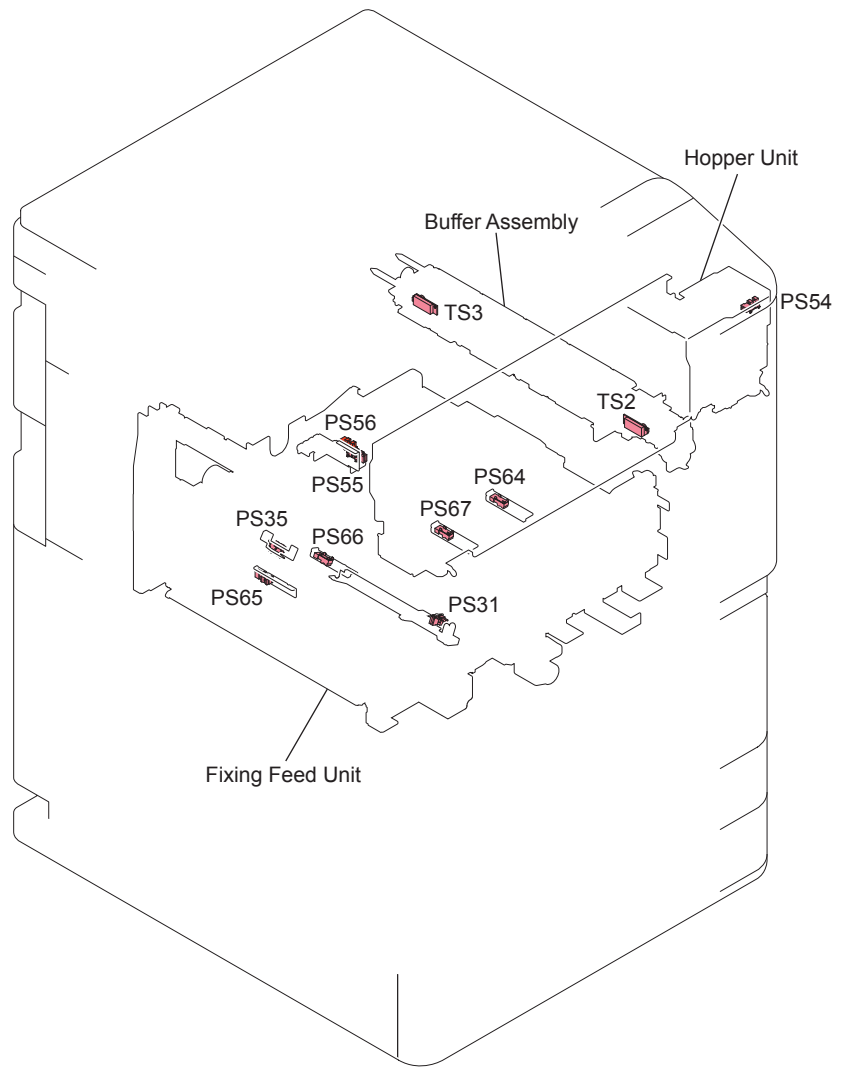


 List of Sensor

F-4-24

No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
PS4	Fixing Toenail Jam Sensor	Fixing Assembly	WG8-5848		
PS24	Vertical Path Sensor 1	Vertical Path Unit	FK2-6470		
PS29	Registration Sensor	Pickup Feed Drive Unit	FK2-6470		
PS45	Fixing Cleaning Web Level Sensor	Fixing Assembly	WG8-5848		
PS51	Fixing Inlet Sensor	Fixing Assembly	WG8-5848		
PS52	Fixing Outlet Sensor	Fixing Assembly	WG8-5848		
PS61	Drum Home Position Sensor	Drum Drive Unit	WG8-5848		
PS90	Patch Sensor	Process Unit	FK2-7234		"Patch Sensor"(page 5-11).
PS96	Fixed Feed Lever Sensor	Fixing Feed Unit	WG8-5848		
TS1	Developing Assembly Toner Sensor	Developing Assembly	FK2-7713		

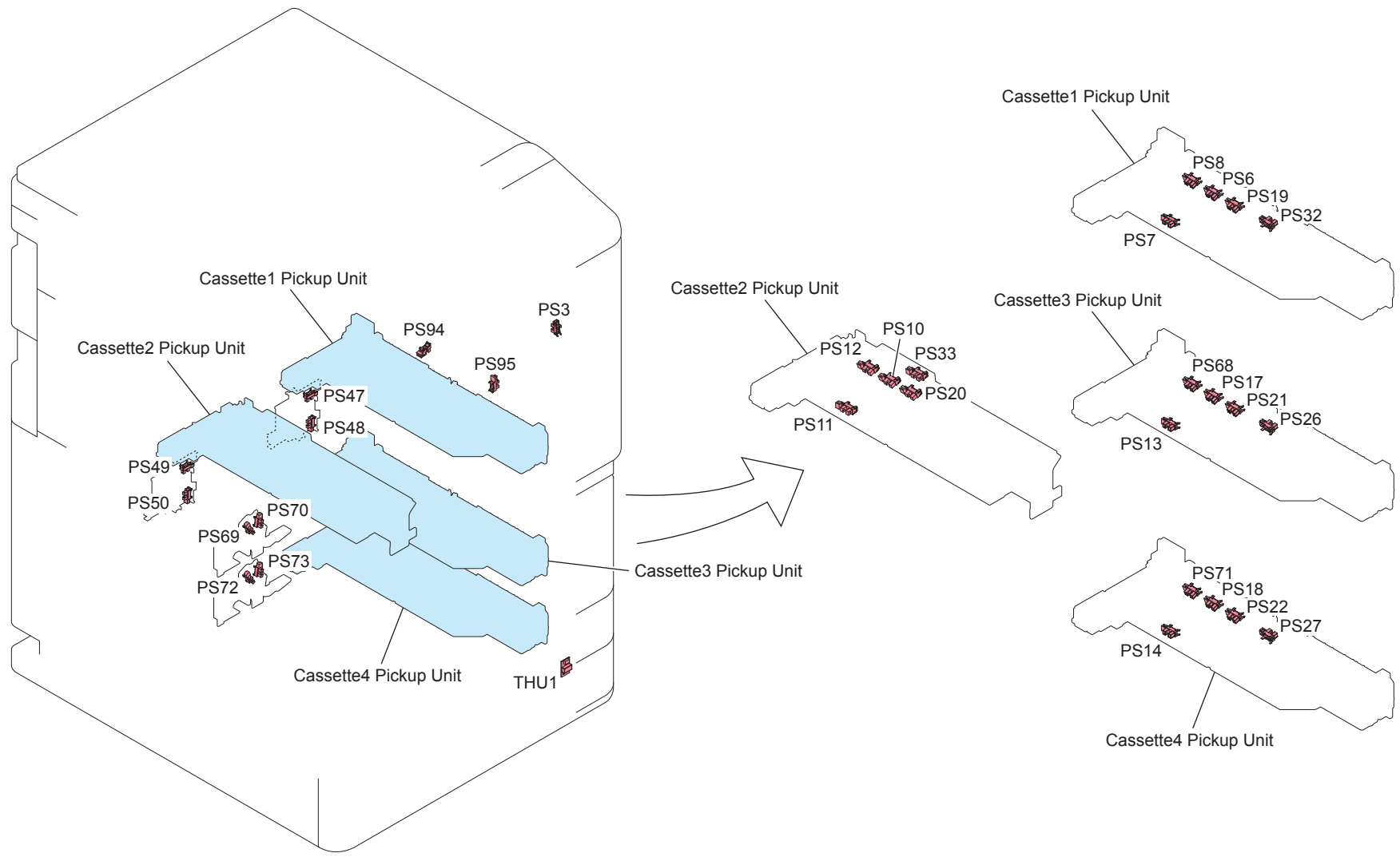
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No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
PS2	Vertical Path Cover Open/Close Sensor	Vertical Path Unit	WG8-5848		-
PS23	Multi-purpose Tray Paper Sensor	Multi-purpose Pickup Unit	WG8-5848		-
PS25	Vertical Path Sensor 2	Vertical Path Unit	WG8-5848		-
PS28	Multi-purpose Tray Last Paper Sensor	Multi-purpose Pickup Unit	FK2-6470		-
PS31	Side Registration Sensor	Fixing Feed Unit	WG8-5848		-
PS35	Inner Delivery Sensor	Fixing Feed Unit	WG8-5848		-
PS36	Outer Delivery Sensor	Outer Delivery Unit	WG8-5848		-
PS54	Toner Exchange Cover Open/Close Sensor	Hopper Unit	WG8-5848		-
PS55	Transfer Belt Engage Sensor	Fixing Feed Unit	WG8-5848		-
PS56	Transfer Belt Disengage Sensor	Fixing Feed Unit	WG8-5848		-
PS64	Duplex Outlet Sensor	Fixing Feed Unit	FK2-6470		-
PS65	Reverse Vertical Path Sensor	Fixing Feed Unit	FK2-6470		-
PS66	Duplex Left Sensor	Fixing Feed Unit	FK2-6470		-
PS67	Duplex Merging Sensor	Fixing Feed Unit	FK2-6470		-
TS2	Buffer Toner Sensor 1	Hopper Unit	FK2-7713		-
TS3	Buffer Toner Sensor 2	Hopper Unit	FK2-7713		-
UN13	Multi-purpose Tray Paper Width Sensor	Multi-purpose Pickup Unit	FH7-7600		-

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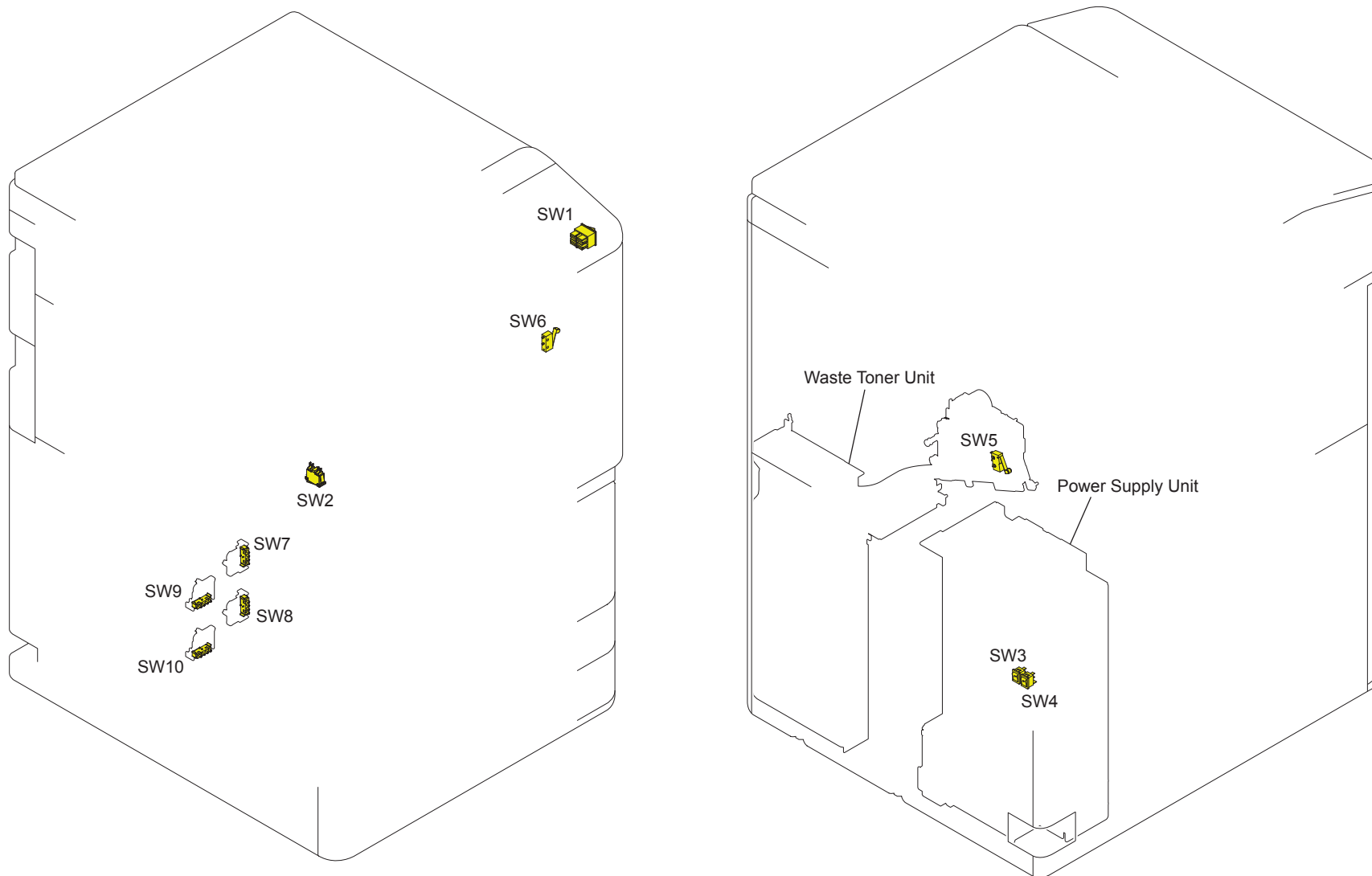


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No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
PS3	Multi-purpose Tray Cover Open/Close Sensor	Multi-purpose Tray Pickup Unit	WG8-5848		
PS6	Right Deck Paper Height Sensor	Right Deck Unit	WG8-5848		
PS7	Right Deck Paper Sensor	Right Deck Unit	WG8-5848		
PS8	Right Deck Upper Limit Sensor	Right Deck Unit	WG8-5848		
PS10	Left Deck Paper Height Sensor	Left Deck Unit	WG8-5848		
PS11	Left Deck Paper Sensor	Left Deck Unit	WG8-5848		
PS12	Left Deck Upper Limit Sensor	Left Deck Unit	WG8-5848		
PS13	Cassette 3 Paper Sensor	Cassette 3 Pickup Unit	WG8-5848		
PS14	Cassette 4 Paper Sensor	Cassette 4 Pickup Unit	WG8-5848		
PS17	Cassette 3 Paper Height Sensor	Cassette 3 Pickup Unit	WG8-5848		
PS18	Cassette 4 Paper Height Sensor	Cassette 4 Pickup Unit	WG8-5848		
PS19	Right Deck Pickup Sensor 2	Right Deck Unit	WG8-5848		
PS20	Left Deck Pickup Sensor 2	Left Deck Unit	WG8-5848		
PS21	Cassette 3 Pickup Sensor 2	Cassette 3 Pickup Unit	WG8-5848		
PS22	Cassette 4 Pickup Sensor 1	Cassette 4 Pickup Unit	WG8-5848		
PS26	Vertical Path Sensor 3	Vertical Path Unit	WG8-5848		
PS27	Vertical Path Sensor 4	Vertical Path Unit	WG8-5848		
PS32	Right Deck Pull Out Sensor	Right Deck Unit	WG8-5848		
PS33	Left Deck Pull Out Sensor	Left Deck Unit	WG8-5848		
PS47	Right Deck Paper Level Sensor 1	Right Deck Unit	WG8-5848		
PS48	Right Deck Paper Level Sensor 2	Right Deck Unit	WG8-5848		
PS49	Left Deck Paper Level Sensor 1	Left Deck Unit	WG8-5848		
PS50	Left Deck Paper Level Sensor 2	Left Deck Unit	WG8-5848		
PS68	Cassette 3 Upper Limit Sensor	Cassette 3 Pickup Unit	WG8-5848		
PS69	Cassette 3 Paper Level Sensor 1	Cassette 3 Pickup Unit	WG8-5848		
PS70	Cassette 3 Paper Level Sensor 2	Cassette 3 Pickup Unit	WG8-5848		
PS71	Cassette 4 Upper Limit Sensor	Cassette 4 Pickup Unit	WG8-5848		
PS72	Cassette 4 Paper Level Sensor 1	Cassette 4 Pickup Unit	WG8-5848		
PS73	Cassette 4 Paper Level Sensor 2	Cassette 4 Pickup Unit	WG8-5848		
PS94	Primary Charging Assembly Shutter Open/Close Sensor	Primary Charging Assembly	WG8-5848		
PS95	Pre-transfer Charging Assembly Shutter Open/Close Sensor	Pre-transfer Charging Assembly	WG8-5848		
THU1	Environment Sensor	Main Body	FM3-7307		

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## List of Switch

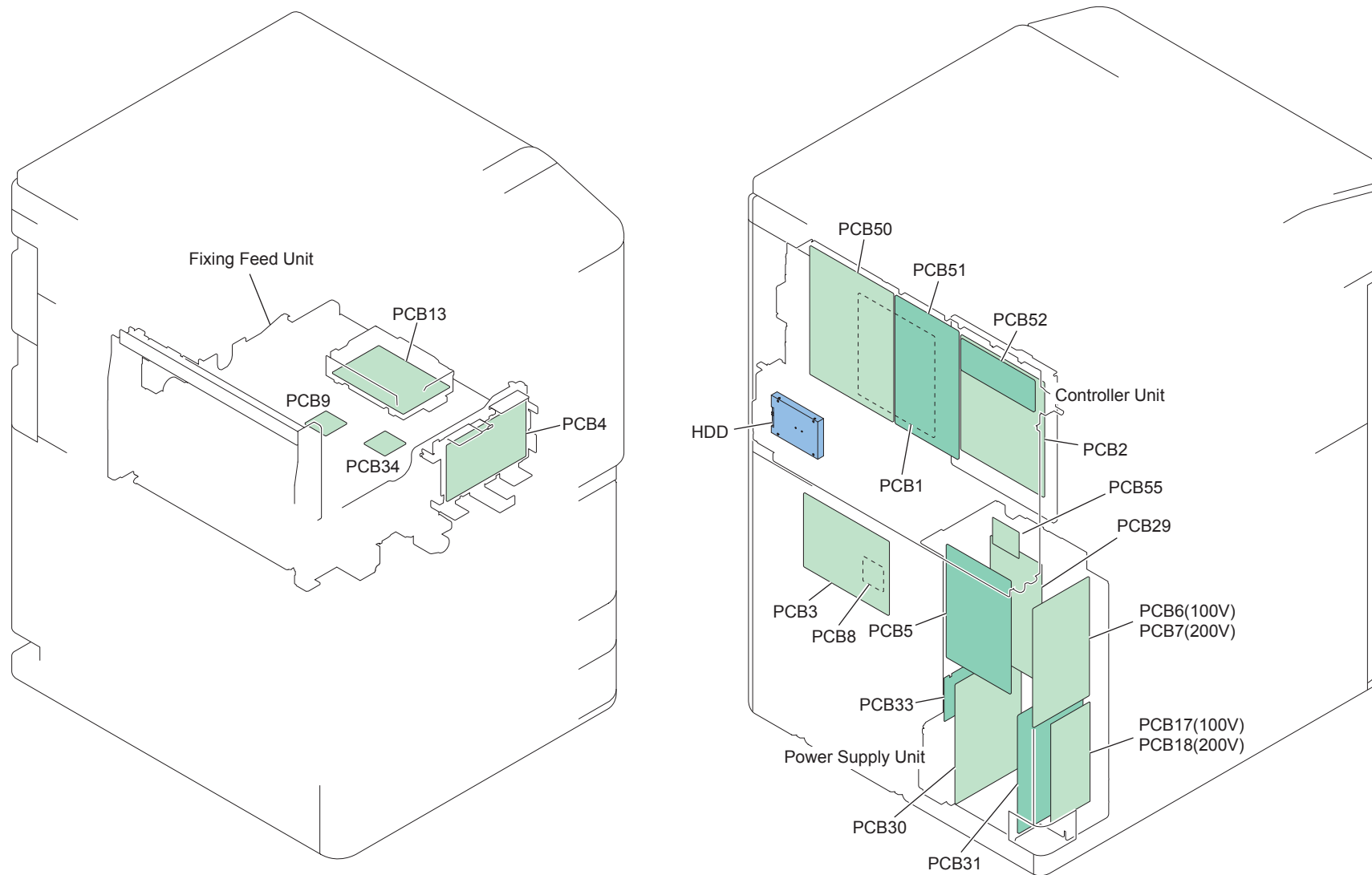


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No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
SW1	Power Switch	Product configuration	WC2-5688		
SW2	Front Door Open Detection Switch	Product configuration	WC4-5125		
SW3	Environment Switch	Product configuration	WC1-5179		
SW4	Cassette Heater Switch	Product configuration	WC1-5179		
SW5	Waste Toner Lock Detection Switch	Waste Toner Unit	FM4-1029		
SW6	Multi Door Switch	Product configuration	FL3-1271		
SW7	Cassette 3 Paper Width Detection Switch	Cassette 3 Pickup Unit	WC2-5680		
SW8	Cassette 4 Paper Width Detection Switch	Cassette 4 Pickup Unit	WC2-5680		
SW9	Cassette 3 Paper Length Detection Switch	Cassette 3 Pickup Unit	WC2-5680		
SW10	Cassette 4 Paper Length Detection Switch	Cassette 4 Pickup Unit	WC2-5680		

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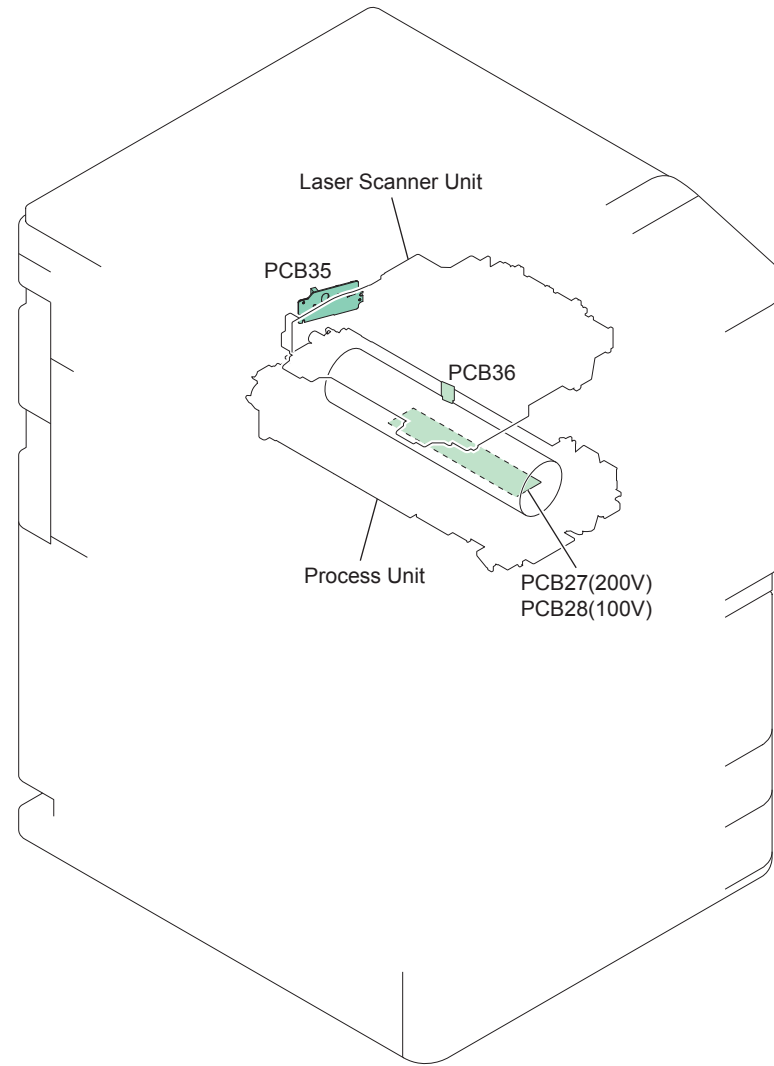
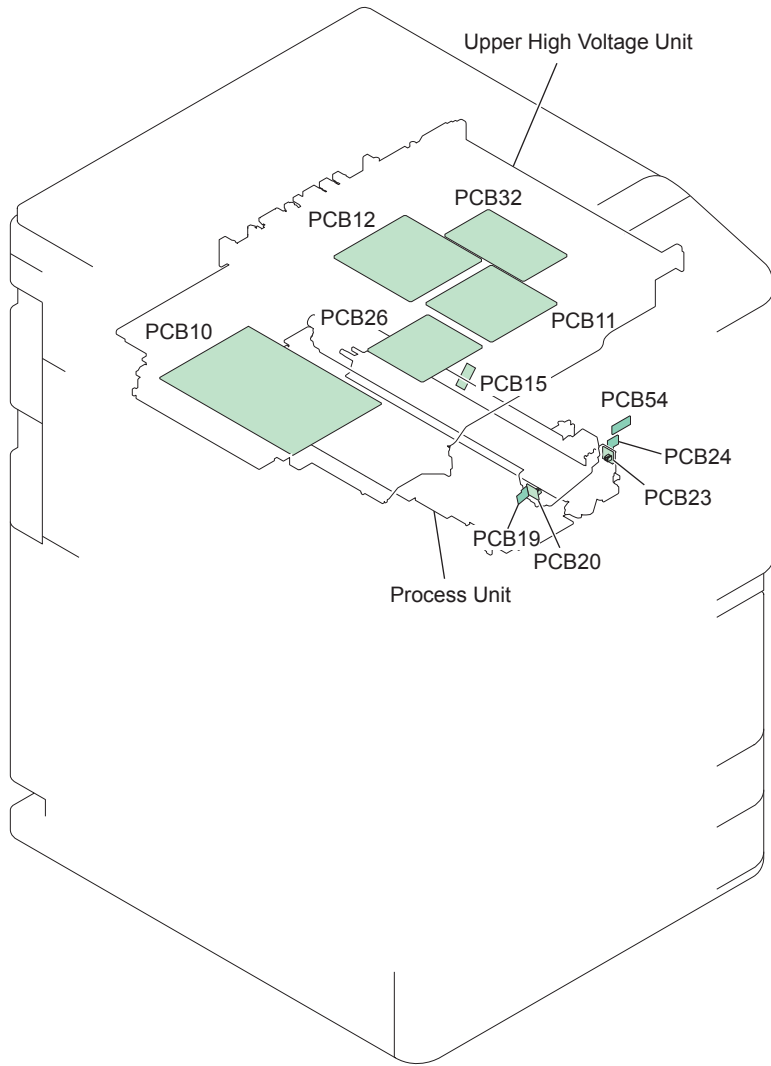


 List of PCB


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No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
PCB1	DC Controller PCB	Product configuration	FM4-1105		"DC Controller PCB"(page 5-12).
PCB2	Main Driver PCB	Product configuration	FM4-1083		
PCB3	Feed Driver PCB	Product configuration	FM4-1084		
PCB4	Duplex Driver PCB	Product configuration	FM4-1085		
PCB5	Relay PCB	Product configuration	FM4-1086		
PCB6	AC Driver PCB(100V)	Product configuration	FM4-1087		
PCB7	AC Driver PCB(200V)	Product configuration	FM4-1088		
PCB8	DC-DC Converter PCB	Product configuration	FM4-1089		
PCB9	DC-DC Converter PCB	Product configuration	FM4-1089		
PCB13	Transfer High Voltage PCB	Product configuration	FM4-1095		
PCB17	Noise Filter(100V)	Product configuration	FM4-1098		
PCB18	Noise Filter(200V)	Product configuration	FM4-1100		
PCB29	DC Power Supply(12V)	Product configuration	FM4-5131		
PCB30	DC Power Supply(24V)	Product configuration	FM4-5129		
PCB31	DC Power Supply(24V)	Product configuration	FM4-5128		
PCB33	All-night Power Supply PCB	Product configuration	FK2-6324		
PCB33	All-night Power Supply PCB	Product configuration	FK2-6325		
PCB34	Transfer High Voltage Resistance PCB	Product configuration	FM2-7196		
PCB50	Main Controller PCB 1	Product configuration	iR-ADV8085:FM4-5303 iR-ADV8095:FM4-5304 iR-ADV8105:FM4-5305		"Main Controller PCB 1"(page 5-4).
PCB51	Main Controller PCB 2	Product configuration	FM3-9213		"Main Controller PCB 2"(page 5-5).
PCB52	Channel Link PCB	Product configuration	FM3-9201		
PCB55	ARCNET PCB	Product configuration	FM4-8569		"Removing the ARCNET PCB"(page 4-240).

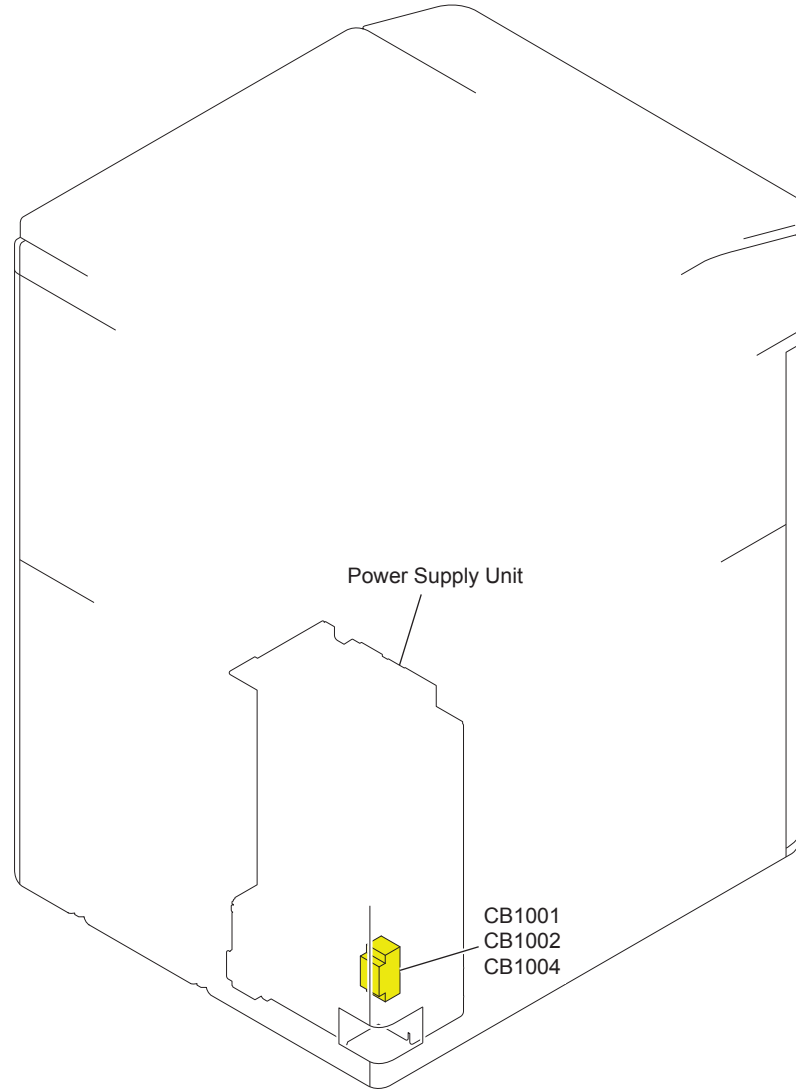
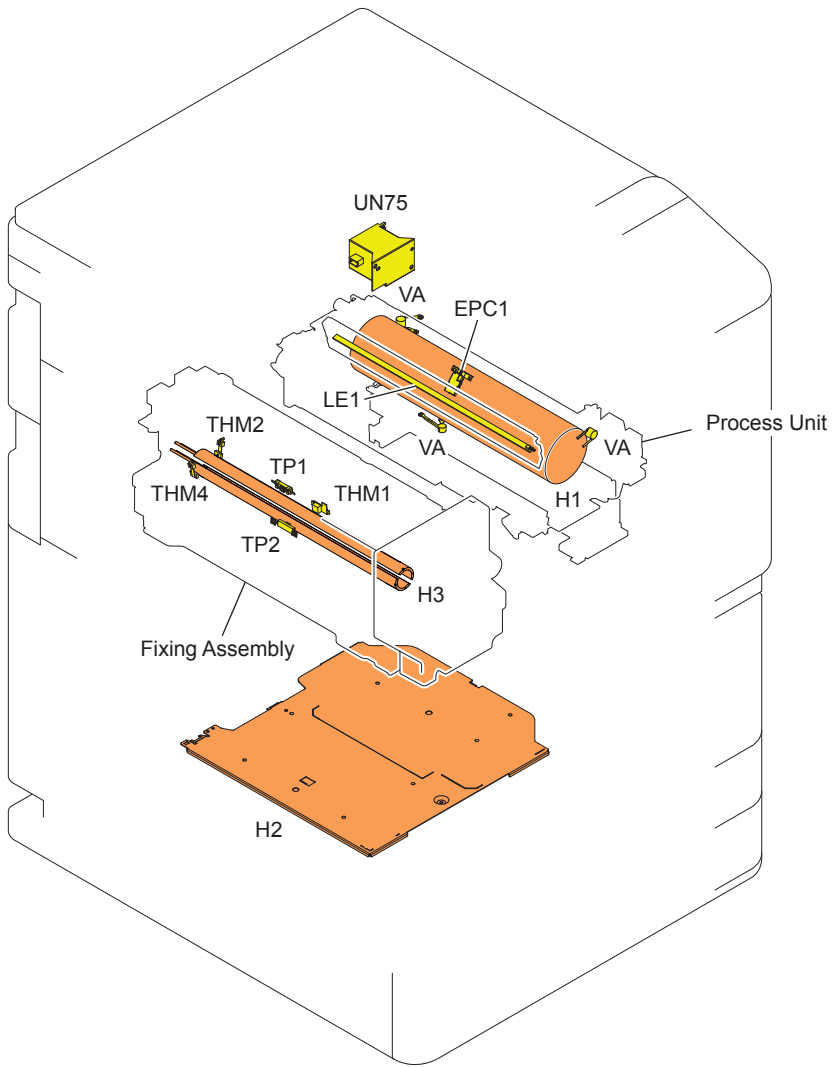
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No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Refernce
PCB10	Fixing power Supply PCB	Product configuration	FM4-1099		
PCB11	Primary Charging High Voltage PCB	Product configuration	FM4-1093		
PCB12	Developing High Voltage PCB	Product configuration	FM4-1094		
PCB15	Potential Sensor PCB	Product configuration	FM4-1096		"Potential Sensor / Potential Control PCB"(page 5-10).
PCB19	Primary Charging Contact A PCB	Product configuration	FM4-5148		
PCB20	Primary Charging Contact B PCB	Product configuration	FM4-1102		
PCB23	Pre-transfer Charging Contact A PCB	Product configuration	FM4-5148		
PCB24	Pre-transfer Charging Contact A PCB	Product configuration	FM4-1102		
PCB26	Pre-transfer Charging PCB	Product configuration	FM4-1106		
PCB27	Drum Heater Driver PCB(200V)	Product configuration	FM4-1107		
PCB28	Drum Heater Driver PCB(100V)	Product configuration	FM4-1108		
PCB32	Potential Control PCB	Product configuration	FM4-1096		"Potential Sensor / Potential Control PCB"(page 5-10).
PCB35	Laser Driver PCB	Product configuration	Laser Scanner Unit: FM3-7531		
PCB36	BD PCB	Product configuration	Laser Scanner Unit: FM3-7531		
PCB54	Drum Rom PCB	Product configuration	FM2-7734		

Heater,others

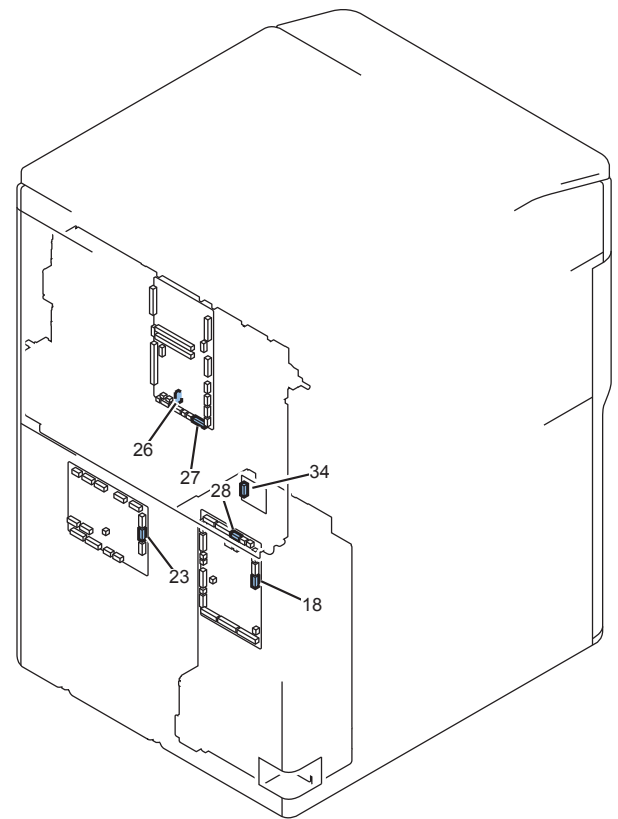
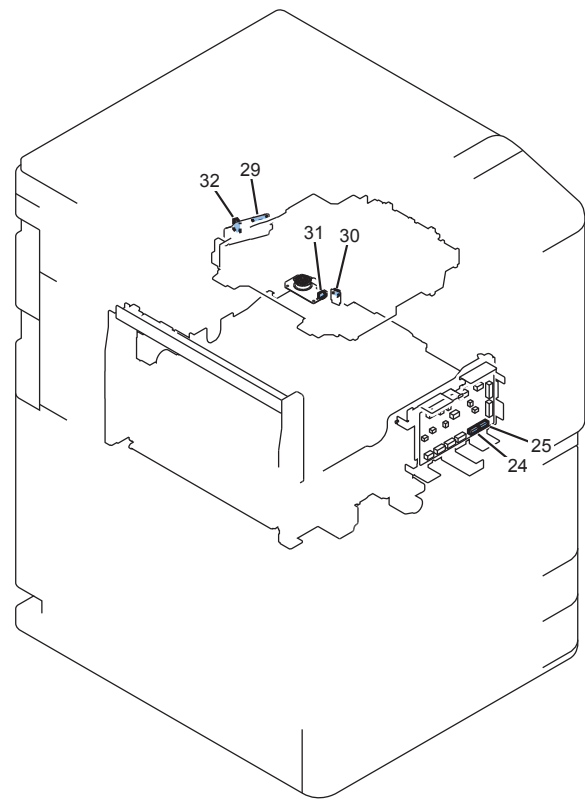
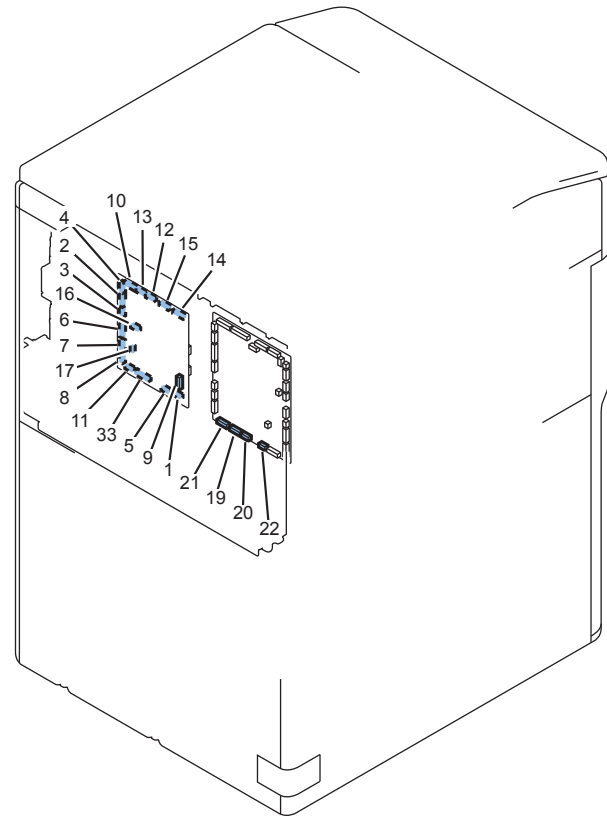


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No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
H1	Drum Heater	Process Unit	FK2-7723(JP) FK2-7724(US) FK2-7725(EUR)		
LE1	Pre-exposure LED	Process Unit	FM3-7292		
H2	Multi Cassette Heater	Product configuration	FM3-8915		
H3	Fixing Heater	Fixing Assembly	FM4-5160		
TP1	Fixing Thermal Switch 1	Fixing Assembly	FK2-7698		
TP2	Fixing Thermal Switch 2	Fixing Assembly	FK2-7679		
THM1	Fixing Main Thermistor	Fixing Assembly	FK2-7692		
THM2	Fixing Sub Thermistor 1	Fixing Assembly	FK2-7693		
THM4	Fixing Sub Thermistor 2	Fixing Assembly	FK2-7693		
EPC1	Potential Sensor	Process Unit	FM4-1096		
CB1001	Leakage Breaker	Product configuration	FK2-7359		
CB1002	Leakage Breaker	Product configuration	FK2-7359		
CB1004	Leakage Breaker	Product configuration	FK2-7357		

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Connector List

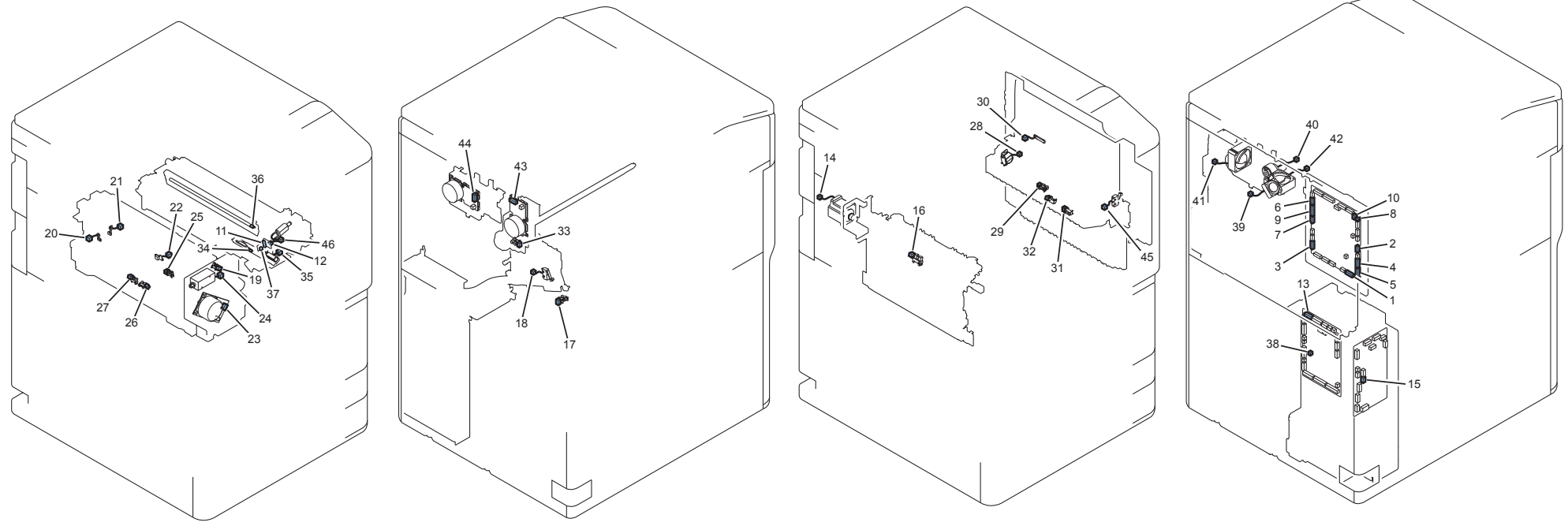


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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector					KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J401	PCB1	DC Controller PCB						18	J518	PCB5	Relay PCB	
2	J411	PCB1	DC Controller PCB						19	J126	PCB2	Main Driver PCB	
3	J412	PCB1	DC Controller PCB						20	J125	PCB2	Main Driver PCB	
4	J413	PCB1	DC Controller PCB						21	J124	PCB2	Main Driver PCB	
5	J414	PCB1	DC Controller PCB						22	J128	PCB2	Main Driver PCB	
6	J421	PCB1	DC Controller PCB	J3017					23	J204	PCB3	Feed Driver PCB	
7	J431	PCB1	DC Controller PCB	J3002					24	J300	PCB4	Duplex Driver PCB	
8	J432	PCB1	DC Controller PCB	J3002					25	J301	PCB4	Duplex Driver PCB	
9	J441	PCB1	DC Controller PCB						26	J21	PCB51	Main Controller PCB 2	
10	J442	PCB1	DC Controller PCB						27	J22	PCB51	Main Controller PCB 2	
11	J451	PCB1	DC Controller PCB						28	J514	PCB5	Relay PCB	
12	J461	PCB1	DC Controller PCB	J3123	J9040				-	-	-	DECK LATTICE	
12	J461	PCB1	DC Controller PCB	J3130	J9040				-	-	-	DECK LATTICE	
13	J462	PCB1	DC Controller PCB	J3241	J9043				-	-	-	FINISHER LATTICE	
14	J471	PCB1	DC Controller PCB						29	J5100	PCB35	Laser Driver PCB	
15	J472	PCB1	DC Controller PCB	J3018	J3011				30	J403	PCB36	BD PCB	
15	J472	PCB1	DC Controller PCB	J3018	J3011				31	J2159	M44	Polygon Motor	
15	J472	PCB1	DC Controller PCB						32	J5101	PCB35	Laser Driver PCB	
16	J491	PCB1	DC Controller PCB	J2087					-	-	-	-	
17	J493	PCB1	DC Controller PCB	J2102					-	-	-	-	
33	J463	PCB1	DC Controller PCB						34	J4500	PCB55	ARCNET PCB	

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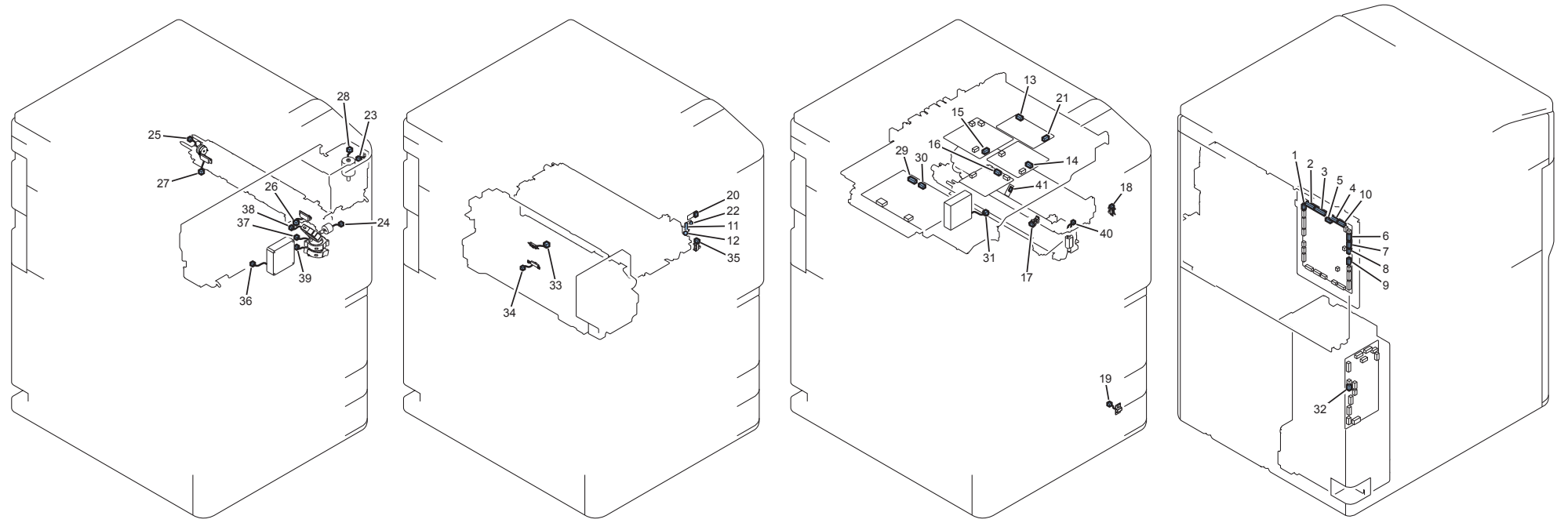




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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector					KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J101	PCB2	Main Driver PCB						13	J515	PCB5	Relay PCB	
2	J102	PCB2	Main Driver PCB						14	J2009	M13	Delivery Motor	
3	J103	PCB2	Main Driver PCB	J3174					15	J615	PCB6,7	AC Driver PCB	
3	J103	PCB2	Main Driver PCB	J3251					16	J2136	PS36	Outer Delivery Sensor	
3	J103	PCB2	Main Driver PCB						17	J2140	PS96	Fixed Feed Lever Sensor	
3	J103	PCB2	Main Driver PCB						18	J3050	SW5	Waste Toner Lock Detection Switch	
4	J104	PCB2	Main Driver PCB	J3200	J3207				19	J2161	PS45	Fixing Cleaning Web Level Sensor	
4	J104	PCB2	Main Driver PCB	J3200					20	J3204	THM4	Fixing Sub Thermistor 2	
4	J104	PCB2	Main Driver PCB	J3200					21	J3206	THM2	Fixing Sub Thermistor 1	
4	J104	PCB2	Main Driver PCB	J3200					22	J3271	THM1	Fixing Main Thermistor	
5	J105	PCB2	Main Driver PCB	J3200	J3208	J3209			23	J1	M3	Fixing Motor	
5	J105	PCB2	Main Driver PCB	J3200	J3208	J3209			24	J2162	SL9	Fixing Cleaning Web Drive Solenoid	
5	J105	PCB2	Main Driver PCB	J3200	J3210				25	J2164	PS51	Fixing Inlet Sensor	
5	J105	PCB2	Main Driver PCB	J3200	J3211				26	J2165	PS52	Fixing Outlet Sensor	
5	J105	PCB2	Main Driver PCB	J3200	J3211				27	J2166	PS4	Fixing Toenail Jam Sensor	
6	J106	PCB2	Main Driver PCB	J3235	J3121				28	J2001	SL2	Multi-purpose Pickup Solenoid	
6	J106	PCB2	Main Driver PCB	J3235	J3121				29	J2002	PS23	Multi-purpose Tray Paper Sensor	
6	J106	PCB2	Main Driver PCB	J3235	J3121	J3122			30	J2003	UN13	Multi-purpose Tray Paper Width Sensor	
6	J106	PCB2	Main Driver PCB	J3235	J3121	J3101			31	J2005	PS24	Vertical Path Sensor1	
6	J106	PCB2	Main Driver PCB	J3235	J3121				32	J2053	PS28	Multi-purpose Tray Paper Last paper Sensor	
7	J107	PCB2	Main Driver PCB						33	J2137	PS61	Drum Home Position Sensor	
7	J107	PCB2	Main Driver PCB	J3177	J3060	J3255			34	J2143	PS90	Patch Sensor	
7	J107	PCB2	Main Driver PCB	J3177	J3060				35	J3049	SL10	Patch Sensor Shutter Solenoid	
7	J107	PCB2	Main Driver PCB	J3177	J3060				36	J2141	LED03	LE1	
7	J107	PCB2	Main Driver PCB	J3177	J3060				37	J151	PCB19	Pre-transfer Charging Contact A PCB	
8	J108	PCB2	Main Driver PCB						38	J522	PCB5	Relay PCB	
9	J109	PCB2	Main Driver PCB						39	J2004	FM33	Pre-transfer Charging Exhaust Fan	
9	J109	PCB2	Main Driver PCB						40	J2006	CL1	Developing Clutch	
9	J109	PCB2	Main Driver PCB						41	J2007	FM16	Laser Scanner Cooling Fan	
9	J109	PCB2	Main Driver PCB						42	J2008	FM17	Primary Charging Exhaust Fan	
9	J109	PCB2	Main Driver PCB						43	J2138	M1	Drum Motor	
9	J109	PCB2	Main Driver PCB						44	J2139	M2	Developing Motor	
10	J110	PCB2	Main Driver PCB	J3272	J3167				-	-	SW2	Front Door Open Detection Switch	
10	J110	PCB2	Main Driver PCB	J3272	J3167				45	J3253	SW6	Multi Door Switch	
11	J152	PCB19	Pre-transfer Charging Contact A PCB						-	-	PCB20	Pre-transfer Charging Contact B PCB	
12	J153	PCB20	Pre-transfer Charging Contact B PCB						46	J3107	M6	Primary Charging Wire Cleaning Motor	

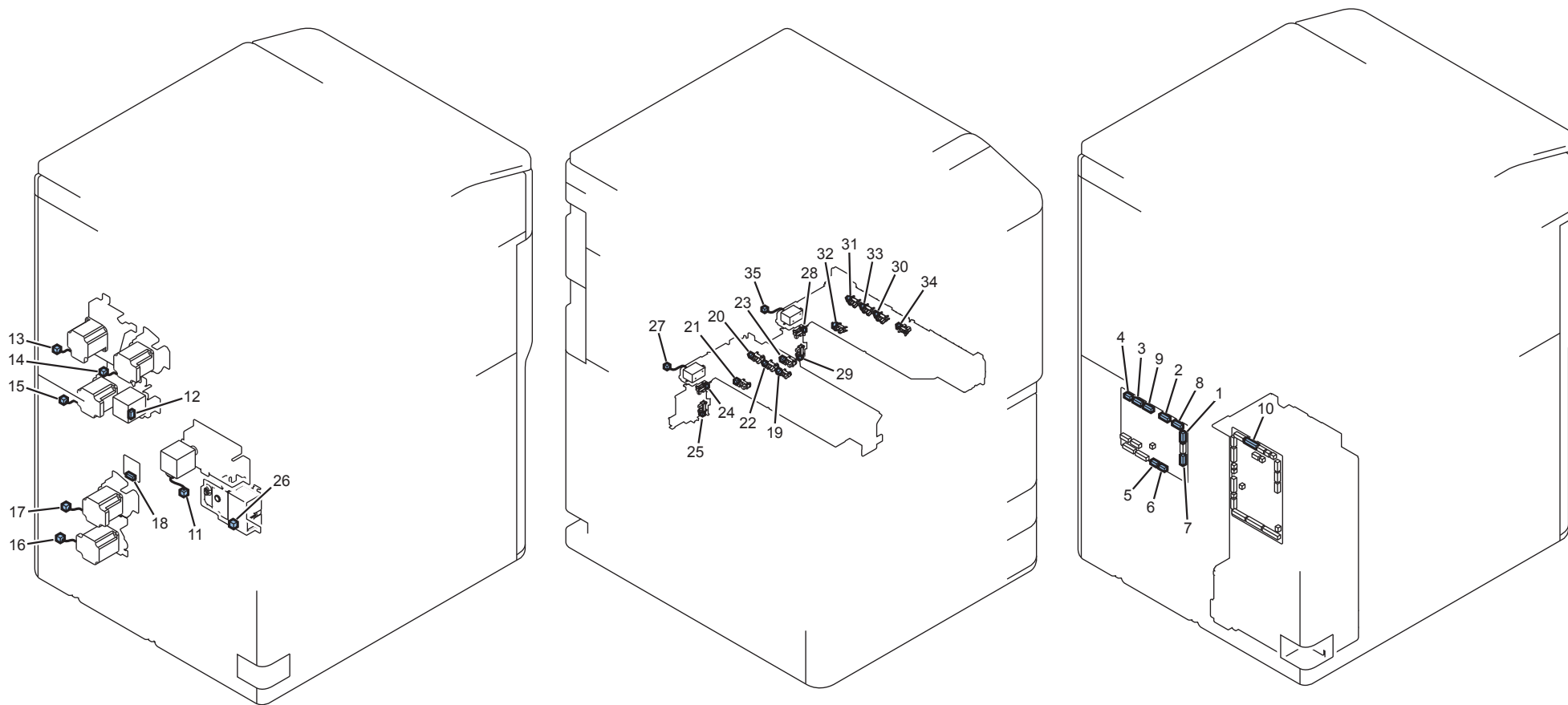
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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector				KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J111	PCB2	Main Driver PCB	J3097					14	J3501	PCB11	Primary Charging High Voltage PCB
2	J112	PCB2	Main Driver PCB	J3098					15	J3511	PCB12	Develop High Voltage PCB
2	J112	PCB2	Main Driver PCB	J3098					16	J3544	PCB26	Pre-transfer Charging PCB
3	J114	PCB2	Main Driver PCB	J3088	J3089				17	J2029	PS94	Primary Charging Shutter Sensor
3	J114	PCB2	Main Driver PCB	J3088	J3089	J3252			18	J2132	PS3	Multi-purpose Cover Open/Close Sensor
3	J114	PCB2	Main Driver PCB	J3088	J3089	J3047			19	J3048	THU1	Environment Sensor
3	J114	PCB2	Main Driver PCB	J3088	J3055				20	J3510	PCB54	Drum ROM PCB
3	J114	PCB2	Main Driver PCB	J3088	J3089	J2133			-	-	TS1	Developing Toner Sensor
3	J114	PCB2	Main Driver PCB	J3088	J3089	J3168			21	J1	PCB32	Voltage Control PCB
3	J114	PCB2	Main Driver PCB	J3088	J3089				22	J151	PCB23	Pre-transfer Charging Contact A PCB
4	J115	PCB2	Main Driver PCB	J3091	J3090	J3106			23	J2034	PS54	Toner Exchange Cover Sensor
4	J115	PCB2	Main Driver PCB	J3091	J3090	J3124			24	J2035	M28	Toner Feed Motor
4	J115	PCB2	Main Driver PCB	J3091	J3090	J3124			25	J2036	CL5	Magnet Roller Clutch
4	J115	PCB2	Main Driver PCB	J3091	J3090	J3124			26	J2038	TS2	Toner Excess Supply Sensor
4	J115	PCB2	Main Driver PCB	J3091	J3090	J3124			27	J2039	TS3	Buffer Toner Sensor
5	J117	PCB2	Main Driver PCB	J3063	J3080				28	J2037	M10	Toner Supply Motor
6	J118	PCB2	Main Driver PCB	J3016					29	J502	PCB10	Fixing Power Supply PCB
7	J119	PCB2	Main Driver PCB	J3112					30	J501	PCB10	Fixing Power Supply PCB
7	J119	PCB2	Main Driver PCB	J3112					31	J9130	FM7	Fixing Power Supply Cooling Fan
8	J127	PCB2	Main Driver PCB	J3176					32	J614	PCB6,7	AC Driver PCB
9	J129	PCB2	Main Driver PCB	J3231	J3200				33	J3202	TP1	Thermal Switch1
9	J129	PCB2	Main Driver PCB	J3231	J3200				34	J3203	TP2	Thermal Switch2
10	J130	PCB2	Main Driver PCB	J3066	J3067	J3215			35	J2114	PS95	Pre-transfer Charging Shutter Sensor
10	J130	PCB2	Main Driver PCB	J3066	J3067	J3215			36	J2131	FM2	Primary Charging Suction Fan
10	J130	PCB2	Main Driver PCB	J3066	J3067	J3215			37	J2170	FM30	Developer Lower Cooling Fan
10	J130	PCB2	Main Driver PCB	J3066	J3067	J3215			38	J2171	FM31	Developer Upper Cooling Fan
10	J130	PCB2	Main Driver PCB	J3066	J3067	J3215			39	J2177	FM32	Pre-transfer Charging Assembly Air Supply Fan
11	J152	PCB23	Contact A PCB						-	-	PCB24	Pre-transfer Charging Contact B PCB
12	J153	PCB24	Contact B PCB						40	J3108	M7	Pre-transfer Charging Wire Cleaning Motor
13	J3	PCB32	Voltage Control PCB	J3169	J3170				41	J3172	PCB15	Voltage Sensor PCB

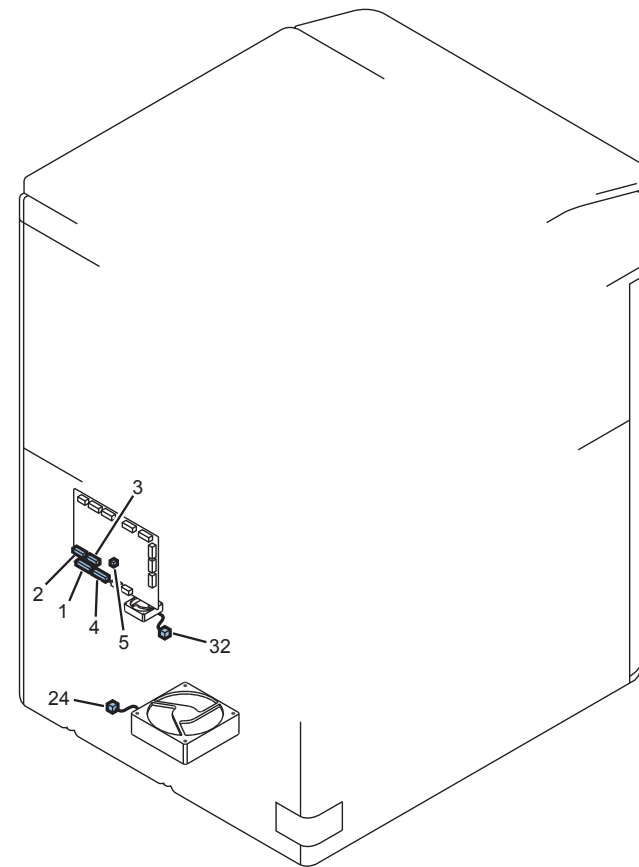
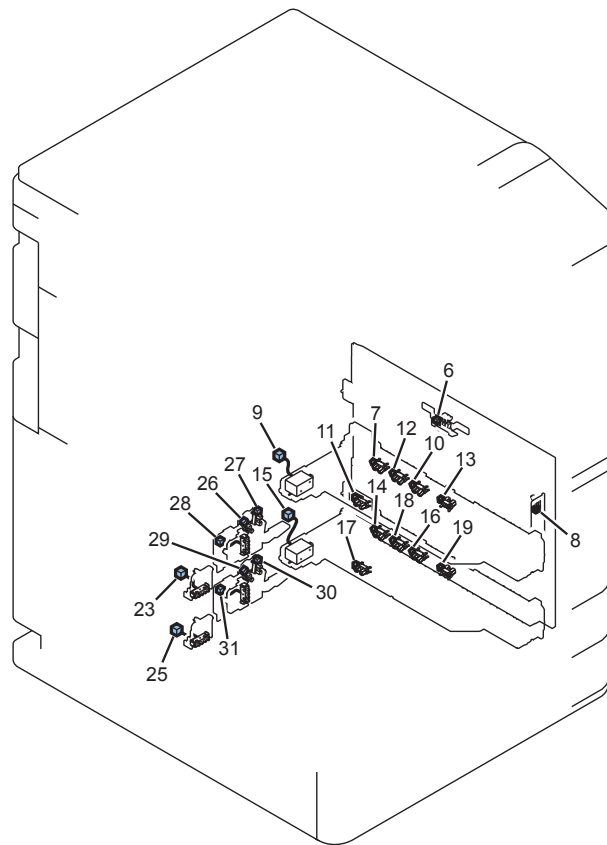
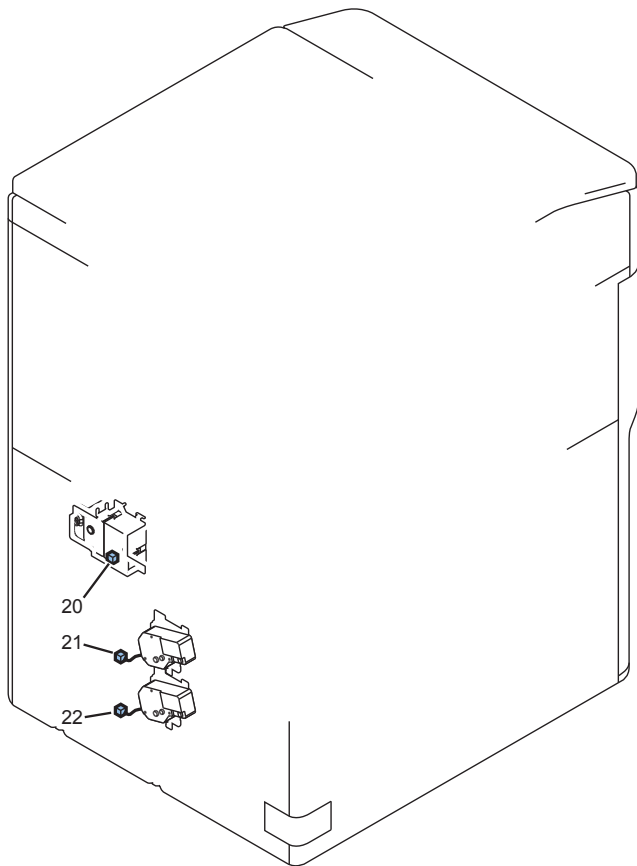
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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector					KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J201	PCB3	Feed Driver PCB						10	J516	PCB5	Relay PCB	
2	J211	PCB3	Feed Driver PCB						11	J2050	M24	Left Deck Pickup Motor	
2	J211	PCB3	Feed Driver PCB						12	J2071	M11	Right Deck Pickup Motor	
3	J212	PCB3	Feed Driver PCB						13	J2146	M33	Multi-purposeTray Registration Front Motor	
3	J212	PCB3	Feed Driver PCB						14	J2147	M26	Vertical Path Upper Motor	
4	J213	PCB3	Feed Driver PCB						15	J2076	M31	Vertical Path Middle Motor	
5	J214	PCB3	Feed Driver PCB						16	J2097	M12	Cassette3.4 Pickup Motor	
6	J215	PCB3	Feed Driver PCB						17	J2077	M27	Vertical Path Lower Motor	
7	J218	PCB3	Feed Driver PCB						18	J100	PCB8	DC-DC Converter PCB	
8	J221	PCB3	Feed Driver PCB	J3634					19	J2042	PS20	Left Deck Pickup Sensor 1	
8	J221	PCB3	Feed Driver PCB	J3634					20	J2043	PS12	Left Deck Paper Height Sensor	
8	J221	PCB3	Feed Driver PCB	J3634					21	J2044	PS11	Left Deck Paper Sensor	
8	J221	PCB3	Feed Driver PCB	J3634					22	J2045	PS10	Left Deck Paper Height Sensor	
8	J221	PCB3	Feed Driver PCB	J3634					23	J2046	PS33	Left Deck Pull Out Sensor	
8	J221	PCB3	Feed Driver PCB	J3132					24	J2048	PS49	Left Deck Paper Level Sensor 1	
8	J221	PCB3	Feed Driver PCB	J3132					25	J2049	PS50	Left Deck Paper Level Sensor 2	
8	J221	PCB3	Feed Driver PCB						26	J2051	M5	Left Deck Lifter Motor	
8	J221	PCB3	Feed Driver PCB	J3634					27	J2052	SL7	Left Deck Pickup Solenoid	
8	J221	PCB3	Feed Driver PCB	J3028					28	J2148	PS47	Right Deck Paper Level Sensor 1	
8	J221	PCB3	Feed Driver PCB	J3028					29	J2149	PS48	Right Deck Paper Level Sensor 2	
9	J222	PCB3	Feed Driver PCB	J3633					30	J2060	PS19	Right Deck Pickup Sensor 1	
9	J222	PCB3	Feed Driver PCB	J3633					31	J2061	PS8	Right Deck Upper Limit Sensor	
9	J222	PCB3	Feed Driver PCB	J3633					32	J2062	PS7	Right Deck Paper Sensor	
9	J222	PCB3	Feed Driver PCB	J3633					33	J2063	PS6	Right Deck Paper Height Sensor	
9	J222	PCB3	Feed Driver PCB	J3633					34	J2064	PS32	Right Deck Pull Out Sensor	
9	J222	PCB3	Feed Driver PCB	J3633					35	J2070	SL6	Right Deck Pickup Solenoid	

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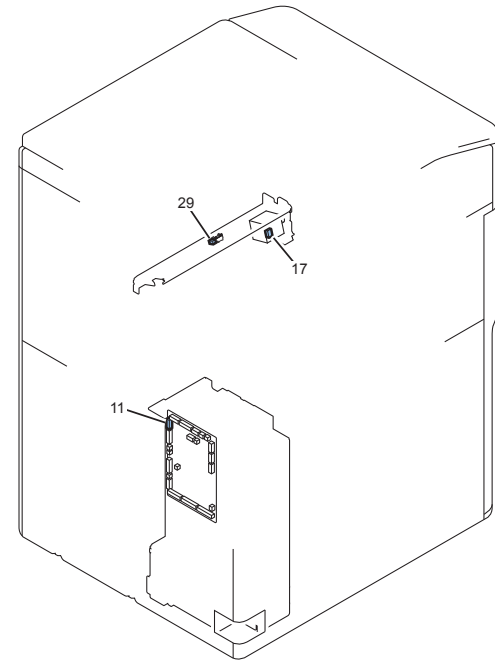
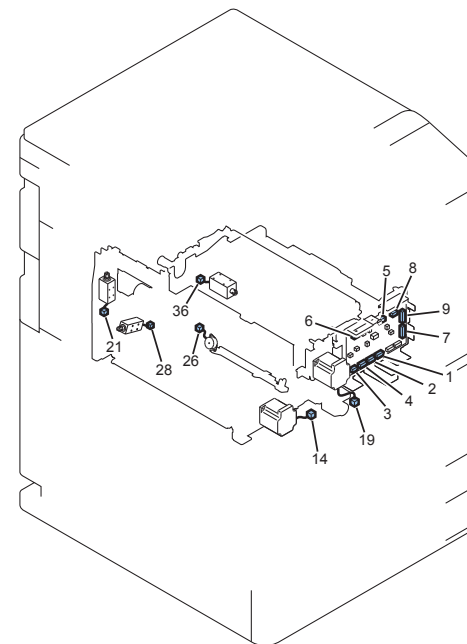
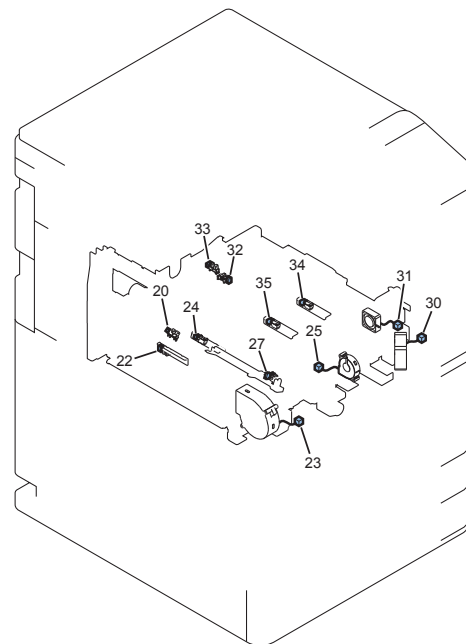
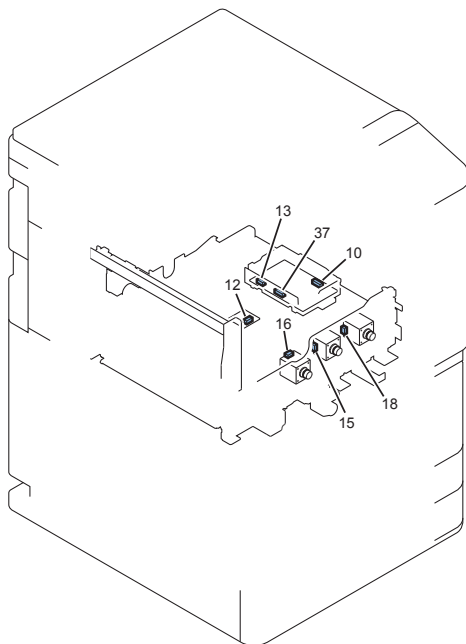


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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector							KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J223	PCB3	Feed Driver PCB	J3128							6	J2054	PS25	Vertical Path Sensor2	
1	J223	PCB3	Feed Driver PCB	J3635							7	J2055	PS68	Cassette 3 Upper Limit Sensor	
1	J223	PCB3	Feed Driver PCB	J3128							8	J2066	PS2	Vertical Path Cover Open/Close Sensor	
1	J223	PCB3	Feed Driver PCB	J3635							9	J2073	SL3	Cassette 3 Pickup Solenoid	
1	J223	PCB3	Feed Driver PCB	J3635							10	J2078	PS21	Cassette 3 Pickup Sensor 1	
1	J223	PCB3	Feed Driver PCB	J3635							11	J2079	PS13	Cassette 3 Paper Sensor	
1	J223	PCB3	Feed Driver PCB	J3635							12	J2080	PS17	Cassette 3 Paper Height Sensor	
1	J223	PCB3	Feed Driver PCB	J3635							13	J2081	PS26	Vertical Path Sensor3	
2	J224	PCB3	Feed Driver PCB	J3636							14	J2056	PS71	Cassette 4 Upper Limit Sensor	
2	J224	PCB3	Feed Driver PCB	J3636							15	J2075	SL4	Cassette 4 Pickup Solenoid	
2	J224	PCB3	Feed Driver PCB	J3636							16	J2089	PS22	Cassette 4 Pickup Sensor 1	
2	J224	PCB3	Feed Driver PCB	J3636							17	J2090	PS14	Cassette 4 Paper Sensor	
2	J224	PCB3	Feed Driver PCB	J3636							18	J2091	PS18	Cassette 4 Paper Height Sensor	
2	J224	PCB3	Feed Driver PCB	J3636							19	J2092	PS27	Vertical Path Sensor4	
3	J225	PCB3	Feed Driver PCB								20	J2069	M4	Right Deck Lifter Motor	
3	J225	PCB3	Feed Driver PCB								21	J2072	M20	Cassette3 Lifter Motor	
3	J225	PCB3	Feed Driver PCB								22	J2074	M21	Cassette4 Lifter Motor	
3	J225	PCB3	Feed Driver PCB	J3031							23	J2085	SW9	Cassette 3 Paper Length Detection Switch	
3	J225	PCB3	Feed Driver PCB	J3008							24	J2088	FM3	Making Image Exhaust Fan	
3	J225	PCB3	Feed Driver PCB	J3031							25	J2096	SW10	Cassette 4 Paper Length Detection Switch	
4	J226	PCB3	Feed Driver PCB	J3273							26	J2082	PS69	Cassette 3 Paper Level Sensor 1	
4	J226	PCB3	Feed Driver PCB	J3273							27	J2083	PS70	Cassette 3 Paper Level Sensor 2	
4	J226	PCB3	Feed Driver PCB	J3273							28	J2084	SW7	Cassette 3 Paper Width Detection Switch	
4	J226	PCB3	Feed Driver PCB	J3033							29	J2093	PS72	Cassette 4 Paper Level Sensor 1	
4	J226	PCB3	Feed Driver PCB	J3033							30	J2094	PS73	Cassette 4 Paper Level Sensor 2	
4	J226	PCB3	Feed Driver PCB	J3033							31	J2095	SW8	Cassette 4 Paper Width Detection Switch	
5	J227	PCB3	Feed Driver PCB								32	J2168	FM40	Feed Driver Cooling Fan	

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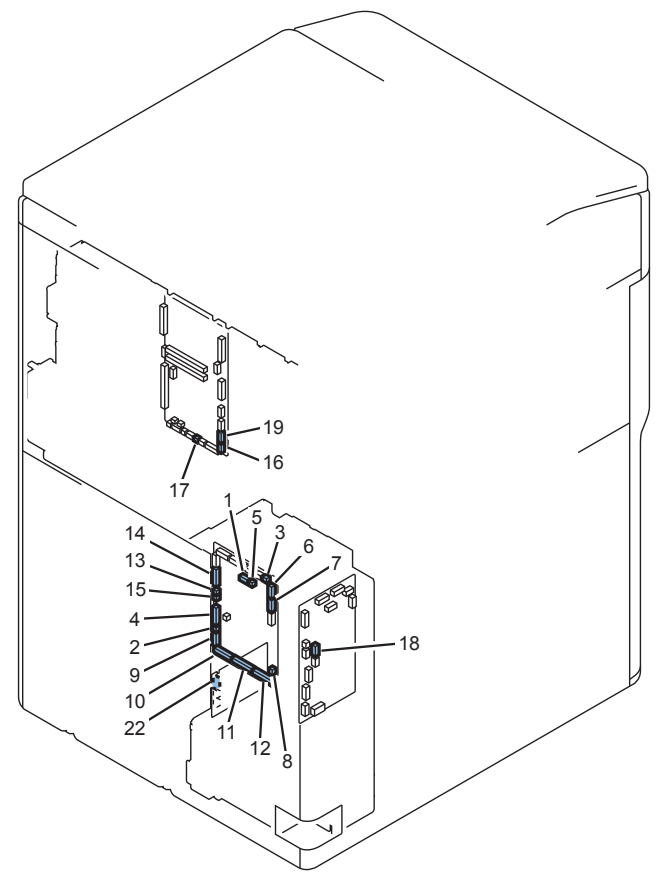
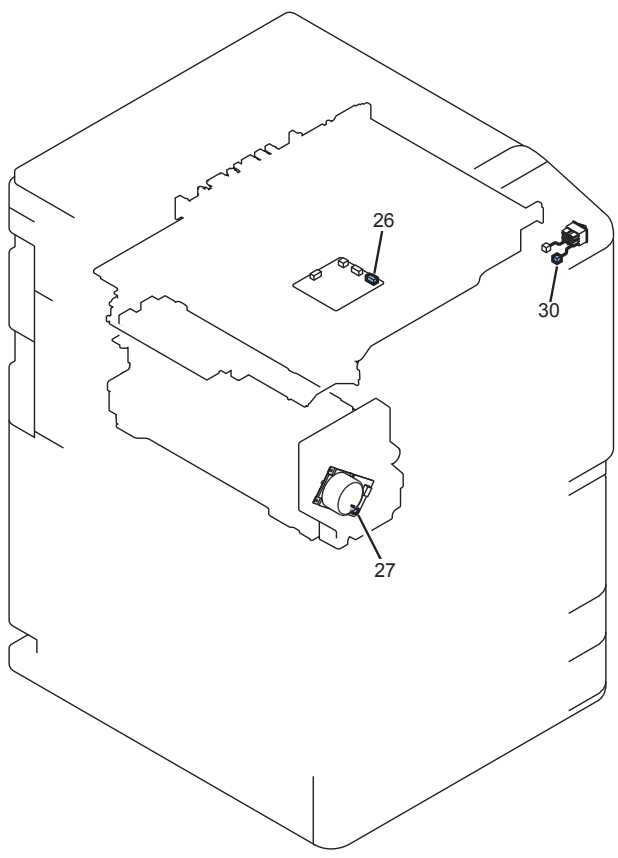
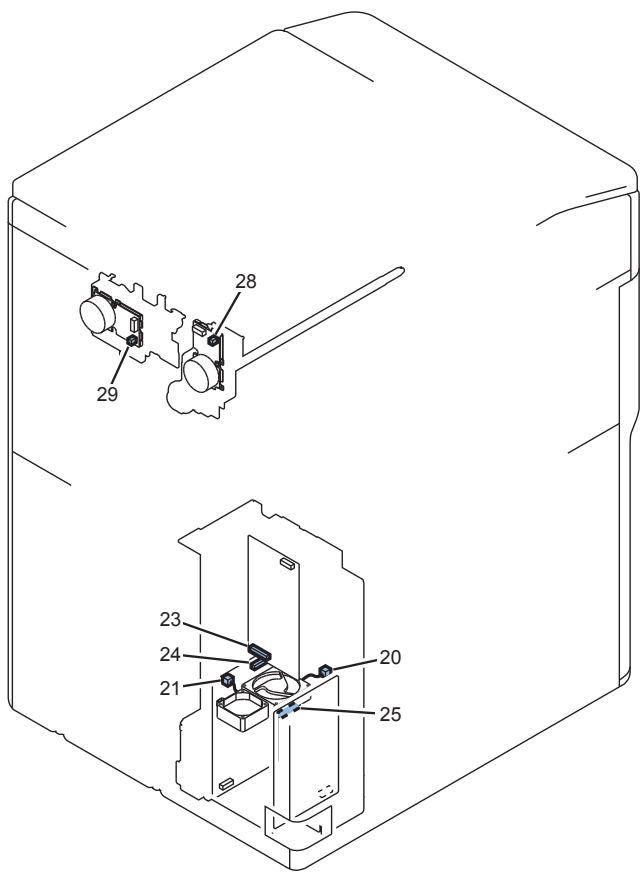




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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector					KeyNo.	J No.	Symbol	Parts Name	REMARKS	
1	J310	PCB4	Duplex Driver PCB	J3233	J3002					11	J517	PCB5	Relay PCB	
2	J311	PCB4	Duplex Driver PCB							12	J100	PCB9	DC-DC Converter PCB	
2	J311	PCB4	Duplex Driver PCB							13	J3061	PCB13	Transfer High Voltage PCB	
3	J330	PCB4	Duplex Driver PCB							14	J2167	M14	Reverse Motor	
4	J331	PCB4	Duplex Driver PCB							15	J2108	M32	Duplex Feed Merging Motor	
4	J331	PCB4	Duplex Driver PCB							16	J2111	M19	Duplex Feed Left Motor	
5	J332	PCB4	Duplex Driver PCB	J3042						17	J2098	M34	Registration Motor	
5	J332	PCB4	Duplex Driver PCB							18	J2109	M18	Duplex Feed Right Motor	
6	J333	PCB4	Duplex Driver PCB							19	J2107	M43	ETB Motor	
7	J340	PCB4	Duplex Driver PCB	3236	J3243					20	J2113	PS35	Inner Delivery Sensor	
7	J340	PCB4	Duplex Driver PCB							21	J2115	SL5	Reverse Upper Flapper Solenoid	
7	J340	PCB4	Duplex Driver PCB	J3236						22	J2117	PS65	Reverse Vertical Path Sensor	
7	J340	PCB4	Duplex Driver PCB							23	J2118	FM5	Paper Cooling Fan	
7	J340	PCB4	Duplex Driver PCB							24	J2120	PS66	Duplex Left Sensor	
7	J340	PCB4	Duplex Driver PCB	J2121	J3020	J3021				25	J2121	FM8	Transfer Cleaner Cooling Fan	
7	J340	PCB4	Duplex Driver PCB	J3242						26	J2124	M16	Side Registration Motor	
7	J340	PCB4	Duplex Driver PCB	J3242						27	J2125	PS31	Side Registration Sensor	
7	J340	PCB4	Duplex Driver PCB							28	J2176	SL12	Reverse Detachment Solenoid	
8	J342	PCB4	Duplex Driver PCB	J3263						29	J2116	PS29	Registration Sensor	
8	J342	PCB4	Duplex Driver PCB							30	J2144	FM41	Duplex Driver Cooling Fan	
8	J342	PCB4	Duplex Driver PCB							31	J2145	FM42	Registration Motor/Duplex Motor Cooling Fan	
9	J343	PCB4	Duplex Driver PCB	J3270						32	J2100	PS55	ETB Engage Sensor	
9	J343	PCB4	Duplex Driver PCB	J3270						33	J2101	PS56	ETB Disengage Sensor	
9	J343	PCB4	Duplex Driver PCB	J3265						34	J2104	PS64	Duplex Outlet Sensor	
9	J343	PCB4	Duplex Driver PCB	J3269						35	J2105	PS67	Duplex Merging Sensor	
9	J343	PCB4	Duplex Driver PCB	J3270						36	J2106	SL11	Left Deck Merging Solenoid	
9	J343	PCB4	Duplex Driver PCB							37	J3062	PCB13	Transfer High Voltage PCB	
10	J3063	PCB13	Transfer High Voltage PCB	J3306						-	-	PCB34	Transfer High Voltage Resistance PCB	

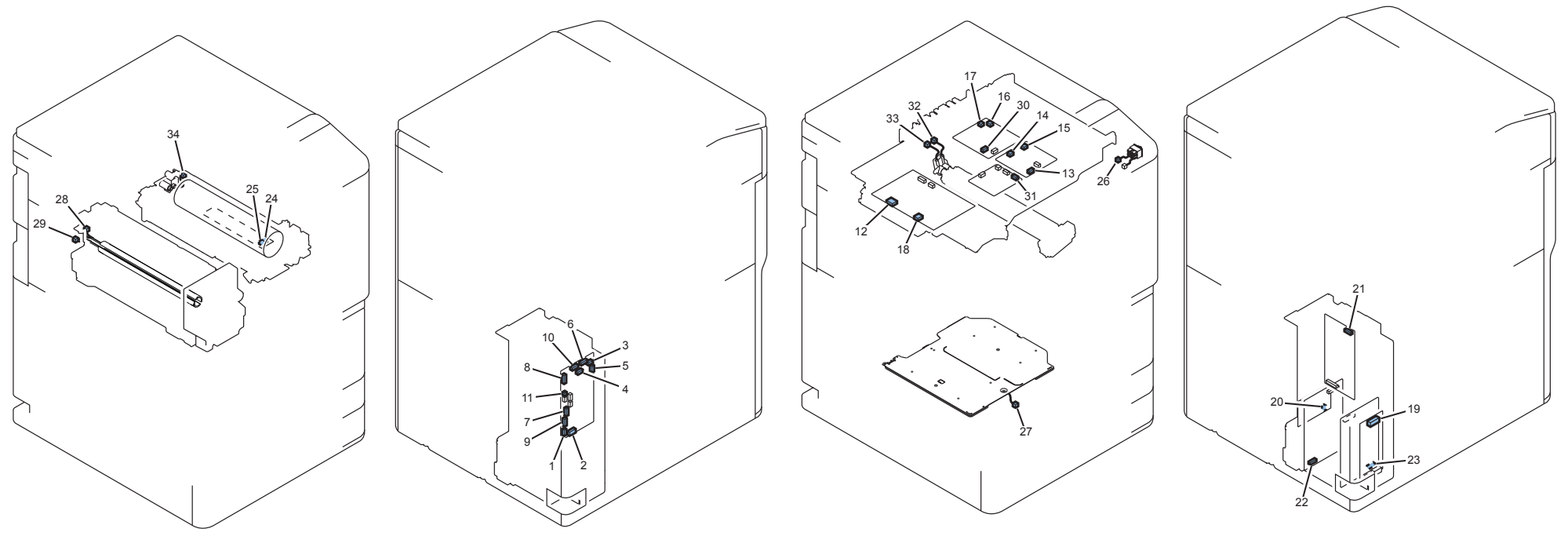
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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector					KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J501	PCB5	Relay PCB						16	J5	PCB51	Main Controller PCB 2	
2	J502	PCB5	Relay PCB	3237	J9040				-	-	-	DECK LATTICE	
3	J503	PCB5	Relay PCB	709					-	-	-	USB Device Port-A1	
4	J505	PCB5	Relay PCB	3118	J9024				-	-	-	READER LATTICE	
4	J505	PCB5	Relay PCB	3238	J9043				-	-	-	FINISHER LATTICE	
5	J506	PCB5	Relay PCB						17	J23	PCB51	Main Controller PCB 2	
6	J507	PCB5	Relay PCB						18	J611	PCB6,7	AC Driver PCB	
7	J508	PCB5	Relay PCB						19	J4	PCB51	Main Controller PCB 2	
8	J509	PCB5	Relay PCB	3224					20	J2134	FM14	Power Supply Cooling Fan 1	
8	J509	PCB5	Relay PCB						21	J2154	FM15	Power Supply Cooling Fan 2	
9	J510	PCB5	Relay PCB						22	J691	PCB33	All-night Power Supply PCB	
10	J511	PCB5	Relay PCB						23	J201	PCB29	DC Power Supply PCB	
11	J512	PCB5	Relay PCB						24	J202	PCB30	DC Power Supply PCB	
12	J513	PCB5	Relay PCB						25	J202	PCB31	DC Power Supply PCB	
13	J519	PCB5	Relay PCB	J3099					26	J3545	PCB26	Pre-transfer Charging PCB	
14	J520	PCB5	Relay PCB	J3218	J3200	J3212	J3213		27	J2	M3	Fixing Motor	
14	J520	PCB5	Relay PCB	J3102					28	J2151	M1	Drum Motor	
14	J520	PCB5	Relay PCB	J3102					29	J2152	M2	Developing Motor	
15	J523	PCB5	Relay PCB						30	J3637	SW1	Power ON Switch	

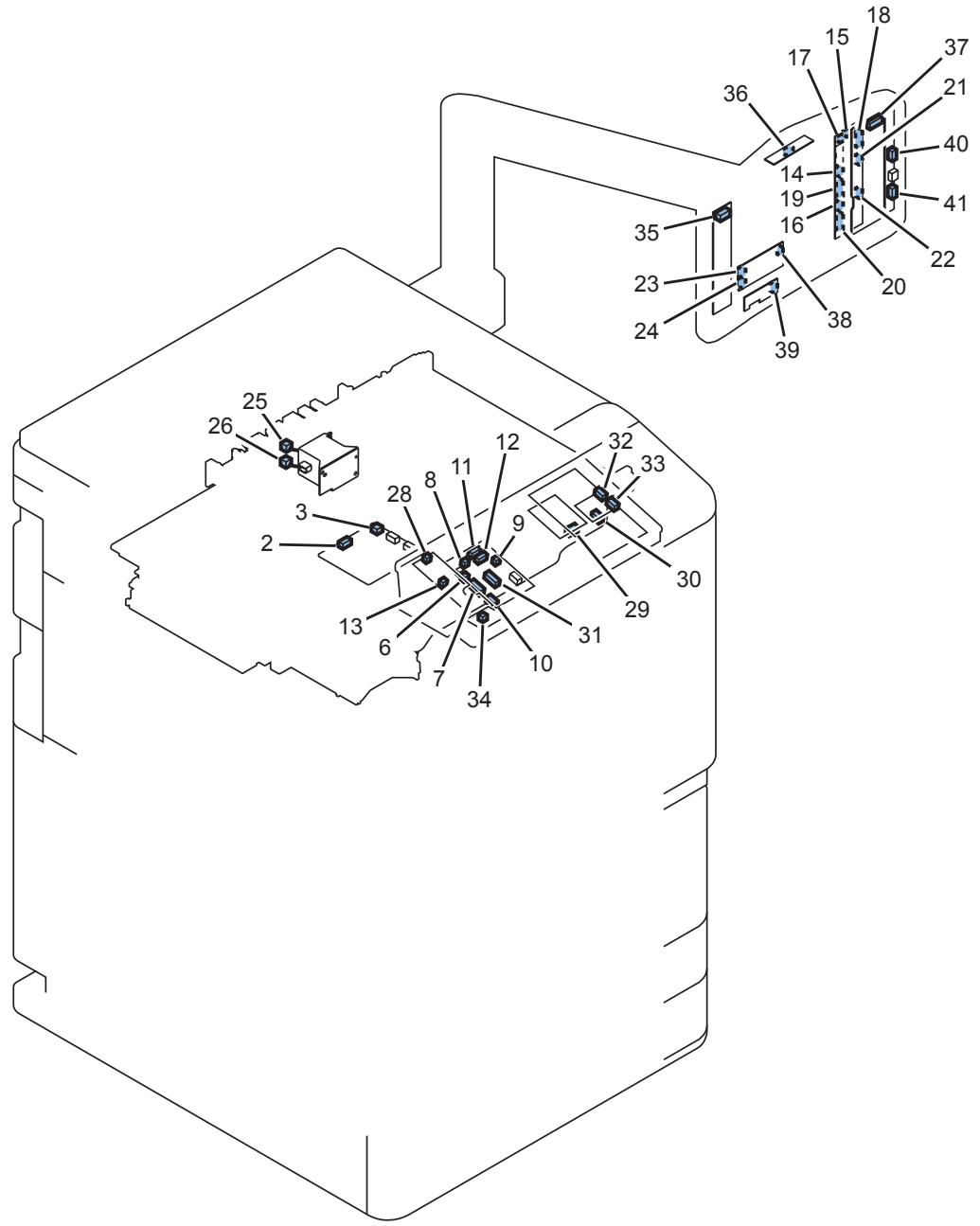
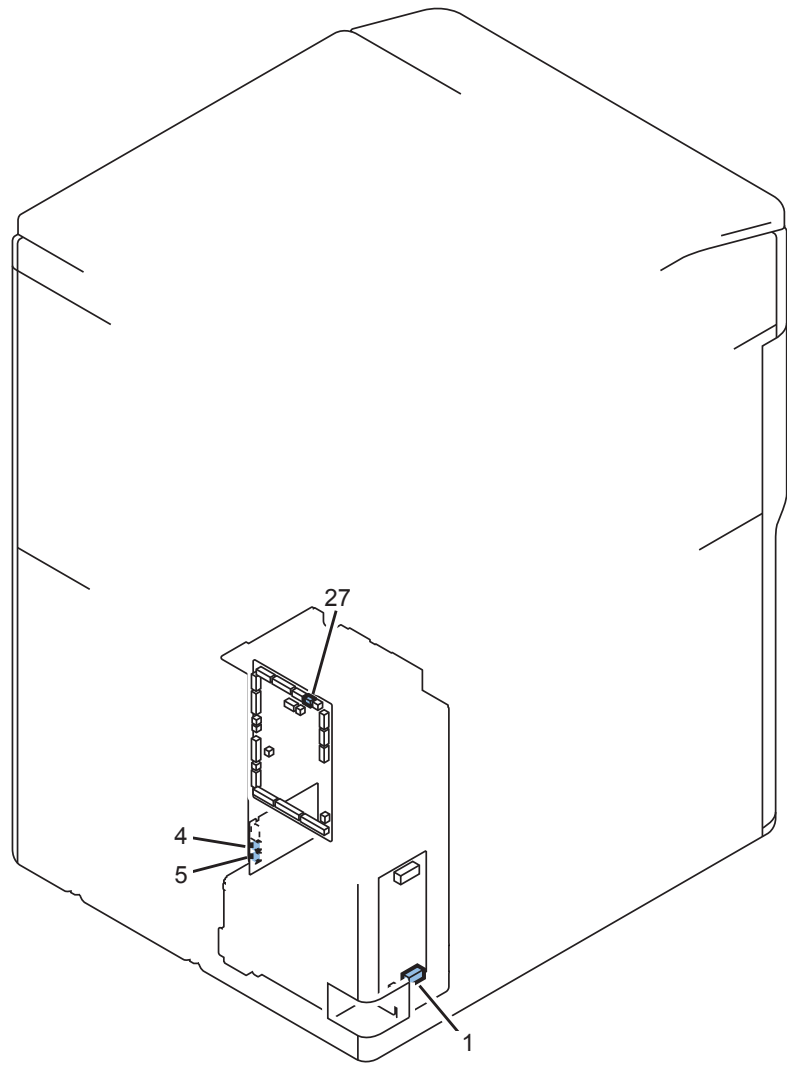
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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector				KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J601	PCB6,7	AC Driver PCB	J3639				18	J500	PCB10	Fixing Power Supply PCB	
2	J602	PCB6,7	AC Driver PCB					19	J802	PCB17,18	Noise Filter	
3	J603	PCB6,7	AC Driver PCB					20	J681	PCB33	All-night Power Supply PCB	
4	J604	PCB6,7	AC Driver PCB	9020				-	-	-	POD Deck Lite-A1	
4	J604	PCB6,7	AC Driver PCB	9020				-	-	-	Paper Deck Unit-C1	
5	J605	PCB6,7	AC Driver PCB					21	J101	PCB29	DC Power Supply PCB	
6	J606	PCB6,7	AC Driver PCB					22	J102	PCB30	DC Power Supply PCB	
6	J606	PCB6,7	AC Driver PCB					23	J102	PCB31	DC Power Supply PCB	
7	J607	PCB6,7	AC Driver PCB					-	-	SW3	Environment Switch	
7	J607	PCB6,7	AC Driver PCB					-	-	SW4	Cassette Heater Switch	
8	J608	PCB6,7	AC Driver PCB	J3173	J3119	J9024		-	-	-	READER LATTICE	
8	J608	PCB6,7	AC Driver PCB	J3173	J3115	J3116	J3060	24	J2001	PCB27,28	Drum Heater Driver PCB	
8	J608	PCB6,7	AC Driver PCB	J3173	J3115	J3116	J3060	25	J2002	PCB27,28	Drum Heater Driver PCB	
9	J609	PCB6,7	AC Driver PCB	J3549				26	J3273	SW1	Power ON Switch	
10	J610	PCB6,7	AC Driver PCB	J9019				27	J220	H2	Multi Cassette Heater	
11	J613	PCB6,7	AC Driver PCB	J3174	J3638	J9043		-	-	-	FINISHER LATTICE	
12	J510	PCB10	Fixing Power Supply PCB					28	J9071	H3	Fixing Heater	
12	J510	PCB10	Fixing Power Supply PCB					29	J9072	H4	Fixing Heater	
13	J3500	PCB11	Primary Charging High Voltage PCB					30	J3510	PCB12	Develop High Voltage PCB	
13	J3500	PCB11	Primary Charging High Voltage PCB					31	J3545	PCB26	Pre-transfer Charging PCB	
14	J3502	PCB11	Primary Charging High Voltage PCB					32	J3214	-	High Voltage Connector	
15	J3503	PCB11	Primary Charging High Voltage PCB					33	J3003	-	High Voltage Connector	
16	J3512	PCB12	Develop High Voltage PCB	J3221				-	-	-	-	
16	J3512	PCB12	Develop High Voltage PCB	J3222				-	-	-	-	
17	J3513	PCB12	Develop High Voltage PCB					34	J3217	-	High Voltage Connector	

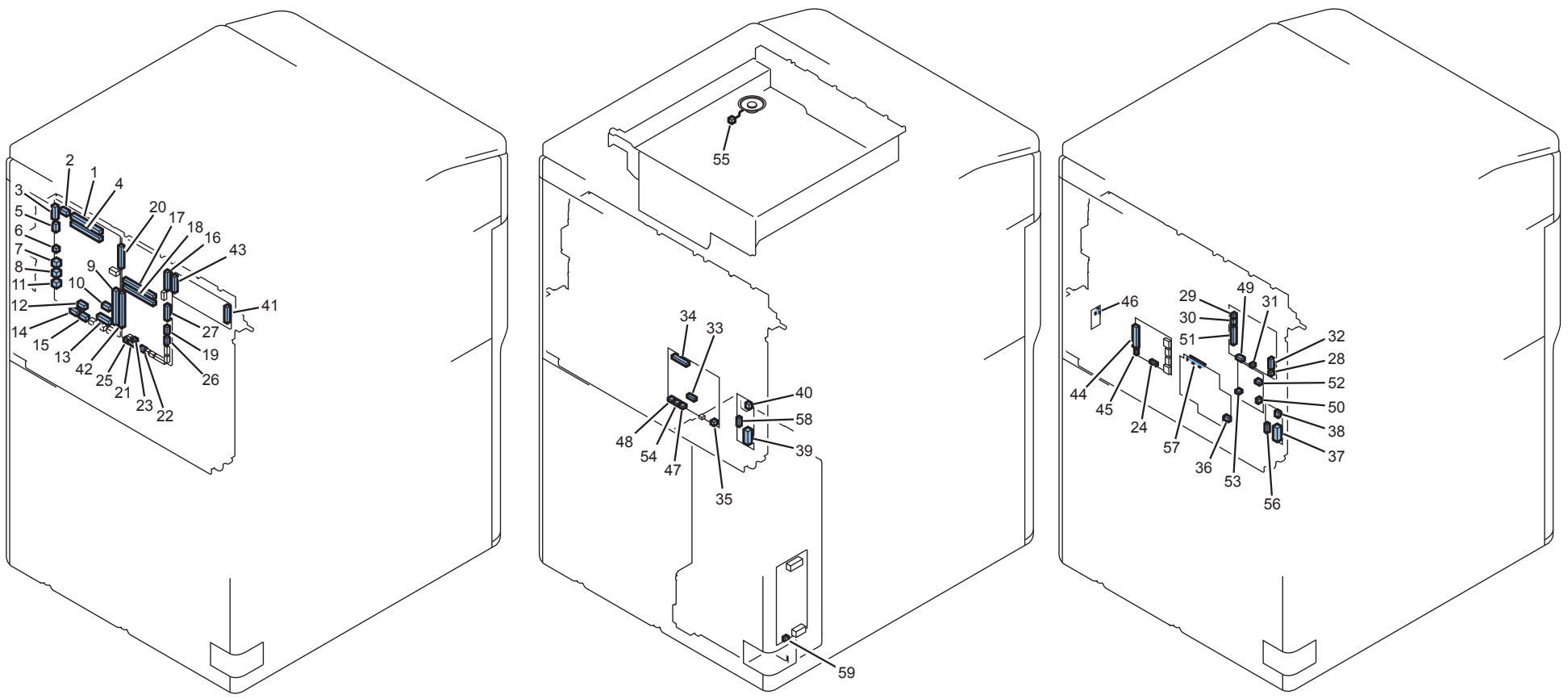
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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector					KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J801	PCB17,18	Noise Filter						-	-	CB1001	Leakage Breaker	
1	J801	PCB17,18	Noise Filter						-	-	CB1002	Leakage Breaker	
1	J801	PCB17,18	Noise Filter						-	-	CB1003	Leakage Breaker	
1	J801	PCB17,18	Noise Filter						-	-	CB1004	Leakage Breaker	
2	J3547	PCB26	Pre-transfer Charging PCB	J3004	J3129				25	J9001	UN75	Post Charging Trance	
3	J3548	PCB26	Pre-transfer Charging PCB						26	J3005	UN75	Post Charging Trance	
4	J692	PCB33	All-night Power Supply PCB						-	-	-	-	
5	J693	PCB33	All-night Power Supply PCB						-	-	-	-	
6	J776	UN111	CPU PCB	3225					27	J504	PCB5	Relay PCB	
7	J1003	UN111	CPU PCB						28	J4001	UN112	Sub Key PCB	
7	J1003	UN111	CPU PCB						29	J6001	UN114	Inverter PCB	
8	J1005	UN111	CPU PCB						-	-	-	Transparent touch panel	
9	J1006	UN111	CPU PCB						30	J2002	UN109	Hub PCB	
10	J1007	UN111	CPU PCB						31	J1	-	LCD	
11	J1008	UN111	CPU PCB						32	J3002	UN110	Ten Key PCB	
12	J1009	UN111	CPU PCB						33	J3001	UN110	Ten Key PCB	
13	J4002	UN112	Sub Key PCB						34	J5001	UN113	Volume PCB	
14	J1	UN117	CPU PCB	J3225					27	J504	PCB5	Relay PCB	
15	J2	UN117	CPU PCB						35	J1	UN118	Sub Key PCB	
15	J2	UN117	CPU PCB						36	J1	UN121	TALLY PCB	
16	J3	UN117	CPU PCB						-	-	-	Transparent touch panel	
17	J4	UN117	CPU PCB						-	-	-	-	
18	J5	UN117	CPU PCB						37	J1	UN116	Ten Key PCB	
19	J7	UN117	CPU PCB						-	-	-	Transparent touch panel	
20	J8	UN117	CPU PCB						38	J1	UN120	Inverter PCB	
20	J8	UN117	CPU PCB						39	J1	UN119	Volume PCB	
21	J9	UN117	CPU PCB						40	J1	UN115	Hub PCB	
22	J10	UN117	CPU PCB						41	J2	UN115	Hub PCB	
23	J2	UN120	Inverter PCB						-	-	-	Transparent touch panel	
24	J3	UN120	Inverter PCB						-	-	-	Transparent touch panel	

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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector				KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J1000	PCB50	Main Controller PCB 1					-	-	-	DDR2-SDRAM	
2	J1002	PCB50	Main Controller PCB 1					-	-	-	Voice Guidance Kit-F1/F2	
3	J1003	PCB50	Main Controller PCB 1					-	-	-	Control panel	
4	J1004	PCB50	Main Controller PCB 1					-	-	-	DDR2-SDRAM	
5	J1007	PCB50	Main Controller PCB 1					-	-	-	USB Device Port-A1	
6	J1015	PCB50	Main Controller PCB 1					-	-	FM4	Main Controller Cooling Fan	
7	J1017	PCB50	Main Controller PCB 1					-	-	-	LAN	
8	J1018	PCB50	Main Controller PCB 1					-	-	-	USB(D)	
9	J1019	PCB50	Main Controller PCB 1					42	J2	PCB51	Main Controller PCB 2	
10	J1020	PCB50	Main Controller PCB 1					-	-	-	Flash PCB	
11	J1021	PCB50	Main Controller PCB 1					-	-	-	USB(H)	
12	J1022	PCB50	Main Controller PCB 1					-	-	-	TPM PCB	
13	J1025	PCB50	Main Controller PCB 1					-	-	-	Expansion Bus -F1/F2	
14	J1026	PCB50	Main Controller PCB 1					-	-	-	Copy Control Interface Kit-A1	
15	J1027	PCB50	Main Controller PCB 1					-	-	-	Card reader or Serial interface kit or Coin manager	
16	J6	PCB51	Main Controller PCB 2					43	J1	PCB52	Channel Link PCB	
17	J11	PCB51	Main Controller PCB 2					-	-	-	DDR2-SDRAM	
18	J13	PCB51	Main Controller PCB 2					-	-	-	DDR2-SDRAM	
19	J14	PCB51	Main Controller PCB 2					-	-	-	Memory PCB	
20	J2017	PCB51	Main Controller PCB 2					-	-	-	Image Data Analyzer Board-A1	
21	J12	PCB51	Main Controller PCB 2					44	J1	-	HDD Mirroring Kit-E1 or HDD Data Encryption & MirroringKit-C2	
22	J2024	PCB51	Main Controller PCB 2					44	J1	-	HDD Mirroring Kit-E1 or HDD Data Encryption & MirroringKit-C2	
23	J2027	PCB51	Main Controller PCB 2					45	J7	-	HDD Mirroring Kit-E1 or HDD Data Encryption & MirroringKit-C2	
24	J6	-	HDD Mirroring Kit-E1 or HDD Data Encryption & MirroringKit-C2					46	J2	-	LED PCB	
25	J19	PCB51	Main Controller PCB 2					47	J403	-	Super G3 2nd Line Fax Board-AF1	
26	J20	PCB51	Main Controller PCB 2					48	J5	-	Super G3 2nd Line Fax Board-AF1	
26	J20	PCB51	Main Controller PCB 2					49	J2	-	Super G3 FAX Board-AF1	
26	J20	PCB51	Main Controller PCB 2					50	J2	-	Pseudo CI PCB/Off-hook Power Supply PCB	
27	J2083	PCB51	Main Controller PCB 2					51	J1	-	Super G3 FAX Board-AF1	
28	J4	-	Super G3 FAX Board-AF1					52	J3	-	Pseudo CI PCB/Off-hook Power Supply PCB	
29	J5	-	Super G3 FAX Board-AF1					53	J1	-	Pseudo CI PCB/Off-hook Power Supply PCB	
30	J6	-	Super G3 FAX Board-AF1					54	J8	-	Super G3 2nd Line Fax Board-AF1	
31	J7	-	Super G3 FAX Board-AF1	J3141	J3140			55	J751	-	Speaker	
32	J3	-	Super G3 FAX Board-AF1					56	J4	-	Modular PCB (1 line)	
33	J1	-	Super G3 2nd Line Fax Board-AF1					-	-	-	-	
34	J3	-	Super G3 2nd Line Fax Board-AF1					57	J1	-	Super G3 3rd/4th Line Fax Board-AF1	

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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector					KeyNo.	J No.	Symbol	Parts Name	REMARKS
35	J4	-	Super G3 2nd Line Fax Board-AF1						58	J4	-	Modular PCB (2 to 4 lines)	
36	J2	-	Super G3 3rd/4th Line Fax Board-AF1						58	J4	-	Modular PCB (2 to 4 lines)	
37	J1	-	Modular PCB (1 line)						-	-	-	-	
38	J7	-	Modular PCB (1 line)	J3012					59	J803	PCB17,18	Noise Filter	
39	J1	-	Modular PCB (2 to 4 lines)						-	-	-	-	
40	J2	-	Modular PCB (2 to 4 lines)	J3012					59	J803	PCB17,18	Noise Filter	
41	J2	PCB52	Channel Link PCB							-	-	RCON	

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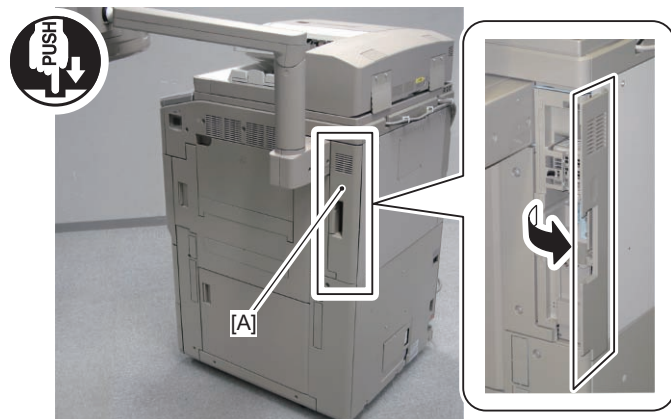
## Main Controller

### Removing Main Controller PCB 1

#### <Preparation>

1. Remove the Box Cover (Right).

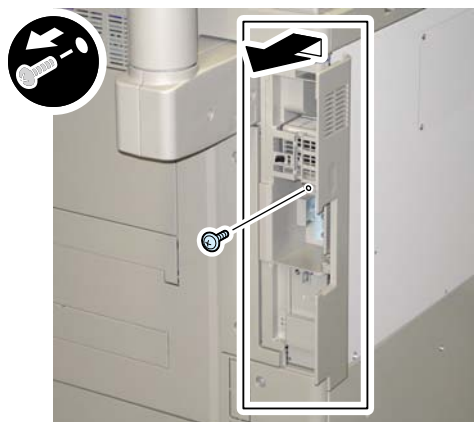
1-1) Push [A] part to open the HDD Cover.



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1-2) Remove the Main Controller Right Cover Unit.

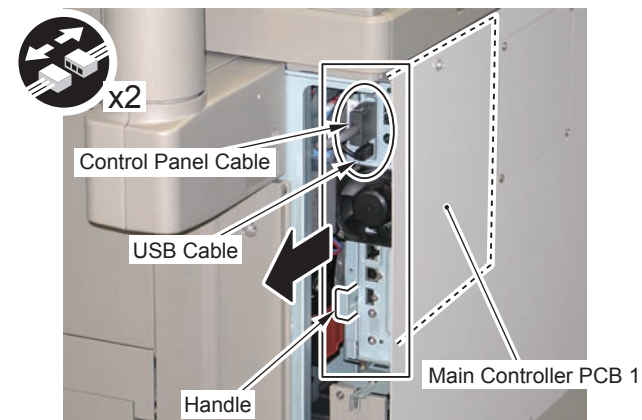
• 1 Screw



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#### <Procedure>

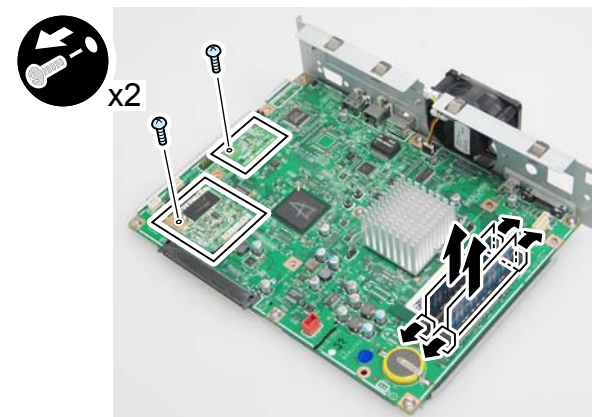
1) Disconnect the Connector (USB Cable and the Control Panel Cable) to remove the Main Controller PCB 1 Unit in the direction of the arrow.



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2) Remove the Flash PCB, the TPM PCB and the 2 Memory Boards.

• 2 Screws



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## &lt;Actions after Parts Replacement&gt;

1. Install the following parts removed from the old PCB to the new PCB.

- 2 DDR2-SDRAMs
- Flash PCB
- TPM PCB

## NOTE:

It is not necessary to reconfigure/register the data after replacing the Main Controller PCB 1.

2. Checking connection of the Main Controller PCB 1

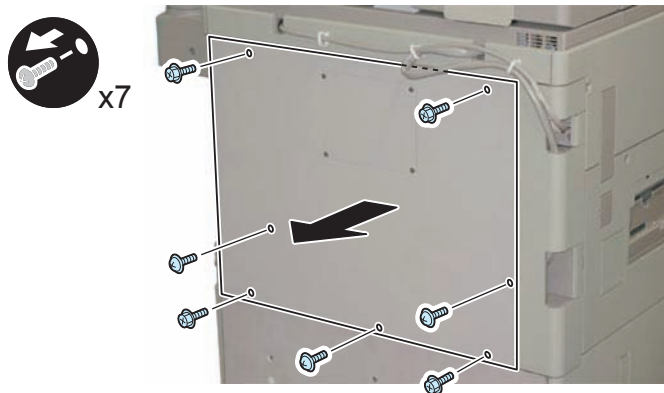
## CAUTION:

If the Main Controller PCB 1 cannot be inserted in the slot (or cannot be inserted properly) or Error occurs after starting the machine, follow the following steps to check the connection between the Main Controller PCB 1 and the Main Controller PCB 2. If they are not connected properly, perform "Adjusting the positions of the PCBs".

Criterion: If the width of the gap between the connectors of the PCBs is less than 0.5mm and uniform, the PCBs are connected properly.

1) Remove the Rear Cover.

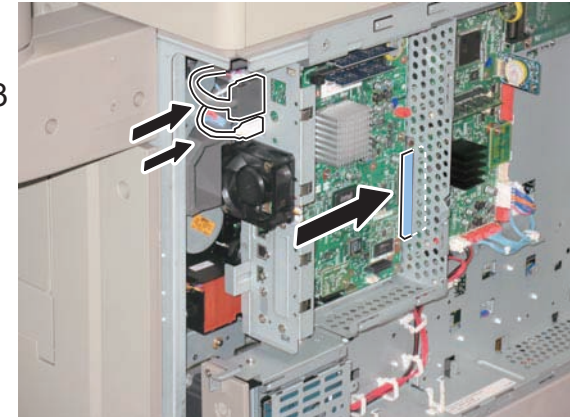
- 7 Screws



F-4-45

2) Install the Main Controller PCB 1 Unit.

- 3 Connectors

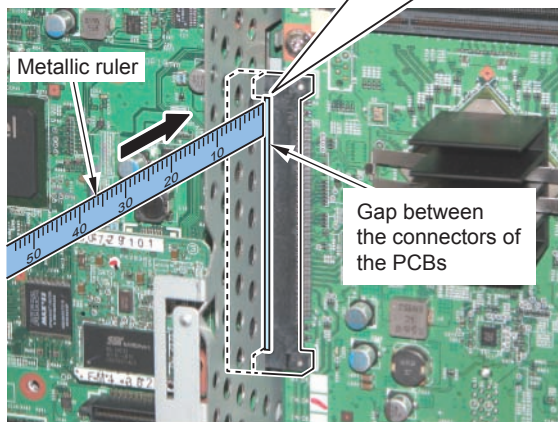
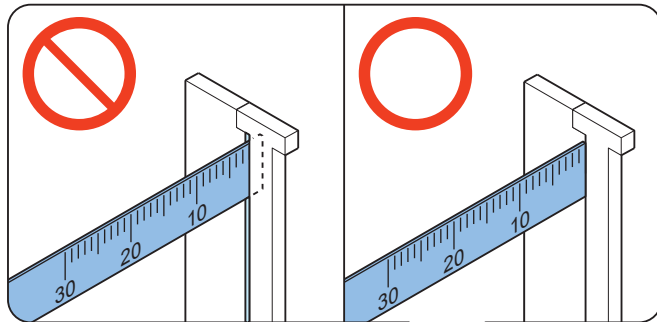


F-4-46

- 3) Place a metallic ruler vertically on the gap between the connectors of the PCBs, and check that the gap is not large enough for the edge of the metallic ruler to be fitted in.

**CAUTION:**

If the edge of the metallic ruler fits in the gap between the connectors of the PCBs, adjust the positions of the PCBs.

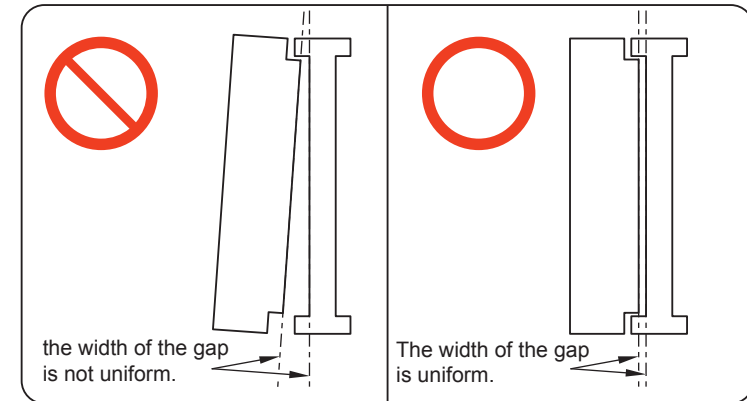


F-4-47

- 4) Observe the gap between the connectors of the PCBs from the front, and visually check that the width of the gap is uniform.

**CAUTION:**

If the width of the gap is not uniform, adjust the positions of the PCBs.

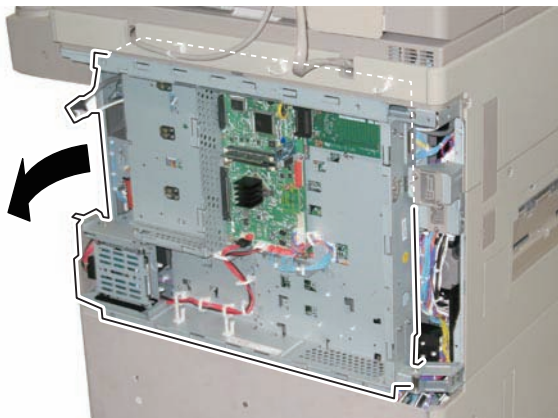


F-4-48

- 5) If the Main Controller PCB 1 is judged to be connected properly as a result of steps 3 and 4, install the removed parts in reverse order. If the PCB is not connected properly, perform "2. Adjusting the positions of the PCBs".

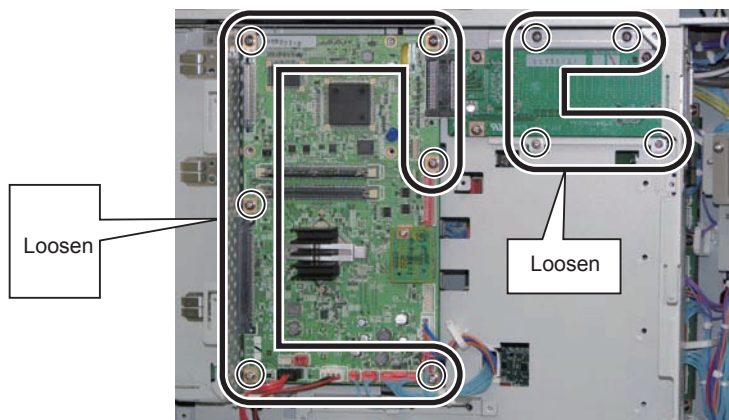
## 3. Adjusting the positions of the PCBs

- 1) Remove the Main Controller PCB 1 Unit.
- 2) Open the Controller Box in the direction of the arrow.



F-4-49

- 3) Loosen the 6 screws securing the Main Controller PCB 2 and the 4 screws securing the Channel Link PCB.



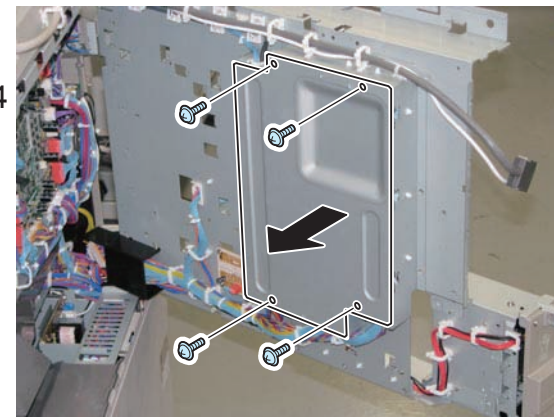
F-4-50

## CAUTION:

If an Image Analysis Board is installed, remove it and loosen the 4 Spacers.

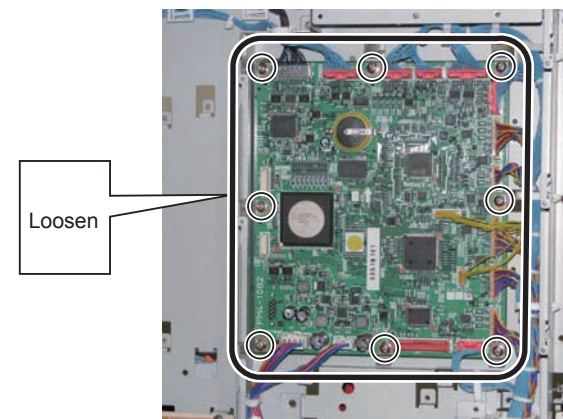
- 4) Remove the Controller Box Inner Cover.

- 4 Screws



F-4-51

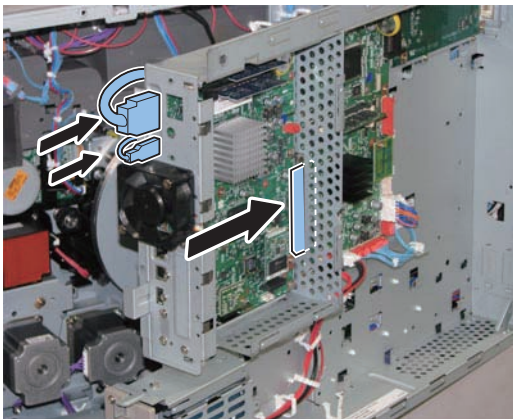
- 5) Loosen the 8 screws securing the DC Controller PCB.



F-4-52

6) Install the Main Controller PCB 1 Unit.

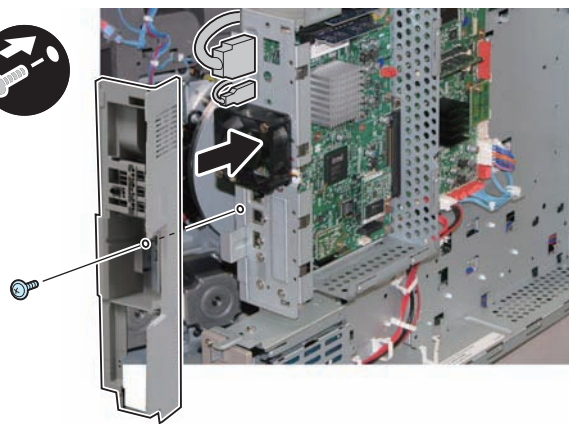
- 3 Connectors



F-4-53

7) Install the Main Controller Right Cover Unit.

- 1 Screw



F-4-54

8) Fully tighten the loosened screws to secure the Main Controller PCB 2, Channel Link PCB, and DC Controller PCB in that order. Check that the connectors of the PCBs are properly connected.

9) Install the covers removed in this procedure in reverse order.

- Controller Box Inner Cover
- Rear Cover
- Controller Box (Close it.)
- Left Rear Inner Cover
- Connector Cover
- Remove the Left Rear Cover.



## Removing Main Controller PCB 2

### <Processing before replacing the parts>

Be sure to gain agreement from the user in advance to execute the following work.

You can evacuate by contents of the SRAM in Main Controller PCB 2 when you use SST.  
But you cannot use this function when there is HDD Encryption Board.

When there is HDD Encryption Board:

#### 1) Backup the Settings/Registration data

Use the remote UI.

Management Settings > Data Management > Import/Export

Target Data:

- Address Book
- Forwarding Settings
- Settings/Registration
- Web Access Favorites
- Printer Settings
- Paper Information

#### 2) Print out the Settings/Registration data.

Use service mode.

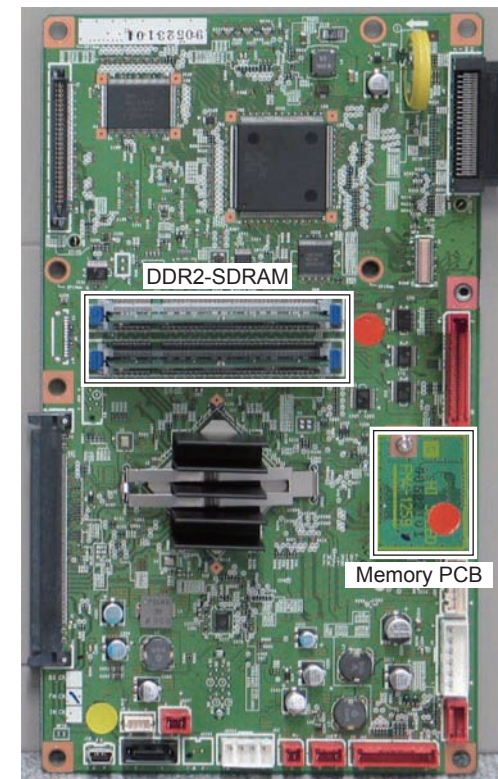
(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

The Settings/Registration data value that cannot be backed up is printed out as a list.

### <Processing when replacing the parts>

1) Replace the part from the old PCB to the new PCB.

- 1 boards of DDR2-SDRAMs (2 boards when the option DDR2-SDRAM is installed)
- Bypass PCB
- Memory PCB



F-4-55

### Prohibited Operation:

Do not transfer the following parts to another model (which has a different serial number). If you fail to do so, the Main Body does not activate normally and this might cause to fail the restoration.

- Main Controller PCB 1
- Main Controller PCB 2 (with Memory PCB installed)
- Memory PCB

## &lt;Preparation&gt;

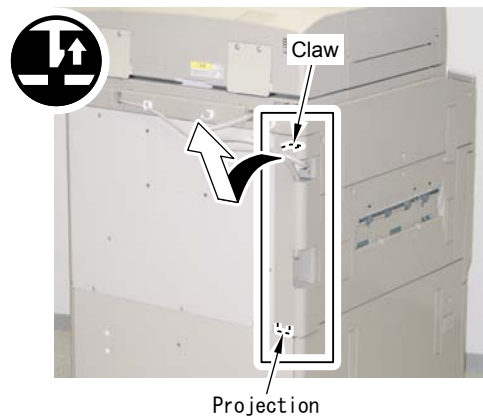
1. Remove the Box Cover (Right). (Refer to "Removing Main Controller PCB 1")
2. Remove the Main Controller PCB 1. (Refer to page 4-81)
3. Remove the Box Cover (Left).
- 3-1) Remove the Harness.
- 2 Wire Saddles



F-4-56

- 3-2) Remove the Box Cover (Left).

- 1 Claw
- 1 Protrusion

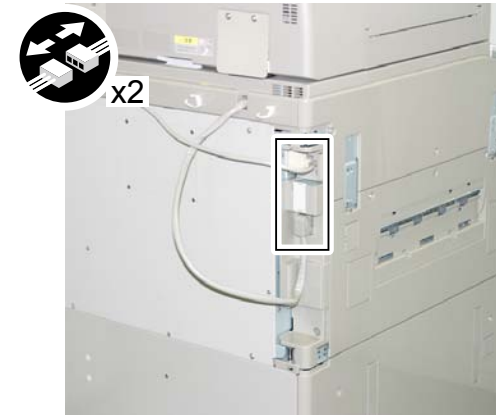


F-4-57

4. Remove the Box Left Inner Cover.

- 4-1) Disconnect the Connectors.

- 2 Connectors



F-4-58

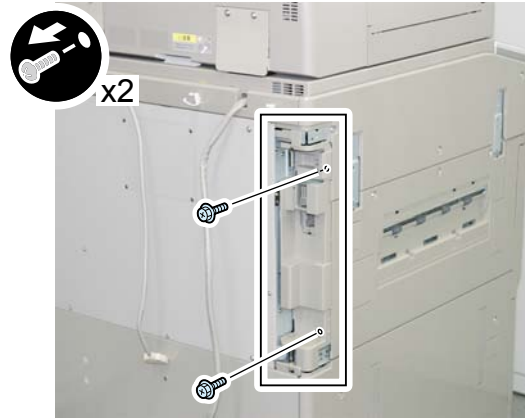
- 4-2) Remove the Connector Cover.



F-4-59

## 4-3) Remove the Box Left Inner Cover.

- 2 Screws



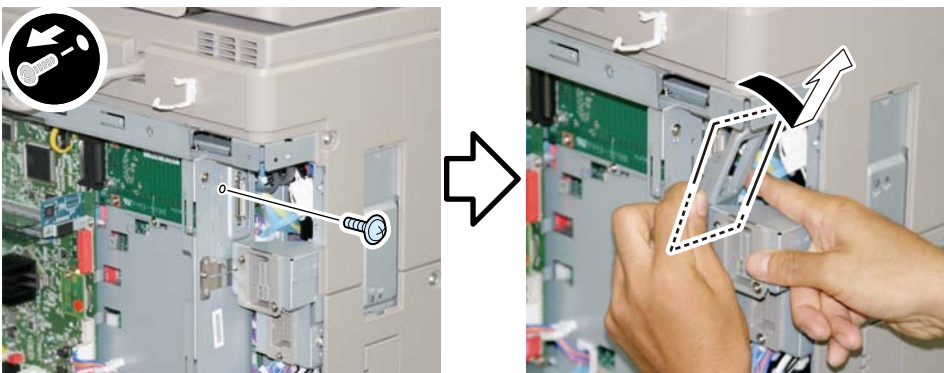
F-4-60

## 5. Remove the Rear Cover.

## &lt;Procedure&gt;

## 1) Remove the Plate.

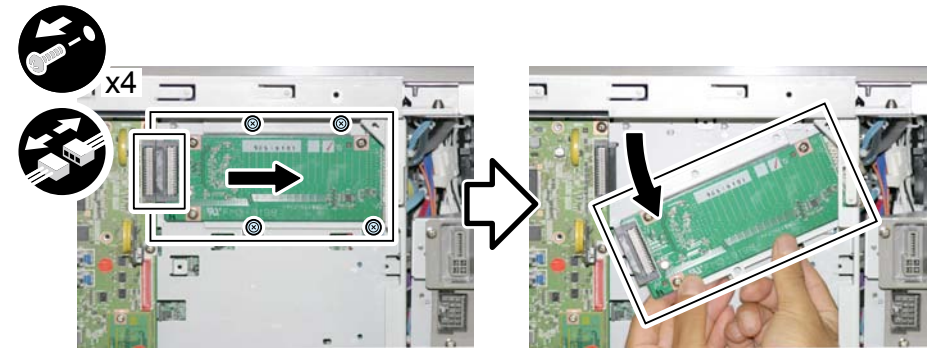
- 1 Screw



F-4-61

## 2) Remove the Channel Link PCB in the direction of the arrow.

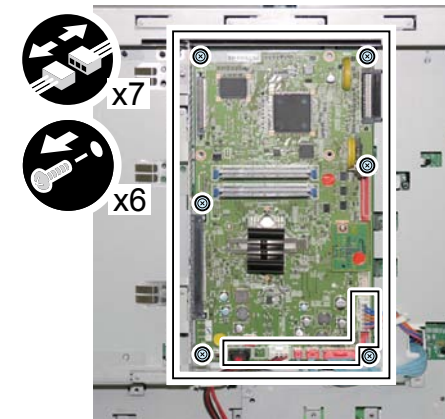
- 4 Screws
- 1 Connector



F-4-62

## 3) Remove the Main Controller PCB 2.

- 7 Connectors
- 6 Screws



F-4-63

## &lt;Actions after Parts Replacement&gt;

## 1. Checking connection of the Main Controller PCB 2

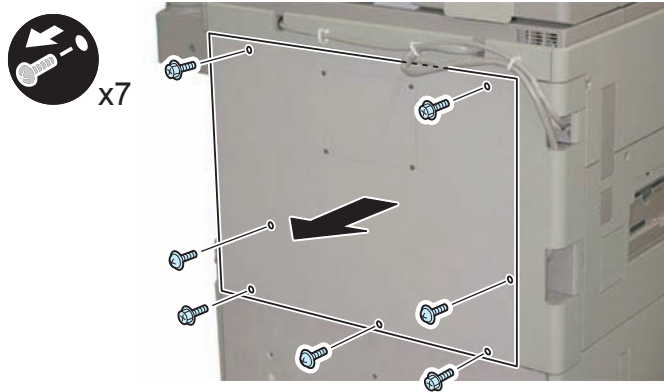
## CAUTION:

If the Main Controller PCB 1 cannot be inserted in the slot (or cannot be inserted properly) or Error occurs after starting the machine, follow the following steps to check the connection between the Main Controller PCB 1 and the Main Controller PCB 2. If they are not connected properly, perform "Adjusting the positions of the PCBs".

Criterion: If the width of the gap between the connectors of the PCBs is less than 0.5mm and uniform, the PCBs are connected properly.

## 1) Remove the Rear Cover.

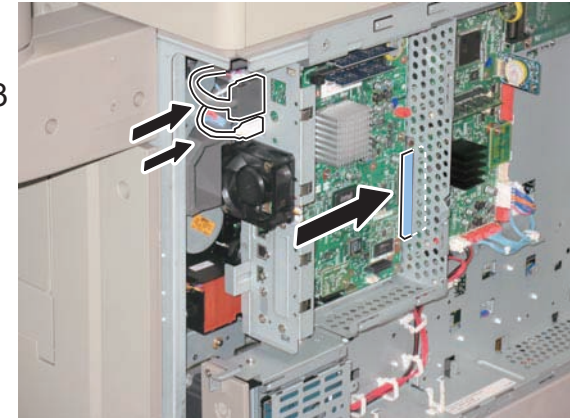
- 7 Screws



F-4-64

## 2) Install the Main Controller PCB 1 Unit.

- 3 Connectors

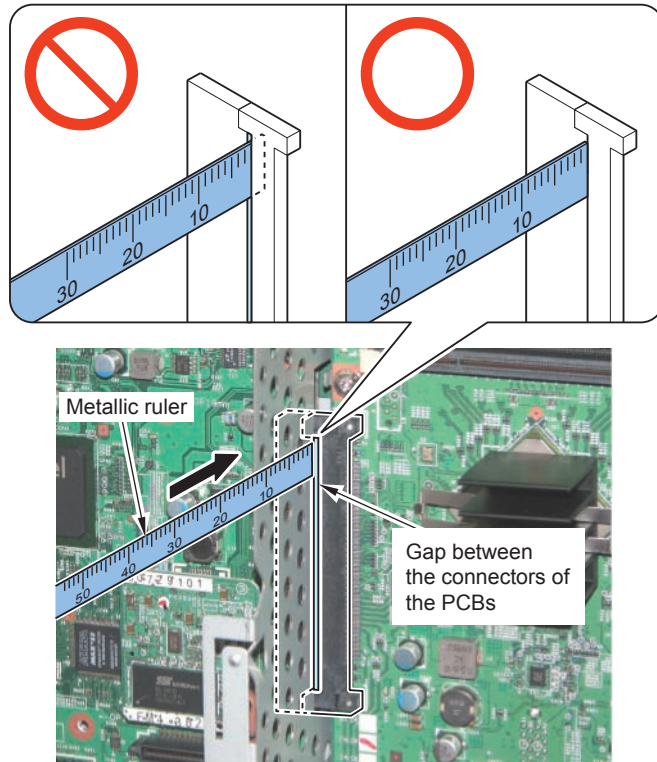


F-4-65

- 3) Place a metallic ruler vertically on the gap between the connectors of the PCBs, and check that the gap is not large enough for the edge of the metallic ruler to be fitted in.

**CAUTION:**

If the edge of the metallic ruler fits in the gap between the connectors of the PCBs, adjust the positions of the PCBs.

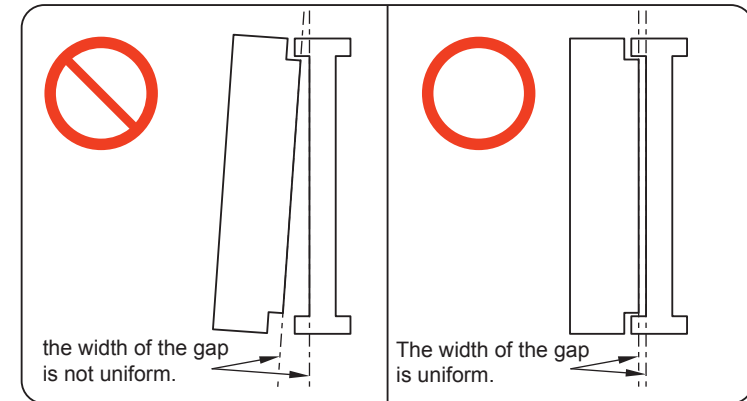


F-4-66

- 4) Observe the gap between the connectors of the PCBs from the front, and visually check that the width of the gap is uniform.

**CAUTION:**

If the width of the gap is not uniform, adjust the positions of the PCBs.

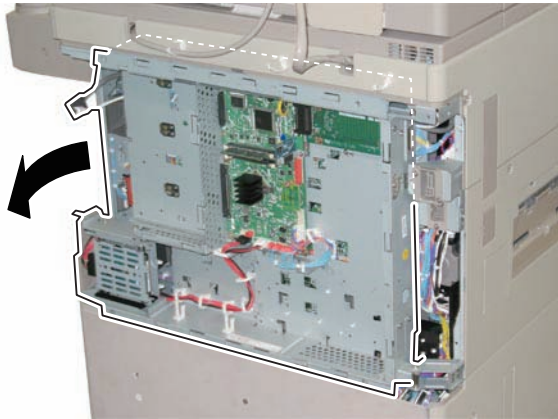


F-4-67

- 5) If the Main Controller PCB 1 is judged to be connected properly as a result of steps 3 and 4, install the removed parts in reverse order. If the PCB is not connected properly, perform "2. Adjusting the positions of the PCBs".

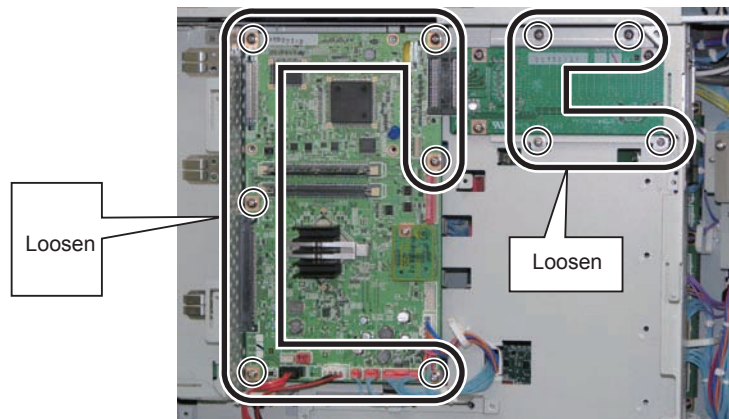
## 2. Adjusting the positions of the PCBs

- 1) Remove the Main Controller PCB 1 Unit.
- 2) Open the Controller Box in the direction of the arrow.



F-4-68

- 3) Loosen the 6 screws securing the Main Controller PCB 2 and the 4 screws securing the Channel Link PCB.



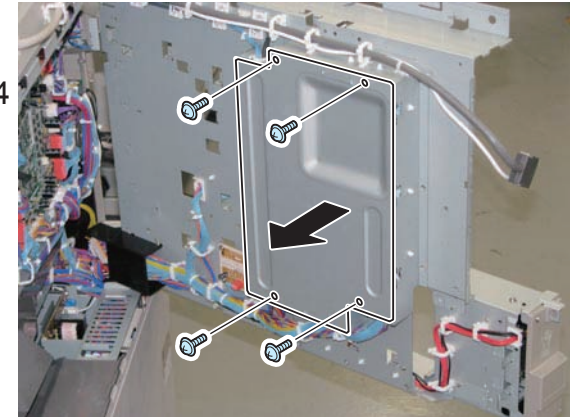
F-4-69

**CAUTION:**

If an Image Analysis Board is installed, remove it and loosen the 4 Spacers.

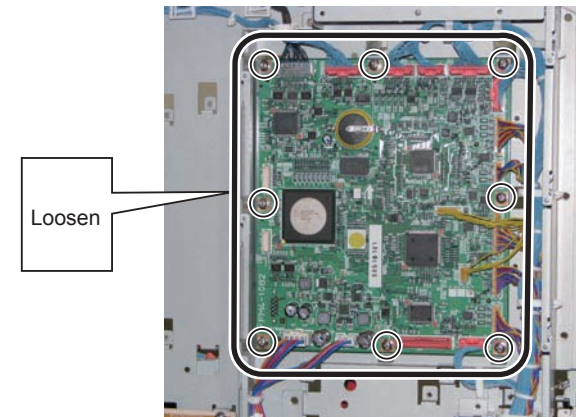
- 4) Remove the Controller Box Inner Cover.

- 4 Screws



F-4-70

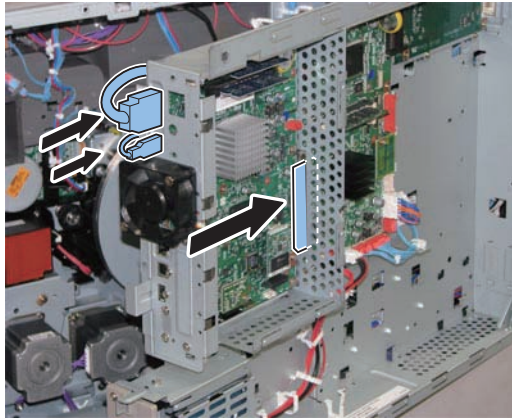
- 5) Loosen the 8 screws securing the DC Controller PCB.



F-4-71

6) Install the Main Controller PCB 1 Unit.

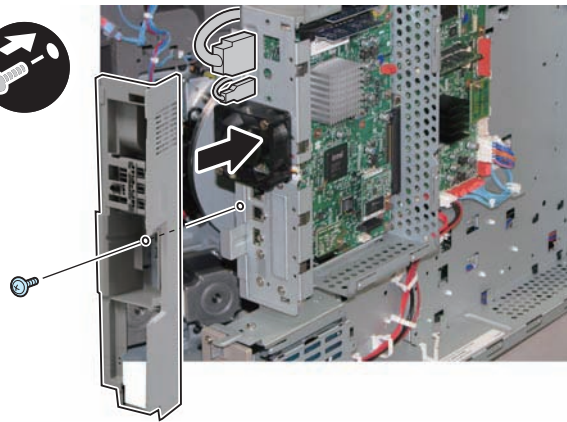
- 3 Connectors



F-4-72

7) Install the Main Controller Right Cover Unit.

- 1 Screw



F-4-73

8) Fully tighten the loosened screws to secure the Main Controller PCB 2, Channel Link PCB, and DC Controller PCB in that order. Check that the connectors of the PCBs are properly connected.

9) Install the covers removed in this procedure in reverse order.

- Controller Box Inner Cover
- Rear Cover
- Controller Box (Close it.)
- Left Rear Inner Cover
- Connector Cover
- Remove the Left Rear Cover.

3. Specify and register the data again of the Main Controller PCB 2.

1) After the parts are assembled, turn ON the power.

2) Restore the backup data.

Restoring the backup data by SST.

When there is HDD Encryption Board:

Use remote UI.

Management Settings > Data Management > Import/Export

3) Specify and register the data again.

See the list of Settings/Registration data that was printed before replacement, and then specify and register the data once again.

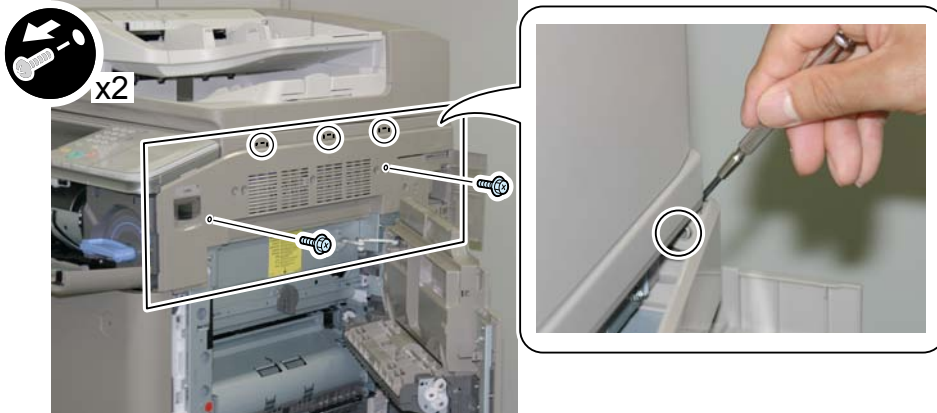
4) When an encryption key/certificate/CA certificate has been generated or added by the user, ask the user to execute reinstallation.

## Laser Exposure System

### Removing the Laser Scanner Unit

#### <Preparation>

1. Removing the Right Upper Cover.
  - 1-1) Open the Toner Exchange Cover.
  - 1-2) Open the Right Cover.
  - 1-3) Open the Right Rear Cover1
  - 1-4) Remove the Right Upper Cover.
  - 2 Screws
  - 1 Boss
  - 3 Protrusions



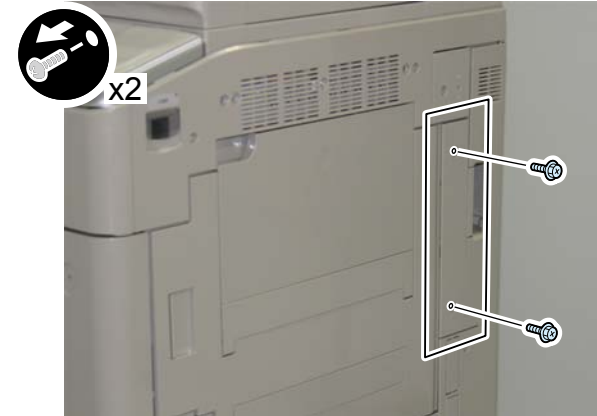
F-4-74

2. Removing the Right Cover.

#### NOTE:

Laser Scanner Unit can be removed without removing the Right Cover. However, removing the Right Cover is recommended here for better operability.

- 2-1) Remove the Right Rear Cover2.
  - 2 Screws



F-4-75

- 2-2) Disconnect the Connector and remove the Grounding Wire and the Reuse Band.
  - 1 Screw

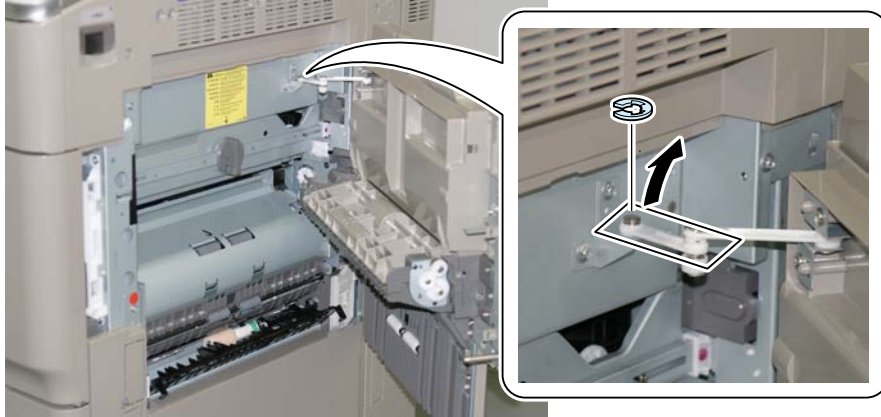


F-4-76

- 2-3) Open the Right Cover.

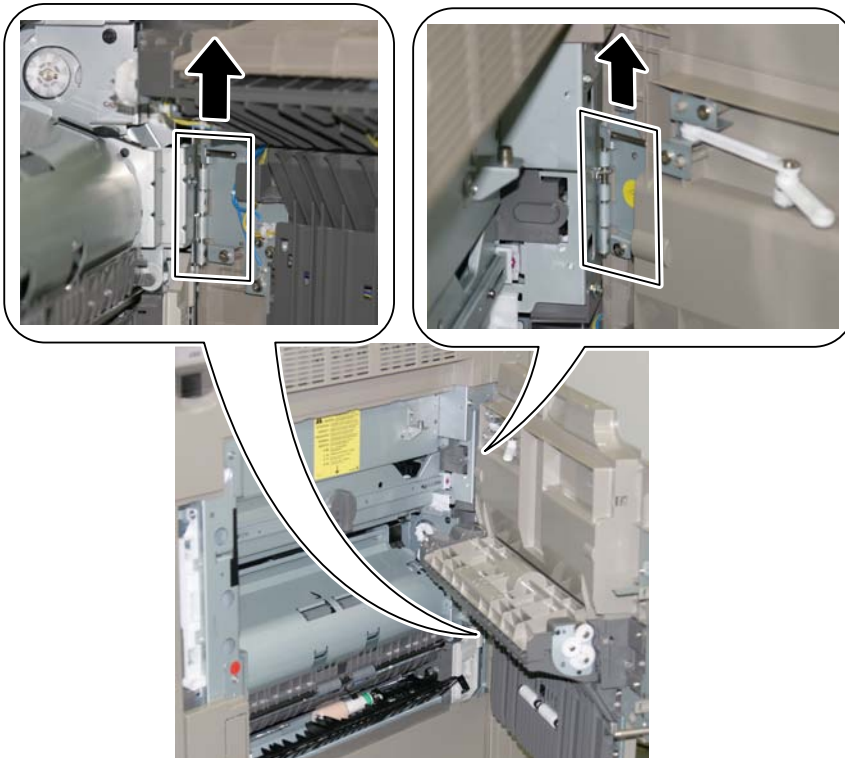


2-4) Remove the E-ring to remove the Door Link.



F-4-77

2-5) Remove the 2 Hinge Pins to remove the Right Cover.



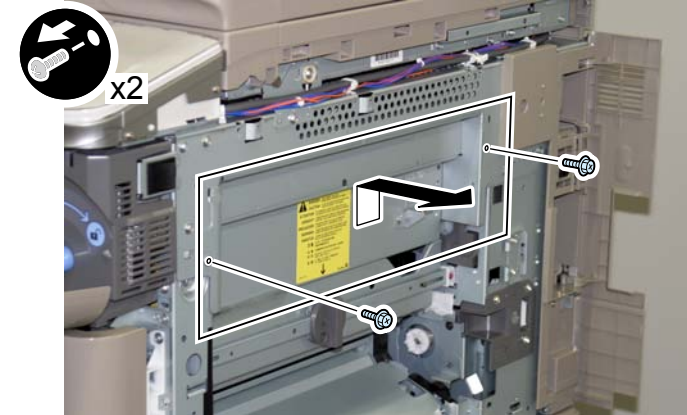
F-4-78

**CAUTION:**

To prevent falling of Right Cover, hold the Right Cover to remove the Hinge Pins.

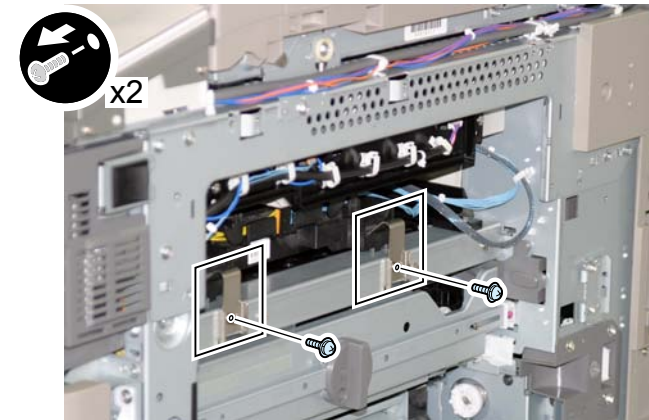
**<Procedure>**

- 1) Lift the Plate to remove.
  - 2 Screws



F-4-79

- 2) Remove the 2 Retainer Fixtures.
  - 2 Screws



F-4-80

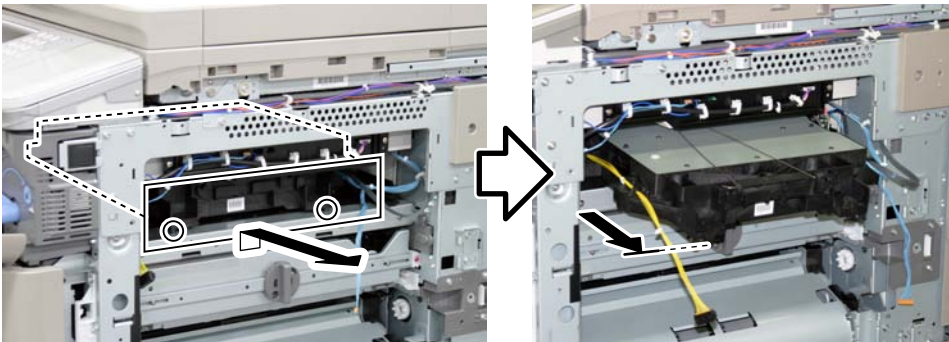
3) Free the Harness from the Harness Guide and Disconnect the Connector.



F-4-81

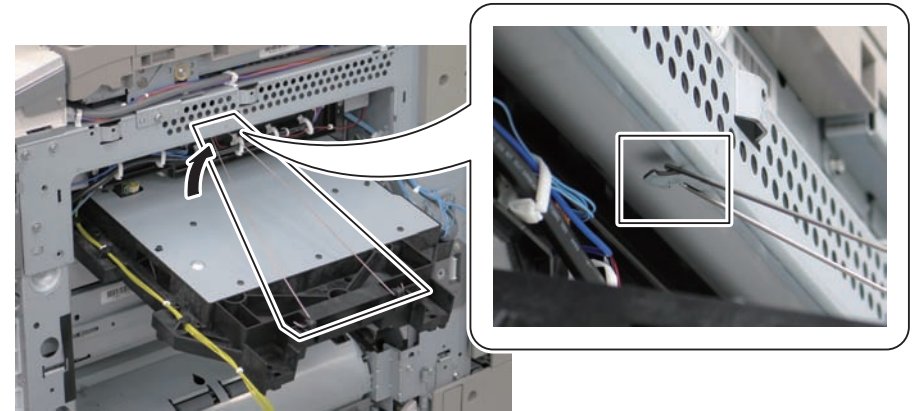
4) Pull out the Laser Scanner Unit halfway.

- 2 Bosses



F-4-82

5) Hook the wire of the Laser Scanner Unit to the hook of the main body.

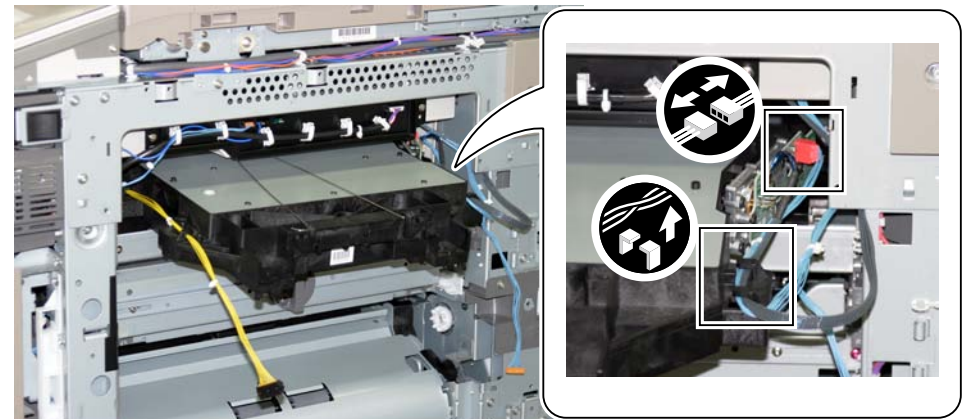


F-4-83

**CAUTION:**

Do not use the wire when the Right Cover is not removed.

6) Free the Harness from the Harness Guide and Disconnect the Connector.

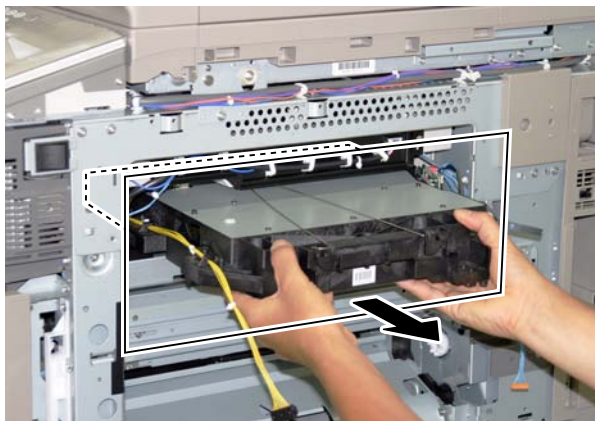


F-4-84

7) Remove the Laser Scanner Unit.

**CAUTION:**

Before removing the Laser Scanner Unit, check that the hooking wire of the unit is not hooked to the frame of the main body.



F-4-85

**CAUTION:**

When installing the Laser Scanner Unit, be sure to check that the bosses are fitted into the holes.



F-4-86

## Cleaning the Dust Collecting Glass

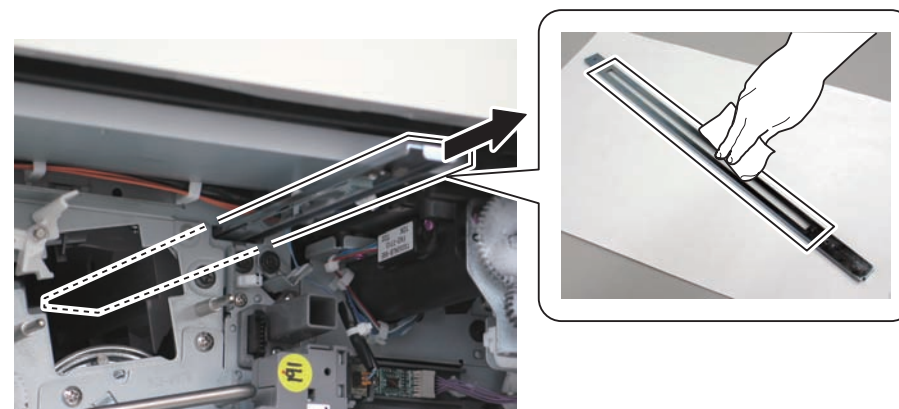
**<Preparation>**

- 1) Open the Front Cover.
- 2) Remove the Primary Charging Assembly. (Refer to page 4-97)

**<Procedure>**

Removing the Dustproof Glass

- 1) Pull out the Dustproof Glass and clean it with lint-free paper.



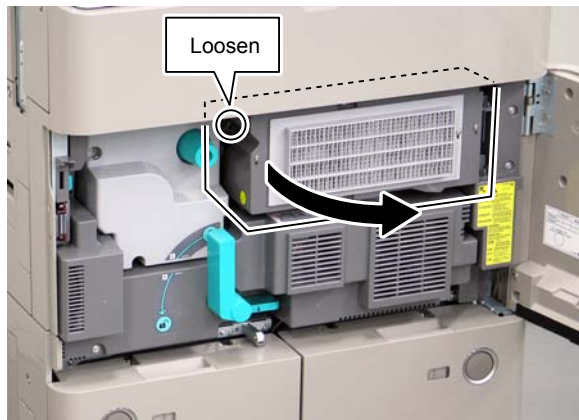
F-4-87

## Image Formation System

### Removing the Primary Charging Assembly

#### <Preparation>

1. Open the Inner Cover.
  - 1-1) Open the Front Cover.
  - 1-2) Open the Inner Cover.
- 1 Screw (to loosen)



F-4-88

#### <Procedure>

##### CAUTION:

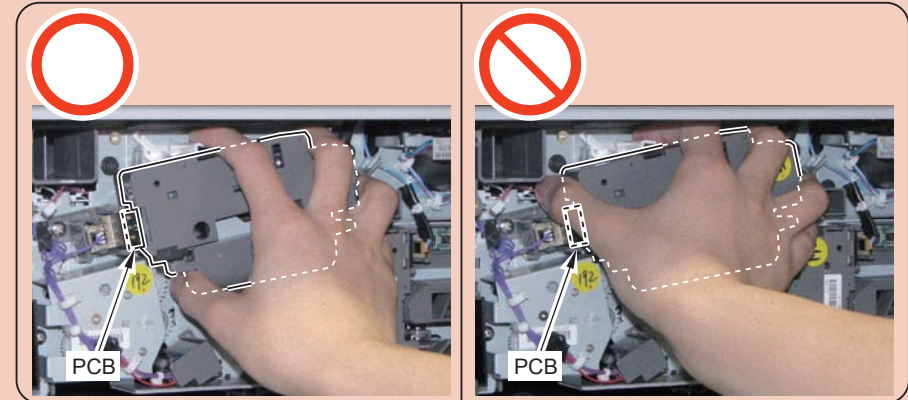
- When removing the Primary Charging Assembly and the Pre-transfer Charging Assembly, go through the following procedure while the Charging Shutter is open.
- At sleep mode, press the Power Switch on the Control Panel, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.
- In the case that the condition of the Charging Shutter (open/close) is unknown while the power of the host machine is OFF, turn ON the power, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.

If the above operations are not performed, it may be possible to remove the assembly while the Charging Shutter is closed, which may damage the drum or the shutter.

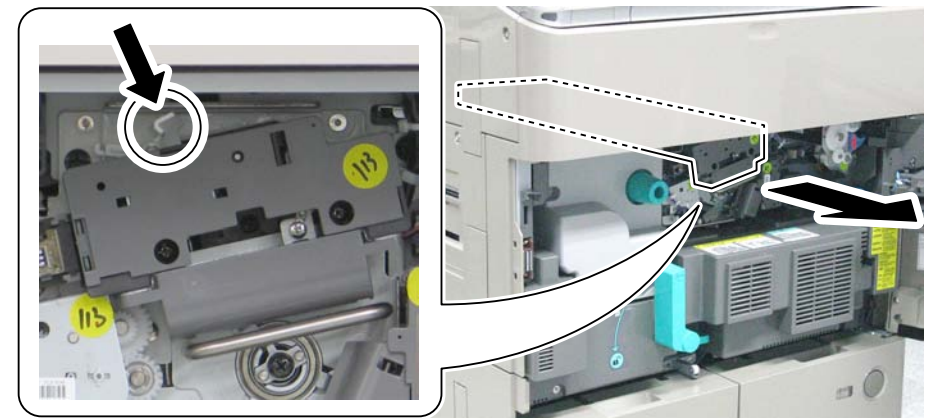
- 1) While pushing the Release Lever in the direction of the arrow, pull out the Primary Charging Assembly.

##### CAUTION:

When removing the Primary Charging Assembly, be careful not to hold the PCB of the Primary Charging Assembly.




F-4-89



F-4-90

## &lt;Processing after replacing the parts&gt;

- 1) Clear the parts counter for the Primary Charging Assembly.
- 2) Output halftone image in service mode.  
TEST > PG > TYPE: 5 halftone test print
- 3) Output HT to check density difference between the front and the rear. (Refer to page 5-7)
- 4) In the case of density difference: Execute adjustment with the Wire Height Adjustment Spring.
- 5) Execute cleaning of the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)
- 6) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
- 7) Execute the potential control (COPIER>FUNCTION>DPC>DPC). Turn OFF and then ON the main power. (The potential control is executed at startup.)

 Removing the Primary Charging Wire Cleaner, Cleaner Holder (Right/Left)

## &lt;Preparation&gt;

## NOTE:

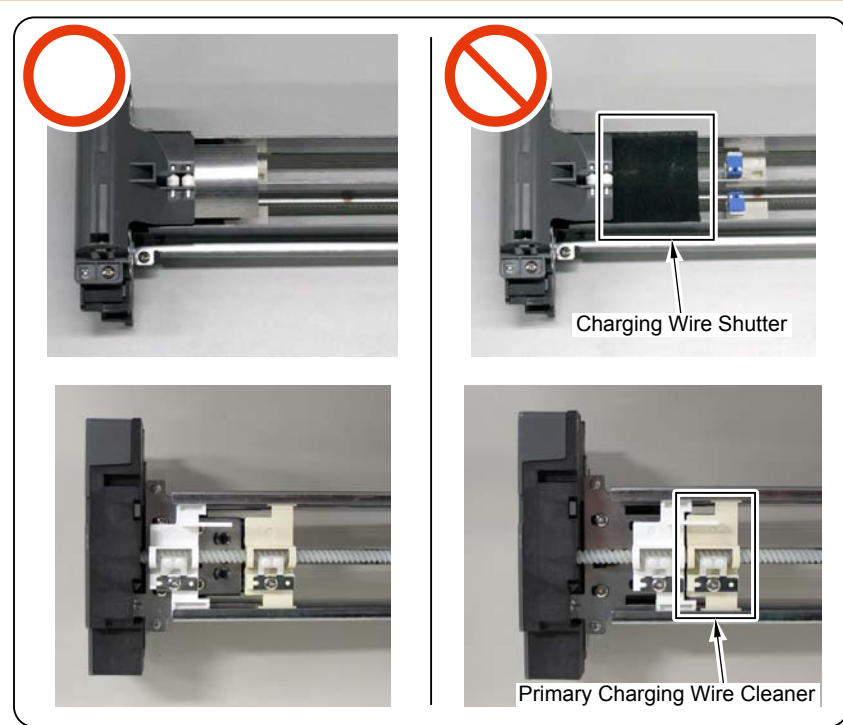
Replacement procedure is the same between the Primary Charging Wire Cleaner/Cleaner Holder (Left) and the Primary Charging Wire Cleaner/Cleaner Holder (Right). The following explains the procedure of the Primary Charging Wire Cleaner (Right) and Cleaner Holder (Right).

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)

## &lt;Procedure&gt;

## CAUTION:

Do not move the Charging Wire Shutter; otherwise, the shutter can be damaged when installing the Charging Assembly. When the Charging Wire Shutter is moved by chance, be sure to move the Shutter until it is invisible.



F-4-91

## CAUTION:

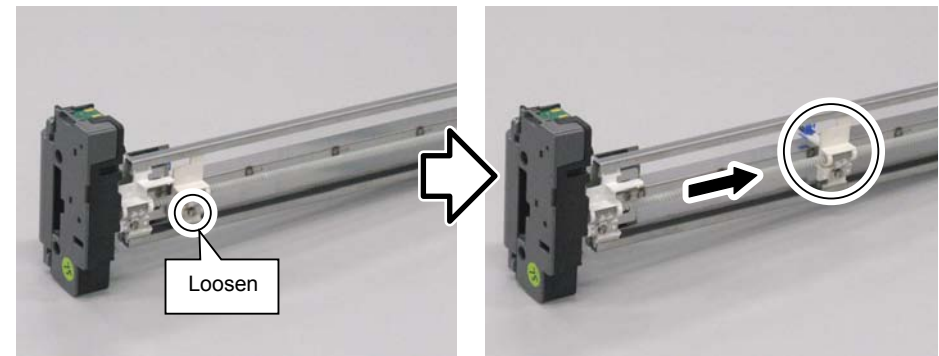
Do not remove both Shield Plates (Right and Left) of the Primary Charging Assembly at the same time. Be sure to work on one Shield Plate at a time (otherwise, the Frame of the Primary Charging Assembly can be deformed).

- 1) Remove the Shield Plate (Right). When removing the Primary Charging Wire Cleaner Holder (Left), remove the Shield Plate (Left).
  - 2 Screws



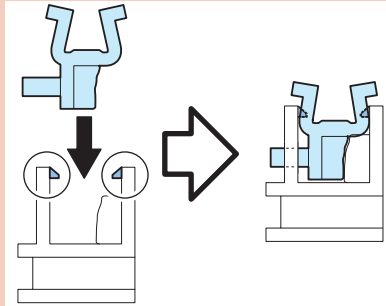
F-4-92

- 2) Loosen the screw to move the Primary Charging Assembly Cleaner to the center.



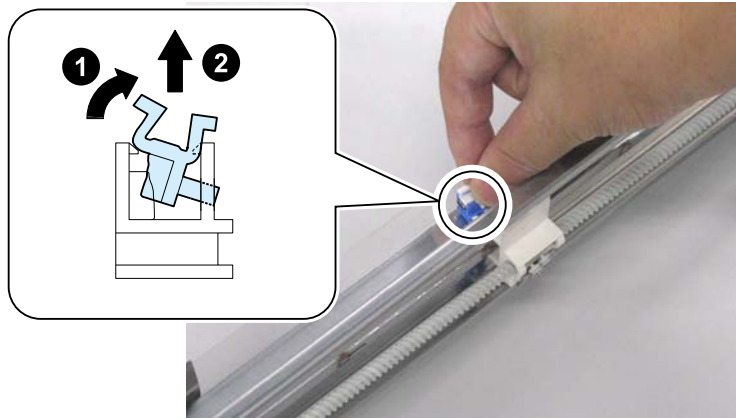
F-4-93

**CAUTION:**Points to Caution when Installing the Primary Charging Wire Cleaner Holder  
Be sure to push in the Primary Charging Wire Cleaner Holder until it is secured with the Claw.



F-4-94

3) Bring up the Primary Charging Assembly and pinch the Hook to remove the Primary Charging Assembly Cleaner Holder (Right) in the direction of the arrow.

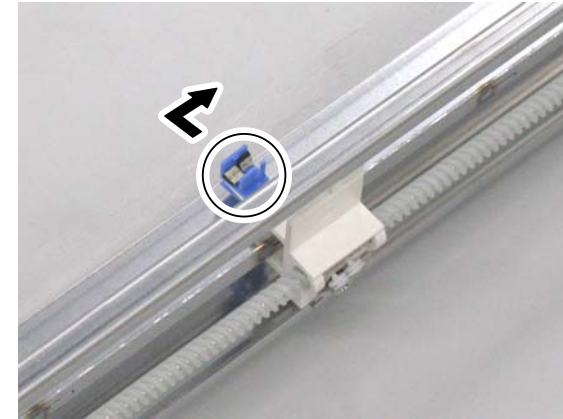


F-4-95

4) Remove the Primary Charging Wire Cleaner (Right) in the direction of the arrow.

**CAUTION:**

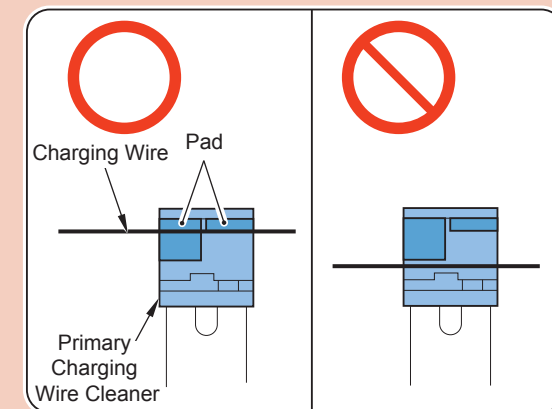
Be careful not to damage the Primary Charging Wire and the Grid Wire when removing the Primary Charging Wire Cleaner (Right).



F-4-96

**CAUTION:**Points to Caution at Installation

Be sure to push the Charging Wire against the 2 pads of the Primary Charging Wire Cleaner to install.



F-4-97

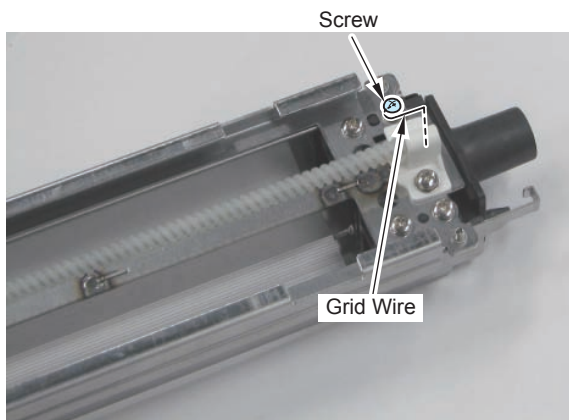
## Replacing the Primary Charging Assembly Grid Wire

### <Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
3. Remove the Primary Charging Assembly. (Refer to page 4-97)
4. Removing the Primary Charging Shutter Unit (Refer to page 4-145)

### <Procedure>

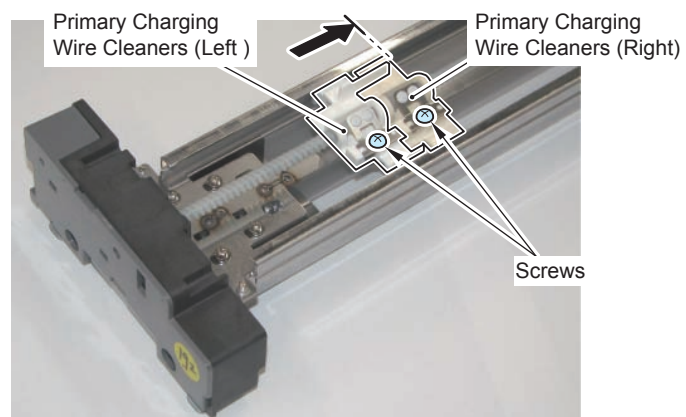
- 1) Remove the Primary Charging Assembly Grid Wire
  - 1 Screw



F-4-98

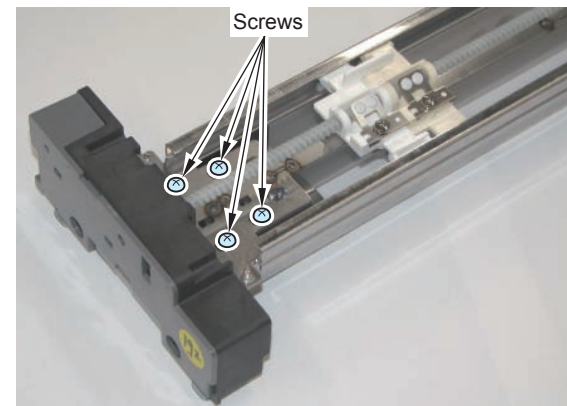
- 2) Shift the Primary Charging Wire Cleaners (Left and Right).

- 2 Screws (to loosen)



F-4-99

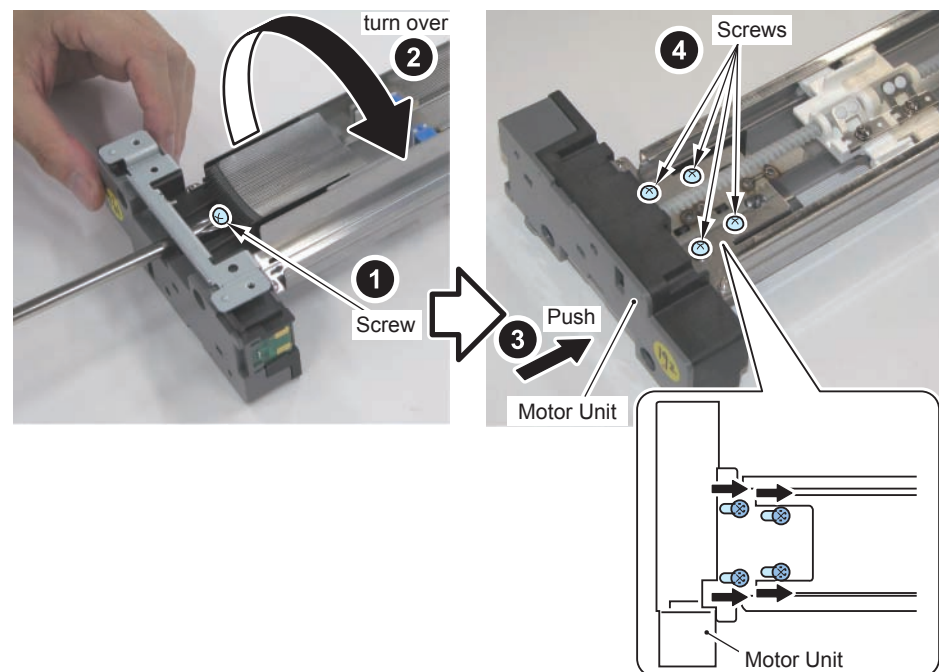
- 3) Loosen the 4 screws fixing the Motor Unit in the front.



F-4-100

- 4) Loosen the screw and turn over the Primary Charging Assembly.

- 5) Push the front Motor Unit in the direction of the arrow and tighten the 4 screws.



F-4-101



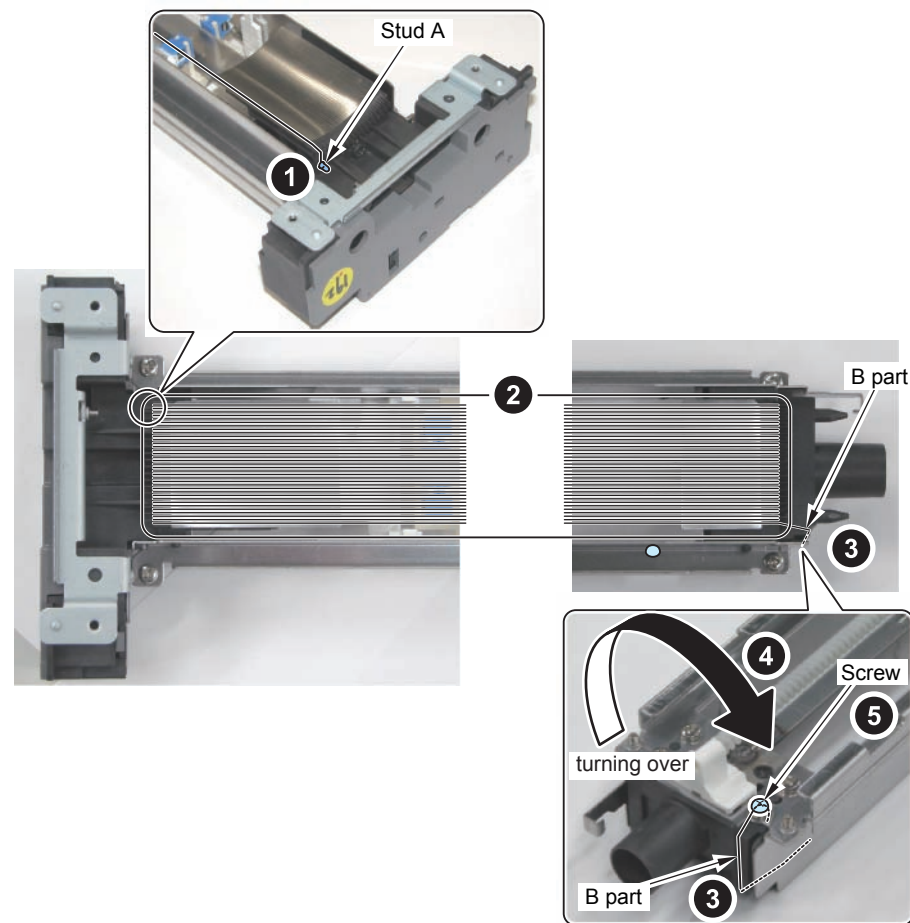
- 6) Untie approx. 5cm of the Charging Wire from the 0.1mm (wire-diameter) Charging Wire Reel to make a 2mm-diameter ring at the edge.

**NOTE:**

The ring can be easily made by the following procedure: Wrap the Charging Wire around the Hex Key to make a full round, and then turn the Hex Key for 3 to 4 times to twist the Charging Wire.

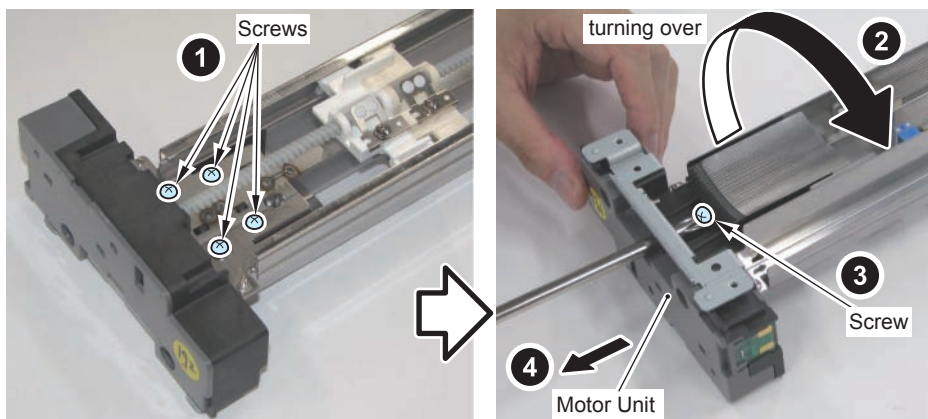
- 7) Cut the twisted Charging Wire (extra length) with nippers.  
8) Hook the ring to the Stud A as shown in the figure.

- 9) After setting the wire 35 times around, pass through B part. After turning over the Primary Charging Assembly, pass the wire between the washer and the Motor Unit, wrap around the screw clockwise to make a full round and secure with the screw.



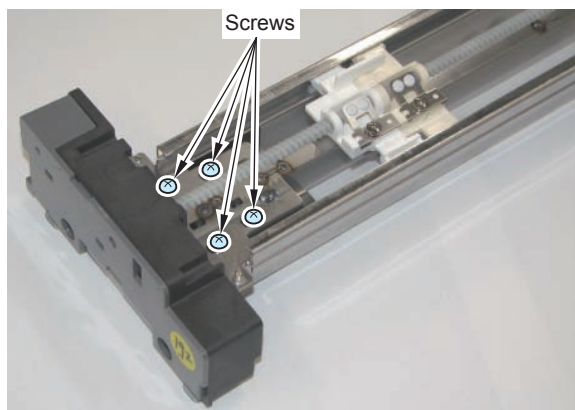
F-4-102

- 10) Cut the extra length of the Charging Wire with nippers.  
 11) Loosen the 4 screws and tighten the screw until the tension of the Grid Wire is uniform.  
 Be careful not to deform (bend) the Charging Assembly.



F-4-103

- 12) Tighten the loosened 4 screws.



F-4-104

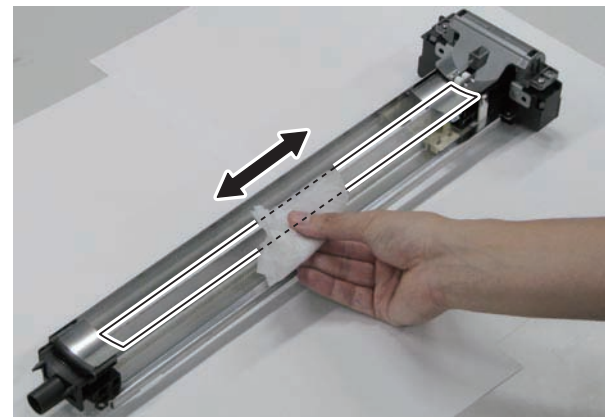
Be sure to check the following items.

- No bend or twist is found with the Grid Wire.
- The wire is set evenly spaced apart. (The Grid Wire is fitted into the groove of the Block.)

- 13) Remove the Shield Plate (Left) and pinch the Grid Wire from the left side to clean it on the left side with lint-free paper moistened with water.

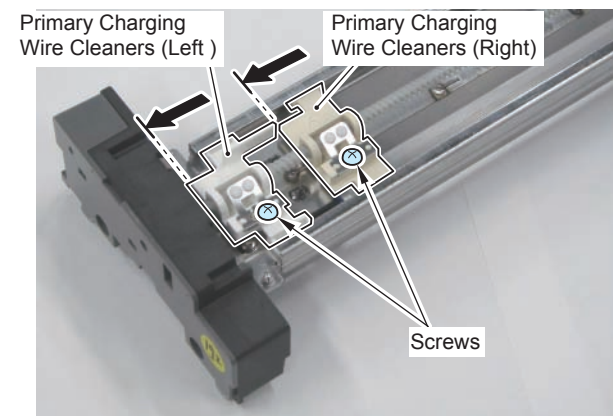
CAUTION:

- The frame of the Primary Charging Assembly may be distorted, so be careful not to remove both Left and Right Shield Plates simultaneously.



F-4-105

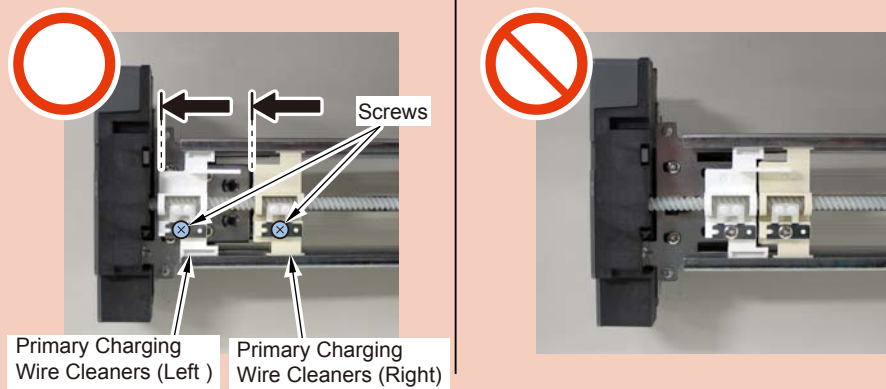
- 14) Shift the Primary Charging Wire Cleaners (Left and Right).  
 15) Tighten the 2 screws.



F-4-106

**CAUTION:**

Be sure to move the Primary Charging Wire Cleaners (Left and Right) until they stop and tighten the screws.



F-4-107

16) Install the Primary Charging Shutter Unit. (Refer to page 4-145)

## Replacing the Primary Charging Wire

**NOTE:**

Replacement procedure is the same between the Primary Charging Wire (Left) and the Primary Charging Wire (Right).

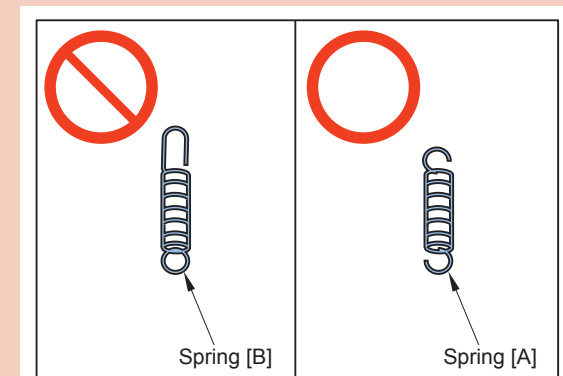
The following explains the procedure of the Primary Charging Wire (Right).

**NOTE:**

The Primary Charging Wire with spring is set as a service part.

**CAUTION:**

In the case of replacing the Charging Wire on a Charging Wire basis, be sure to use the dedicated Charging Wire Tension Spring (97-5527) [A]. Do not use the Spring [B] attached to the Charging Wire.



F-4-108

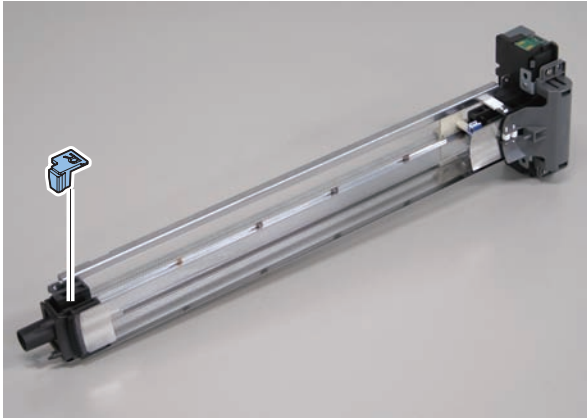
**<Preparation>**

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
3. Remove the Primary Charging Assembly. (Refer to page 4-97)
4. Remove the Primary Charging Wire Cleaner Holder (Right). (Refer to "Removing the Primary Charging Wire Cleaner, Cleaner Holder (Right/Left)")
5. Remove the Primary Charging Wire Cleaner (Right). (Refer to page 4-98)

## &lt;Procedure&gt;

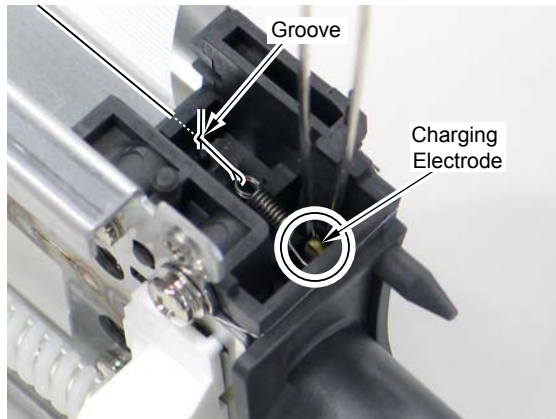
## &lt;Removing the Charging Wire&gt;

1) Remove the Sheet.



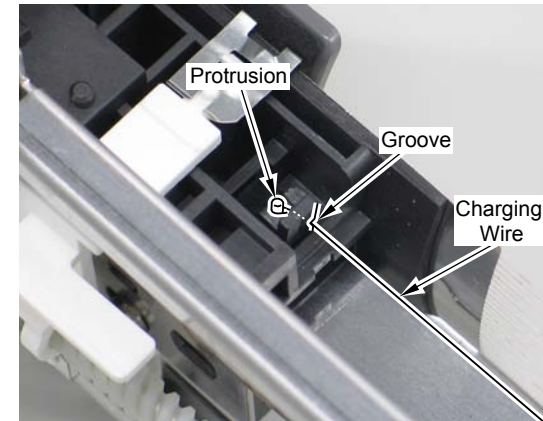
F-4-109

2) Use tweezers to hold the tip of the Spring at the rear side to remove the Spring from the charging electrode and remove the Charging Wire from the groove of the Positioning Block.



F-4-110

3) Remove the Charging Wire from the protrusion and the groove of the Positioning Block at the front side.



F-4-111

## &lt;Installing the Charging Wire&gt;

## NOTE:

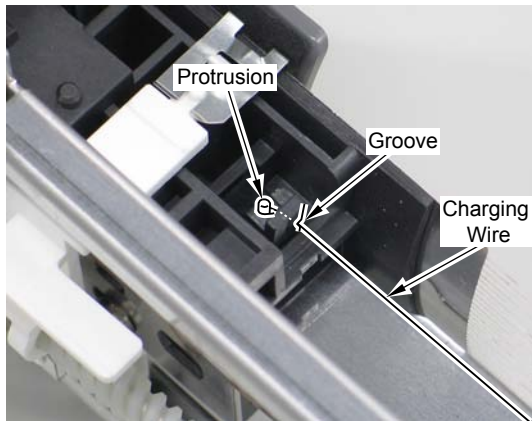
When installing the Charging Wire set as a service part, steps 4, 5, 7, and 8 are not required.

4) Untie approx. 5cm of the Charging Wire from the 0.06mm (wire-diameter) Charging Wire Reel to make a 2mm-diameter ring at the edge.

## NOTE:

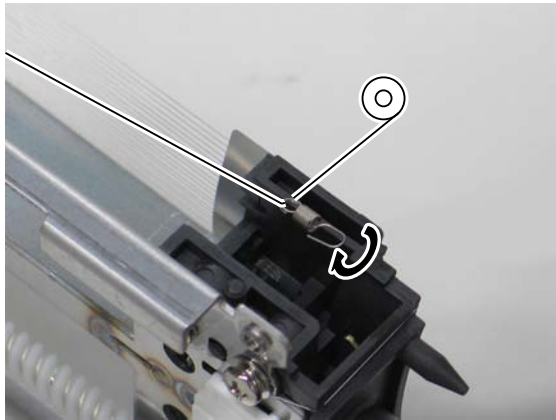
The ring can be easily made by the following procedure: Wrap the Charging Wire around the Hex Key to make a full round, and then turn it for 3 to 4 times to twist the Charging Wire.

- 5) Cut the edge of the twisted Charging Wire with nippers.
- 6) Hook the ring to the front protrusion of the Positioning Block to hook the Charging Wire to the groove.



F-4-112

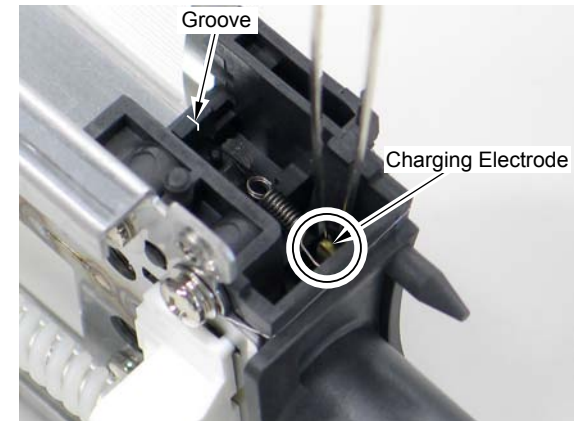
- 7) Hook the Charging Wire Tension Spring to the Charging Wire to twist with it.



F-4-113

- 8) Cut extra length of the Charging Wire with nippers.

- 9) Hook the Charging Wire to the rear groove of the Charging Wire Positioning Block and hold the edge of the Charging Wire Tension Spring with tweezers to hook it to the charging electrode.



F-4-114

**CAUTION:**

Be sure to keep the following in mind after installation.

- No bend or twist is found with the Charging Wire.
- The Charging Wire is fitted into the groove of the Charging Wire Positioning Block.

- 10) Clean the Charging Wire with lint-free paper moistened with alcohol.
- 11) Install the Primary Charging Wire Cleaner (Right).
- 12) Install the Primary Charging Wire Cleaner Holder (Right).
- 13) Install the Shield Plate (Right).

**<Processing when replacing the parts>**

- 1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PRM-WIRE)
- 2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)
- 3) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
- 4) Execute the potential control (COPIER>FUNCTION>DPC>DPC). Turn OFF and then ON the main power. (The potential control is executed at startup.)

## Cleaning the Primary Charging Assembly Grid Wire

### <Preparation>

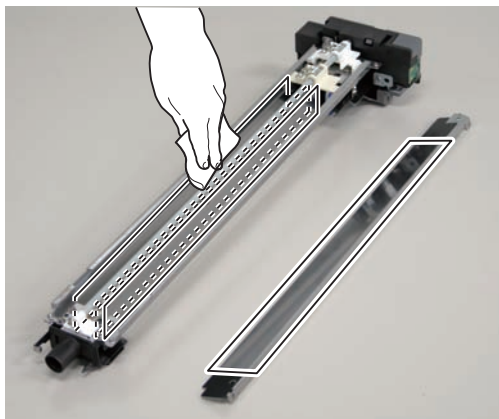
1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Primary Charging Wire Cleaner Holder. (Refer to "Removing the Primary Charging Wire Cleaner, Cleaner Holder (Right/Left)")
4. Remove the Primary Charging Wire. (Refer to page 4-98)

#### NOTE:

With this machine, discharge products tend to be accumulated inside the Charging Assembly. To remove the discharge products efficiently, clean with lint-free paper moistened with water. (If there is toner stain, clean with lint-free paper moistened with alcohol.)

### <Procedure>

- 1) Clean the inside of Shield Plate (Right) and Inner Shield Plate (Left) removed from the Primary Charging Assembly with lint-free paper moistened with water.
- 2) Clean both sides of the Inner Shield Plate (Middle) of the Primary Charging Assembly with lint-free paper moistened with water.

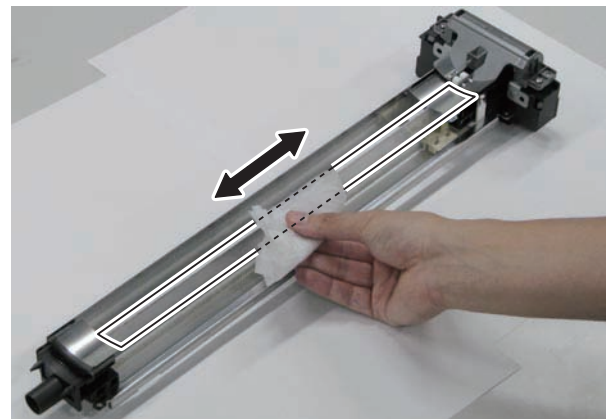


F-4-115

- 3) Remove the Shield Plate (Left) and pinch the Grid Wire from the left side to clean it on the left side with lint-free paper moistened with water.

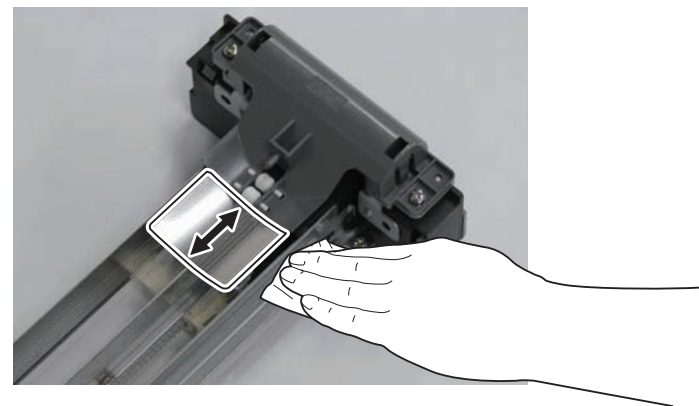
#### CAUTION:

- The frame of the Primary Charging Assembly may be distorted, so be careful not to remove both Left and Right Shield Plates simultaneously.



F-4-116

- 4) Remove the Shield Plate (Right) and pinch the Grid Wire to clean it on the right side with lint-free paper moistened with water.



F-4-117

## Removing the Pre-transfer Charging Assembly

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")

### <Procedure>

#### CAUTION:

When removing the Primary Charging Assembly and the Pre-transfer Charging Assembly, go through the following procedure while the Charging Shutter is open.

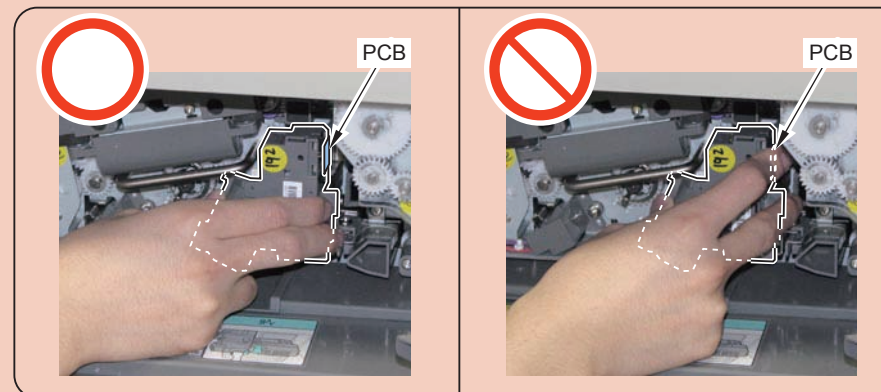
- At sleep mode, press the Power Switch on the Control Panel, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.
- In the case that the condition of the Charging Shutter (open/close) is unknown while the power of the host machine is OFF, turn ON the power, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.

If the above operations are not performed, it may be possible to remove the assembly while the Charging Shutter is closed, which may damage the drum or the shutter.

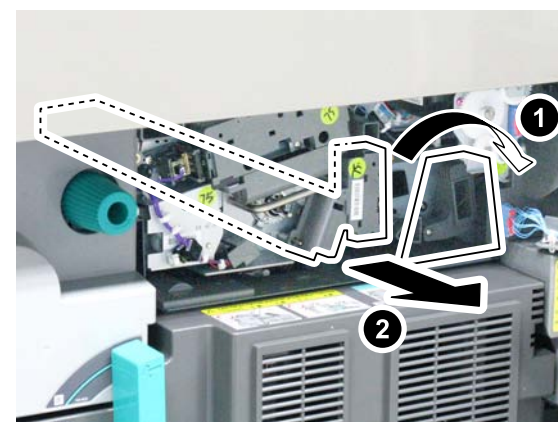
- 1) Turn the Lock Lever in the direction of the arrow to pull out the Pre-transfer Charging Assembly.

#### CAUTION:

When removing the Pre-transfer Charging Assembly, be careful not to hold the PCB of the Pre-transfer Charging Assembly.



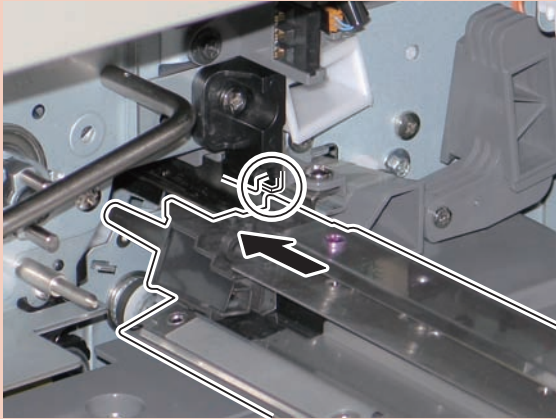
F-4-118



F-4-119

**CAUTION:**Points to Caution at Installation

Be sure to fit the Transfer Charging Assembly to the groove on the host machine and install it horizontally.



F-4-120

## &lt;Processing when replacing the parts&gt;

- 1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>PO-UNIT)
- 2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-EX)

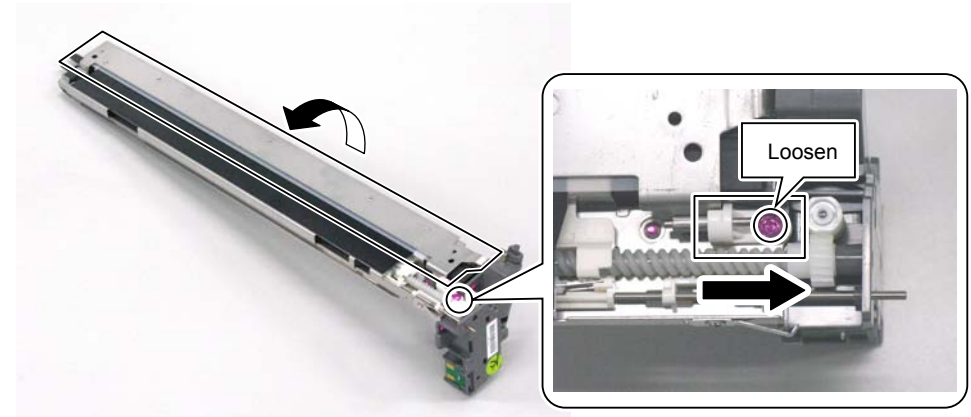
## Removing the Pre-transfer Charging Wire Cleaner, Cleaner Holder

## &lt;Preparation&gt;

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)

## &lt;Procedure&gt;

- 1) Displace the Shield Plate Retainer Block to open the Shield Plate in the direction of the arrow.
  - 1 Screw (to loosen)



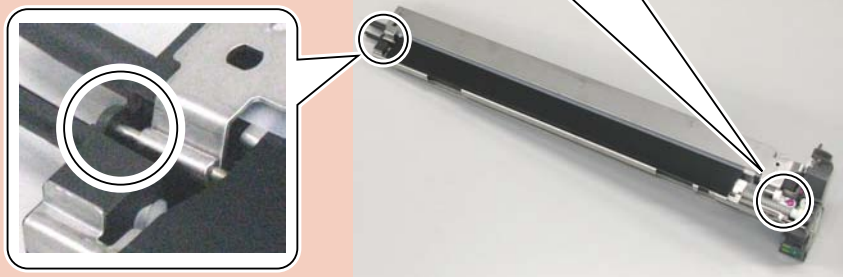
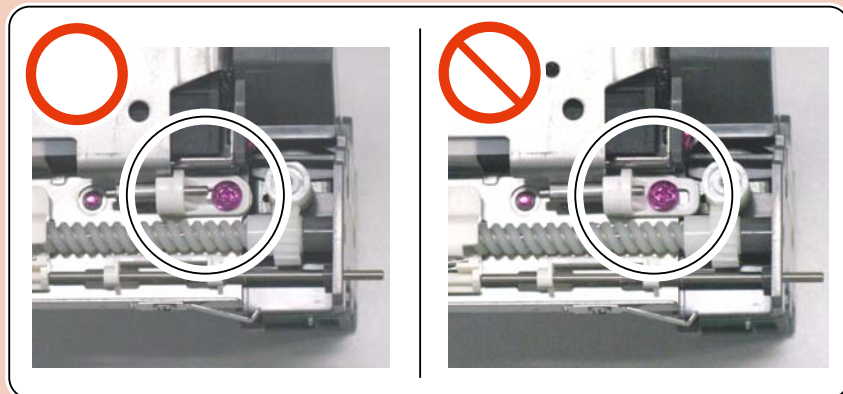
F-4-121



CAUTION:Points to Caution when Securing the Shield Plate

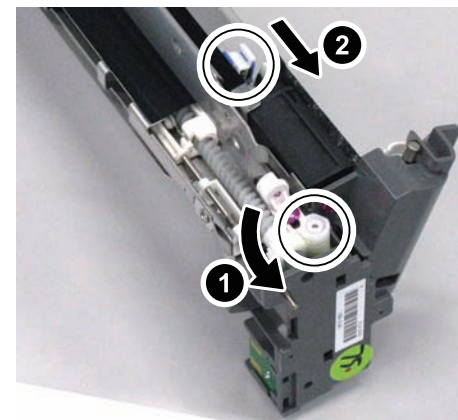
Move the Shield Plate Retainer Block fully to the inside to secure with the screw.

Check that the rear Pin is fitted into the Frame hole, and then move the Shield Plate back and forth to check that the Shield Plate is secured.



F-4-122

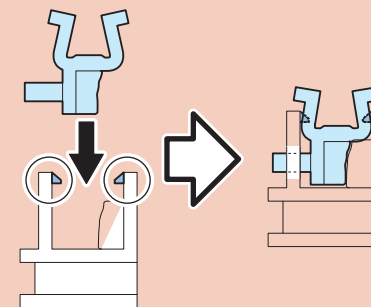
2) Turn the Gear by hand to move the Cleaning Pad Arm to the front.



F-4-123

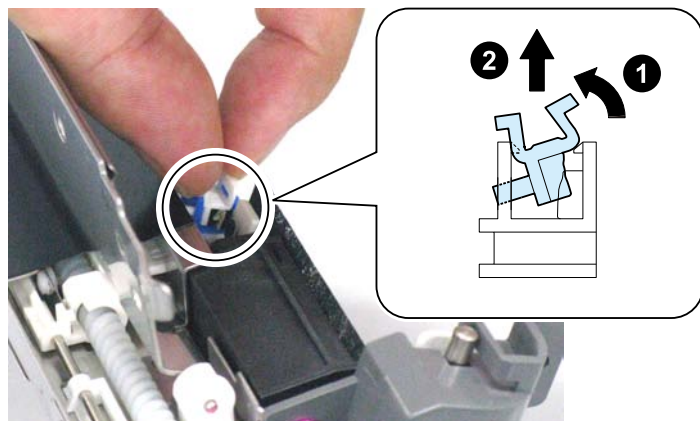
CAUTION:Points to Caution when Installing the Pre-transfer Charging Wire Cleaner Holder

Push in the Pre-transfer Charging Wire Cleaner Holder until it is secured with the Claw.



F-4-124

- 3) Pinch the Hook and turn it in the direction of the arrow to remove the Pre-transfer Charging Assembly Cleaner Holder.

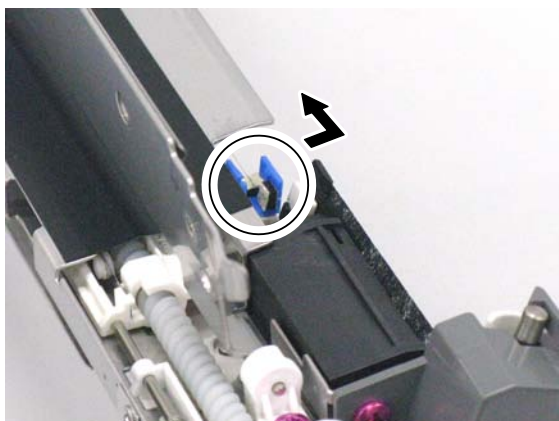


F-4-125

- 4) Remove the Pre-transfer Charging Wire Cleaner in the direction of the arrow.

**CAUTION:**

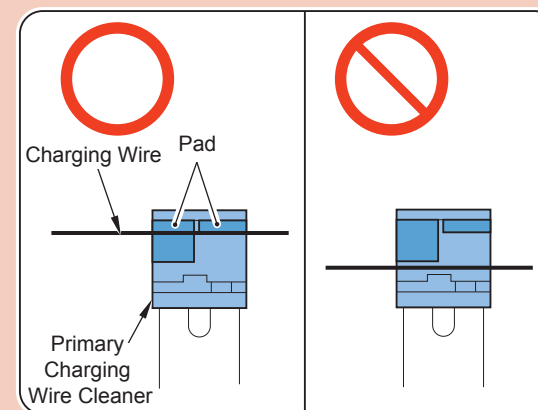
Be careful not to damage the Pre-transfer Charging Wire when removing the Pre-transfer Charging Wire Cleaner.



F-4-126

**CAUTION:** Points to Caution at Installation

Be sure to push the Charging Wire against the 2 pads of the Pre-transfer Charging Wire Cleaner to install.



F-4-127

## Replacing the Pre-transfer Charging Wire

### NOTE:

The Primary Charging Wire with spring is set as a service part.

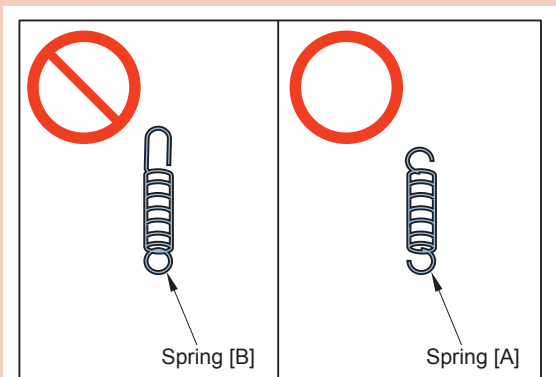
### <Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Pre-transfer Charging Wire Cleaner Holder. (Refer to "Removing the Pre-transfer Charging Wire Cleaner, Cleaner Holder")
5. Remove the Pre-transfer Charging Wire Cleaner. (Refer to page 4-109)

### <Procedure>

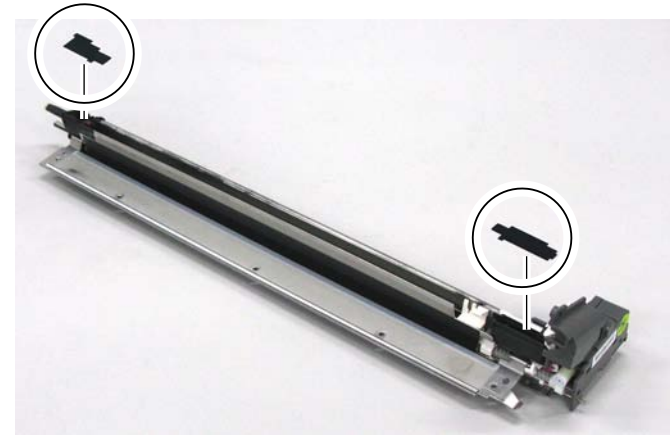
#### CAUTION:

In the case of replacing the Charging Wire on a Charging Wire basis, be sure to use the dedicated Charging Wire Tension Spring (97-5527) [A]. Do not use the Spring [B] attached to the Charging Wire.



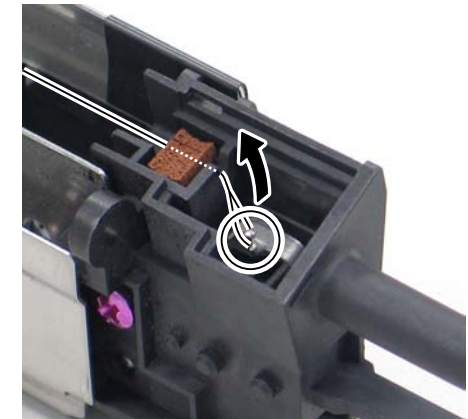
F-4-128

- 1) Remove the Pre-transfer Charging Assembly Covers (Front and Rear).



F-4-129

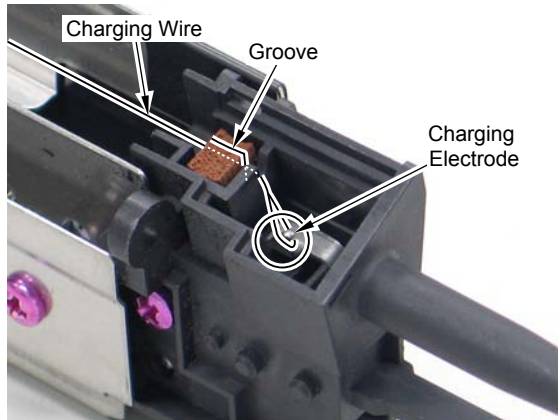
- 2) Use tweezers to remove the front Spring from the Hook and then remove the Charging Wire from the rear charging electrode.



F-4-130

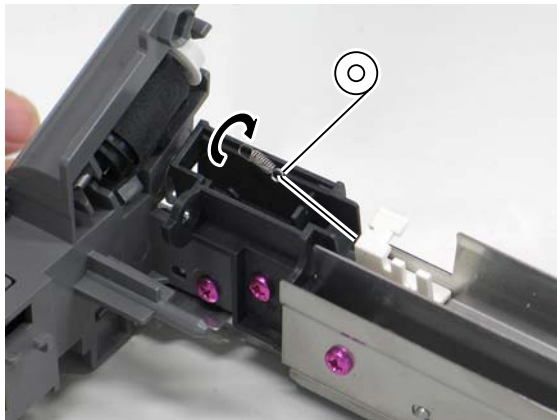
- 3) Untie approx. 5cm of the Charging Wire from the 0.06mm (wire-diameter) Charging Wire Reel to make a 2mm-diameter ring at the edge.
- 4) Cut the edge of the twisted Charging Wire with nippers.

- 5) Hook the ring to the rear charging electrode of the Pre-charging Assembly and put the ring through the rear groove and the sponge groove.



F-4-131

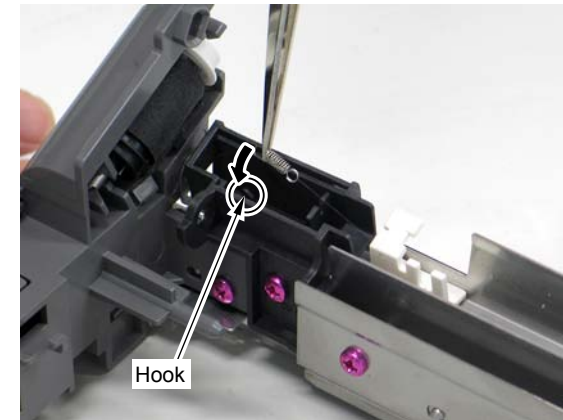
- 6) On the front side of the Pre-charging Assembly, hook the Charging Wire Tension Spring to the Charging Wire to twist with it.



F-4-132

- 7) Cut extra length of the Charging Wire with nippers.

- 8) Hold the tip of the Spring with tweezers and hook the Charging Wire to the groove to hook the Spring to the Hook.



F-4-133

- 9) Clean the Charging Wire with lint-free paper moistened with alcohol.  
 10) Install the Pre-transfer Charging Assembly Covers (Front and Rear).  
 11) Install the Pre-transfer Charging Assembly Cleaner and the Pre-transfer Charging Assembly Cleaner Holder.

<Processing when replacing the parts>

- 1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PO-WIRE)
- 2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-EX)

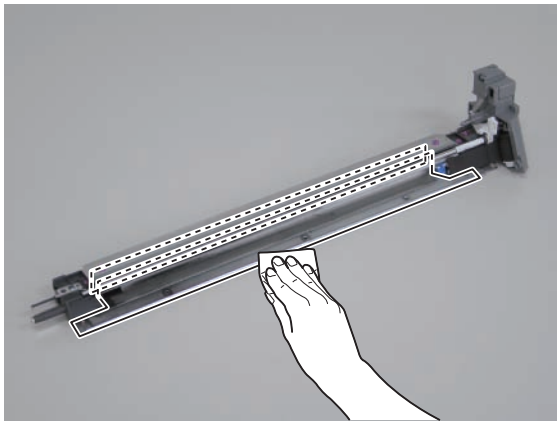
## Cleaning the Pre-transfer Charging Wire

### <Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Pre-transfer Charging Wire Cleaner Holder. (Refer to "Removing the Pre-transfer Charging Wire Cleaner, Cleaner Holder")
5. Remove the Pre-transfer Charging Wire Cleaner. (Refer to page 4-109)
6. Remove the Pre-transfer Charging Wire. (Refer to page 4-112)

### <Procedure>

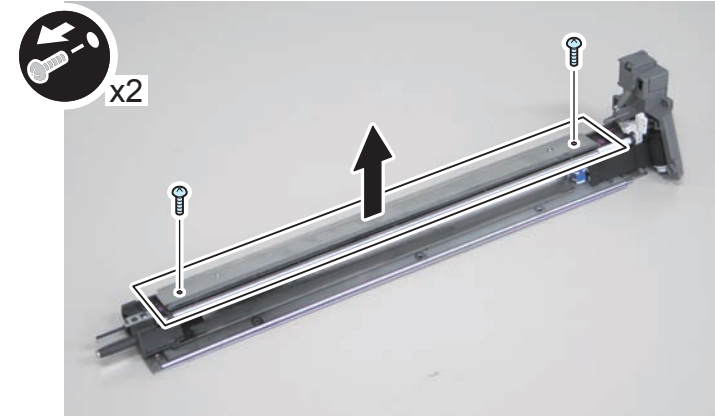
- 1) Clean the Shield Plate with lint-free paper moistened with alcohol.



F-4-134

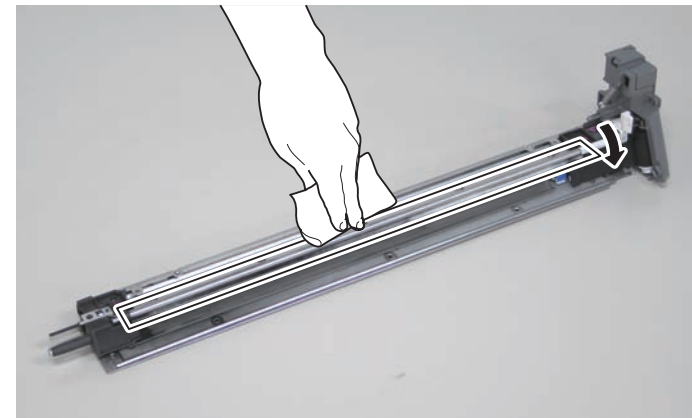
- 2) Remove the Plate.

- 2 Screws



F-4-135

- 3) While rotating the Dust Collecting Roller, clean it with lint-free paper.



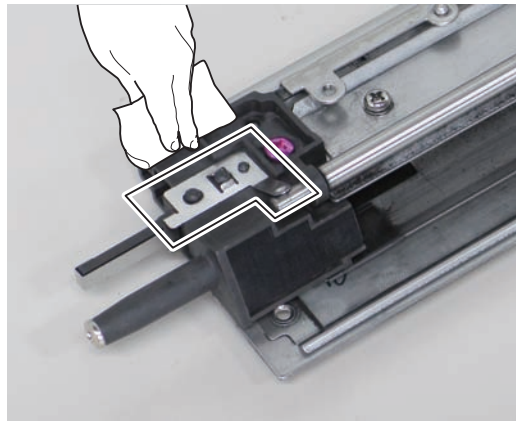
F-4-136

4) Remove toner in the toner collection area.



F-4-137

5) While rotating the Dust Collecting Roller, clean the electrode area with lint-free paper.



F-4-138

## Removing the Process Unit

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)

### <Procedure>

#### CAUTION:

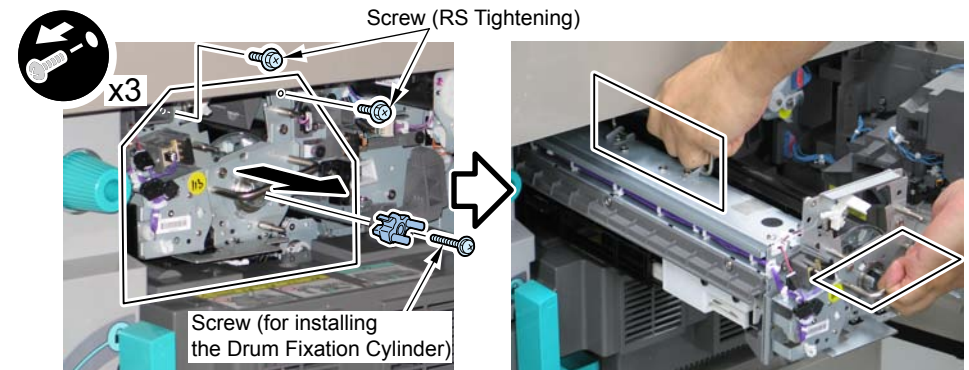
Do not touch the surface of the Photosensitive Drum.

1) Remove the Drum Fixation Cylinder to remove the Process Unit.

- 2 Screws
- 1 Screw (for installing the Drum Fixation Cylinder)

#### NOTE:

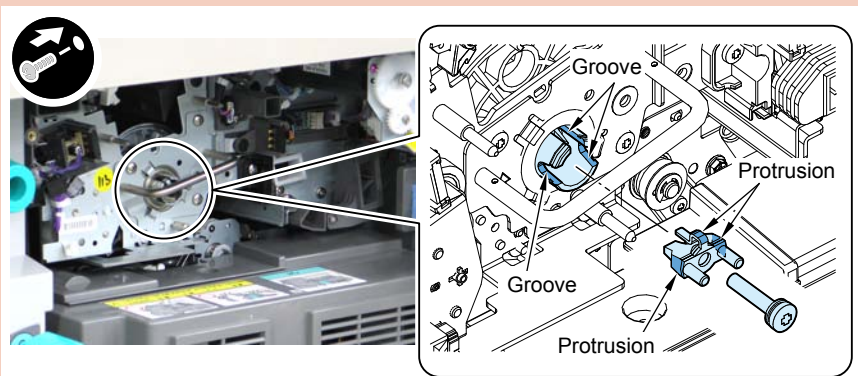
When removing the Process Unit, hold both the upper and front Handles to pull out the Process Unit.



F-4-139

## CAUTION:Points to Caution at Installation

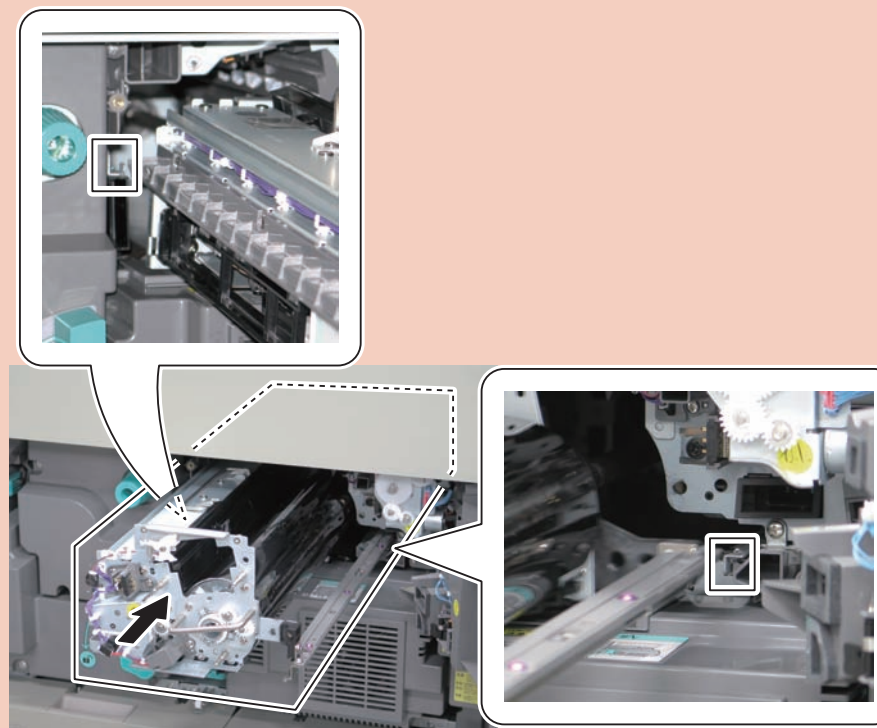
When installing the Process Unit, fit the 3 grooves at the edge of the Drum Shaft with the 3 protrusions of the Drum Fixation Cylinder to install the Drum Shaft Fixing Screw.



F-4-140

## CAUTION:Points to Caution at Installation

Be sure to fit the Drum Cleaning Unit to the rail on the host machine and install it horizontally.



F-4-141

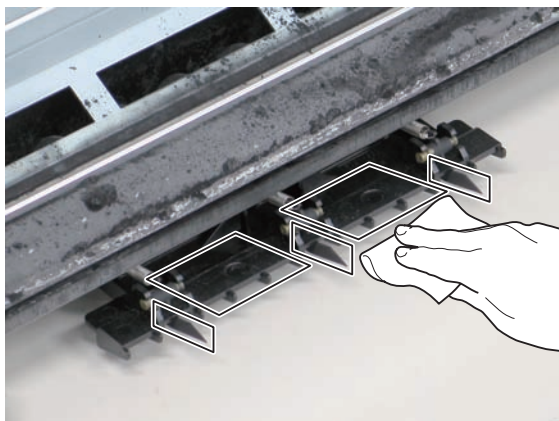
## Cleaning the Process Unit

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Remove the Drum Cleaning Unit. (Refer to "Removing the Drum Cleaning Blade")
6. Remove the Drum Unit. (Refer to page 4-123)

### <Procedure>

- 1) Clean the Separation Claw Mounting Base and Separation Claw with lint-free paper moistened with alcohol.

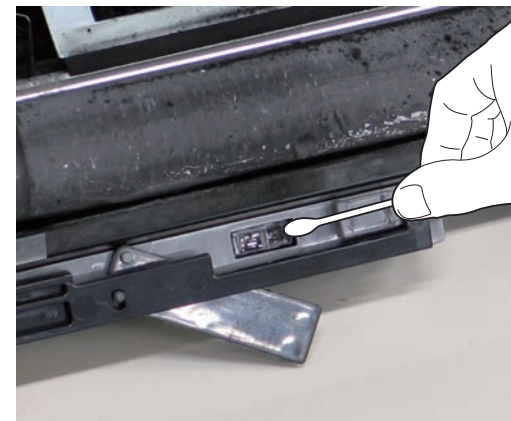


F-4-142

- 2) Clean the Patch Sensor with a wet and tightly-wrung cotton swab.

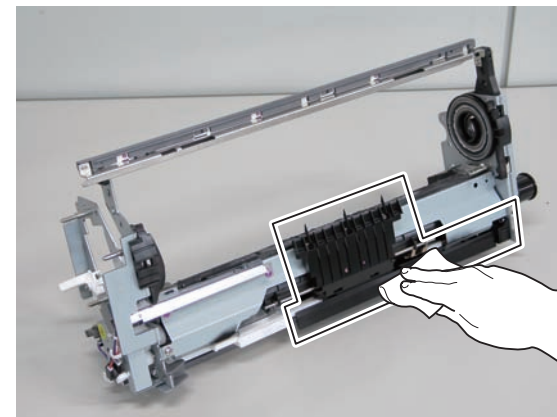
### CAUTION:

Clean the Patch Sensor in the single direction, so that it is cleaned evenly.



F-4-143

- 3) Clean the rear side of the Process Unit with lint-free paper moistened with alcohol.



F-4-144



## Removing the Drum Cleaning Unit

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)

### <Procedure>

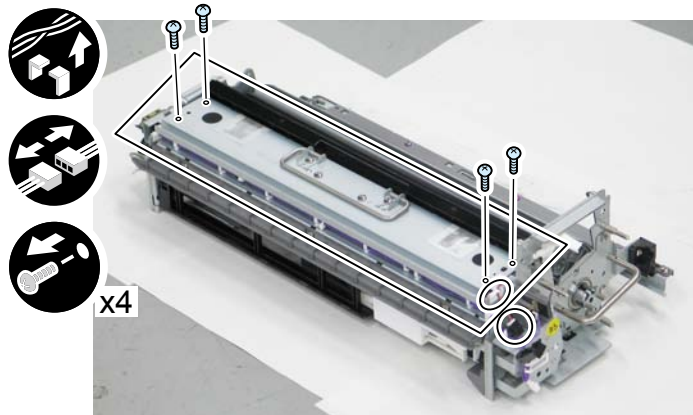
#### CAUTION:

Do not touch the surface of the Photosensitive Drum.

After removing the Drum Cleaning Unit, place paper over the Photosensitive Drum to block light.

1) Remove the Drum Cleaning Unit.

- Edge Saddle
- 1 Connector
- 4 Screws

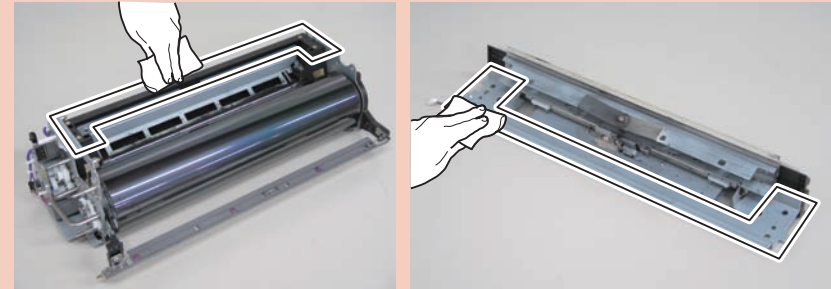


F-4-145

#### CAUTION:

When installing the Drum Cleaning Unit, clean the area shown with lint-free paper moistened with alcohol.

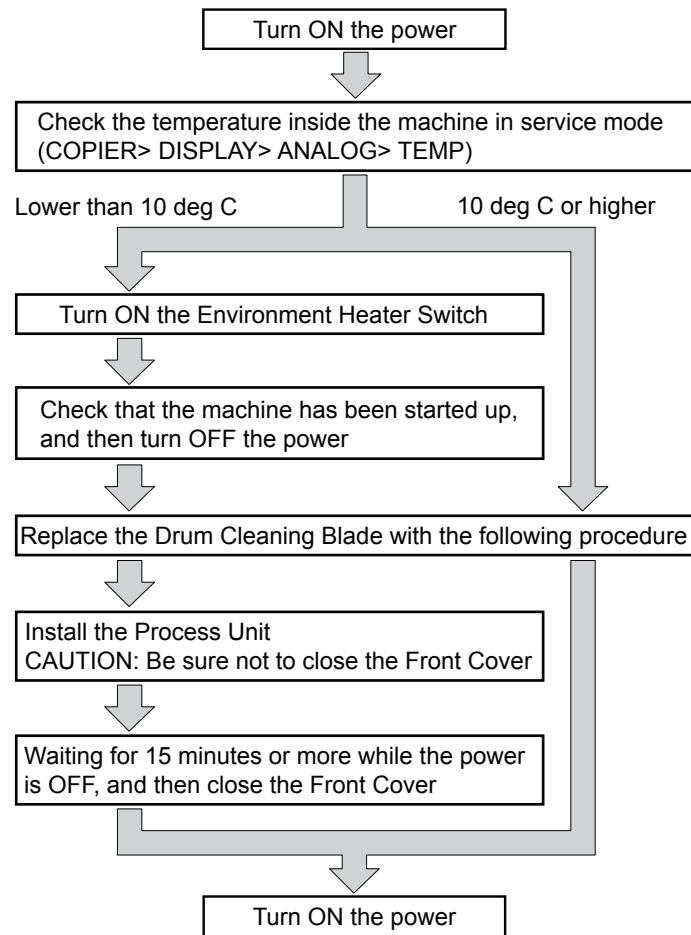
If the Drum Cleaning Unit is installed without removing toner, it cannot be installed in the correct position, causing the cleaning error.



F-4-146

## Removing the Drum Cleaning Blade

Procedure differs according to the temperature inside the machine. Be sure to perform the work by following the flow indicated below.



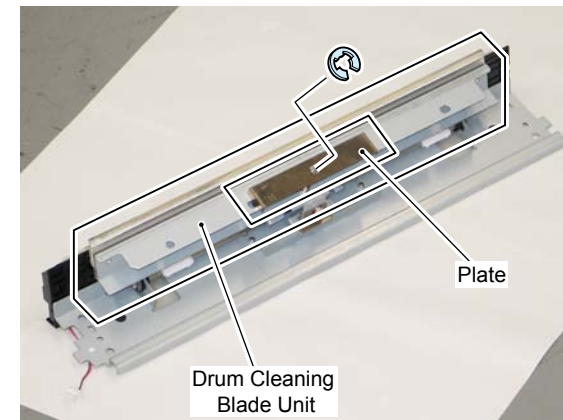
F-4-147

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Remove the Drum Cleaning Unit. (Refer to page 4-119)

### <Procedure>

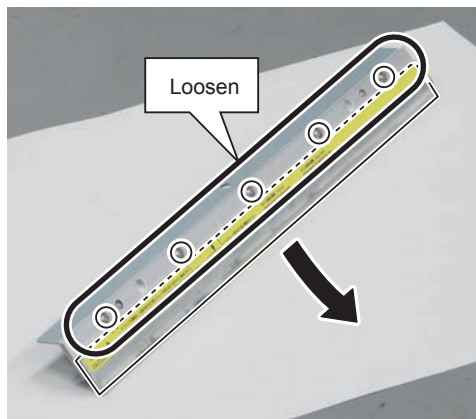
- 1) Turn over the Drum Cleaning Unit to remove the Drum Cleaning Blade Unit.
  - 1 E-ring
  - 1 Plate



F-4-148

## 2) Remove the Drum Cleaning Blade.

- 5 Screws (to loosen)



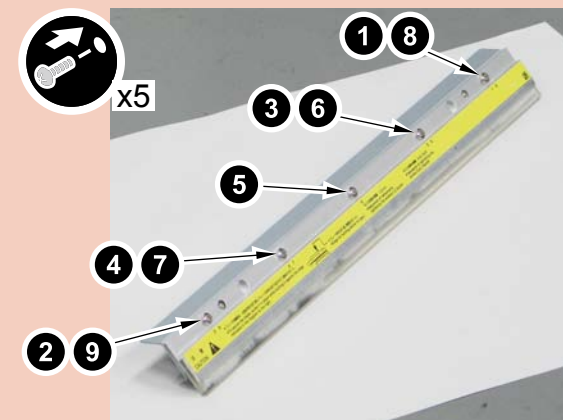
F-4-149

## CAUTION:Points to Caution when Installing the Drum Cleaning Blade

Be sure to apply toner on the contact area (edge) on the Drum of the Drum Cleaning Blade. In particular, be sure to apply toner on both edges of the Blade.

## CAUTION:Points to Caution when Installing the Drum Cleaning Blade Unit

1. Wipe out the toner on both edges of the Drum Cleaning Unit before installation.
2. Be sure to fit in the center position, and then temporarily tighten the screws following the numeric order (from 1 to 4) and also securely tighten the screws (from 5 to 9).



F-4-150

## Cleaning the Drum Cleaning Unit

### <Preparation>

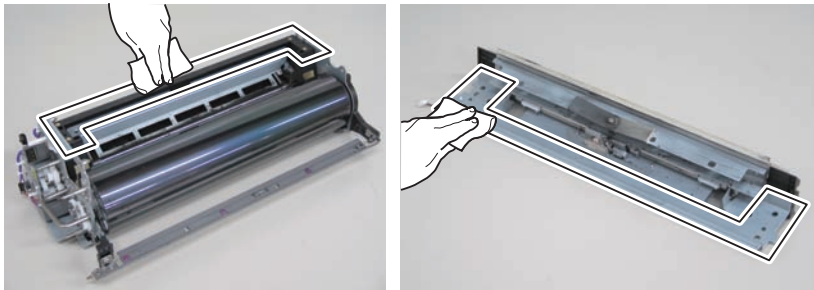
1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Remove the Drum Cleaning Unit. (Refer to "Removing the Drum Cleaning Blade")

### <Procedure>

#### CAUTION:

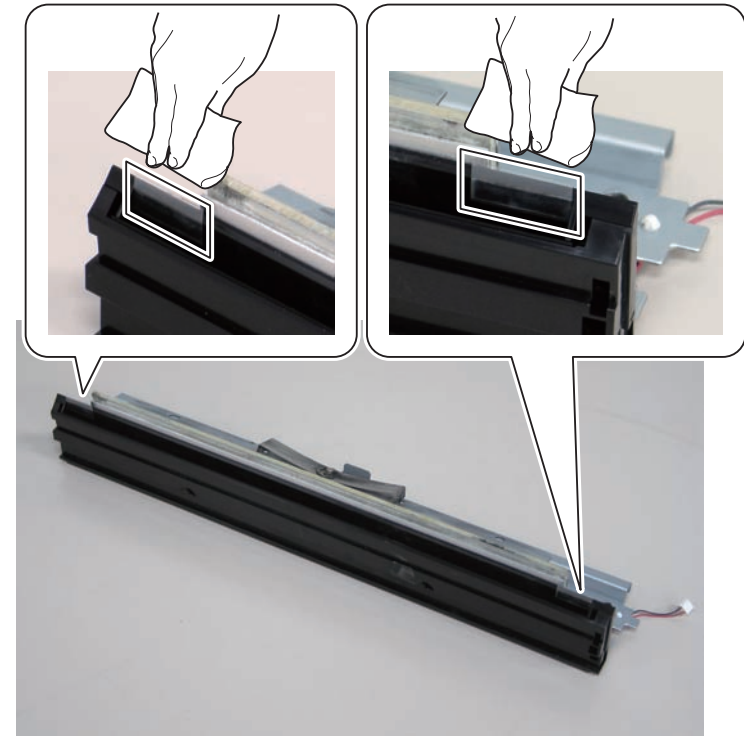
Do not touch the surface of the Photosensitive Drum.

- 1) Clean the Drum Cleaning Unit Plate with lint-free paper moistened with alcohol.



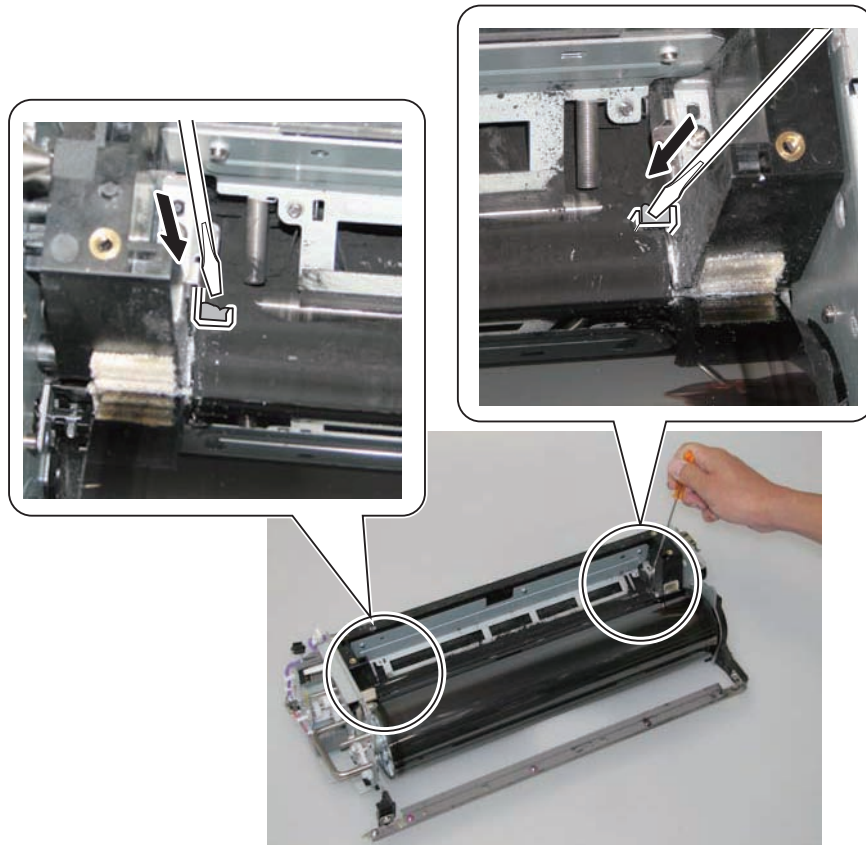
F-4-151

- 2) Clean the 2 Pre-exposure Plastic Films of the Drum Cleaning Blade Unit with lint-free paper.



F-4-152

3) Crumb toner clusters in the toner collection area and then clean it.



F-4-153

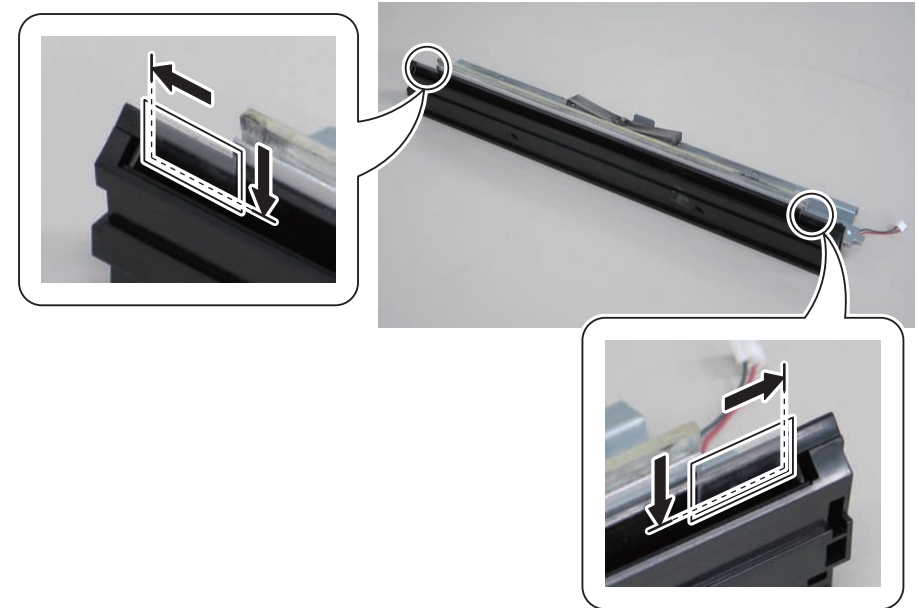
## Replacing the Pre-exposure Plastic Film

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Remove the Drum Cleaning Unit. (Refer to "Removing the Drum Cleaning Blade")

### <Procedure>

- 1) Remove the Pre-exposure Plastic Film.
- 2) Fit the Pre-exposure Plastic Film to the edge and lower grooves of the Drum Cleaning Unit.



F-4-154

## Removing the Drum Unit

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Put paper on the Photosensitive Drum, so that it is not exposed to direct sunlight.
6. Remove the Drum Cleaning Blade. (Refer to page 4-119)

### <Procedure>

#### CAUTION:

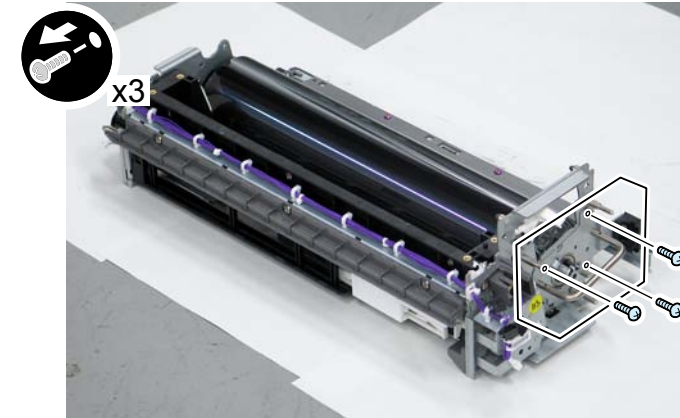
When handling the Process Unit and Photosensitive Drum, be sure to follow the following points to note.

1. When removing the Process Unit, be sure to block light to the Photosensitive Drum. Cover with the Photosensitive Drum Protection Sheet or wrap 5 or more papers around the drum to block light.
2. Do not place the Process Unit and Photosensitive Drum in a location where is exposed to direct rays of the sun (e.g. near the window).
3. Do not store in a location with high/low temperature/humidity, or in a location where temperature or humidity is dramatically changed.
4. Do not store in a dusty area or in a location full of ammonia gas or organic solvent gas.

When installing a new Photosensitive Drum, be sure to remove the Lightproof Sheet after installing the drum to the main body. In addition, be sure to rotate the drum counterclockwise at removal of the Lightproof Sheet. If the drum is rotated clockwise, the Drum Cleaner Blade may be everted.

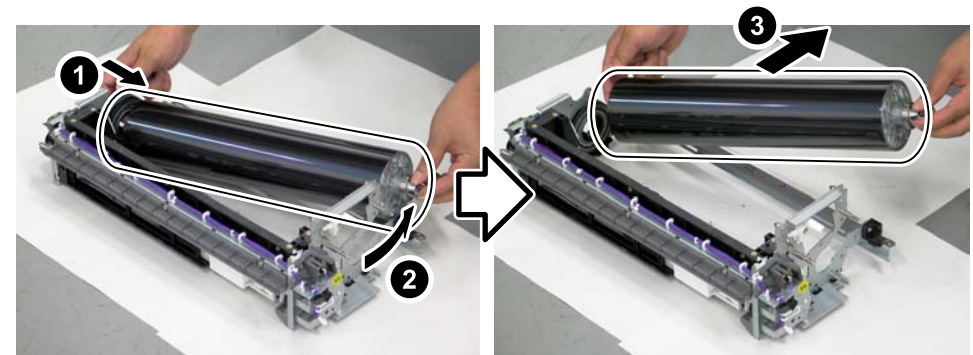
- 1) Remove the Drum Retainer Plate (tentative name).

- 3 Screws



F-4-155

- 2) Push to move the rear side of the Photosensitive Drum with your fingers and pull out the Drum Unit to the front to remove.



F-4-156

## Removing the Photosensitive Drum

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Put paper on the Photosensitive Drum, so that it is not exposed to direct sunlight.
6. Remove the Drum Cleaning Blade. (Refer to page 4-119)
7. Remove the Drum Retainer Plate.
8. Remove the Drum Unit. (Refer to page 4-123)

### <Procedure>

#### CAUTION:

When handling the Process Unit and Photosensitive Drum, be sure to follow the following points to note.

1. When removing the Process Unit, be sure to block light to the Photosensitive Drum. Cover with the Photosensitive Drum Protection Sheet or wrap 5 or more papers around the drum to block light.
2. Do not place the Process Unit and Photosensitive Drum in a location where is exposed to direct rays of the sun (e.g. near the window).
3. Do not store in a location with high/low temperature/humidity, or in a location where temperature or humidity is dramatically changed.
4. Do not store in a dusty area or in a location full of ammonia gas or organic solvent gas.

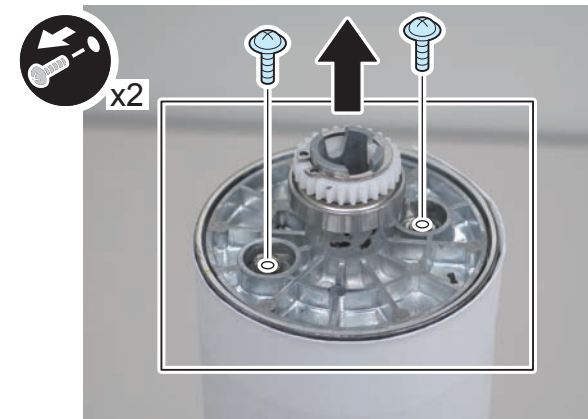
When installing a new Photosensitive Drum, be sure to remove the Lightproof Sheet after installing the drum to the main body. In addition, be sure to rotate the drum counterclockwise at removal of the Lightproof Sheet. If the drum is rotated clockwise, the Drum Cleaning Blade may be everted.

- 1) Wrap paper around the Drum Unit to block light.



F-4-157

- 2) Remove the 2 screws and the Flange.



F-4-158

3) Disconnect the connector and remove the Drum Heater.



F-4-159

4) Remove the Heater Control PCB Unit.



F-4-160

**NOTE:**

Serial ID of the drum is written on the seal inside the drum.

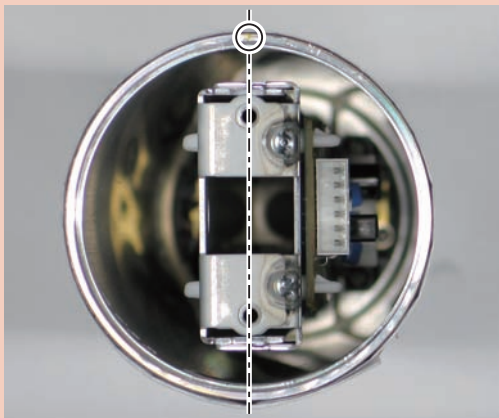


F-4-161



**CAUTION:**

- Align the yellow marker of the drum with the hole position of the unit when installing the Heater Control PCB Unit to the drum.



F-4-162

- When securing the Flange, align the protrusion of the Flange with the yellow marker to install.



F-4-163

**NOTE:**

If the yellow marker is not aligned with the protrusion, the following control cannot be executed properly.

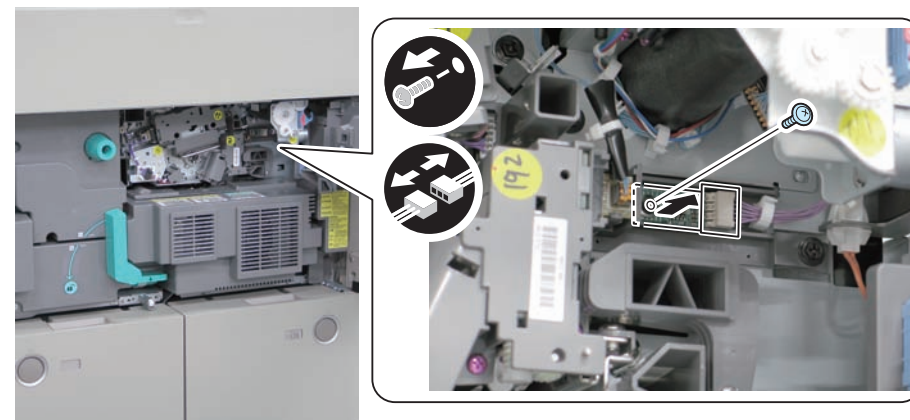
- 2D shading
- D-MAX control
- D-half control

<Processing when replacing the parts>

<Procedure of adjustment>

1) Remove the EEPROM.

- 1 Screw
- 1 Connector



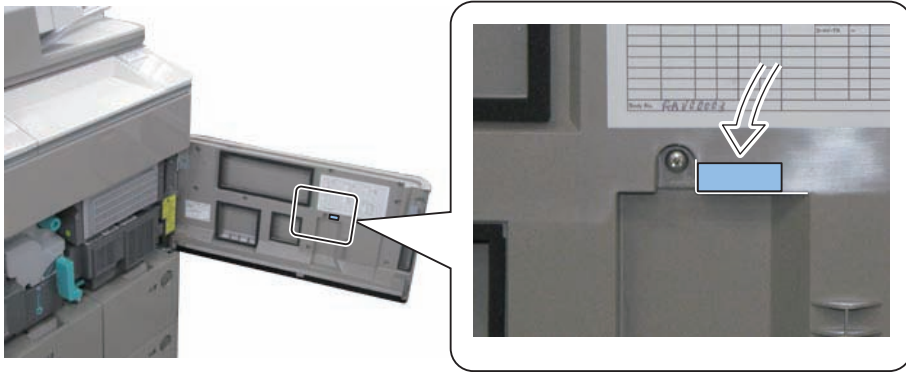
F-4-164

3) Replace with the ROM packaged with the Drum.

**CAUTION:**

If the ROM is not replaced, the replaced drum and the drum-unique data stored in the ROM are not matched. As a result, the 2D shading is not functioned normally.

4) Affix the ID Label included in the drum to the inside of the Front Cover.



F-4-165

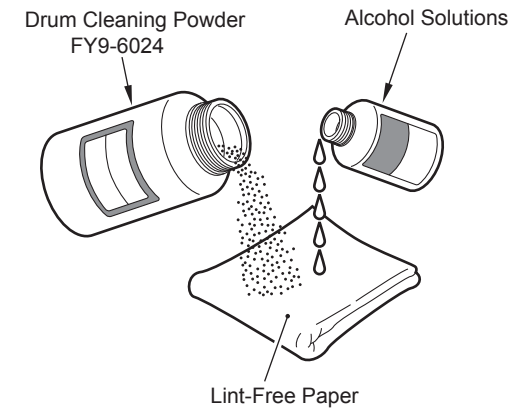
5) Activate the drum replacement mode. (COPIER>FUNCTION>INSTALL>DRM-INIT)

6) Check the 2-dimensional shading ROM. (COPIER>FUNCTION>2D-SHADE>2D-READ)

6) Execute Auto Adjust Gradation.

## Cleaning Photosensitive Drum

- 1) Moisten lint-free paper with 5 to 10 cc of alcohol solutions ; then, pour 0.2 to 0.3 g of the drum cleaning powder (FY9-6024) on the lint-free paper.
- 2) While butting the lint-free paper relatively strongly against the photosensitive drum, wipe the surface of the drum from the front to the rear and from the rear to the front.



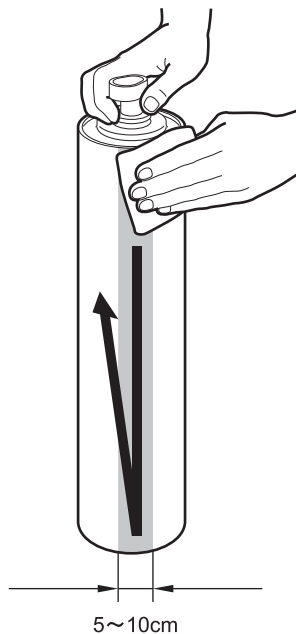
F-4-166

### CAUTION:

- Keep the widths of cleaning to 5 to 10 cm in the peripheral direction of the drum.
- Move the lint-free paper back and forth 15 to 20 times over a single area. Forcing the lint-free paper will not affect the life of the drum.

3) After the alcohol has evaporated, dry wipe the surface with the lint-free paper. If the area is uneven, go back to the step 1, and increase the back-and-forth movements.

- 4) Rotate the drum for the width (5 to 10 cm), and repeat the step 1 through 3 until the entire area of the surface has been cleaned.



F-4-167

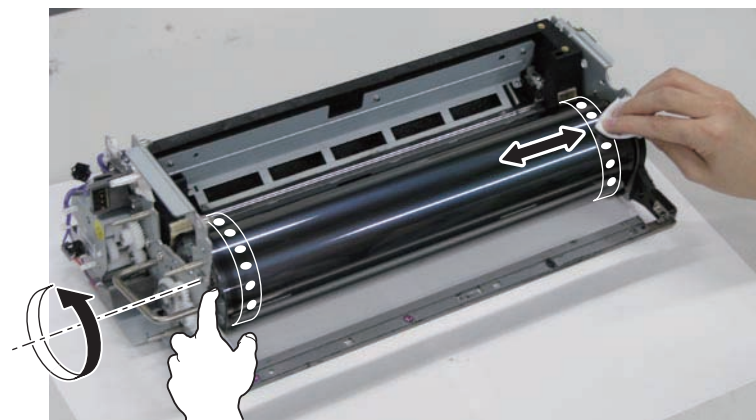
## Cleaning the Drum edges

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Put paper on the Photosensitive Drum, so that it is not exposed to direct sunlight.
6. Remove the Drum Cleaning Blade. (Refer to page 4-119)
7. Remove the Drum Retainer Plate.
8. Remove the Drum Unit. (Refer to page 4-123)

### <Procedure>

- 1) Rotate the Drum and dry wipe the soiling on the surface of the Drum edges with lint-free paper.



F-4-168

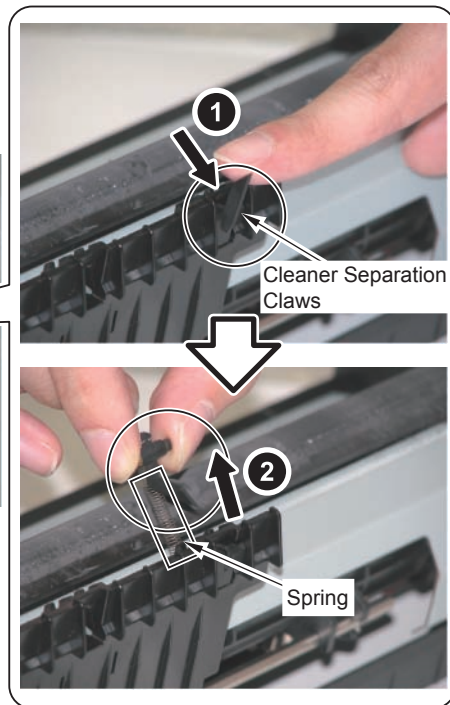
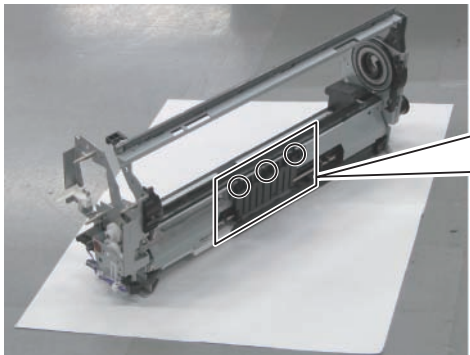
## Removing the Cleaner Separation Claw

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Remove the Drum Cleaning Blade. (Refer to page 4-119)
6. Remove the Drum Unit. (Refer to page 4-123)

### <Procedure>

- 1) Put the Process Unit Frame perpendicularly.
- 2) Remove the 3 Cleaner Separation Claws.
  - 1 Spring each



F-4-169

## Removing the Side Seal

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Remove the Drum Cleaning Blade. (Refer to page 4-119)
6. Remove the Drum Unit. (Refer to page 4-123)

### <Procedure>

- 1) Remove the Side Seals (Front and Rear).

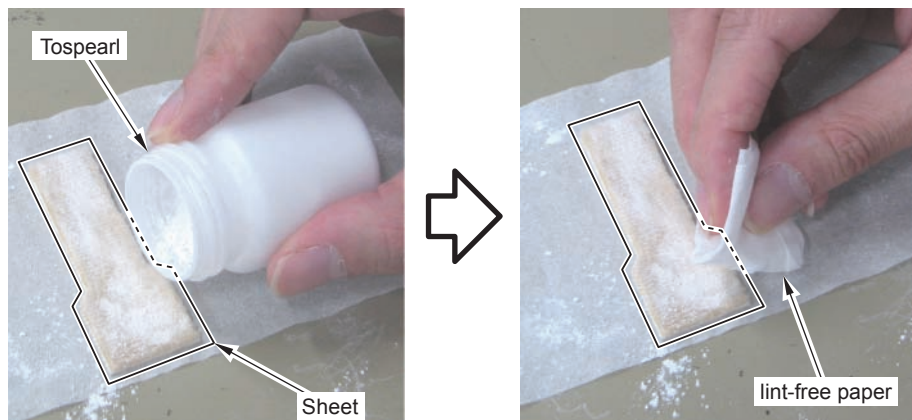


F-4-170

2) Apply Tospearl on the surfaces of the new Drum Side Seals (Front and Rear) and adhere it uniformly with lint-free paper.

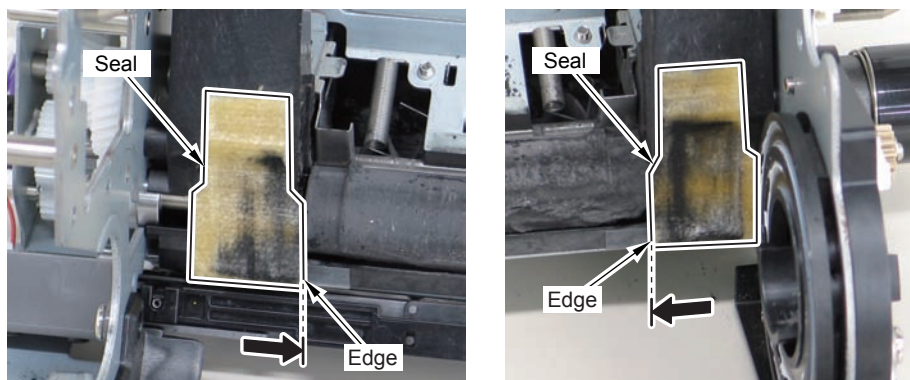
**NOTE:**

In order to reduce adhesion of toner at both ends of the Photosensitive Drum



F-4-171

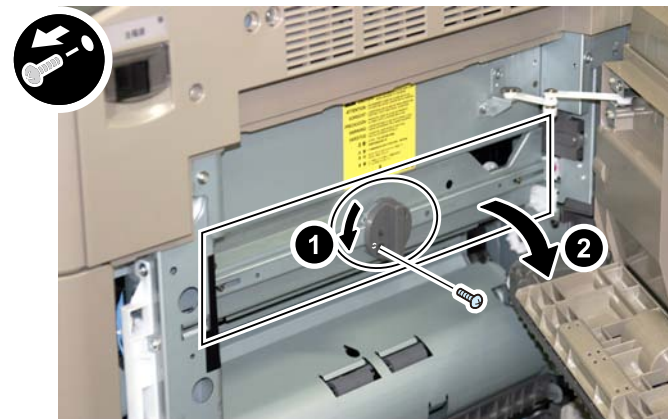
3) Align the Drum Side Seals (Front and Rear) with the edges of the sheets and affix them.



F-4-172

## Removing the Developing Assembly

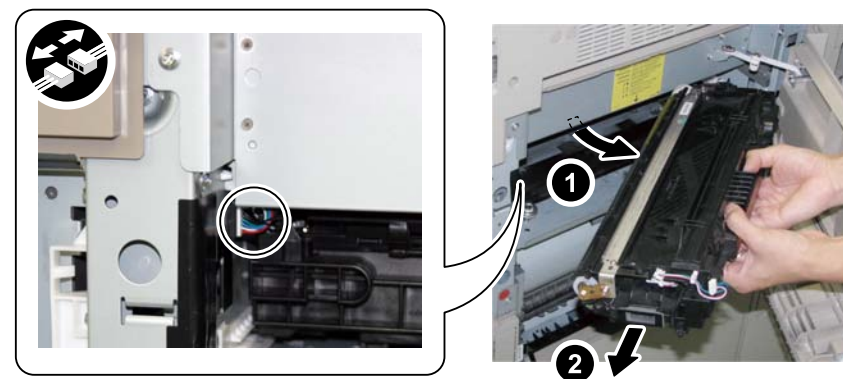
- 1) Place paper underneath the Developing Assembly.
- 2) Open the Right Cover.
- 3) Turn the Tab to open the Plate Cover.
  - 1 Screw



F-4-173

4) Remove the Developing Assembly by following the Rail.

- 1 Connector

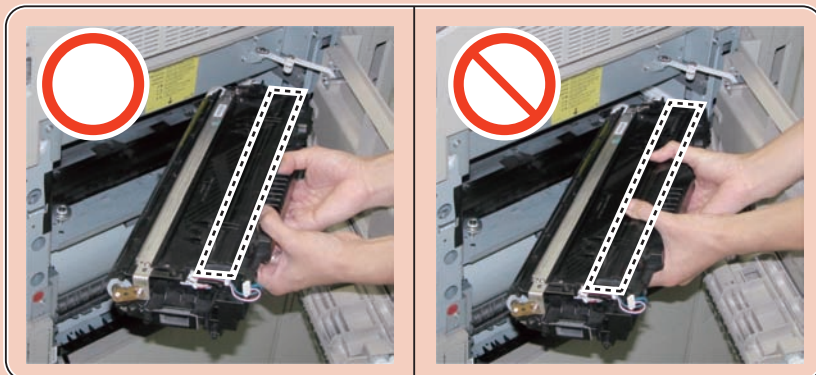


F-4-174

**CAUTION:How to Hold the Developing Assembly**

When holding the Developing Assembly, be sure to hold the handle of the Developing Assembly as shown in the figure.

Do not touch the shutter area of the Developing Assembly. The shutter area is slippery, so it may cause a fall of the assembly.

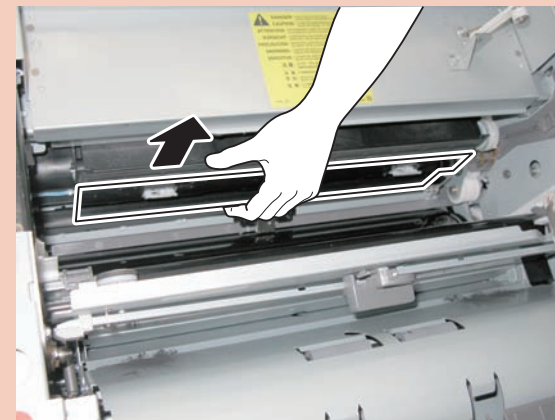


F-4-175

**CAUTION:Points to Caution when Installing the Developing Assembly**

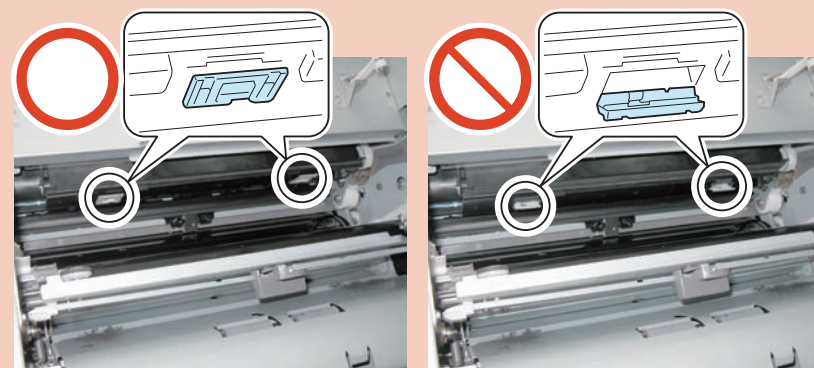
Before installing the Developing Assembly, check that the Buffer Shutter is not open.

If the Developing Assembly is forcibly installed while the Buffer Shutter is open, the shutter may get damage. When the Buffer Shutter is open, pull out the shutter to the front and then close it.



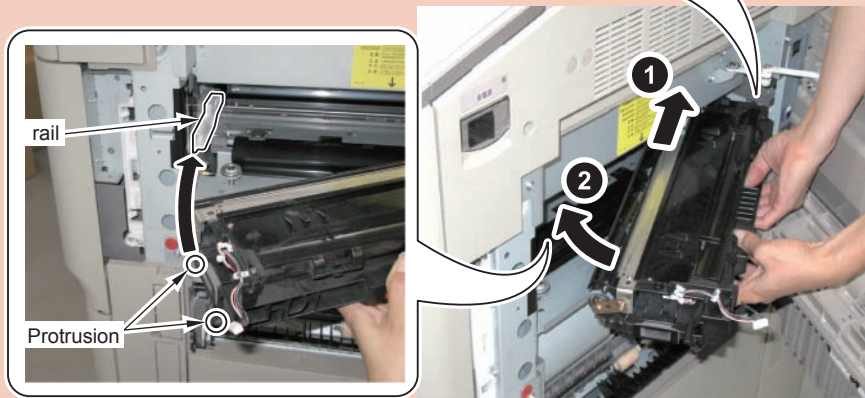
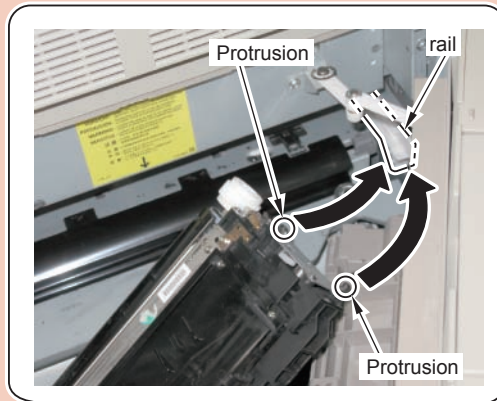
F-4-176

Whether the shutter is open or not can be checked with the Shutter Arm.



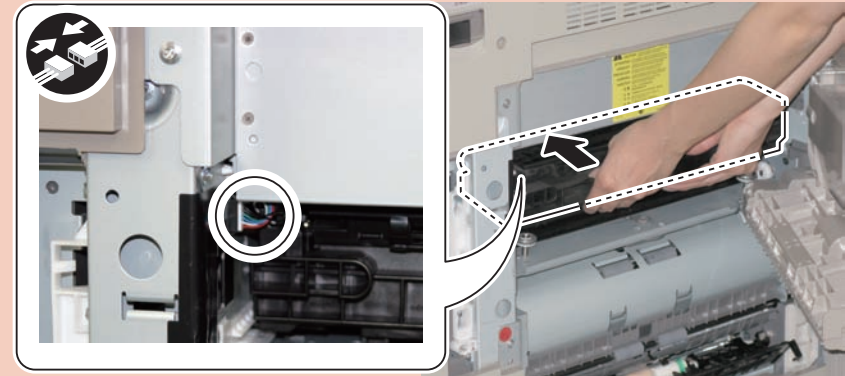
F-4-177

- As shown in the figure, hold the Developing Assembly and fit the protrusions at right and left sides of the Developing Assembly to the rail of the host machine.



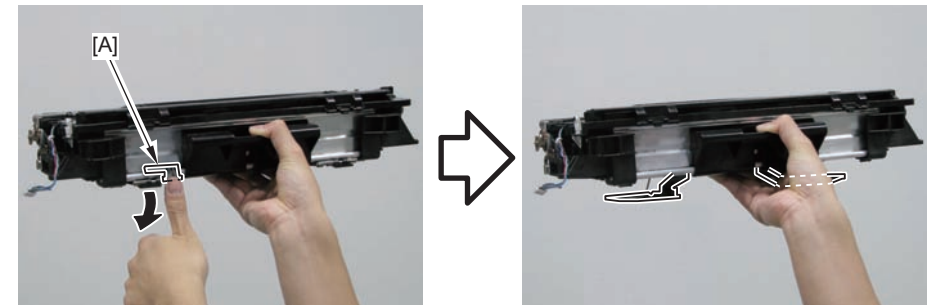
F-4-178

- Install the Developing Assembly horizontally by following the rail.



F-4-179

- Push the [A] part of the Developing Assembly and extend the legs from the assembly.



F-4-180

**CAUTION:**

If the Developing Assembly is placed without extending the legs, it may cause the developing error due to scratches on the assembly.

6) Place the Developing Assembly.



F-4-181

**NOTE:**

When the Developing Assembly is put on the floor or the desk, be sure to place paper underneath to work on the Developing Assembly.

**<Processing when replacing the parts>**

- 1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>DVG-CYL)
- 2) Supplying Developing Assembly toner (COPIER>FUNCTION>INSTALL>TONER-S)

## Cleaning the Developing Assembly

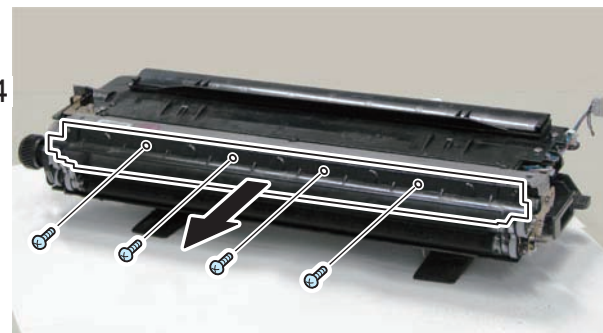
**<Preparation>**

1. Remove the Developing Assembly. (Refer to page 4-130)

**<Procedure>**

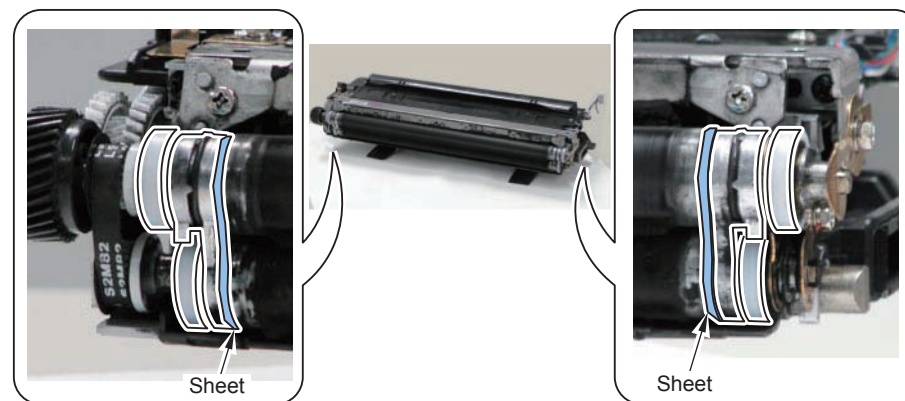
- 1) Remove the Developing Sleeve Cover.

- 4 Screws



F-4-182

- 2) Clean the 4 Developing Rollers with lint-free paper moistened with alcohol while rotating them.
- 3) Clean the area outside of the sheet on the 2 Developing Sleeve Holders with lint-free paper moistened with alcohol.



F-4-183



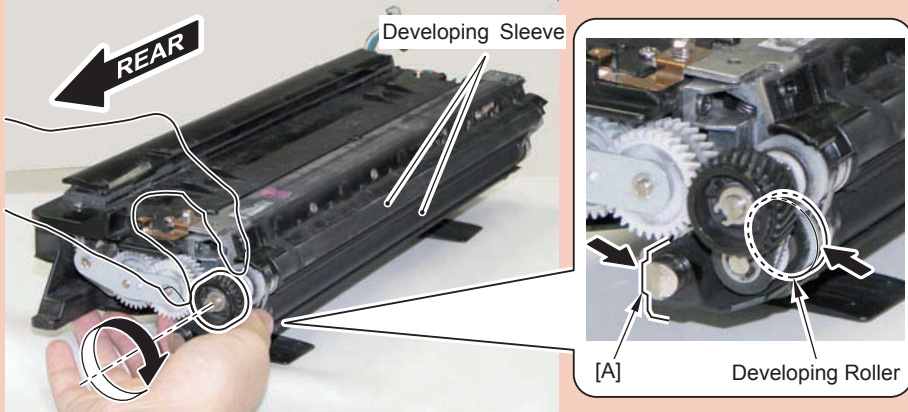
4) Install the removed Developing Sleeve Cover.

- 4 Screws

**CAUTION:** How to Check Scratches or Foreign Particles on the Developing Sleeve

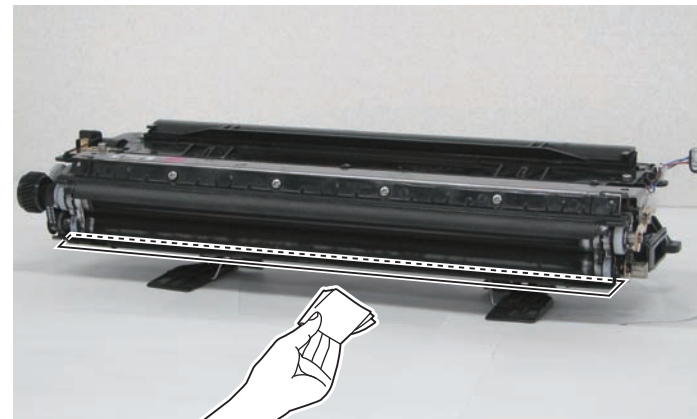
While engaging the Developing Lower Sleeve with the inside of the Developing Assembly by pushing the Developing Roller at lower side, rotate the gear a full turn or more clockwise by viewing it from front side and check whether there are any scratches or foreign particles in the Developing Sleeve.

- When pushing the Developing Roller, be sure to hold the Developing Roller at lower side and [A] part of the Developing Assembly.
- Be sure to rotate the gear clockwise, and be careful not to rotate it counterclockwise.
- If rotating the gear without pushing the Developing Roller, toner will be accumulated between the Developing Lower Sleeve and the seal (Toner clusters). If pushing the Developing Assembly against the drum in this condition, the Developing Lower Sleeve does not move to the appropriate position because of the toner clusters. As a result, the gap between the Developing Upper Sleeve and the drum (SD gap) will be widened. It causes low density at rear or deterioration of developer because it becomes hard to deposit toner onto the drum.



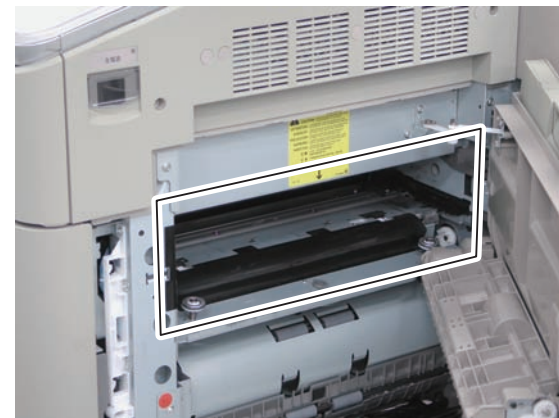
F-4-184

5) Clean the lower side of Cylinder in the Developing Assembly with lint-free paper moistened with alcohol.



F-4-185

6) Remove toner in the main body.



F-4-186

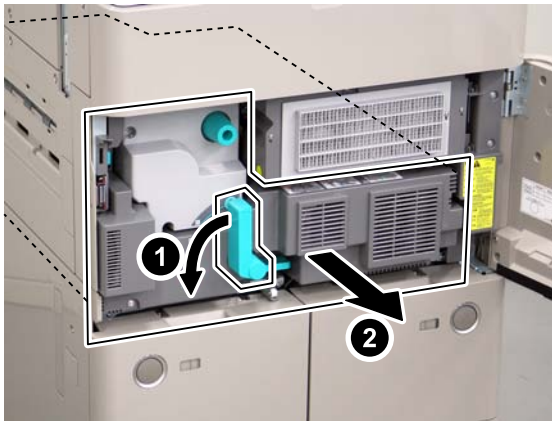
## Removing the ETB Unit

### <Preparation>

1. Pull out the Fixing Feed Unit.

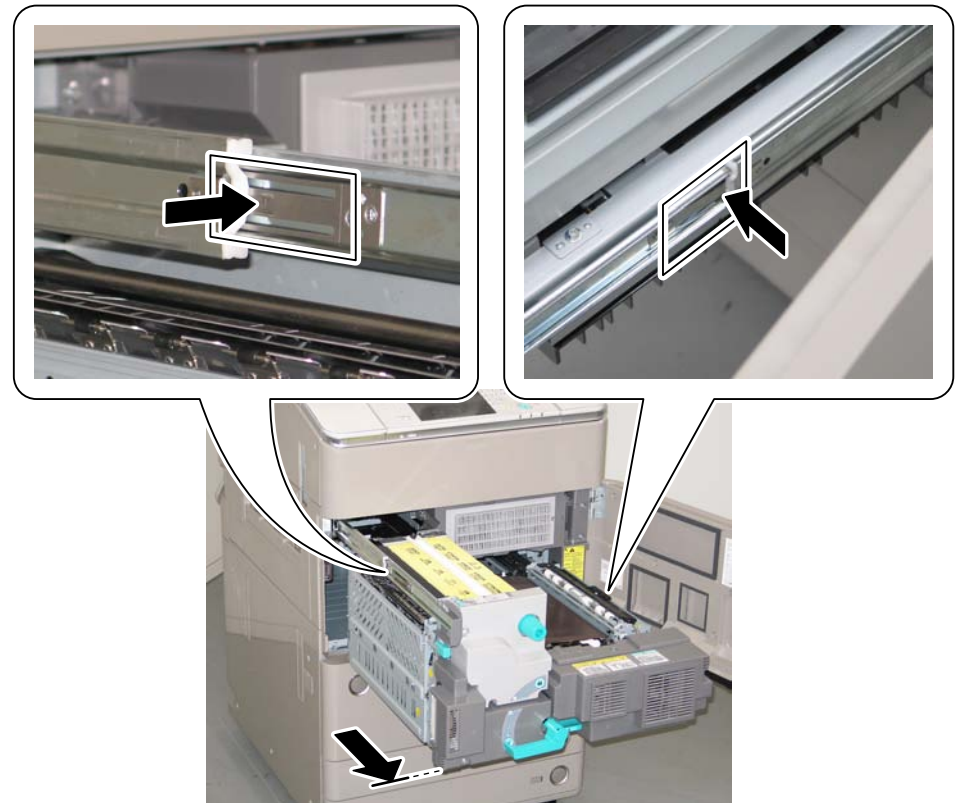
1-1) Open the Front Cover.

1-2) Turn the Fixing Feed Unit Pressure Release Lever in the direction of the arrow to pull out the Fixing Feed Unit.



F-4-187

1-3) Push to release the Release Springs at both sides of the Rail, and then further pull out the Fixing Feed Unit until it stops.



F-4-188

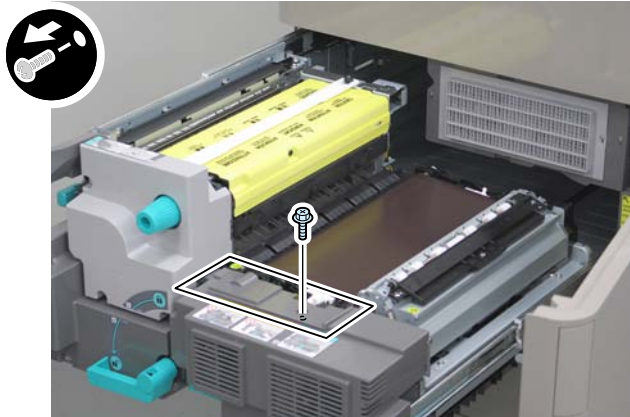
### CAUTION:

Do not touch the surface of the ETB when handling the ETB Unit.

## &lt;Procedure&gt;

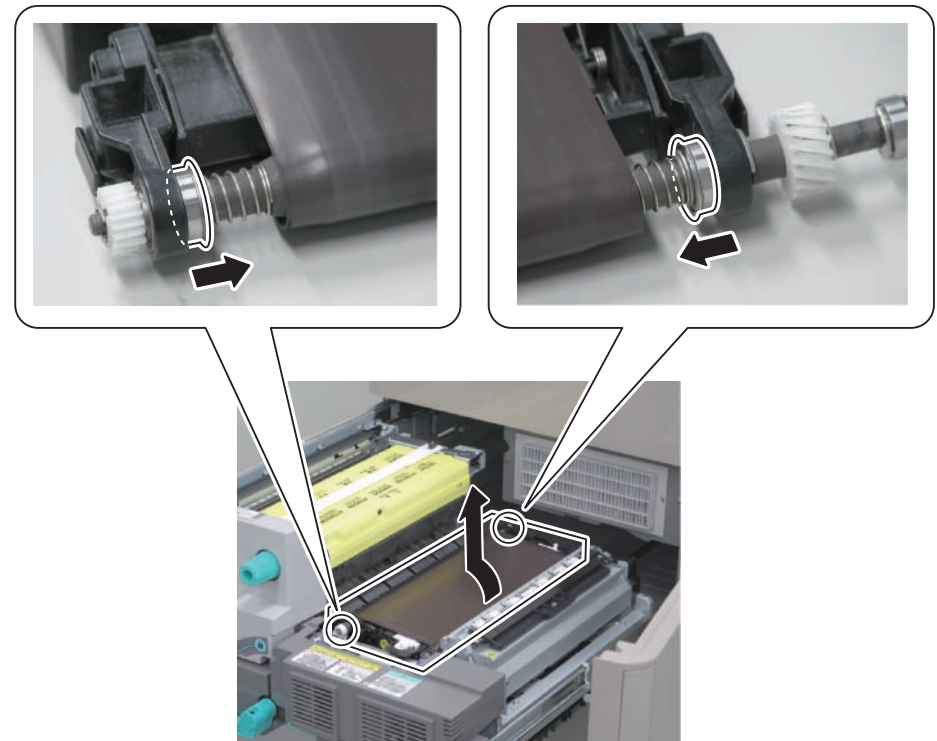
1) Remove the Fixing Feed Right Front Upper Cover.

- 1 Screw



F-4-189

2) Hold the 2 Handles to remove the ETB Unit in the direction of the arrow.



F-4-190

## &lt;Processing when replacing the parts&gt;

1) Clear the ETB control counter. (COPIER>FUNCTION>CLEAR>TR-BLT)

Parts counter (COPIER>COUNTER>DRBL-1>TR-BLT) is also cleared coincidentally.

## Removing the ETB

### <Preparation>

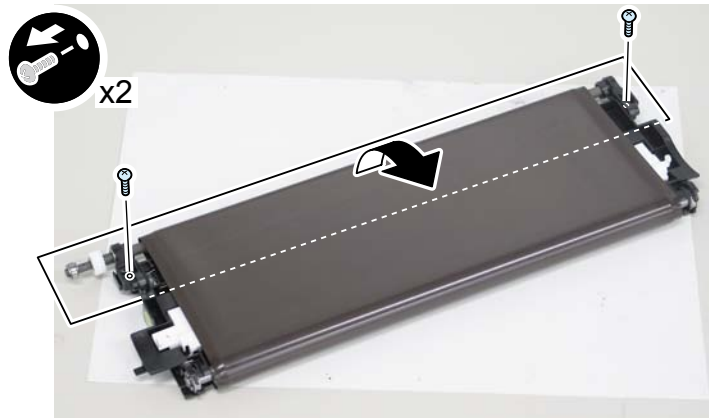
1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-135)

### CAUTION:

Do not touch the surface of the ETB when handling the ETB Unit.

### <Procedure>

- 1) Fold the ETB Drive Roller Unit.
  - 2 Screws



F-4-191

- 2) Set up the ETB Unit to remove the Roller Unit from the ETB.



F-4-192

### CAUTION:

- Be sure to hold within 10mm from both edges of the ETB when handling the ETB.
- Do not touch the surface of the ETB Drive Roller and the Transfer Roller; otherwise, it can cause image faults.

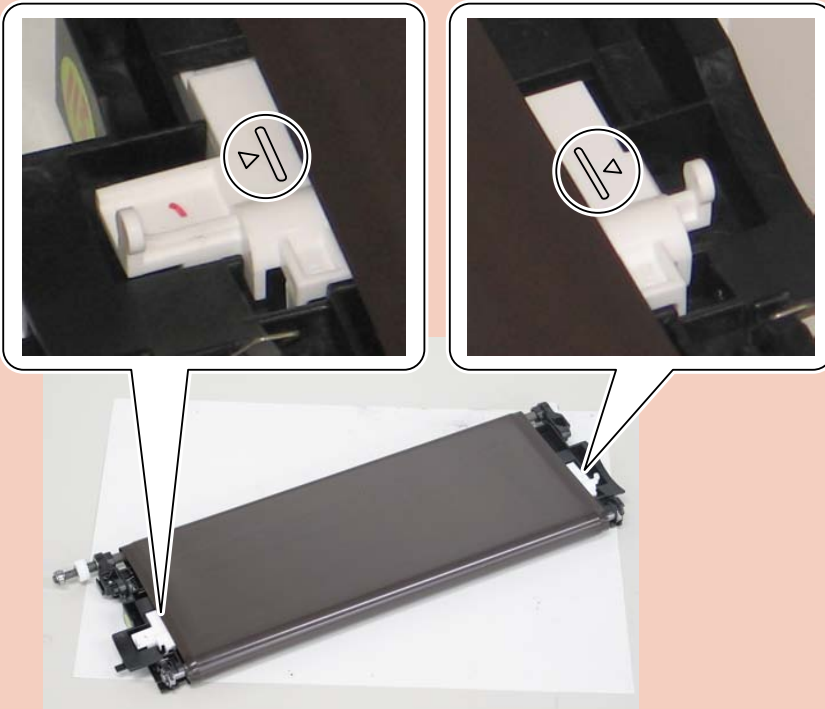
## &lt;Processing when replacing the parts&gt;

1) Clear the ETB control counter. (COPIER>FUNCTION>CLEAR>TR-BLT)

Parts counter (COPIER>COUNTER>DRBL-1>TR-BLT) is also cleared coincidentally.

**CAUTION:**Points to Caution when Installing the ETB

Set the ETB to make the ETB located inside the Guides at both edges.



F-4-193

## Cleaning the ETB

## &lt;Preparation&gt;

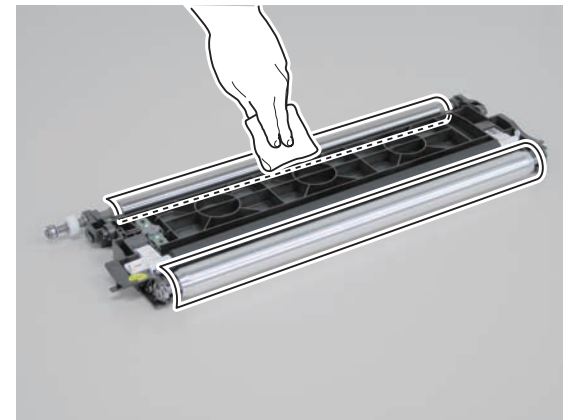
1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB")
2. Remove the ETB Unit. (Refer to page 4-135)
3. Remove the Roller Unit from the ETB Unit.

## &lt;Procedure&gt;

- 1) Clean the Transfer Roller and Drive Roller with lint-free paper moistened with alcohol.

**CAUTION:**

Do not touch the surface of the ETB Drive Roller and the Transfer Roller; otherwise, it can cause image faults.



F-4-194

## Removing the Transfer Roller

### <Preparation>

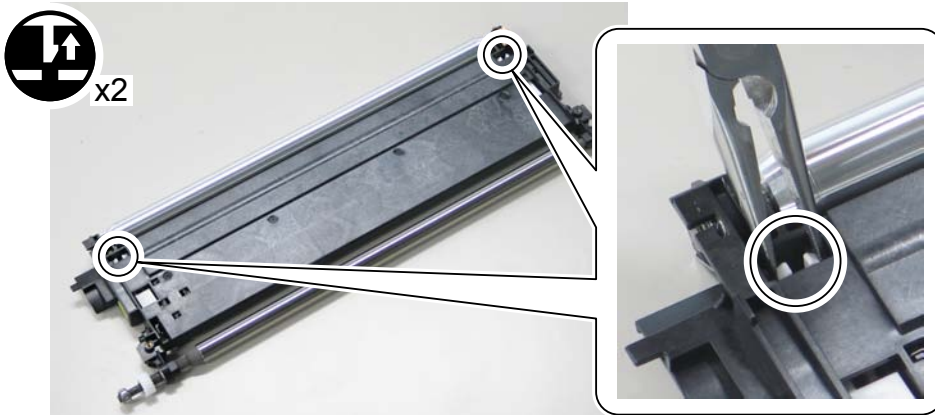
1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-135)
3. Remove the ETB. (Refer to page 4-137)

### CAUTION:

Do not touch the surface of the ETB Drive Roller and the Transfer Roller; otherwise, it can cause image faults.

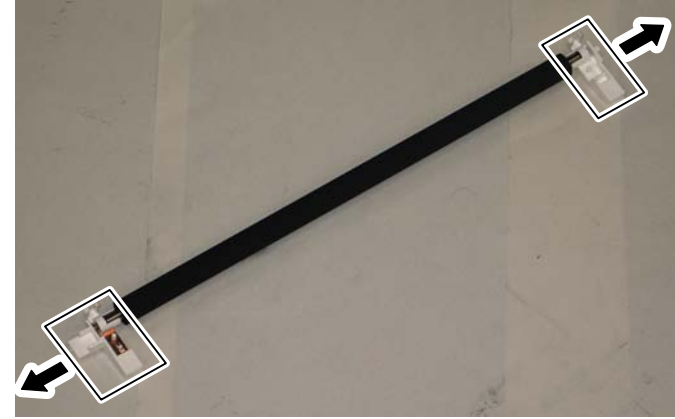
### <Procedure>

- 1) Turn over the Roller Unit to remove the Claw of the Transfer Roller Shaft Support with needlenose pliers.



F-4-195

- 2) Remove the Transfer Roller Shaft Support from the Transfer Roller.



F-4-196

### NOTE:

When installing the Transfer Roller Shaft Support to the Roller Unit, be sure to check that the bosses of the Transfer Roller Shaft Support are fitted into the Springs.



F-4-197

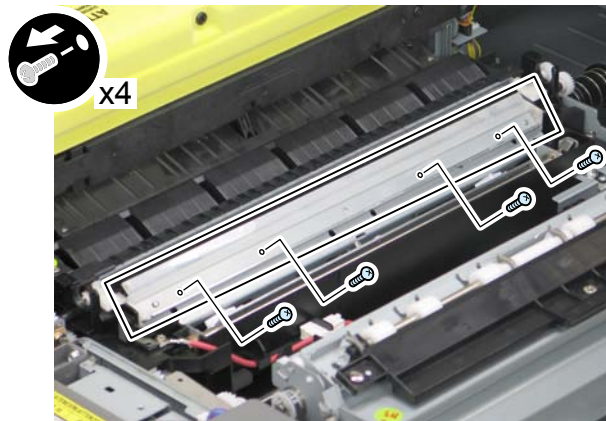
## Removing the ETB Cleaning Blade

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-135)

### <Procedure>

- 1) Remove the ETB Cleaning Blade.
  - 4 Screws



F-4-198

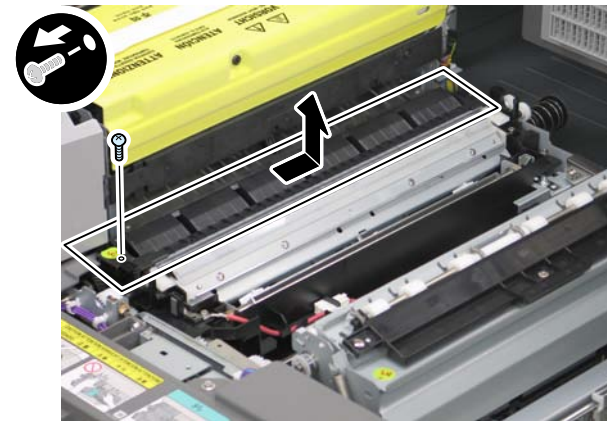
## Removing the ETB Brush Roller

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-135)

### <Procedure>

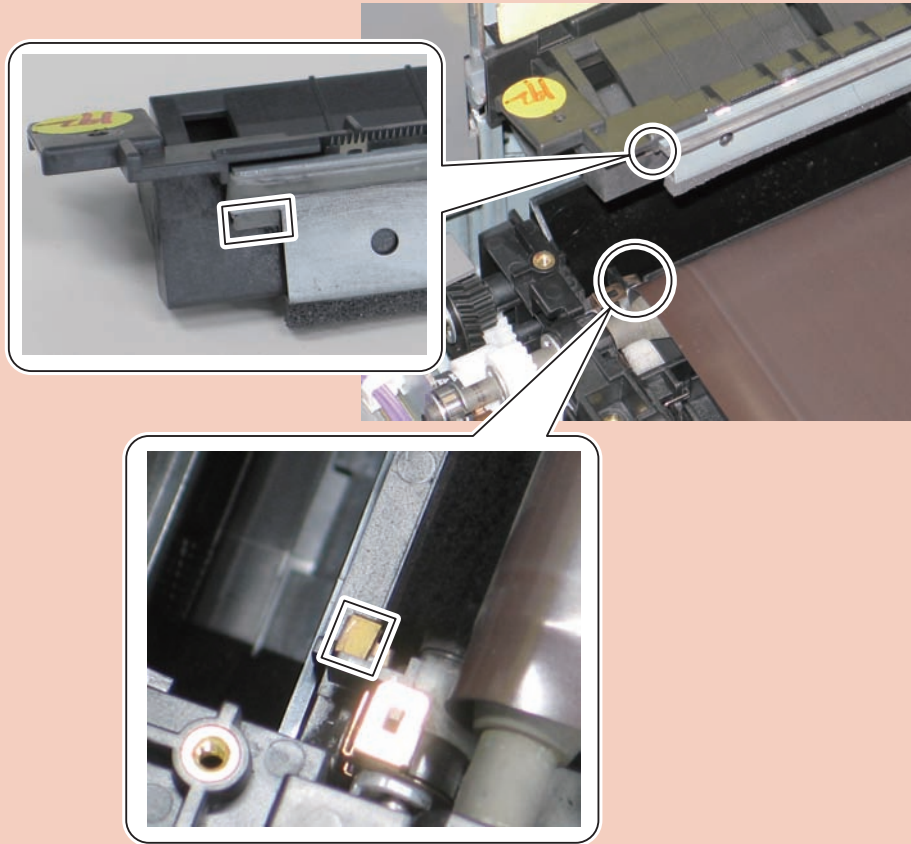
- 1) Remove the Post-transfer Guide.
  - 1 Screw



F-4-199

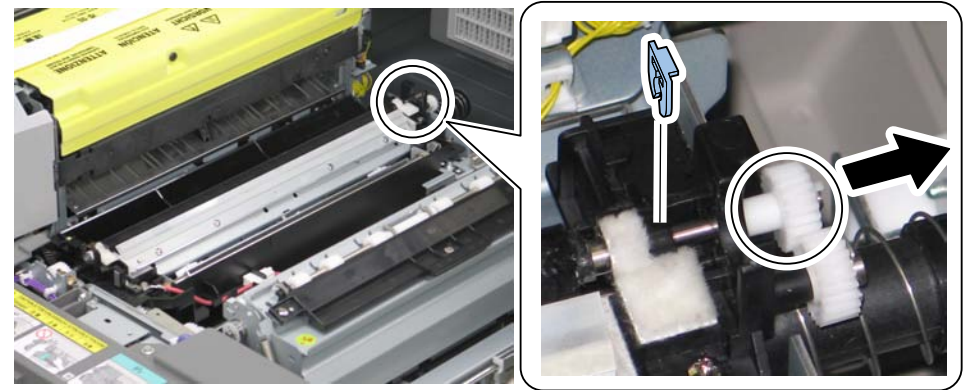
## CAUTION:

- Be sure to keep in contact with the Grounding Plate when installing the Post-transfer Guide.
- Do not deform the Grounding Plate when installing the Post-transfer Guide.



F-4-200

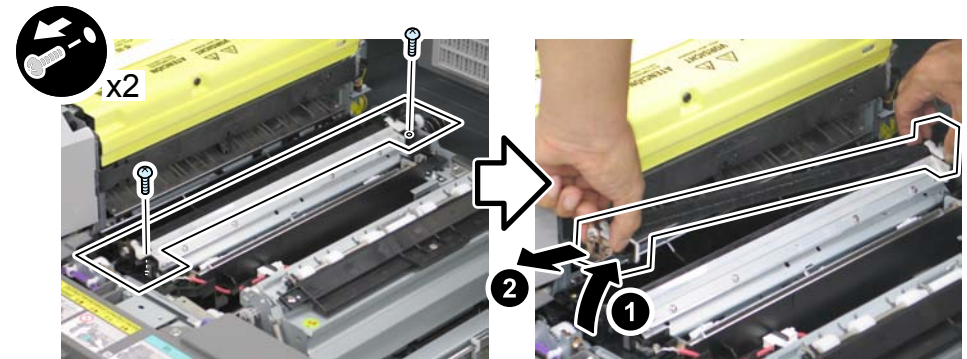
2) Remove the Connection Gear and the N-ring from the ETB Brush Roller.



F-4-201

3) Remove the ETB Brush Roller Unit.

- 2 Screws

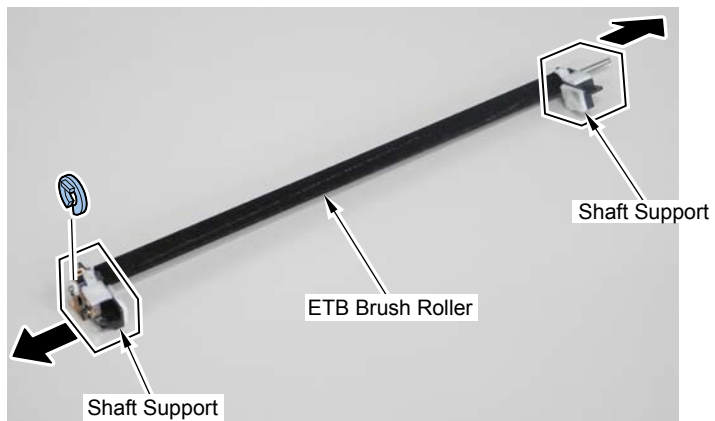


F-4-202



4) Remove the Shaft Support from the ETB Brush Roller.

- 1 N-ring



F-4-203

## Removing the Waste Toner Container

1) Remove the Right Rear Lower Cover.

- 1 Screw



F-4-204

2) Remove the Waste Toner Container.



F-4-205

### NOTE:

In the case of toner spill when removing the Waste Toner Container, be sure to wipe out the spilled toner.

After the Waste Toner Container is removed, be sure to cover the Waste Toner Container with the Cap attached in the side.

When the Waste Toner Container is removed outside the machine, be sure to promptly cover with the Cap to prevent toner scattering.

<Processing when replacing the parts>

- 1) Set a new Waste Toner Container.
- 2) Clear the waste toner counter.(COPIER>COUNTER>MISC>WST-TNR)

## Removing the Drum Heater

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Put paper on the Photosensitive Drum, so that it is not exposed to direct sunlight.
6. Remove the Drum Cleaning Blade. (Refer to page 4-119)
7. Remove the Drum Retainer Plate.
8. Remove the Drum Unit. (Refer to page 4-123)

### <Procedure>

#### CAUTION:

When handling the Process Unit and Photosensitive Drum, be sure to follow the following points to note.

1. When removing the Process Unit, be sure to block light to the Photosensitive Drum. Cover with the Photosensitive Drum Protection Sheet or wrap 5 or more papers around the drum to block light.
2. Do not place the Process Unit and Photosensitive Drum in a location where is exposed to direct rays of the sun (e.g. near the window).
3. Do not store in a location with high/low temperature/humidity, or in a location where temperature or humidity is dramatically changed.
4. Do not store in a dusty area or in a location full of ammonia gas or organic solvent gas.

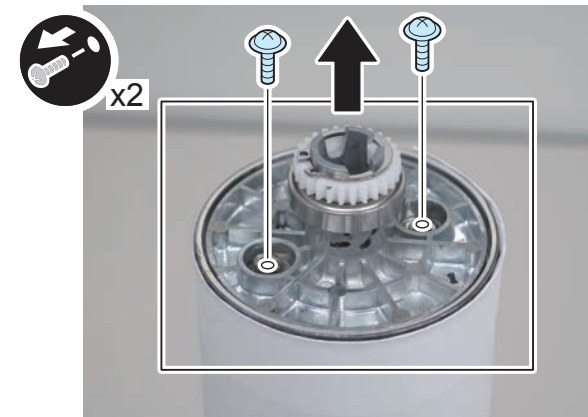
When installing a new Photosensitive Drum, be sure to remove the Lightproof Sheet after installing the drum to the main body. In addition, be sure to rotate the drum counterclockwise at removal of the Lightproof Sheet. If the drum is rotated clockwise, the Drum Cleaner Blade may be everted.

- 1) Wrap paper around the Drum Unit to block light.



F-4-206

- 2) Remove the 2 screws and the Flange.



F-4-207

3) Disconnect the connector and remove the Drum Heater.



F-4-208

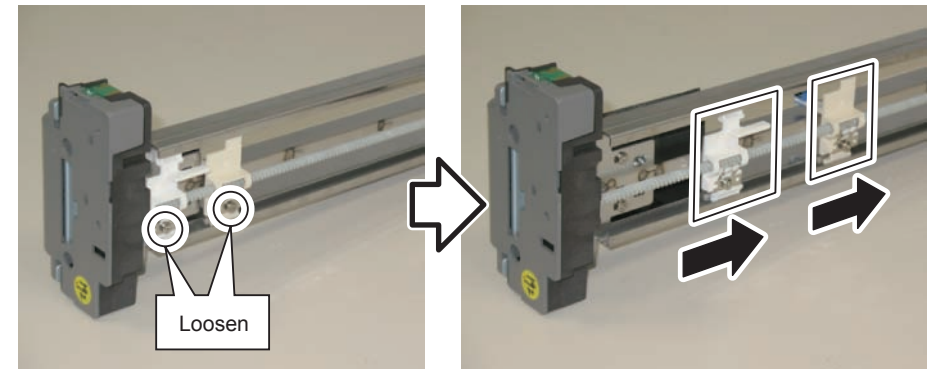
## Removing the Primary Charging Shutter Unit

### <Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
3. Remove the Primary Charging Assembly. (Refer to page 4-97)

### <Procedure>

- 1) Move the Primary Charging Wire Cleaners (Left and Right).
  - 2 Screws (to loosen)



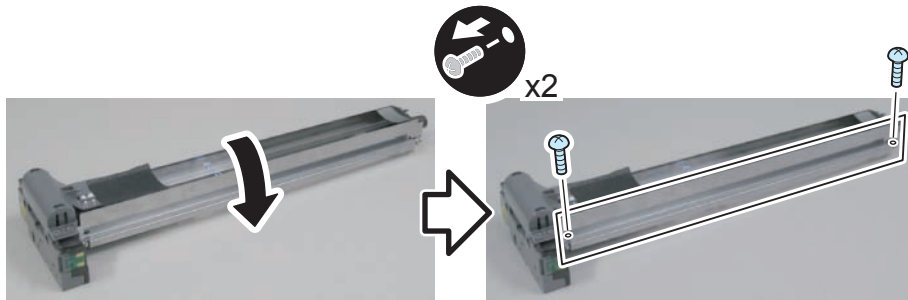
F-4-209

### CAUTION:

Do not remove both Shield Plates (Right and Left) of the Primary Charging Assembly at the same time. Be sure to work on one Shield Plate at a time. (Otherwise, the frame of the Primary Charging Assembly can be deformed.)

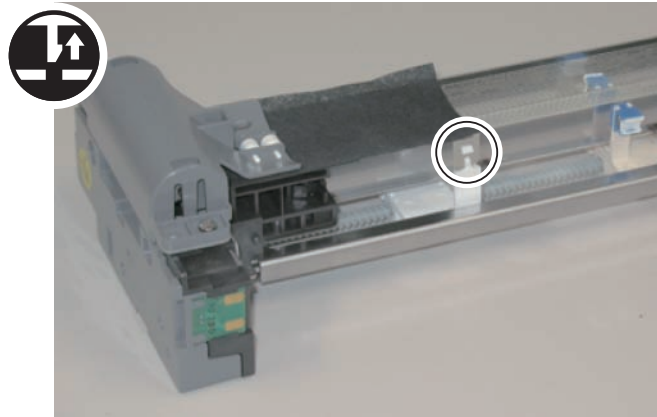
2) Move down the Primary Charging Assembly to remove the Shield Plate (Right).

- 2 Screws



F-4-210

3) Remove the Leaf Spring of the Primary Charging Shutter from the claw.



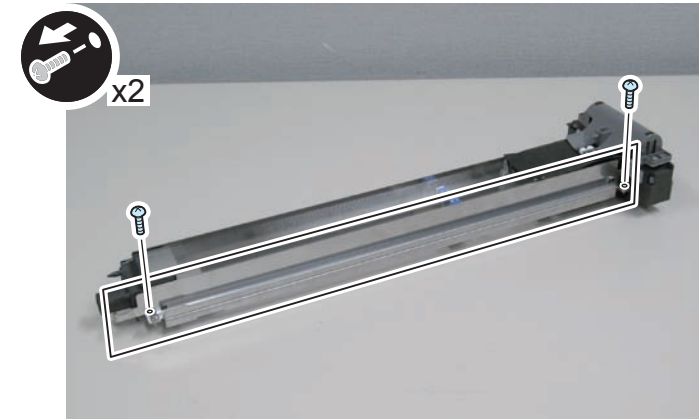
F-4-211

4) Install the Shield Plate (Right).

- 2 Screws

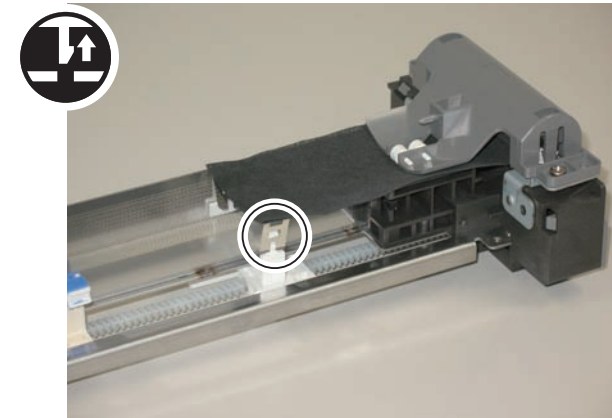
5) Remove the Shield Plate (Left).

- 2 Screws



F-4-212

6) Remove the Leaf Spring of the Primary Charging Shutter from the claw.



F-4-213

7) Install the Shield Plate (Left).

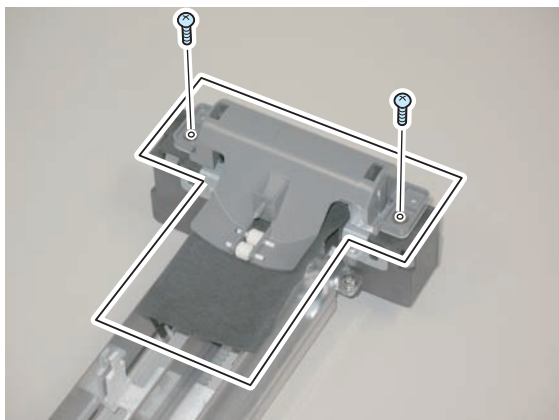
- 2 Screws

**CAUTION:**

Do not make the Leaf Spring caught by the Charging Wire when removing the Primary Charging Shutter Unit.

8) Remove the Primary Charging Shutter Unit.

- 2 Screws



F-4-214

<Installation Method>

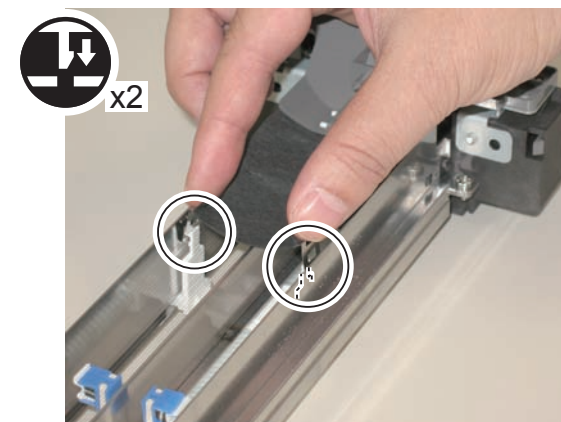
**CAUTION:**Points to Caution at Installation

Be careful not to get the Leaf Spring caught by the Charging Wire to install it to the Cleaner Claw.

**NOTE:**

The Shield Plate does not need to be removed when installing the Shutter Unit.

1) Set the Leaf Spring of the Primary Charging Shutter to the Cleaner Claw.



F-4-215

2) Install the Primary Charging Shutter Unit.

- 2 Screws

3) Return the Primary Charging Wire Cleaners (Left and Right) to the original position.

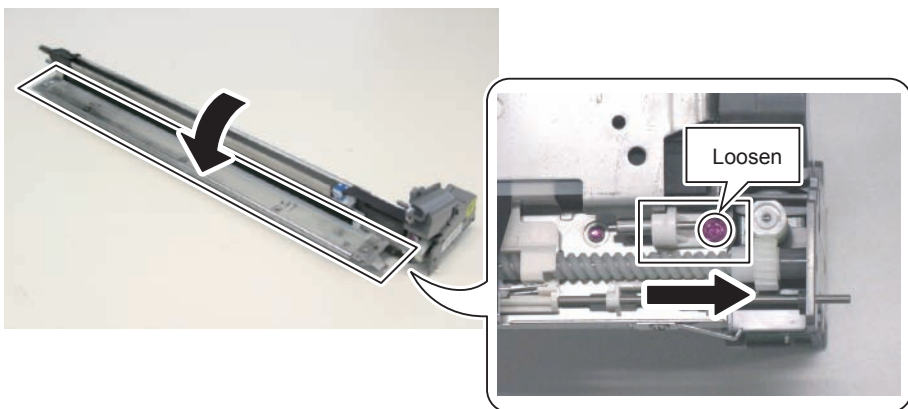
## Removing the Pre-transfer Charging Assembly Shutter Unit

### <Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)

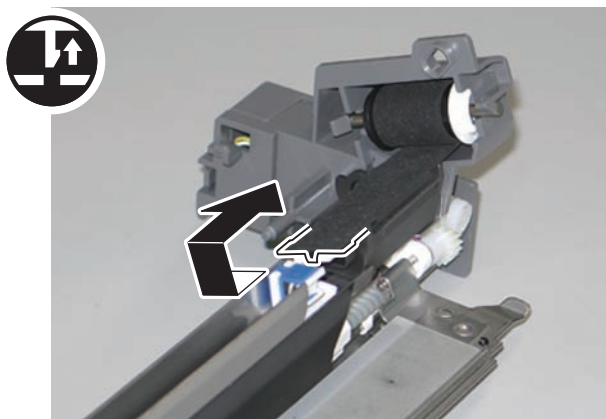
### <Procedure>

- 1) Move the Shield Plate Retainer Block to open the Shield Plate in the direction of the arrow.
  - 1 Screw (to loosen)



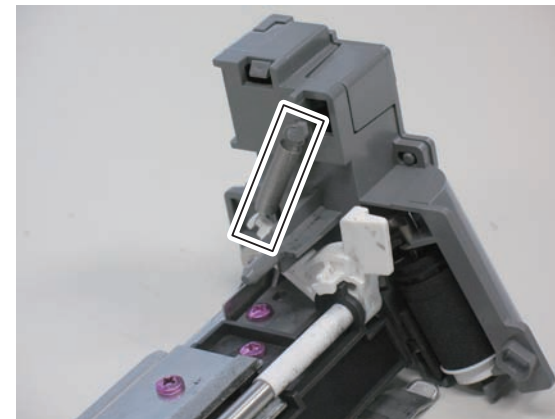
F-4-216

- 2) Remove the claw at the edge of the Shutter.



F-4-217

- 3) Remove the spring.



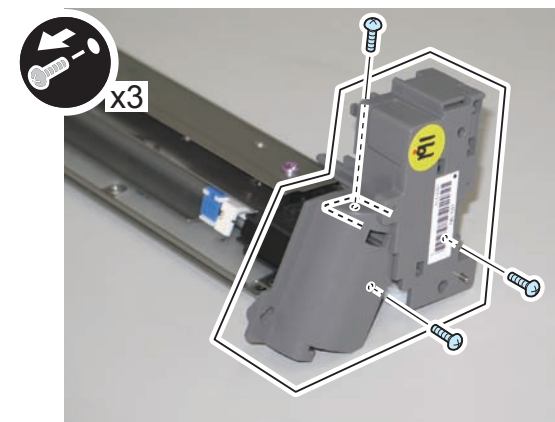
F-4-218

### CAUTION:

Be careful not to remove the screw and the Screw Gear when removing the Pre-transfer Charging Assembly Shutter Unit.

- 4) Hold the screw to remove the Pre-transfer Charging Assembly Shutter Unit while the Motor Unit is installed.

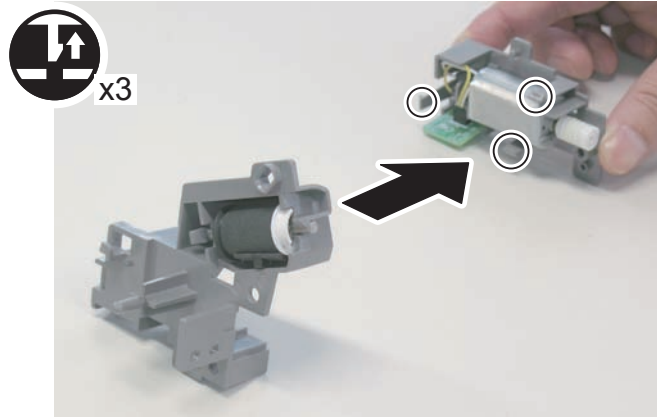
- 3 Screws



F-4-219

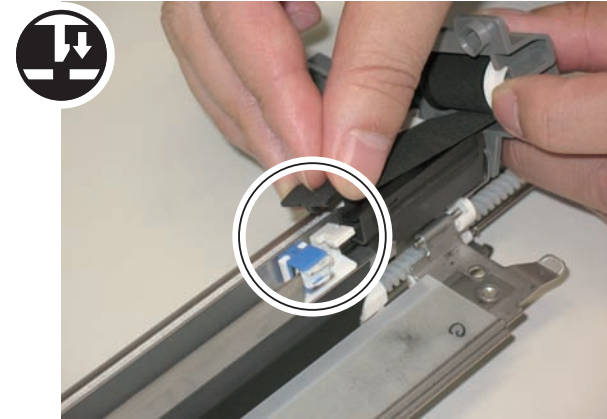
5) Remove the Motor Unit from the Pre-transfer Charging Assembly Shutter Unit.

- 3 Claws



F-4-220

2) Pull the Shutter with your fingers to hook it to the Cleaner Unit.



F-4-222

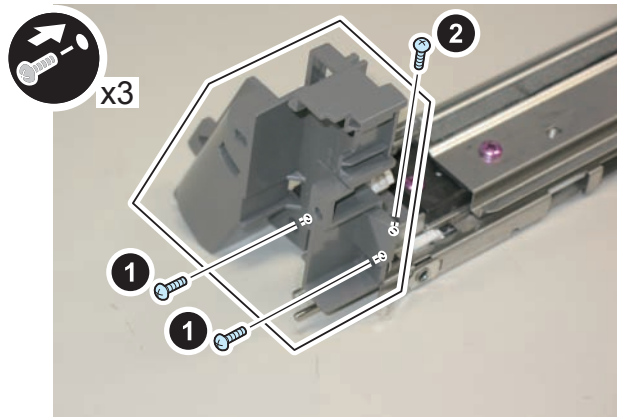
#### <Installation Method>

##### NOTE:

Be sure to put the protrusion of the Pre-transfer Charging Assembly Shutter Unit between the arms.

1) Install the Pre-transfer Charging Assembly Shutter Unit.

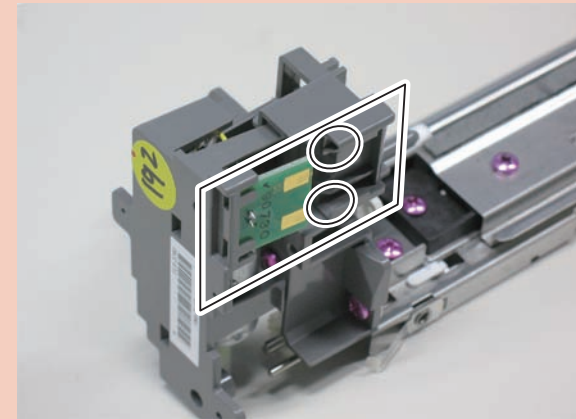
- 3 Screws



F-4-221

##### CAUTION:

When installing the Motor Unit, fit the PCB into the slot.



F-4-223

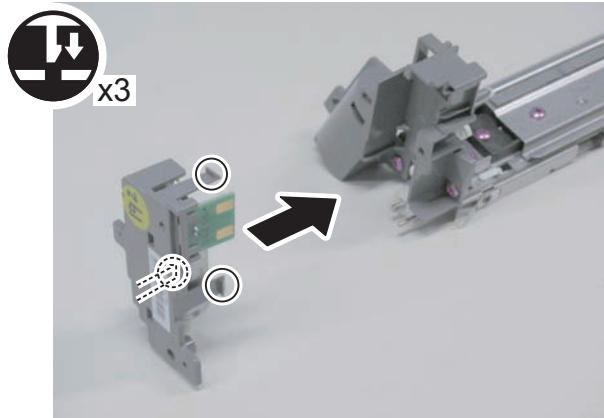
##### NOTE:

Be sure to check that the rear shaft is secured.



## 3) Install the Motor Unit.

- 3 Claws



F-4-224

## CAUTION:

Be sure to feel tension when installing the spring; otherwise, it can cause image error.

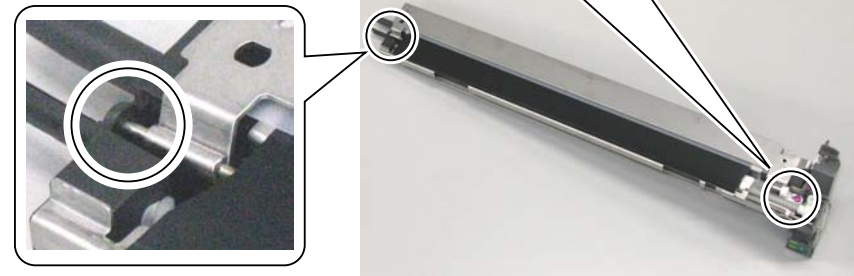
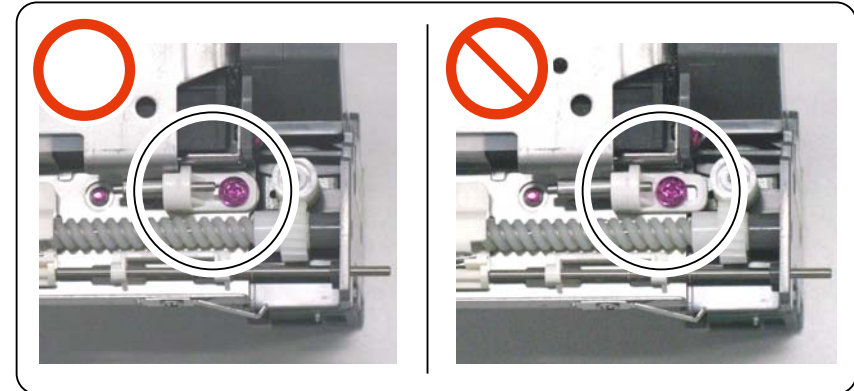
## 4) Set the spring.

CAUTION: Points to Caution when Securing the Shield Plate  
Be sure to check that the rear pin is fit into the frame hole.

5) Move the Shield Plate Retainer Block fully to the inside to secure with the screw.

## NOTE:

Move the Shield Plate back and forth to check that the Shield Plate is secured.



F-4-225

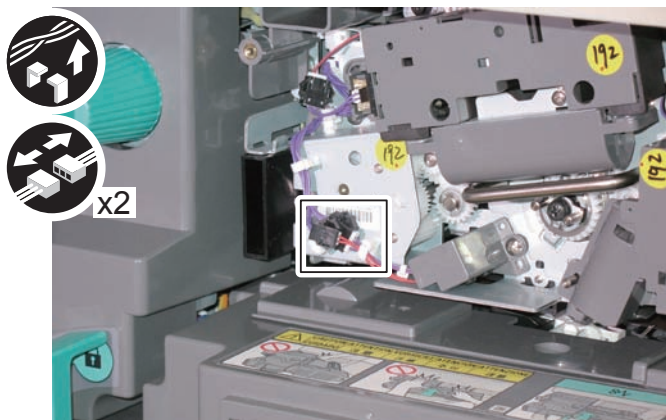
## Removing the Patch Sensor

### <Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")

### <Procedure>

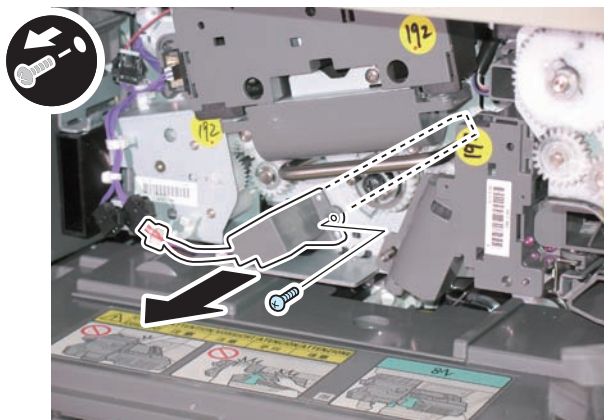
- 1) Remove the harness.
  - 2 Connectors
  - 1 Wire Saddle



F-4-226

- 2) Remove the Patch Sensor.

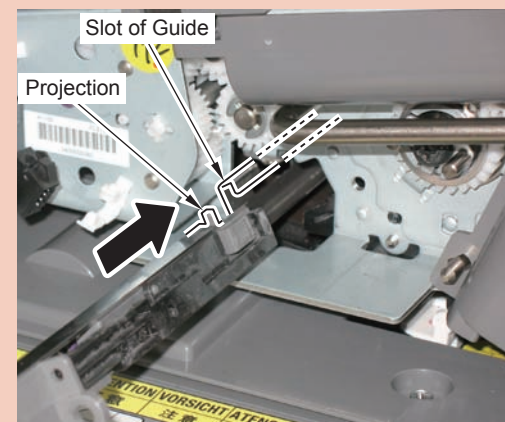
- 1 Screw



F-4-227

### CAUTION:Points to Caution when installing the Patch Sensor

Be sure to push in the Patch Sensor straight along with the groove of the guide; otherwise, the drum can be damaged.



F-4-228

## Removing the Drum Brush Roller

### CAUTION:

- Do not touch the Photosensitive Drum.
- Cover the Photosensitive Drum with paper to avoid direct exposure to light.

### <Preparation>

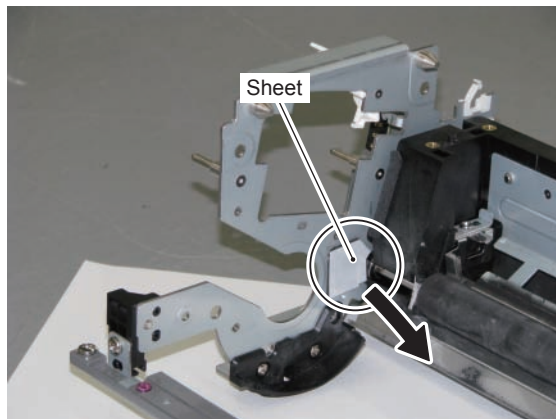
1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Remove the Drum Cleaning Unit. (Refer to page 4-118)
6. Remove the Drum Unit. (Refer to page 4-123)
7. Remove the Side Seal. (Refer to page 4-129)

### <Procedure>

- 1) Remove the sheet.

### CAUTION:

The removed sheet will be used at the time of assembly, so be sure to remove the sheet neatly and keep it in a safe place.



F-4-229

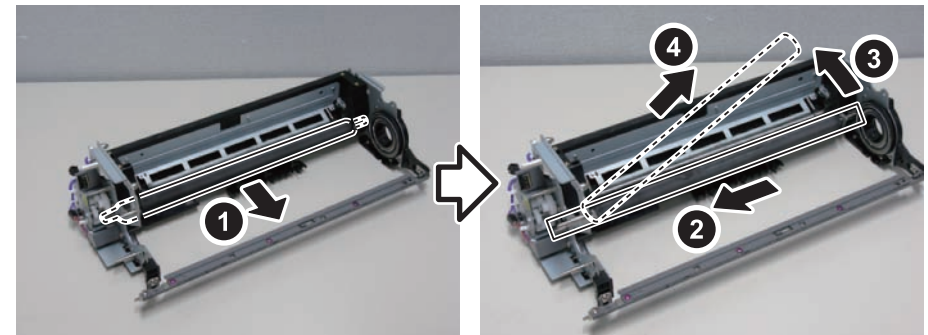
- 2) Remove the 2 Gears and the 2 Bearings.

- 3 E-rings



F-4-230

- 3) Remove the Drum Brush Roller by following the procedure as shown in the figure.



F-4-231

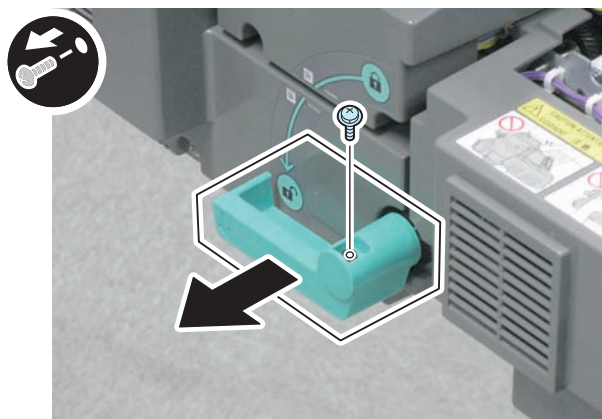
## Removing the ETB Drive Unit

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-135)

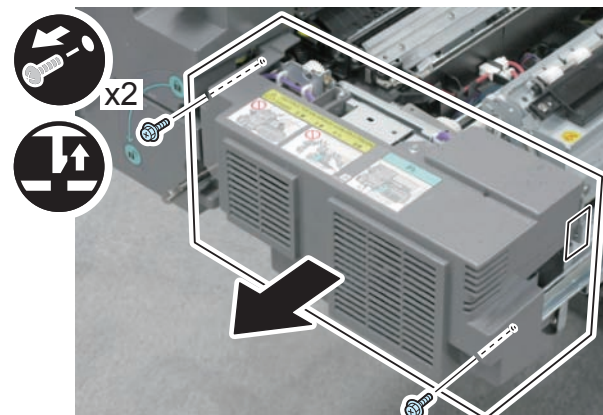
### <Procedure>

- 1) Remove the Fixing Feed Lever.
  - 1 Screw



F-4-232

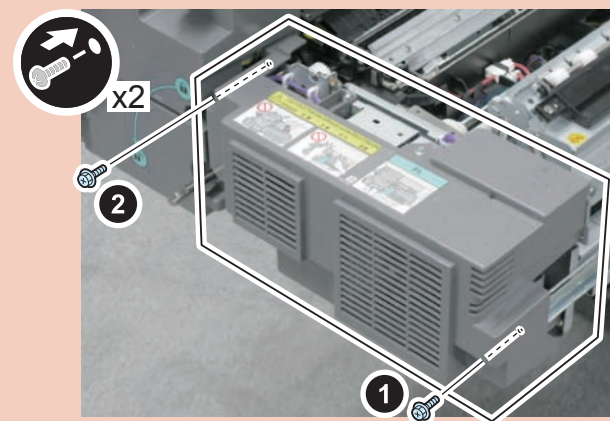
- 2) Remove the Fixing Feed Right Front Cover.
  - 2 Screws
  - 1 Claw



F-4-233

### CAUTION:

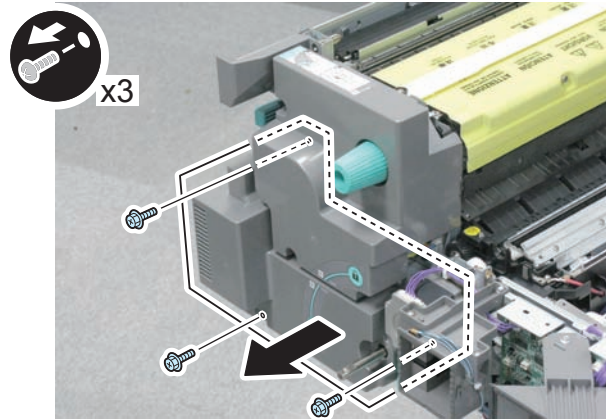
When installing the Fixing Feed Right Front Cover, be sure to follow the order as shown in the figure to tighten screws.



F-4-234

## 3) Remove the Fixing Feed Left Cover.

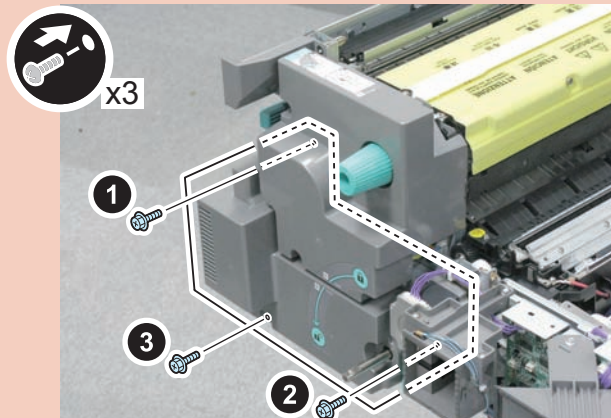
- 3 Screws



F-4-235

**CAUTION:**

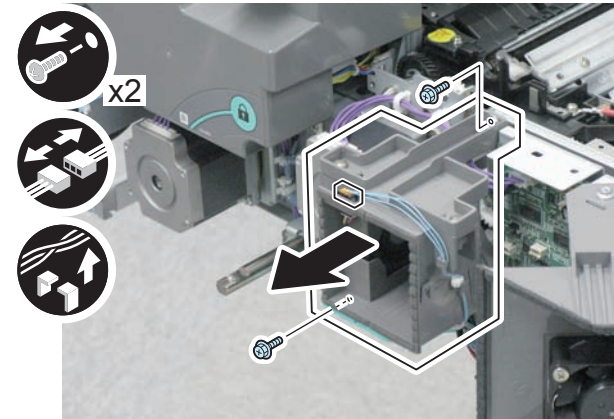
When installing the Fixing Feed Left Cover, be sure to follow the order as shown in the figure to tighten screws.



F-4-236

## 4) Remove the Duct.

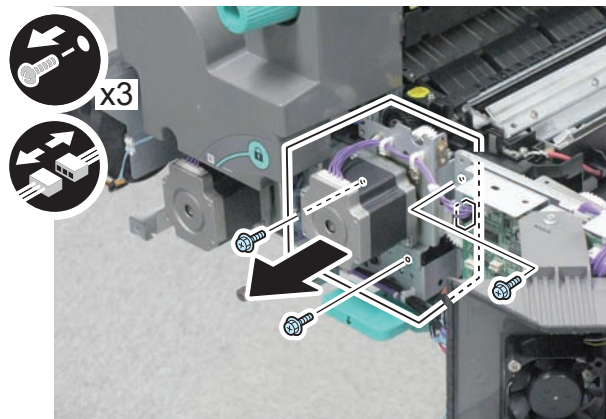
- 2 Screws
- 1 Connector
- Harness



F-4-237

5) Remove the ETB Drive Unit.

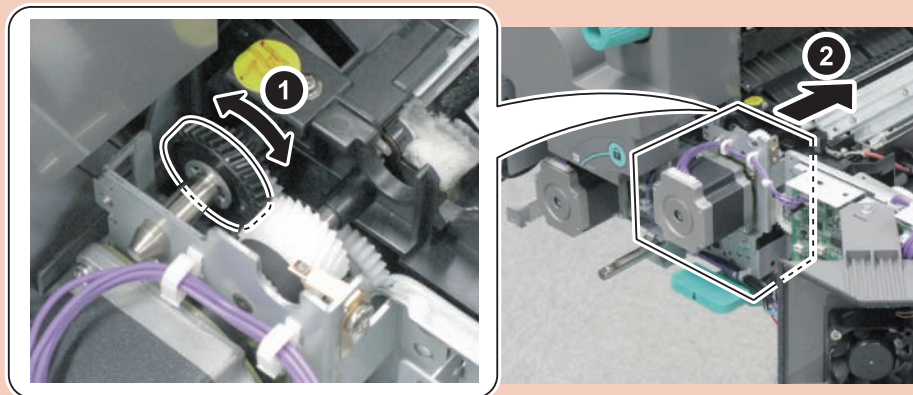
- 3 Screws
- 1 Connector



F-4-238

**CAUTION:**

When installing, turn the gear so that the gear is engaged.



F-4-239

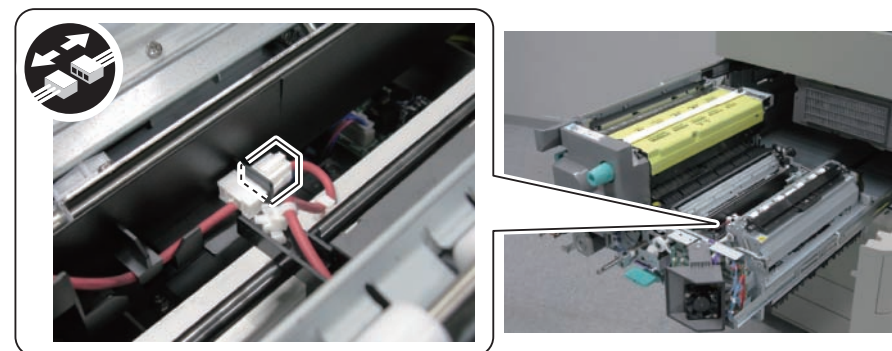
## Removing the Transfer Cleaning Unit

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-135)
3. Remove the ETB Drive Unit. (Refer to page 4-153)

### <Procedure>

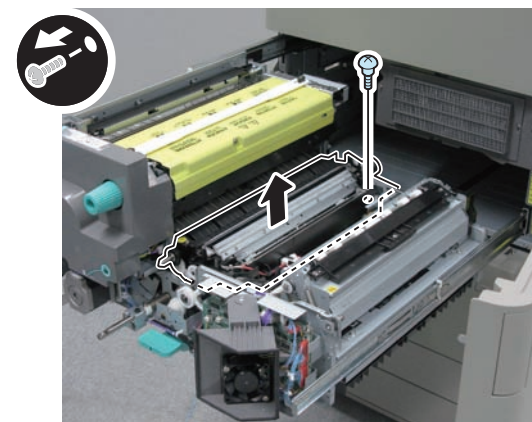
- 1) Disconnect the connectors.



F-4-240

- 2) Remove the Transfer Cleaning Unit.

- 1 Stepped Screw



F-4-241

## Removing the Post-transfer Static Eliminator

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")

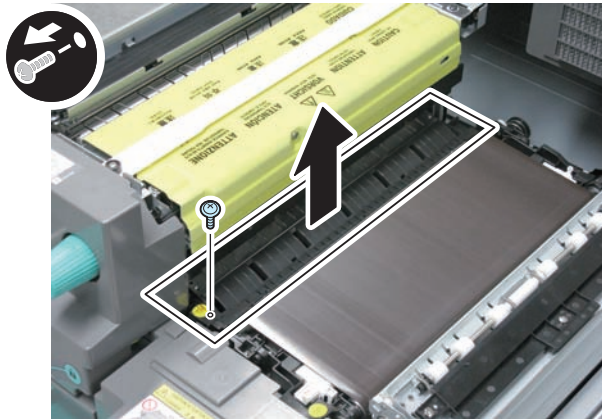
### <Procedure>

#### CAUTION:

Do not touch the surface of the ETB when handling the ETB Unit.

- 1) Remove the Post-transfer Guide Unit.

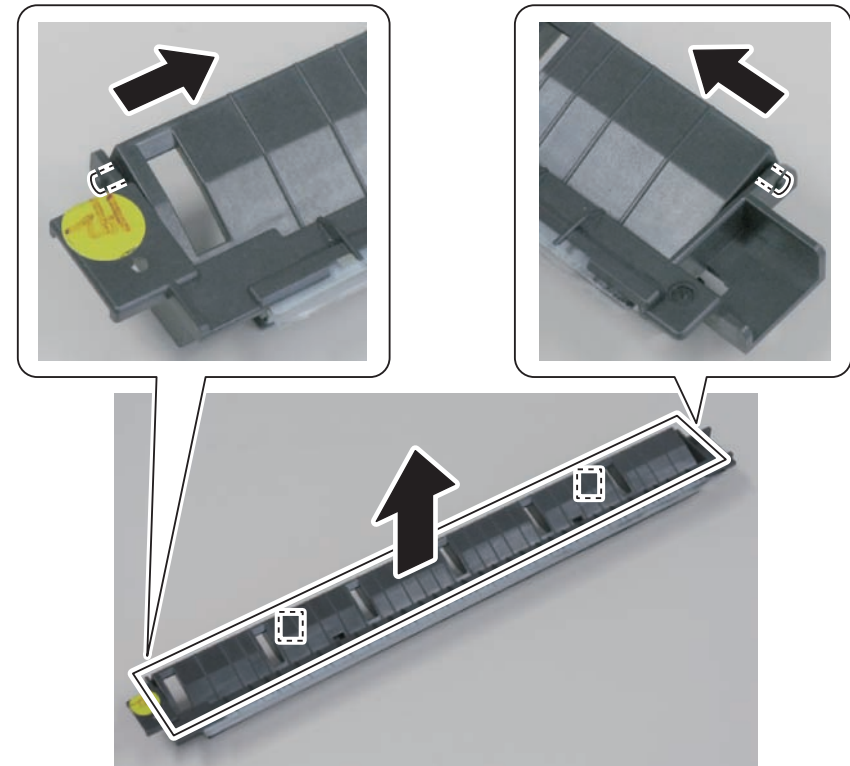
- 1 Screw



F-4-242

- 2) Remove the Post-transfer Guide.

- 2 Protrusions
- 2 Springs



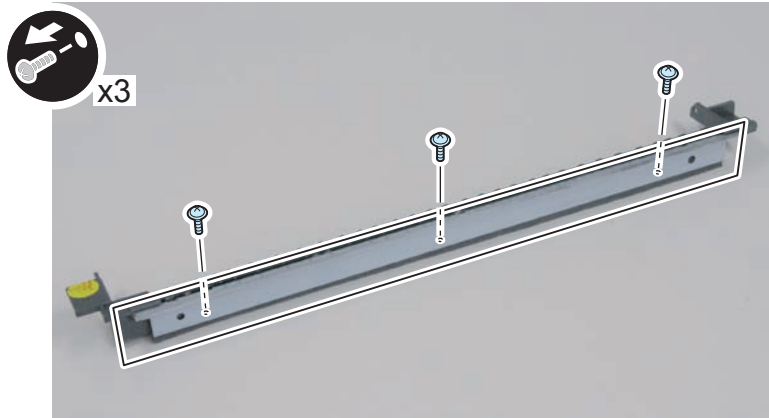
F-4-243

#### CAUTION:

Be careful not to lose the springs when removing the Post-transfer Guide.

3) Remove the Separation Guide Reinforcing Plate.

- 3 Screws



F-4-244

4) Remove the Post-transfer Static Eliminator.



F-4-245

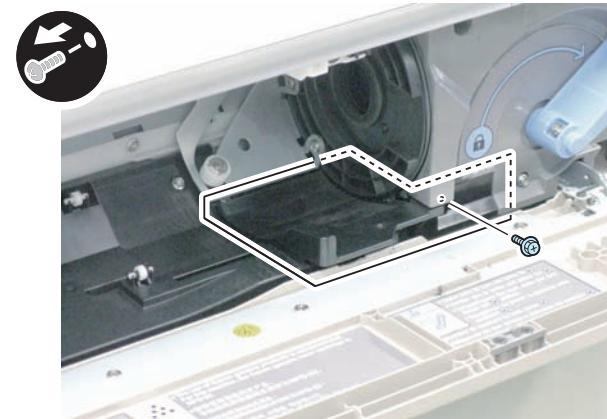
## Removing the Toner Receptacle Tray

### <Preparation>

1. Open the Front Upper Cover.
2. Remove the Toner Bottle.

### <Procedure>

- 1) Remove the Toner Receptacle Tray.
  - 1 Screw
  - 1 Protrusion

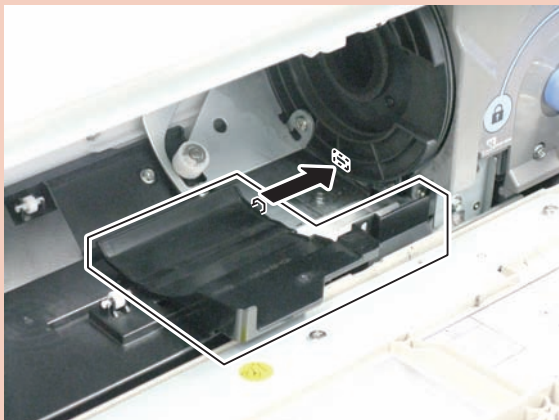


F-4-246



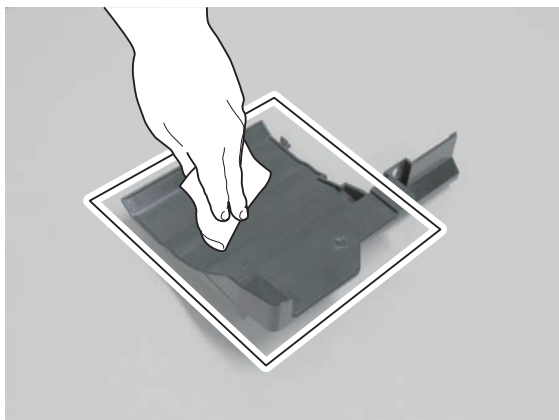
**CAUTION:**

1. Be sure to fit the protrusion into the groove of the plate to install.
2. Toner can be accumulated in the Toner Receptacle Tray; therefore, be careful not to spill toner when removing.



F-4-247

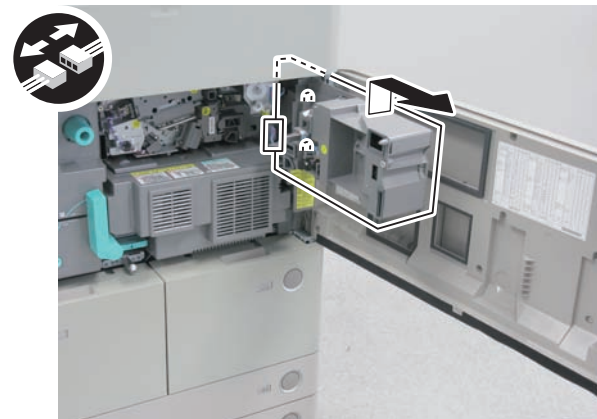
- 2) Clean the Toner Receptacle Tray with lint-free paper.



F-4-248

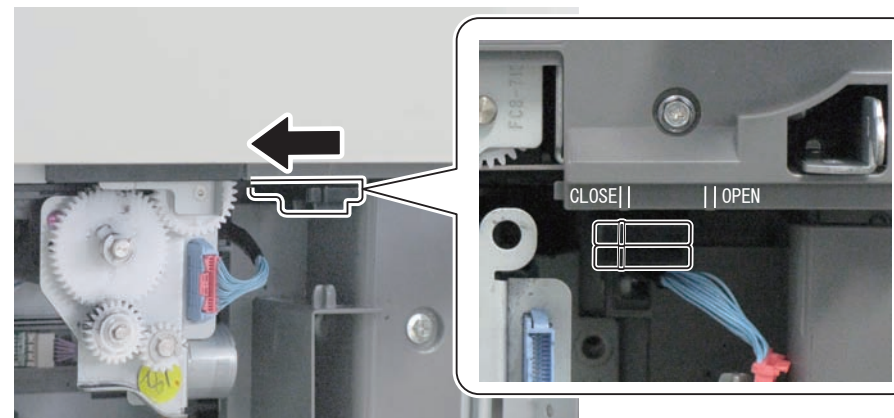
## Removing the Hopper Unit

- 1) Open the Front Cover.
- 2) Open the Inner Cover (Primary Charging Air Supply Fan Unit).
  - 1 Screws (to loosen)
- 3) Remove the Inner Cover (Primary Charging Air Supply Fan Unit).
  - 1 Connector
  - 2 Protrusions



F-4-249

- 4) Move the lever in the direction of the arrow to close the Shutter.



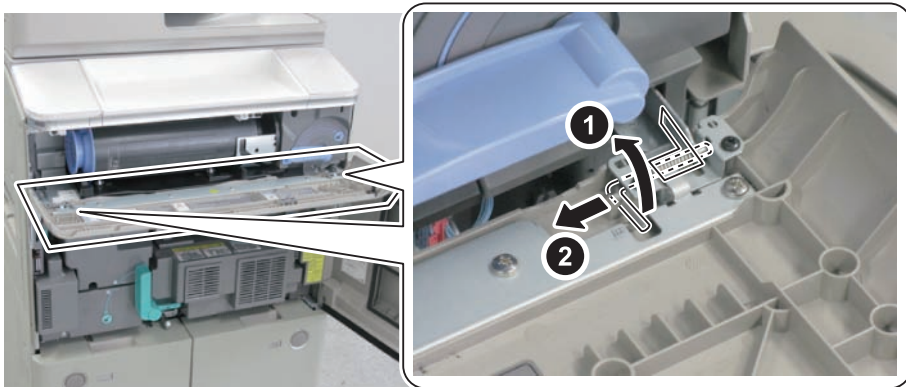
F-4-250

**CAUTION:**

When starting the host machine, be sure to set the Shutter from CLOSE to OPEN.

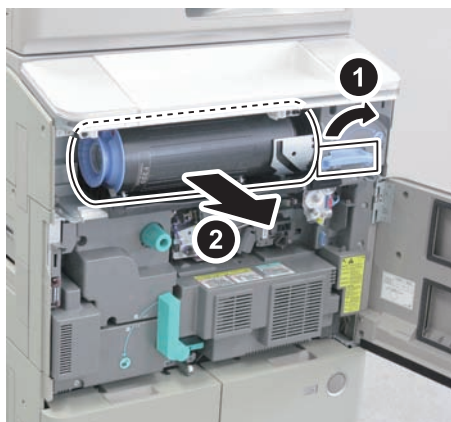
## 5) Remove the Front Upper Cover.

- 2 Hinge Pins
- 2 Springs



F-4-251

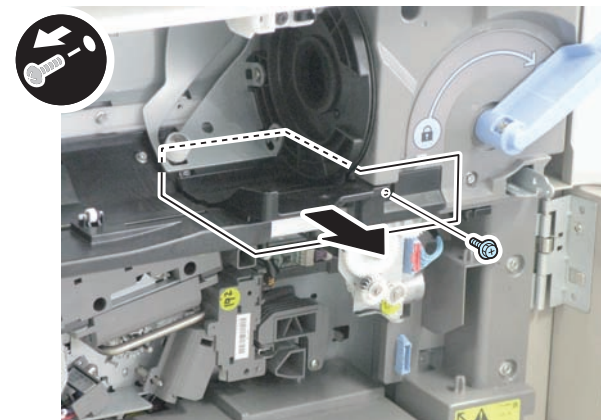
## 6) Release the Lock Lever to remove the Toner Bottle.



F-4-252

## 7) Remove the Toner Receptacle Tray.

- 1 Screw
- 1 Protrusion



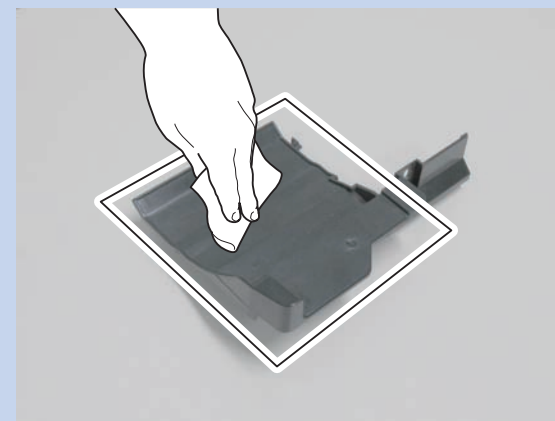
F-4-253

**CAUTION:**

1. Toner can be accumulated in the Toner Receptacle Tray; therefore, be careful not to spill toner when removing.
2. Be sure to fit the protrusion into the groove of the plate to install.

**NOTE:**

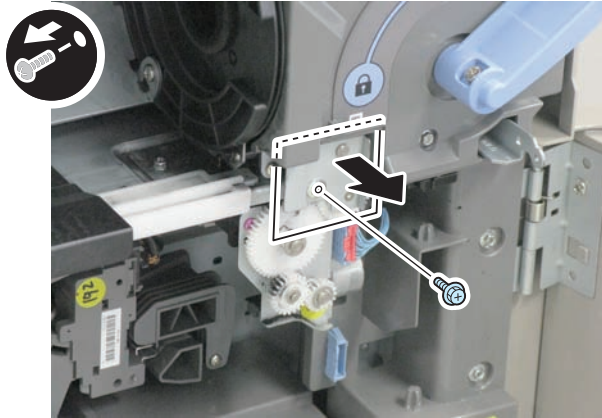
Clean the Toner Receptacle Tray with lint-free paper.



F-4-254

## 8) Remove the Connecting Drive Unit.

- 1 Screw

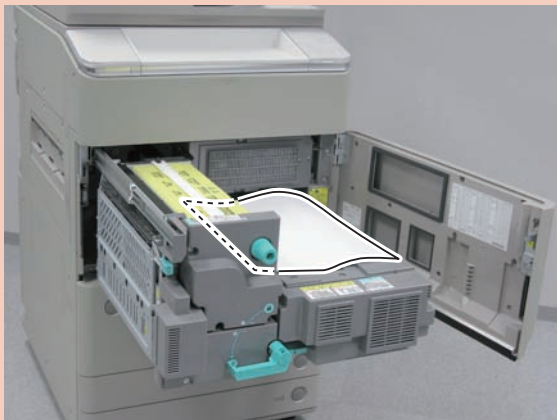


F-4-255

## 9) Pull out the Fixing Feed Unit.

**CAUTION:**

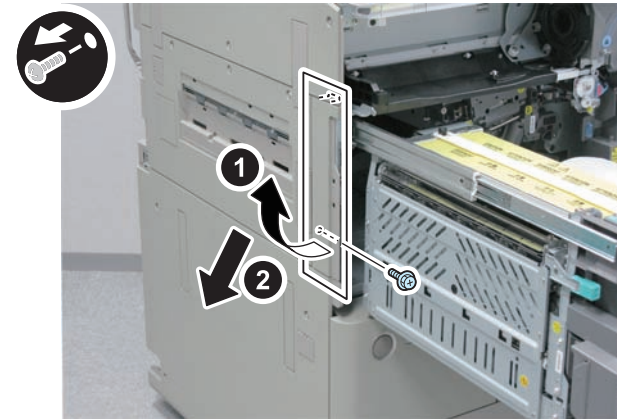
When pulling out the Fixing Feed Unit, be sure to place paper over the ETB Unit for protection.



F-4-256

## 10) Remove the Left Upper Cover 2.

- 1 Screw
- 1 Protrusion

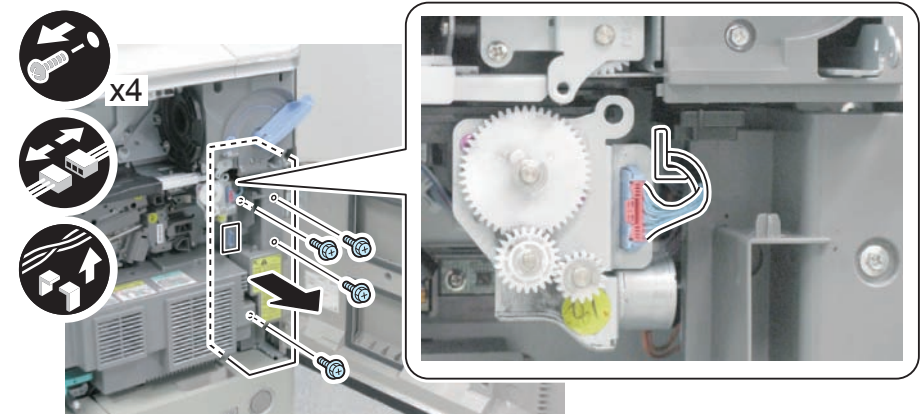


F-4-257

## 11) Set the Fixing Feed Unit back.

## 12) Remove the Right Upper Inner Cover.

- 4 Screws
- 1 Connector
- Harness



F-4-258

13) Set the Lock Lever back.



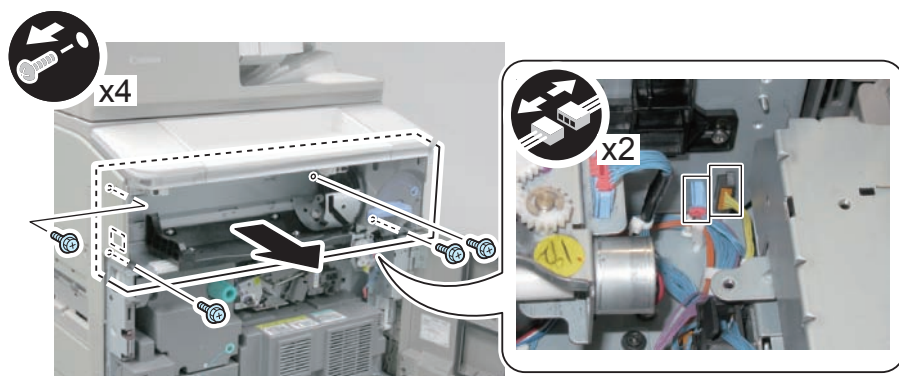
F-4-259

14) Remove the Hopper Unit.

- 4 Screws
- 2 Connectors
- 1 Hook

**CAUTION:**

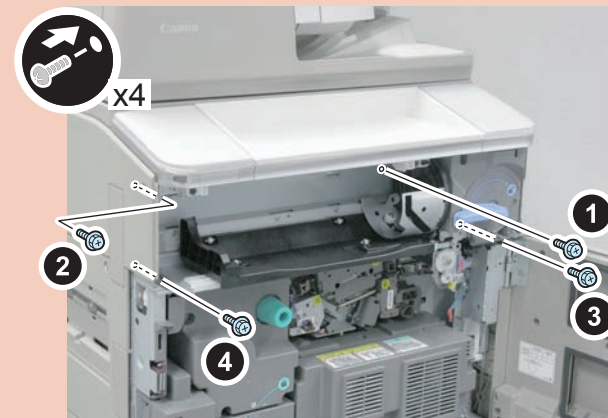
Put the removed Hopper Unit on paper placed on the work space.



F-4-260

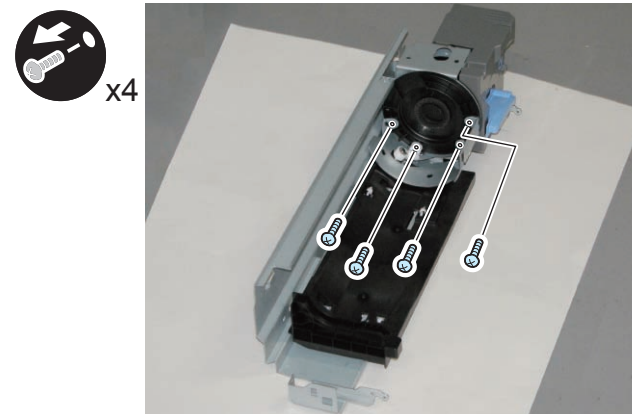
**CAUTION:**

When installing the Hopper Unit, be sure to follow the order as shown in the figure to tighten screws.



F-4-261

15) Remove the 4 Tapping Screws.



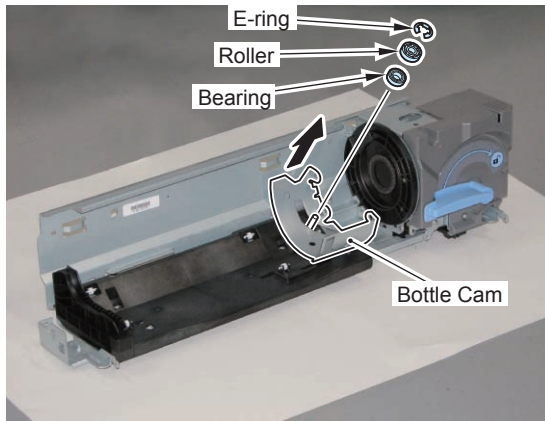
F-4-262

**CAUTION: Points to Note when Installing the Tapping Screws**

When tightening the Tapping Screws, turn them in the reverse direction to check the screw thread on the Hopper Unit side before tightening them. Otherwise, the screw thread on the Hopper Unit side may be broken, which makes it impossible to tighten the screw.

16) Remove the Bottle Cam.

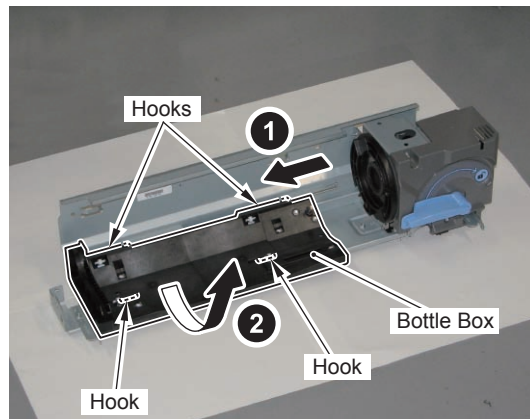
- 1 E-ring
- 1 Roller
- 1 Bearing



F-4-263

17) Remove the Bottle Box.

- 4 Hooks



F-4-264

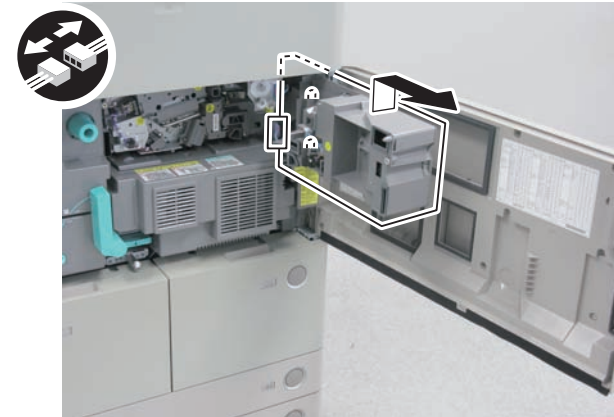
## Removing the Buffer Unit

### <Preparation>

1. Open the Right Cover.
2. Remove the Developing Assembly. (Refer to page 4-130)

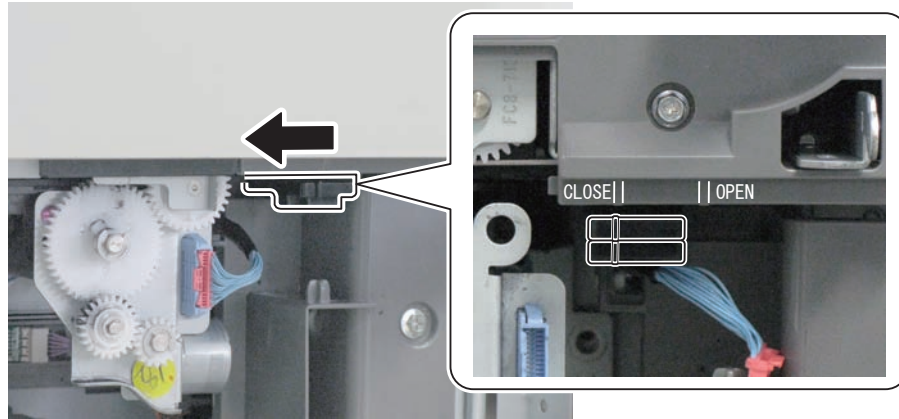
### <Procedure>

- 1) Open the Front Cover.
- 2) Open the Inner Cover (Primary Charging Air Supply Fan Unit).
  - 1 Screws (to loosen)
- 3) Remove the Inner Cover (Primary Charging Air Supply Fan Unit).
  - 1 Connector
  - 2 Protrusions



F-4-265

4) Move the lever in the direction of the arrow to close the Shutter.



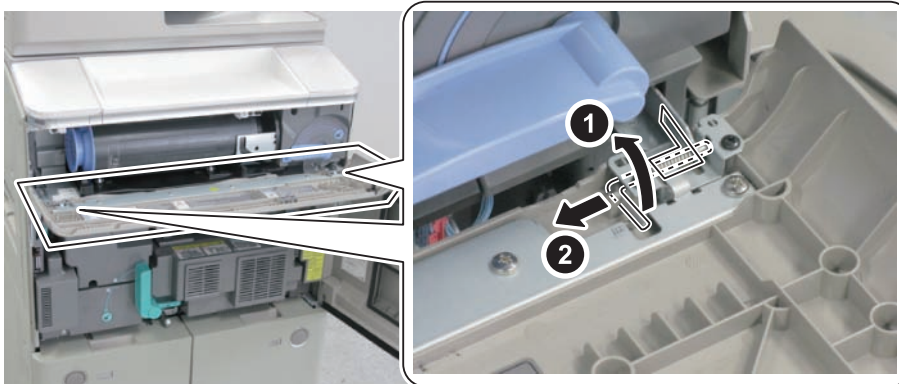
F-4-266

**CAUTION:**

When starting the host machine, be sure to set the Shutter from CLOSE to OPEN.

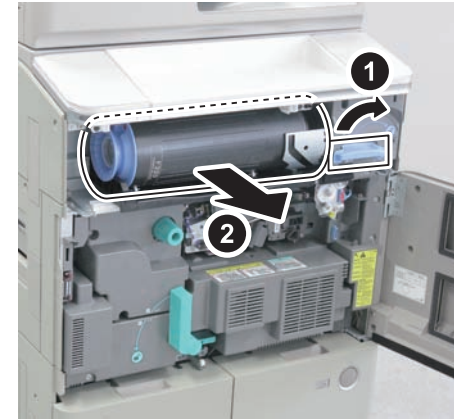
5) Remove the Front Upper Cover.

- 2 Hinge Pins
- 2 Springs



F-4-267

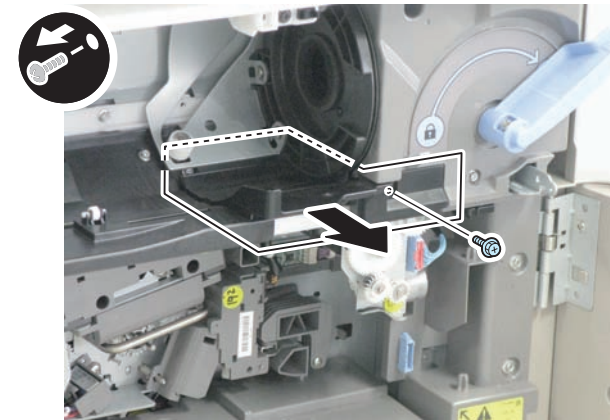
6) Release the Lock Lever to remove the Toner Bottle.



F-4-268

7) Remove the Toner Receptacle Tray.

- 1 Screw
- 1 Protrusion

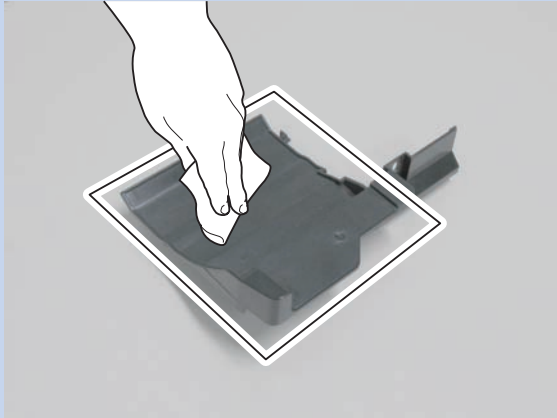


F-4-269

**CAUTION:**

1. Be sure to fit the protrusion into the groove of the plate to install.
2. Toner can be accumulated in the Toner Receptacle Tray; therefore, be careful not to spill toner when removing.

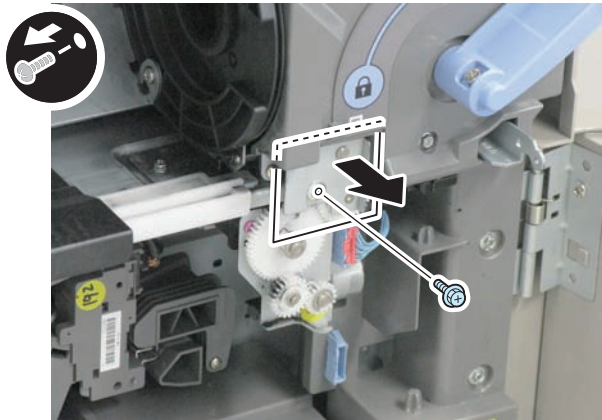
NOTE:  
Clean the Toner Receptacle Tray with lint-free paper.



F-4-270

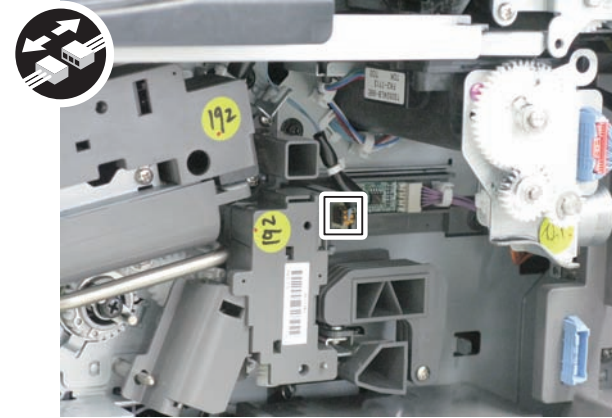
8) Remove the Connecting Drive Unit.

- 1 Screw



F-4-271

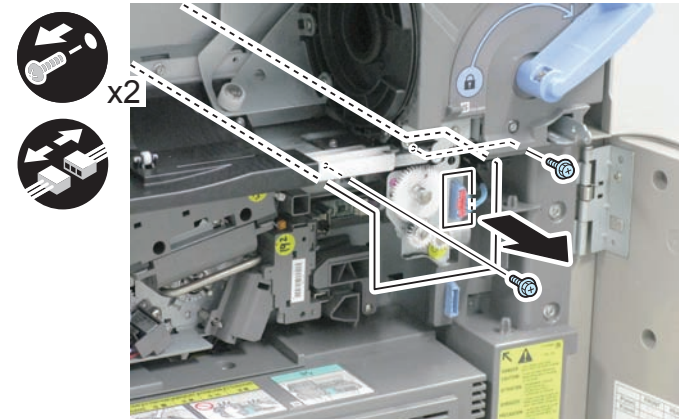
9) Disconnect the connector of the Pre-transfer Charging Assembly.



F-4-272

10) Remove the Buffer Unit.

- 2 Screws
- 1 Connector



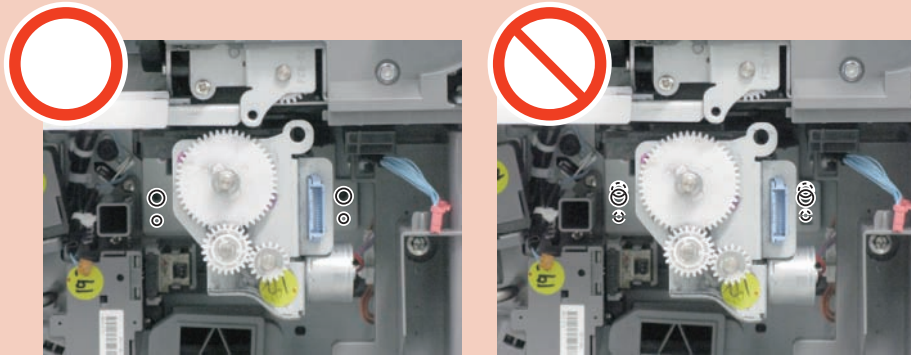
F-4-273

CAUTION:

When removing the Buffer Unit, be sure not to tilt the unit to prevent toner scattering.

## CAUTION:Points to Caution When Installing the Buffer Unit

- Be sure to securely set the Buffer Unit on the Rail.
- Do not get the harness caught.
- Fit the emboss into the proper position; otherwise, toner can be scattered.
- Be sure to set the Shutter from CLOSE to OPEN.

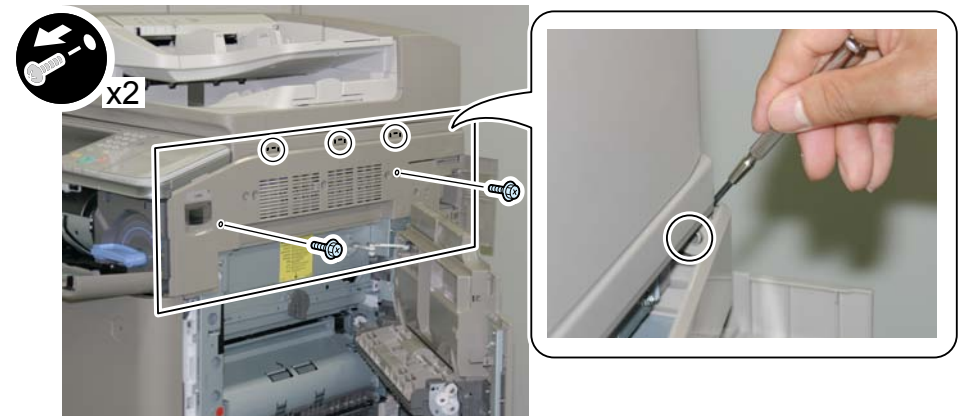


F-4-274

## Removing the Potential Control PCB Unit

## &lt;Preparation&gt;

1. Remove the Primary Charging Assembly Unit.
2. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
3. Remove the Process Unit. (Refer to page 4-115)
4. Remove the Hopper Unit. (Refer to page 4-158)
5. Open the Right Door.
6. Remove the Right Upper Cover.
  - 6-1) Open the Front Upper Cover.
  - 6-2) Open the Right Door.
  - 6-3) Open the Box Cover (Right).
  - 6-4) Remove the Right Upper Cover.
    - 2 Screws
    - 1 Boss
    - 3 Protrusions



F-4-275



## &lt;Procedure&gt;

1) Remove the Right Door Link Unit from the pin.

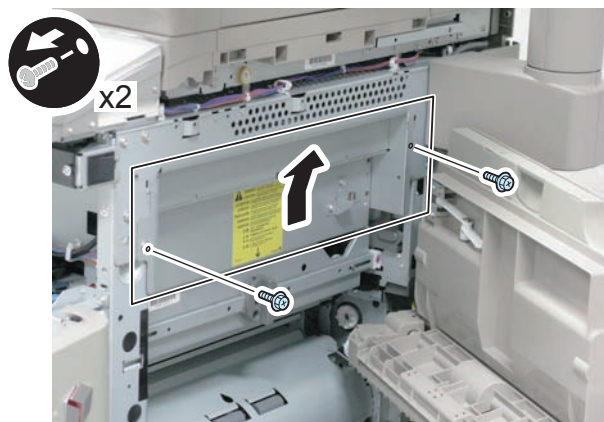
- 1 E-ring



F-4-276

2) Remove the Right Shield Plate.

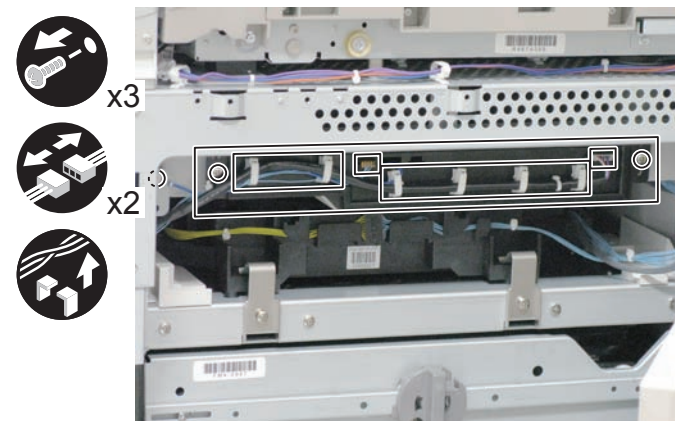
- 2 Screws



F-4-277

3) Remove the Potential Control Tray.

- 3 Screws
- 2 Connectors
- Wire Saddle



F-4-278

4) Remove the Potential Sensor Control PCB.

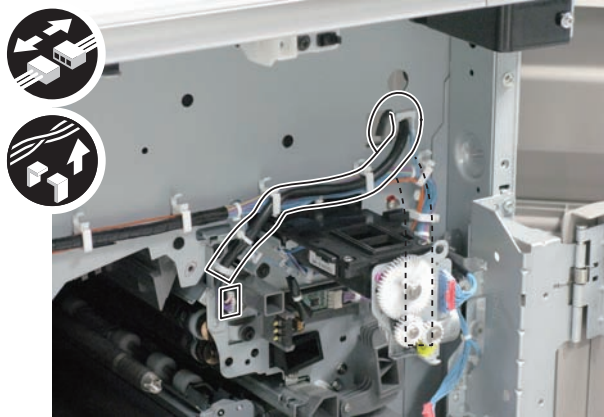
- 1 Screw
- 4 Claws
- 2 Connectors



F-4-279

5) Remove the harness.

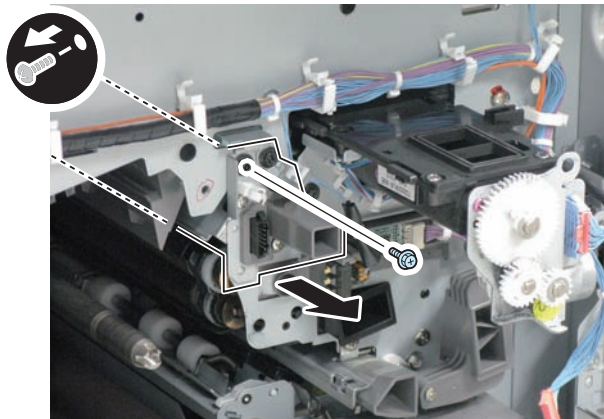
- 1 Connector
- Edge Saddle
- Wire Saddle



F-4-280

6) Remove the Potential Sensor.

- 1 Screw



F-4-281

## Removing the Waste Toner Feed Unit

<Preparation>

1. Remove the Box Cover (Left).

1-1) Remove the Harness.

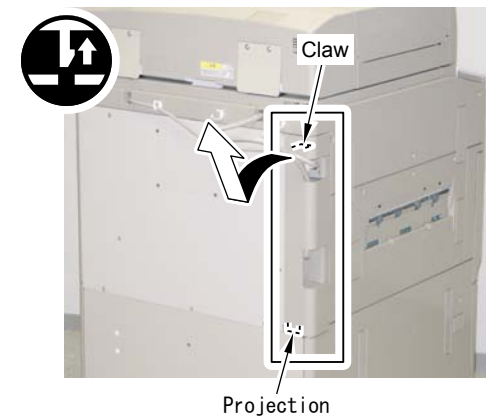
- 2 Wire Saddles



F-4-282

1-2) Remove the Box Cover (Left).

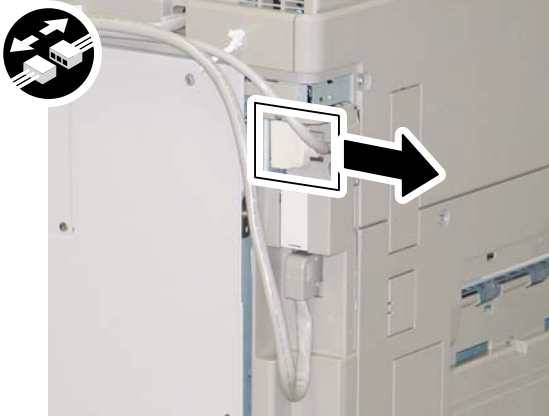
- 1 Claw
- 1 Protrusion



F-4-283

2. Open the Controller Box.

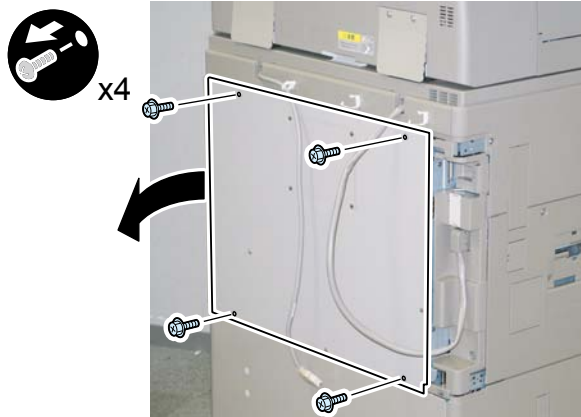
2-1) Disconnect the Reader Communication Cable.



F-4-284

2-2) Open the Controller Box in the direction of the arrow.

• 4 Screws

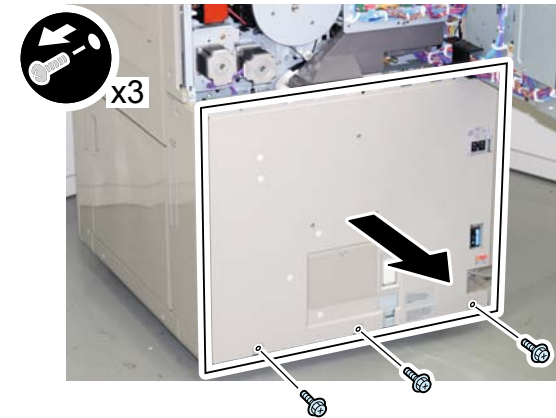


F-4-285

3. Remove the Rear Lower Cover.

3-1) Remove the Rear Lower Cover in the direction of the arrow.

• 3 Screws



F-4-286

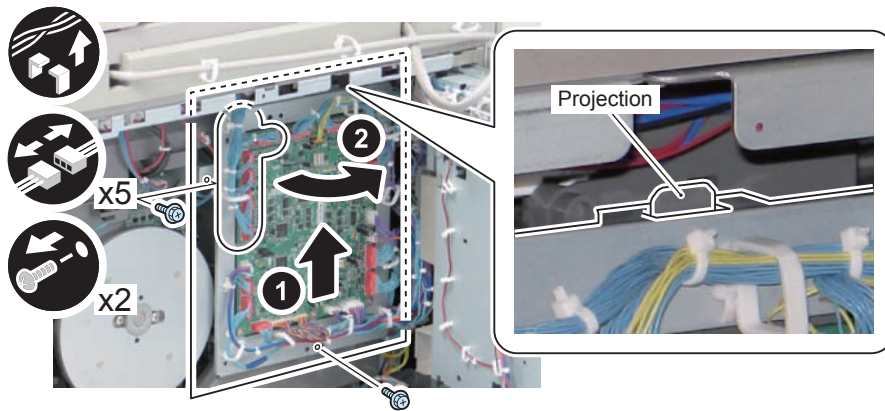
## &lt;Procedure&gt;

1) Open the Motor Driver Support Plate.

- 2 Screws
- 5 Connectors
- Wire Saddle
- Reuse Band

## NOTE:

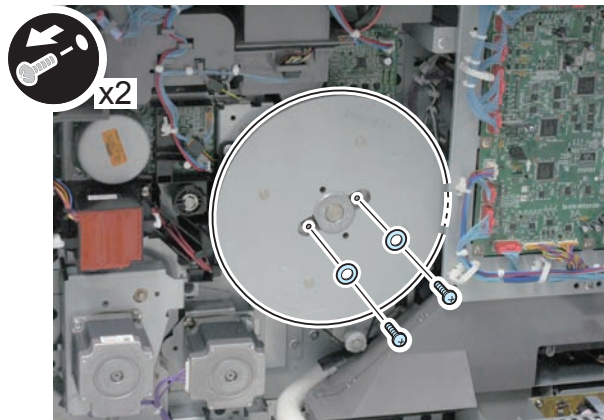
When opening the Motor Driver Support Plate, be sure to free from the protrusion.



F-4-287

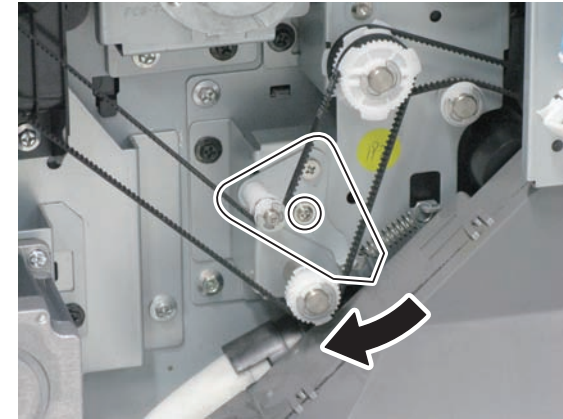
2) Remove the Flywheel.

- 2 Screws



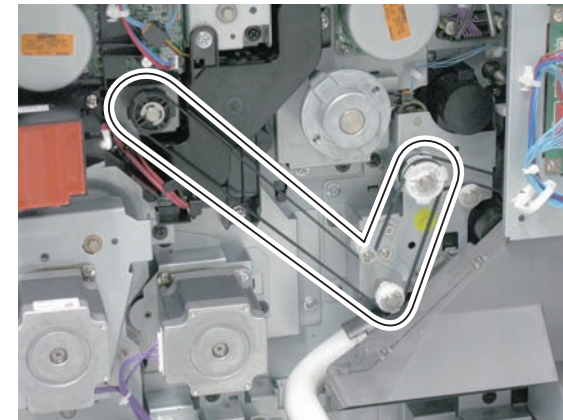
F-4-288

3) Loosen the screw and move the Belt Tensioner in the direction of the arrow, and then again tighten the screw.



F-4-289

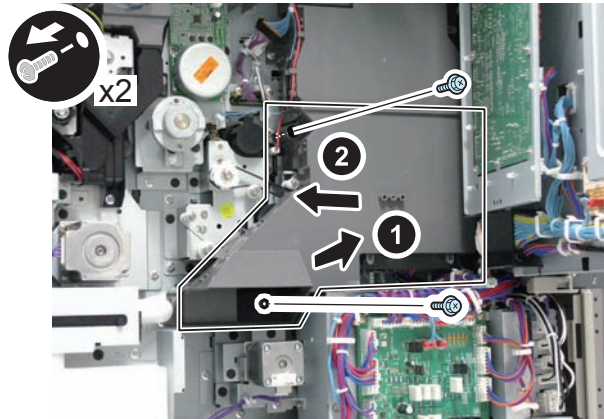
4) Remove the belt from the pulley.



F-4-290

5) Remove the Duct.

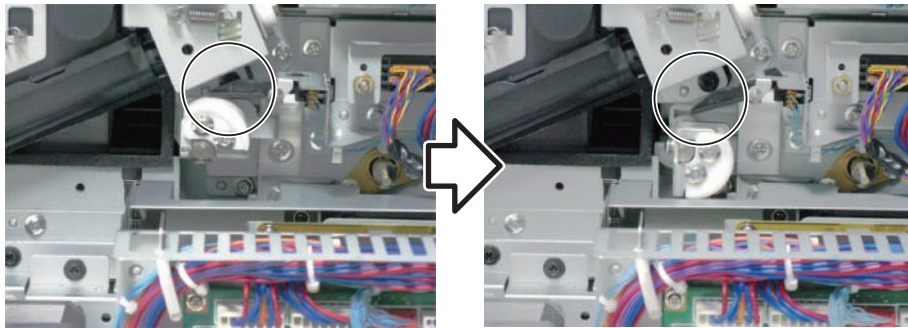
- 2 Screws



F-4-291

6) Open the Front Cover to move the Fixing Feed Lever down.

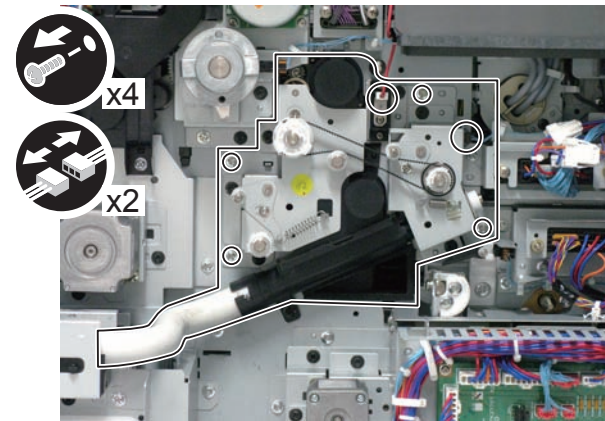
(To move the cam at the rear of the Fixing Feed Lever Shaft to the position where it does not interfere with the Waste Toner Feed Unit.)



F-4-292

7) Remove the Waste Toner Feed Unit.

- 2 Connectors
- 4 Screws



F-4-293

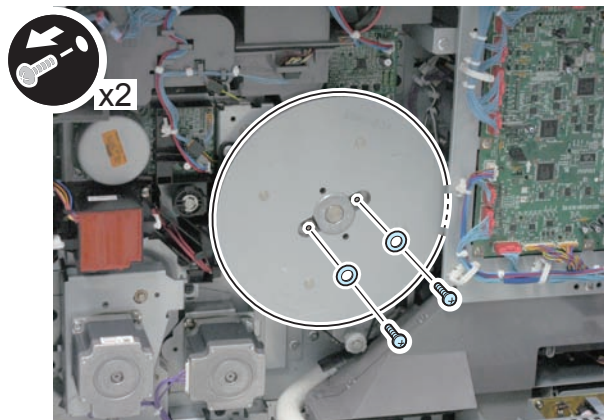
## Removing the Drum Drive Unit

### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-97)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-108)
4. Remove the Process Unit. (Refer to page 4-115)
5. Remove the Box Cover (Left). (Refer to "Removing the Waste Toner Feed Unit")
6. Open the Controller Box. (Refer to "Removing the Waste Toner Feed Unit")

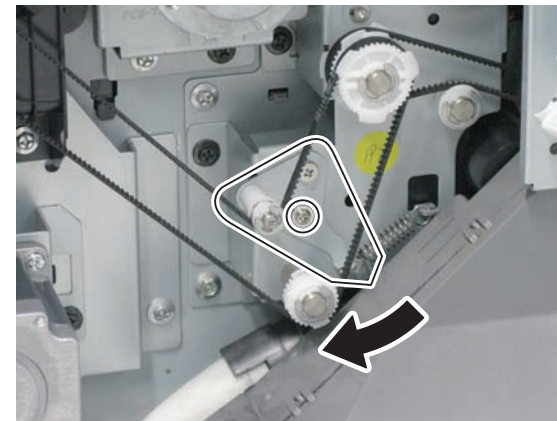
### <Procedure>

- 1) Remove the Flywheel.
  - 2 Screws
  - 2 Washers



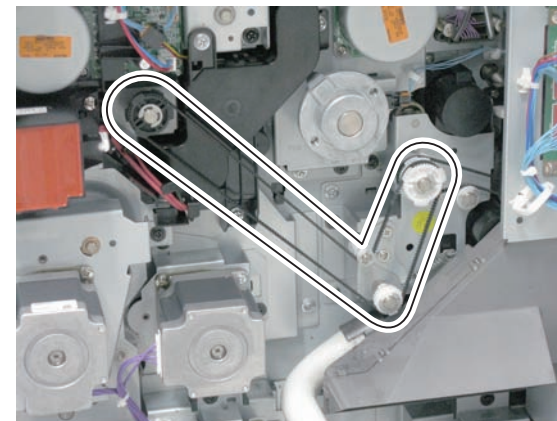
F-4-294

- 2) Loosen the screw and move the Belt Tensioner in the direction of the arrow, and then again tighten the screw.



F-4-295

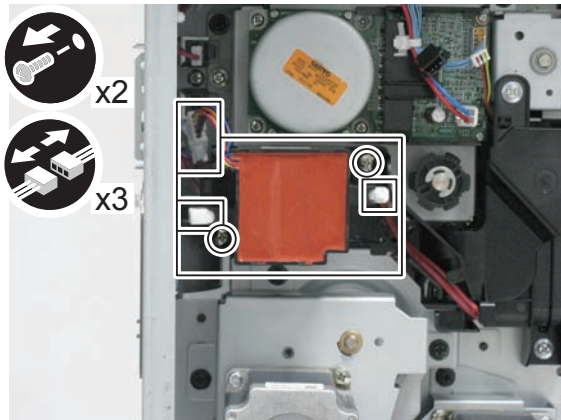
- 3) Remove the belt from the pulley.



F-4-296

## 4) Remove the transformer.

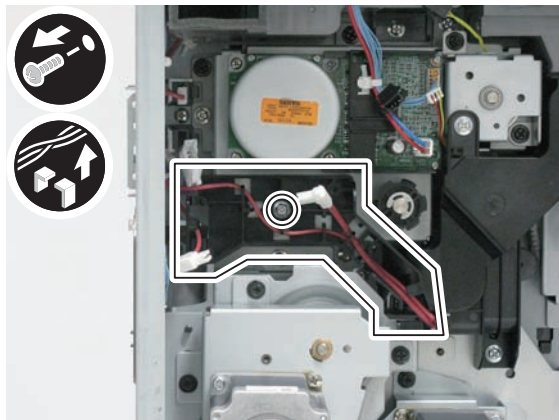
- 2 Screws
- 3 Connectors



F-4-297

## 5) Free the harness and remove the Transformer Support Base.

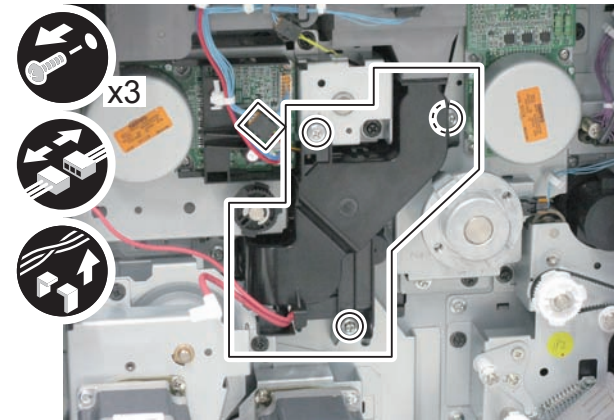
- 1 Screw
- Harness



F-4-298

## 6) Remove the Duct Unit.

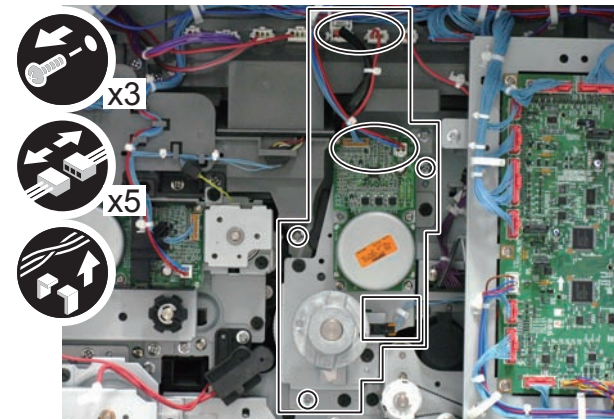
- 3 Screws
- 1 Connector
- Harness



F-4-299

## 7) Remove the Drum Drive Unit.

- 5 Connectors
- 1 Wire Saddle
- 3 Screws



F-4-300

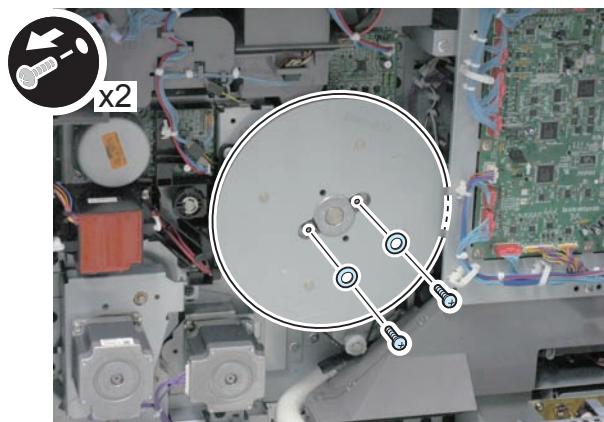
## Removing the Developing Drive Unit

### <Preparation>

1. Remove the Developing Assembly. (Refer to page 4-130)
2. Remove the Box Cover (Left). (Refer to "Removing the Waste Toner Feed Unit")
3. Open the Controller Box. (Refer to "Removing the Waste Toner Feed Unit")

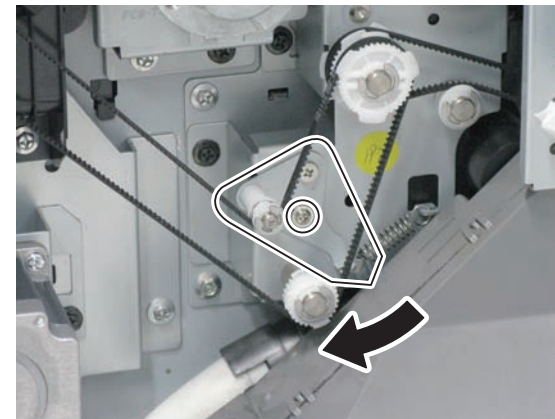
### <Procedure>

- 1) Remove the Flywheel.
  - 2 Screws
  - 2 Washers



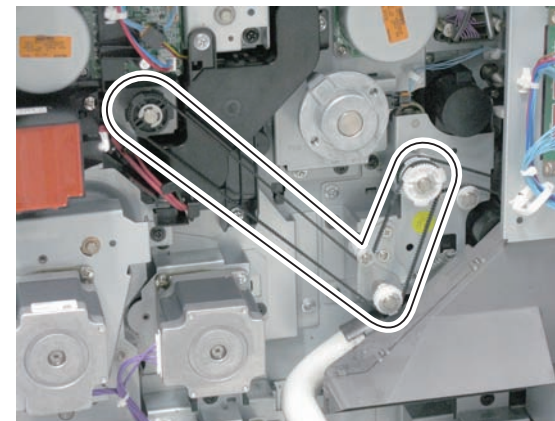
F-4-301

- 2) Loosen the screw and move the Belt Tensioner in the direction of the arrow, and then again tighten the screw.



F-4-302

- 3) Remove the belt from the pulley.

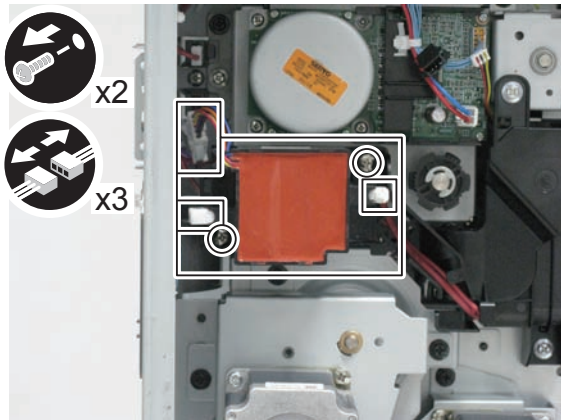


F-4-303



## 4) Remove the transformer.

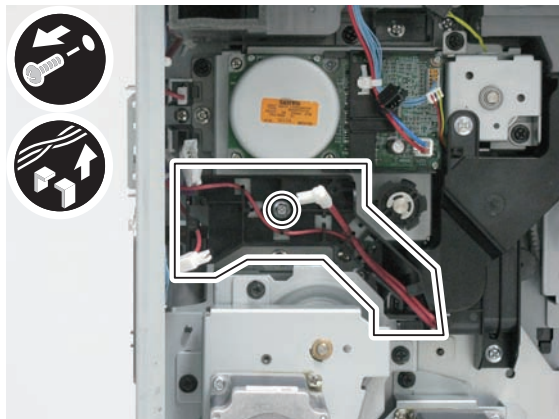
- 2 Screws
- 3 Connectors



F-4-304

## 5) Free the harness and remove the Transformer Support Base.

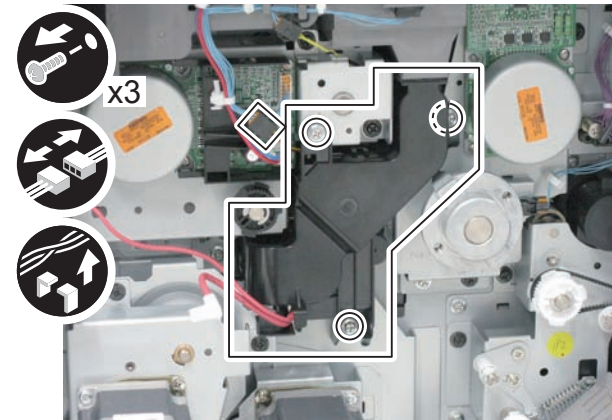
- 1 Screw
- Harness



F-4-305

## 6) Remove the Duct Unit.

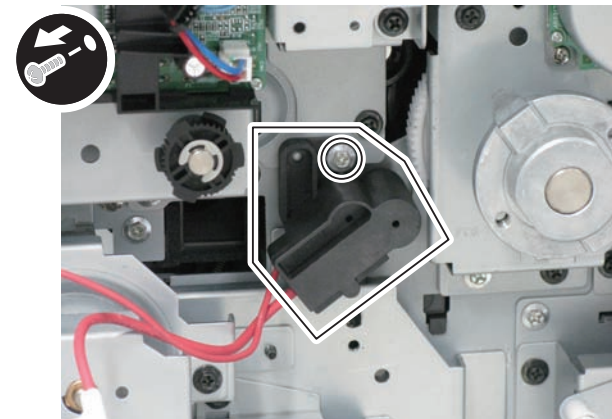
- 3 Screws
- 1 Connector
- Harness



F-4-306

## 7) Disconnect the Pre-transfer Charging High Voltage Connector.

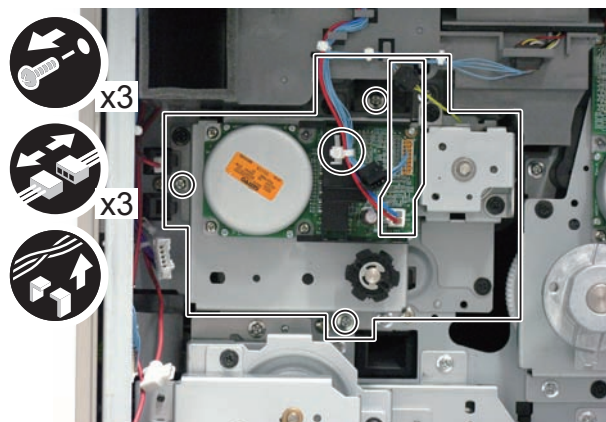
- 1 Screw



F-4-307

## 8) Remove the Developing Drive Unit.

- 3 Connectors
- 1 Reuse Band
- 3 Screws



F-4-308

## Fixing

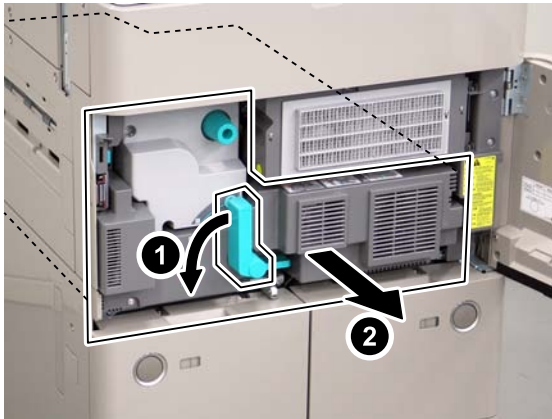
### Removing the Fixing Assembly

#### <Preparation>

1. Pull out the Fixing Feed Unit.

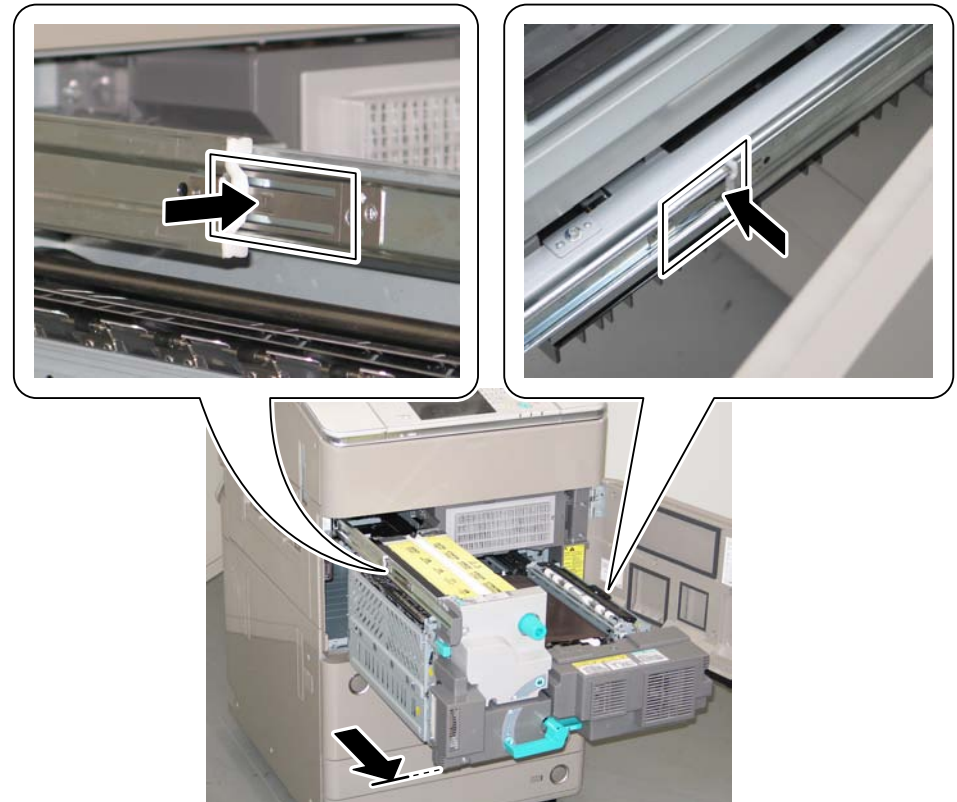
1-1) Open the Front Cover.

1-2) Turn the Fixing Feed Unit Pressure Release Lever in the direction of the arrow to pull out the Fixing Feed Unit.



F-4-309

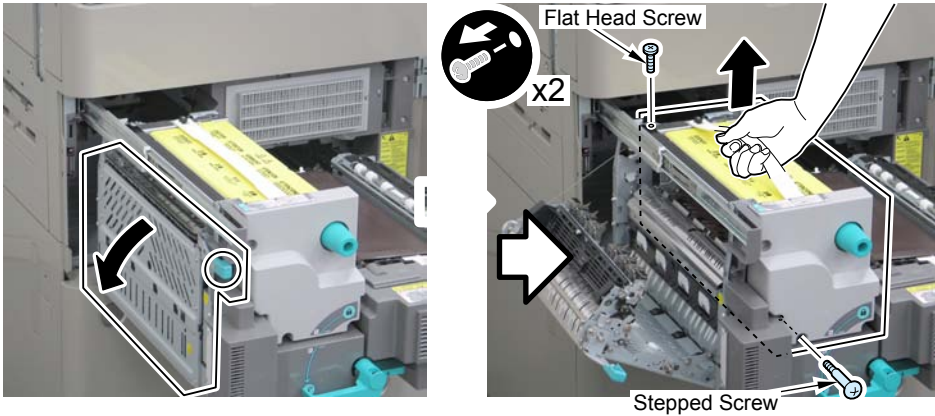
1-3) Push to release the Release Springs at both sides of the Rail, and then further pull out the Fixing Feed Unit until it stops.



F-4-310

## &lt;Procedure&gt;

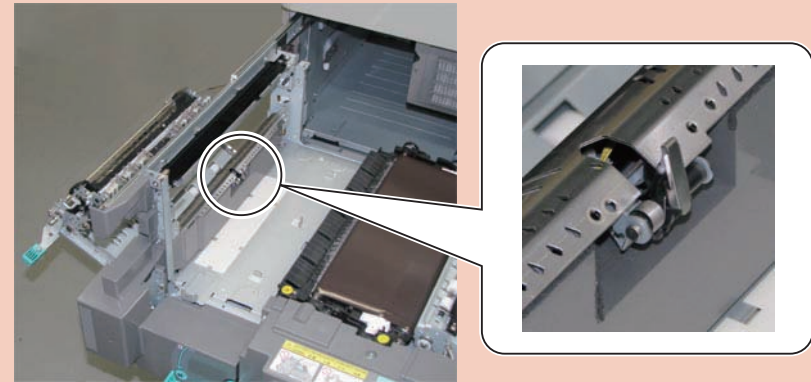
- 1) Hold the Lever of the Feed Unit to open the Feed Unit.
- 2) Remove the Fixing Assembly.
  - 2 Screws



F-4-311

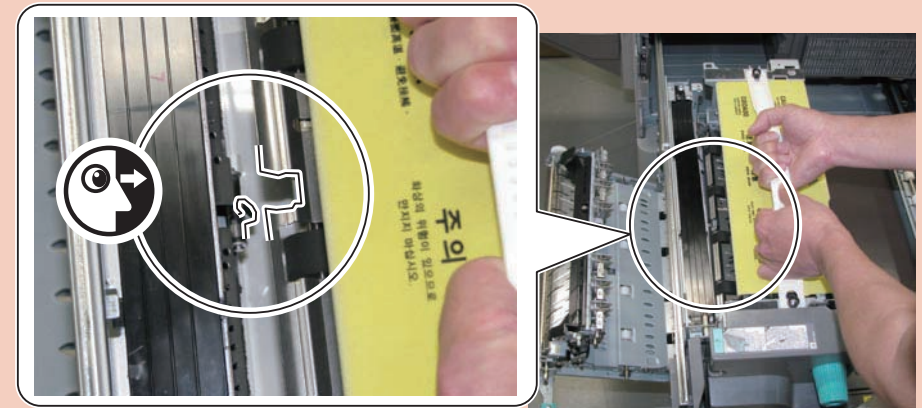
## CAUTION: Points to Caution at Installation

- Be careful not to damage the Inner Delivery Sensor Flag.



F-4-312

- When installing the Fixing Assembly, be sure that the Inner Delivery Sensor Flag passes through the cut-off of the Fixing Outlet Guide.



F-4-313

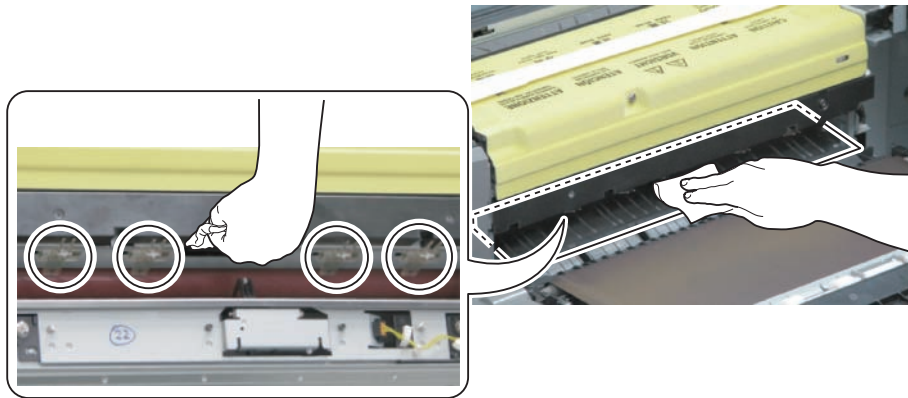
## Cleaning the Fixing Inlet Guide, Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)

### <Procedure>

- 1) Clean the Fixing Inlet Guide with lint-free paper moistened with alcohol.
- 2) Clean the Fixing Right Stay, Dowel, Dowel Holder with lint-free paper moistened with alcohol.



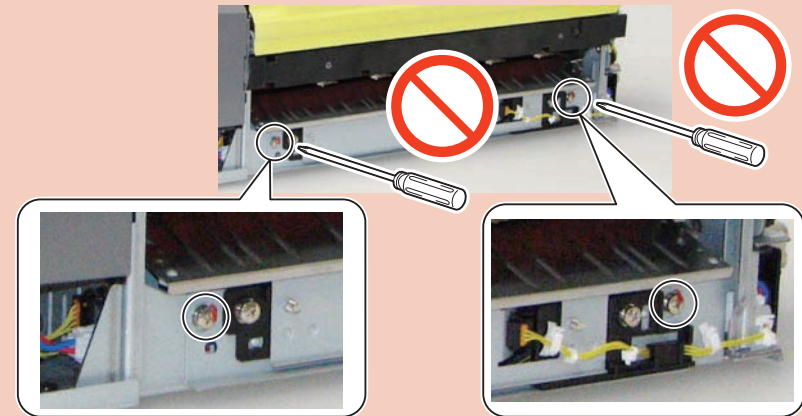
F-4-314

3) Remove the Fixing Inlet Guide Unit.

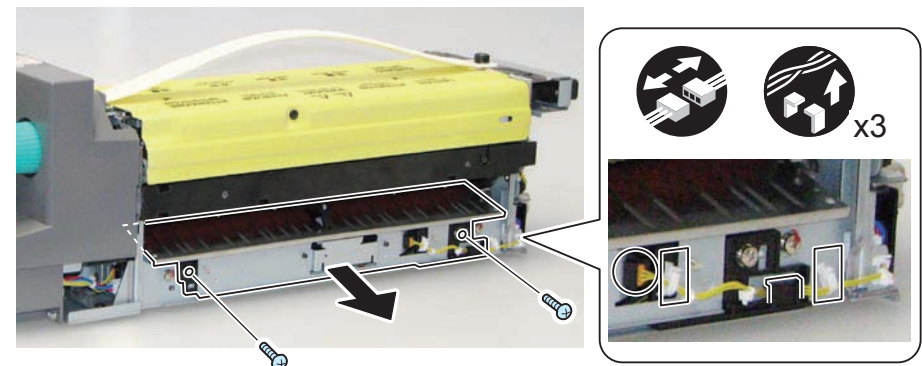
- 1 Connector
- 2 Wire Saddles
- 1 Harness Guide
- 2 Screws

### CAUTION:

When removing the Fixing Inlet Guide Unit, be careful not to turn the 2 Adjustment Screws.

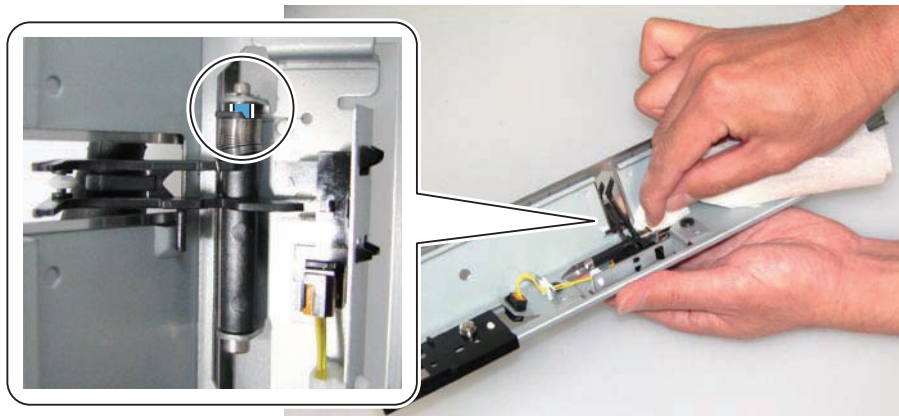


F-4-315



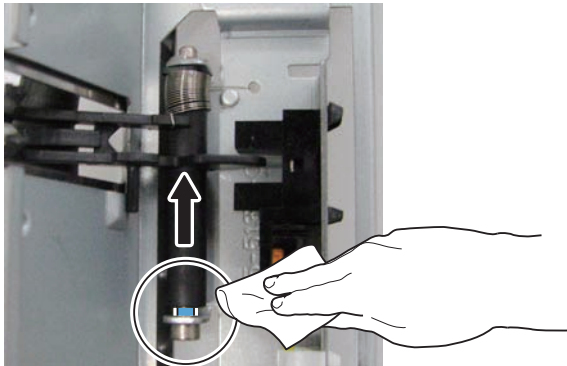
F-4-316

- 4) Turn over the Fixing Inlet Guide Unit, and insert lint-free paper into the clearance (front side) between the Fixing Inlet Sensor Flag Shaft and the Shaft Support Plate to remove the accumulated paper lint by dry wipe.



F-4-317

- 5) Slide the sensor flag to the rear side, and insert lint-free paper into the clearance (rear side) between the Fixing Inlet Sensor Flag Shaft and the Shaft Support Plate to remove the accumulated paper lint by dry wipe.



F-4-318

**CAUTION:**Checking after Cleaning the Fixing Inlet Sensor Flag Shaft

Be sure to check that the sensor flag rotates and moves back and forth smoothly by moving it manually.

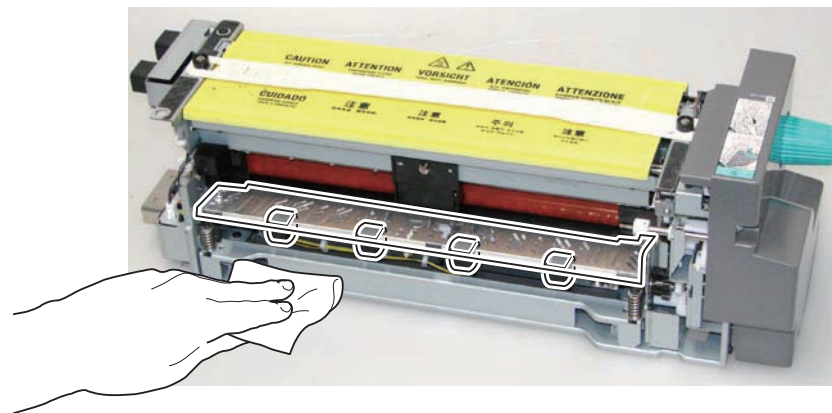
## Cleaning the Inner Delivery Roller

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)

### <Procedure>

- 1) Clean the Inner Delivery Roller with lint-free paper moistened with alcohol.



F-4-319

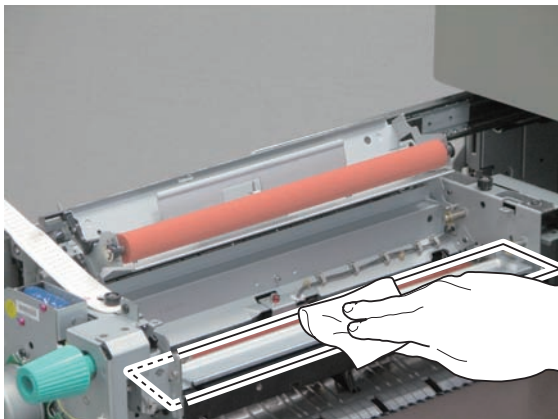
## Cleaning the Fixing Oil Pan

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")
3. Remove the Fixing Upper Cover. (Refer to "Removing the Fixing Cleaning Web")

### <Procedure>

- 1) Clean the surface of the Fixing Oil Pan with lint-free paper.

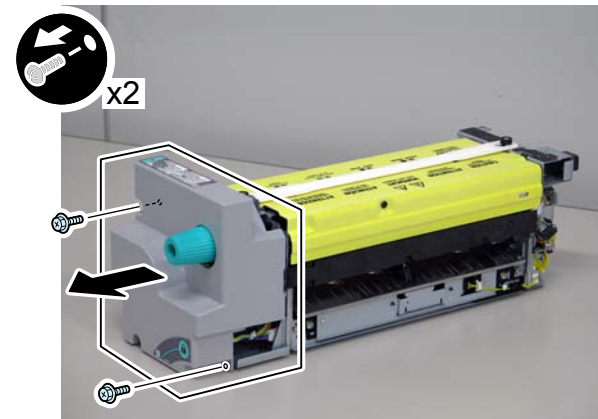


F-4-320

## Removing the Fixing Cleaning Web

### <Preparation>

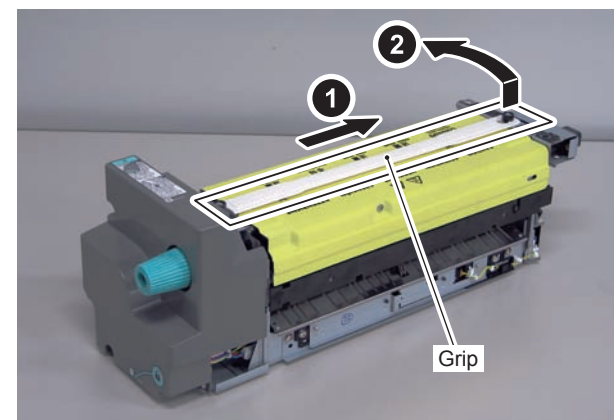
1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover.
  - 3-1) Remove the Fixing Front Cover.
    - 2 Screws



F-4-321

4. Remove the Fixing Upper Cover.

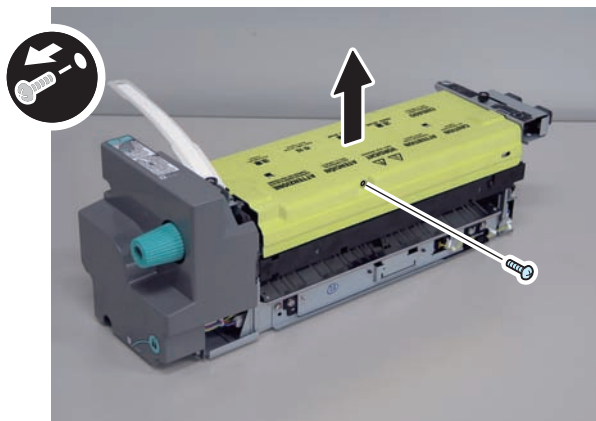
- 4-1) Remove the Handle by sliding to the rear side.



F-4-322

4-2) Remove the Fixing Upper Cover.

- 1 Screw



F-4-323

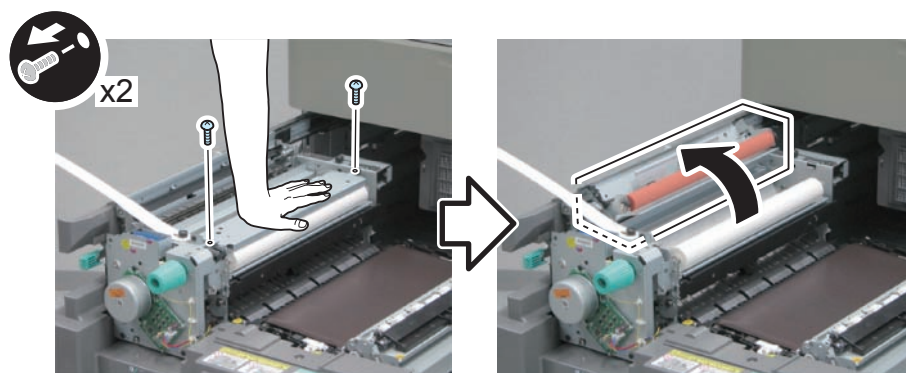
<Procedure>

1) Open the Fixing Cleaning Web Cover.

- 2 Screws

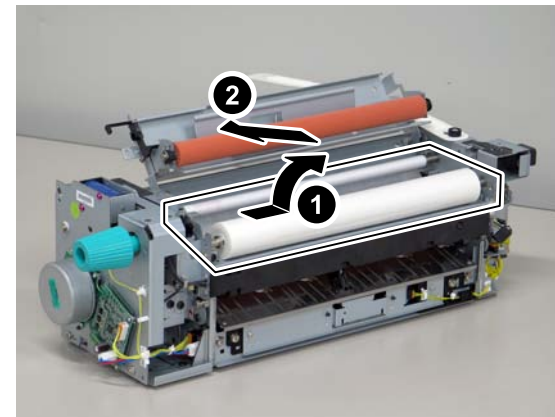
NOTE:

Because it is engaged, hold the Fixing Cleaning Web Cover to remove the screws.



F-4-324

2) Remove the Fixing Cleaning Web.

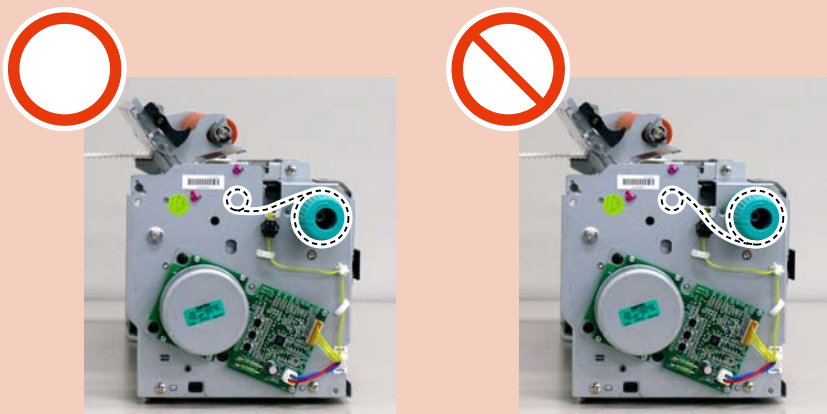


F-4-325



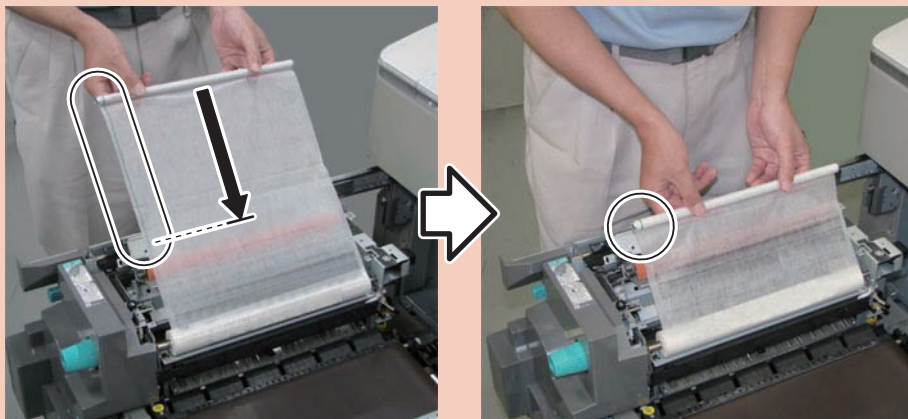
CAUTION: Points to Caution at Installation

- Be sure to install the Fixing Cleaning Web in the correct direction.



F-4-326

- When installing the Fixing Cleaning Web, be sure to wind the web around the Web Take-up Roller until the green line on the web disappears from view.



F-4-327

## Cleaning the Fixing Roller Static Eliminator

### <Preparation>

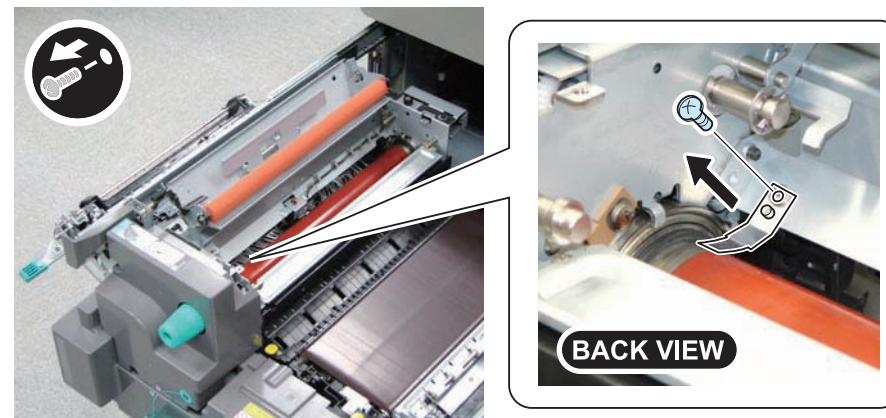
1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Cleaning Web. (Refer to "Removing the Fixing Cleaning Web")

### <Procedure>

- 1) Remove the Fixing Roller Static Eliminator.
  - 1 Screw
  - 1 Boss

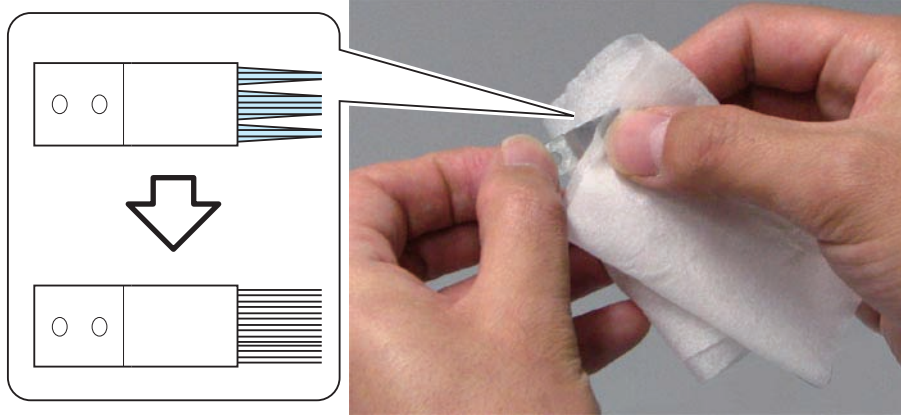
### CAUTION:

When removing the Fixing Roller Static Eliminator, be careful not to drop it inside of the Fixing Assembly.



F-4-328

- 2) Dry wipe oil on the Fixing Roller and paper lint adhered on the Fixing Roller Static Eliminator with lint-free paper, and loosen up the strands of Static Eliminator clotted with oil.



F-4-329

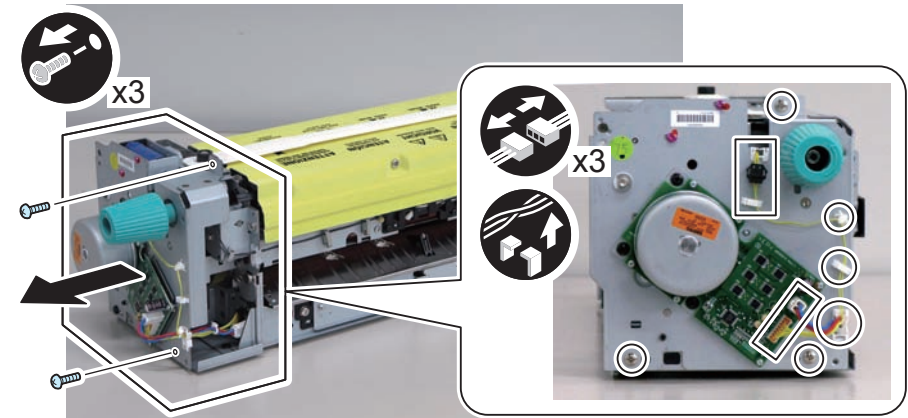
## Separating the Fixing Upper Unit from the Fixing Lower Unit

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")

### <Procedure>

- 1) Remove the Fixing Drive Unit.
  - Wire Saddle
  - Edge Saddle
  - Reuse Band
  - 3 Connectors
  - 3 Screws



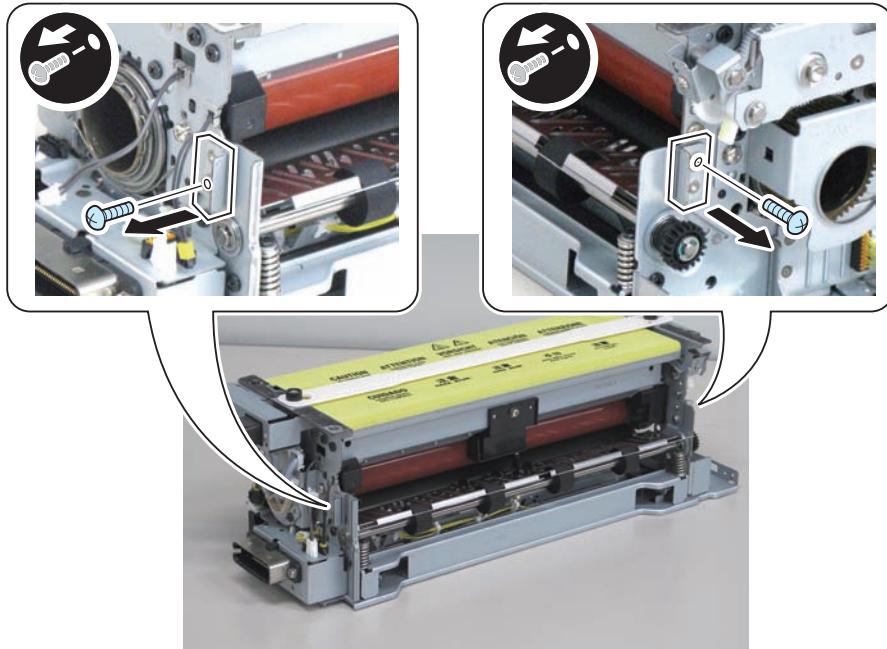
F-4-330

## 2) Remove the Fixing Pin.

- 2 Screws

## NOTE:

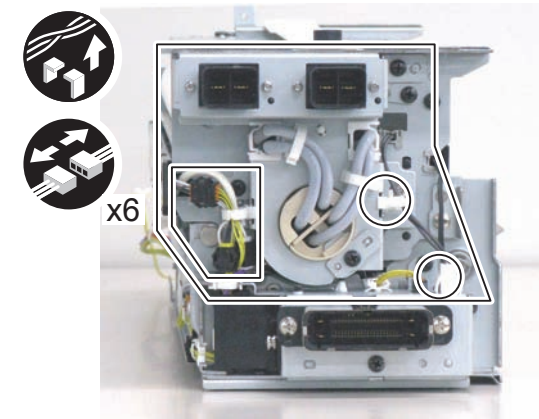
Because it is engaged, hold the Fixing Upper Unit to remove the Fixing Pin.



F-4-331

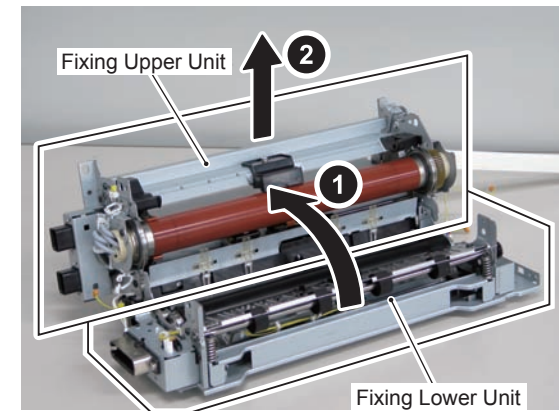
## 3) Disconnect the Connectors of Heater Unit.

- Wire Saddle
- 6 Connectors



F-4-332

## 4) Separate the Fixing Upper Unit from the Fixing Lower Unit.



F-4-333

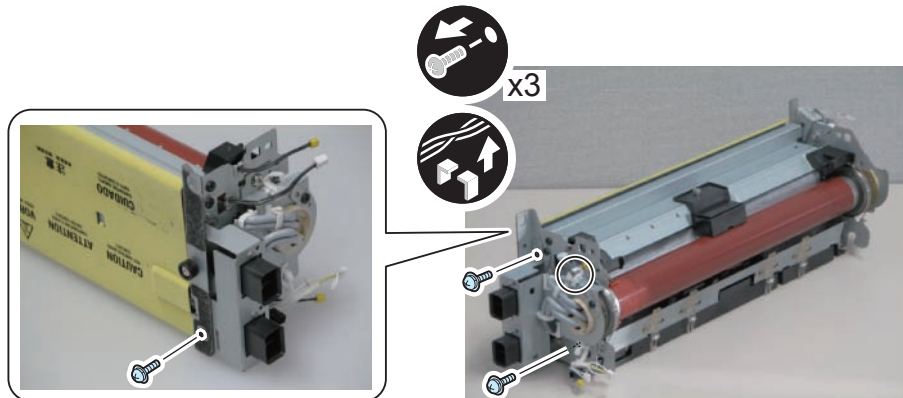
## Removing the Fixing Roller, Insulating Bush and Thrust Stopper

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")
4. Separate the Fixing Upper Unit from the Fixing Lower Unit. (Refer to page 4-183)
5. Remove the Heater Unit.

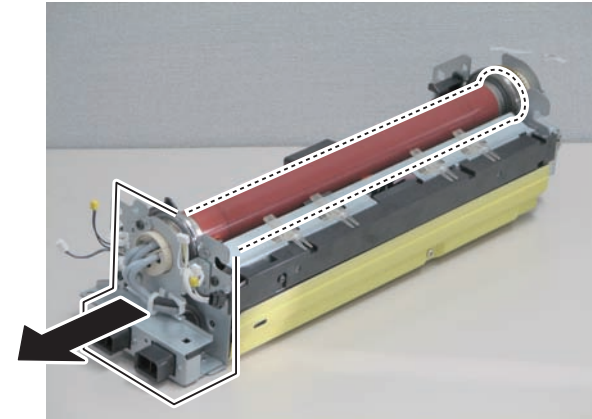
5-1) Free the Harness from the Wire Saddle and remove the 3 screws.

- 6 Connectors
- 3 Screws



F-4-334

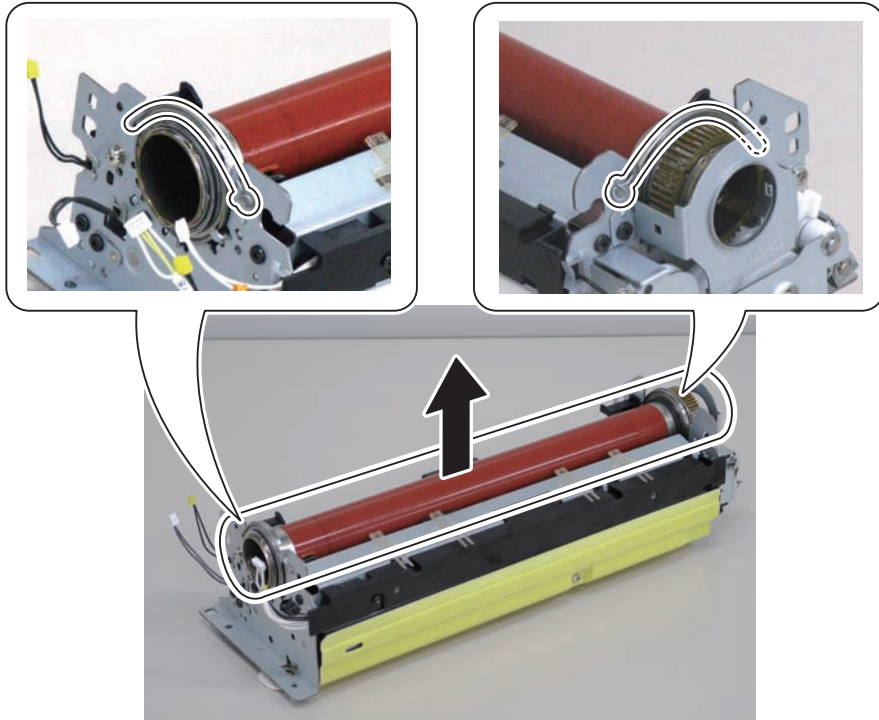
5-2) Remove the Heater Unit.



F-4-335

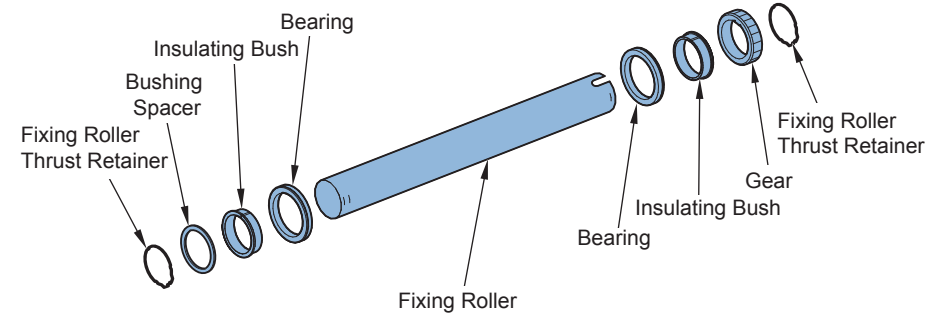
## &lt;Procedure&gt;

- 1) Place the Fixing Upper Unit as shown in the figure and remove the Fixing Roller Bearing Retainer.
- 2) Remove the Fixing Roller Unit.



F-4-336

- 3) Remove the Thrust Stopper from the Fixing Roller Unit to remove the Fixing Roller.



F-4-337

**CAUTION: Points to Caution at Installation**

Be sure to locate the groove of the Fixing Roller Bearing outside the Fixing Upper Unit to install.



F-4-338

**CAUTION: Points to Caution when Replacing the Fixing Roller**

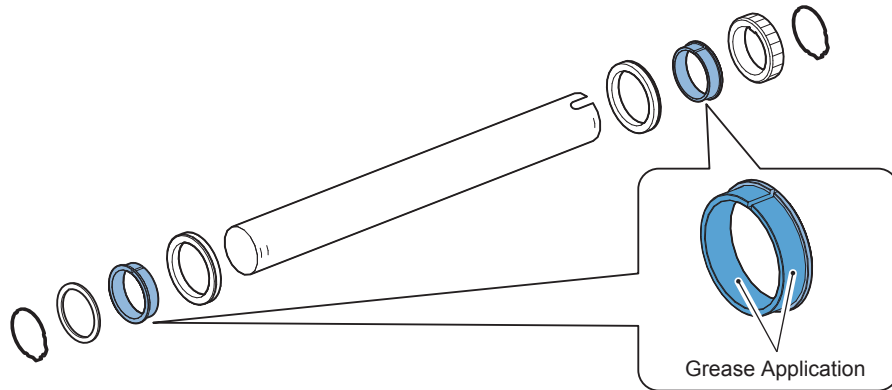
Do not reuse the once removed Thrust Stopper.

If the Thrust Stopper is reused, it may come off during printing.

## &lt;Processing after replacing the parts&gt;

## 1) Grease Application

Apply approx. 230 mg of grease (MOLYKOTE HP-300; CK-8012) to inner circumference and outer circumference of the Insulating Bushing so that all circumferences are covered with white film. If grease is not applied, abnormal noise may occur, or the Fixing Roller Thrust Retainer may come off or be damaged.



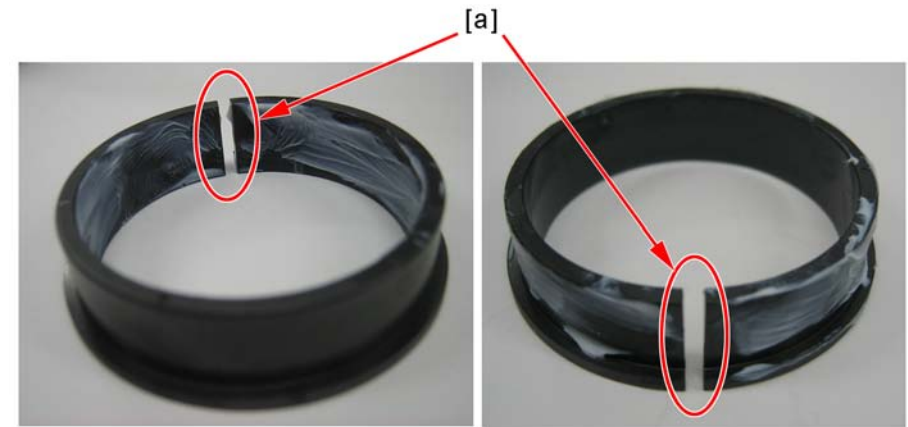
F-4-339

- As a rough standard, see the following for the amount of grease to be applied (approx. 230 mg).

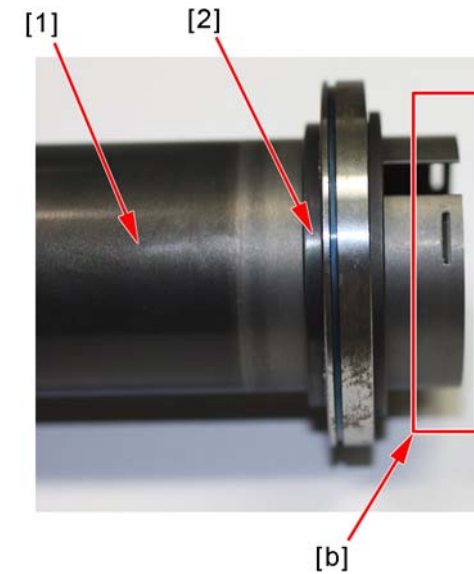


F-4-340

- When applying grease, pay attention not to get it accumulated in the cut [a].



- When installing the Insulating Bushing [2] to the Fixing Roller [1], wipe off excess grease adhered to the end face of the Fixing Roller (including the groove on the edge) [b]. Otherwise, grease may adhere to the Fixing Roller Thrust Retainer or be scattered from the Fixing Roller.



F-4-342

- Clear the counter  
COPIER > COUNTER > DRBL-1 > FX-UP-RL

## Removing the Pressure Roller

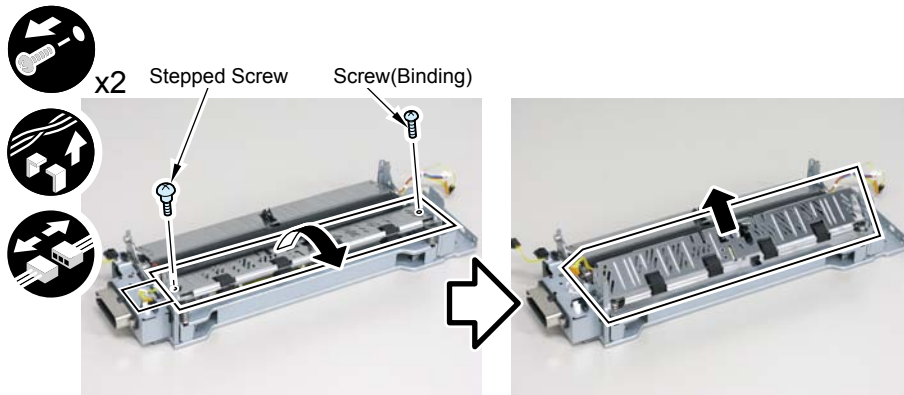
### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")
4. Separate the Fixing Upper Unit from the Fixing Lower Unit. (Refer to page 4-183)

### <Procedure>

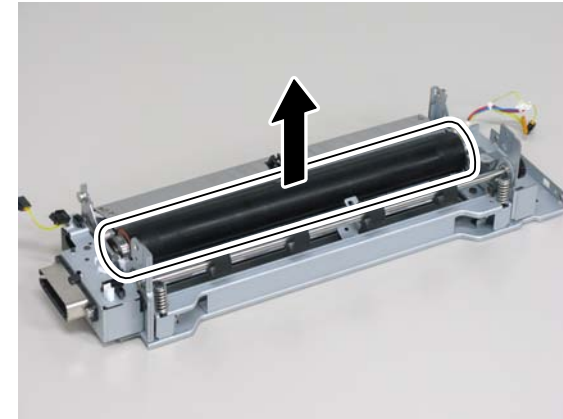
- 1) Remove the Fixing Inlet Guide.

- 2 Screws
- Wire Saddle
- Edge Saddle
- 1 Connector



F-4-343

- 2) Remove the Pressure Roller Unit.



F-4-344

## Removing the Pressure Roller Static Eliminator

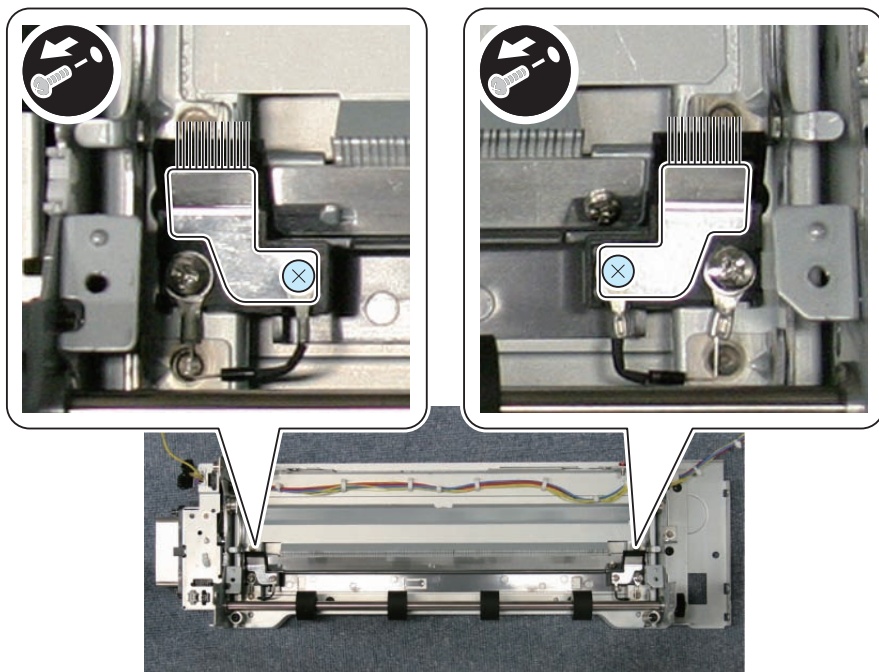
### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")
4. Separate the Fixing Upper Unit from the Fixing Lower Unit. (Refer to page 4-183)
5. Remove the Pressure Roller Unit. (Refer to page 4-188)

### <Procedure>

- 1) Remove the Pressure Roller Static Eliminators (at the front and rear).

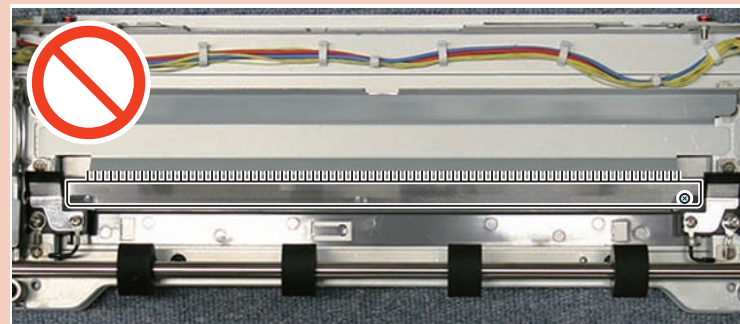
- 2 Screws



F-4-345

### CAUTION:

Do not remove the Static Eliminator with short bristles at the center because it is not a consumable part.



F-4-346



## Removing the Main Thermistor

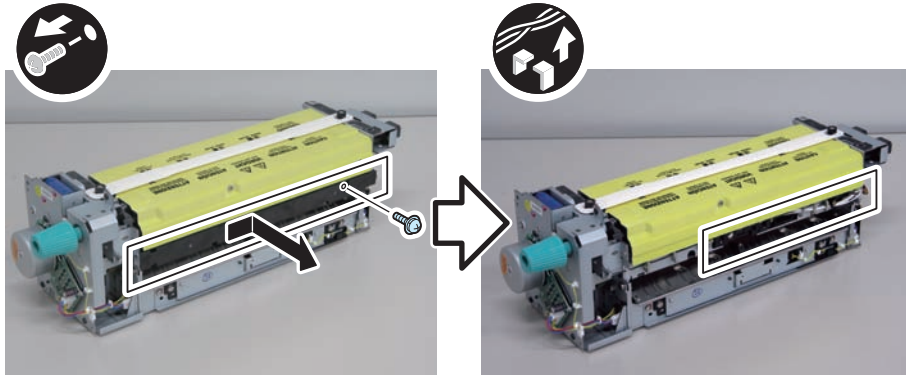
### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")

### <Procedure>

- 1) Remove the Harness Guide Cover and free the Harness from the Guide.

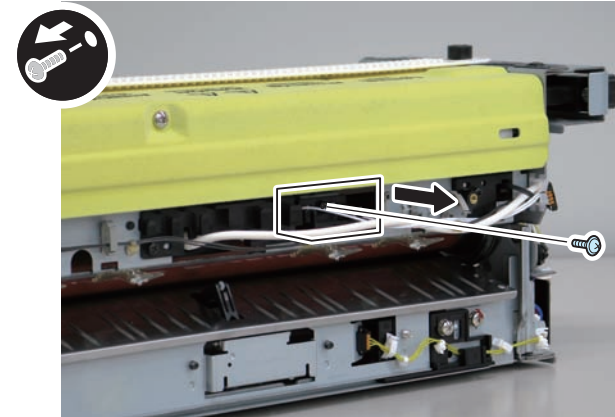
- 1 Screw
- Edge Saddle
- Harness Guide



F-4-347

- 2) Remove the DC Thermoswitch Unit.

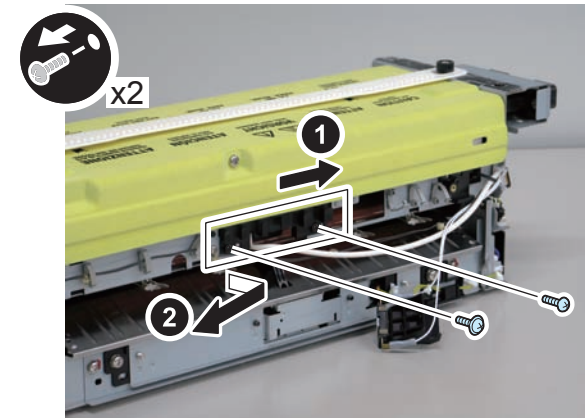
- 1 Screw



F-4-348

- 3) Remove the Main Thermistor Unit.

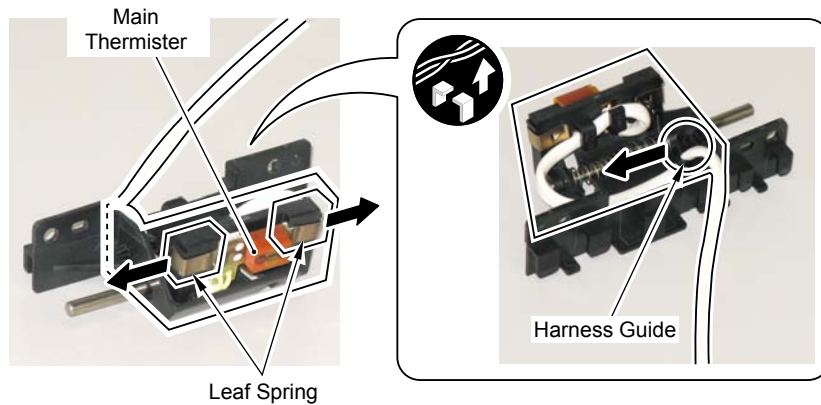
- 2 Screws



F-4-349

4) Remove the Copper Plate and the Harness Band to remove the Main Thermistor from the Main Thermistor Support Member.

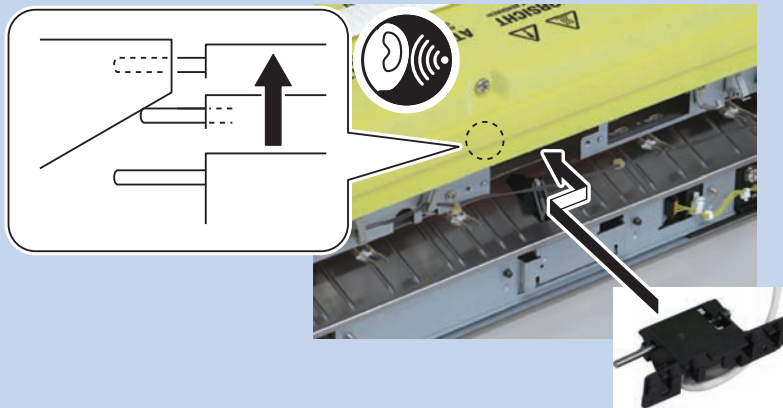
- Harness Guide



F-4-350

**NOTE:**

When installing the Main Thermistor Unit, be sure to fit the shaft of Main Thermistor Unit in the shaft support until clicky sound is heard.



F-4-351

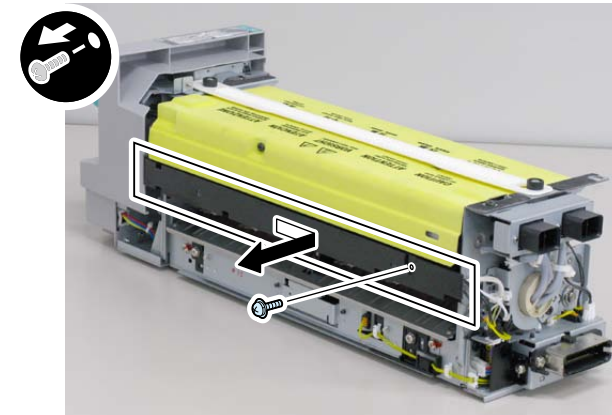
## Removing the Sub Thermistor 1

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)

### <Procedure>

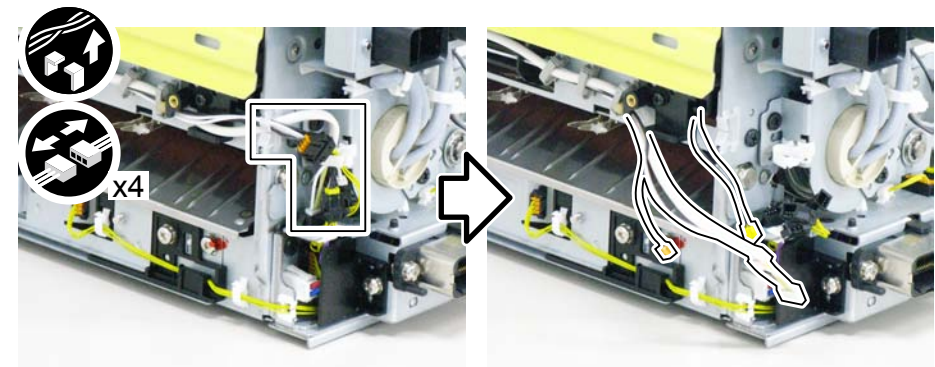
- 1) Remove the Harness Guide Cover.
  - 1 Screw



F-4-352

2) Remove the Harness to free as shown in the figure.

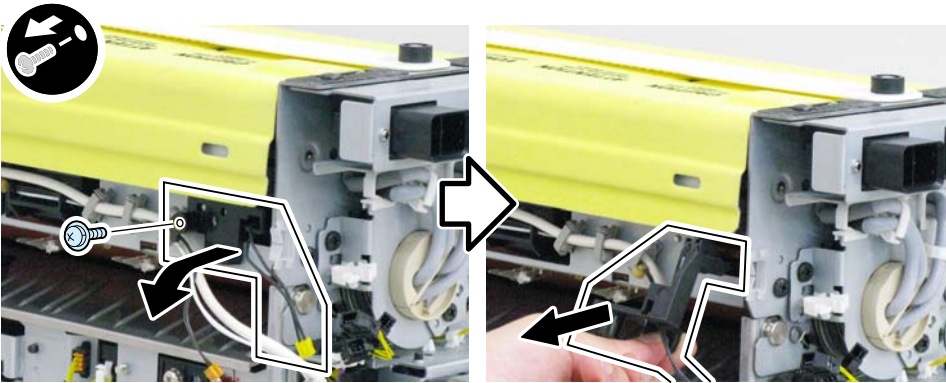
- 4 Connectors
- Edge Saddle
- Wire Saddle



F-4-353

3) Remove the Fixing Sub Thermistor 1 Holder.

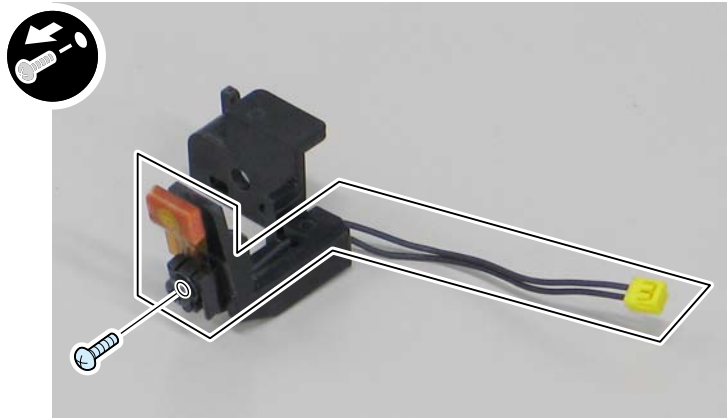
- 1 Screw



F-4-354

4) Remove the Fixing Sub Thermistor 1.

- 1 Screw



F-4-355

## Removing the Sub Thermistor 2

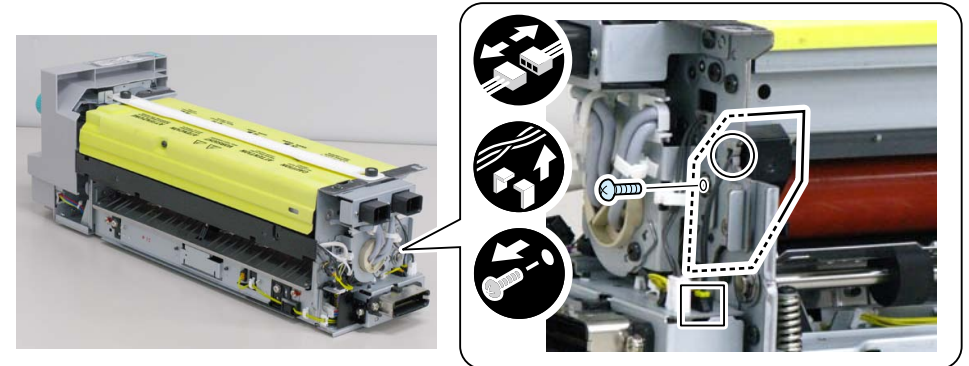
### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Removing the Sub Thermistor 1. (Refer to page 4-191)

### <Procedure>

1) Remove the Fixing Sub Thermistor 2 Holder.

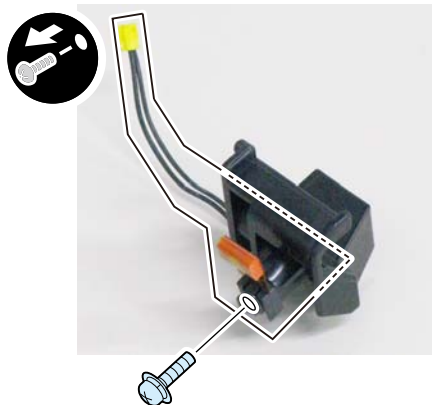
- 1 Connector
- Edge Saddle
- 1 Screw



F-4-356

2) Remove the Fixing Sub Thermistor 2.

- 1 Screw



F-4-357

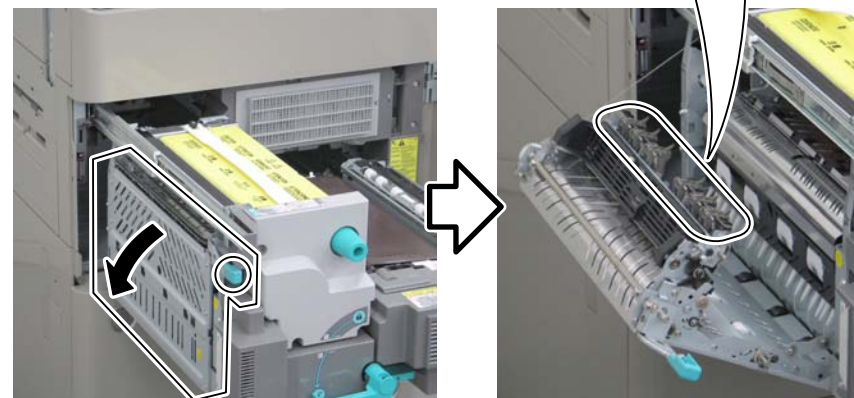
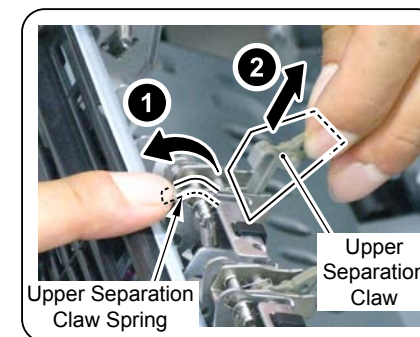
## Removing the Upper Separation Claw

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")

### <Procedure>

- 1) Hold the Lever of the Left Guide to open the Left Guide.
- 2) While holding the Upper Separation Claw Retaining Spring, remove the Upper Separation Claw.



F-4-358

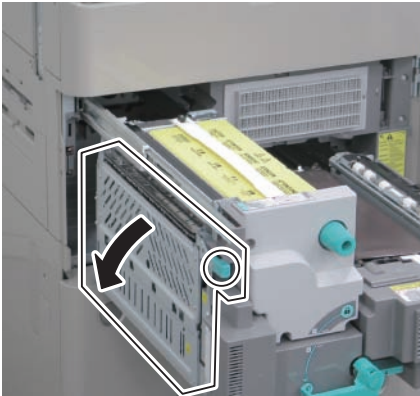
## Cleaning the Upper Separation Claw

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")

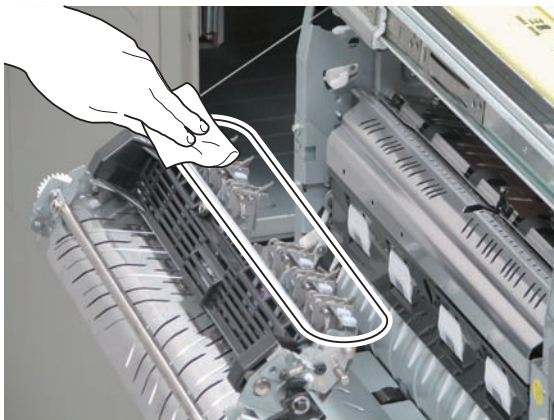
### <Procedure>

1) Hold the Lever of the Feed Unit to open the Feed Unit.



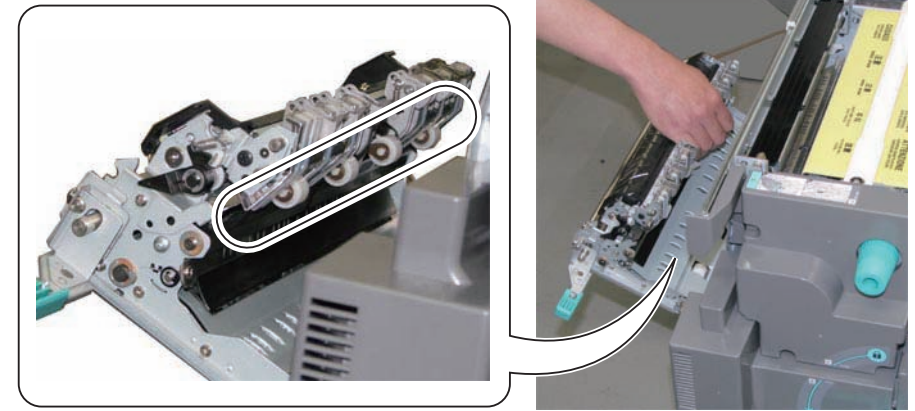
F-4-359

2) Clean the Upper Separation Claw with lint-free paper moistened.



F-4-360

3) Wipe toner off the 4 Inner Delivery Rollers with lint-free paper moistened with alcohol.



F-4-361

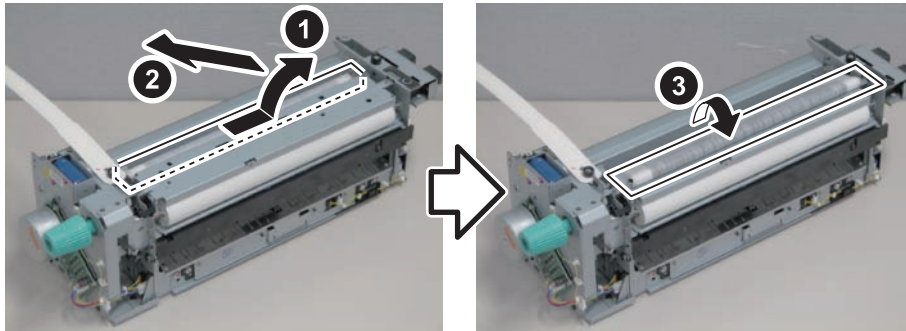
## Removing the Thermoswitch 2

### <Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")
4. Remove the Fixing Upper Cover. (Refer to "Removing the Fixing Cleaning Web")

### <Procedure>

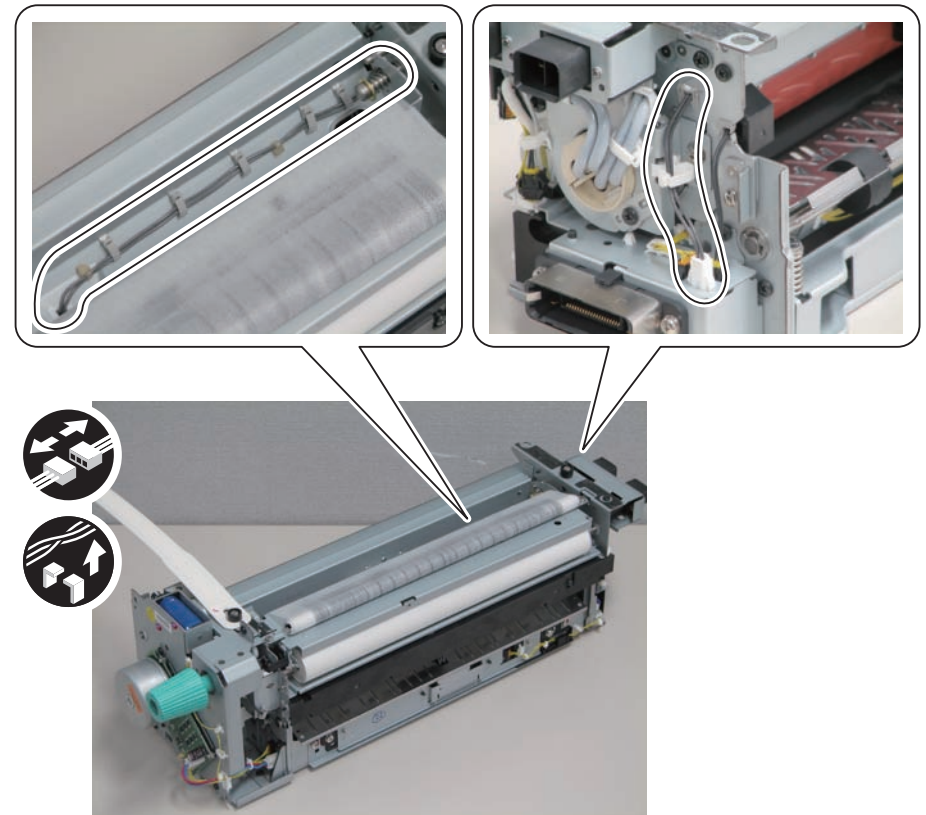
- 1) Remove the Fixing Cleaning Web (take-up side).



F-4-362

- 2) Free the harness of Thermoswitch 2.

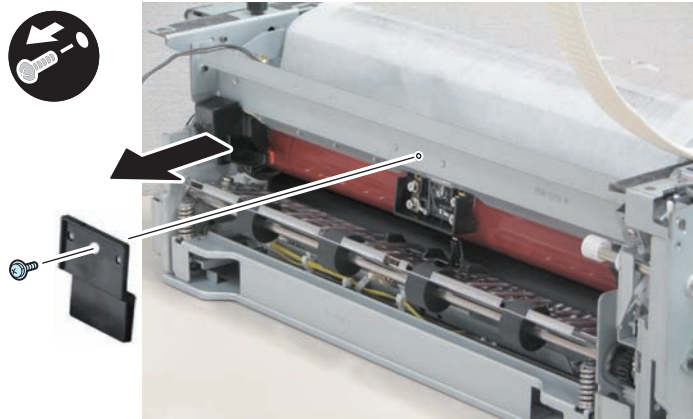
- 1 Connector
- Wire Saddle



F-4-363

## 3) Remove the Thermoswitch Cover.

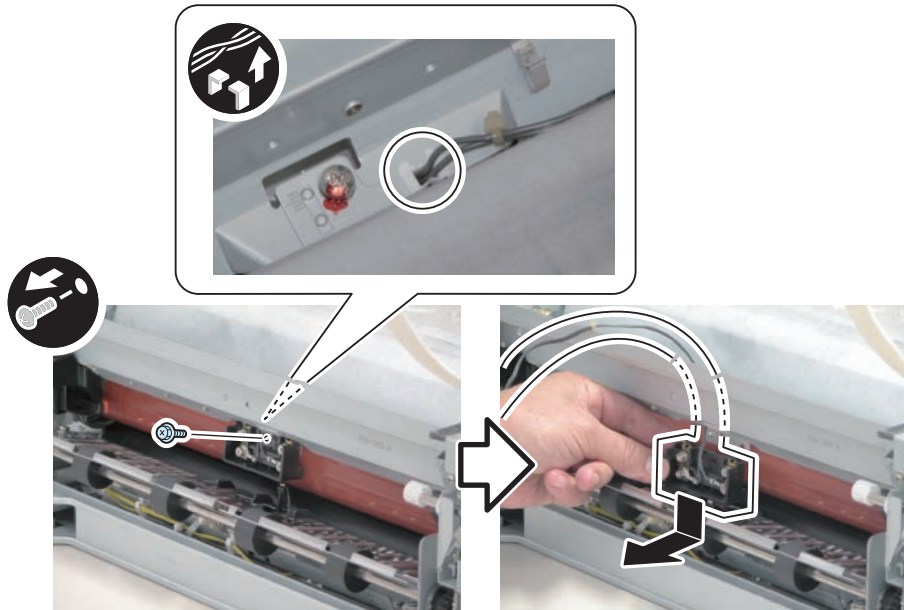
- 1 Screw



F-4-364

## 4) Free the harness from the Edge Saddle and remove the Thermoswitch 2 Unit.

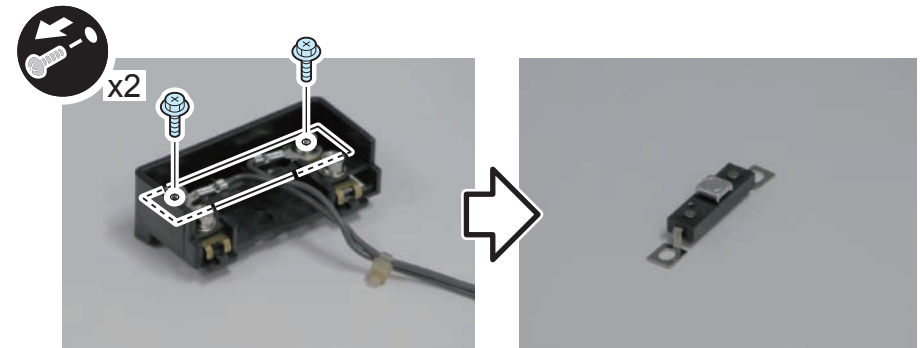
- 1 Screw



F-4-365

## 5) Remove the Thermoswitch 2.

- 2 Screws

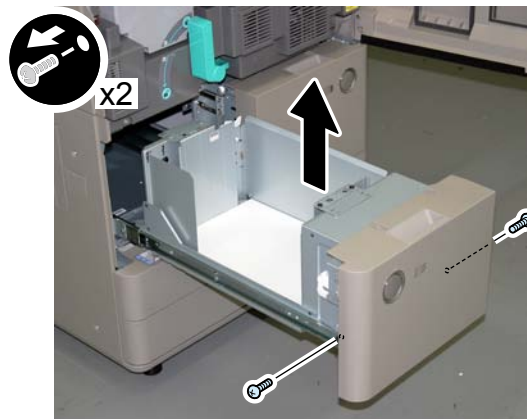


F-4-366

## Pickup/Feed System

### Removing the Left Pickup Deck

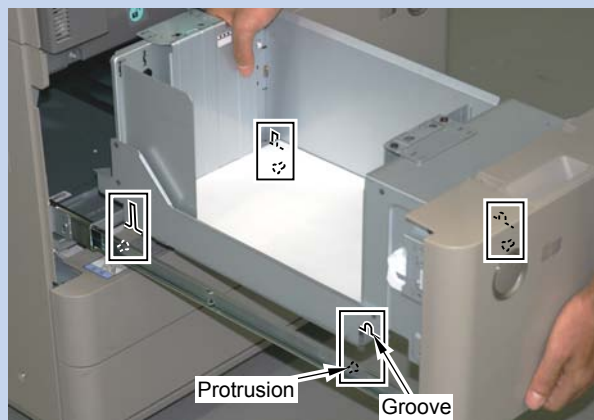
- 1) Open the Front Cover.
- 2) Pull out the Left Pickup Deck to remove.
  - 2 Screws



F-4-367

#### NOTE:

When installing the Left Pickup Deck, be sure to fit the 4 protrusions on the Rail into the 4 grooves of the Left Pickup Deck to install.



F-4-368

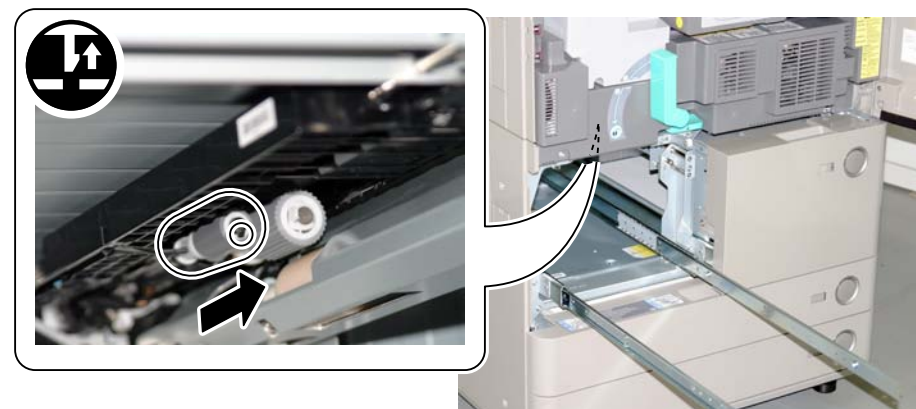
### Removing the Left Deck Pickup Roller

#### <Preparation>

1. Open the Front Cover.
2. Remove the Left Pickup Deck. (Refer to page 4-197)

#### <Procedure>

- 1) Remove the Left Deck Pickup Roller.
  - 1 Claw



F-4-369



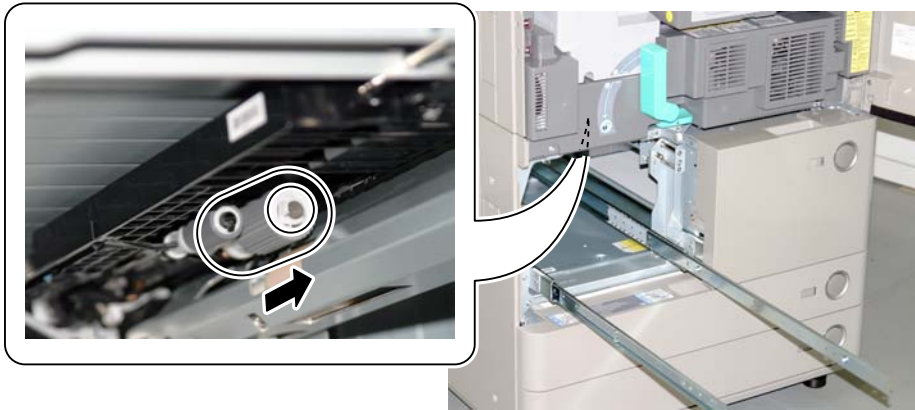
## Removing the Left Deck Feed Roller

### <Preparation>

1. Open the Front Cover.
2. Remove the Left Pickup Deck. (Refer to page 4-197)

### <Procedure>

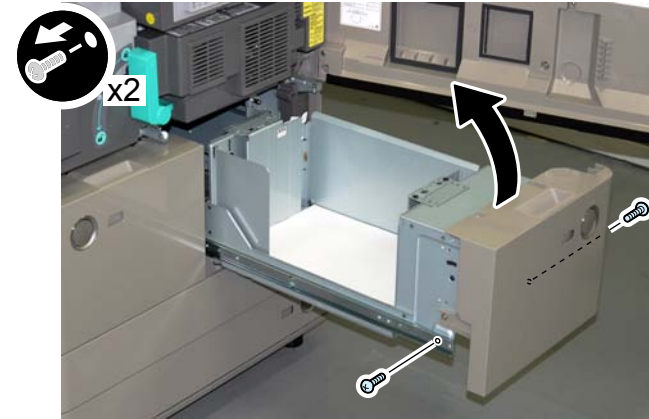
- 1) Remove the Stopper to remove the Left Deck Feed Roller.



F-4-370

## Removing the Right Pickup Deck

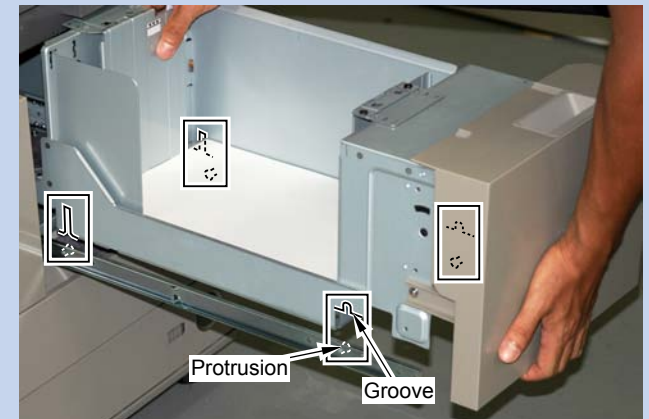
- 1) Open the Front Cover.
- 2) Pull out the Right Pickup Deck to remove.
  - 2 Screws



F-4-371

### NOTE:

When installing the Right Pickup Deck, be sure to fit the 4 protrusions on the Rail into the 4 grooves of the Right Pickup Deck to install.



F-4-372

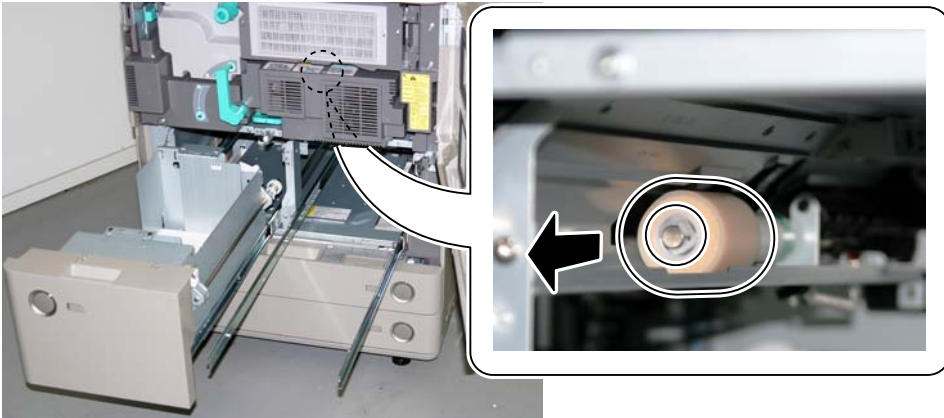
## Removing the Left Deck Separation Roller /Cleaning the Left Deck Pickup Sensor 2 (PS20)

### <Preparation>

1. Open the Front Cover.
2. Remove the Right Pickup Deck. (Refer to page 4-198)

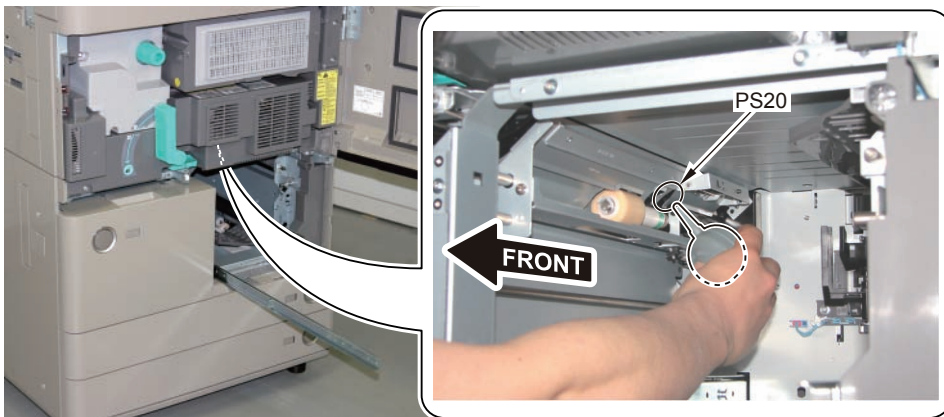
### <Procedure>

- 1) Pull out the Left Pickup Deck.
- 2) Remove the Stopper to remove the Left Deck Separation Roller.



F-4-373

- 3) Clean paper dust on the Left Deck Pickup Sensor 2 (PS20) with a blower when replacing the Separation Roller.



F-4-374

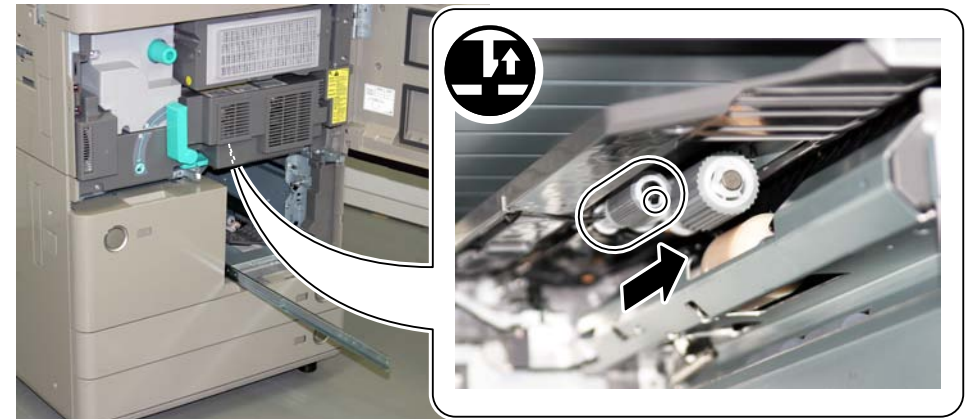
## Removing the Right Deck Pickup Roller

### <Preparation>

1. Open the Front Cover.
2. Remove the Right Pickup Deck. (Refer to page 4-198)

### <Procedure>

- 1) Remove the Right Deck Pickup Roller.
  - 1 Claw



F-4-375

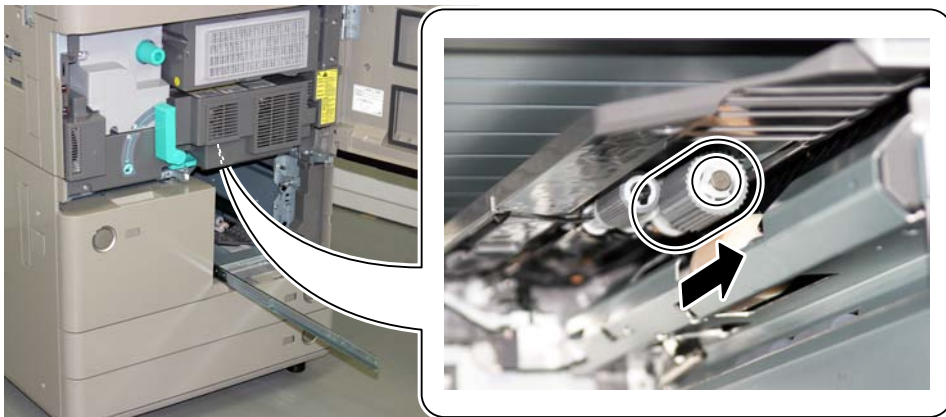
## Removing the Right Deck Feed Roller

### <Preparation>

1. Open the Front Cover.
2. Remove the Right Pickup Deck. (Refer to page 4-198)

### <Procedure>

- 1) Remove the Stopper to remove the Right Deck Feed Roller.

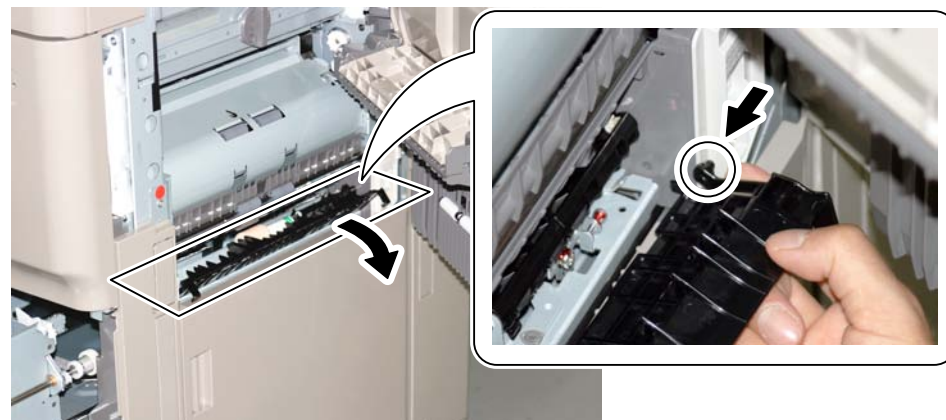


F-4-376

## Removing the Right Deck Separation Roller /Cleaning the Right Deck Pickup Sensor 2 (PS19)

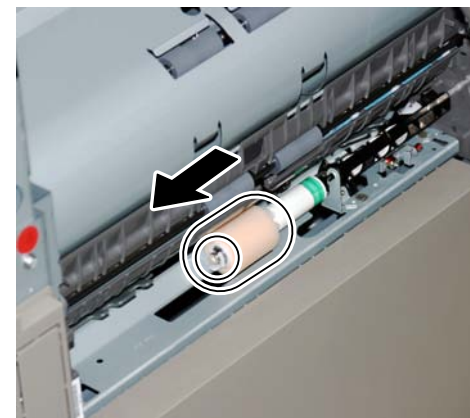
- 1) Open the Right Upper Cover.
- 2) Pull out the Right Pickup Deck.
- 3) Remove the Feed Guide.

- 1 Boss



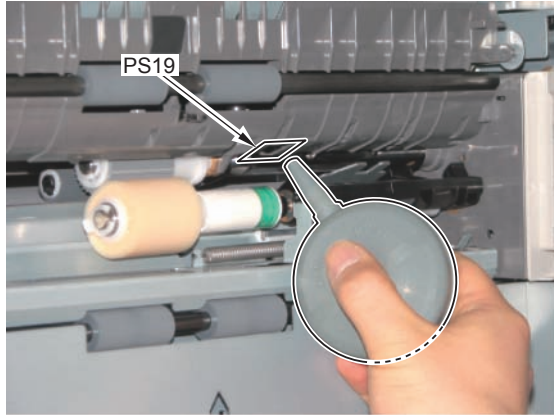
F-4-377

- 4) Remove the Stopper to remove the Right Deck Separation Roller.



F-4-378

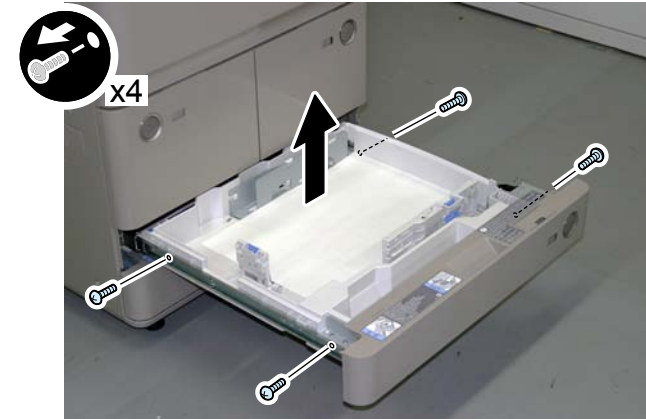
- 5) Clean paper dust on the Right Deck Pickup Sensor 2 (PS19) with a blower when replacing the Separation Roller.



F-4-379

## Removing the Upper Cassette

- 1) Pull out the Upper Cassette to remove.
- 4 Screws



F-4-380

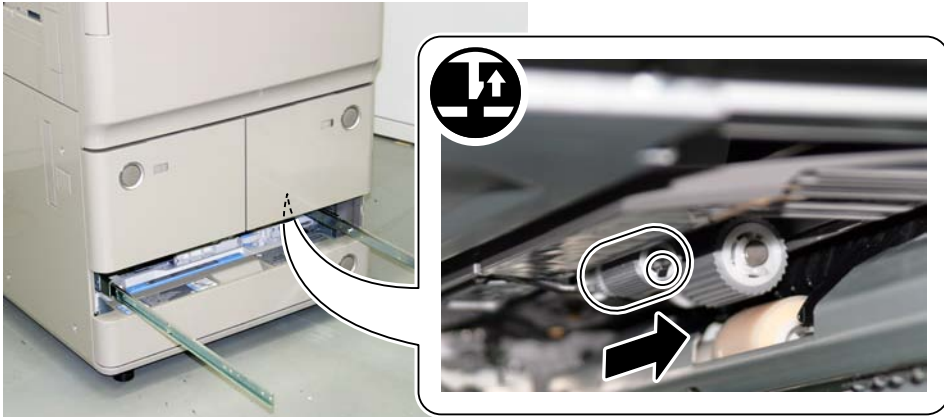
## Removing the Upper Cassette Pickup Roller

### <Preparation>

1. Remove the Upper Cassette. (Refer to page 4-201)

### <Procedure>

- 1) Remove the Upper Cassette Pickup Roller.
  - 1 Claw



F-4-381

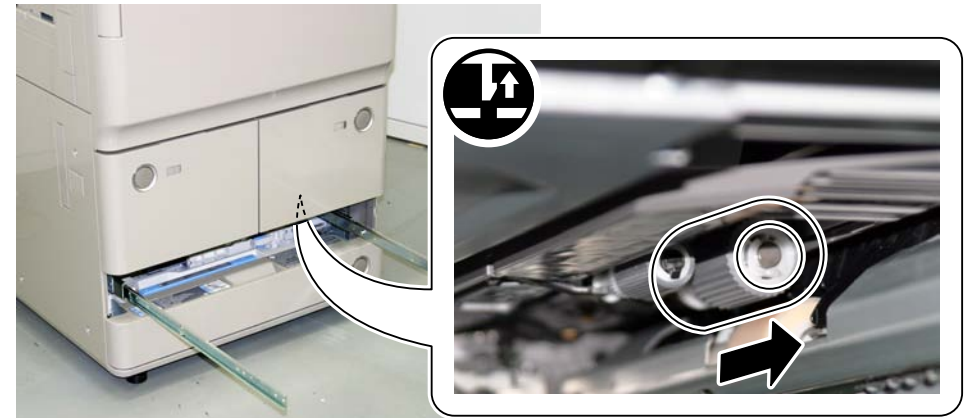
## Removing the Upper Cassette Feed Roller

### <Preparation>

1. Remove the Upper Cassette. (Refer to page 4-201)

### <Procedure>

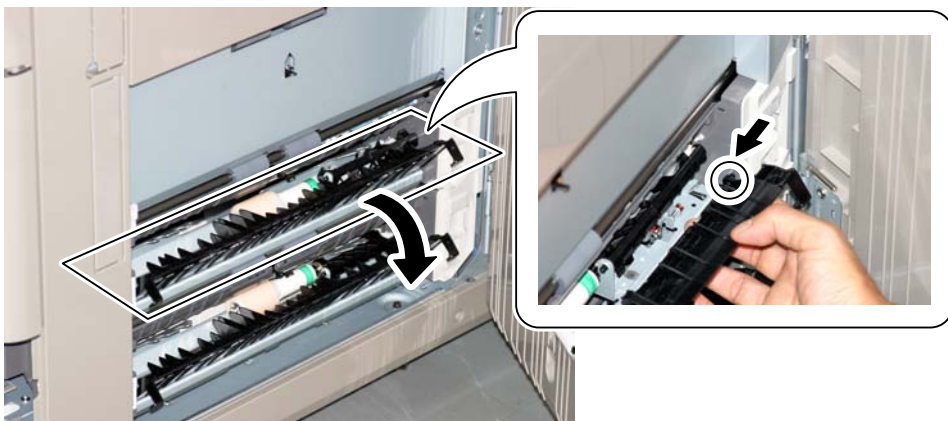
- 1) Remove the Stopper to remove the Upper Cassette Feed Roller.



F-4-382

## Removing the Upper Cassette Separation Roller /Cleaning the Cassette 3 Pickup Sensor 2 (PS21)

- 1) Open the Right Lower Cover.
- 2) Remove the Upper Cassette.
- 3) Remove the Feed Guide.
  - 1 Boss



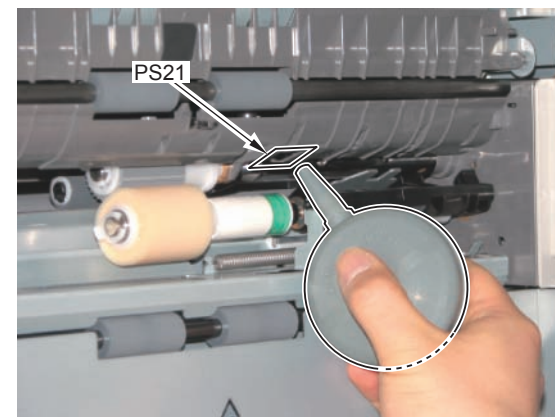
F-4-383

- 4) Remove the Stopper to remove the Upper Cassette Separation Roller.



F-4-384

- 5) Clean paper dust on the Cassette 3 Pickup Sensor 2 (PS21) with a blower when replacing the Separation Roller.

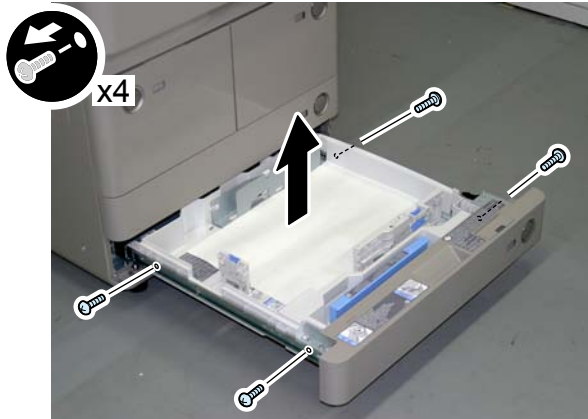


F-4-385

## Removing the Lower Cassette

1) Pull out the Lower Cassette to remove.

- 4 Screws



F-4-386

## Removing the Lower Cassette Pickup Roller

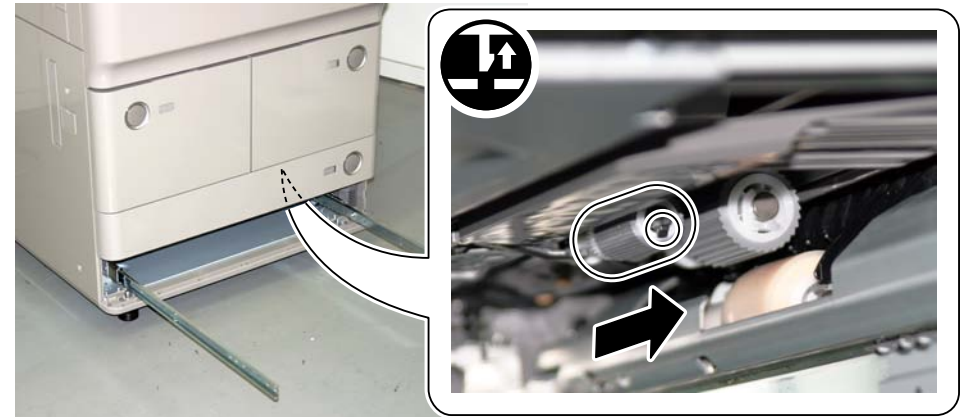
<Preparation>

1. Remove the Lower Cassette. (Refer to page 4-204)

<Procedure>

1) Remove the Lower Cassette Pickup Roller.

- 1 Claw



F-4-387

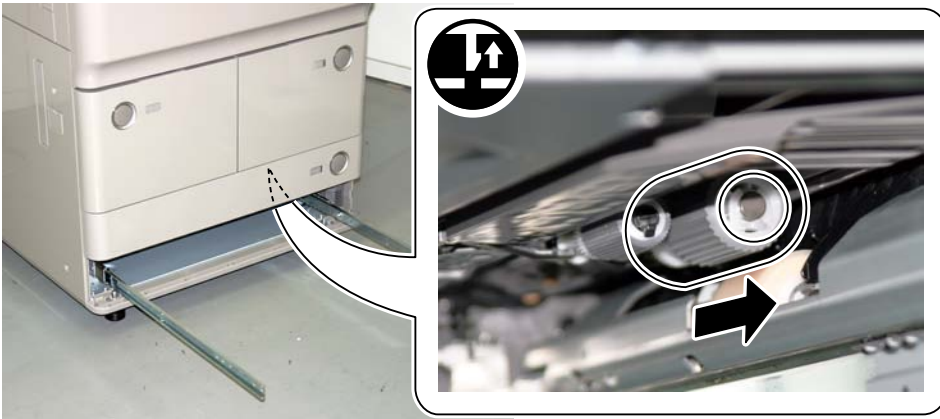
## Removing the Lower Cassette Feed Roller

### <Preparation>

1. Remove the Lower Cassette. (Refer to page 4-204)

### <Procedure>

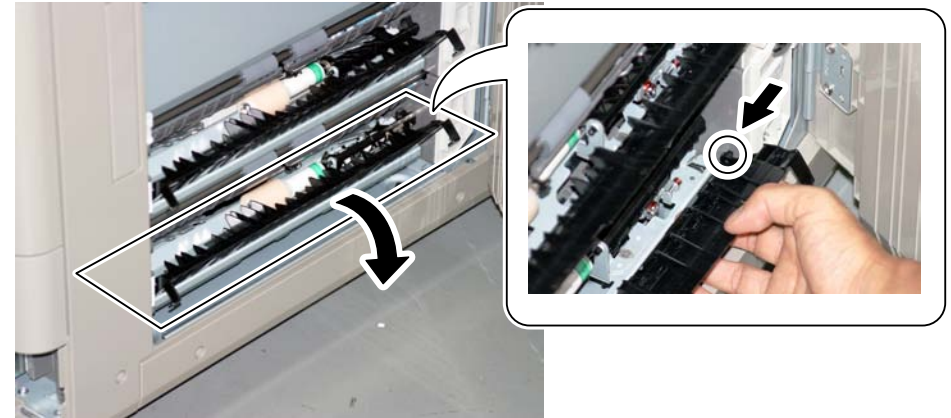
- 1) Remove the Stopper to remove the Lower Cassette Feed Roller.



F-4-388

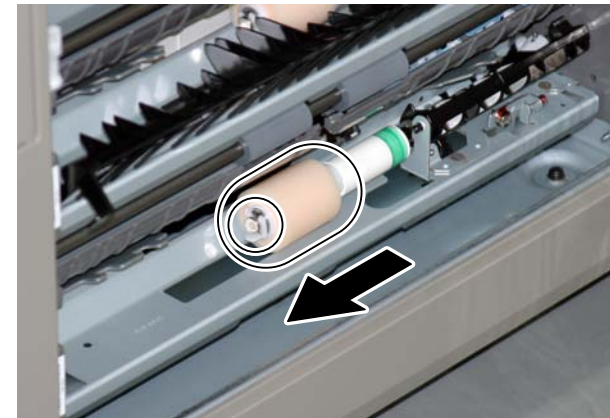
## Removing the Lower Cassette Separation Roller /Cleaning the Cassette 4 Pickup Sensor 1 (PS22)

- 1) Open the Right Lower Cover.
- 2) Remove the Lower Cassette.
- 3) Remove the Feed Guide.
  - 1 Boss



F-4-389

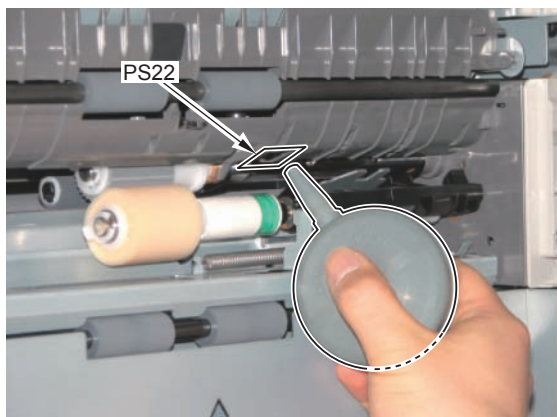
- 4) Remove the Stopper to remove the Lower Cassette Separation Roller.



F-4-390



- 5) Clean paper dust on the Cassette 4 Pickup Sensor 1 (PS22) with a blower when replacing the Separation Roller.

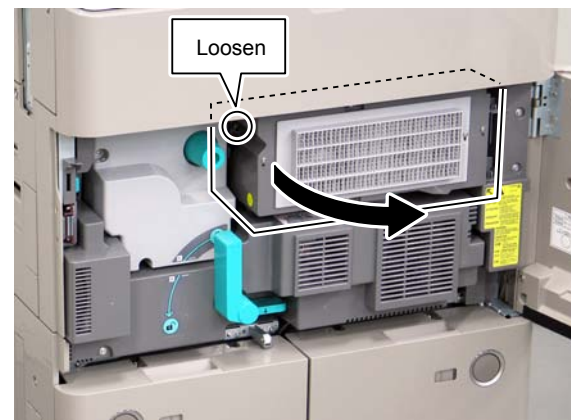


F-4-391

## Removing the Multi-purpose Tray Feed Roller

### <Preparation>

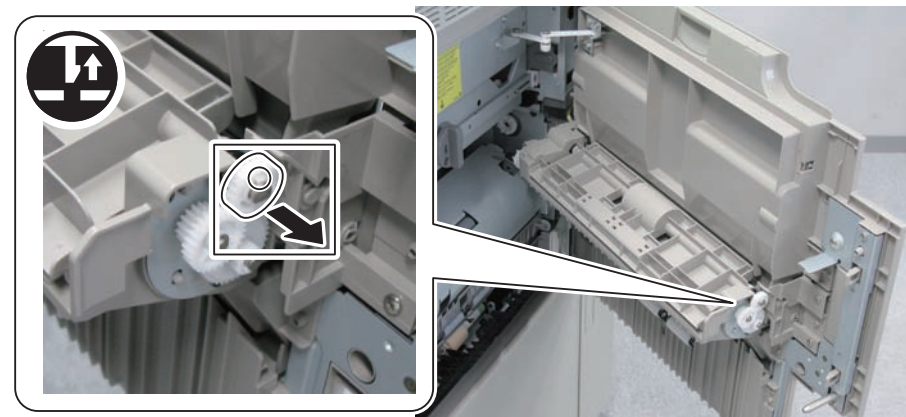
1. Open the Inner Cover.
  - 1-1) Open the Front Cover.
  - 1-2) Open the Inner Cover.
  - 1 Screw (to loosen)



F-4-392

### <Procedure>

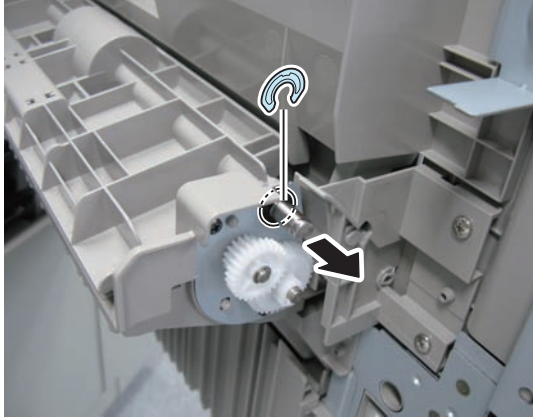
- 1) Remove the gear.
  - 1 Claw



F-4-393

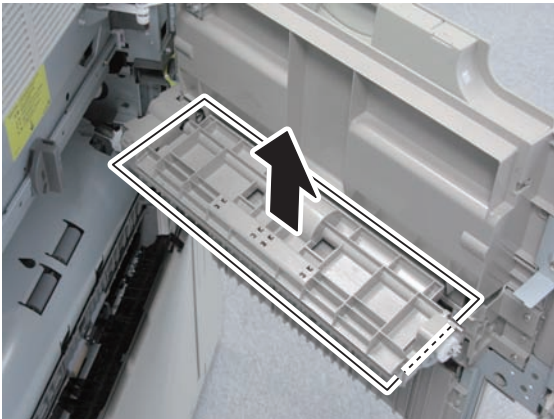
2) Remove the bushing.

- 1 E-ring



F-4-394

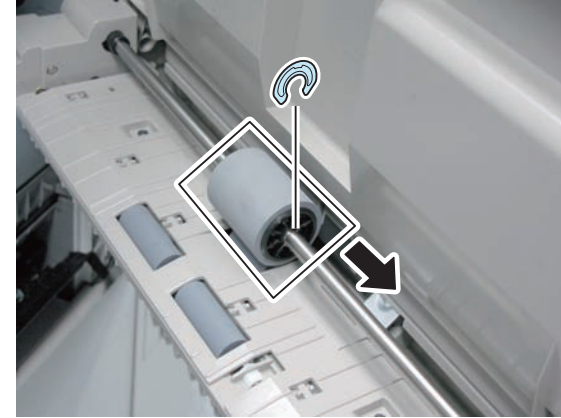
3) Remove the Multi-purpose Tray Pickup Guide.



F-4-395

4) Remove the Multi-purpose Tray Feed Roller.

- 1 E-ring



F-4-396

## Removing the Multi-purpose Tray Separation Roller

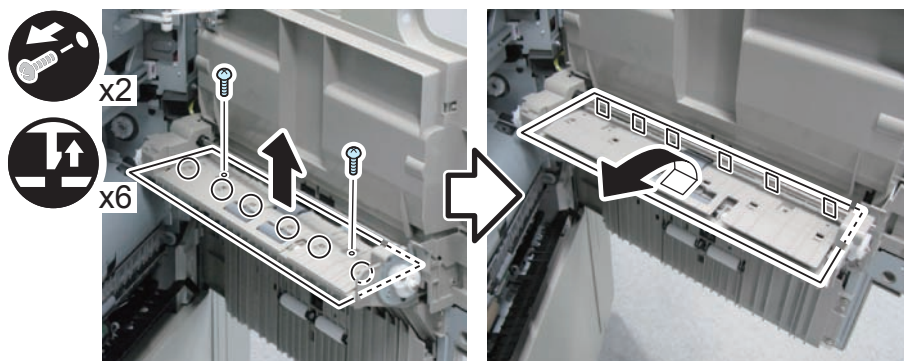
### <Preparation>

1. Open the Inner Cover. (Refer to "Removing the Multi-purpose Tray Feed Roller")
2. Remove the Multi-purpose Tray Feed Roller. (Refer to page 4-206)

### <Procedure>

- 1) Remove the Multi-purpose Tray Lower Guide.

- 2 Screws
- 6 Claws
- 6 Protrusions



F-4-397

### CAUTION:

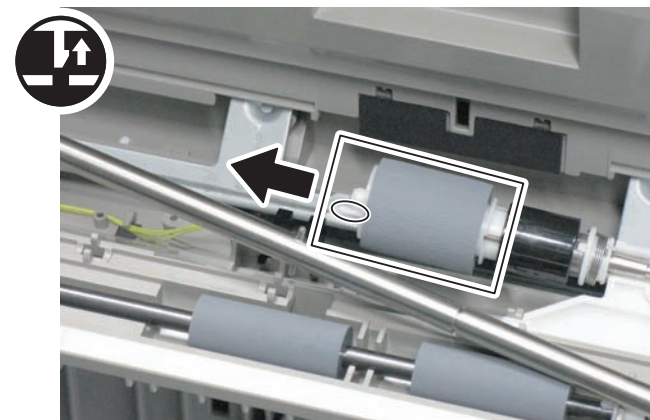
Installation work gets difficult if the plate and the spring (as shown in the figure) are removed when removing the cover; therefore, be careful not to remove them.



F-4-398

- 2) Remove the Multi-purpose Tray Separation Roller.

- 1 Claw



F-4-399

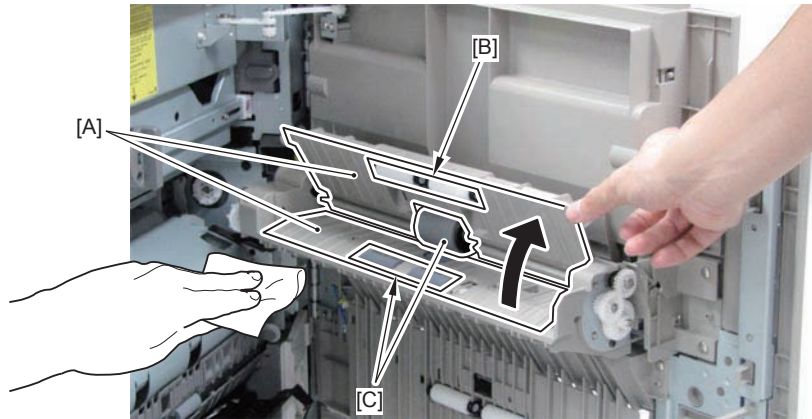
## Cleaning the Pickup and Fixing Feed Assembly

### <Cleaning the Vertical Path Assembly>

- 1) Open the Right Cover.
- 2) Open the Right Lower Cover.
- 3) Open the Multi-purpose Tray Pickup Guide Unit, and clean the 2 areas of the Feed Guide [A].  
(Remove paper lint.)
- 4) Clean a whole circumference of 2 Rollers [B] and the 3 Rollers [C] by manually rotating them with lint-free paper moistened with alcohol.

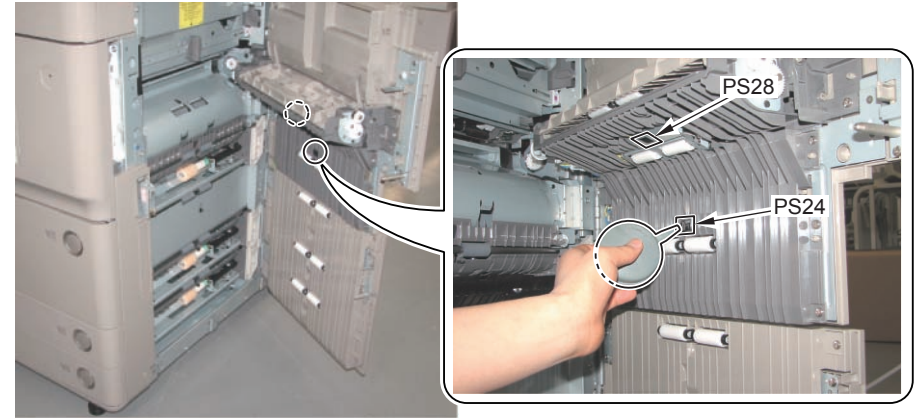
#### CAUTION:

When rotating the Roller by hand, do not touch the surface of the Roller. Be sure to hold the side of the Roller to rotate manually.



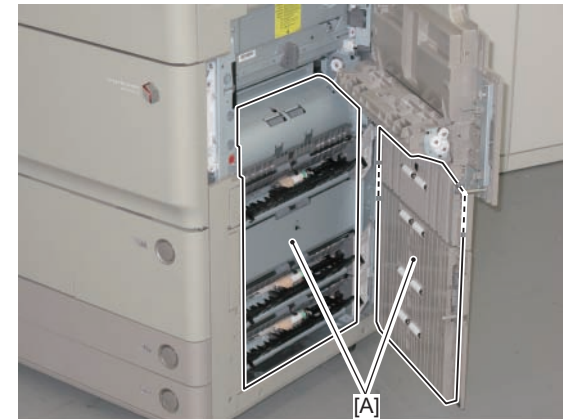
F-4-400

- 5) Clean paper dust on the Vertical Path Sensor 1 (PS24) and the Multi-purpose Tray Last Paper Sensor (PS28) with a blower.



F-4-401

- 6) Clean paper dust on the Feed Guide [A] with lint-free paper.



F-4-402

7) Clean a whole circumference of 10 Rollers by manually rotating them with lint-free paper moistened with alcohol.

**CAUTION:**

When rotating the Roller by hand, do not touch the surface of the Roller. Be sure to hold the side of the Roller to rotate manually.



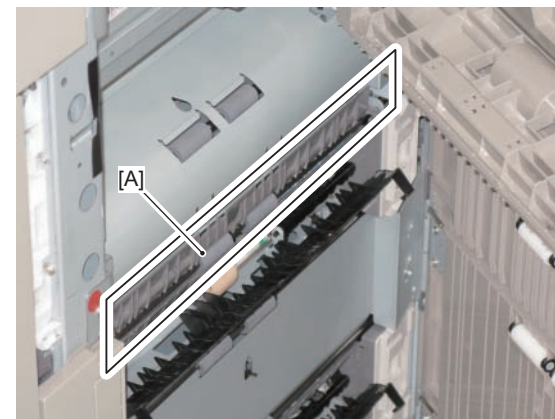
F-4-403

8) Clean a whole circumference of 10 Rollers by manually rotating them with lint-free paper moistened with alcohol.



F-4-404

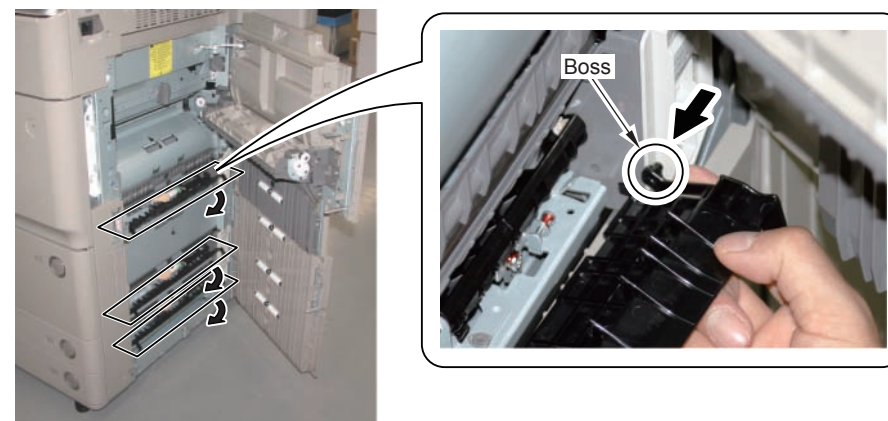
9) Open the Duplex Merging Guide and clean paper dust on the Feed Guide [A] with lint-free paper.



F-4-405

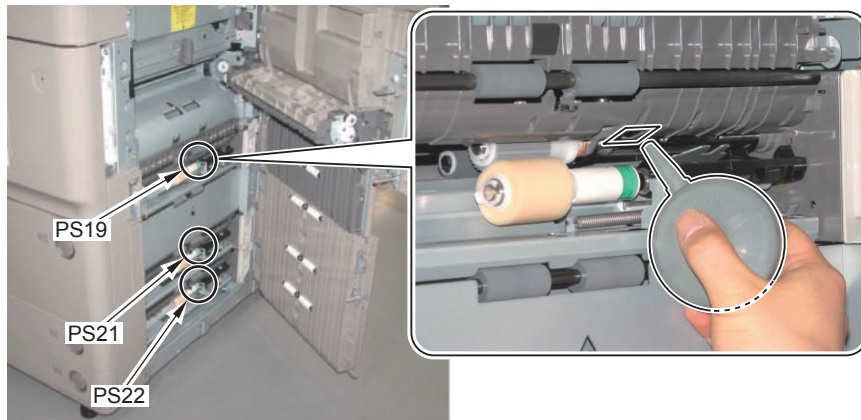
10) Remove the 3 Feed Guides.

- 1 Boss



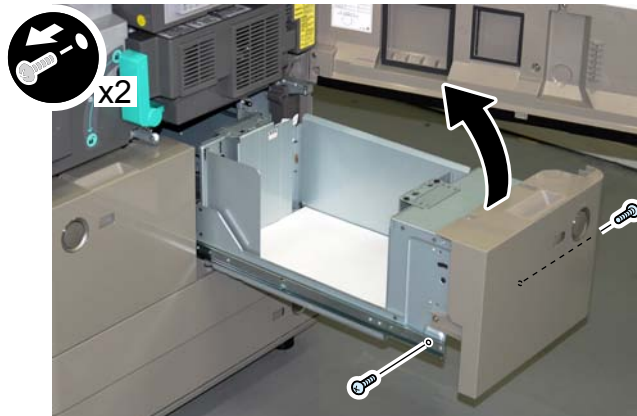
F-4-406

- 11) Clean paper dust on the Right Deck Pickup Sensor 2 (PS19), Cassette 3 Pickup Sensor 2 (PS21), and Cassette 4 Pickup Sensor 1 (PS22) with a blower.



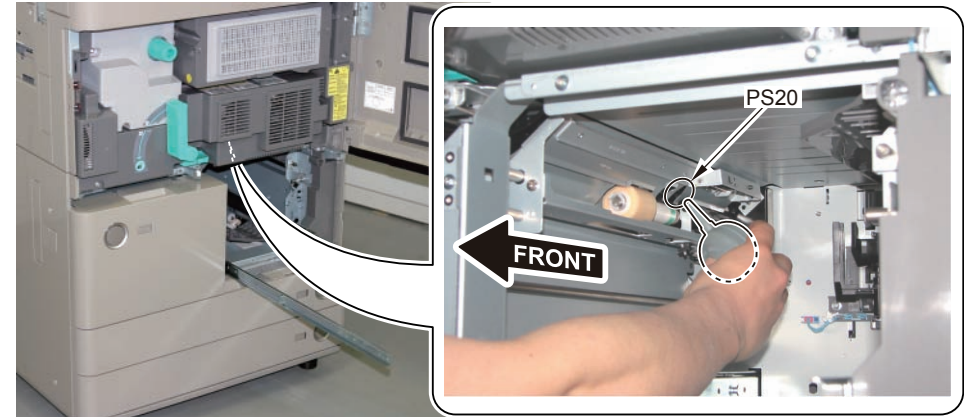
F-4-407

- 12) Install the 3 Feed Guides whom I excluded.  
 13) Close the Right Cover.  
 14) Close the Right Lower Cover.  
 15) Open the Front Cover.  
 16) Pull out the Right Deck to remove.  
 • 2 Screws



F-4-408

- 17) Clean paper dust on the Left Deck Pickup Sensor 2 (PS20) with a blower.

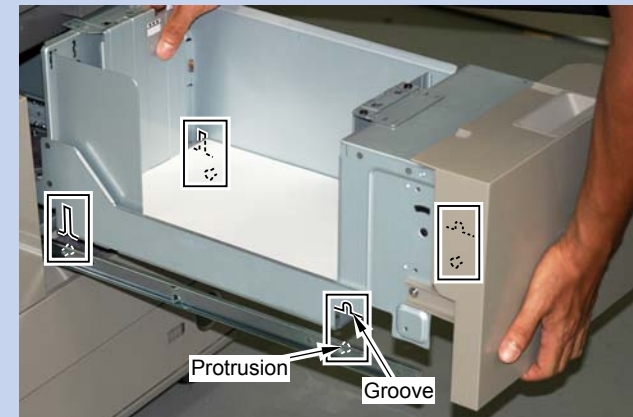


F-4-409

- 18) Install the Right Deck and place it inside the host machine.

**NOTE:**

When installing the Right Pickup Deck, be sure to fit the 4 protrusions on the Rail into the 4 grooves of the Right Pickup Deck to install.



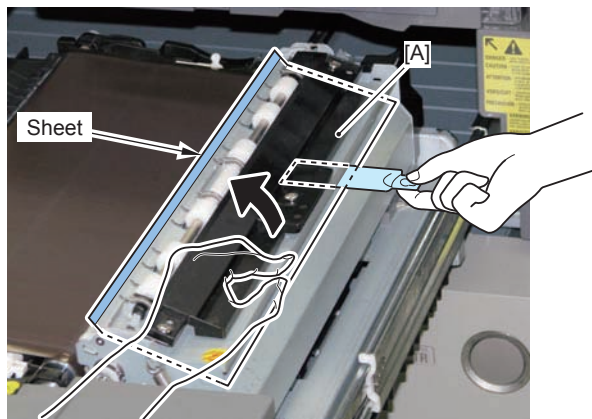
F-4-410

## &lt;Cleaning the Fixing Feed Assembly&gt;

- 1) Open the Fixing Feed Unit fully.
- 2) Open the Registration Upper Guide, insert the paper lint cleaning tool into the clearance between the Registration Upper Guide and the Registration Lower Guide, and clean the feed area [A].

## CAUTION:

Be careful not to damage the sheet on the edge of the Registration Upper Guide.

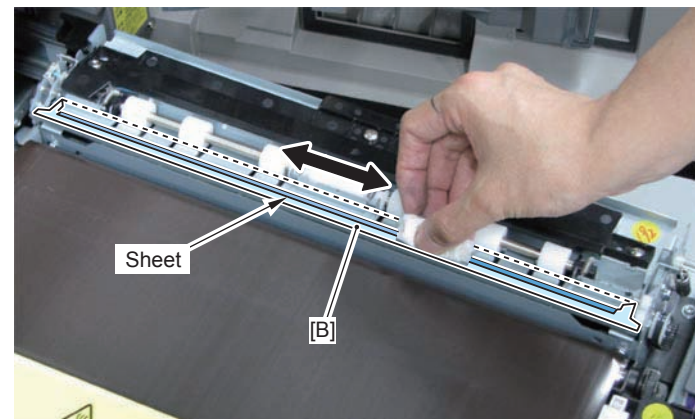


F-4-411

- 3) Insert lint-free paper into the clearance between the Registration Upper Guide and the Registration Lower Guide, and clean the feed area [B] and the sheet on the edge of the Registration Upper Guide.

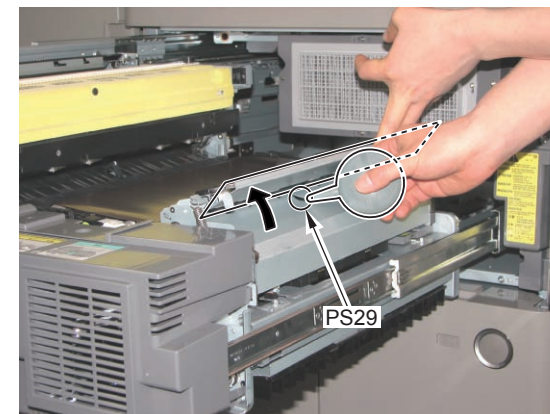
## CAUTION:

Be careful not to damage the sheet on the edge of the Registration Upper Guide.



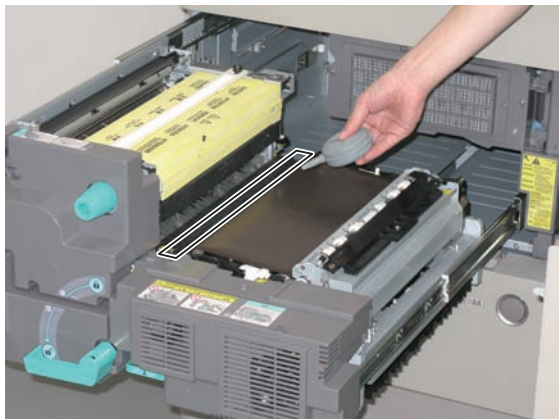
F-4-412

- 4) Open the Registration Upper Guide and clean paper dust on the Registration Sensor (PS29) with a blower.



F-4-413

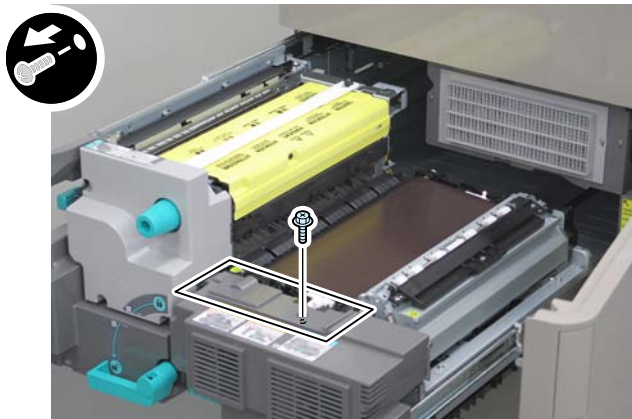
5) Point the leading edge of Blower to the Static Eliminator and clean adhered soiling.



F-4-414

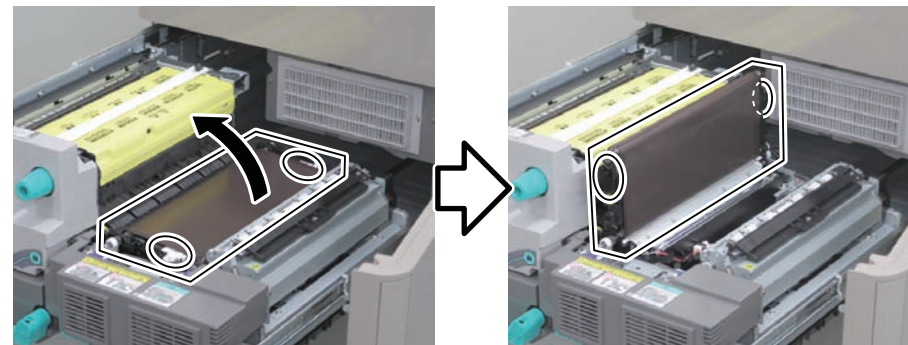
6) Remove the Fixing Feed Cover (Upper).

- 1 Screw



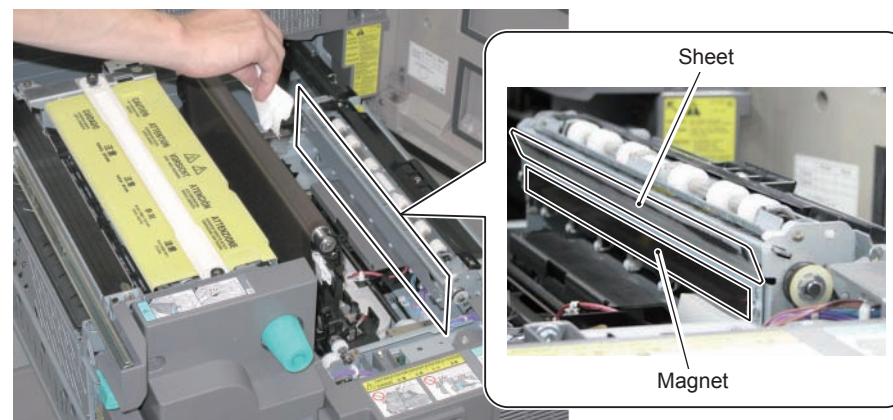
F-4-415

7) Hold the 2 handles to lift the ETB Unit in the direction of the arrow.



F-4-416

8) Clean the soiling adhered on the Magnet and the Sheet with lint-free paper moistened with alcohol.

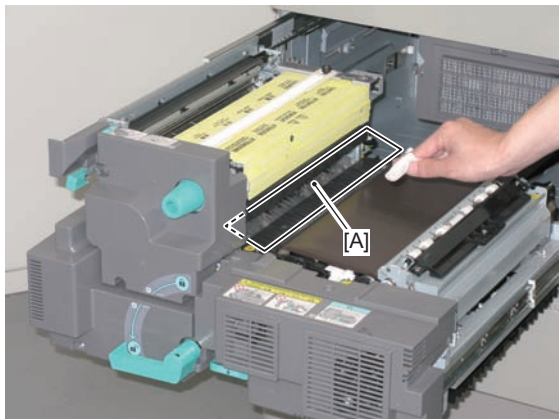


F-4-417



9) I return an ETB unit to the original position.

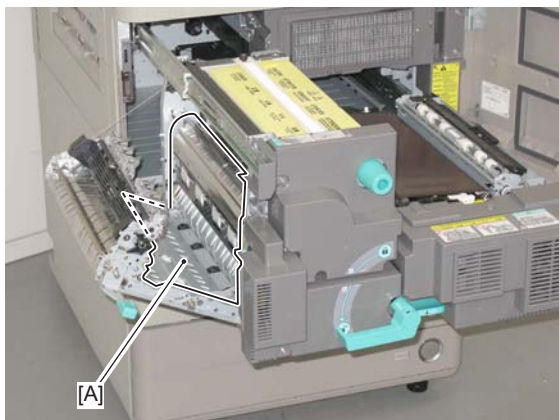
10) Clean the Fixing Inlet Guide [A] with lint-free paper moistened with alcohol.



F-4-418

11) Hold the lever of the Feed Unit to open the Feed Unit.

12) Clean paper dust on the Feed Guide [A] with lint-free paper.

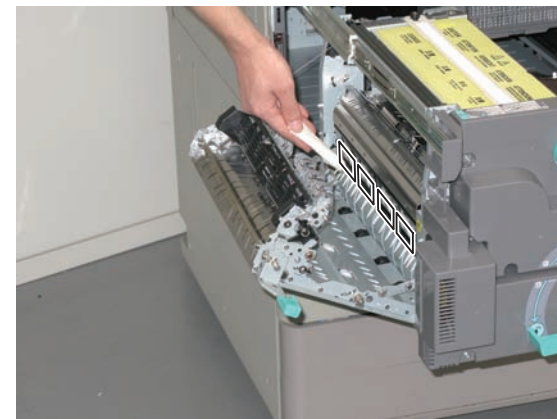


F-4-419

13) Clean a whole circumference of 4 Rollers by manually rotating them with lint-free paper moistened with alcohol.

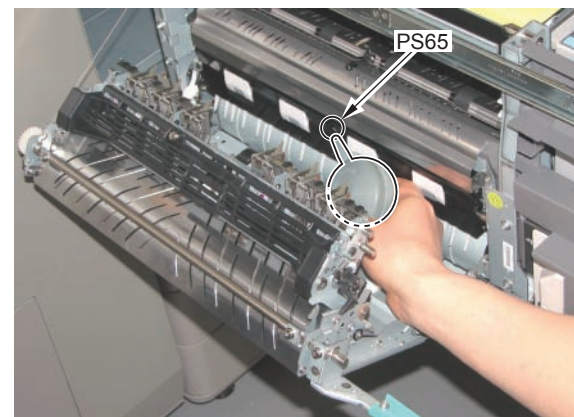
**CAUTION:**

When rotating the Roller by hand, do not touch the surface of the Roller. Be sure to hold the side of the Roller to rotate manually.



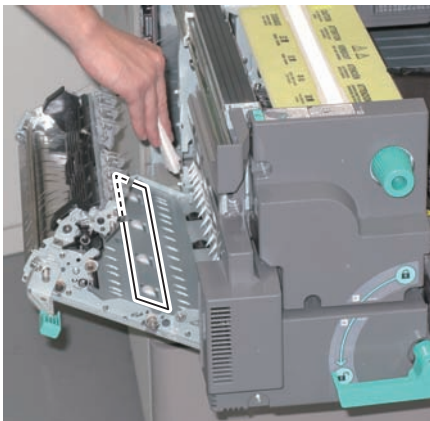
F-4-420

14) Clean paper dust on the Reverse Vertical Path Sensor (PS65) with a blower.



F-4-421

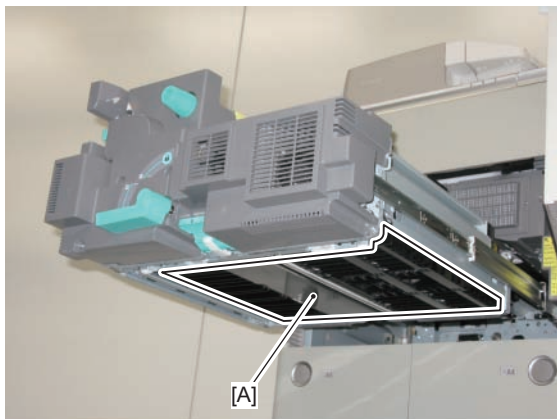
- 15) Clean a whole circumference of 4 Rollers by manually rotating them with lint-free paper moistened with alcohol.



F-4-422

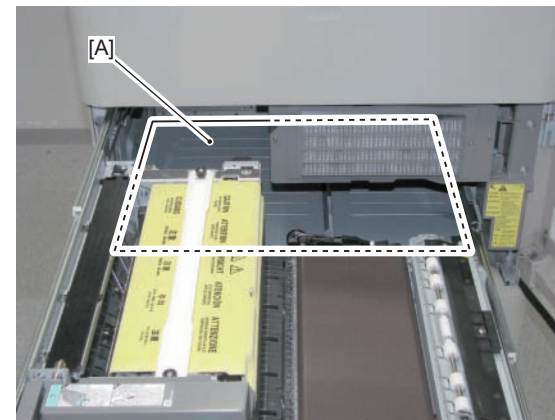
- 16) Hold the lever of the Feed Unit to close the Feed Unit.

- 17) Clean paper dust on the feed area [A] of the Reverse Path with lint-free paper.



F-4-423

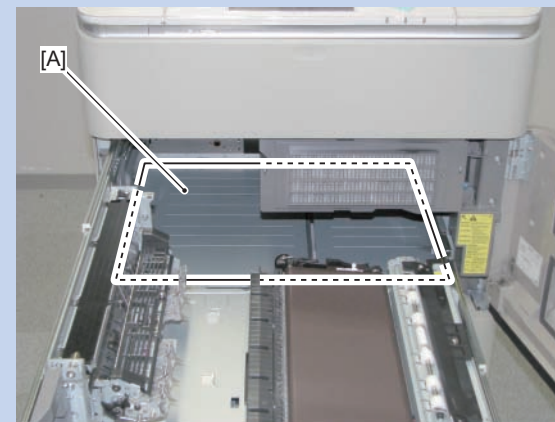
- 18) Clean paper dust on the feed area [A] inside the equipment with lint-free paper.



F-4-424

**NOTE:**

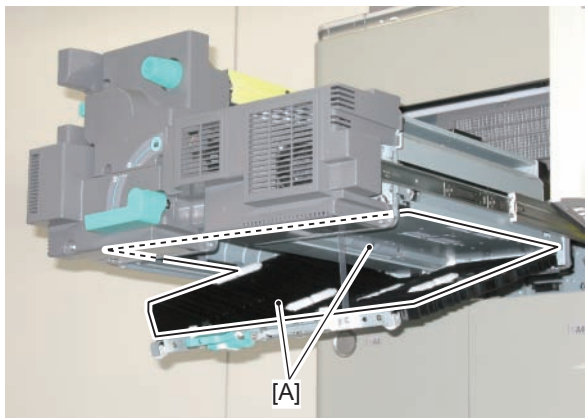
To clean the feed area [A] inside main body, removing the Fixing Assembly can improve the operability.



F-4-425

19) Open the Duplex Path.

20) Clean paper dust on the feed area [A] of the Duplex Path (Upper/Lower) with lint-free paper.

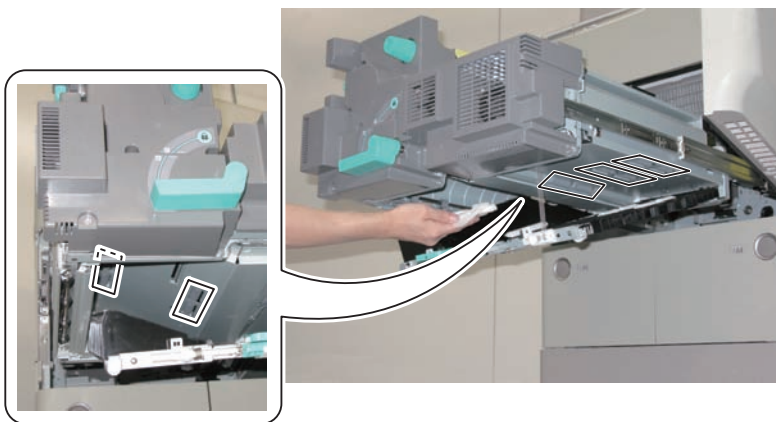


F-4-426

21) Clean a whole circumference of 10 Rollers by manually rotating them with lint-free paper moistened with alcohol.

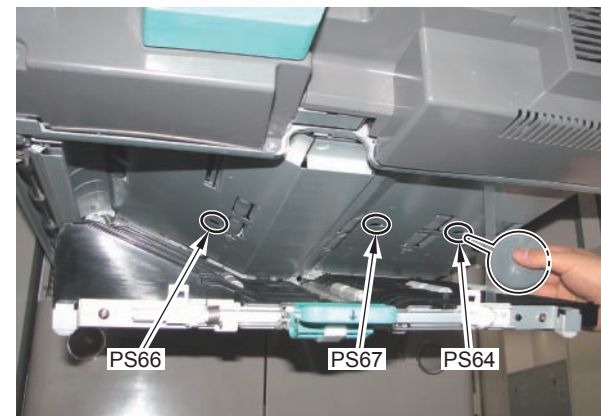
**CAUTION:**

When rotating the Roller by hand, do not touch the surface of the Roller. Be sure to hold the side of the Roller to rotate manually.



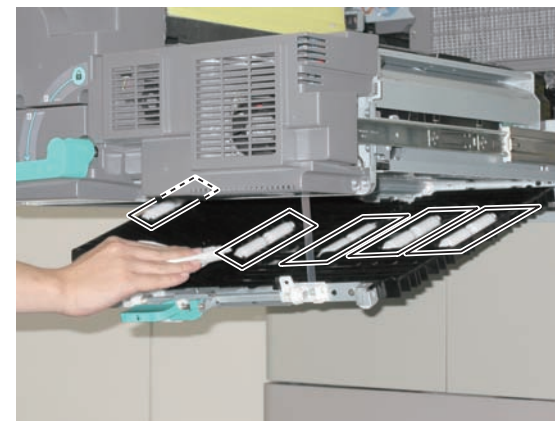
F-4-427

22) Clean paper dust on the Duplex Outlet Sensor (PS64), Duplex Merge Sensor (PS67), and Duplex Left Sensor (PS66) with a blower.



F-4-428

23) Clean a whole circumference of 5 Rollers by manually rotating them with lint-free paper moistened with alcohol.



F-4-429

24) Place a paper on the Duplex Path. Then, point the leading edge of Blower to the Roller frame to remove paper lint.

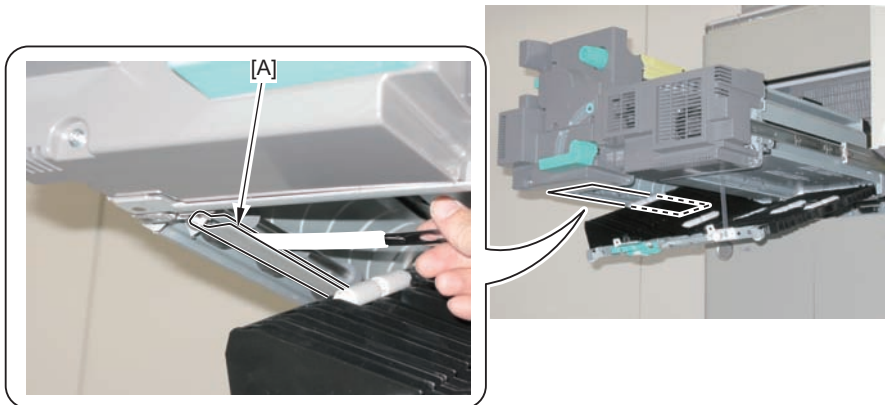
NOTE:

The Cleaning Brush is engaged with 4 Rollers, causing accumulation of paper lint. By blowing air with the Blower, paper lint can be fallen down.



F-4-430

25) Insert the paper lint cleaning tool to the gap of Reverse Path [A] to remove paper lint.



F-4-431

26) Close the Duplex Path.

27) Install the Fixing Feed Cover (Upper).

28) Push in the Fixing Feed Unit.

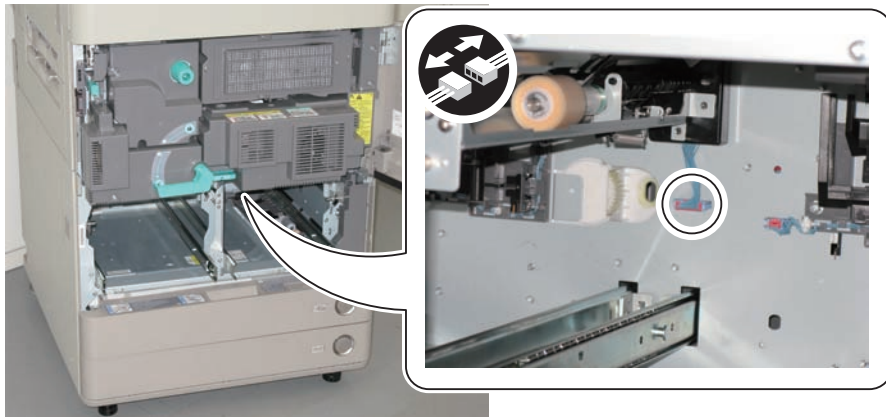
## Removing the Left Deck Pickup Unit

### <Preparation>

1. Remove the Right Deck. (Refer to page 4-198)
2. Remove the Left Deck. (Refer to page 4-197)

### <Procedure>

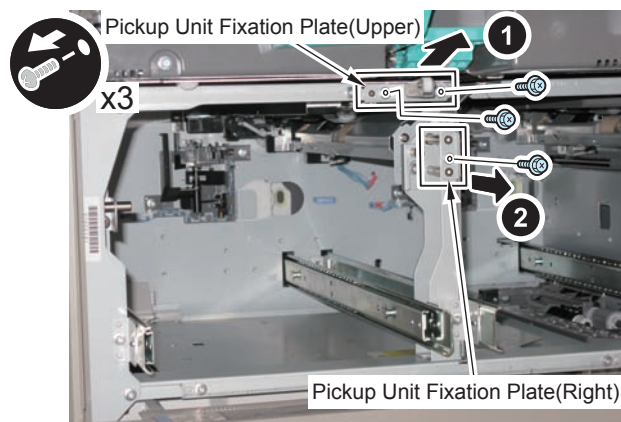
- 1) Disconnect the Connectors.



F-4-432

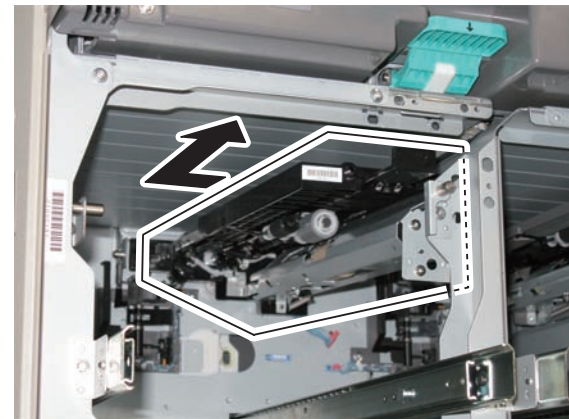
- 2) Remove the Pickup Unit Fixation Plate (Upper/Right).

- 3 Screws



F-4-433

- 3) Remove the Left Deck Pickup Unit.



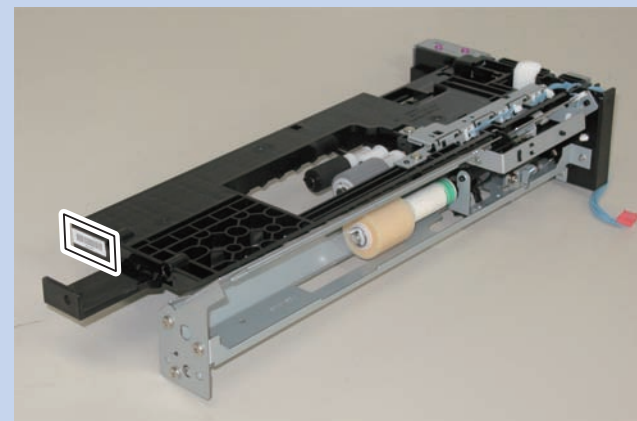
F-4-434

### CAUTION: Points to Caution at Installation

When installing the Left Deck Pickup Unit, pull out the Fixing Feed Unit for approx. 10cm to install, and then return the unit to its original position after installation.

### NOTE:

Be sure to check that the parts number of Pickup Unit is correct.



F-4-435

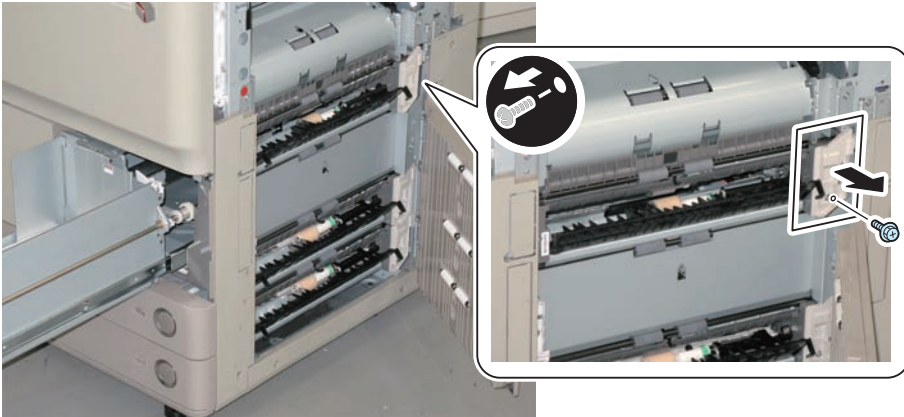
## Removing the Right Deck Pickup Unit

### <Preparation>

1. Remove the Right Cover.(Refer to page 4-93)
2. Pull out the Right Deck.(Refer to page 4-198)

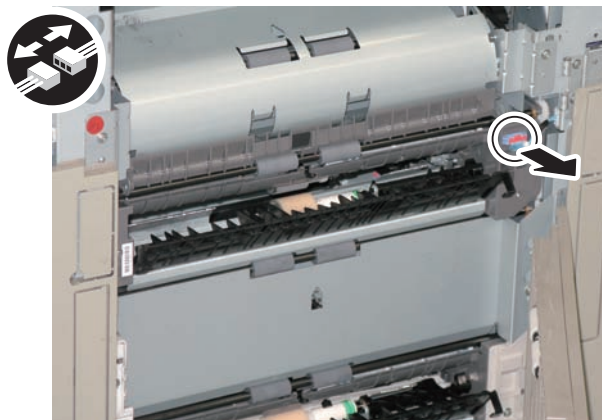
### <Procedure>

- 1) Open the Right Lower Cover.
  - 2) Remove the Connector Cover.
- 1 Screw



F-4-436

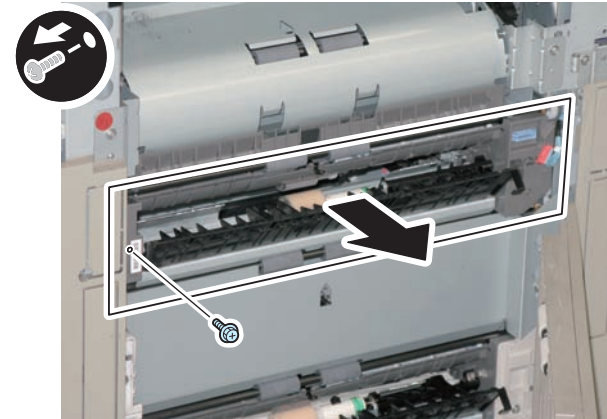
- 3) Disconnect the Connectors.



F-4-437

- 4) Remove the Right Deck Pickup Unit.

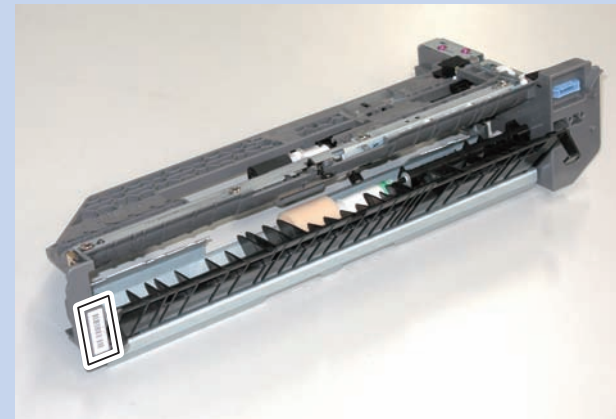
- 1 Screw



F-4-438

### NOTE:

Be sure to check that the parts number of Pickup Unit is correct.



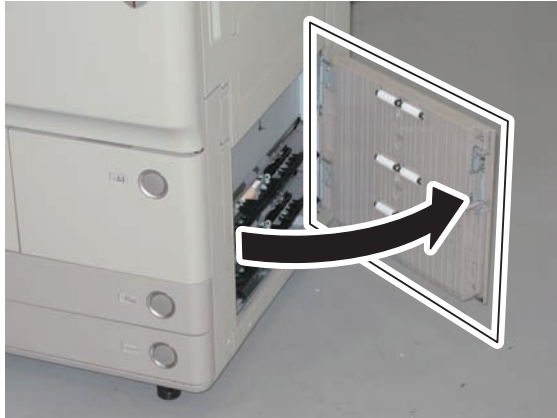
F-4-439

## Removing the Cassettes 3 and 4 Pickup Unit

### <Preparation>

1. Remove the Right Lower Cover.

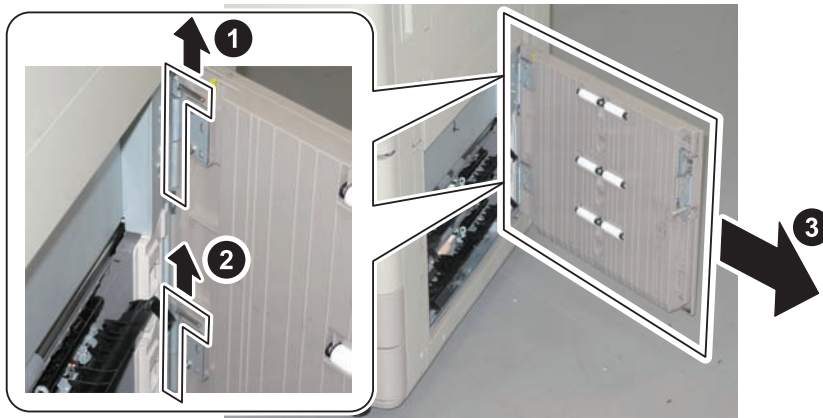
1-1) Open the Right Lower Cover.



F-4-440

1-2) Remove the Right Lower Cover.

• 2 Hinge Pins



F-4-441

2. Pull out the Cassettes 3 and 4.

### <Procedure>

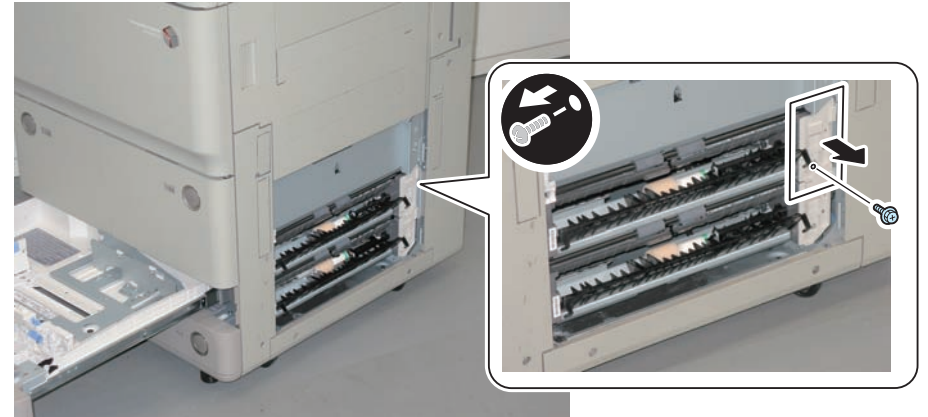
#### NOTE:

This procedure explains the case for Cassette 3 Pickup Unit.

Be sure to perform the same procedure when the Cassette 4 Pickup Unit is used.

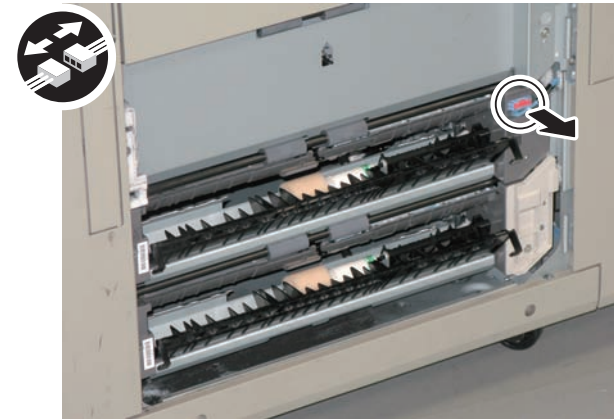
1) Remove the Connector Cover.

• 1 Screw



F-4-442

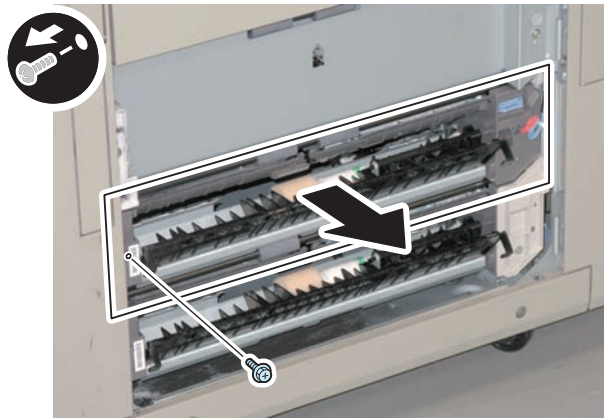
2) Disconnect the Connectors.



F-4-443

3) Remove the Pickup Unit.

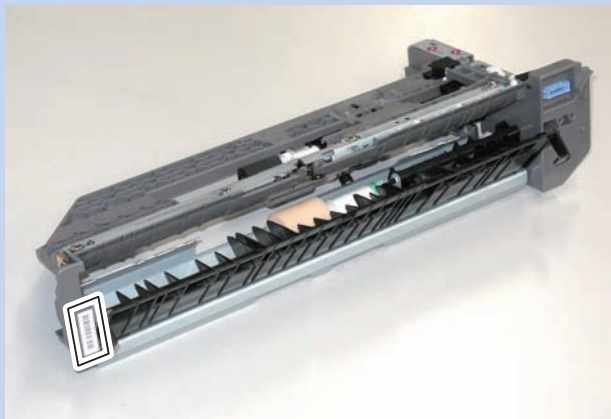
- 1 Screw



F-4-444

**NOTE:**

Be sure to check that the parts number of Pickup Unit is correct.



F-4-445

## Removing the Vertical Path Cassette Pickup Drive Unit

### <Preparation>

1. Remove the Box Cover (Left).

1-1) Remove the Harness.

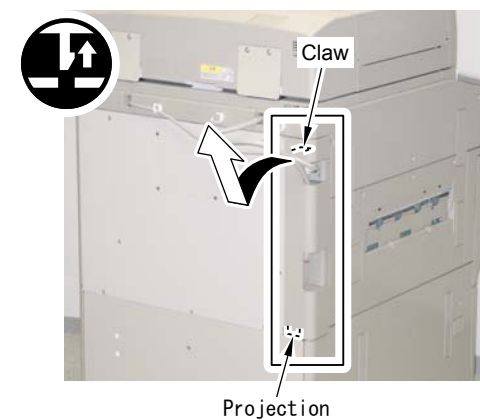
- 2 Wire Saddles



F-4-446

1-2) Remove the Box Cover (Left).

- 1 Claw
- 1 Protrusion

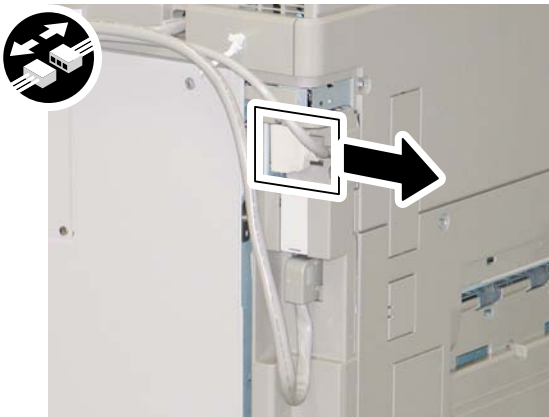


F-4-447



2. Open the Controller Box.

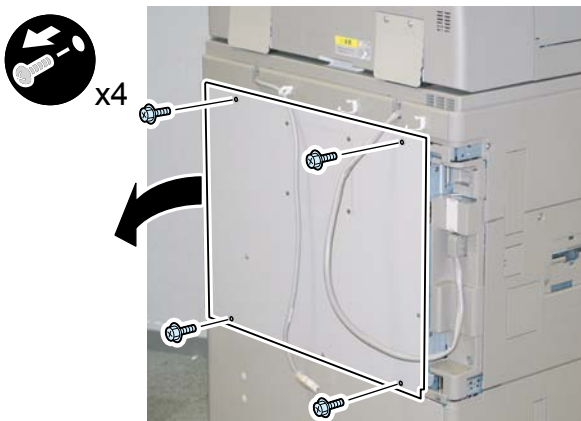
2-1) Disconnect the Reader Communication Cable.



F-4-448

2-2) Open the Controller Box in the direction of the arrow.

• 4 Screws

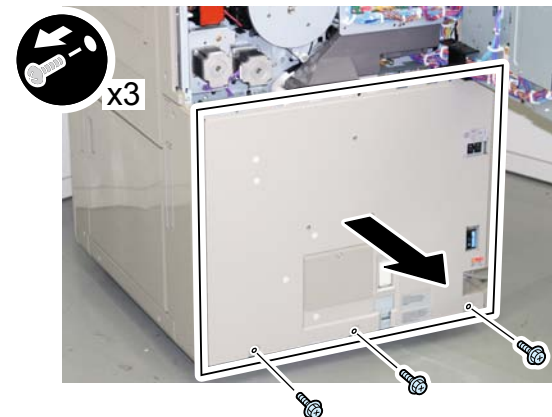


F-4-449

3. Remove the Rear Lower Cover.

3-1) Remove the Rear Lower Cover in the direction of the arrow.

• 3 Screws



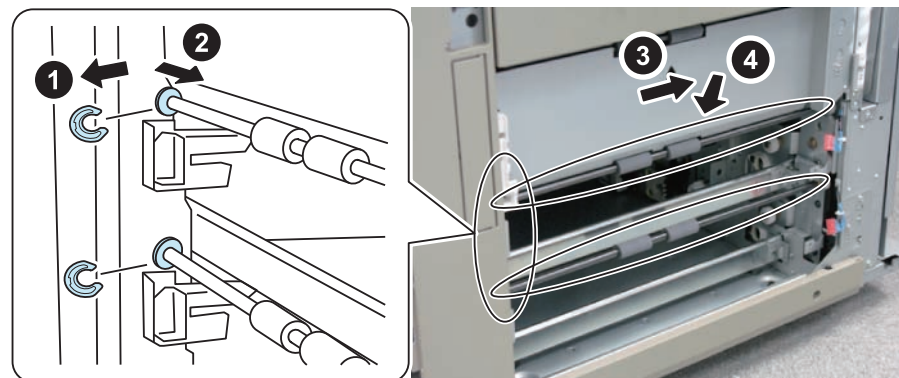
F-4-450

4. Remove the Waste Toner Container. (Refer to page 4-143)

5. Remove the Cassette 3 and Cassette 4 Pickup Units. (Refer to page 4-220)

#### <Procedure>

1) Remove the 2 E-rings and move the bushings to remove the Vertical Path Rollers 3 and 4 in the direction of the arrow.



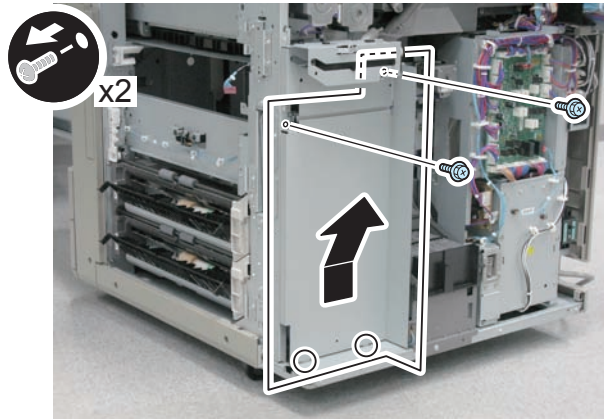
F-4-451

#### CAUTION:

Do not lose the bushings when removing the Roller Shaft.

## 2) Remove the Shield Plate.

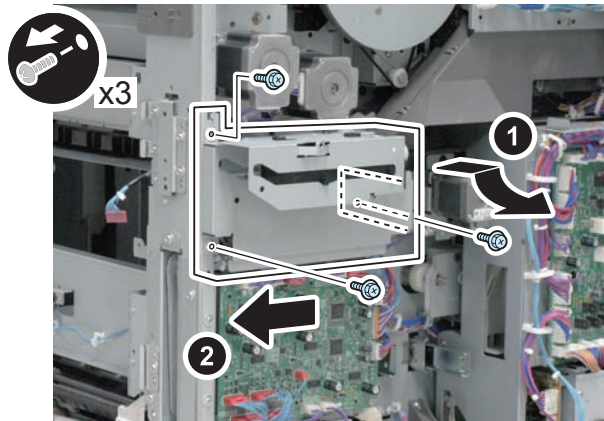
- 1 Screw
- 2 Protrusions



F-4-452

## 3) Remove the Waste Toner Container Shutter Unit.

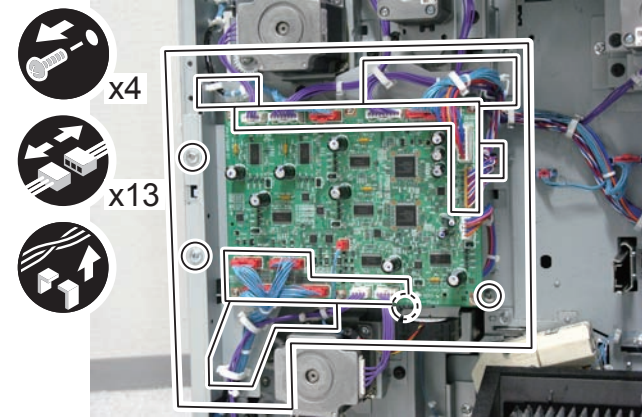
- 3 Screws
- 1 Hook



F-4-453

## 4) Remove the Feed Driver PCB Unit.

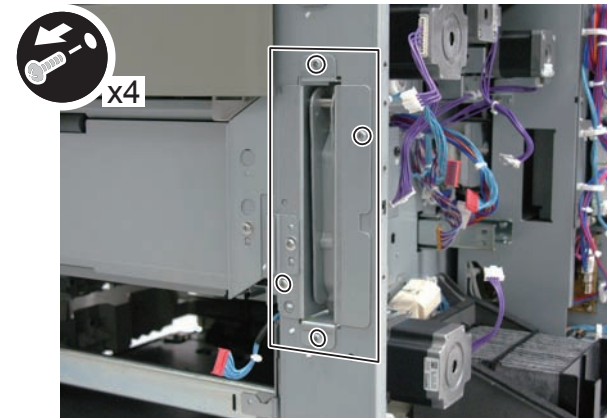
- 4 Screws
- 13 Connectors
- 9 Wire Saddles
- 1 Reuse Band
- Harness



F-4-454

## 5) Remove the Right Rear Handle.

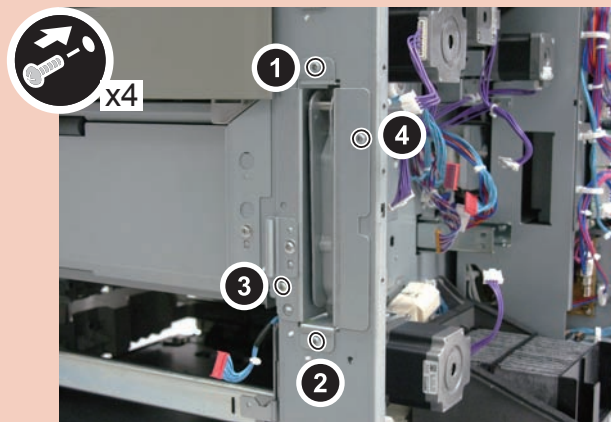
- 4 Screws



F-4-455

**CAUTION:**

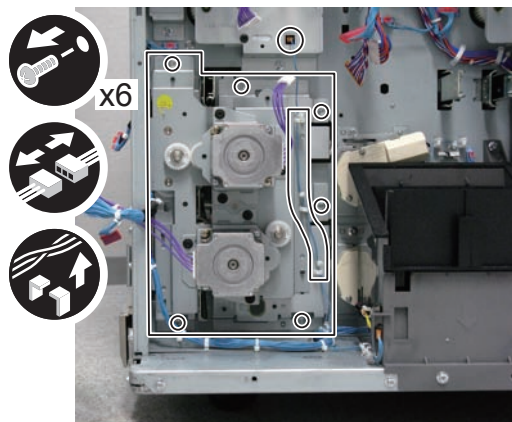
When installing the handle, be sure to follow the order as shown in the figure to tighten screws.



F-4-456

## 6) Free the harness and remove the Vertical Path Cassette Drive Unit.

- 1 Connector
- 3 Wire Saddles
- 6 Screws



F-4-457

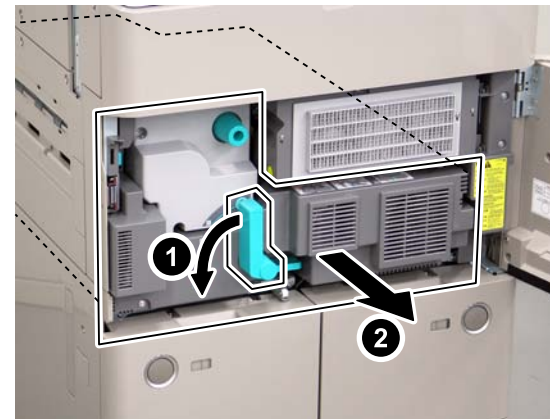
## Removing the Registration Unit

**<Preparation>**

1. Pull out the Fixing Feed Unit.

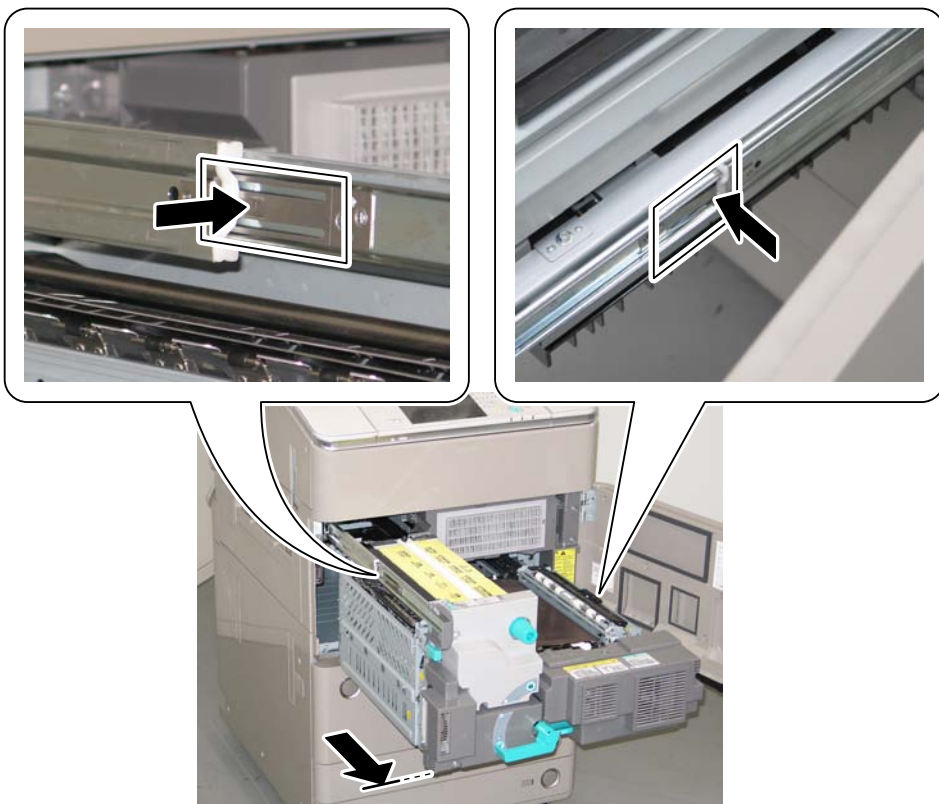
1-1) Open the Front Cover.

1-2) Turn the Fixing Feed Unit Pressure Release Lever in the direction of the arrow to pull out the Fixing Feed Unit.



F-4-458

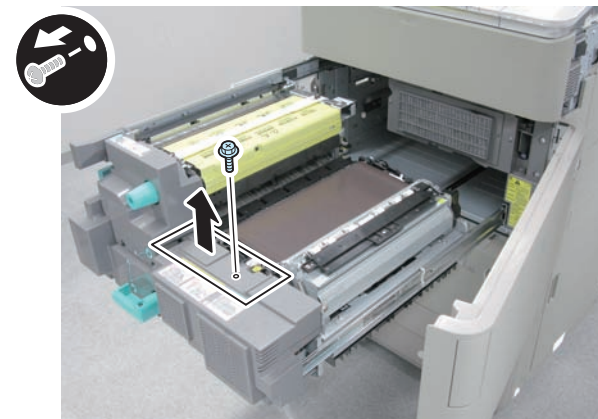
- 1-3) Push to release the Release Springs at both sides of the Rail, and then further pull out the Fixing Feed Unit until it stops.



F-4-459

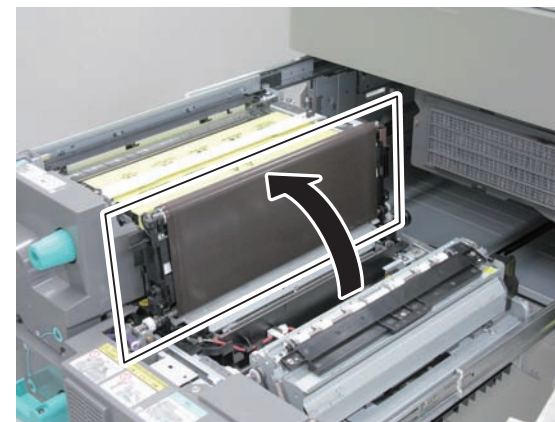
#### <Procedure>

- 1) Remove the Fixing Feed Right Front Upper Cover
  - 1 Screw



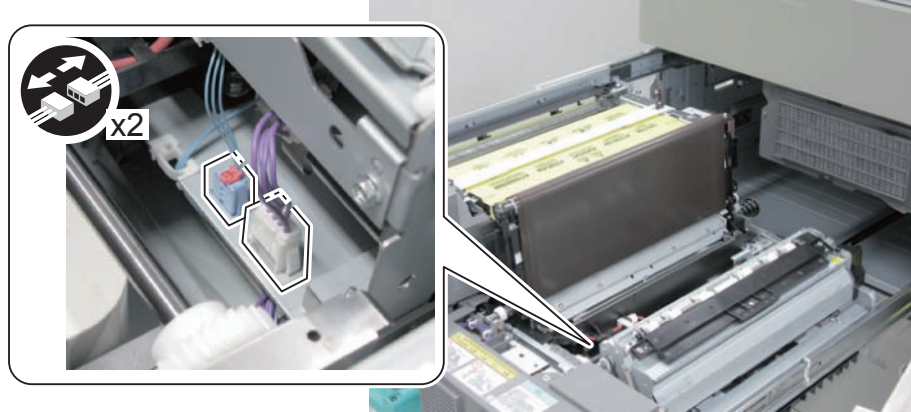
F-4-460

- 2) Lift the ETB Unit in the direction of the arrow.



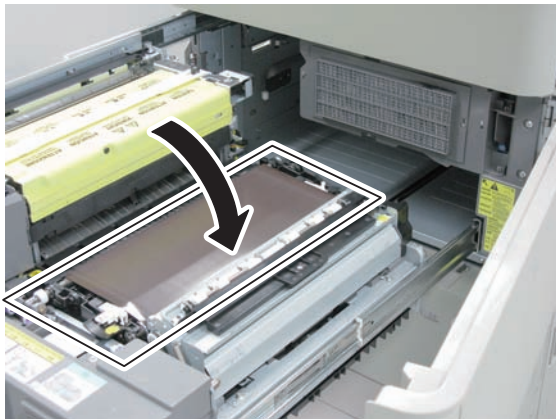
F-4-461

3) Disconnect the 2 connectors.



F-4-462

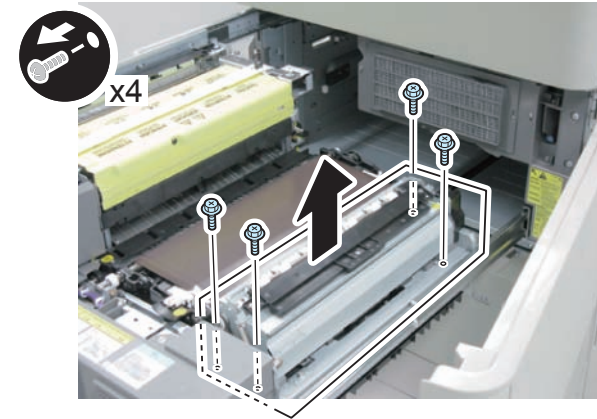
4) Set the ETB Unit back.



F-4-463

5) Remove the Registration Unit.

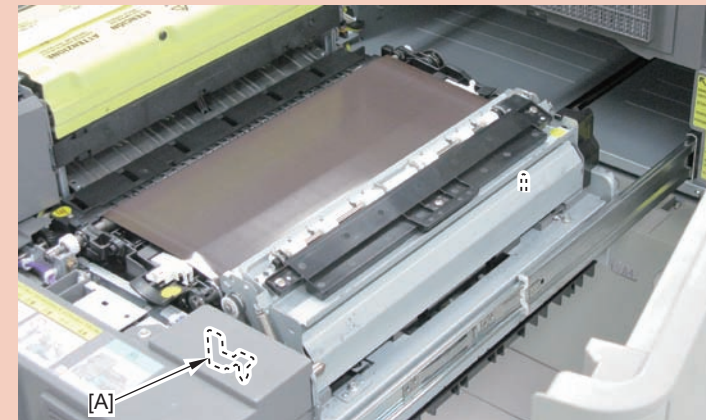
- 4 Screws



F-4-464

**CAUTION:**

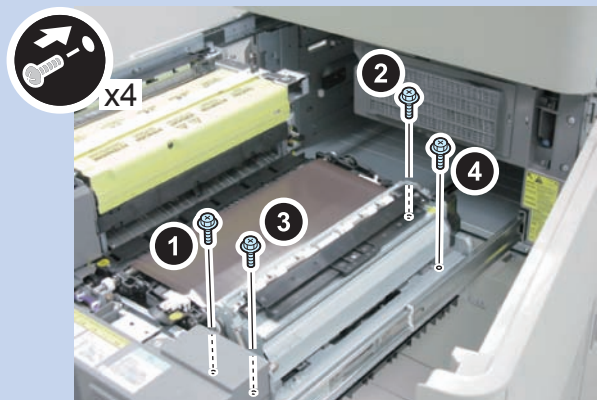
When installing, be sure to check that the 2 Positioning Pins are secured.



F-4-465

**NOTE:**

When installing the Registration Unit, be sure to follow the order as shown in the figure to tighten screws.



F-4-466

## Removing the Left Deck Pickup Drive Unit

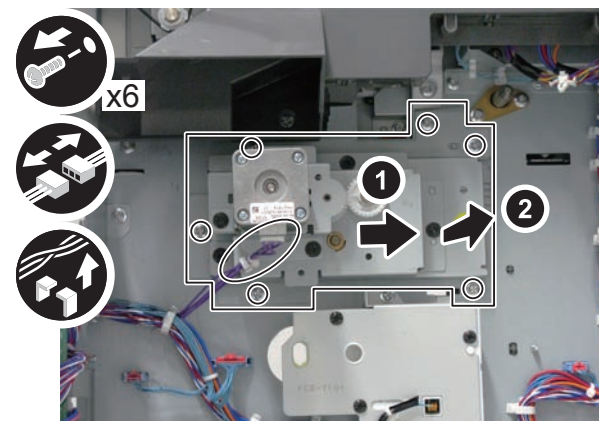
### <Preparation>

1. Remove the Box Cover (Left). (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
2. Open the Controller Box. (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
3. Remove the Rear Lower Cover. (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
4. Remove the Power Supply Assembly. (Refer to page 4-237)
5. Remove the Left Deck Pickup Unit. (Refer to page 4-218)

### <Procedure>

- 1) Remove the Left Deck Pickup Drive Unit in the direction of the arrow.

- 6 Screws
- 1 Connector
- 1 Wire Saddle



F-4-467

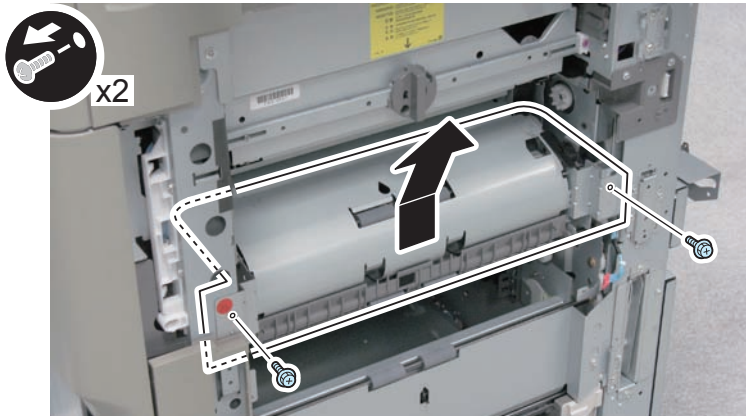
## Removing the Main Drive Unit

### <Preparation>

1. Remove the Box Cover (Left). (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
2. Open the Controller Box. (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
3. Remove the Rear Lower Cover. (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
4. Remove the Waste Toner Container. (Refer to page 4-143)
5. Remove the Right Lower Cover. (Refer to "Removing the Cassettes 3 and 4 Pickup Unit")
6. Remove the Right Deck Pickup Unit. (Refer to page 4-219)

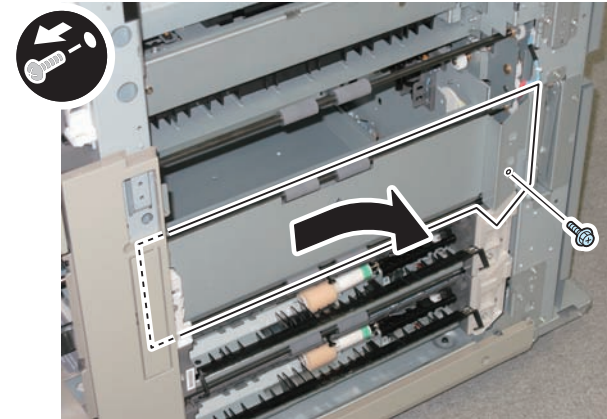
### <Procedure>

- 1) Remove the Pre-registration Guide Unit.
  - 2 Screws



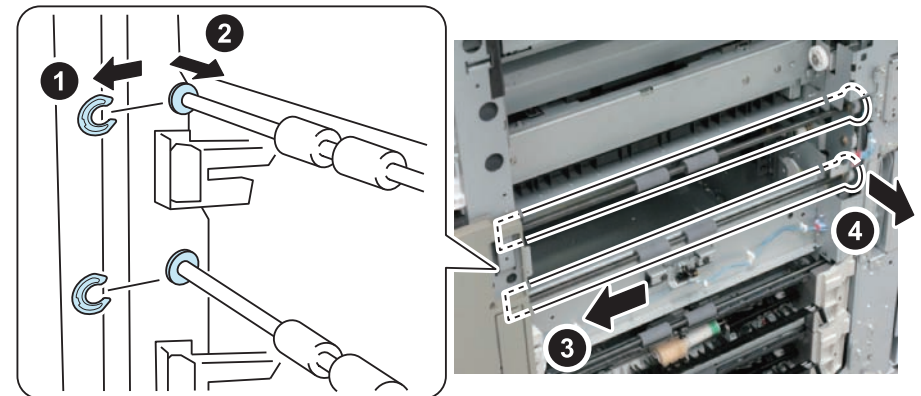
F-4-468

- 2) Remove the Middle Vertical Path Guide.
  - 1 Screw



F-4-469

- 3) Remove the 2 E-rings and move the bushings to remove the Vertical Path Rollers 1 and 2 in the direction of the arrow.



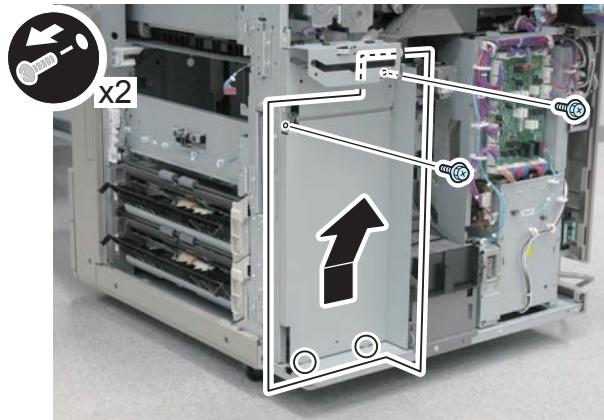
F-4-470

### CAUTION:

Do not lose the bushings when removing the Vertical Path Rollers 1 and 2.

## 4) Remove the Shield Plate.

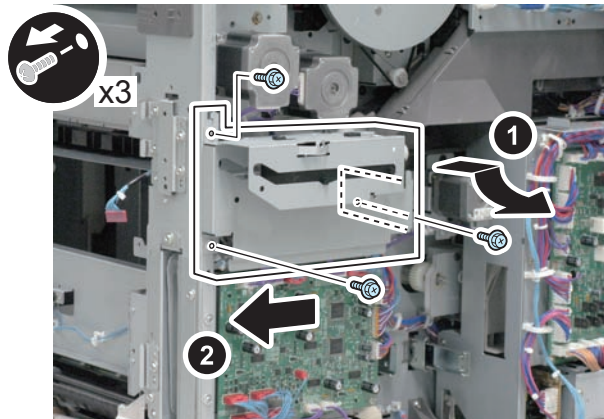
- 2 Screws
- 2 Protrusions



F-4-471

## 5) Remove the Waste Toner Container Shutter Unit.

- 3 Screws



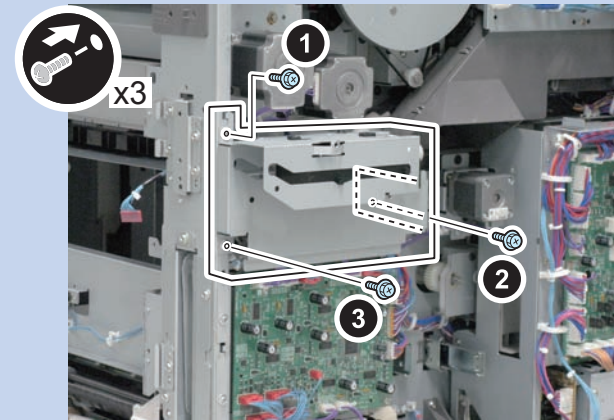
F-4-472

**CAUTION:**

When removing the Waste Toner Container Shutter Unit, be careful of toner scattering.

**NOTE:**

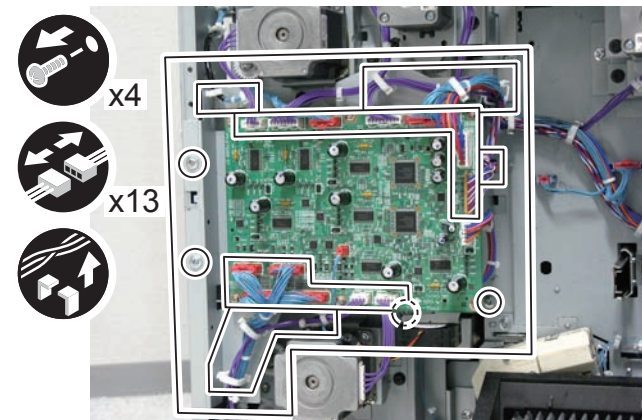
When installing the Waste Toner Container Shutter Unit, be sure to follow the order as shown in the figure to tighten screws.



F-4-473

## 6) Remove the Feed Driver PCB Unit.

- 4 Screws
- 13 Connectors
- 9 Wire Saddles
- 1 Reuse Band
- Harness

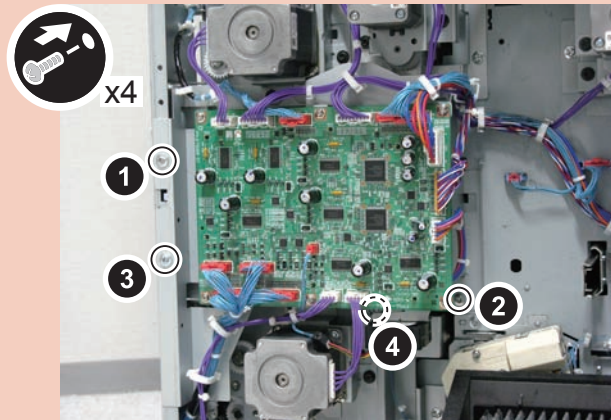


F-4-474



**CAUTION:**

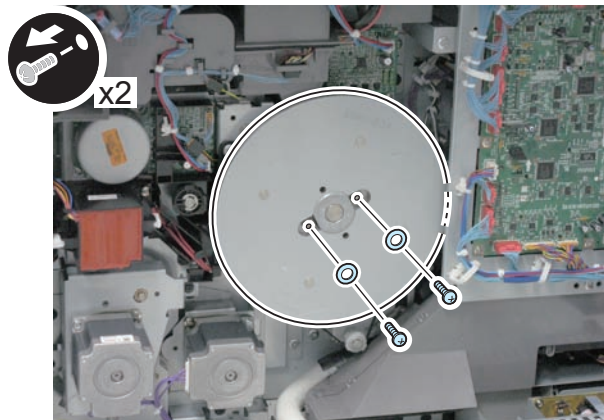
When installing the Feed Driver PCB Unit, be sure to follow the order as shown in the figure to tighten screws.



F-4-475

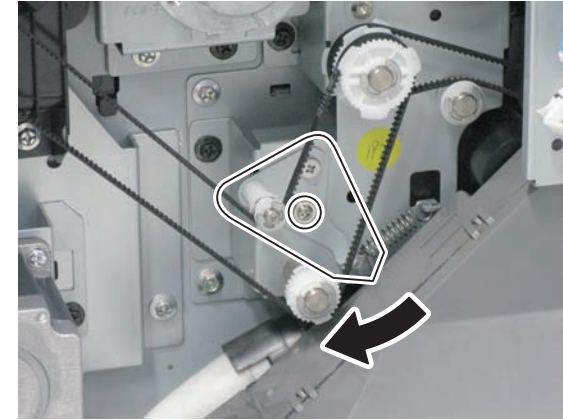
## 7) Remove the Flywheel.

- 2 Screws
- 2 Washers



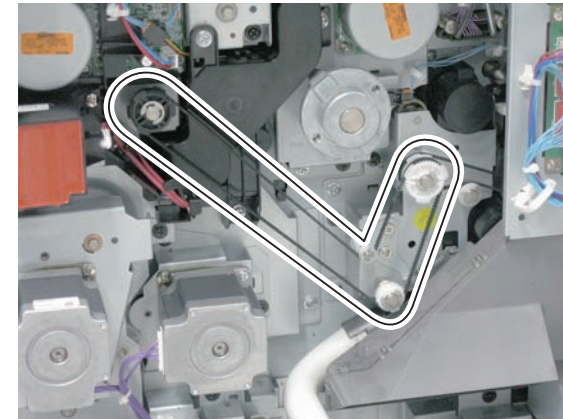
F-4-476

- 8) Loosen the screw and move the Belt Tensioner in the direction of the arrow, and then again tighten the screw.



F-4-477

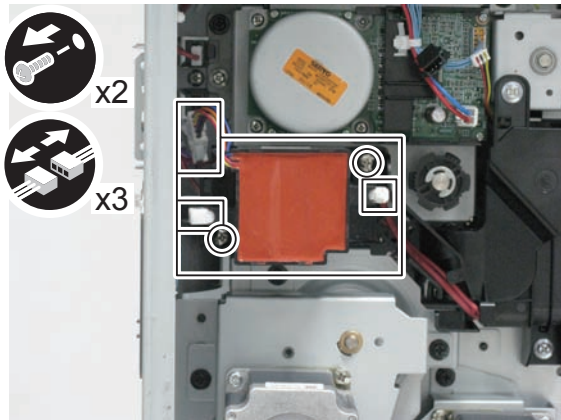
- 9) Remove the belt from the pulley.



F-4-478

10) Remove the transformer.

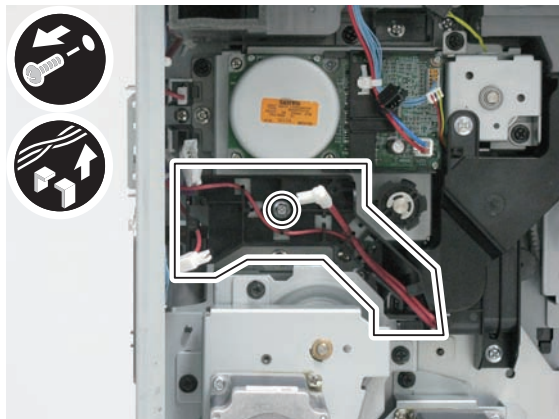
- 2 Screws
- 3 Connectors



F-4-479

11) Free the harness and remove the Transformer Support Base.

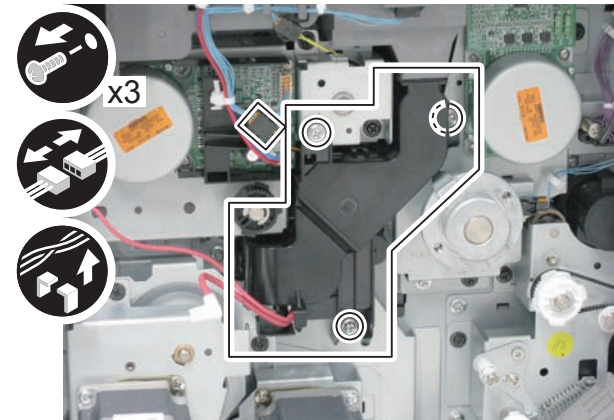
- 1 Screw
- Harness



F-4-480

12) Remove the Duct Unit.

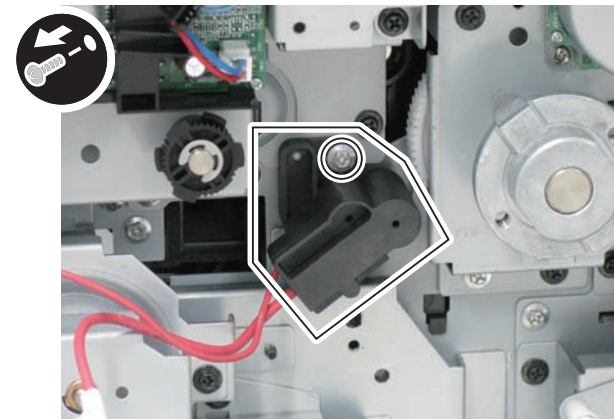
- 3 Screws
- 1 Connector
- Harness



F-4-481

13) Disconnect the Pre-transfer Charging High Voltage Connector.

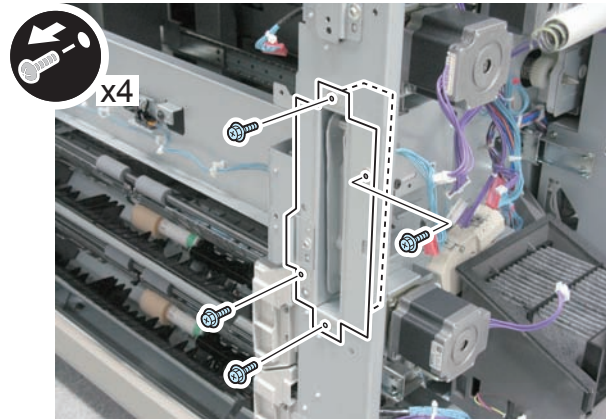
- 1 Screw



F-4-482

14) Remove the Right Rear Handle.

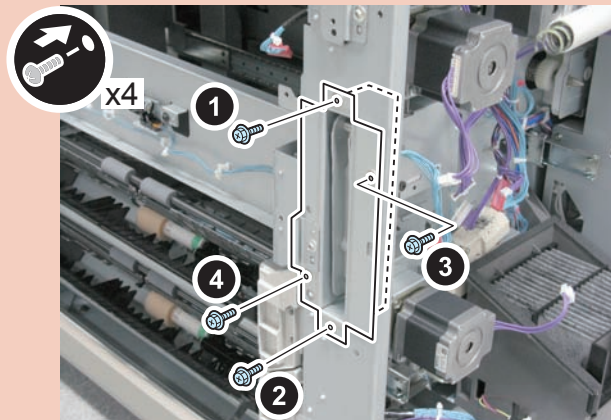
- 4 Screws



F-4-483

**CAUTION:**

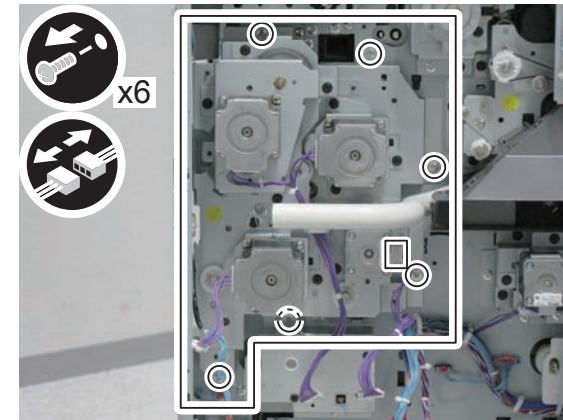
When installing the Right Rear Handle, be sure to follow the order as shown in the figure to tighten screws.



F-4-484

15) Remove the Main Drive Unit.

- 6 Screws
- 1 Connector



F-4-485

## External Auxiliary System

### Removing the Filter (for primary charging)

- 1) Open the Front Cover.
  - 2) Remove the Filter (for primary charging).
- 1 Screw



F-4-486

### Removing the Ozone Filter

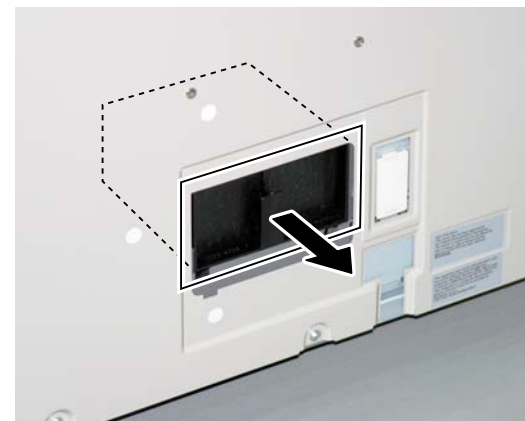
- 1) Remove the Filter Cover.
- 1 Screw



F-4-487

**NOTE:**  
To prevent falling of the Filter Cover, be sure to hold the Filter Cover to remove the screw.

- 2) Remove the Ozone Filter.



F-4-488

## Removing the DC Controller PCB

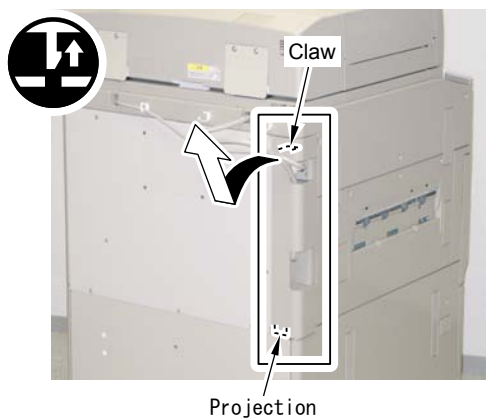
### <Preparation>

1. Remove the Box Cover (Left).
- 1-1) Remove the Harness.
  - 2 Wire Saddles



F-4-489

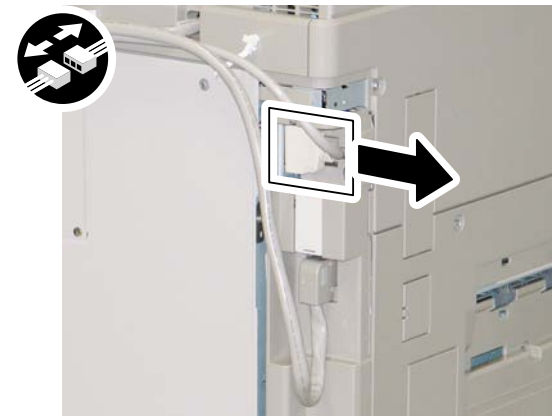
- 1-2) Remove the Box Cover (Left).
- 1 Claw
- 1 Protrusion



F-4-490

2. Open the Controller Box.

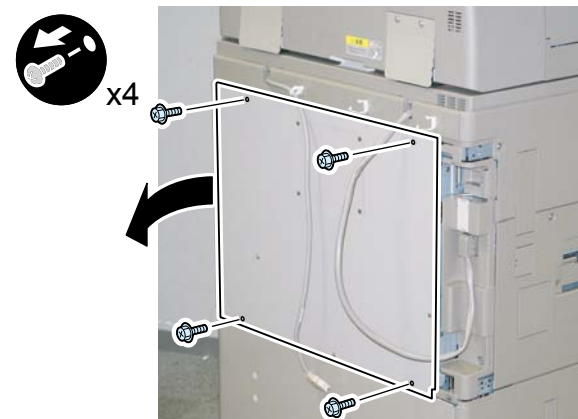
- 2-1) Disconnect the Reader Communication Cable.



F-4-491

- 2-2) Open the Controller Box in the direction of the arrow.

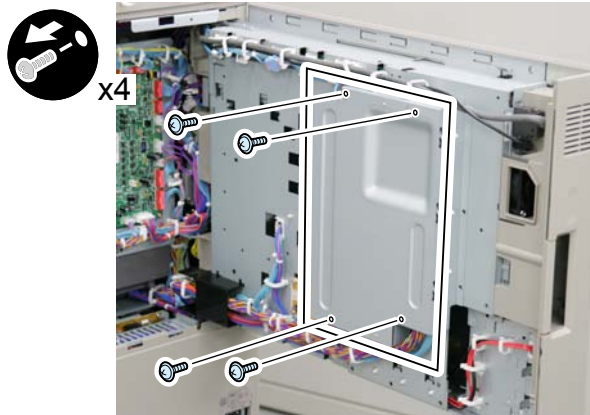
- 4 Screws



F-4-492

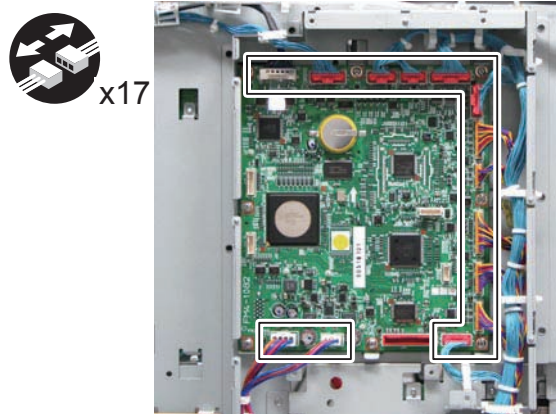
## &lt;Procedure&gt;

- 1) Remove the Controller Box Inner Cover.
  - 4 Screws (TP)



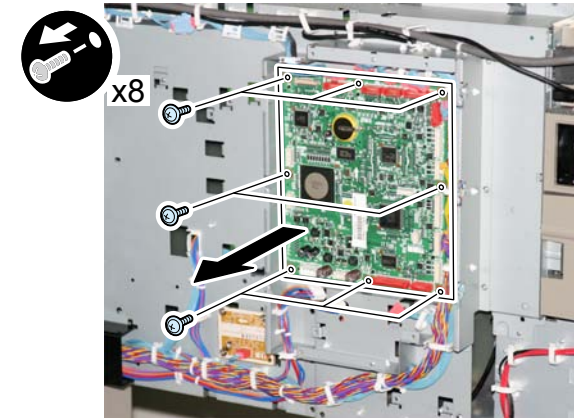
F-4-493

- 2) Disconnect the 17 Connectors.



F-4-494

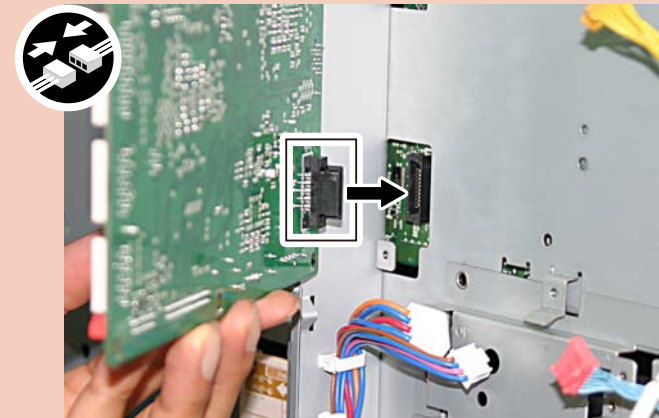
- 3) Remove the DC Controller PCB in the direction of the arrow.
  - 8 Screws



F-4-495

CAUTION: Points to Caution at Installation

Be sure to securely connect the Connector at the back of the DC Controller PCB.



F-4-496

## &lt;Processing after replacing the parts&gt;

- Get in service mode to enter all the latest service mode values written on the label at the back of the Front Cover.

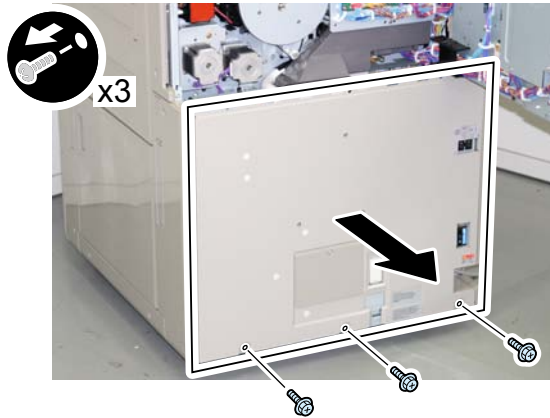


F-4-497

## Removing the Power Supply Assembly

### <Preparation>

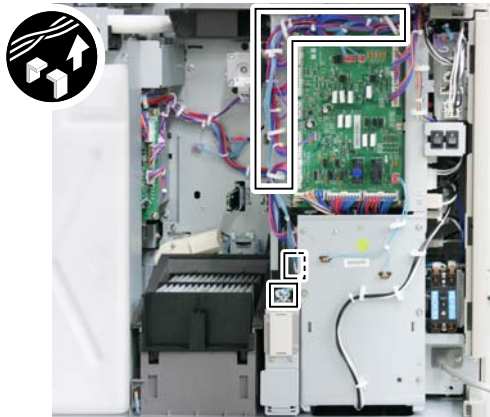
1. Remove the Box Cover (Left). (Refer to "Removing the DC Controller PCB")
2. Open the Controller Box. (Refer to "Removing the DC Controller PCB")
3. Remove the Rear Lower Cover.
  - 3-1) Remove the Rear Lower Cover in the direction of the arrow.
    - 3 Screws



F-4-498

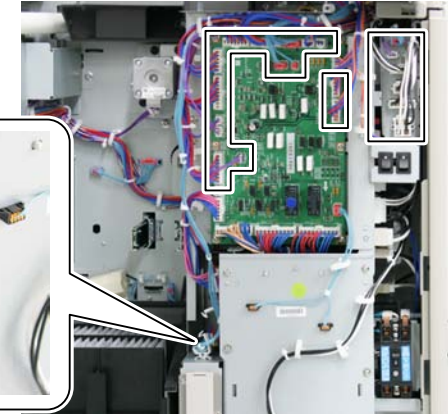
### <Procedure>

- 1) Free the Harness from the Wire Saddle.



F-4-499

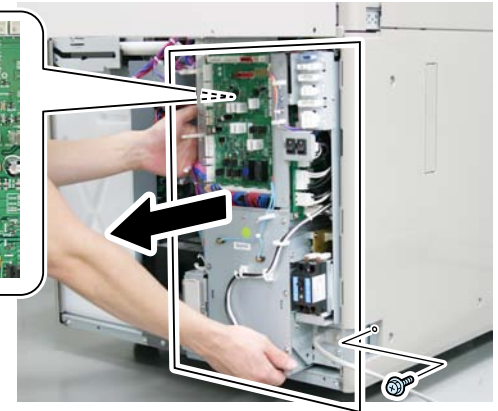
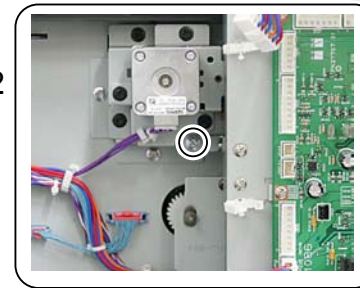
- 2) Disconnect the 23 Connectors and free the Harness to the top of the Power Supply Assembly.



F-4-500

- 3) Remove the Power Supply Assembly in the direction of the arrow.

- 2 Screws



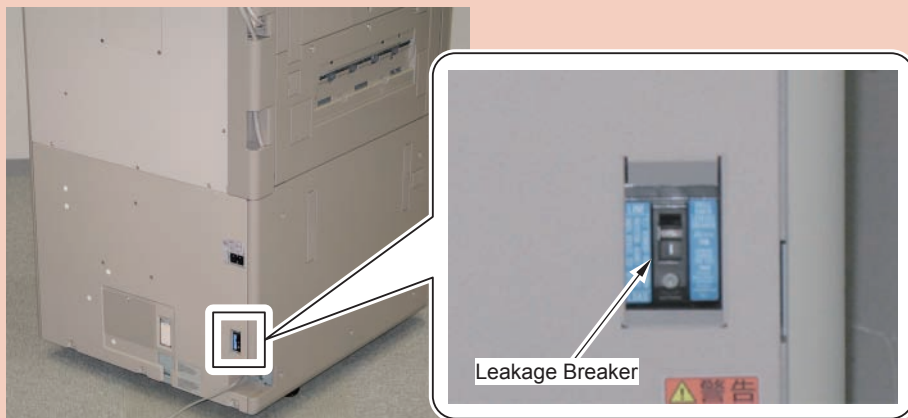
F-4-501



## Removing the Fixing Power Unit

CAUTION:Points to Caution before Operation

When executing this procedure, be sure to turn OFF the breaker beforehand.



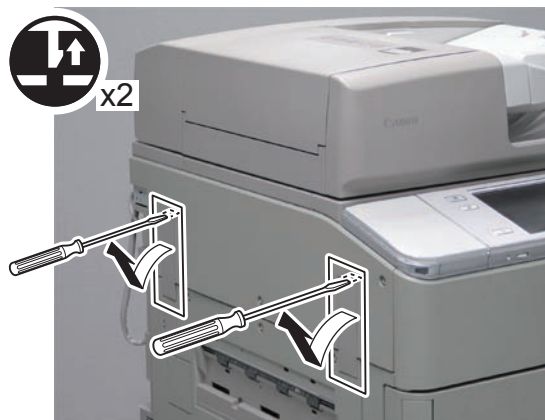
F-4-502

### <Preparation>

1. Remove the Box Cover (Left). (Refer to "Removing the DC Controller PCB")

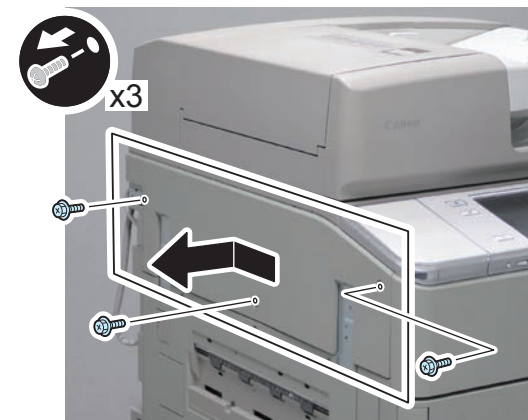
### <Procedure>

- 1) Open the 2 Finisher Connector Covers.
  - 2 Claws



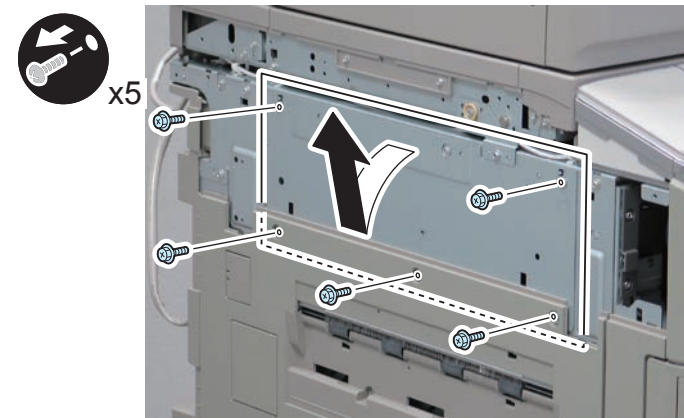
F-4-503

- 2) Remove the Left Upper Cover.
  - 3 Screws



F-4-504

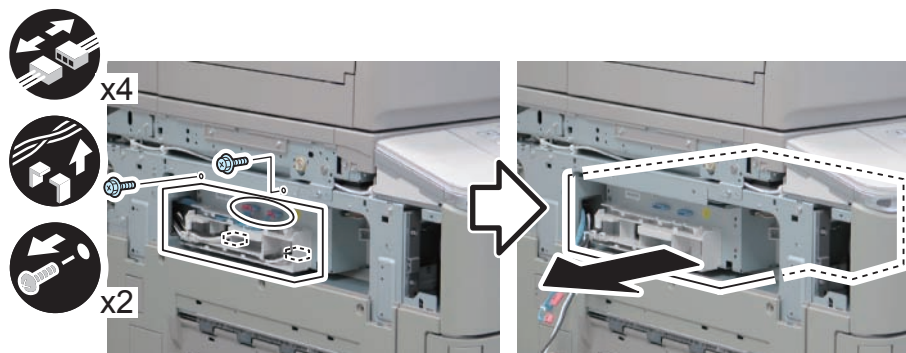
- 3) Remove the Left Upper Frame.
  - 5 Screws



F-4-505

4) Free the harness and remove the Fixing Power Unit.

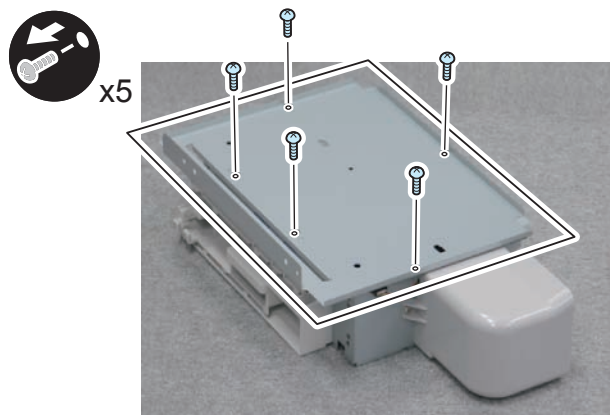
- 4 Connectors
- 2 Screws



F-4-506

5) Remove the Fixing Power Unit Plate.

- 5 Screws



F-4-507

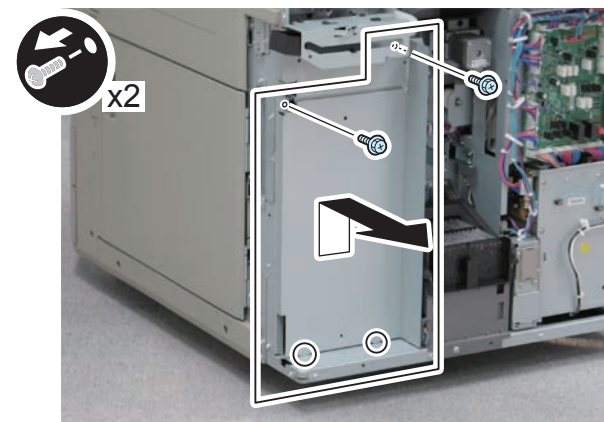
## Removing the Feed Driver PCB

### <Preparation>

1. Remove the Waste Toner Container. (Refer to page 4-143)
2. Remove the Box Cover (Left). (Refer to "Removing the DC Controller PCB")
3. Open the Controller Box. (Refer to "Removing the DC Controller PCB")
4. Remove the Rear Lower Cover. (Refer to "Removing the Power Supply Assembly")

### <Procedure>

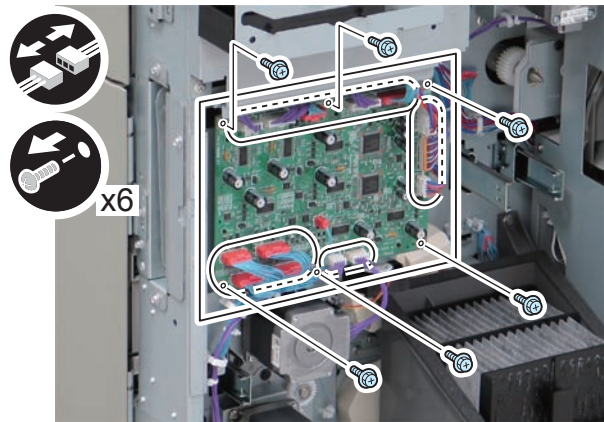
- 1) Remove the frame of Waste Toner Container.
  - 2 Screws
  - 2 Protrusions



F-4-508

2) Remove the Feed Driver PCB.

- 6 Screws
- 15 Connectors

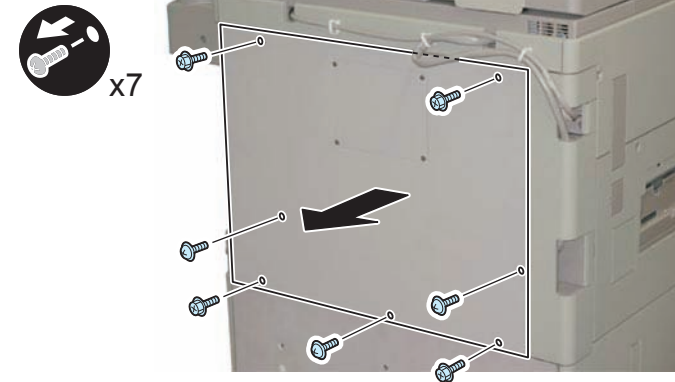


F-4-509

## Removing the ARCNET PCB

### <Preparation>

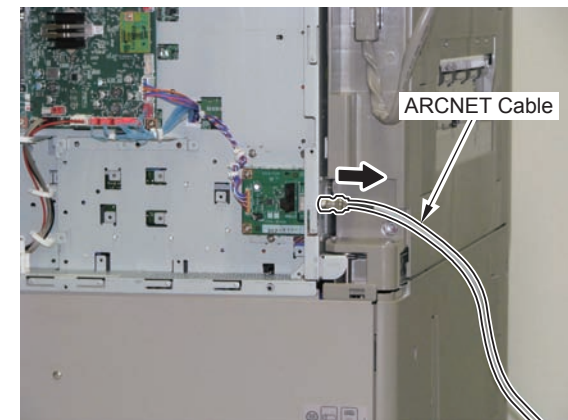
1. Remove the Left Rear Cover. (Refer to "Removing Main Controller PCB 2".)
2. Remove the Rear Cover.
  - 7 Screws



F-4-510

### <Procedure>

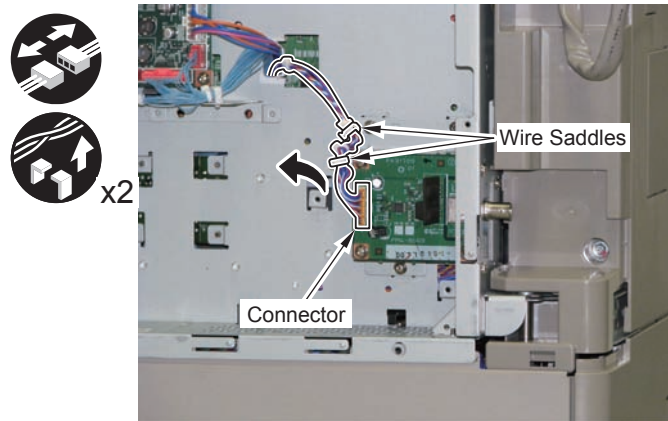
- 1) Disconnect the ARCNET Cable (or the Terminal Connector).



F-4-511

2) Disconnect the cable.

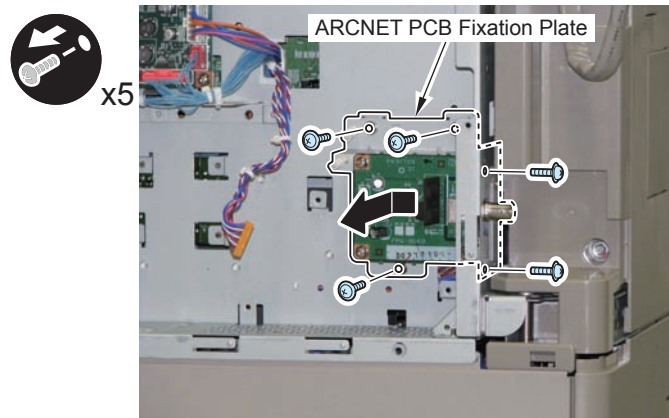
- 2 Wire Saddles
- 1 Connector



F-4-512

3) Remove the ARCNET PCB Fixation Plate.

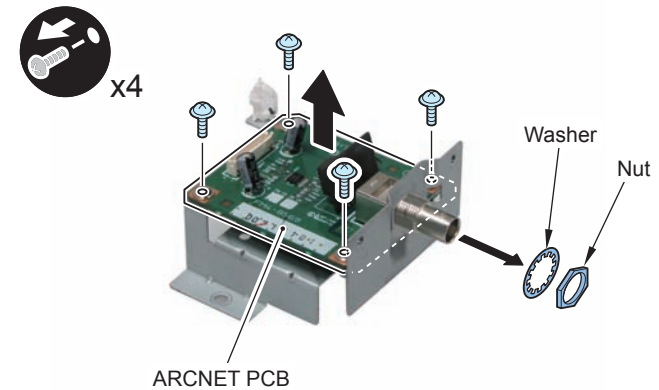
- 5 Screws



F-4-513

4) Remove the ARCNET PCB.

- 4 Screws
- Washer
- Nut



F-4-514

## Removing the Upper High Voltage Unit

### <Preparation>

1. Remove the Box Cover (Left). (Refer to "Removing the DC Controller PCB")
2. Open the Controller Box. (Refer to "Removing the DC Controller PCB")

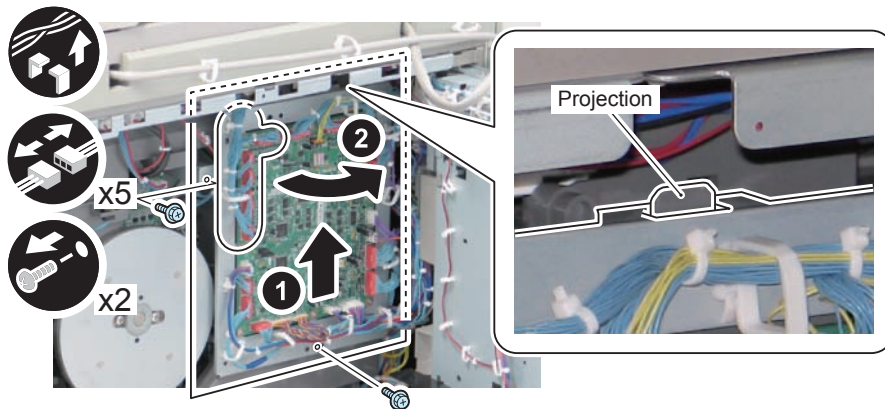
### <Procedure>

- 1) Open the Motor Driver PCB Unit.

#### NOTE:

When opening the Motor Driver PCB Unit, free the top side from the protrusion.

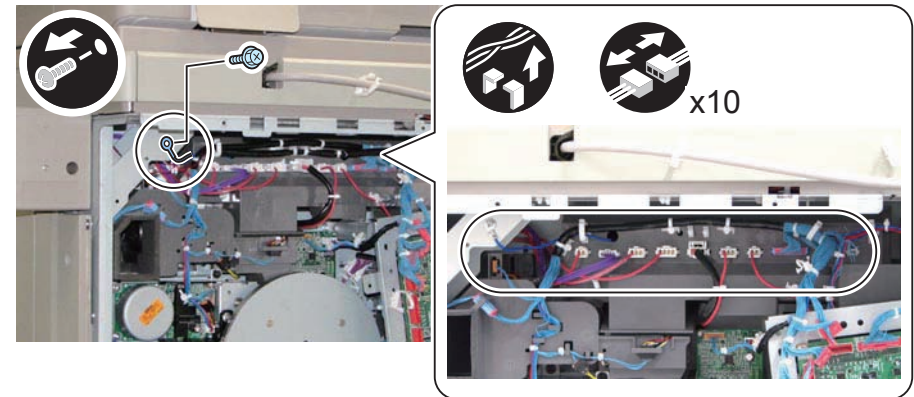
- 5 Connectors
- Wire Saddle
- Reuse Band



F-4-515

- 2) Disconnect the connector and Grounding Wire.

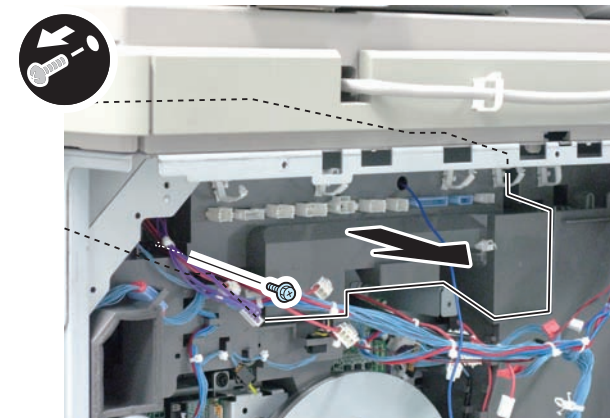
- 1 Screw



F-4-516

- 3) While avoiding the harness and Motor Driver PCB Unit, remove the Upper High Voltage Unit.

- 1 Screw

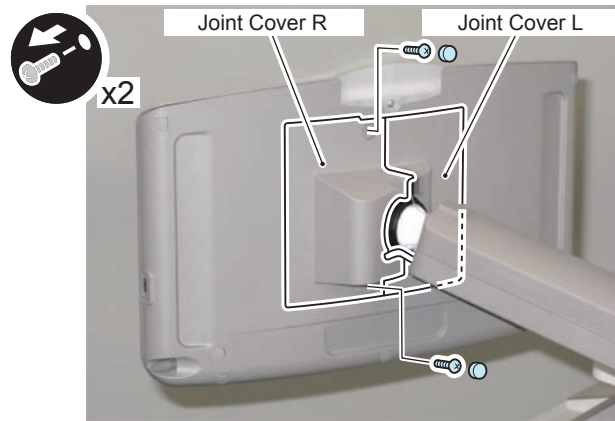


F-4-517

## Removing the Upright Control Panel

1) Remove the Joint Cover L and Joint Cover R.

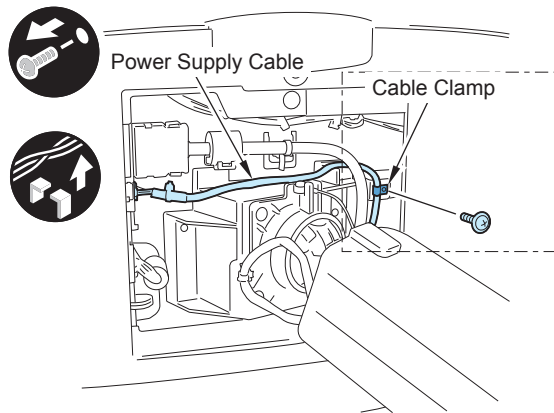
- 2 Screws



F-4-518

2) Free the Power Supply Cable from the Clamp.

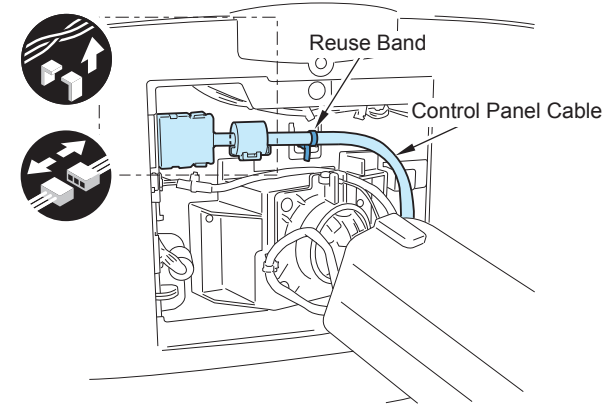
- 1 Screw



F-4-519

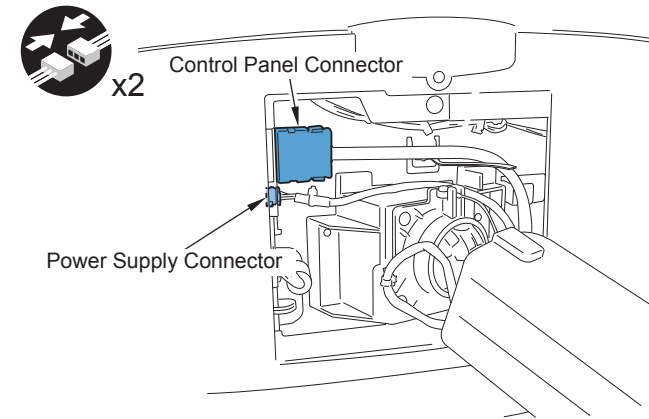
3) Disconnect the Control Panel Cable.

- Reuse Band



F-4-520

4) Disconnect the Control Panel Connector and Power Supply Connector.



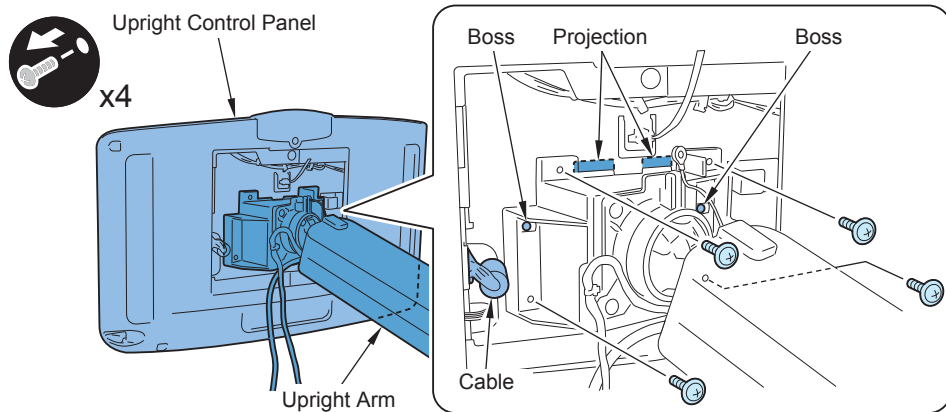
F-4-521

5) Remove the Upright Control Panel.

- 4 Screws
- 2 Bosses
- 2 Protrusions

**NOTE:**

When installing the Upright Control Panel, be sure to tighten the screws from the upper part.



F-4-522

## Data to be handled by SRAM(with HDD Encryption Board

### The kind of data to handle

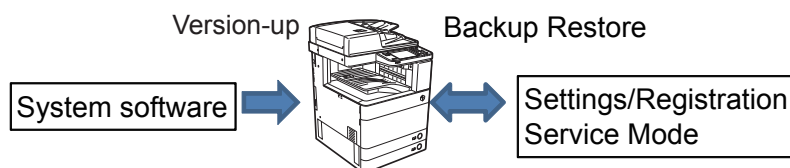
Data to operate this machine is largely divided into 2 categories.

System software	Common data among the same model
Data in SRAM and HDD on the boards	Factory settings value for the target machine and the values in Address Book and Settings/Registration, etc. entered by the user.

T-4-42

Upgrading and installation is used as the terms to handle the system software.

Backup and restoration is used as the terms to handle data in SRAM and HDD on the boards.



F-4-523

Be sure to use the latest possible backup data for the SRAM data of each board.

If restoring the SRAM data backed up long time ago, image failure, etc., may occur due to mismatch between the backup data and the parameter for host machine adjustment changed after backup.

### Handling SRAM data of this machine

With the normal service, the contents of SRAM of the Main Controller PCB 2 can be backed up to HDD in service mode and restored after replacing the board.

If there is an HDD Encryption Board, the encryption key of the HDD Encryption Board recorded on SRAM is lost when replacing the Main Controller PCB 2, and the contents of HDD cannot to be read. Therefore, restoration cannot be done although backup is performed. When replacing the Main Controller PCB 2, user data needs to be reentered in the same way as when replacing the HDD with a new one.

Part to be replaced	Description	Procedure	When TPM is enabled (ON)
Main Controller 2	SRAM of the Main Controller PCB 2 includes user data and MEAP-related data. If there are any files backed up from RUI by the user, restore them after recovery. Explain the user that the reinstallation of everything related to MEAP is necessary.  Reference: If Meapback.bin is saved using SST, it can be restored after replacing the Main Controller PCB 2. This makes the reinstallation of everything related to MEAP unnecessary.	Hold down 2 and 8 to start the machine, and then use SST to clear the encryption key of the HDD Encryption Board. Use SST or a USB memory device to Format ALL and install the system.	After the system is properly installed, enable TPM to execute a backup of TPM.
New HDD	Install the system software on the new HDD after formatting it by SST. If there are any files backed up from RUI by the user, restore them after recovery. Explain the user that the reinstallation of everything related to MEAP is necessary.  Reference: If Meapback.bin is saved using SST, it can be restored after replacing the Main Controller PCB 2. This makes the reinstallation of everything related to MEAP unnecessary.	Hold down 2 and 8 to start the machine, and then use SST or a USB memory device to Format ALL and install the system.	After the system is properly installed, enable TPM to execute a backup of TPM.
System installation when the HDD is properly working.	To upgrade the system version, the Assist Mode of SST is recommended.	Enter service mode and select the following: COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK Use SST to install the system software in Assist mode.	No additional work
Backup of Reader Controller PCB	Enter service mode to make a backup of SRAM data into the HDD.	Select the following to execute system backup: COPIER > FUNCTION > SYSTEM RSRAMBUP Replace the Reader Controller PCB Select the following to restore the system: COPIER > FUNCTION > SYSTEM RSRAMRES	No additional work



Part to be replaced	Description	Procedure	When TPM is enabled (ON)
Backup of DC Controller PCB	Enter service mode to make a backup of SRAM data into the HDD.	Select the following to execute system backup: COPIER > FUNCTION > SYSTEM DSRAMBUP Replace the DC Controller PCB Select the following to restore the system: COPIER > FUNCTION > SYSTEM DSRAMRES	No additional work
HDD Encryption Board	An encryption key of the HDD Encryption Board is newly made. Install the system software on the HDD after formatting it by SST. If there are any files backed up from RUI by the user, restore them after recovery.	Hold down 2 and 8 to start the machine, and then use SST or a USB memory device to Format ALL and install the system.	After the system is properly installed, enable TPM to execute a backup of TPM.
TPM Board	When there is a backup of TPM, restore TPM. When there is no backup of TPM, select the following: Settings/Registration > Management Settings	Restore TPM when there is a backup of TPM. When there is no backup of TPM, use RUI to make a backup, and then select the following to restore from RUI: Settings/Registration > Management Settings > Data Management > Initialize All Data/Settings; enable TPM to make a backup.	Follow the description on the left.

T-4-43

### ● Items which needs to be backed up when replacing the Main Controller PCB 2

When replacing the Main Controller PCB 2, the encryption key of the HDD Encryption Board on SRAM is lost and HDD cannot be accessed. For recovery, perform "Items which needs to be backed up by the user when replacing the HDD" as well in addition to the table below to format the HDD.

	User
Forwarding Settings	Remote UI(Import/Export)
Settings/Registration(Except Paper Type Management Settings)	Remote UI(Import/Export)
Mail Box Memory RX Inbox Confidential Fax Inbox	Remote UI(Back Up/Restore Settings)
Form for Superimpose Image	Remote UI(Back Up/Restore Settings)
Auto Adjust Gradation	Enforcement of Auto Adjust Gradation
Key information to TPM to use for coding	Settings / Registration > Administrator > Management Settings > TPM Settings
Service mode MN-CON Settings	None

T-4-44

### ● Items which needs to be backed up by the user when replacing the HDD

The table below shows the items whose settings can be saved. Ask the user to save them before replacing the HDD and the Main Controller PCB 2. Part of the items can be recovered from Meapbac.bin.

	User	Service
Address Lists	Remote UI(Import/Export)	None
Settings/Registration > Paper Type Management Settings	Remote UI(Import/Export)	None
Quick Menu Settings	Remote UI(Import/Export)	SST(Meapback)
Quick Menu Settings	Remote UI(Import/Export)	SST(Meapback)
Mail Box Settings	Remote UI(Back Up/Restore Settings)	None
Advanced Box Settings	Remote UI(Back Up/Restore Settings)	None
Printer Settings	Remote UI(Back Up/Restore Settings)	None
Web Access Favorites	Remote UI(Import/Export)	None
MEAP Settings	SMS	SST(Meapback)
Key information to TPM to use for coding	Settings/Registration > Administrator > Management Settings > TPM Settings	None

T-4-45

### ● Items with no backup method when replacing the HDD

Regarding the items in the table below, there is no method for the user to back them up. Ask the user to make settings again. Part of the items can be recovered from Meapbac.bin.

	User	Service
Default setting	None	SST(Meapback)
Other Register Options Shortcuts	None	SST(Meapback)
History of the setting	None	SST(Meapback)
Certificate Settings	None	None
Document of non-transmission	None	None
Settings/Registration : Management Settings : Device Management > Display Log	None	None
Settings/Registration : Management Settings : Device Management > Key and Certificate Settings	None	None
PS font	None	None

T-4-46

### ● Using SST enables the following:

SST has the following functions that are necessary for service work:

1. To download system software
2. To copy the system software into a USB memory device.
3. To backup and restore information of SRAM and MEAP in Main Controller 2.
4. To format HDD

5. To collect device log
6. To clear the encryption key of HDD Encryption Board

### ● Upgrading using a USB memory device

Using a USB memory device, the following functions are available to upgrade the system:

1. To download system software
2. To clear download file
3. To format HDD
4. To collect device log



# Adjustment

- Overview
- When replacing parts

## Overview

In this chapter, measures of adjustment when replacing parts in servicing operation are mentioned. Parts to be replaced are categorized into 4 blocks based on their related technology as shown below.

Parts Name	Actions at Parts Replacement	
Controller System	HDD	p. 5-2
	Main Controller PCB1	p. 5-4
	Main Controller PCB2	p. 5-5
	TPM PCB	p. 5-7
Image Formation System	Primary Charging Wire	p. 5-7
	Primary Charging Assembly	p. 5-7
	Pre-Transfer Charging Assembly	p. 5-9
	Pre-Transfer Charging Wire	p. 5-9
	Drum	p. 5-9
	Drum Side Seals (Front and Rear)	p. 5-10
	Developing Assembly	p. 5-10
	Potential Sensor / Potential Control PCB	p. 5-10
	ETB	p. 5-11
	Patch Sensor	p. 5-11
	Waste Toner Container	p. 5-11
Fixing System	Fixing Roller	p. 5-11
External Auxiliary System	DC Controller PCB	p. 5-12

T-5-1

## When replacing parts

### Controller System

#### HDD

##### <Procedure of parts replacement>

Refer to Removing HDD

##### <Procedure of adjustment>

##### 1. Before Replacing

Perform the following operations. Be sure to get an approval from the user beforehand.

##### 1) Backup of the set/registered data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Target data:

- Address List
- Forwarding Settings
- Settings/Registration
- Web Access Favorites
- Printer Settings
- Paper Information

##### 2) Printing the set/registered data

Use the service mode.

(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

List of the set/registered data which cannot be backed up is printed.

## 2. After Replacing

## 1) HDD format

1-1) Start with the safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main powerswitch.)

1-2) Use SST to format all partitions.

## 2) Downloading system software

2-1) Use SST to download the system software (System, LANG, RUI and others).

## 3) Initializing the key, certificate and CA certificate

(Lv.2) COPIER > FUNCTION > CLEAR > CA-KEY

## 4) Turning OFF and ON the main power switch

## 5) Restoring the backup data

Use the Remote UI.

Management Settings > Data Management > Import/Export

## 6) Resetting/registering the data

While referring to the list of set/registered data which was printed before replacement, reset/register the data.

## 7) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again.

## 8) Executing "Auto Adjust Gradation (Full Adjust)"

Settings/Registration mode: Adjustment/Maintenance > Adjust Image Quality > Auto Adjust Gradation

When using the Card Reader and imageWARE Accounting Manager

Card ID used for imageWARE Accounting Manager is stored in the HDD, so NSA collection control is not enabled after the HDD replacement. After the HDD is replaced, reinstall the card ID from imageWARE Accounting Manager using the following procedures.

- 1) Go to COPIER > FUNCTION > INSTALL > CARD and enter the numerical value of the leading card which is used for Department ID. Then, press "OK" button. (e.g.: If No.1 to No.1000 cards are used for Department ID, enter "1" of the leading card.)
- 2) After turning OFF and ON the main power switch, perform the following operations from Settings/Registration mode.  
In Management Settings > User Management > Department ID Management > Page Totals, be sure that "ID00000001" to "ID00001000" are created.  
Set the following: Preferences > Network > TCP / IP Settings > IPv4 Settings > IP Address Settings > IP Address, Gateway Address, Subnet Mask  
In Management Settings > User Management > System Manager Information Settings > System Manager ID and System PIN, register any number for them. Then, turn OFF and ON the main power switch.  
If "System Manager ID" and "System PIN" are not registered, "card registration to device" cannot be executed for the imageWARE Accounting Manager setting operation.
- 3) Download the card ID from imageWARE Accounting Manager to the Main Body again.
- 4) After downloading is completed, go to Management Settings > User Management > Department ID Management > Page Totals. Be sure that only the downloaded card ID is displayed.
- 5) Print using the user card registered from imageWARE Accounting Manager. Be sure that the card information used for the target devices of imageWARE Accounting Manager is collected.

CAUTION: Points to Caution when Using the System Software-installed HDD

When using the HDD which was installed the system software of the other machine (different serial number), be sure to format the HDD after the installation. If the HDD is not formatted, the operation cannot be guaranteed.

## Main Controller PCB 1

### <Procedure of parts replacement>

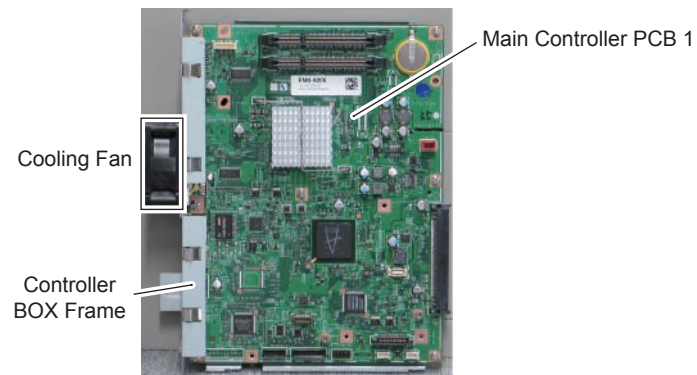
see "Removing Main Controller PCB 1," on p. 4-81.

### <Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 1 + Controller Box Frame + Cooling Fan

Parts number differs on a model basis (speed basis).

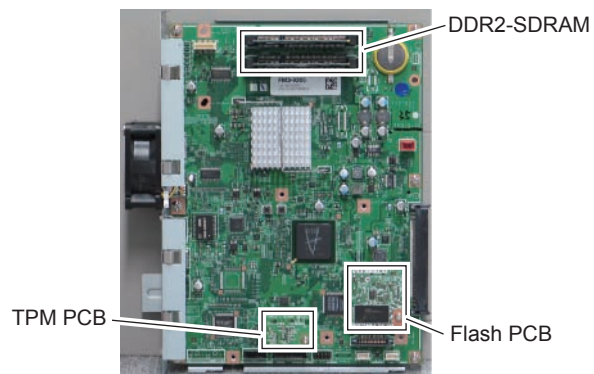


F-5-1

In order to secure the accuracy of connector connection when slotting in, this service part is provided with the PCB being installed to the frame.

1) Transferring the parts from old PCB to new PCB

- DDR2-SDRAM (2 pc.)
- Flash PCB
- TPM PCB



F-5-2

### NOTE:

Resetting/registering the data is not necessary after Main Controller PCB 1 is replaced.

## ■ Main Controller PCB 2

### <Procedure of parts replacement>

see "Removing Main Controller PCB 2," on p. 4-86.

### <Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 2 + Controller Box Frame



F-5-3

### 1. Before Replacing

Perform the following operations. Be sure to get an approval from the user beforehand.

#### 1) Backup of the set/registered data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Target data:

- Address List
- Forwarding Settings
- Settings/Registration
- Web Access Favorites
- Printer Settings
- Paper Information

#### 2) Printing the set/registered data Use the service mode.

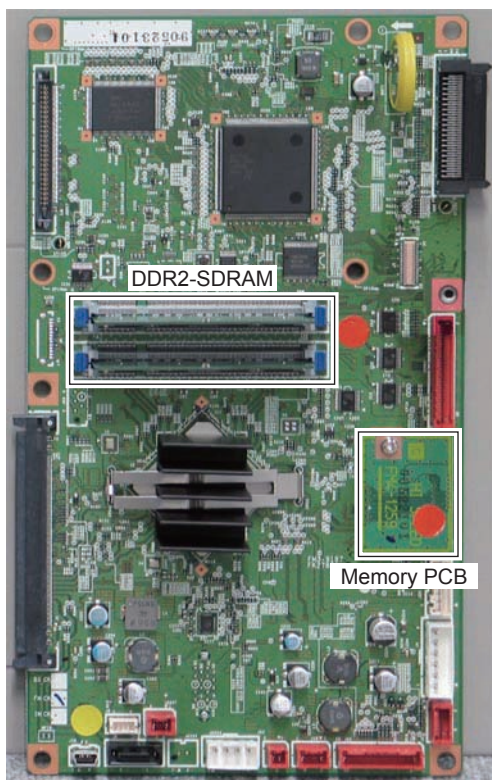
(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

List of the set/registered data which cannot be backed up is printed.

## 2. When Replacing

### 1) Transferring the parts from old PCB to new PCB

- DDR2-SDRAM (1 pc.) (When option DDR2-SDRAM is installed: 2 pc.)
- Memory PCB



F-5-4

### Prohibited Operation:

Do not transfer the following parts to another model (which has a different serial number). If you fail to do so, the Main Body does not activate normally and this might cause to fail the restoration.

- Main Controller PCB 1
- Main Controller PCB 2 (with Memory PCB installed)
- Memory PCB

## 3. After Replacing

- 1) After installing the parts, turn ON the main power switch.
- 2) Restoring the backup data  
Use the Remote UI.  
Management Settings > Data Management > Import/Export
- 3) Resetting/registering the data  
While referring to the list of set/registered data which was printed out before replacement, reset/register the data.
- 4) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again



## TPM PCB

### <Procedure of parts replacement>

see "Removing Main Controller PCB 1," on p. 4-81.

### <Procedure of adjustment>

When TPM setting is "OFF"

Any operation is not necessary at replacement.

When TPM setting is "ON"

It is necessary to restore the TPM key which was backed up after changing the setting to "ON".

#### 1) Removing the network cable

Until the TPM key is restored, information might be leaked due to the inappropriate access via network, so be sure to perform this operation appropriately.

#### 2) Connecting the USB Memory after turning ON the main power switch

#### 3) Restoring the TPM key

Management Settings > Data Management > TPM Settings > Restore of TPM Key

#### 4) Turning OFF and ON the main power switch

## Image Formation System

### Primary Charging Wire

#### <Procedure of parts replacement>

see "Replacing the Primary Charging Wire," on p. 4-104.

#### <Procedure of adjustment>

- 1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PRM-WIRE)
- 2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)
- 3) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
- 4) Execute the potential control (COPIER>FUNCTION>DPC>DPC). Turn OFF and then ON the main power. (The potential control is executed at startup.)
- 5) Execute the potential control. (COPIER>FUNCTION>DPC>DPC)

### Primary Charging Assembly

#### <Procedure of parts replacement>

see "Removing the Primary Charging Assembly," on p. 4-97.

#### <Procedure of adjustment>

- 1) Output a halftone image using the service mode.
  - TEST > PG > TYPE : 5
- 2) Execute the following procedure according to the density difference on the front and rear sides of the test print image.
  - When the front side test print image is dark, execute step 3.
  - When the rear side test print image is dark, execute step 4.
  - When there is no uneven density, execute step 5 and the following.

When the front side test print image is dark

#### NOTE:

- When the front side test print image is dark [1], execute step 3 until the density becomes even. When the density becomes even, execute step 5 and the following.
- When the adjustment screw is turned clockwise, the Charging Wire goes down and up (gap between grid and Charging Wire becomes narrow and wide). As a result, the density of output image becomes light.

#### CAUTION:

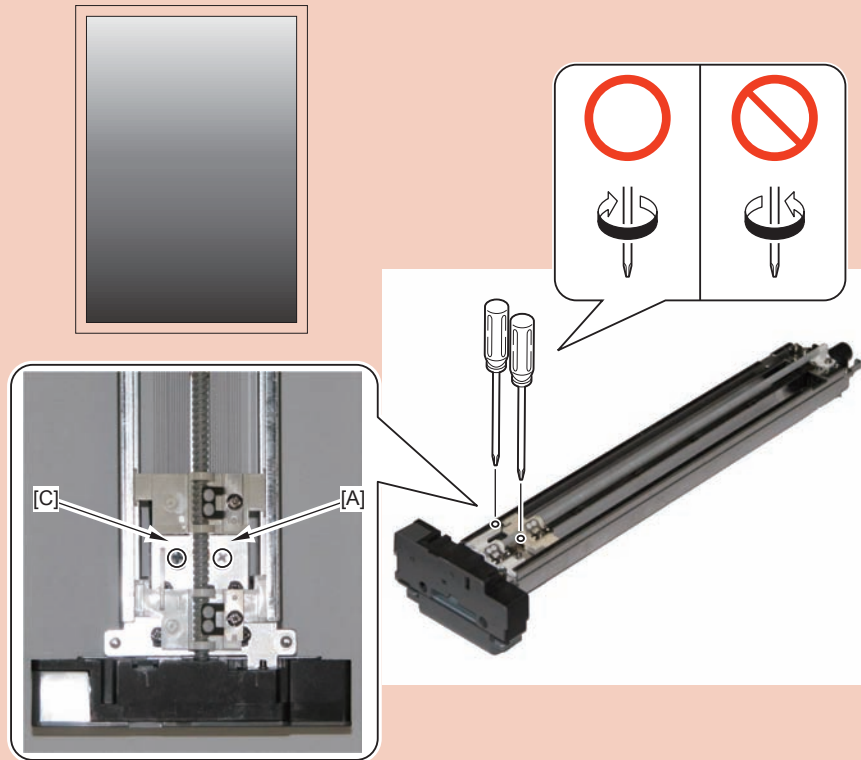
Be sure to adjust the dark side (density of the test print image) to be the light side.

- 3) Make the resin screws [A] and [C] a full turn clockwise. While referring to the replacement procedure of the Primary Charging Assembly, install it to the main body, output a test print and check the image.

**CAUTION:**

Since uneven density might occur, be sure to adjust by turning the 2 adjustment screws with the same amount.

[1]



F-5-5

When the rear side test print image is dark

**NOTE:**

- When the rear side test print image is dark [2], execute step 4 until the density becomes even. When the density becomes even, execute step 5 and the following.
- When the adjustment screw is turned clockwise, the Charging Wire goes down and up (gap between grid and Charging Wire becomes narrow and wide). As a result, the density of output image becomes light.

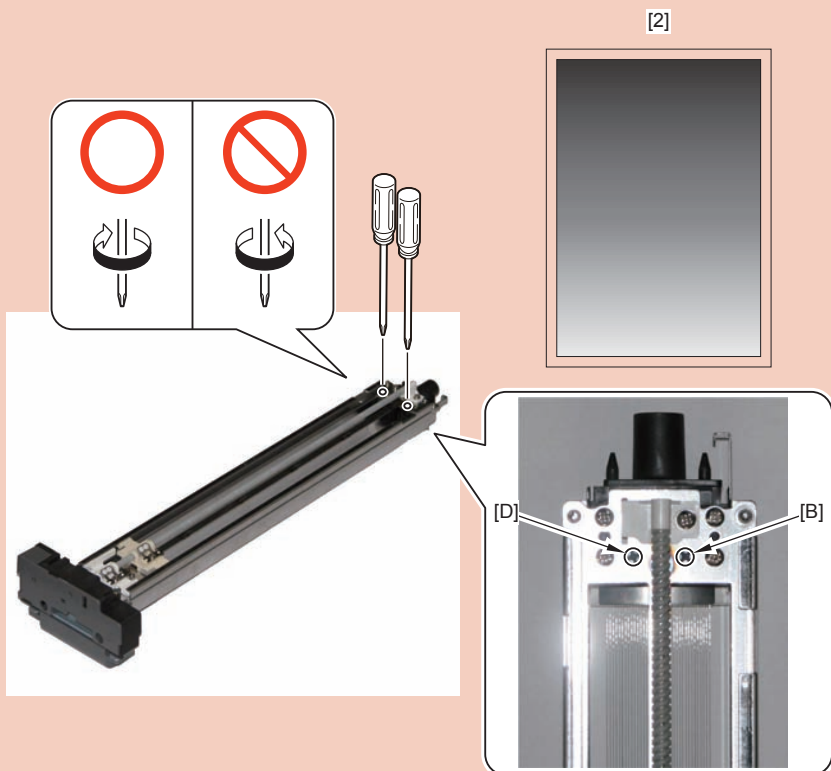
**CAUTION:**

Be sure to adjust the dark side (density of the test print image) to be the light side.

- 4) Make the resin screws [B] and [D] a full turn clockwise. While referring to the replacement procedure of the Primary Charging Assembly, install it to the main body, output a test print and check the image.

**CAUTION:**

Since uneven density might occur, be sure to adjust by turning the 2 adjustment screws with the same amount.



F-5-6

- 5) Clean the Charging Wire using the service mode.  
(FUNCTION > CLAENING > WIRE-CLN) Time required: Approx. 30 sec.
- 6) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
- 7) Execute the potential control. (COPIER>FUNCTION>DPC>DPC)
- 8) Execute the density correction using the user mode.  
("Settings/Registration" > "Adjustment/Maintenance" > "Adjust Image Quality" > "Correct Density")

## Pre-transfer Charging Assembly

### <Procedure of parts replacement>

see "Removing the Pre-transfer Charging Assembly," on p. 4-108.

### <Procedure of adjustment>

- 1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>PO-UNIT)
- 2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)

## Pre-transfer Charging Wire

### <Procedure of parts replacement>

see "Replacing the Pre-transfer Charging Wire," on p. 4-112.

### <Procedure of adjustment>

- 1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PO-WIRE)
- 2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)

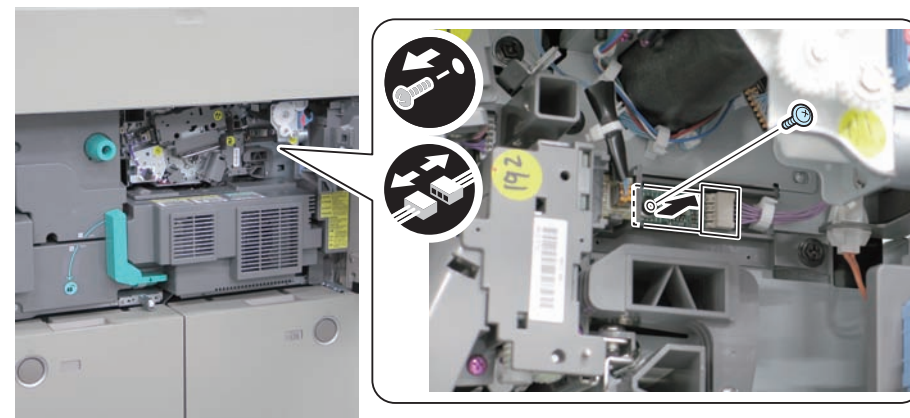
## Photosensitive Drum

### <Procedure of parts replacement>

see "Removing the Photosensitive Drum," on p. 4-124.

### <Procedure of adjustment>

- 1) Remove the EEROM.
  - 1 Screw
  - 1 Connector



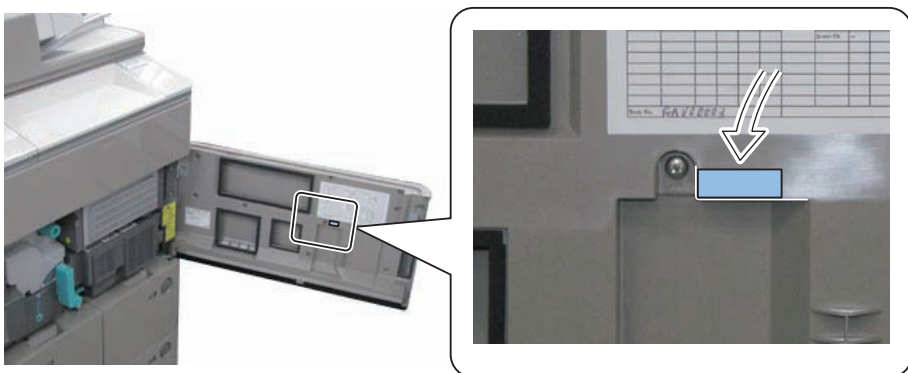
F-5-7

3) Replace the ROM connected to the host machine with the drum ROM included in the drum.

**CAUTION:**

If the ROM is not replaced, the replaced drum and the drum-unique data stored in the ROM are not matched. As a result, the 2D shading is not functioned normally.

4) Affix the ID Label included in the drum to the inside of the Front Cover.



F-5-8

5) Activate the drum replacement mode. (COPIER>FUNCTION>INSTALL>DRM-INIT)

6) Check the 2-dimensional shading ROM. (COPIER>FUNCTION>2D-SHADE>2D-READ)

6) Execute Auto Adjust Gradation.

## ■ Drum Side Seals (Front and Rear)

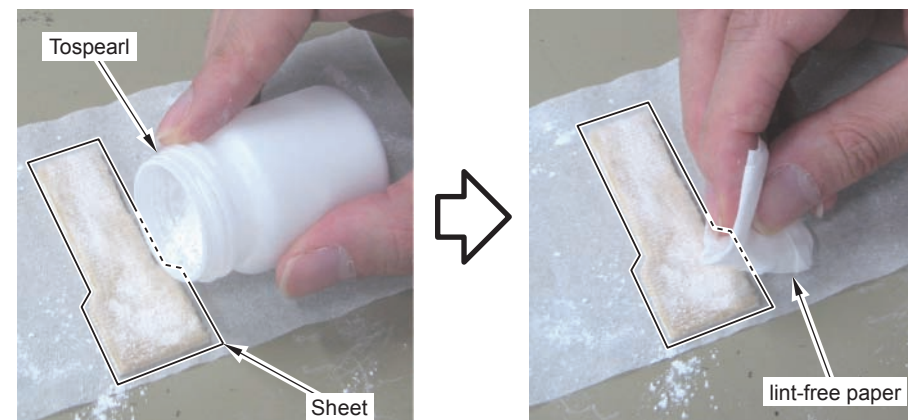
### <Procedure of parts replacement>

see "Removing the Side Seal," on p. 4-129.

### <Procedure of adjustment>

1) Applying Tospearl

Apply Tospearl on the surfaces of the Drum Side Seals (Front and Rear) and adhere it uniformly with lint-free paper. In order to reduce adhesion of toner at both ends of the Photosensitive Drum



F-5-9

## ■ Developing Assembly

### <Procedure of parts replacement>

see "Removing the Developing Assembly," on p. 4-130.

### <Procedure of adjustment>

1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>DVG-CYL)

2) Supplying Developing Assembly toner (COPIER>FUNCTION>INSTALL>TONER-S)

## ■ Potential Sensor / Potential Control PCB

### <Procedure of parts replacement>

see "Removing the Potential Control PCB Unit," on p. 4-165.

### <Procedure of adjustment>

1) Adjust the Potential Sensor offset. (COPIER > FUNCTION > DPC > OFST)

## ■ ETB Unit / ETB

### <Procedure of parts replacement>

- see "Removing the ETB Unit," on p. 4-135.
- see "Removing the ETB," on p. 4-137.

### <Procedure of adjustment>

- 1) Clear the ETB control counter. (COPIER>FUNCTION>CLEAR>TR-BLT)  
Parts counter (COPIER>COUNTER>DRBL-1>TR-BLT) is also cleared coincidentally.

## ■ Patch Sensor

### <Procedure of parts replacement>

see "Removing the Patch Sensor," on p. 4-151.

### <Procedure of adjustment>

- 1) Adjust the intensity of the Patch Sensor. (COPIER>FUNCTION>MISC-P>P-LED)

## ■ Waste Toner Container

### <Procedure of parts replacement>

see "Removing the Waste Toner Container," on p. 4-143.

### <Procedure of adjustment>

- 1) Set the new Waste Toner Container.
- 2) Clear the waste toner counter. (COPIER>COUNTER>MISC>WST-TNR)

## ● Fixing System

### ■ Fixing Roller

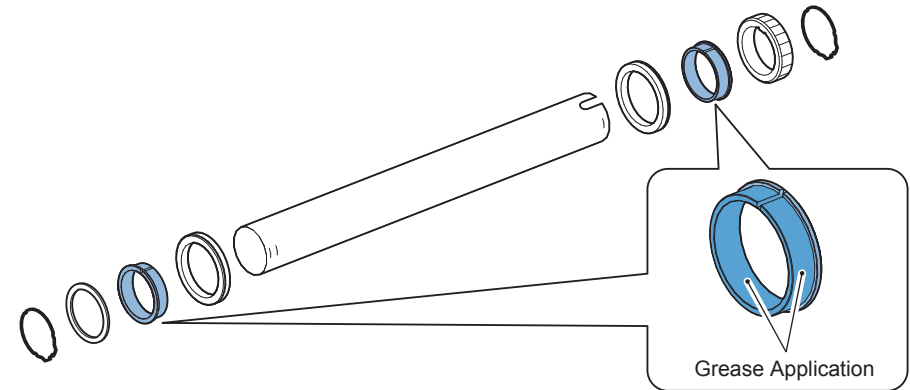
#### <Procedure of parts replacement>

see "Removing the Fixing Roller, Insulating Bush and Thrust Stopper," on p. 4-185.

#### <Procedure of adjustment>

##### 1) Grease Application

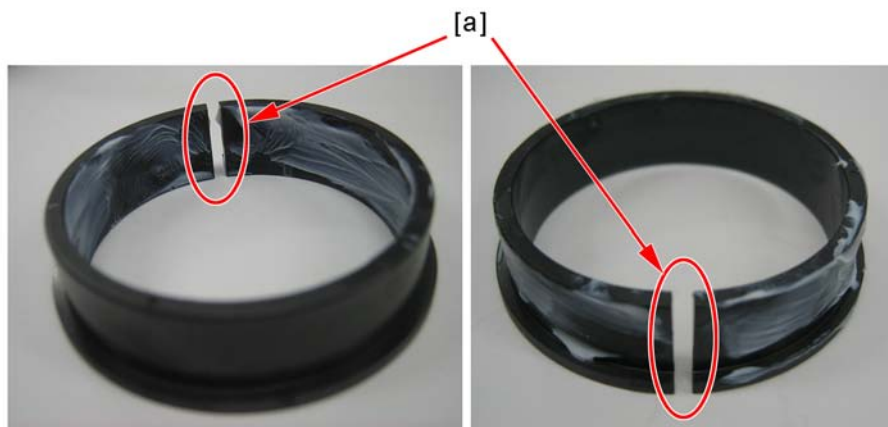
Apply approx. 230 mg of grease (MOLYKOTE HP-300; CK-8012) to inner circumference and outer circumference of the Insulating Bushing so that all circumferences are covered with white film. If grease is not applied, abnormal noise may occur, or the Fixing Roller Thrust Retainer may come off or be damaged.



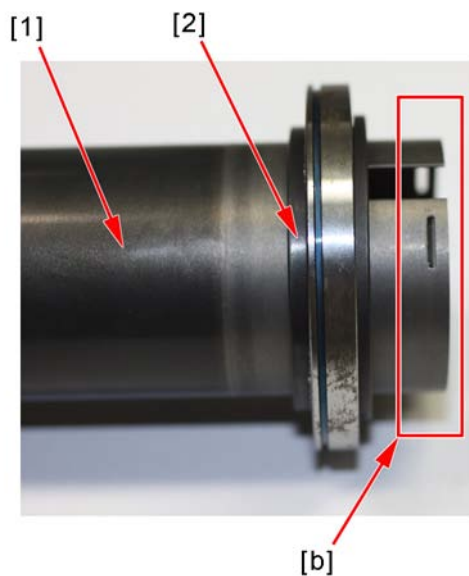
- As a rough standard, see the following for the amount of grease to be applied (approx. 230 mg).<sup>F-5-10</sup>



- When applying grease, pay attention not to get it accumulated in the cut [a].



- When installing the Insulating Bushing [2] to the Fixing Roller [1], wipe off excess grease adhered to the end face of the Fixing Roller (including the groove on the edge) [b].  
F-5-12  
 Otherwise, grease may adhere to the Fixing Roller Thrust Retainer or be scattered from the Fixing Roller.



F-5-13

- Clear the counter

COPIER > COUNTER > DRBL-1 > FX-UP-RL

## External Auxiliary System

### DC Controller PCB

#### <Procedure of parts replacement>

see "Removing the DC Controller PCB," on p. 4-234.

#### <Procedure of adjustment>

##### 1. Before Replacing

- Backup of the Service Mode data  
 COPIER > FUNCTION > SYSTEM > DSRAMBUP

##### 2. After Replacing

- Restoring the backup data  
 COPIER > FUNCTION > SYSTEM > DSRAMRES
- Switch OFF and then ON the main power.
- Execute auto gradation adjustment.
- Test print

# 6

## Troubleshooting

- Test Print
- Image Faults
- Feed Faults
- Other
- Version upgrade
- Making Initial Checks
- Error Messages
- Error Codes

# Test Print

## Overview

PG TYPE	Pattern	Image check item											PCB to generate PG	
		Gradation	Fogging	Transfer failure	Black line	White line	Uneven pitch	Uneven density (rear/front)	Right angle accuracy Straight line accuracy	Side registration	Shock	Magnification ratio		
0	Normal copy/print													---
1	Grid								Yes	Yes		Yes	Main Controller PCB 2	
2	17 gradations Tbic rank 2	Yes			Yes	Yes							Main Controller PCB 2	
3	17 gradations 600dpi (134-line screen or 141-line screen)	Yes			Yes	Yes							Main Controller PCB 2	
4	Solid white		Yes										Main Controller PCB 2	
5	Halftone (density: 80H, Tbic rank 2, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2	
6	Halftone (density: 80H, 134-line screen or 141-line screen, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2	
7	Solid black			Yes		Yes	Yes	Yes					Main Controller PCB 2	
8	Horizontal line (4 dots, 27 spaces)				Yes	Yes	Yes	Yes					Main Controller PCB 2	
9	Horizontal line (6 dots, 50 spaces)				Yes	Yes	Yes	Yes					Main Controller PCB 2	
10	Horizontal line (2 dots, 3 spaces)				Yes	Yes	Yes	Yes					Main Controller PCB 2	
11	Halftone (density: 60H, Tbic rank 2, without image correction)			Yes	Yes	Yes	Yes	Yes		Yes	Yes		Main Controller PCB 2	
12	Halftone (density: 60H, 134-line screen or 141-line screen, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2	
13	Halftone (density: 30H, Tbic rank 2, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2	
14	Halftone (density: 30H, 134-line screen or 141-line screen, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2	
15	15 to 50: For development												---	

T-6-1

### NOTE:

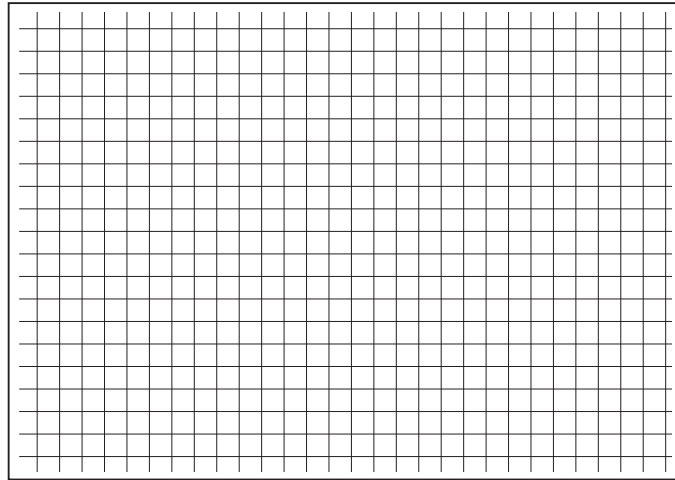
When outputting a halftone test print, be sure to use PG TYPE:6 except in the following cases.

1. When checking the image of side registration adjustment, use PG TYPE:11.
2. When the setting value of the following service mode is "2" (TBIC is used for both the photo part and the text part), use PG TYPE:5.  
COPIER > OPTION > USER > PH-D-SL2



## How to View the Test Print

### Grid (TYPE=1)

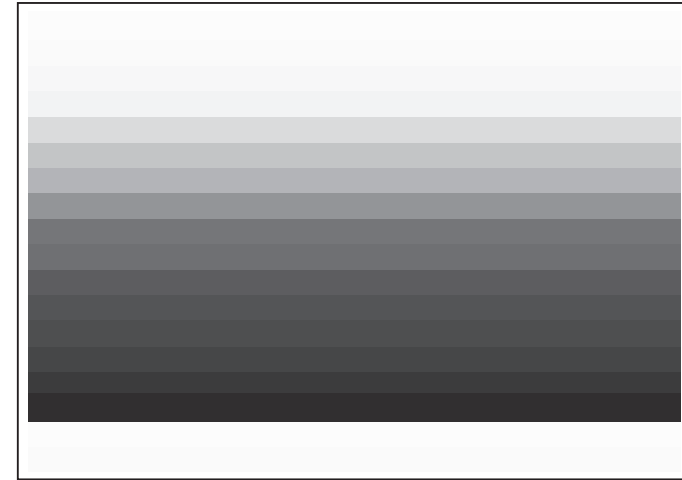


F-6-1

Check item	Check method	Assumed cause
Right angle accuracy/ Straight line accuracy	Check whether lines in the horizontal/vertical scanning directions are paralleled to the paper and these lines are at right angles to one another.	Feed system failure or Laser Scanner Unit failure is considered.
Side registration	Check the left margin.	Floor at the installation site is extremely distorted, or the feed system failure is considered.
Magnification ratio	Check whether the grid is printed at 9.99mm intervals. (Check the image on the second side at duplex printing.)	ETB and rollers' feed system failure or laser exposure system failure (drum, Laser Scanner) is considered.

T-6-2

### 17 gradations (TYPE=2/3)

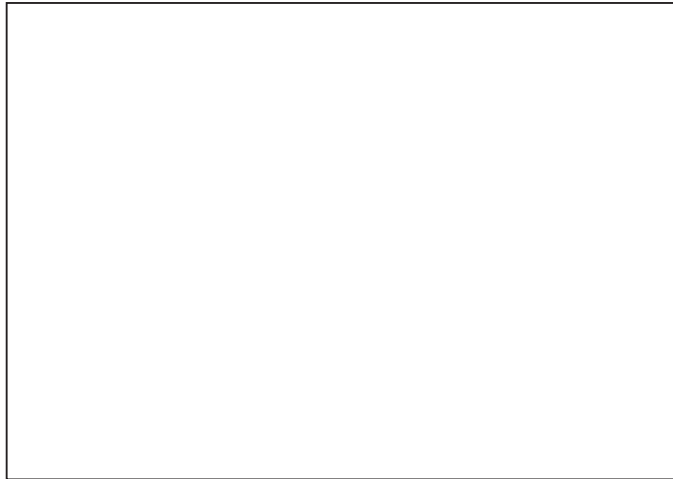


F-6-2

Check item	Check method	Assumed cause
Gradation	Check whether gradation in density is made appropriately.	Drum failure, laser exposure system failure or developing system failure is considered.
Black line	Check whether black lines appear on the image.	Laser light path failure, grid failure, developing system failure, cleaning (drum, ETB) failure or Pre-transfer Charging Assembly failure is considered.
White line	Check whether white lines appear on the image.	Primary Charging Wire failure or developing system failure is considered.

T-6-3

## ■ Solid white (TYPE=4)



F-6-3

Check item	Check method	Assumed cause
Fogging	Check whether foggy image appears in the blank area.	Drum failure, laser exposure system failure or developing system failure is considered.

T-6-4

## ■ Halftone (TYPE=5/6/11/12/13/14)



F-6-4

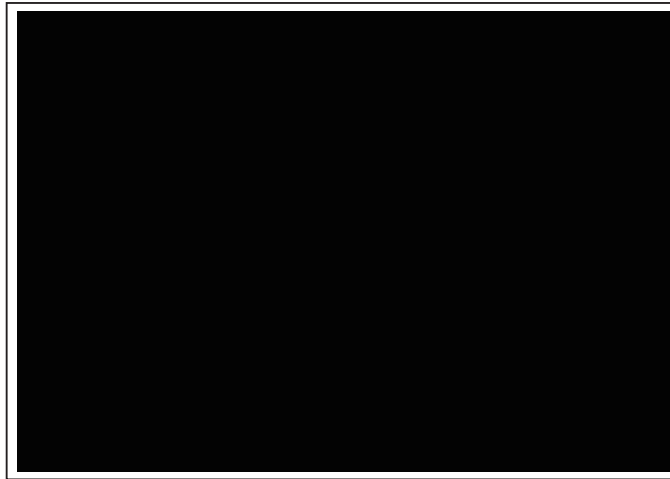
### NOTE:

- When outputting a halftone test print, be sure to use PG TYPE:6 except in the following cases.
  - When checking the image of side registration adjustment, use PG TYPE:11.
  - When the setting value of the following service mode is "2" (TBIC is used for both the photo part and the text part), use PG TYPE:5.  
COPIER > OPTION > USER > PH-D-SL2
- When changing the density of the test print, use the following service mode to change the density: TEST>PG>K.

Check item	Check method	Assumed cause
Transfer failure	Check the evenness of halftone density. Check whether uneven image or foggy image appears.	Transfer system failure or Pre-transfer Charging Assembly failure is considered.
Black line	Check whether black lines appear on the image.	Laser light path failure, grid failure, developing system failure, cleaning (drum, ETB) failure or Pre-transfer Charging Assembly failure is considered.
White line	Check whether white lines appear on the image.	Primary Charging Wire failure or developing system failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density (rear/front)	Check the density difference between the front and rear sides.	Primary Charging Assembly failure, drum failure or developing system failure is considered.
Side registration	Check the left margin.	Floor at the installation site is extremely distorted, or the feed system failure is considered.
Shock	Check whether horizontal lines appear on the image.	ETB and rollers' feed system failure or laser exposure system failure (drum, Laser Scanner) is considered.

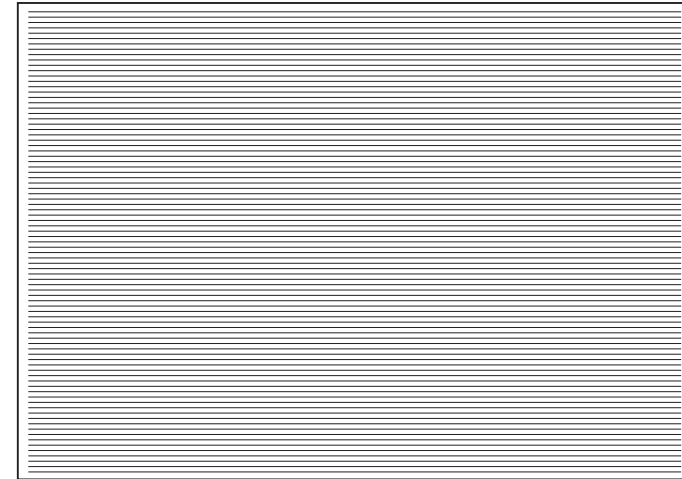
T-6-5

### ■ Solid black (TYPE=7)



F-6-5

### ■ Horizontal line (TYPE=8/9/10)



F-6-6

Check item	Check method	Assumed cause
Transfer failure	Check the evenness of halftone density. Check whether uneven image or foggy image appears.	Transfer system failure or Pre-transfer Charging Assembly failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density (rear/front)	Check the density difference between the front and rear sides.	Primary Charging Assembly failure, drum failure or developing system failure is considered.

T-6-6

Check item	Check method	Assumed cause
Black line	Check whether black lines appear on the image.	Laser light path failure, grid failure, developing system failure, cleaning (drum, ETB) failure or Pre-transfer Charging Assembly failure is considered.
White line	Check whether white lines appear on the image.	Primary Charging Wire failure or developing system failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density (rear/front)	Check the density difference between the front and rear sides.	Primary Charging Assembly failure, drum failure or developing system failure is considered.

T-6-7

## Image Faults

### Trailing Edge Shock Imaget

[Location]

.ETB

[Cause]

Lines occur on the image due to shock when distortion on the belt is released while rotation speed between the ETB and drum differs

[Condition]

When replacing the ETB

[Field Remedy]

1) Output a halftone image with the following conditions and check the output image

COPIER>TEST>PG>TYPE 6

Select the cassette which the following paper is set: COPIER>TEST>PG>PG-PICK A3 (LDR) or larger.

With shock image: go to step 2

Without shock image: End

2) Measure a distance from the trailing edge of the shock image.

3) Adjust using the following service mode. COPIER > ADJUST > FEED-ADJ > TBLT-SPD:

Adjust the Transfer Belt speed

Shock image is located approx. 55mm from the trailing edge: Adjust the value by +10 gradually.

Shock image is located approx. 63mm from the trailing edge: Adjust the value by -10 gradually

4) Output a halftone image with the condition described in step 1 again and check the image.

With shock image: go to step 3.

Without shock image: End

[Image Sample]



F-6-7

## Uneven density correction by 2D shading

To correct uneven image density caused by uneven potential on the surface of the Drum.

### NOTE:

This machine performs two dimensional shading which replaces uneven potential of the Photosensitive Drum to the exposure amount to correct. (Default: two dimensional shading is disabled.) As the data of Drum's uneven potential, the data measured at the shipment of the Drum is used. Therefore, as the life of the Photosensitive Drum advances, it gets deteriorated, so the uneven potential becomes different from the one at the shipment of the Drum. Although the uneven potential of the Drum is changed due to the deterioration, the data can be corrected per horizontal/vertical scanning direction line by outputting a test pattern image with the following procedure.

### CAUTION:

This adjustment is executed when the preferred image is not output even if the Primary Charging Wire height adjustment and secure watermark adjustment \* are performed.

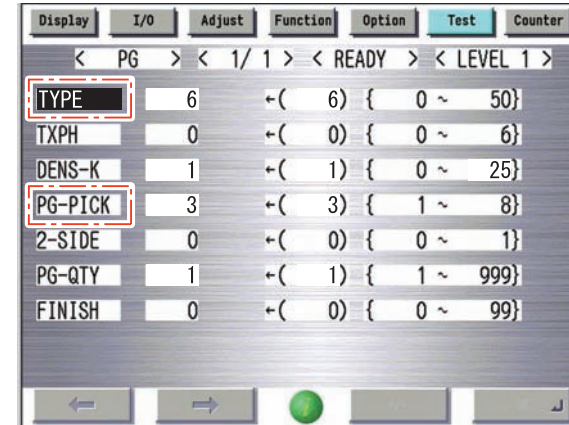
\* Secure watermark adjustment: Function Settings>Common>Print Settings>Secure Watermark Settings>Adjust Background/Character Contrast

- 1) Check that the two dimensional shading is enabled.  
COPIER>OPTION>IMG-LSR>2D-SHADE 1: Enabled
- 2) Read the two dimensional shading ROM data.  
COPIER>FUNCTION>2D-SHADE>2D-READ
- 3) Turn OFF and then ON the main power switch.

### CAUTION:

Be sure to turn OFF and then ON the main power switch after step 2. Uneven density may be reduced by the two dimensional shading correction at the startup.

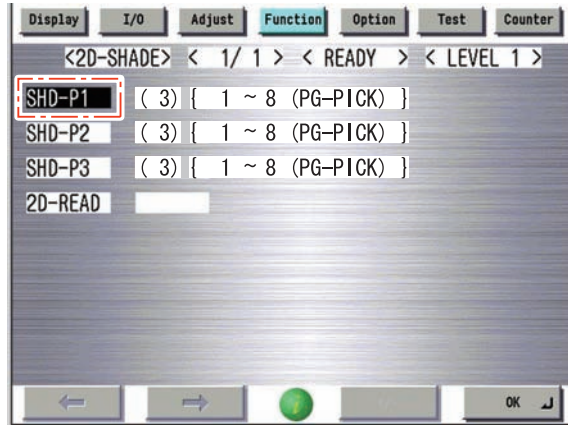
- 4) Output a half-tone image with the following conditions and check if uneven density occurs.  
COPIER>TEST>PG>TYPE 6  
Select the cassette which the following paper is set: COPIER>TEST>PG>PG-PICK A3 (LDR) or larger.  
When uneven density is seen: Go to step 5.  
When uneven density is not seen: Procedure is ended.



F-6-8

- 5) Output a test pattern for two dimensional shading.  
COPIER>FUNCTION>2D-SHADE>SHD-P1
- 5-1) Set the cassette. Select the cassette which A3 (LDR) or larger paper is set.  
Select "SHD-P1" and cassette using "numeric keypad".

5-2) Output 3 sheets of the test pattern.

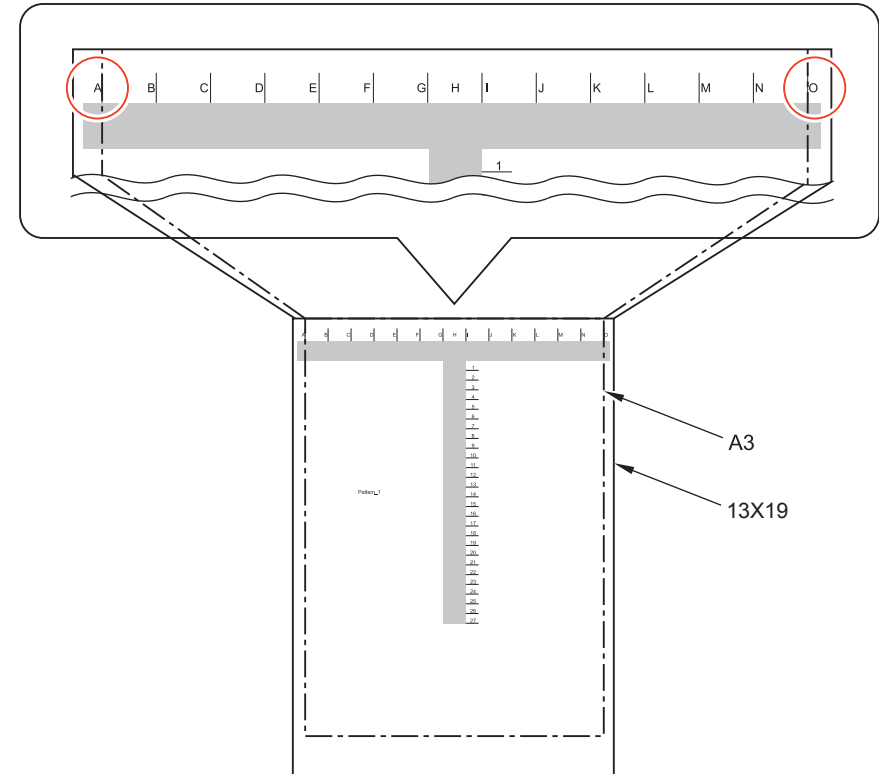


F-6-9

**CAUTION:**

It is difficult to judge whether uneven potential of the Photosensitive Drum causes uneven density of the output image, so output 3 sheets of the test print and adjust the area where all 3 sheets have the same symptom. (If the same symptom is seen on the same spot of all 3 sheets, it is possibly caused from the Drum.)

<Test pattern>



F-6-10

**NOTE:**

For the test print, the following 3 types can be output, but basically set SHD-P1 to output. The following shows the use case of each test print.

COPIER>FUNCTION>2D-SHADE>SHD-P1

: When the image which uneven density occurs is the halftone image with light density

COPIER>FUNCTION>2D-SHADE>SHD-P2

: When the image which uneven density occurs is the halftone image with dark density

COPIER>FUNCTION>2D-SHADE>SHD-P3

: In case of the secure watermark image with uneven density

6) Check (T-shaped) halftone area of the output test print visually and adjust the area of uneven density.

6-1) Take a note to write down the values of the following service mode.

When the adjustment cannot be performed appropriately, these values are required to return to the initial values.

```
COPIER>FUNCTION>2D-SHADE>M-LINE1 (Level 2)
COPIER>FUNCTION>2D-SHADE>M-LINE2 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE1 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE2 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE3 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE4 (Level 2)
```

6-2) Adjust the target horizontal scanning direction (A to O) which uneven density is seen.

After selecting "M-LINE1/M-LINE2", select the target horizontal scanning window (A to O), and enter the numerical value using "numerical keypad".

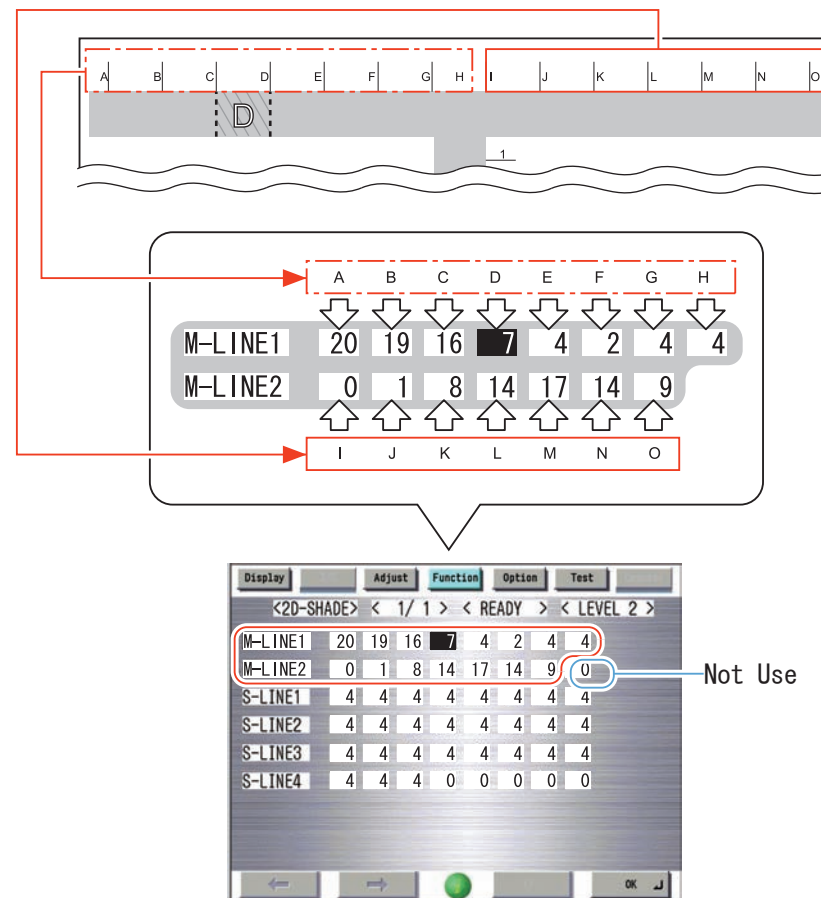
```
COPIER>FUNCTION>2D-SHADE>M-LINE1 (Level 2) Horizontal scanning
direction A to H
COPIER>FUNCTION>2D-SHADE>M-LINE2 (Level 2) Horizontal scanning
direction I to O
```

#### CAUTION:

- Be sure to switch the screen after entering the value. Unless the screen is switched, the numerical value is not reflected. (Actually, the value is not reflected on the screen, but it is retained internally.)
- When the horizontal scanning direction (H line) is adjusted, the adjustment value of the vertical scanning direction (1 to 27) is also changed.
- Be sure to make adjustment in order of horizontal and vertical scanning directions. If the adjustment is executed in the inverse order, it may not be executed correctly.
- Entering 96 or larger value can generate an error in potential control (E061). In the case of an error, adjust the setting value between 0 and 95.

As the value is larger, the density becomes lighter. As the value is smaller, the density becomes darker.

Enter the adjustment value in a unit of +/- 30 gradually, output the test pattern and make adjustment while checking the test pattern. If the value is changed dramatically, the image error (while line) may occur.



F-6-11

6-3) After the adjustment, output a test print and check the image.

When uneven density is seen: Go to 6-4).

When uneven density is not seen: Procedure is ended.

6-4) Adjust the target vertical scanning direction (1 to 27) which uneven density is seen.

After selecting "S-LINE1 to 4", select the target vertical scanning window (1 to 27), and enter the numerical value using "numerical keypad".

COPIER>FUNCTION>2D-SHADE>S-LINE1 (Level 2) Vertical scanning direction  
1 to 8

COPIER>FUNCTION>2D-SHADE>S-LINE2 (Level 2) Vertical scanning direction  
9 to 16

COPIER>FUNCTION>2D-SHADE>S-LINE3 (Level 2) Vertical scanning direction  
17 to 24

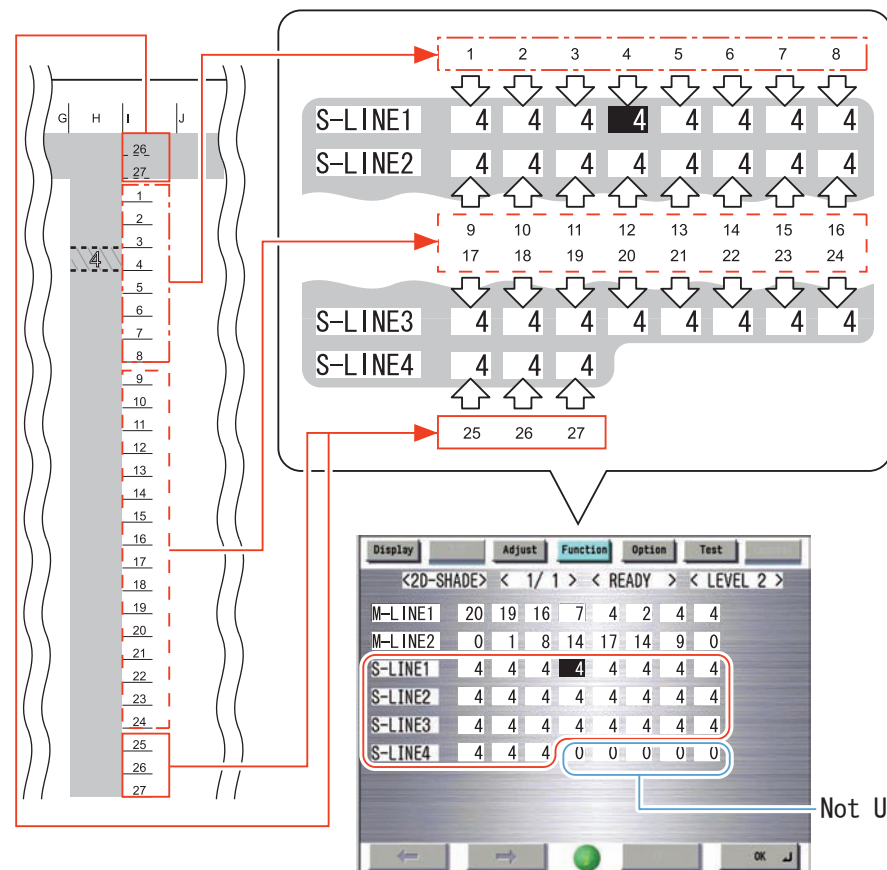
COPIER>FUNCTION>2D-SHADE>S-LINE4 (Level 2) Vertical scanning direction  
25 to 32

**NOTE:**

- Be sure to switch the screen after entering the value. Unless the screen is switched, the numerical value is not reflected. (Actually, the value is not reflected on the screen, but it is retained internally.)
- When the vertical scanning direction (25 and 26 lines) is adjusted, the adjustment value of the horizontal scanning direction (A to P) is also changed.

As the value is larger, the density becomes lighter. As the value is smaller, the density becomes darker.

Enter the adjustment value in a unit of +/- 30 gradually, output the test pattern and make adjustment while checking the test pattern. If the value is changed dramatically, the image error (while line) may occur.



6-5) After the adjustment, output a test print and check the image to complete the procedure.

**NOTE:**

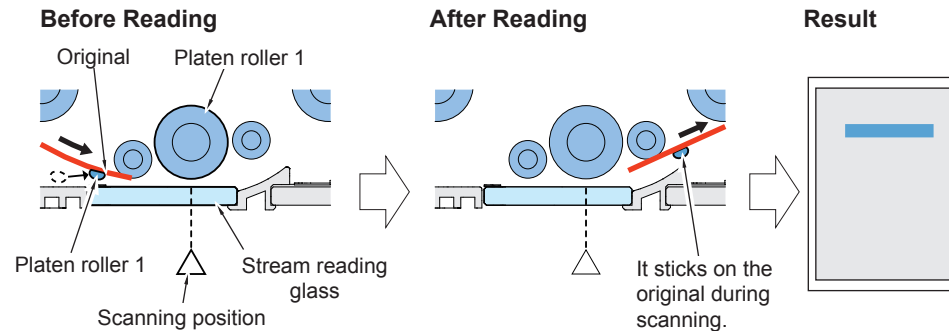
If the image cannot be adjusted correctly even with this adjustment procedure, reenter the values written in step 6-1.

F-6-12



## ADF black line

Image processing has been improved with this equipment, which applies optimal image processing to the text part and the photo part respectively. Improvement in image processing, however, highlights imperceptible dusts at the original scanning position, which may appear as a line on the image.



F-6-13

[Location]  
ADF

### [Cause]

At stream reading with the ADF, imperceptible dusts (paper dust, toner, dust, etc.) adhere and remain at the original scanning position, which causes a black line on the original image.

(Occurrence frequency is roughly 3/10,000 of scanning documents)

The dusts causing a black line are delivered outside the ADF together with the scanning original; therefore, there will be no black line with the next original.

### [Remedy]

Changing the setting value in the following service mode improves the problem of a black line.

COPIER > ADJUST > AE > AE-TBL: Text density adjustment when adjusting image density

Setting value: Change the default (5) to 3

COPIER > OPTION > IMG-MCON > SHARP: Setting of the sharpness level on the image

Setting value: Change the default (3) to 1

COPIER > OPTION > USER > PH-D-SL2: Setting of the halftone processing in text/photo mode

Setting value: Change the default (0) to 2

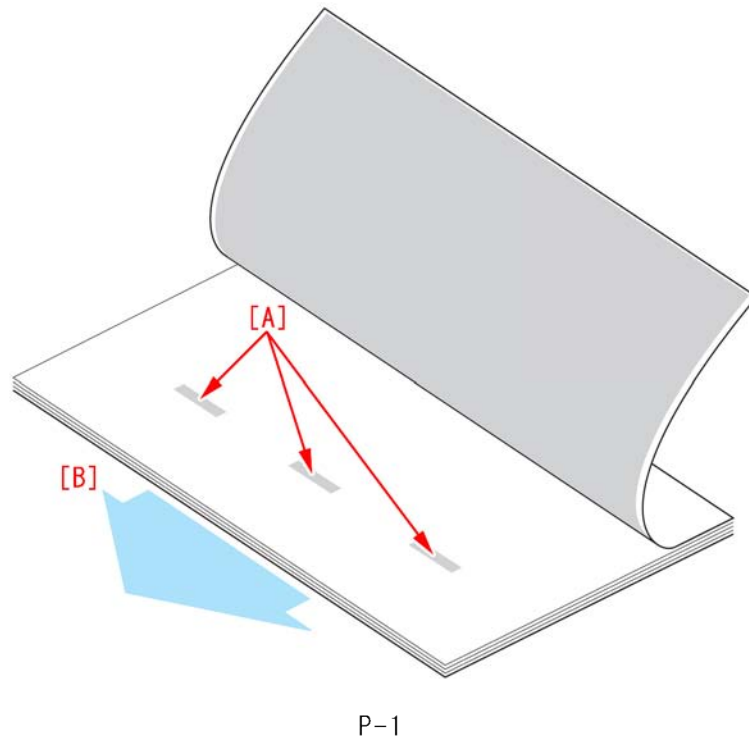
### CAUTION:

When performing a field remedy, remind that the scan result changes as follows:

- Scanning of light halftone base is skipped (to be scanned as white color)
- Blur text outline due to reduced edge emphasis level with the text
- Photo part appears coarsely

## Bleed-thru/Soil appeared on the back of the paper (Staple Finisher D1/Booklet Finisher D1)

Soil [A] can appear on the back of the sheet in the shift mode/staple mode with Staple Finisher D1/Booklet Finisher D1.

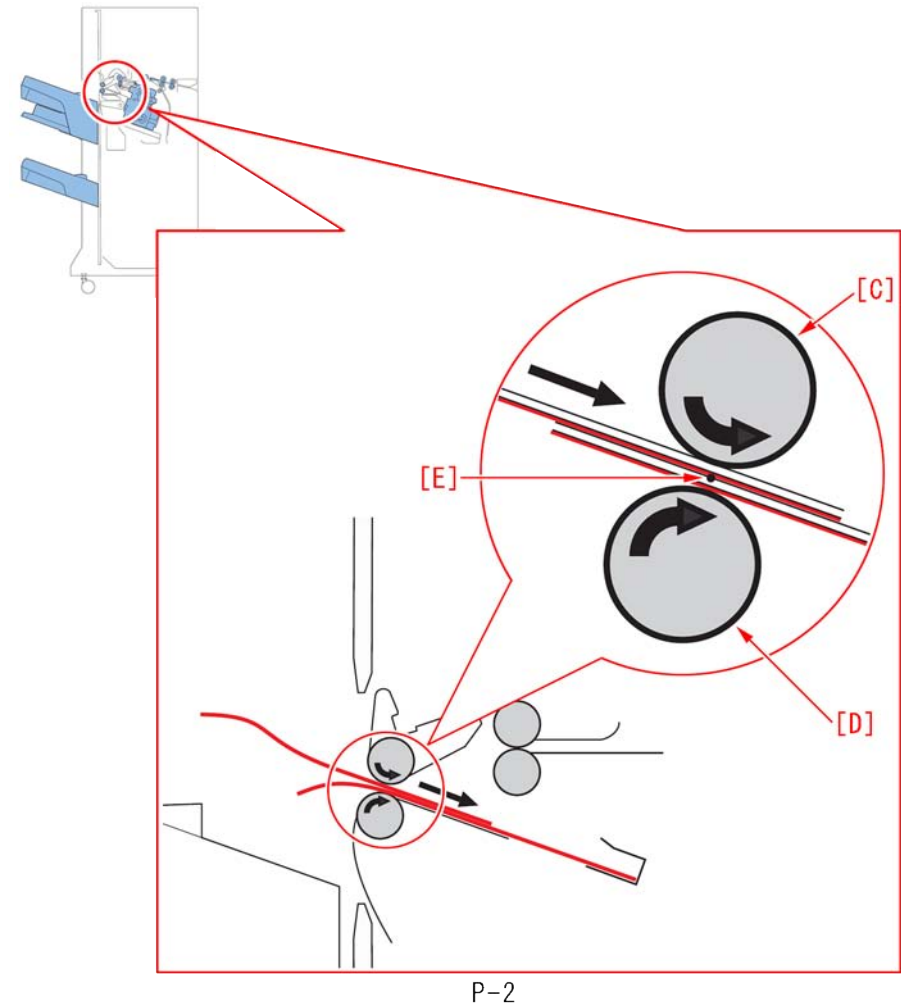


### [Cause]

While the paper is stacked to the Process Tray Assembly, two sheets are rubbed at where the sheets are nipped between the Stack Delivery Upper Roller [C] and the Stack Delivery Lower Roller [D], which results in soil on the paper.

This symptom can occur with all paper types because soil on the back of the paper (bleed-thru) is caused by the rubbing of sheets, however, bleed-thru is likely to occur in the case of using "coated paper", which has high friction coefficient.

This symptom is expected to occur when using coated paper together with plain paper; soil appears on the coated paper because the image on the plain paper is transferred to the coated paper.



### [Remedy]

Bleed-thru is improved by changing the setting value in the following service mode:

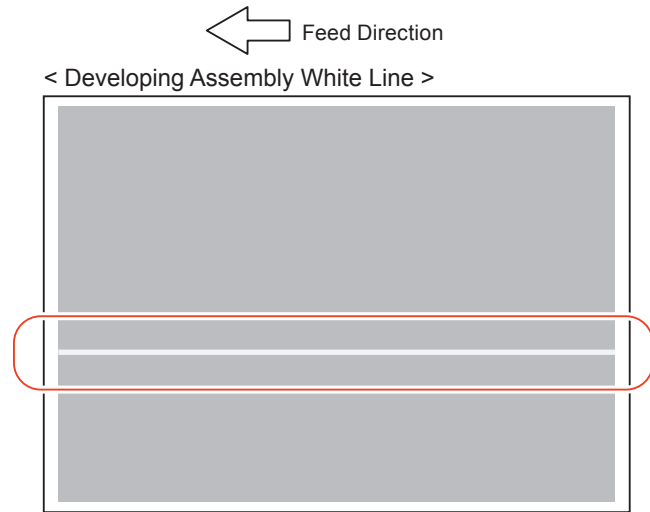
SORTER > OPTION > SLD-BCK: ON/OFF the mode to prevent bleed-thru

Setting value:

- 0: OFF (default)
- 1: ON (coated paper + recycled paper)
- 2: ON (coated paper + plain paper)

## White line (foreign matter between Developing Sleeves)

Sample image



F-6-16

[Location]

Developing Assembly

[Cause]

A line appears in toner coating when imperceptible foreign matter is caught between the 2 sleeves of the Developing Assembly. This can cause image failure of a white line in vertical scanning direction.

[Field Remedy]

1) Remove the Developing Assembly.

NOTE:

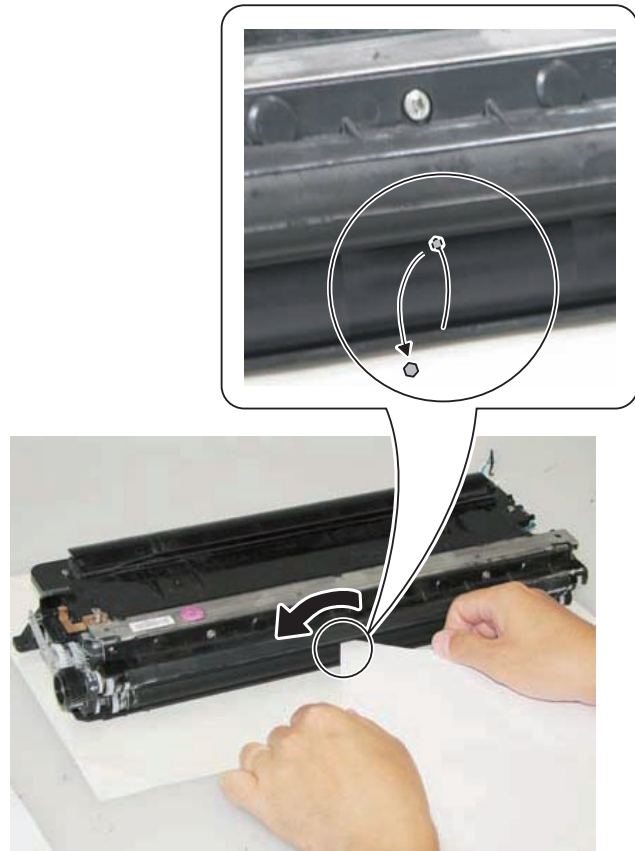
Be sure to place paper on a clean place and take out the foot of the Developing Assembly before placing the Developing Assembly.



F-6-17

## 2) Remove foreign matter caught between the sleeves.

Insert a corner of the paper between the sleeves and scrape out and remove foreign matter from the side.



F-6-18

**NOTE:**

The location of foreign matter can be easily identified by using a blower to blow excess toner between the sleeves.

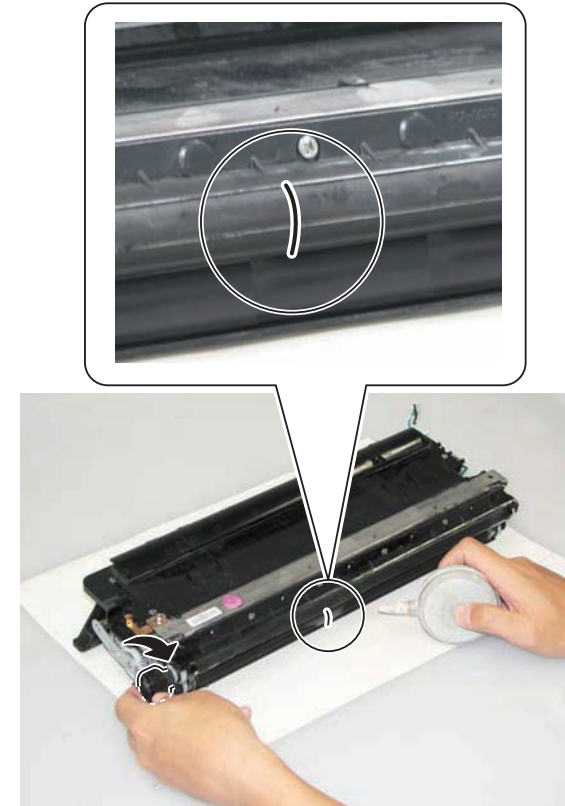
Be sure to use plain paper with around 75 g/m<sup>2</sup>. (Too thick paper may not be fit into the gap. Too thin paper can be folded or ripped.)

If it is difficult to insert paper, turn the gear clockwise and counterclockwise for 2 teeth so that it gets easier to insert paper between the sleeves. Do not turn the gear counterclockwise for half round or more (otherwise, it can cause image failure due to collected toner between the sleeve and the blade or between the sleeves)

## 3) Clean excess toner on the upper and lower sleeves.

Toner can be excessively attached because the toner is pushed to the sleeve when scraping out the foreign matter. Perform cleaning in the following steps because excess toner can cause uneven density.

3-1) While rotating the sleeve, blow the toner with the blower and then check for excess toner.



F-6-19

3-2) Pile up 3 sheets of lint-free paper and clean excess toner with the lint-free paper.

**NOTE:**

Do not apply force and lightly wipe out the excess toner. Rubbing the toner part can cause the rubbed part to be dark image.

- 3-3) Check if the toner blown by the blower is attached to the Developing Roller; if the toner is attached, wipe it with lint-free paper.  
(Otherwise, the toner is fused to the Roller that causes banding)



F-6-20

- 4) Execute service mode > COPIER > FUNCTION > MISC-P > DEV-ROT.  
If the white spots persist, execute the service mode again.

**CAUTION:**

Heavy use can result in deterioration of developer or toner scattering.

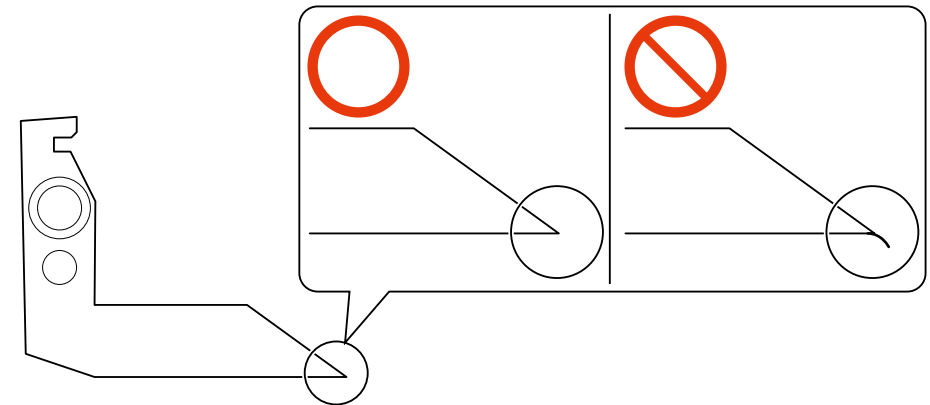
## ● Separation Failure Jam due to Deformation of Separation Claw

[Location]

Drum Separation Claw

[Cause]

When the paper enters to the drum at separation failure, the Separation Claw may be deformed. When the Separation Claw is deformed, the paper is easily caught by the leading edge of the Separation Claw when the paper (especially curled paper) is fed, and a jam (Jam Code: 0205) is likely to occur.



F-6-21

[Condition]

Job after a jam which occurs when the paper enters to the drum  
When using curled paper (when using backside of printed paper, etc.)

[Field Remedy]

Replace the Separation Claw.

**NOTE:**

Replace the Separation Claw when a separation failure jam occurs even once..

## Image error due to soil attached to the Cleaning Brushes for the Duplex Right Roller and the Duplex Outlet Roller

[Location]

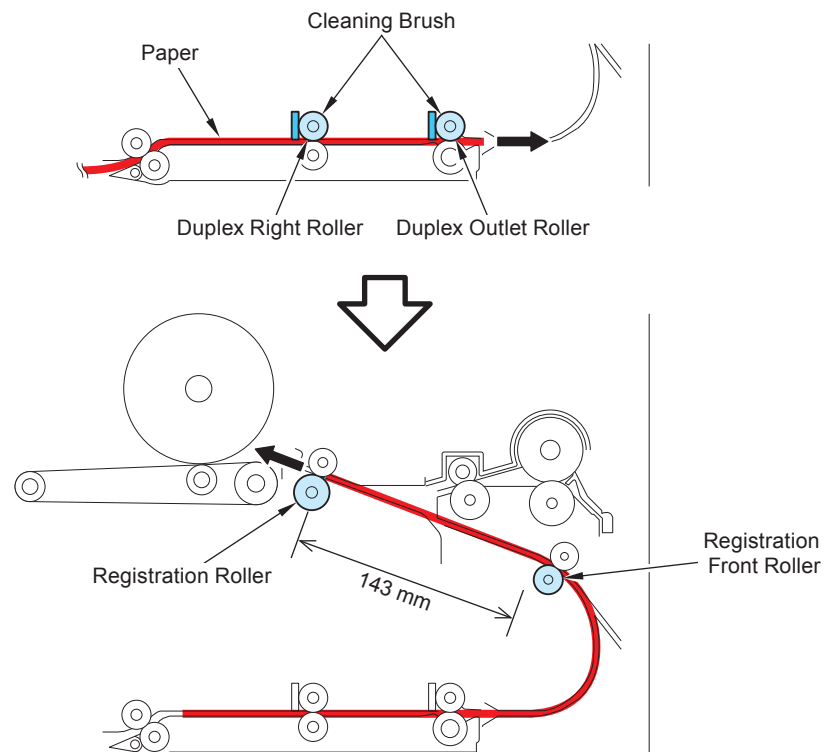
Fixing Feed Unit

[Cause]

Soil attached to the 4 Cleaning Brushes contacting the Duplex Right Roller and the Duplex Outlet Roller

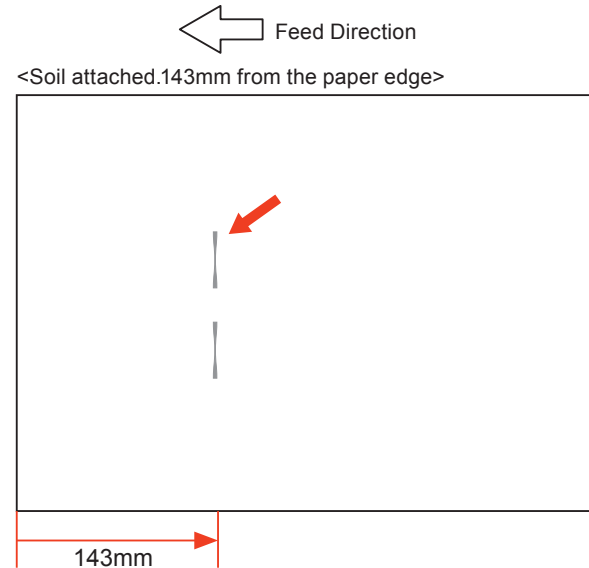
[Condition]

When soil is attached to the 4 Cleaning Brushes contacting the Duplex Right Roller and the Duplex Outlet Roller, paper is fed with minor soil (paper dust and toner) attached to it, and the soil is gradually attached to the Registration Front Roller. When the paper stops at the time of registration, the rotating Registration Front Roller contacts the paper, which causes two trails of soil of the roller width at 143mm from the paper edge.



F-6-22

[Image Sample]



F-6-23

[Field Remedy]

Follow the following procedure to replace the Cleaning Brushes contacting the Duplex Right Roller and the Duplex Outlet Roller and clean the relevant parts.

<Preparation>

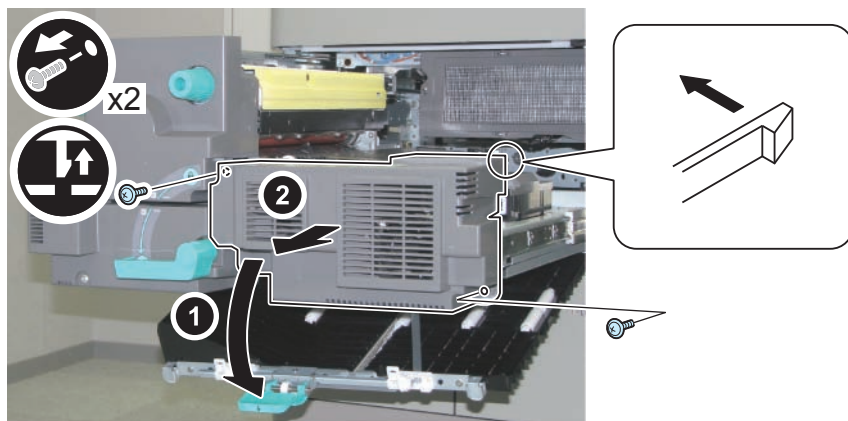
Remove the Registration Unit. (See Chapter 4, "Removing the Registration Unit.")

<Procedure>

1) Open the Duplex Path.

2) Remove the Fixed Feed Cover 1.

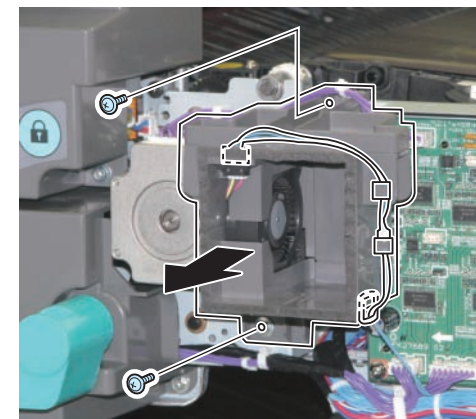
- 2 Screws
- 1 Claw



F-6-24

4) Remove the left side Duct.

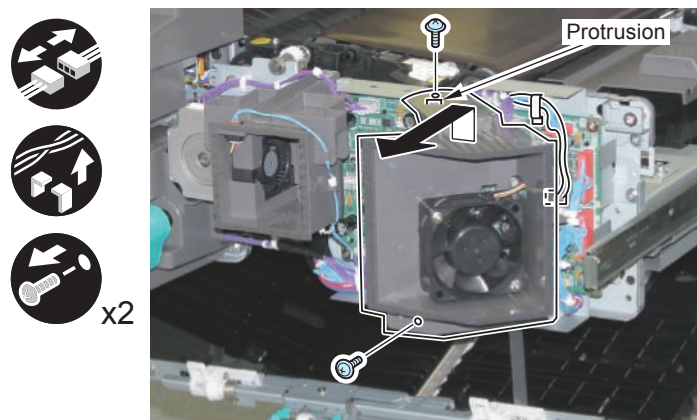
- 1 Connector
- 2 Harness Guide
- 1 Wire Saddle
- 2 Screws



F-6-26

3) Remove the right side Duct.

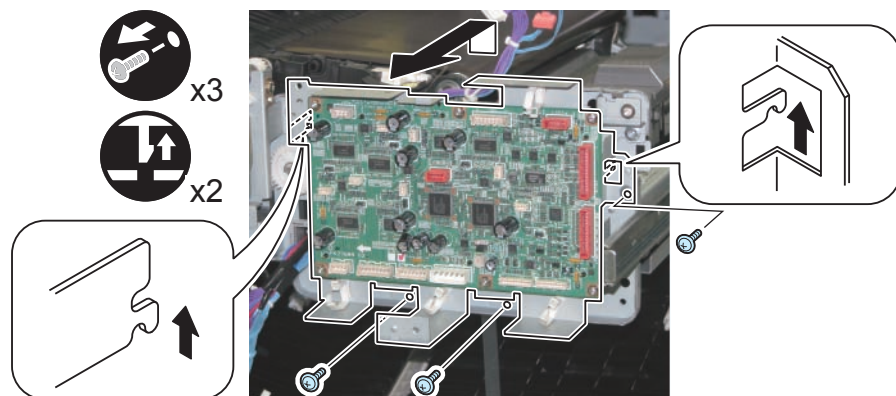
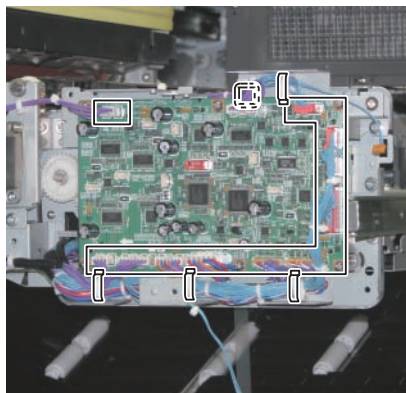
- 1 Connector
- 1 Wire Saddle
- 2 Screws
- 1 Protrusion



F-6-25

5) Remove the Duplex Driver PCB and the Mounting Base.

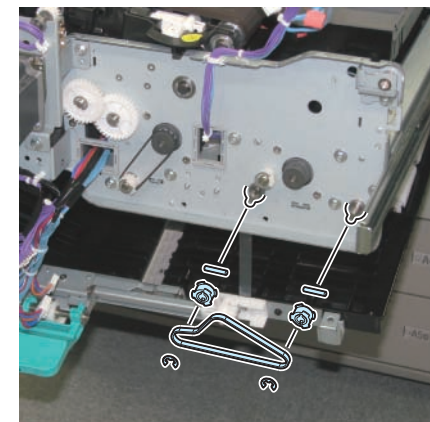
- 4 Wire Saddles
- 1 Edge Saddle
- 11 Connectors
- 3 Screws
- 2 Claws



F-6-27

6) Remove the following parts.

- 2 E-rings
- 1 Timing Belt
- 2 Pulleys
- 2 Parallel Pin

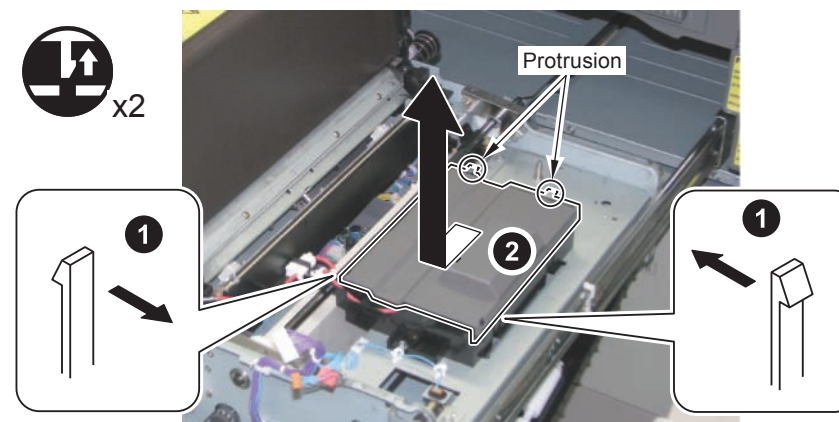


F-6-28

7) Lift the ETB Unit in the direction of the arrow.

8) Free the 2 claws, and remove the Transfer High Voltage PCB Unit Upper Cover in the direction of the arrow.

- 2 Protrusions

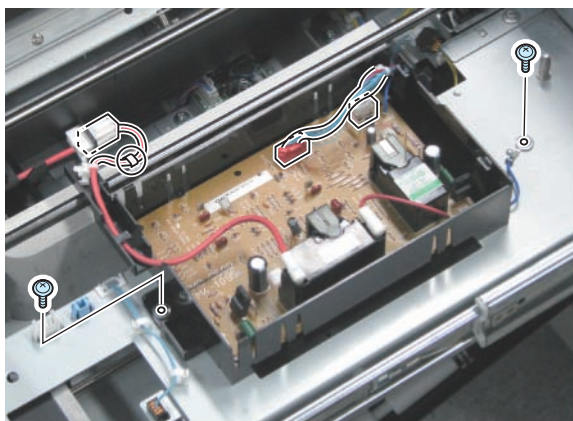


F-6-29



9) Remove the following parts.

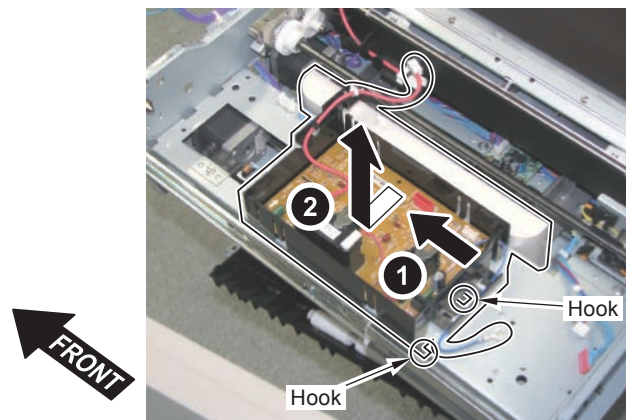
- 3 Connectors
- 1 Wire Saddle
- 2 Screws



F-6-30

10) Remove the Transfer High Voltage PCB Unit in the direction of the arrow.

- 2 Hooks

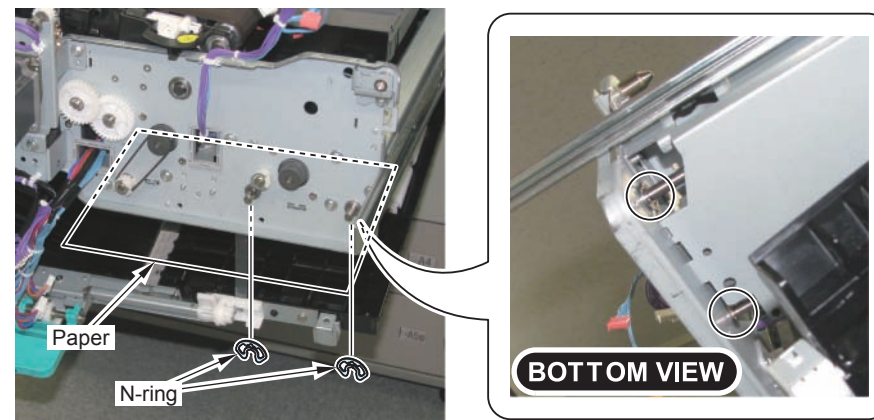


F-6-31

11) Place a sheet of paper on the Duplex Path, and remove a N-ring each from the Duplex Right Roller and the Duplex Outlet Roller.

**CAUTION:**

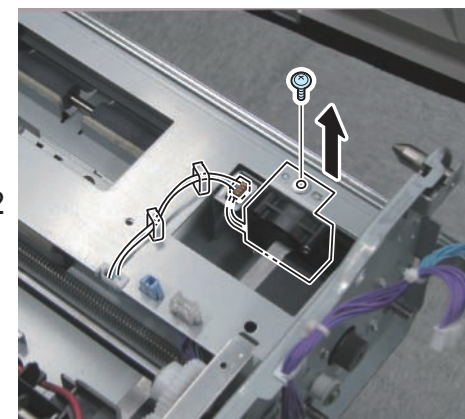
Be sure to place a sheet of paper on the Duplex Path because paper dust drops during the following work.



F-6-32

12) Remove the Fan Unit.

- 2 Wire Saddles
- 1 Connector
- 1 Screws



F-6-33

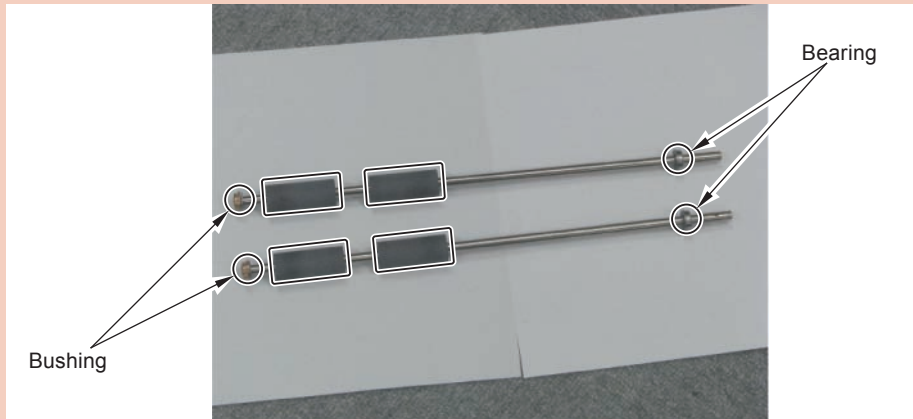
13) Pull out the Duplex Right Roller and remove the shaft at the rear.

**NOTE:**

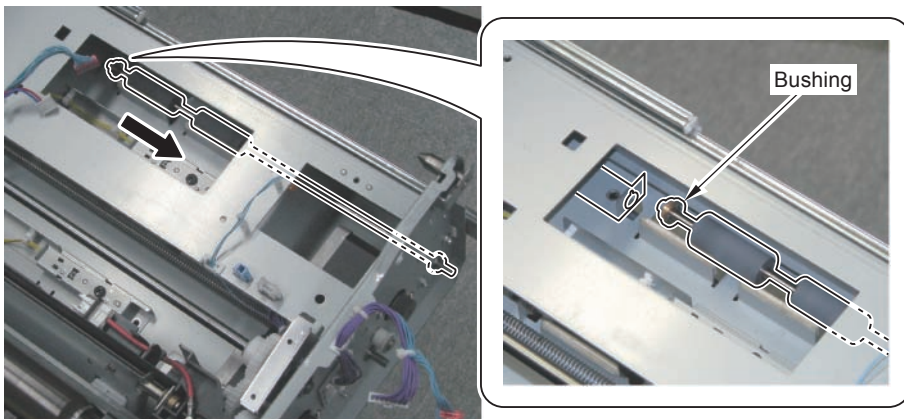
In this procedure, the procedure for removing the Duplex Right Roller is shown in steps 13 and 14. When removing the Duplex Outlet Roller, check the installation position in step 15 and remove the Duplex Outlet Roller by a similar procedure.

**CAUTION: Points to Caution at Work**

- Be careful not to damage the surfaces of the Duplex Right Roller and the Duplex Outlet Roller.
- The bearing at the front and the bushing at the rear of the Duplex Right/Duplex Outlet Roller are not fixed, so be careful not to drop them.

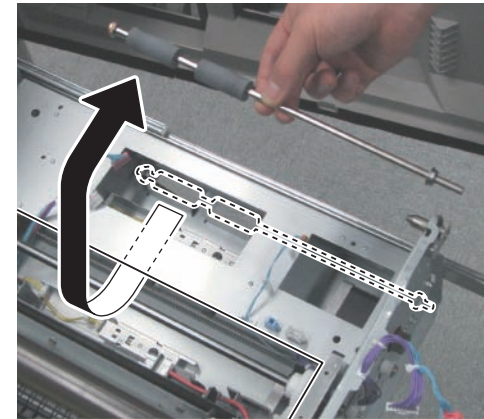


F-6-34



F-6-35

14) Move the Duplex Right Roller toward the rear and remove the shaft from the Fixing Feed Unit Side Plate. Then, move the Duplex Right Roller in the direction of the arrow and take it out from the opening on the top of the Fixing Feed Unit.

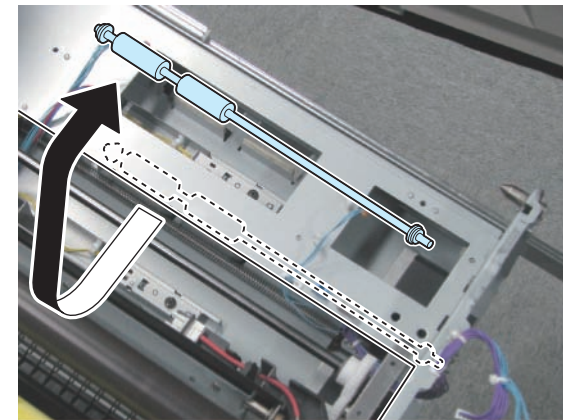


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15) Remove the Duplex Outlet Roller in a similar procedure referring to the procedure for removing the Duplex Right Roller in steps 13 and 14.

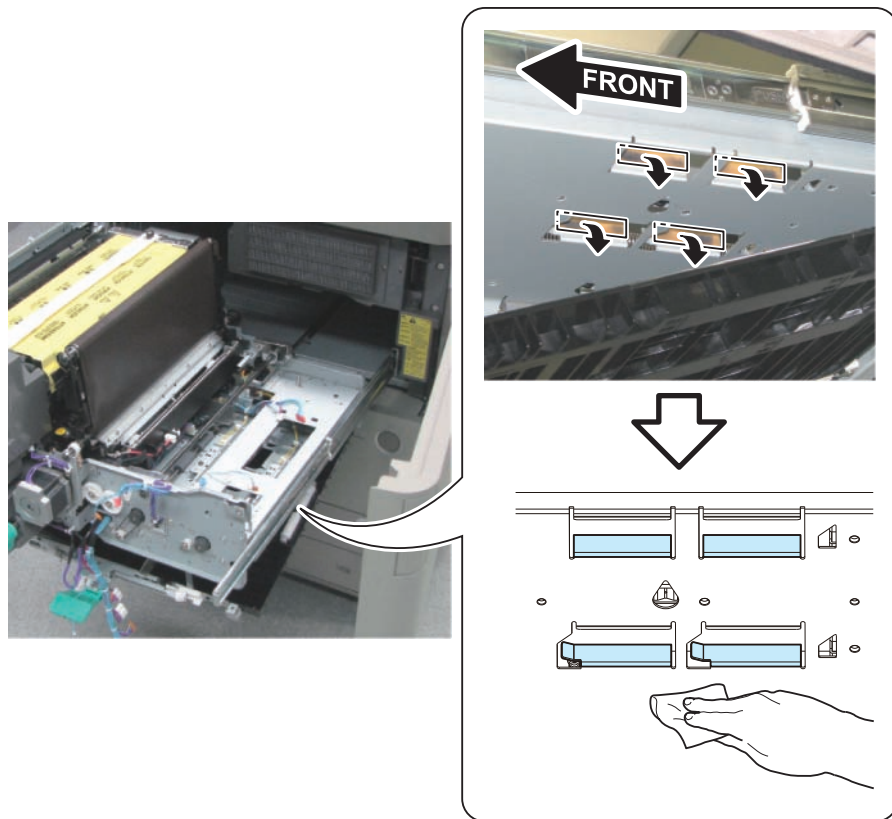
**NOTE:**

The installation position of the Duplex Outlet Roller is shown in the following figure.



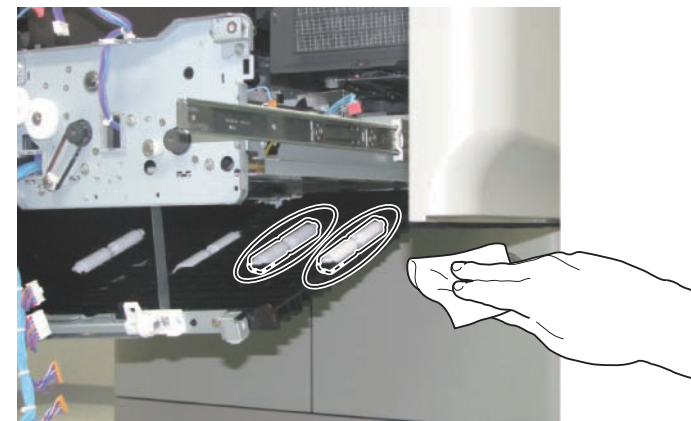
F-6-37

- 16) Remove the 4 Cleaning Brushes contacting the Duplex Right Roller and the Duplex Outlet Roller.
- 17) Clean the four areas where the Cleaning Brushes are attached with lint-free paper moistened with alcohol.



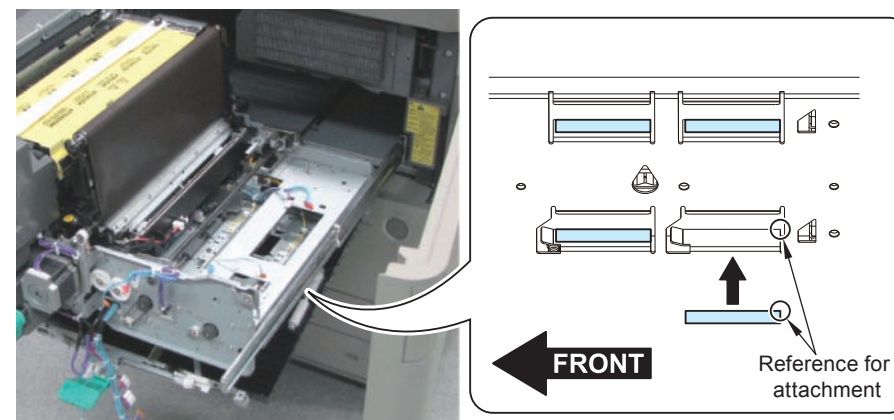
F-6-38

- 18) Remove the paper on the Duplex Path, and clean the entire perimeter of each of the 4 rollers with lint-free paper moistened with alcohol while rotating the roller by hand.



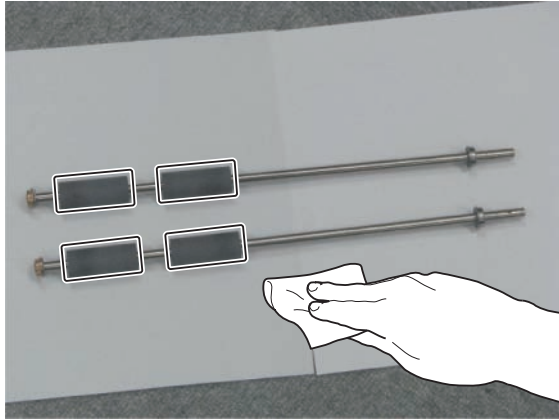
F-6-39

- 19) Attach new 4 Cleaning Brushes with reference to the upper right of the plate where they are going to be attached.



F-6-40

- 20) Clean the four areas on the removed Duplex Right Roller and the Duplex Outlet Roller with lint-free paper moistened with alcohol.

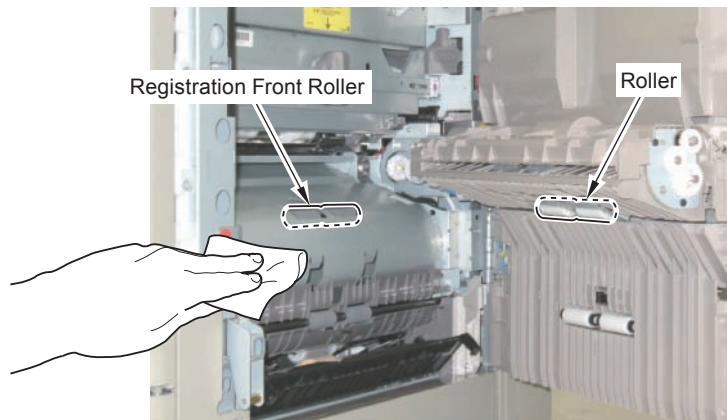


F-6-41

- 21) Install the removed parts in reverse order.  
 22) Open the Right Door.  
 23) Open the Right Lower Cover.  
 24) Clean the entire perimeter of each of the 2 rollers and Registration Front Roller with lint-free paper moistened with alcohol while rotating the roller by hand.

**CAUTION:**

When rotating the roller by hand, be sure not to touch the surface of the roller but to hold a side face.



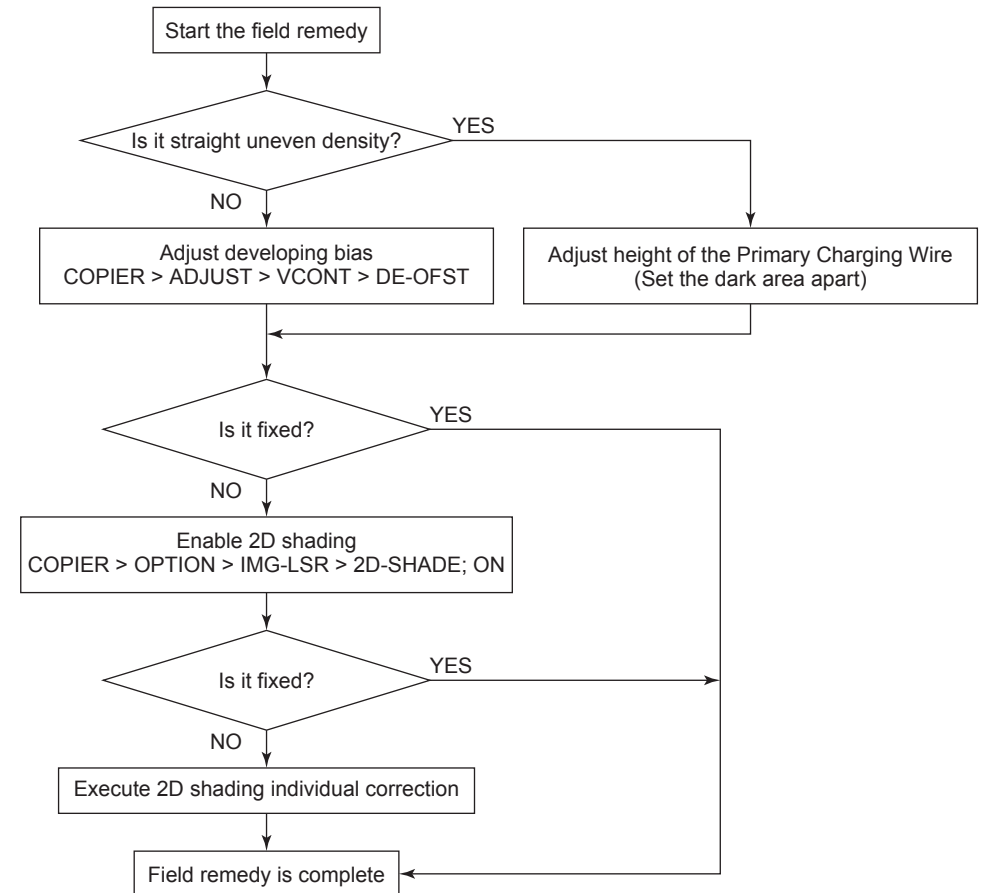
F-6-42

## Uneven density

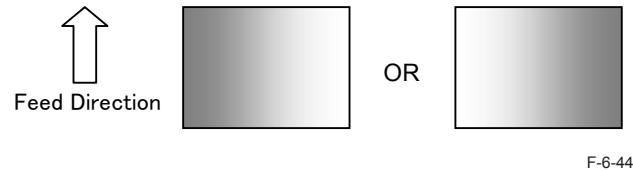
[Cause]

Uneven density occurs on the image because of uneven developing performance or change in drum characteristics due to wear.

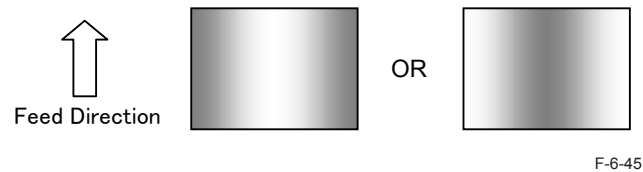
[Field Remedy]



F-6-43



In the case of dark/light image at either the left or right side on the image in horizontal direction, adjust height of the Primary Charging Wire and check the output result. When making adjustment, execute the work while keeping the wire at dark area apart.



If it is not a straight uneven density, change the value of the following service mode in decrement of -10 and check the output result.

COPIER > ADJUST > VCONT > DE-OFST  
(Setting value: default 0, -10, -20, ...-50)

**CAUTION :**

Executing the above setting can generate smeared image or foggy image.

After switching the mode to enable 2D shading in the following service mode, turn OFF/ON the main power and check the output result.

(For detailed procedure, see "Troubleshooting > Uneven density correction by 2D shading > Step 1) to 3) (Refer to page 6-7)

COPIER > OPTION > IMG-LSR > 2D-SHADE Setting value: 1 (ON)

Output the test pattern for 2D shading and adjust the uneven density area individually.

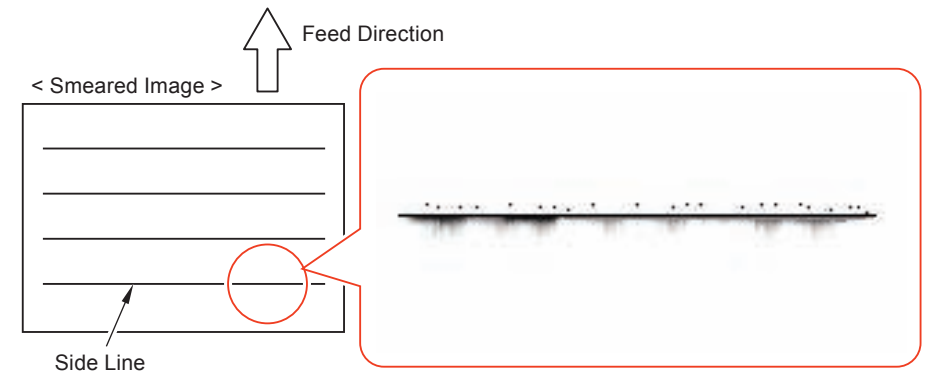
(For detailed procedure, see "Troubleshooting > Uneven density correction by 2D shading > Step 4) to 5) (Refer to page 6-7)

## Smeared image

**[Cause]**

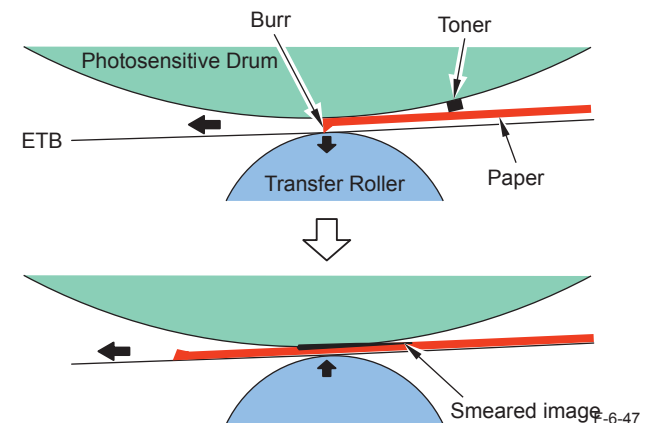
Excess toner is transferred on the paper that causes toner collapse at the time of fixing, which can generate smeared image on the image. The following are assumed causes of smeared image:

- When the paper type is changed
- Toner deterioration
- Rapid change in environment (High temperature <- -> Low temperature)

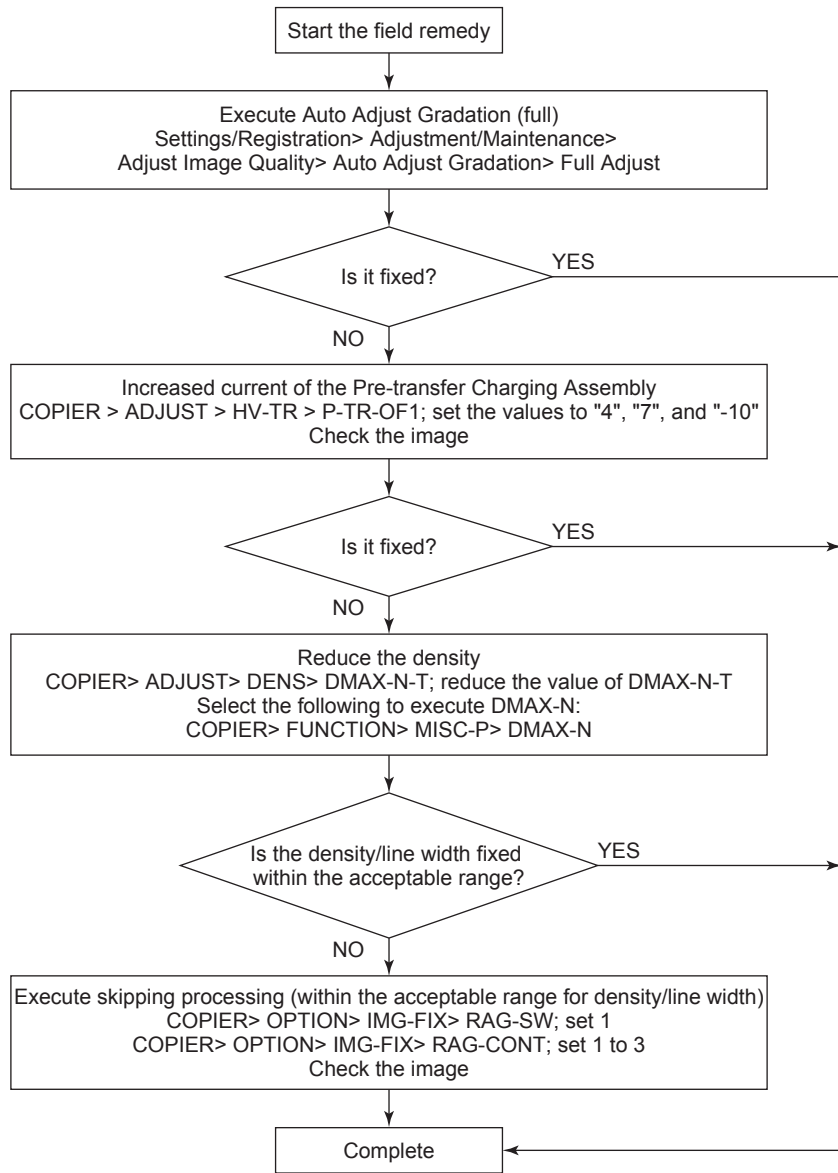


Smeared image may also occur exclusively in the area 5 to 10 mm from the leading edge of the paper when there is burr on the leading edge of the paper (jagged edge formed when the paper was cut by a cutter).

It is caused by toner being pushed backward by the power of the ETB, which is pushed down by the burr when it passes through the transfer nips, to go back to the original position.



[Field Remedy]



F-6-48

Select the following to execute Full Adjust: "Settings/Registration > Adjustment Maintenance > Adjust Image > Auto Adjust Gradation < Full Adjust"; and check the output result.

1) In COPIER > ADJUST > HV-TR > P-TR-OF1, set the values to "4", "7", and "-10" in that order from the left, and check the output result.

**CAUTION :**

Executing the above setting may cause the Pre-transfer Charging Wire to be easily soiled. Be sure to check for soiling of the Charging Wire at the time of inspection since heavy soiling may cause vertical lines to occur on the rear side of the image.

1) COPIER > ADJUST > DENS > DMAX-N-T; reduce the value of DMAX-N-T from 895 (default) by -30.

2) Select the following to execute DMAX-N: COPIER > FUNCTION > MISC-P > DMAX-N; and then check the output result.

If the symptom is not improved, further reduce the value in step 1) by -30 and then execute step 2).

**CAUTION :**

Changing the above setting can cause reduced density or thinner line

If the smeared image is not improved within the acceptable range for density and line width, execute skipping process in the following procedure:

1) COPIER > OPTION > IMG-FIX > RAG-SW; change the value to 1

2) COPIER > OPTION > IMG-FIX > RAG-CONT; change to 1 and check the output result.

3) If the symptom is not improved, change the value in step 2) to 2, 3...and check the output result.

**CAUTION :**

Changing the above setting can cause minor skipping in the text part.

## Adjusting the Edge Emphasis Level

The edge emphasis level of image can be adjusted in both user mode and service mode, but the use conditions differ.

	User mode	Service mode
Item code	Other Functions > Sharpness	COPIER> OPTION> IMG-MCON> SHARP
Operator	User	Service technician
Purpose	To make adjustment for each original to be copied	To set the central value of edge emphasis to control individual variability or environmental change during transportation/after installation.
Text/photo area	Individual	Batch
Setting range	-3 to +3 level	1 to 5
Default value	0 level	3
Setting value at power OFF/ON or at reset	Canceled (Default value can be retained.)	Retained

T-6-8

The following table shows the edge emphasis level by the combination of "SHARP" and "Sharpness" settings, using the relative value when the default is 100.

		User mode "Sharpness"						
		-3	-2	-1	0	+1	+2	+3
Service mode "SHARP"	1	25	40	50	60	100	140	175
	2		45	65	85	115	145	
	3		50	75	100	125	150	
	4		55	85	115	135	155	
	5		65	100	140	150	160	

T-6-9

Images become smoother as values in the table become smaller, while they become sharper as values become larger.

Note that, when "Sharpness" is the upper limit or lower limit, the relative value stays constant regardless of the "SHARP" setting, therefore the edge emphasis effect does not change even if the settings are changed.

Normally, adjustment is made for each copy on the Touch Panel based on the service mode setting, but depending on the environment or paper type (coarse surface, etc.), edge emphasis may not turn out the way the user expected.

In this case, edge emphasis level customized for the user can be set by setting the current value of "Sharpness" as the default value.

Example: In the case of the environment where the relative value "135" is suitable as the default value.

- 1) Set "SHARP" to "4".
- 2) Set "Sharpness", which is set to "+1" level, as the default in the user mode (Function Settings > Copy > Change Default Settings).

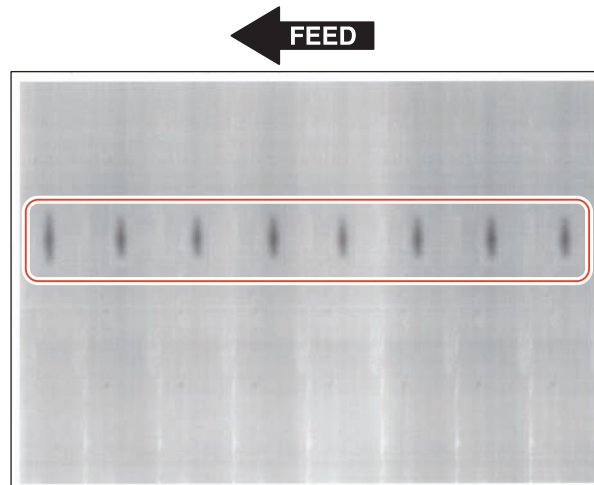
## Soiling at an interval equal to the circumference of the Developing Sleeve

[Location]

Developing Sleeve

[Cause]

If the surface of the sleeve is soiled, uneven toner coating occurs, causing the soiling of the same shape to appear at intervals equal to the circumference of the sleeve (approx. 63 mm) in the vertical scanning direction.



F-6-49

[Field Remedy]

1) Rotate the sleeve in the normal direction and identify the location where the soiling occurs.

CAUTION:

Do not turn the sleeve in the reverse direction.

2) Remove the toner found at that location using a blower, etc.

CAUTION:

If toner is dry wiped instead of removed, it may be fixed on the surface of the sleeve.

3) Wipe the surface of the sleeve with dry lint-free paper.

CAUTION:

Do not use water or alcohol.

4) Execute service mode > COPIER > TEST > PG > TYPE to output a halftone image (PG12), and check the image.

If white spots occur, go to step 5.

5) Execute service mode > COPIER > FUNCTION > MISC-P > DEV-ROT.

6) Check the image.

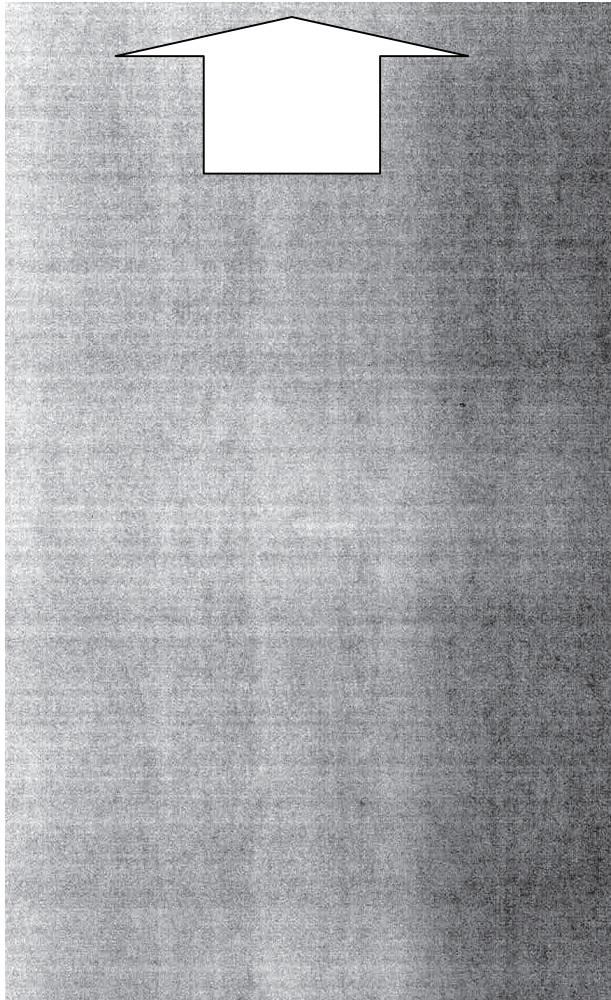
If the white spots persist, execute step 5 again.

CAUTION:

Heavy use of DEV-ROT can result in deterioration of developer or toner scattering.



## Image failure due to the temperature rising at the edge of the Fixing Roller (crepe mark)



F-6-50

### <Location of Trouble>

Fixing Roller, Pressure Roller

### <Cause>

This is the symptom which image error like crepe mark occurs when temperature at the edge of the Fixing Roller rises.

When the temperature rising at the edge occurs, the edge of the Pressure Roller made with rubber expands, giving the following influences on papers.

- Feed speed at the edge is increased, compared with the speed at the center.
- Tension is applied in the direction of both edges.

As it get close to the trailing edge, fixing is performed while a paper is distorted, causing an image error.

### <Conditions>

Although all images have a possibility to have the error because the cause is temperature rising at the edge, the symptom is mainly significant with halftone images. The following shows estimated error occurrence with halftone image.

- When printing 200 sheets or more of small size paper continuously (approx. 1000 sheets in A4 size)
- When printing a large size sheet right after printing 100 sheets or more of small size paper continuously

### <Field Remedy>

1) Go through the following: Settings/Registration > XXX > XXX; and turn ON the item.

By doing so, image error (crepe mark) will not occur.

With this setting, temperature difference between the center and the edge of the Fixing Roller is detected, and start idle rotation when temperature rising at the edge tends to occur.

During idle rotation, paper feed is stopped to keep constant temperature on the Fixing Roller, so the productivity is reduced.

2) Switching the image priority mode level.

When the image priority mode is specified, productivity may be extremely reduced depending on use conditions (paper size, paper type, and print image).

In such a case, change the level of production reduction by the following service mode.

COPIER >OPTION >IMG-FIX > FIX-IMGLV

[Setting values] 0: xxx, 1: xxx, 2: xxx

## MTF Adjustment

The MTF value of the Reader Unit may differ from the factory setting value depending on the condition of transportation/storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, readjust the MTF value by reading the MTF adjustment chart at installation as needed.

o: Need adjustment, -: Not need adjustment

Series	Model	MTF Adjustment Type					
		Copyboard reading		Front side stream reading		Back side stream reading	
		Color	B&W	Color	B&W	Color	B&W
imagePRESS 1135/1125/1110 Series	Simultaneous duplex reading *1	-	-	-	-	-	-
imageRUNNER ADVANCE C5051/C5045/C5035/C5030 Series	Copyboard reading	o	-*2	-	-	-	-
	Reverse duplex reading	-	-	o	-	-	-
	Simultaneous duplex reading	-	-	o	o	o	o
imageRUNNER ADVANCE C9075 PRO/9070 PRO/9065 PRO/9060 PRO/C7065/7055 Series	Reverse duplex reading	-	-	o	o	-	-
	Simultaneous duplex reading	-	-	o	o	o	o
imageRUNNER ADVANCE 8105/8095/8085 Series	Simultaneous duplex reading	-	-	o	o	o	o
imageRUNNER ADVANCE 6075/6065/6055 Series	Reverse duplex reading	-	-	o	o	-	-
	Simultaneous duplex reading	-	-	o	o	o	o

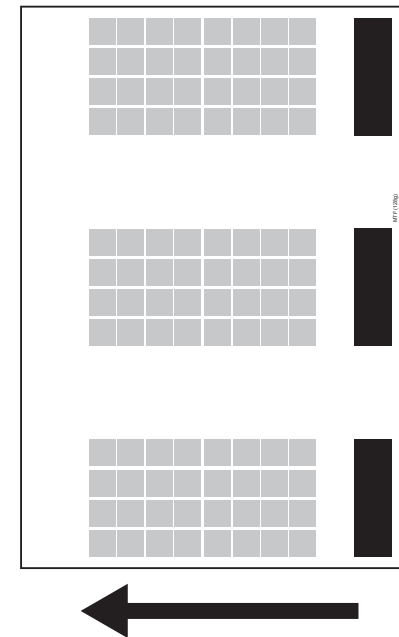
T-6-10

\*1: Respond by another adjustment (Refer to the Service Manual).

\*2: In the case of using a simultaneous duplex reading model as a copyboard model, B&W adjustment is also required.

## Adjustment Procedure

1) Obtain the MTF adjustment chart.



F-6-51

### NOTE:

The end with a dark color square will be the trailing edge at reading. When adjusting the copyboard reading, place the chart on the Copyboard Glass to make the dark color square comes at the right side.

2) Set the MTF adjustment chart.

Description of adjustment	Location to set the chart
Copyboard reading	Copyboard Glass
Front side stream reading	DADF Document Pickup Tray
Back side stream reading	DADF Document Pickup Tray (turn over the chart when setting)

T-6-11

3) Execute sampling of the MTF value.

Description of adjustment	Color/B&W	(Lv.1) COPIER > FUNCTION > MISC-R >
Copyboard reading	Color	CLM-PLTN
	B&W	BWM-PLTN
Front side stream reading	Color	CLM-DF1
	B&W	BWM-DF1
Back side stream reading	Color	CLM-DF2
	B&W	BWM-DF2

T-6-12

**NOTE:**

In the case of executing sampling of the MTF value several times, execute in arbitrary order.

4) During the adjustment, "START" is indicated, and once it is terminated normally, "OK!" is indicated.

At abnormal termination, "NG1 to 3" is indicated.

**NOTE:**

If "NG1 to 3" is indicated, check the location to set the chart and direction of the chart, and then executed the adjustment again.

5) Check that the initial setting of the MTF value is set to "1".

Description of adjustment	Color/B&W	(Lv.1) COPIER > FUNCTION > MISC-R >
Copyboard reading	Color	CLPLT-EN
	B&W	BWPLT-EN
Front side stream reading	Color	CLDF1-EN
	B&W	BWDF1-EN
Back side stream reading	Color	CLDF2-EN
	B&W	BWDF2-EN

T-6-13

**NOTE:**

- The initial value of the MTF value is updated by switching the Control Panel screen.
- After the adjustment, the corresponding MTF value is corrected.  
(Lv.1) COPIER > ADJUST > CCD > MTF-xx, MTF2-xx
- When replacing the Reader Controller PCB or the Scanner Unit, check the initial value of the MTF value. If the value is "1", it will be necessary to execute the adjustment.

6) Print the image with moiré, and check that moiré is not appeared on the image.

If moiré appears, make a fine adjustment.

## ■ When Making Fine Adjustment After Sampling the MTF Value

1) Set the MTF value for fine adjustment to "1".

Color/B&W	(Lv.1) COPIER > FUNCTION > MISC-R >
Color	CLM-TGT
B&W	BWM-TGT

T-6-14

**NOTE:**

The MTF value for fine adjustment can be set only after executing sampling of the MTF value.

2) Recalculate the MTF filter coefficient.

(Lv.1) COPIER > FUNCTION > CCD >
MTF-CLC

T-6-15

3) Print the image with moiré, and check that moiré is not appeared on the image.

If moiré appears, determine the image quality by asking the user to compare the images before adjustment, after sampling of the MTF value, and after making a fine adjustment.

4) If using the MTF value after sampling as the MTF value, set the MTF value for fine adjustment to "0" and recalculate the MTF filter coefficient.

If using the MTF value before the adjustment, it disables the MTF adjustment.

## ■ When Disabling the MTF Adjustment

1) By setting the initial setting of the MTF value to "0", the MTF value is initialized to the factory setting value.

Description of adjustment	Color/B&W	(Lv.1) COPIER > FUNCTION > MISC-R >
Copyboard reading	Color	CLPLT-EN
	B&W	BWPLT-EN
Front side stream reading	Color	CLDF1-EN
	B&W	BWDF1-EN
Back side stream reading	Color	CLDF2-EN
	B&W	BWDF2-EN

T-6-16

## Feed Faults

### Paper wrinkle

#### <Location>

Fixing Roller, Pressure Roller

#### <Cause>

Right after the startup, temperature is different between the center and the edge of the Fixing Roller (temperature: center > edge).

Because a slippery solid black image does not match to the nip shape when it is fed, the center of paper is pulled toward the feeding direction, causing paper wrinkle.

#### <Condition>

Timing: Approx. 20 sheets immediately after the startup first time for the day

Paper size: Paper size larger than B4

#### <Field Remedy>

Normally, when printing to paper larger than A3 or LDR size paper at the start of printing in a high humidity environment, control temperature is increased by performing idle rotation. Paper wrinkle which occurs at this time can be decreased, but first copy time becomes longer. In other cases, idle rotation is not performed.

If paper wrinkle occurs on paper larger than B4, increase the setting value from 2 in increments of 1 until paper wrinkle is alleviated.

If paper wrinkle occurs on B4 size paper, increase the setting value from 4 in increments of 1 until paper wrinkle is alleviated.

COPIER>OPTION>BODY>FX-WNKL

[Setting values]

0: OFF

1: When paper is larger than A3/LDR size paper in a high humidity environment, idle rotation is performed for up to 20 seconds. (Default)

2: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 10 seconds, whereas it is performed for up to 20 seconds when paper size is 304.8×457.2 mm (12"×18")/330.2×482.6 mm (13"×19").

3: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 20 seconds, whereas it is performed for up to 40 seconds when paper size is 304.8×457.2 mm (12"×18")/330.2×482.6 mm (13"×19").

4: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 20 seconds.

5: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 40 seconds.

6: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 60 seconds.

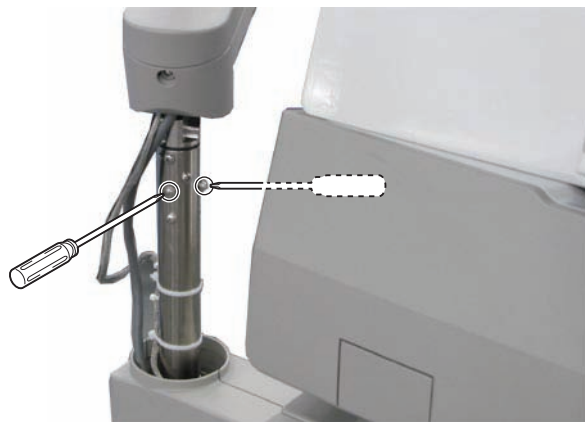
## Other

## Adjusting rotation of the Upright Control Panel Arm

If rotation of the Upright Control Panel Arm has become loose, retighten the Fixation Screws securing the Arm Rotation Adjustment Ring according to the following procedure.

<Procedure>

- 1) Remove the Shaft Support Cover (Left) and the Shaft Support Cover (Right).
- 2) Open the DADF and retighten the 2 Fixation Screws securing the Arm Rotation Adjustment Ring.

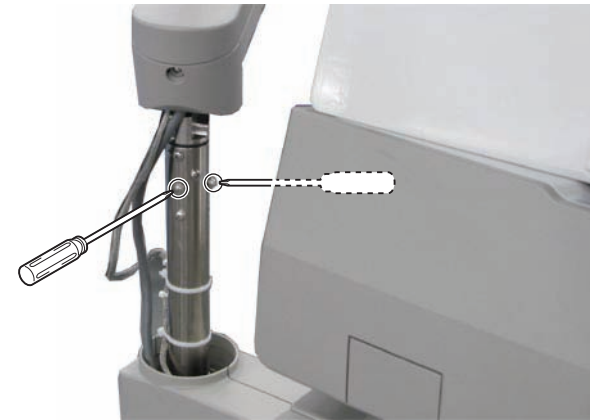


F-6-52

## NOTE:

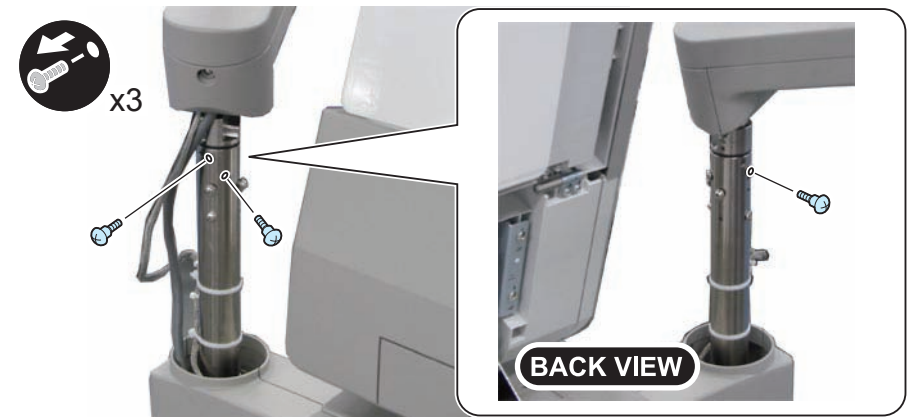
If rotation of the arm is still loose after retightening the Fixation Screws according to “●Adjusting rotation of the Upright Control Panel Arm”, change the phase difference between the Arm Rotation Adjustment Ring and the Fixation Screws according to the following procedure.

- 1) Open the DADF and loosen the 2 Fixation Screws securing the Arm Rotation Adjustment Ring.



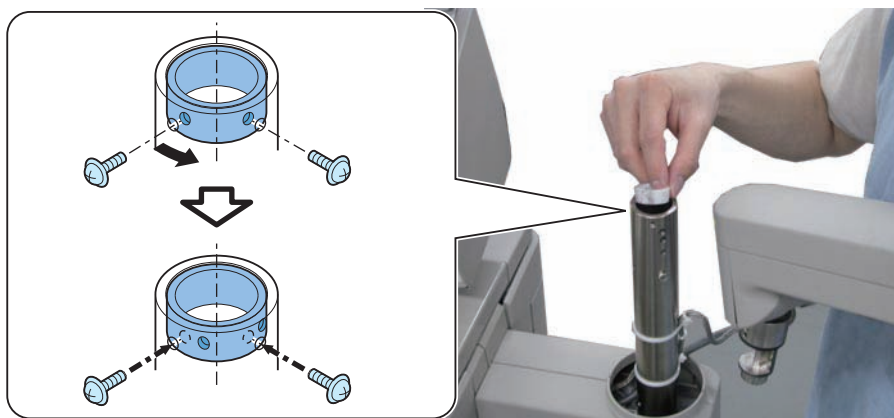
F-6-53

- 2) Remove the 3 Stepped Screws securing the Arm Shaft.



F-6-54

- 3) Pull out the Upright Control Panel and the Arm Shaft, and rotate the Arm Rotation Adjustment Ring to change the phase so that the Fixation Screws do not contact with the dents formed by tightening the screws.



F-6-55

- 4) Insert the Upright Control Panel and the Arm Shaft, and retighten the 2 screws loosened in step 3.

## Remedy to be implemented when the ETB Disengage Member (Transfer Frame Stopper) is left unremoved

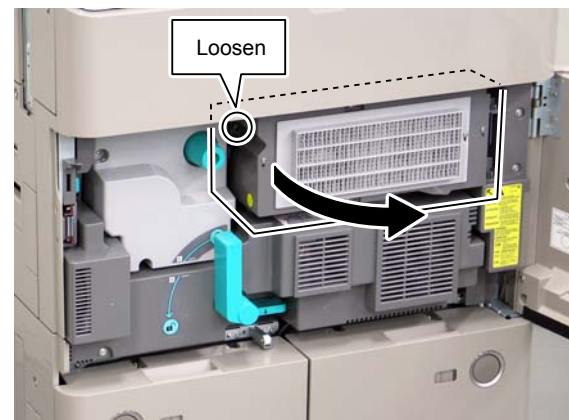
When the power is turned ON after installation, E017-0003 may occur due to the ETB Disengage Member (Transfer Frame Stopper) left unremoved.

When this error occurs, the ETB Disengage Member (Transfer Frame Stopper) is caught between the ETB Unit and the plate of the machine and cannot be removed. Moreover, one side of the Photosensitive Drum is in contact with the ETB Unit, so pulling out the Fixing Feed Unit by sheer force may result in damage to the ETB Unit.

When the ETB Disengage Member (Transfer Frame Stopper) is left unremoved, follow the following steps to implement remedy.

<Field Remedy>

- 1) Turn OFF the power.
- 2) Open the Inner Cover.



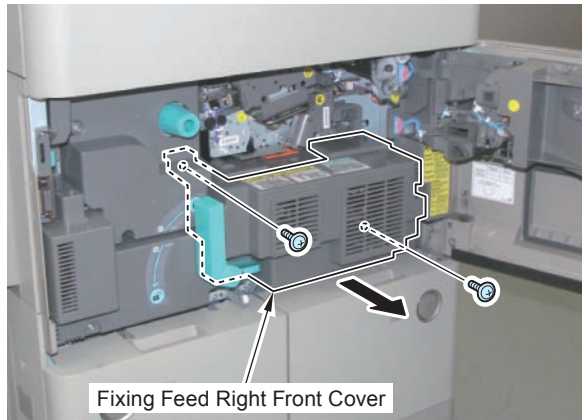
F-6-56

3) Remove the Fixing Feed Right Front Cover.

- 2 Screws



x2

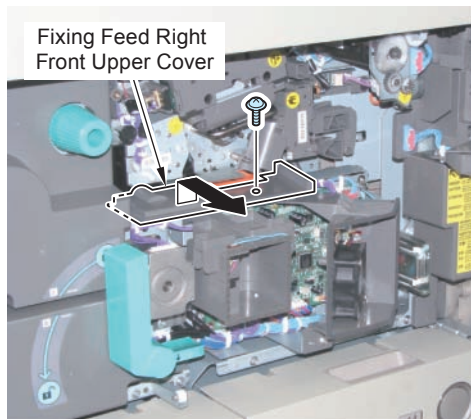


Fixing Feed Right Front Cover

F-6-57

4) Remove the Fixing Feed Right Front Upper Cover.

- 1 Screw

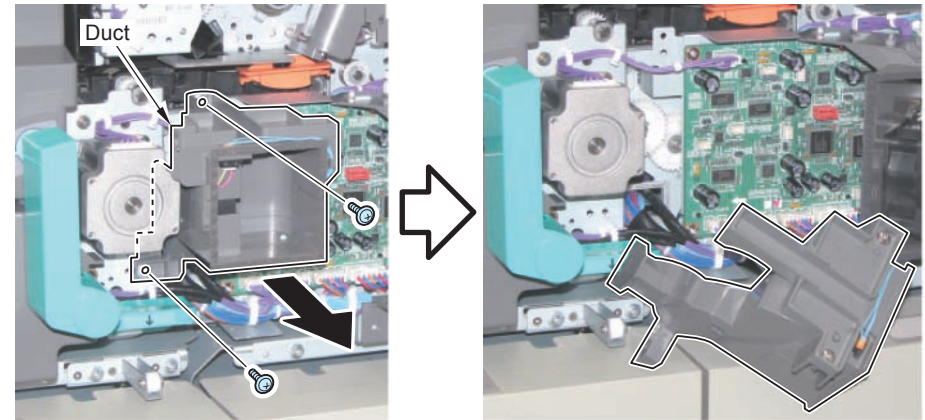


Fixing Feed Right Front Upper Cover

F-6-58

5) Remove the Fan Duct.

- 2 Screws

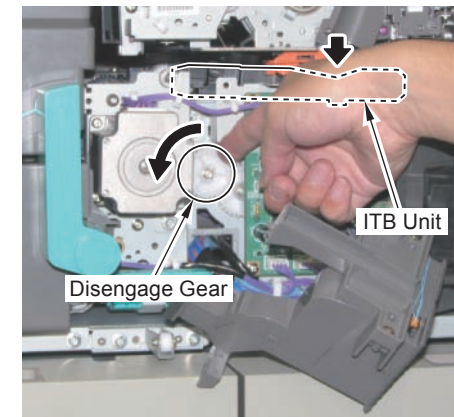


F-6-59

6) Rotate the Disengage Gear about 90 degrees counterclockwise by hand and lower the ITB Unit.

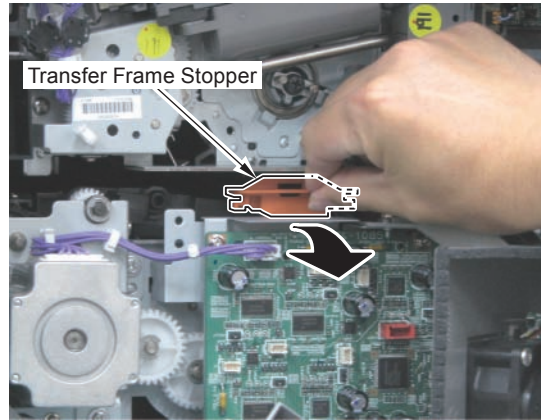
CAUTION:

The load of rotating the gear is heavy, so be careful not to get injured.



F-6-60

7) Remove the Transfer Frame Stopper.



F-6-61

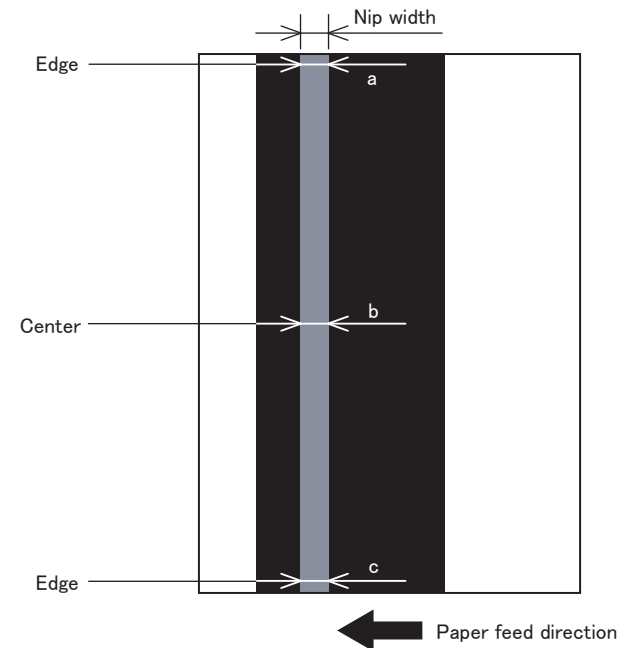
## Checking nip width

In the case of paper wrinkle or fixing failure, check that the fixing nip width is within the specified range. Note that the fixing nip width of this equipment cannot be adjusted in the field.

- 1) Print approx. 20 sheets of A4 size paper.
- 2) Set A4 size plain paper/recycled paper on the Multi-purpose Tray.
- 3) COPIER > FUNCTION > FIXING > NIP-CHK  
A sheet is stopped once in a state held by the Fixing Nip area, and is delivered approx. 20 seconds later.
- 4) Measure the nip width of delivered sheet.  
If the nip widths are as follow it is judged as normal: 7.0 to 8.0 mm at the center (b), and difference between front(a) and rear(b) is within 0.5 mm.

In the case of failure, check if there are any damaged parts (\*), and replace the damaged parts (if any).

\* Gear, Bearing, Fixing Roller, Pressure Roller and Fixing Assembly



F-6-62



## Controller Self Diagnosis

### Introduction

Operation of the (2 types of) error diagnosis tools added to the main body and remedy for errors are described. These tools can reduce time to determine cause of errors occurred in field and improve the accuracy of specifying error locations.

This manual can be applied when the main body is placed in the following conditions.

- The main body does not boot. (In such a case that the Control Panel is not displayed or the progress bar does not work, etc.)
- An error is suspected to have occurred in the Main Controller PCB 1/2 and other related PCBs (child PCBs such as SDRAM or TPM mounted in the Main Controller PCB 1/2).

PCBs and units diagnosed by each tool are as follow:

### ■ Boot System Error Diagnosis Tool

- Main Controller PCB 1 side <Main Controller PCB 1, SDRAM, FLASH Memory PCB, PCI Expansion PCB (option)>
- Control Panel
- All-night Power Supply, Non-all-night Power Supply

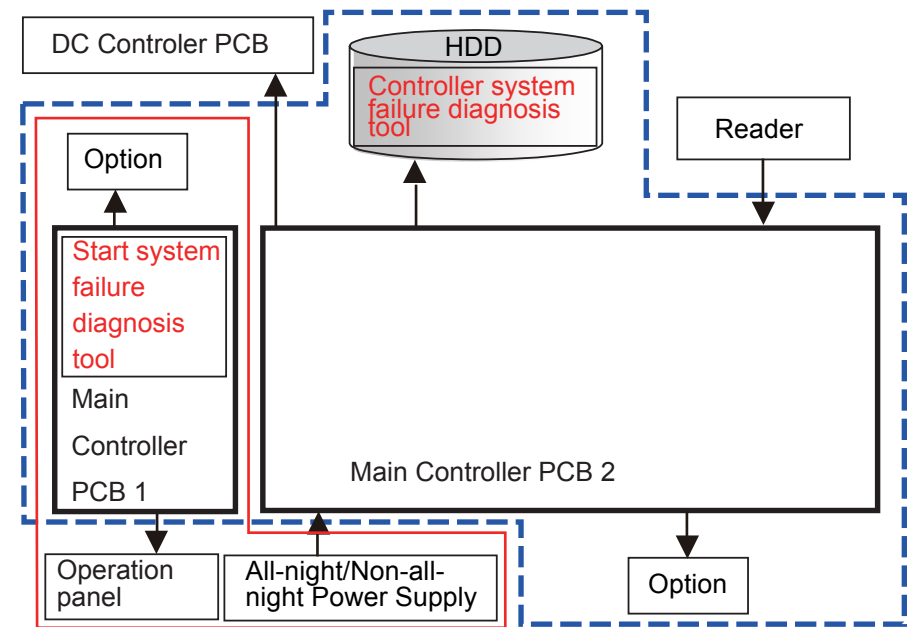
### ■ Controller System Error Diagnosis Tool

- Main Controller PCB 1 side <Main Controller PCB 1, SDRAM, TPM PCB, PCI Expansion PCB (option)>
- Main Controller PCB 2 side <Main Controller PCB 2, SDRAM (J11/J13), SDRAM (P), Memory PCB, Open I/F PCB (option), HDD>

\* SDRAM (M0) is an option.

### Overview

Two types of error diagnosis tools are installed in this machine, and stored in the locations shown below.



F-6-63

Boot System Error Diagnosis Tool covers the components shown in the red frame (solid line) in the figure. Controller System Error Diagnosis Tool covers the components shown in the blue frame (dotted line).

### ■ Boot System Error Diagnosis Tool

This tool automatically checks the Control Panel, Main Controller PCB 1, All-night Power Supply, and Non-all-night Power Supply, and notifies the result by the number of light-out and blinking interval of the lamp on the Control Panel.

This tool is installed in the ROM of Main Controller PCB 1.

Therefore, regardless the version of MN-CNT, this tool can be used even when an error occurs in child PCBs or when the Controller System Error Diagnosis Tool cannot be booted.

### Controller System Error Diagnosis Tool

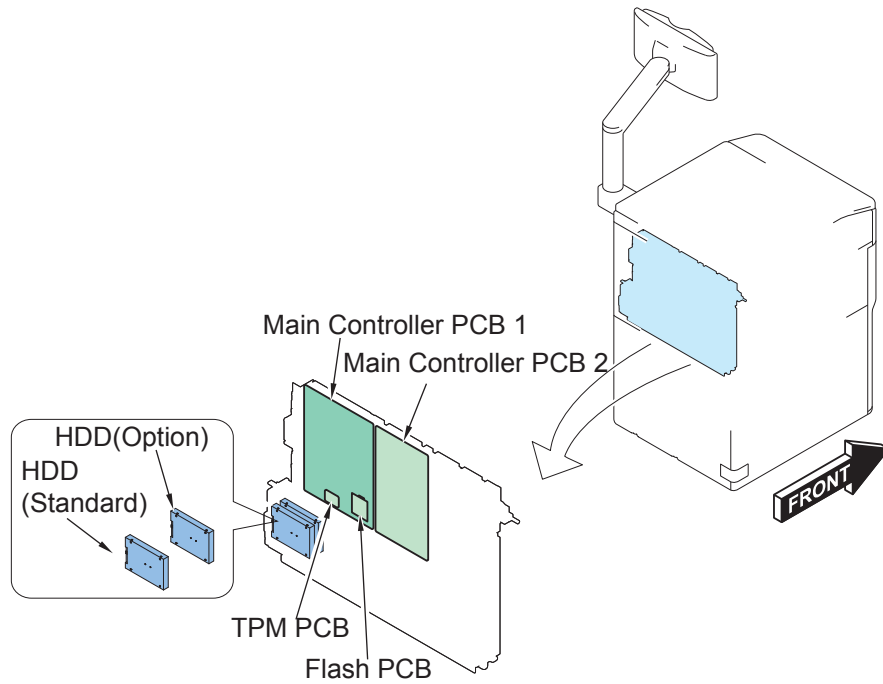
This tool automatically checks the Main Controller PCB 1/2, child PCBs mounted on the Main Controller PCB 1/2, and HDD, and display the result on the Control Panel.

This tool is installed in HDD.

Therefore, this tool cannot be used when an error occurred in HDD or HDD cannot be accessed.

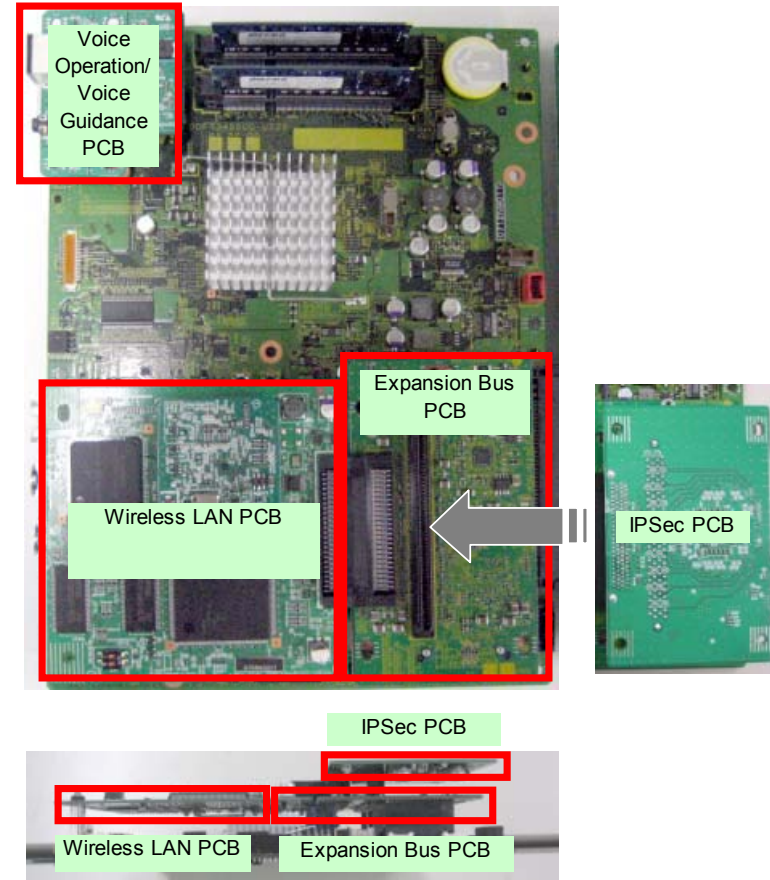
### Layout Drawing

Layout Drawing of PCBs Subject to Diagnosis



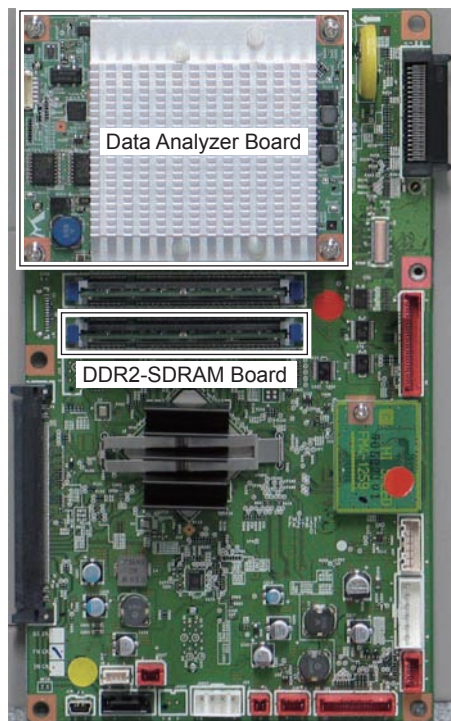
F-6-64

### Main Controller PCB 1



F-6-65

## Main Controller PCB 2

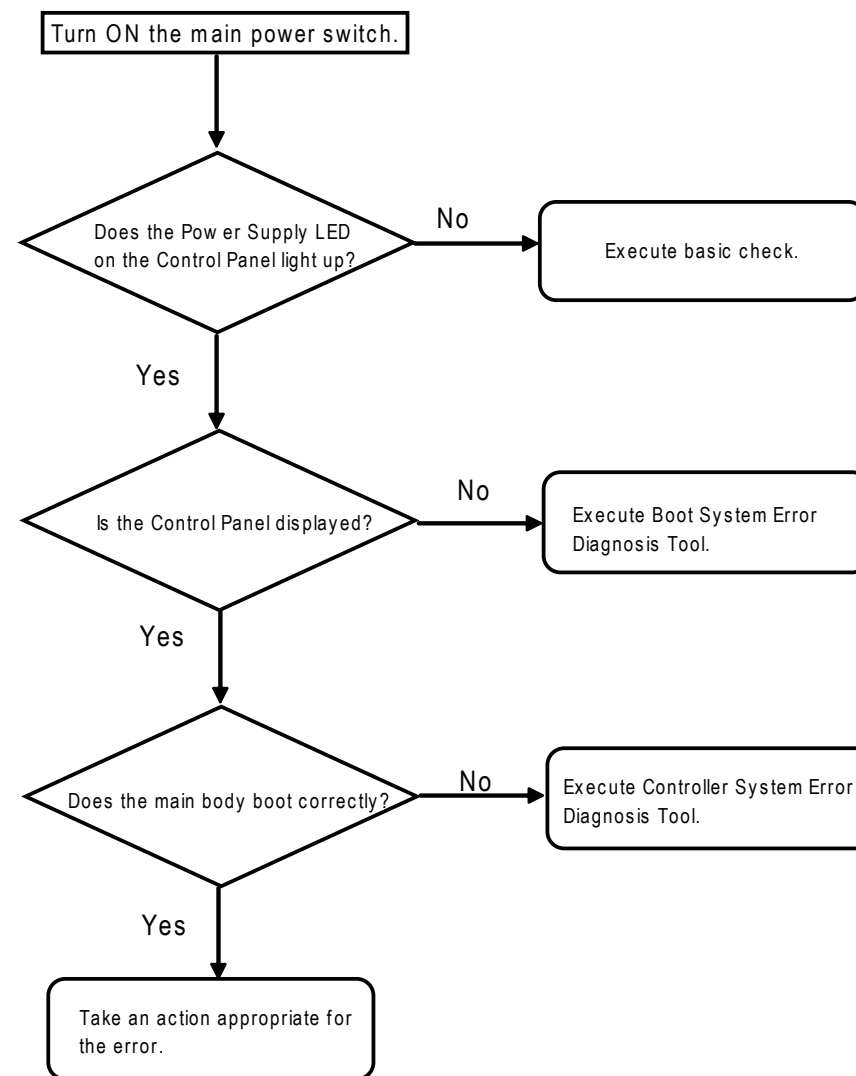


F-6-66

## Basic Flowchart

### Basic Check Items

Check all of the items shown below.



F-6-67

## Basic Check Items

1. Check if the Leakage Breaker is turned OFF.
2. Check if the Power Supply Plug is disconnected.
3. Check if the Connection Cable between the Main Controller PCB 1 and Control Panel is disconnected.
4. Check if the Connection Main Controller PCB 1 and Main Controller PCB 2 definitely?
5. Check if the Connection An All-night Power Supply. Change Non-all-night Power Supply if not recovered.

## Operation

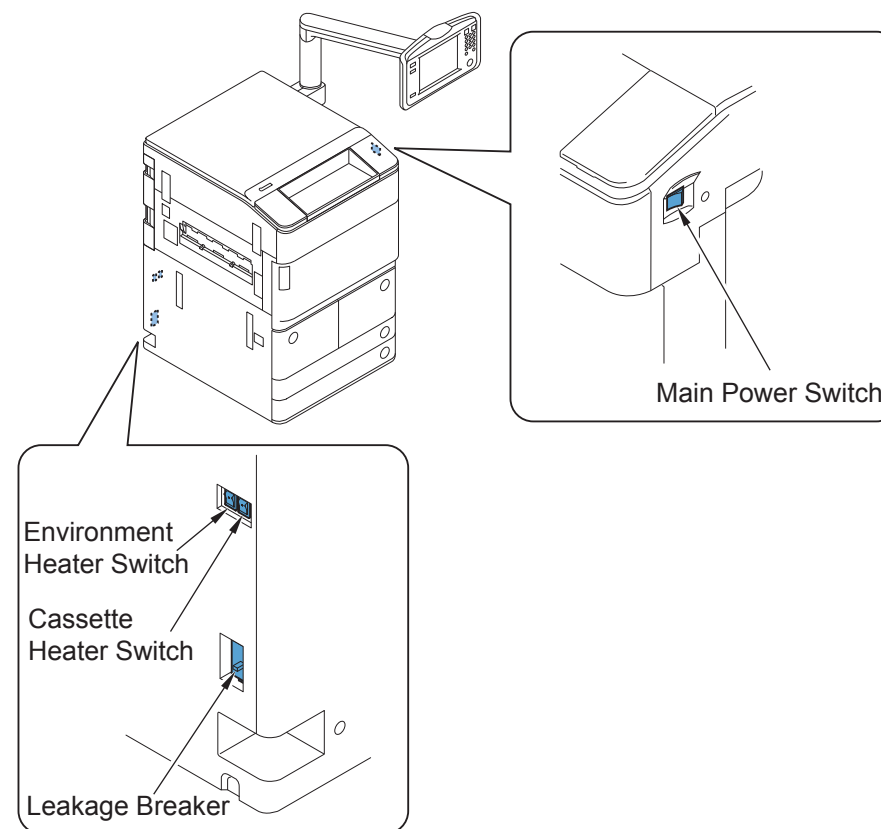
Operations of the two diagnosis tools are explained below.

Use each tool according to the following purposes.

- When the main body does not boot (the Control Panel is not displayed): Execute Boot System Error Diagnosis.
- When an error is suspected to have occurred in the Main Controller PCB 1/2 or child PCBs mounted on the Main Controller PCB 1/2: Execute Controller System Error Diagnosis.

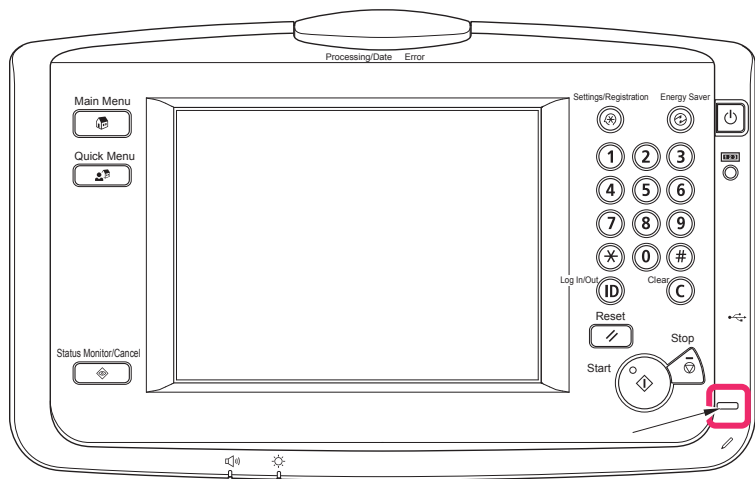
## Boot System Error Diagnosis

- 1) Turn ON the Main Power Supply Switch while pressing the Control Panel Power Supply Switch.



F-6-68

2) Right after the Main Power Supply Lamp lights up once, it lights out instantly, and diagnosis starts.  
 (When the Main Power Supply Lamp lights out, you can release your finger from the Control Panel Switch.)



F-6-69

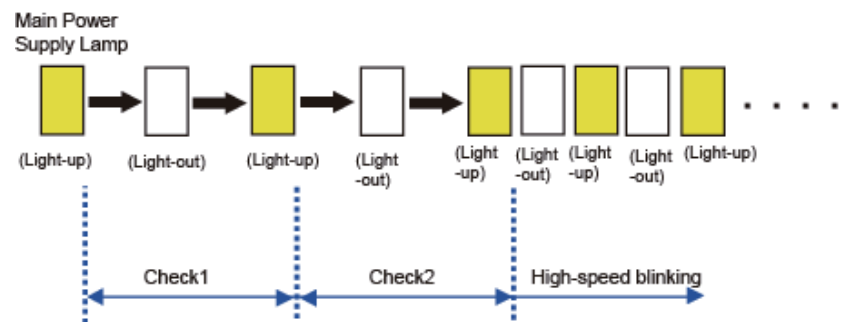
<When an error is detected by diagnosis>

The Main Power Supply Lamp repeats high-speed blinking after completion of a check in which an error is detected. (See \*1.)

For example, when an error is detected in Check 2, the Main Power Supply Lamp lights out twice and repeats high-speed blinking (ON/OFF in 0.3 seconds interval).

When an error is detected, be sure to count the number of times the Main Power Supply Lamp lights out.

For detailed results, see "Error Diagnosis".



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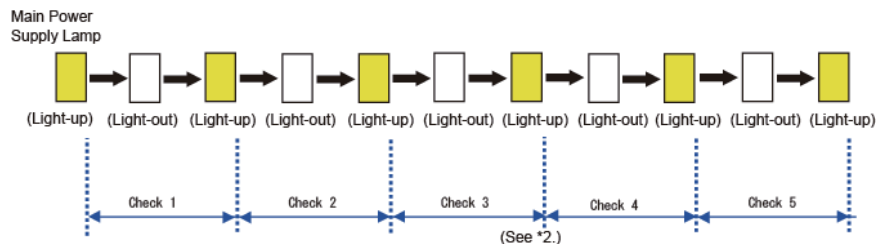
■ Diagnosis Time

Diagnosis is completed in approx. 1 minute.

<When the diagnosis result is normal>

After the Main Power Supply Lamp repeatedly lights out 5 times, it lights up and the diagnosis is completed.

After completion of the diagnosis, this machine executes normal boot sequence.



F-6-70

\*1: When an error is detected, there is a possibility that the Main Power Supply Lamp may not perform high-speed blinking but perform other operation (continuous light-up, light-out). In this case, remove and then install the 2 SDRAMs on the Main Controller PCB 1.

If the error is not resolved, execute the remedy of the Check No. which is not completed normally. (For details, see "Error Diagnosis".)

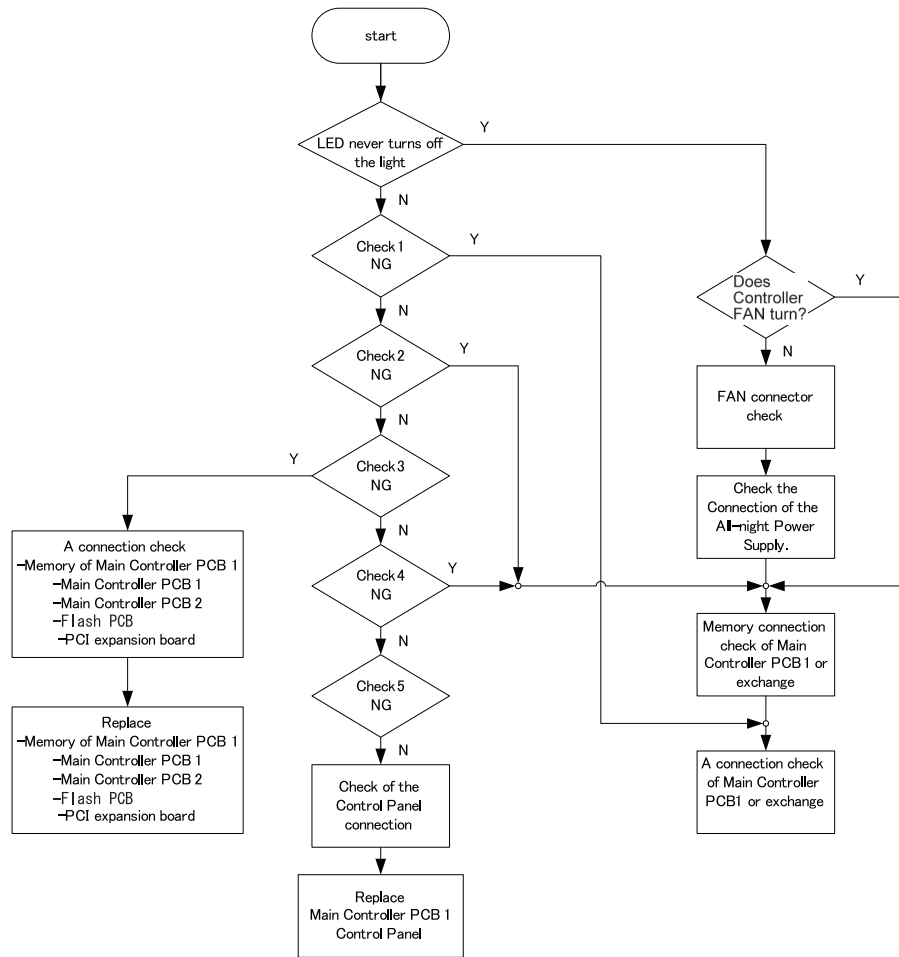
\*2: Although diagnosis time for Check 3, and Check 4 is longer than that of other Checks, it is correct operation.

\*3: When the 2 SDRAMs are not mounted on the Main Controller PCB 1, this diagnosis is not completed. In this case, install the appropriate 2 SDRAMs.

## Error Diagnosis

### <Boot System Error Diagnosis Table>

The error locations are identified according to the following table.

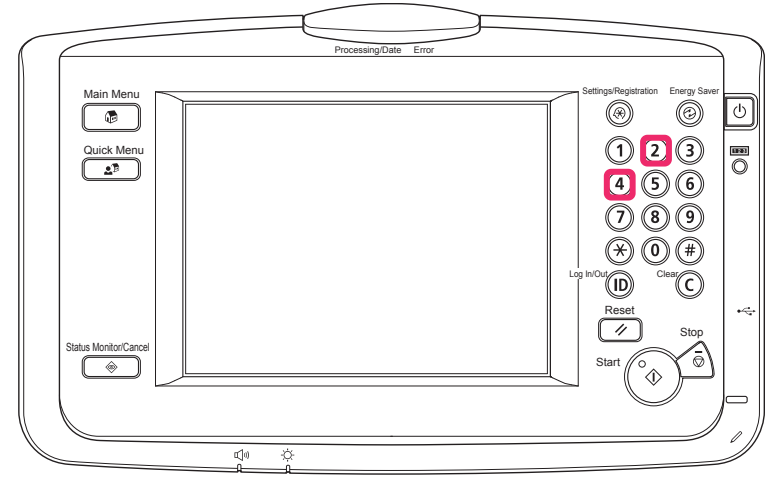


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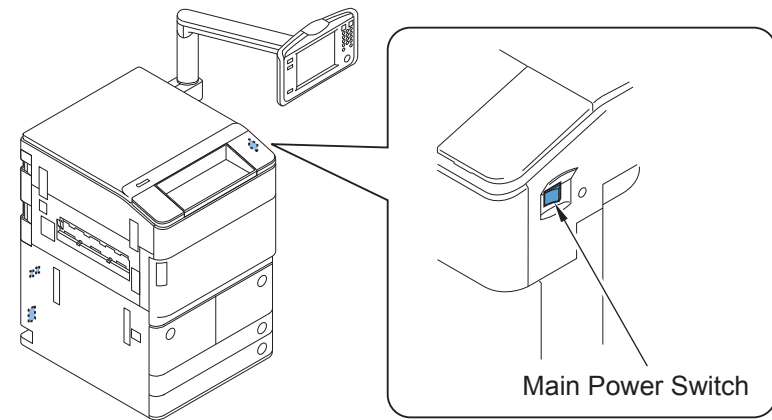
## Controller System Error Diagnosis

### Boot Method

- 1) Turn ON the Main Power Supply Switch while pressing the numeric keys '2' and '4' simultaneously.

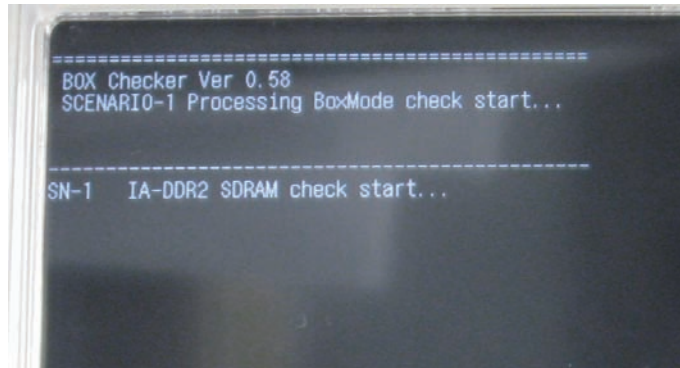


F-6-73



F-6-74

- 2) Keep pressing the numeric keys (for approx. 20 seconds) until the following screen appears on the Control Panel.



F-6-75

**Note:**

When this tool is not installed correctly, the following regular screen is displayed. In this case, perform the following remedy.  
Turn OFF the Main Power Supply Switch again, and execute step 1 and 2 shown above.  
If this tool still does not boot, it means that BCT is deleted. So, install BCT.  
If BCT is not installed correctly, "--.--" is displayed in Service Mode (COPIER>DISPLAY>VERSION>BCT) in the main body.



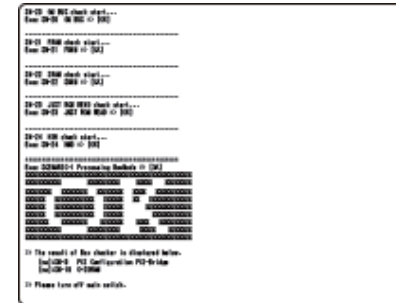
F-6-76

## ■ Diagnosis Time

Diagnosis is completed in approx. 3 minutes.

The result is displayed on the Control Panel.

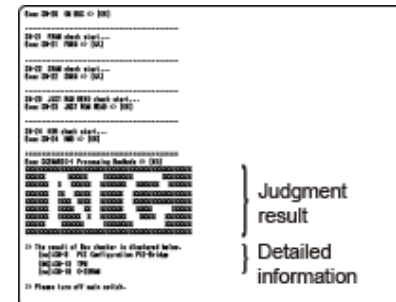
<When the diagnosis result is normal>



F-6-77

<When an error is detected by diagnosis>

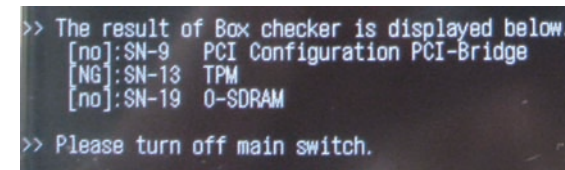
Detailed information is displayed under the judgment result. In detailed information, the name of the test where an error was detected is indicated.



F-6-78

<How to view the error result>

The following screen is an enlarged view of the detailed information indicated above. Explanation of the detailed error information is described.



F-6-79

[no] means that optional PCBs are not mounted.

When [no] is displayed although an optional PCB is mounted, it means that an error has been occurring.

[NG] means that an error occurred to PCBs mounted as standard.

**Note:**

Once the tool is activated, this machine reboots after approx. 2 minutes.  
After completion of the diagnosis, be sure to turn OFF and then ON the main power.  
By turning the power OFF, the operation of this tool completes.

<Controller System Error Diagnosis Table>

The error locations are identified according to the following table.

Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-1 IA-SDRAM	Check an error between the Main Controller PCB 1 and SDRAM on the Main Controller PCB 1	Main Controller PCB 1 SDRAM on Main Controller PCB 1	1. Check the installation of SDRAM on the Main Controller PCB. 2. Replace SDRAM on the Main Controller PCB 1. 3. Replace the Main Controller PCB 1.	-
SN-2 SM BUS IA DIMM1	Check an SM bus error in SDRAM (outside) on the Main Controller PCB 1	Main Controller PCB 1 SDRAM (outside) on Main Controller PCB 1	1. Check the installation of SDRAM on the Main Controller PCB. 2. Replace SDRAM (outside) of the Main Controller PCB 1. 3. Replace the Main Controller PCB 1.	-
SN-3 SM BUS IA DIMM2	Check an SM bus error in SDRAM (inside) on the Main Controller PCB 1	Main Controller PCB 1 SDRAM (inside) on Main Controller PCB 1	1. Check the installation of SDRAM on the Main Controller PCB 1. 2. Replace SDRAM (inside) of the Main Controller PCB 1. 3. Replace the Main Controller PCB 1.	-
SN-4 SM BUS IA Clock Gen	Check an SM bus error in Clock Generator on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-
SN-5 SM BUS SOC DIMM1	Check an SM bus error in the Main Controller PCB 1 and SDRAM (M1) on the Main Controller PCB 2	Main Controller PCB 1 PCI Expansion PCB Main Controller PCB 2 SDRAM (M1) on Main Controller PCB 2	1. Check the connection of the Main Controller PCB 1, and the Main Controller PCB 2. 2. Check the installation of SDRAM (M1) on the Main Controller PCB 2. 3. Replace SDRAM (M1) on the Main Controller PCB 2. 4. Replace the Main Controller PCB 2. 5. Replace the Main Controller PCB 1.	-

Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-6 SM BUS SOC DIMM2	Check an SM bus error in the Main Controller PCB 1 and SDRAM (M0) on the Main Controller PCB 2	Main Controller PCB 1 PCI Expansion PCB Main Controller PCB 2 SDRAM (M0) on Main Controller PCB 2	1. Check the connection of the Main Controller PCB 1, and the Main Controller PCB 2. 2. Check the installation of SDRAM (M0) on the Main Controller PCB 2. 3. Replace SDRAM (M0) on the Main Controller PCB 2. 4. Replace the Main Controller PCB 2. 5. Replace the Main Controller PCB 1.  Supplementary Information: If SDRAM (M0) on the Main Controller PCB 2 is not installed, [no] is displayed for the diagnosis result.	-
SN-7 PCI Config Maestro	Check a PCI bus error in the Main Controller PCB 1 and the Main Controller PCB 2	Main Controller PCB 1 PCI Expansion PCB Main Controller PCB 2 SDRAM (M0/M1) on Main Controller PCB 2	1. Check the connection of the Main Controller PCB 1, and the Main Controller PCB 2. 2. Replace the Main Controller PCB 1. 3. Replace the Main Controller PCB 2.	-
SN-8 PCI Config LANC	Check a LAN chip error on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-
SN-9 PCI Config PCI-Bridge	Check a PCI bus error between the Main Controller PCB 1 and the PCI Expansion PCB	Main Controller PCB 1 PCI Expansion PCB	1. Check the installation between the Main Controller PCB 1 and PCI Expansion PCB. 2. Replace PCI Expansion PCB. 3. Replace the Main Controller PCB 1.  Supplementary Information: If the PCI Expansion PCB is not installed, [no] is displayed for the diagnosis result.	-
SN-10 CPLD	Check failure of CPLD chip on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-
SN-11 LANC SPI	Check failure of LANC SPI on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-
SN-12 RTC CHECK	Check failure of RTC on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-



Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-13 TPM	Check failure of the TPM PCB on the Main Controller PCB 1 * TPM PCB is not installed in products for China. So, the diagnosis results NG.	Main Controller PCB 1 TPM PCB	1. Check the installation of the TPM PCB. 2. Replace the TPM PCB. 3. Replace the Main Controller PCB 1.	E746
SN-14 SOC-DDR2 SDRAM	Check an error between SDRAMs on the Main Controller PCB 2	Main Controller PCB 2 SDRAM (J11/J13) on Main Controller PCB 2	1. Check the installation of SDRAM (J11/J13) on the Main Controller PCB 2. 2. Replace SDRAM (J11/J13) on the Main Controller PCB 2. 3. Replace the Main Controller PCB 2.	E748
SN-15 SRI CHECK	Check On-board BUS on the Main Controller PCB 2	Main Controller PCB 2	1. Replace the Main Controller PCB 2.	-
SN-16 JUST ROM READ	Check On-board ROM on the Main Controller PCB 2	Main Controller PCB 2	It is always no indication. A result does not become NG	
SN-17 FRAM	Check Main Controller PCB 2 and the connection of the memory PCB	Main Controller PCB 2 Memory PCB	1. Check the installation of Memory PCB on the Main Controller PCB 2. 2. Replace Memory PCB on the Main Controller PCB 2. 3. Replace the Main Controller PCB 2.	E355
SN-18 SRAM	Check failure of SRAM on the Main Controller PCB 2. A battery emptied check	Main Controller PCB 2	1. Replace the Main Controller PCB 2.	E246 E350 E355
SN-19 GS	Check On-board BUS on the Main Controller PCB 2	Main Controller PCB 2	1. Replace the Main Controller PCB 2.	
SN-20 HDD	Check an HDD I/F error	Main Controller PCB 2 PCI Expansion PCB HDD Cable HDD	1. Check the cable connection of the HDD. 2. Check the connection between the Main Controller PCB 2 and the Main Controller PCB 1. 3. Replace the HDD. 4. Replace the Main Controller PCB 2. 5. Replace the Main Controller PCB 1.	E602
SN-21 BOARD CONNECT IA-SOC	Check failure between the Main Controller PCB 2 and the Main Controller PCB 1	Main Controller PCB 1 Main Controller PCB 2	1. Check failure between the Main Controller PCB 2 and the the Main Controller PCB 1. 2. Replace the Main Controller PCB 2. 3. Replace the Main Controller PCB 1.	E748

Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-22 BOARD CONNECT SOC-ChLink	Check failure between the Main Controller PCB 2 and the channel link PCB	Main Controller PCB 2 Channel link PCB	1. Check failure between the Main Controller PCB 2 and the Channel link PCB. 2. Replace the Channel link PCB. 3. Replace the Main Controller PCB 2.	
SN-23 BOARD CONNECT SOC-DCON	Check failure between the Main Controller PCB 2 and the DC controller PCB	Main Controller PCB 2 DC controller PCB	1. Check failure between the Main Controller PCB 2 and DC controller PCB. 2. Replace the DC controller PCB 3. Replace the Main Controller PCB 2.	-

T-6-17

## Restrictions

### <Boot System Error Diagnosis>

- If an error cannot be resolved by executing remedy according to the error diagnosis table described above, consider boot failure of the main power supply and take appropriate actions.

### <Controller System Error Diagnosis>

- Regarding the diagnosis for the test names (SN-1, 2, 7, 17, 20), if an error occurs in the diagnosis under the test names, this diagnosis tool will not boot.
- When no PCBs are installed on the Main Controller PCB 1/2, the following judgment results are displayed.

Standard PCB: [NG]

Optional PCB: [OK]

However, [no] is displayed in detailed error information for optional PCBs.

## Version upgrade

### Overview

#### Overview of Version Upgrade

The system software version is upgraded in 2 steps, downloading and writing the new version of the system software.

#### Downloading System Software

This machine supports the following 3 downloading methods.

1. Download via the service support tool (hereinafter "SST")

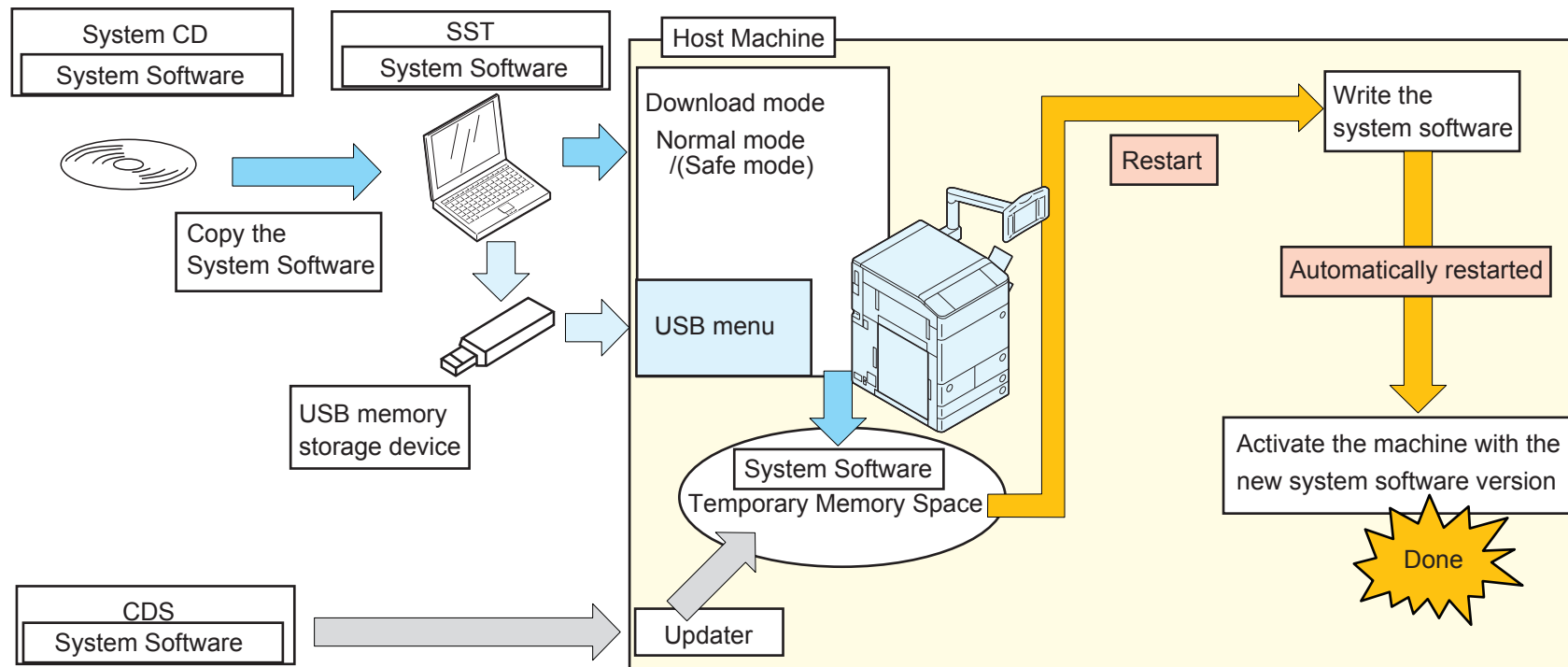
Connect this machine to the PC by the cross cable to download the system software using SST installed in the PC.

2. Download using the USB memory storage device

Insert the USB memory storage device storage device to the slot of the machine and download the system software stored in the device.

3. Download via Contents Delivery System (hereinafter "CDS")

Access to CDS via Internet to download the system software directly to the machine.



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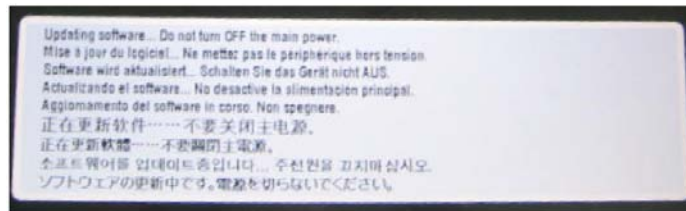
## ■ Writing System Software

The system software downloaded in either of the above-mentioned methods is stored in the temporary memory space.

After the system software is successfully downloaded, restart the machine to write the software in the machine.

In case the main power switch is turned OFF during the writing process, the machine may not be started.

This machine supports the remote version upgrade via CDS. When upgrading the system software via CDS, the warning message is shown on the control panel to alert the user not to turn OFF the power switch.



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When the system software is successfully written, the machine is automatically restarted to activate the downloaded system software.

If any error occurs during the writing process, the error code, E753-0001, is shown.

The name of the system software component is shown to the left of the error log message, “version up.....error”. Check the name if the software is for the option not attached to the machine. If so, turn OFF / ON the machine to recover the error (see Troubleshooting for details).



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## ■ Download Mode

When the version is upgraded via SST or with the USB memory storage device storage device, start the machine in Download mode. This machine has the following 2 Download modes similarly with other iR-series models.

### ● Normal mode(recommend):

- Start from Copier > FUNCTION > SYSTEM > Download.
- Conventionally, the main power switch of this machine was turned ON while pressing 1 and 7 keys. However, the procedure above automatically assigns a static IP address and enables the download same as before.
- You can obtain the version information and avoid unnecessary download and errors.

#### NOTE:

When entering Download mode, be sure to go into Service mode after all items of main menu have been displayed. This machine reads the version information of system software when it starts. You must start Download mode after the version information has been obtained.

### ● Safe mode:

- Press 2 and 8 keys simultaneously on the numeric keypad when turning on the power.
- Be sure to use normal mode when using download mode except in a case where it is not possible to start this machine and enter service mode or where format of the HDD is going to be executed.

## System Software Components

The table below shows the system software components for this machine.

Software to be upgraded		Display on SST		How to upgrade versions			Remarks
		Registered name of product	Name of system software	SST	USB memory	Others	
Host Machine	Main Controller	iA8105	SYSTEM	○	○	-	
	MEAP Controller		MEAPCON	○	○	-	
	Language Module		LANGUAGE	○	○	-	
	Remote UI Contents		RUI	○	○	-	
	RUI portal		RPTL	○	○	-	
	Mobile print		MOBPR	○	○	-	
	UI-BOX		BOX	○	○	-	
	UI-COPY		COPY	○	○	-	
	UI-Intro		INTRO	○	○	-	
	UI-SEND		SEND	○	○	-	
	Voice Synthesis Dictionary		TTS	○	○	-	
	Paper Type Information File		MEDIA	○	○	-	
	Service Mode Contents		SMCNT	○	○	-	
	Printer Controller		DCON	○	○	-	
	WebDAV Contents		WEBDAV	○	○	-	
	Resources for Web Browser		BROWSER	○	○	-	
	Reader Controller(2-sided Single Pass)		RCOND	○	○	-	Duplex Color Image Reader Unit-C1
	FAX Board Boot Program		G3CCB	○	○	-	Super G3 FAX Board-AF1/Super G3 2nd Line Fax Board-AF1/Super G3 3rd/4th Line Fax Board-AE1
	Fax Board Main Program	G3CCM	○	○	-	Super G3 FAX Board-AF1/Super G3 2nd Line Fax Board-AF1/Super G3 3rd/4th Line Fax Board-AE1	
	Key/Certificate for Encrypted Communication	iAxxxx	KEY	○	○	-	
OCR Library	SDICT		○	○	-		
Professional Puncher Integration Unit-B1	Interface Controller	PIU_B1	PIU_CON	○	○	-	Professional Puncher Integration Unit-B1
ARCNET Connection							
Insertion Unit-K1	Option Controller	ISU_K1	OP_CON	○	○	-	Insertion Unit-K1
	Insertion Controller		IST_CON	○	○	-	
Staple Finisher-F1/Booklet Finisher-F1	Finisher Controller	FIN_F1	FIN_CON	○	○	-	Staple Finisher-F1/Booklet Finisher-F1
Paper Folding Unit-H1	Folder Controller	BT_D1	FLD_CON	○	○	-	Paper Folding Unit-H1
Booklet Trimmer-D1	Trimmer Controller		TRM_CON	○	○	-	Booklet Trimmer-D1
IPC Connection							
Staple Finisher-D1/Booklet Finisher-D1	Finisher Controller	FIN_D1	FIN_CON	○	○	-	Staple Finisher-D1/Booklet Finisher-D1
	Saddle Controller		SDL_CON	○	○	-	
Paper Folding Unit-H1	Folder Controller		FLD_CON	○	○	-	Paper Folding Unit-H1
Insertion Unit-K1	Insertion Controller		IST_CON	○	○	-	Insertion Unit-K1
Inner Booklet Trimmer-A1	Trimmer Controller		TRM_CON	○	○	-	Inner Booklet Trimmer-A1

This machine holds the increased number of system software components compared to conventional iR machines to meet vastly extended functionality.

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## Note on Download Process

Warning: Never turn OFF the power during the download / writing process.

Turning off the power during the download / writing process may cause a failure of machine start-up at power-on.

If this occurs, start the machine in Safe mode (by pressing 2 and 8 keys simultaneously on the numeric keypad).

When the machine is successfully started in Safe mode, execute formatting of BOOTDEV partition, retry downloading the system software.

### CAUTION:

Be sure to use normal mode when using download mode except in a case where it is not possible to start this machine and enter service mode.

In safe mode, version information of SYSTEM, MEAPCONT, LANGUAGE, RUI, and SDICT can be obtained, but version information of other system software such as DCON and RCON cannot be obtained. Therefore the following points to note are required when downloading in safe mode.

#### [RCON]

The version is not upgraded except in a case where Single mode of SST is used or when "Overwrite all" of USB download menu is used.

#### [DCON and others]

The following symptoms occur when SST (Single mode) or USB download menu (Auto) is used.

- The time for download/write becomes longer because the software is overwritten even when system software of the same version is being written.
- A confirmation message is not displayed when a lower version is going to be downloaded.

### CAUTION: error code E753-0001

When an error occurs during writing process of the system software downloaded using SST or USB memory, error code E753-0001 is displayed.

Check if the target option is properly installed and see if the software to download is for the correct target option, and then execute downloading again.

## Version Upgrade via SST

### Overview

The system software can be downloaded either of the two modes below via SST.

- Assist mode(recommended)
- Single mode

Assist mode provides the following features.

- Attached option types are automatically recognized.
- The new versions of the system software for attached option types are automatically searched.
- The set of system software with interactive behavior confirmed is automatically downloaded.
- The accessories attached to the host machine are automatically recognized to download the system software for each accessory.

This machine holds a number of system software components that mutually interacts during operation. Behaviors of such system software should be confirmed when these are downloaded as the set. Thus, Assist mode is basically recommended to download the system software for this machine.

Use Single mode only when any of the following conditions is met.

- When downloading some the system software components, i.e. DCON, RCON or options.
- When reloading the system software after HDD is formatted

#### NOTE:

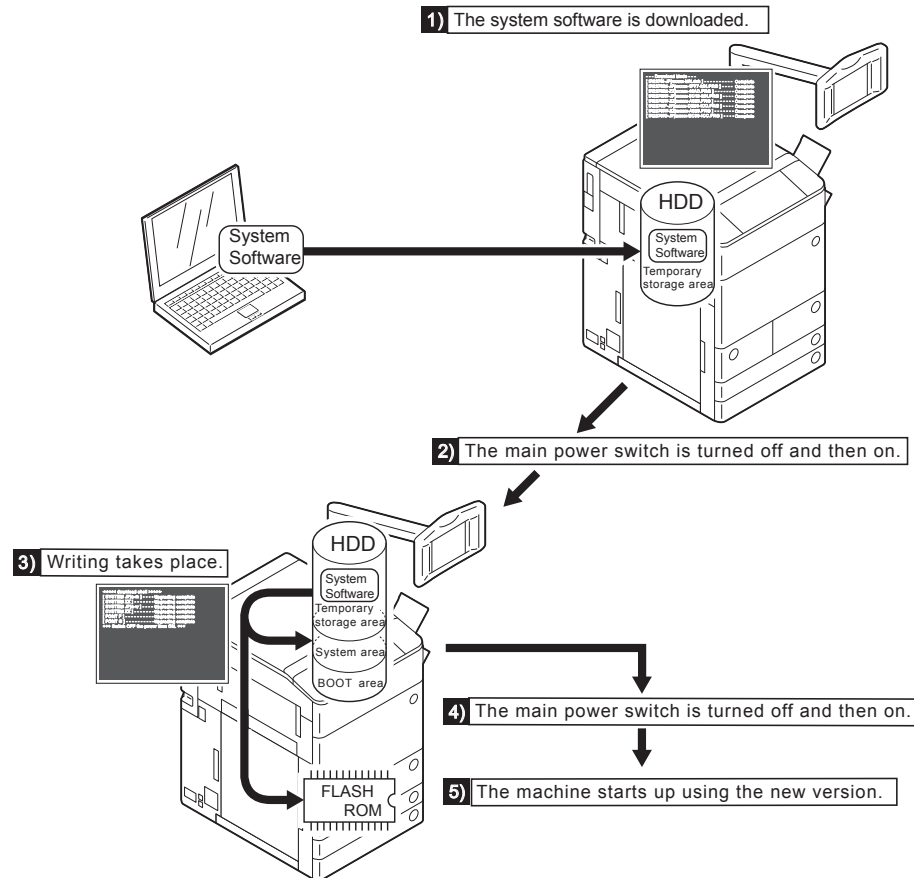
Use Single mode only when any of the following conditions is met.

- When downloading some the system software components, i.e. DCON, RCON or options.
- When reloading the system software after HDD is formatted

## ● Downloading the System Software

System software is saved in the temporary storage area on HDD after downloaded with SST. Restart the machine after download so that it will be written to the system area, and the flash ROM.

After the writing has been completed normally, this machine automatically restarts with the new system software.



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## ■ Copying System Software

### ● System CD -> SST

Copy the system software stored in the system CD to SST.

#### NOTE:

The system software is compressed if the file size exceeds the CD memory capacity. If the above is the case, decompress the file before copying it to SST.

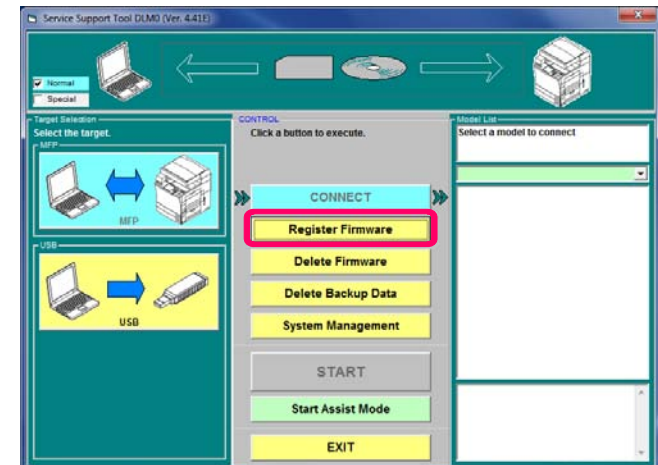
#### Preparation

#### Requirements:

- PC with SST Ver.4.41 or later installed
- The system CD for this machine

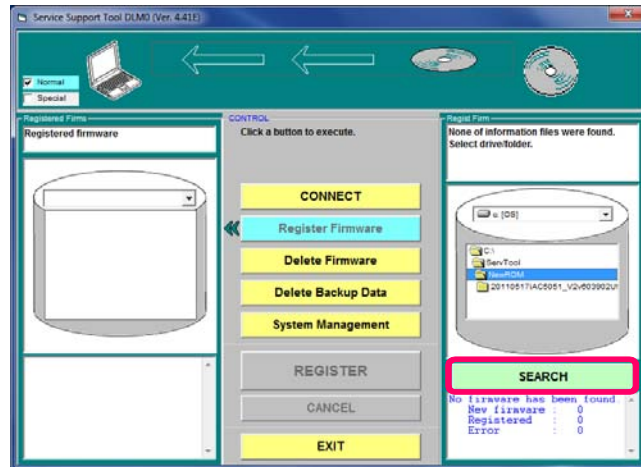
#### Steps to copy the system software

- 1) Start the PC
- 2) Set the system CD in the PC
- 3) Start SST
- 4) Click "Register Firmware" button.



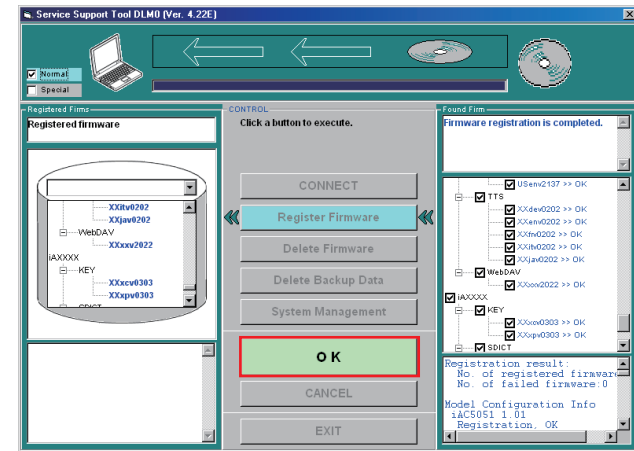
F-6-84

5) Select the drive where the system CD is set and click "Search" button.



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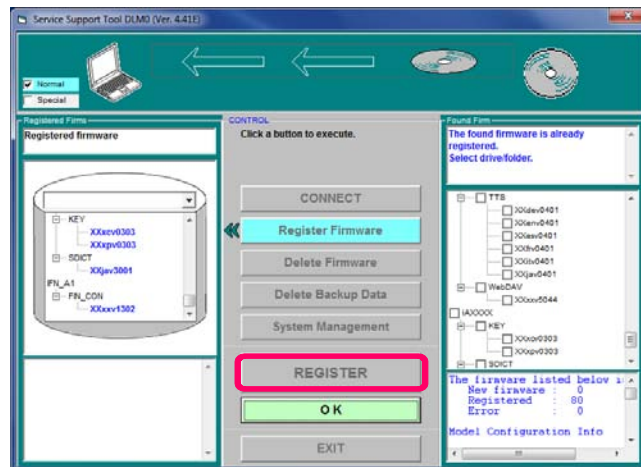
7) The message is shown when the system software is successfully copied. Click "OK" button.



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6) The system software stored in the system CD is listed.

Uncheck the box(es) for unnecessary folder(s) and/or system software and click "Copy" button.



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## Connection

The following IP address is automatically set for this machine at start-up in Download mode.

- IP address:172.16.1.100
- Subnet mask:255.255.255.0

When the PC with SST installed is connected to this machine, change the PC network address to the following.

- IP address:172.16.1.160
- Subnet mask:255.255.255.0
- Default gateway: arbitrary

### CAUTION:

If the PC has the connection to the network, the settings changed to the above-mentioned may cause network failures due to redundant IP addresses, etc. Ensure that the PC is disconnected from the network when you change the PC network settings. Alternatively use the cross cable to connect the PC to this machine.

### Preparation

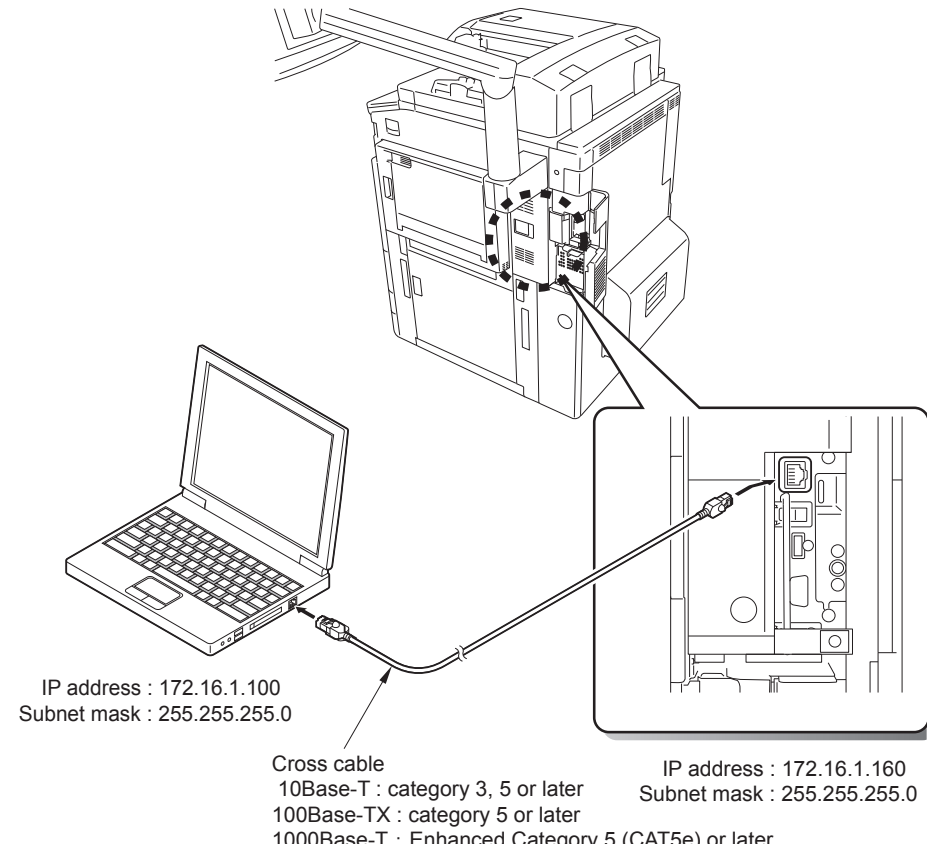
#### Requirements

- PC with SST Ver. 4.41 or later installed and the system software for this machine is stored
- Cross cable
  - 10Base-T: Category 3 or 5
  - 100Base-T: Category 5
  - 1000Base-T: Enhanced Category 5 (CAT5e) or later

### CAUTION:

Disconnect USB memory storage device storage devices if connected.

Communication to SST is disabled in this machine if any USB memory storage device storage device is recognized. SST and the USB memory storage device storage device cannot be used concurrently.



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### Steps

- 1) Use the cross cable to connect the machine to the PC with SST installed.
- 2) Turn on the main power switch of this machine.
- 3) Enter Service mode to start the machine in Download mode.  
Select COPIER > FUNCTION > SYSTEM > DOWNLOAD and press [OK].

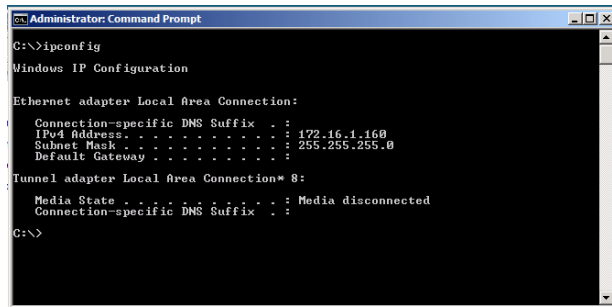


## 4) Check the IP address of the PC.

Go to Start menu to select Program > Accessory > Command Prompt.

Type IPCONFIG and press [Return] to see the network settings of the PC.

If any discrepancies from the description in the figure below are found, change the network settings of the PC.



```
Administrator: Command Prompt
C:\>ipconfig
Windows IP Configuration

Ethernet adapter Local Area Connection:

   Connection-specific DNS Suffix  . : 
   IPv4 Address. . . . . : 172.16.1.160
   Subnet Mask . . . . . : 255.255.255.0
   Default Gateway . . . . . : 

Tunnel adapter Local Area Connection* 8:

   Media State . . . . . : Media disconnected
   Connection-specific DNS Suffix  . : 
C:\>
```

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**CAUTION:**

The network settings are not shown with IPCONFIG if the PC is disconnected from the network. To check the settings, connect the PC to this machine at power-on by the cross cable.

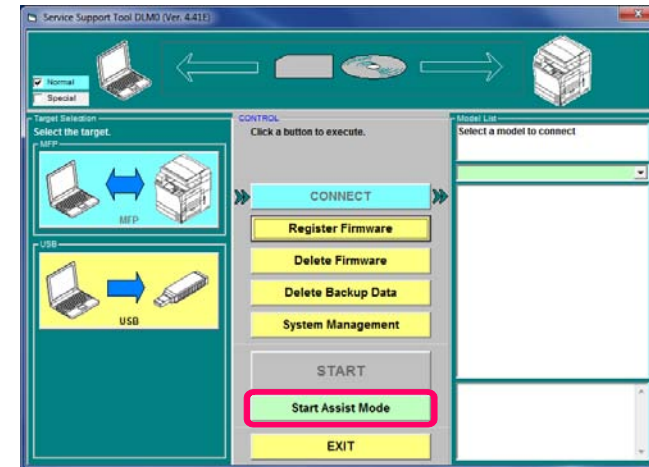
## ■ Downloading System Software (Assist mode)

1) Start this machine and enter Download mode (COPIER > FUNCTION > SYSTEM > DOWNLOAD).

2) Connect the PC to this machine and start SST.

3) Click "Start Assist mode" button.

Skip this step when starting SST in Assist mode.



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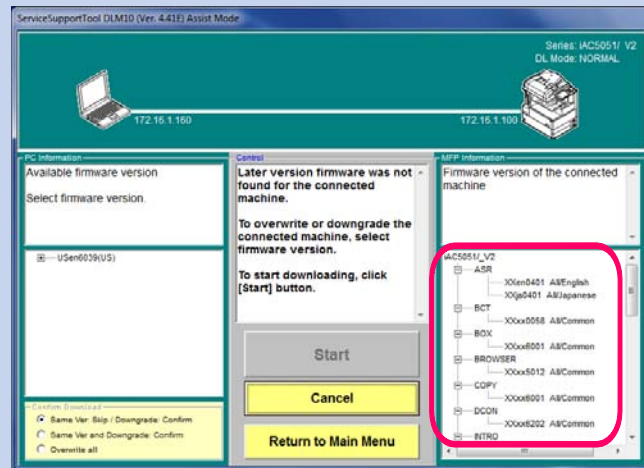
If the upgraded set of the system software is stored in SST, the new set is automatically selected.

**NOTE:**

If no upgrade is stored, the existing system software set is unchanged. At any rate, any versions of the system software can be downloaded by manual selection.

**NOTE:**

When You was connected to the main body of Safe mode in Assist mode:  
A system software of LANGUAGE, RUI, MEAPCONT, SDICT can acquire version information.



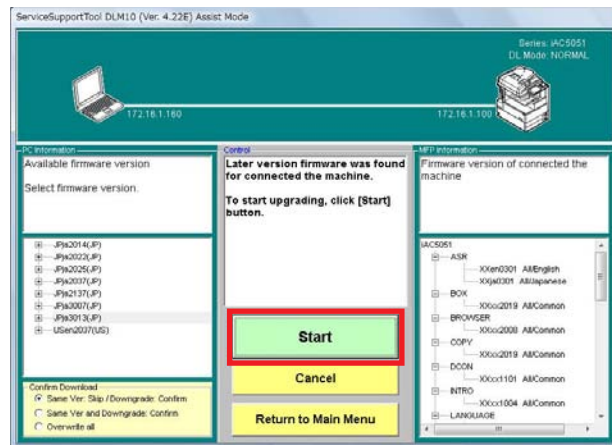
F-6-91

displayed.

**NOTE:**Download Confirmation Message Modes  
Download is confirmed in any of the three message modes.

- Skip the existing versions and confirm whether to download downgraded versions  
Upgraded versions are downloaded without message.  
Skip download of the existing versions.  
Confirm whether to download downgraded versions.
- Confirm whether to download the existing versions / downgraded versions  
Upgraded versions are downloaded without message.  
Confirm whether to download and overwrite the existing versions.  
Confirm whether to download downgraded versions.
- Overwrite all versions  
Regardless of version upgrade or downgrade, all versions of the system software are downloaded without message.  
By default, "Skip the existing versions and confirm whether to download downgraded versions" is selected.

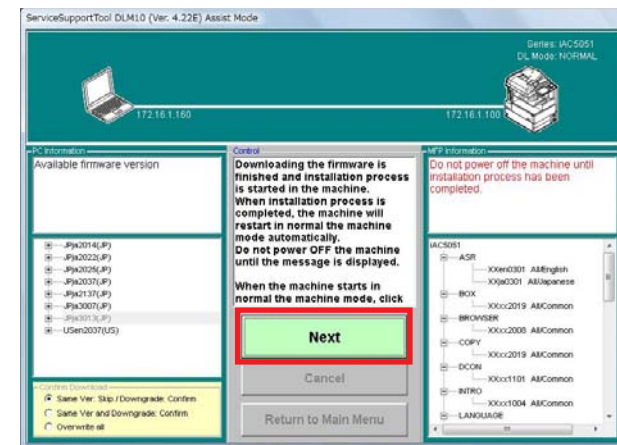
4)Click "Start" button



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When download is completed, the machine is automatically restarted to initiate the writing process. The machine may repeat restarting several times depending on option configuration. Upon the system software written, the machine is restarted again and the main menu is

5)Click"Next"button.



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6)Disconnect the cross cable from the machine.

7)Enter Service mode to check the system software versions.

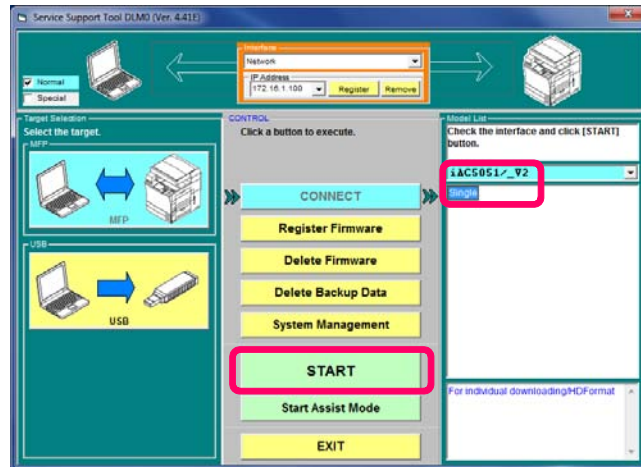
8)Click"OK"button.

The main menu is displayed.

## ■ Downloading System Software (Single mode)

The following is the sample steps to download DCON (the other components of the system software can be downloaded similarly).

- 1) Start the machine in an appropriate Download mode.
- 2) Connect the PC to this machine to start SST.
- 3) Select the model to be connected and "Single", check the network settings. Click "Start" button.

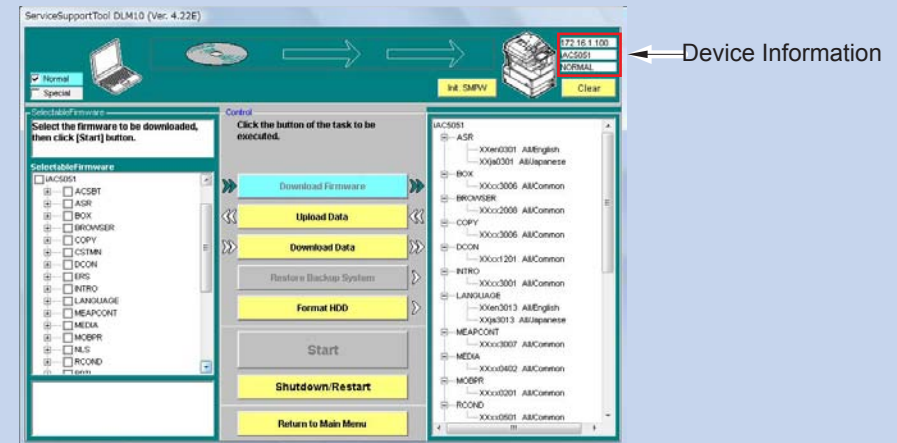


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### NOTE:

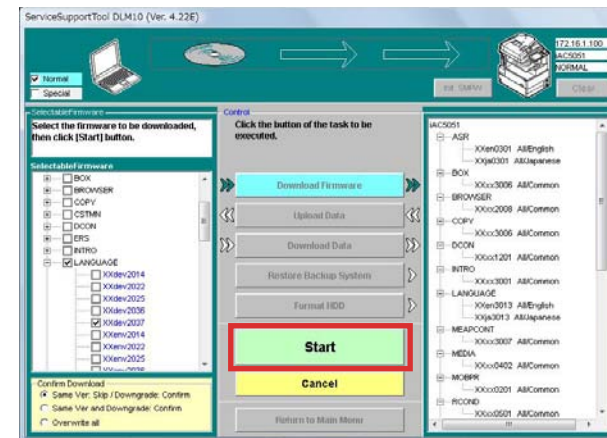
The following device information is shown at the right top of SST screen.

- IP address
- Model name
- Download mode



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- 4) Select the DCON version to be downloaded and click "Start" button. Multiple files can be selected in this step.



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**NOTE:Download Confirmation Message Modes**

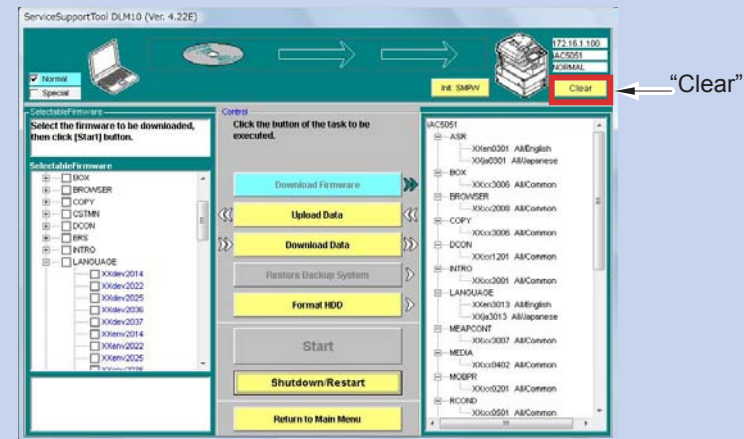
Download is confirmed in any of the three message modes.

- Skip the existing versions and confirm whether to download downgraded versions  
Upgraded versions are downloaded without message.  
Skip download of the existing versions.  
Confirm whether to download downgraded versions.
  - Confirm whether to download the existing versions / downgraded versions  
Upgraded versions are downloaded without message.  
Confirm whether to download and overwrite the existing versions.  
Confirm whether to download downgraded versions.
  - Overwrite all versions.  
Regardless of version upgrade or downgrade, all versions of the system software are downloaded without message.
- By default, "Skip the existing versions and confirm whether to download downgraded

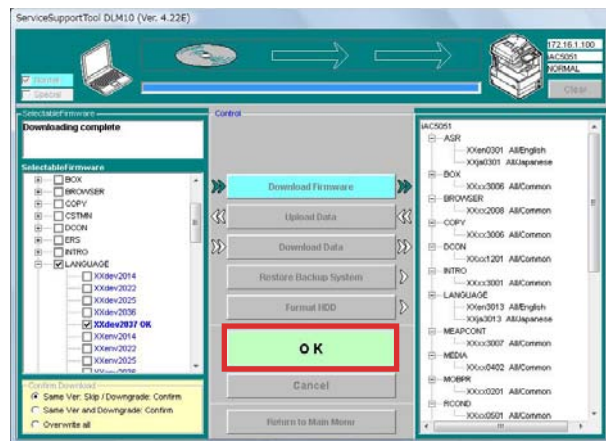
**NOTE:**

If it is before restarting the machine, the downloaded system software can be deleted not written on HDD or Flash ROM.

- 1) Click "Clear" button.



- 5) When download is completed, click "OK" button.



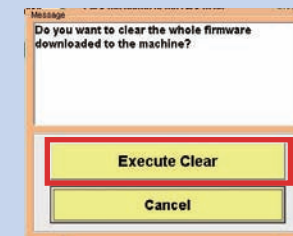
F-6-97

The main menu is displayed.

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- 2) Click "Execute Clear" button.

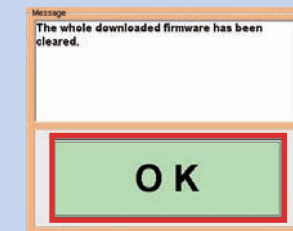
The system software, which is stored in the temporary memory space of HDD, is deleted.



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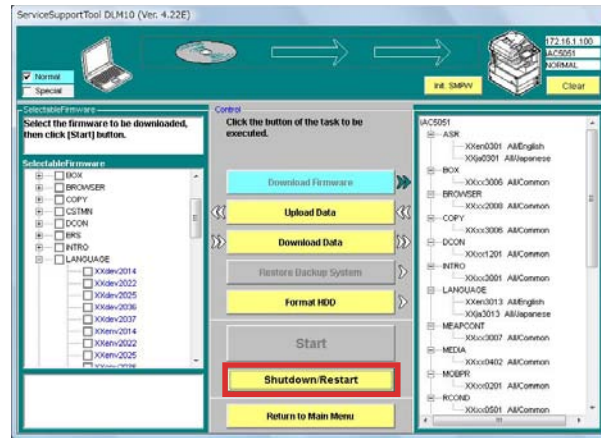
- 3) Click "OK" button.

Return to the previous screen.



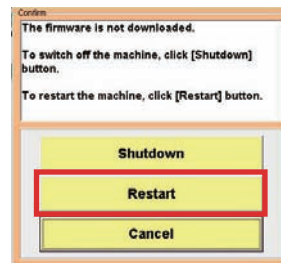
F-6-100

6) Click "Shutdown / Restart" button.



F-6-101

7) Click "Restart" button.



F-6-102

The machine is restarted.

The downloaded system software is written on HDD or Flash ROM.

8) Click "OK" button.

9) Enter Service mode to check the versions.

## ■ Formatting HDD

### ● Overview

This machine provides the following two types of HDD Formatting.

- ALL: to format the whole HDD
  - When HDD set as the service parts (the new HDD) is mounted
  - When clearing the system software and data completely from HDD and reloading the system software.

Once Format ALL is executed in your machine, all the user data and MEAP applications held in HDD will be cleared. Ensure to gain an agreement from the user before formatting.

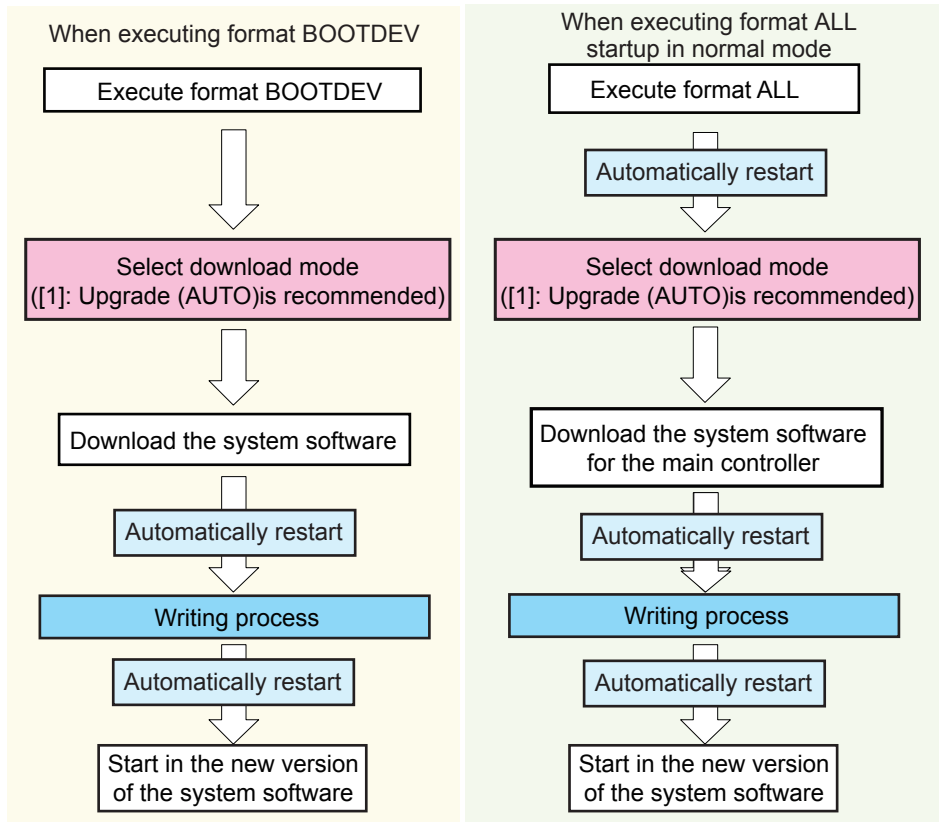
- BOOTDEV: to format the system software storage area on HDD.
  - When clearing the system software storage area and reloading the system software HDD needs not to be formatted at version upgrade.

HDD can be formatted only in Single mode.

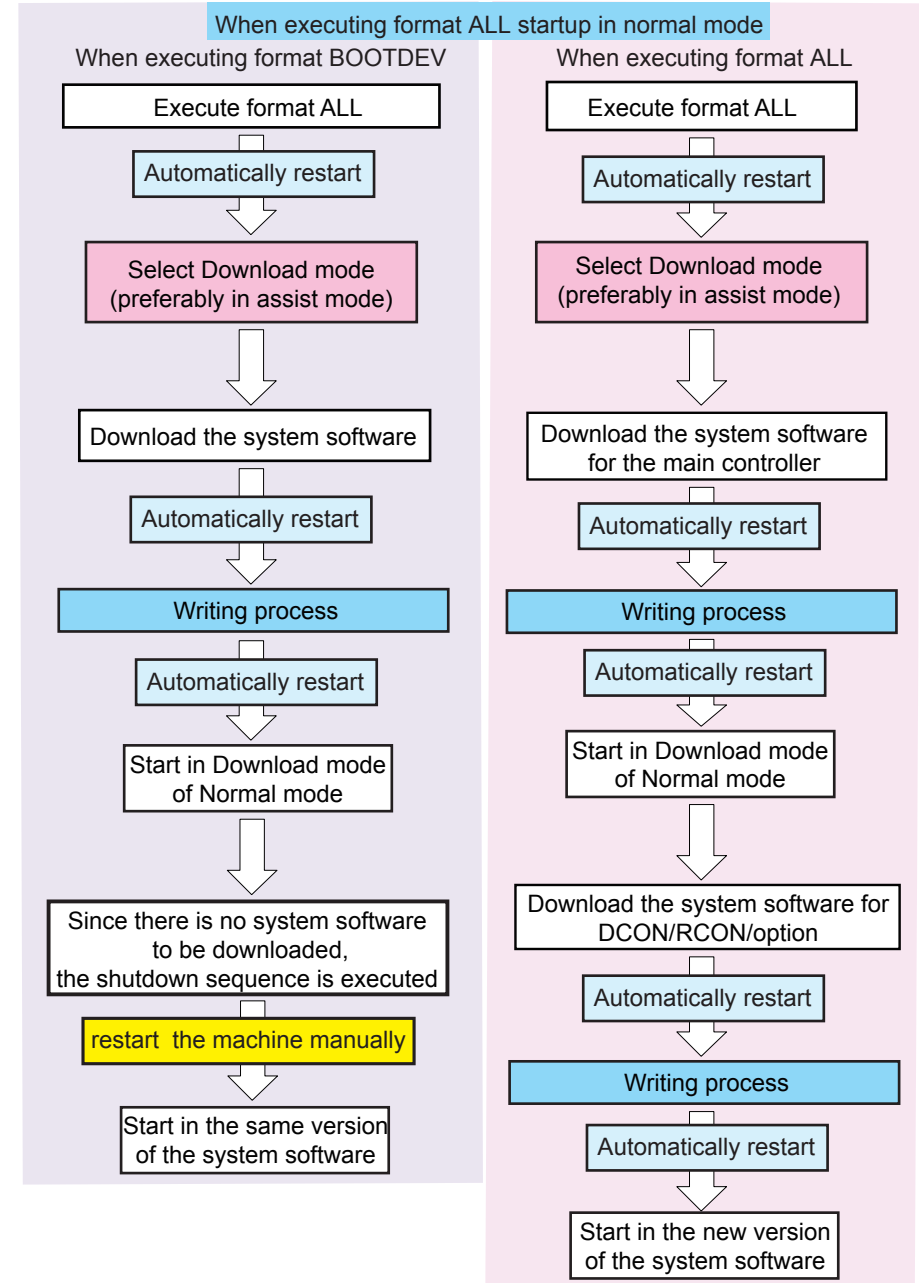
After HDD is formatted, the machine cannot be started before the system software is downloaded.

After Format ALL is executed, the machine is automatically restarted to reflect formatting to HDD. At this time, the machine automatically starts in Download mode. For BOOTDEV format, the machine is ready to download the system software without restarting.

After formatting, enter either Assist mode (recommended) or Single mode to download the system software.



F-6-103

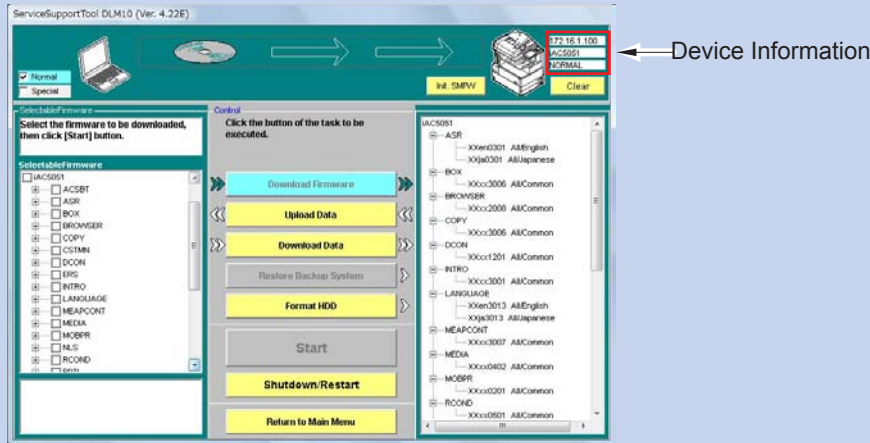


F-6-104

**NOTE:**

With SSTv4.41, due to sharing the simple mode processing with the existing models, the following screen is displayed.

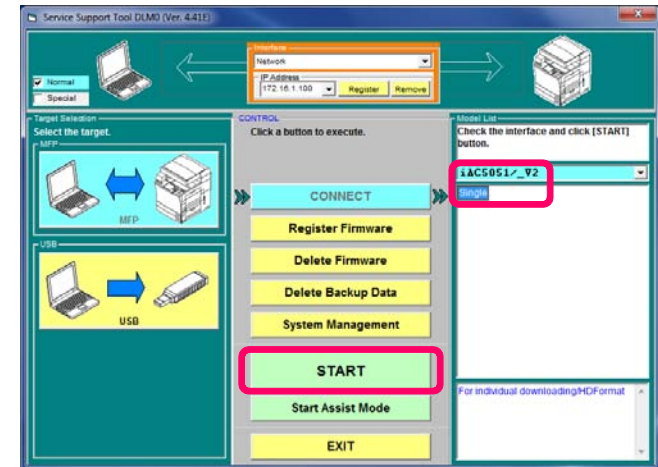
As for the iR ADVANCE series models (or this machine), the procedure displayed on the screen is not necessary; thus, click the "Next" button to go on to the next screen.



F-6-105

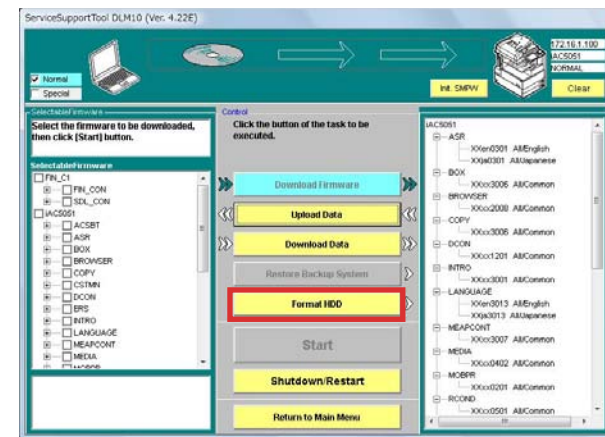
## ● Steps of Formatting

- 1) Enter Download mode. (Enter Safe mode when you mount the new HDD or when the machine is unable to start normally due to HDD failures, etc.)
- 2) Connect the PC to the machine to start SST.
- 3) Select the model to be connected and the information file ("single") for individual download. Check the network settings and click "Start" button.



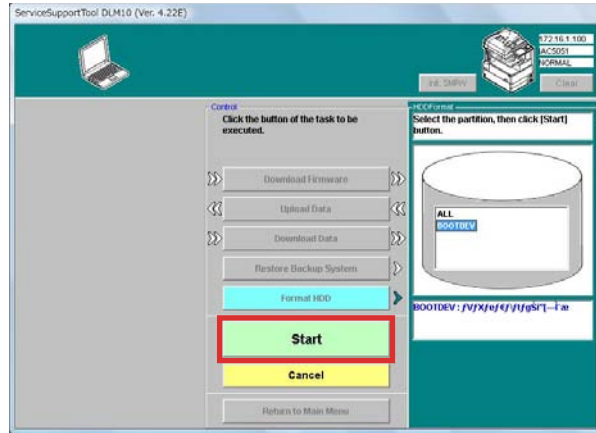
F-6-106

- 4) Click "Format HDD" button



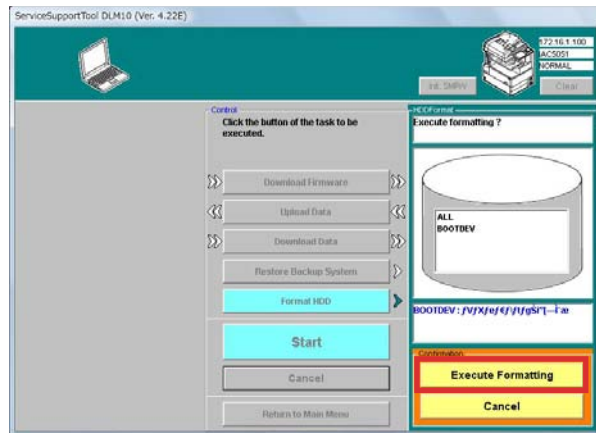
F-6-107

5) Select "BOOTDEV" or "ALL" to click "Start".



F-6-108

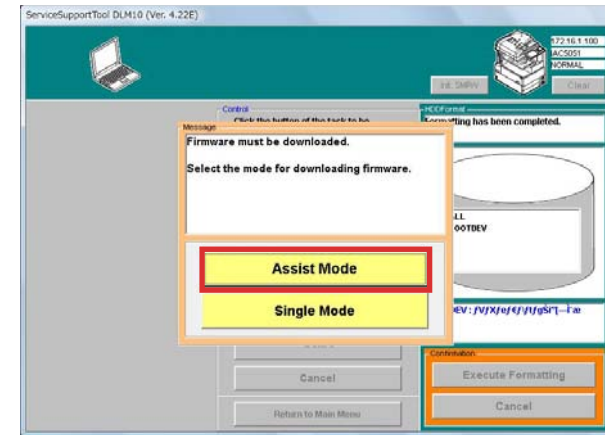
6) Click "Execute Format" button.



F-6-109

HDD is formatted.

7) Download the system software in any Download mode (Assist mode recommended). See the steps to download the system software for details.



F-6-110

#### CAUTION:

After HDD is formatted, ensure to download the system software. If the system software is not downloaded, E602 error is triggered at power-on.

#### CAUTION:

Restarting takes more time after HDD is formatted and the system software is downloaded (to write the downloaded software).

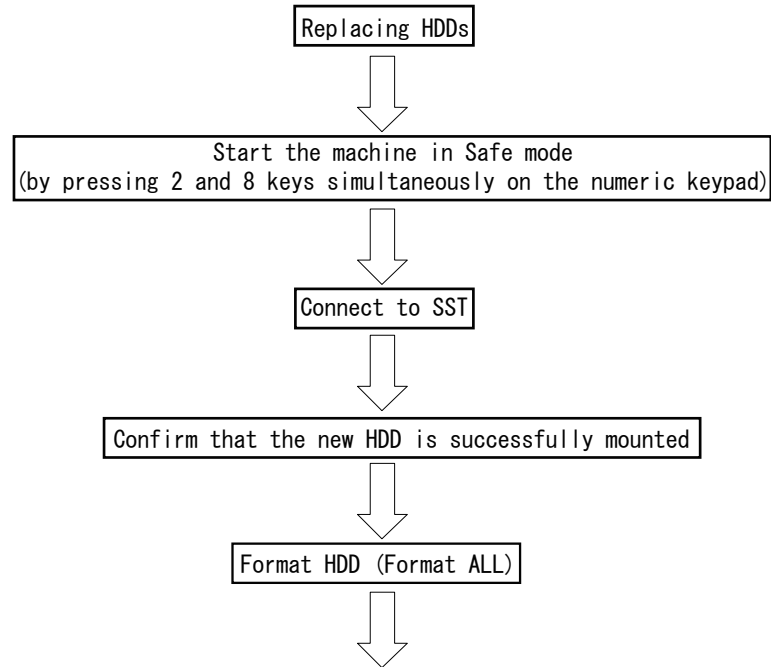
Down time may be approx. 5 minutes in maximum to proceed the writing process. Never turn OFF the machine while Starting screen is shown.



## ● Mounting New HDD

After HDD set as the service parts is mounted, the new HDD should be formatted initially. In this case, the message is shown to confirm if the new HDD is mounted.

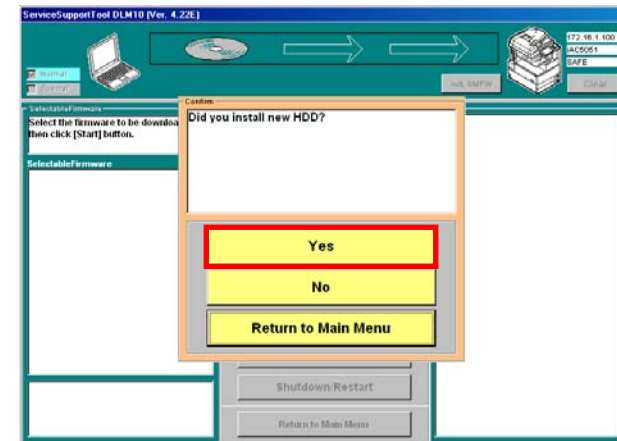
The figure below shows the abbreviated steps.



Follow the steps as described in Format ALL section.

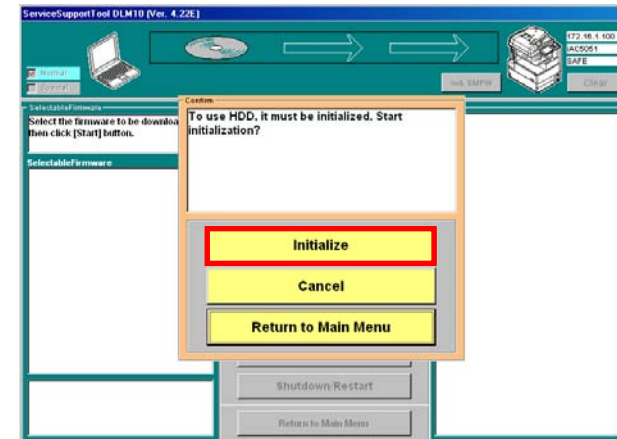
F-6-111

When the new HDD is mounted, the machine cannot be started in the normal procedure. Start the machine in Safe mode as Download mode. When gaining connection to SST, the message is shown to confirm if the new HDD is mounted.



F-6-112

Click "Yes" and the message is shown, confirming whether to format HDD.



F-6-113

Click "Initialize" button to initialize HDD (Format ALL). Follow the steps described in Format ALL section to download the system software.

## Backup

### Overview

At the time of replacing controller PCBs, the backup function enables to save data held in the PCB to migrate them to the new PCB.

- Backup via SST

Backup data	Downloaded/Uploaded file names
Backup data RAM	SramImg.bin(to be uploaded / downloaded)
MEAP applications	MeapBack.bin(to be uploaded / downloaded)
For investigation in Dev	Sublog.bin(Downloadable)
Service Print	The text file of the contents which You output to paper with a service mode(Downloadable).

T-6-19

- Backup RAM holds the data from Backup RAM of the Main Controller PCB 2.  
(Before replacing the Main Controller PCBs, DC Controller PCB, be sure to back up the data because Backup RAM holds the parts durable counter data and service mode setting data in the Main Controller.)
- MeapBack holds MEAP applications and their data stored in HDD

- Backup via Service mode

Backup data	Service mode
Backup of Reader Controller PCB	COPIER > FUNCTION > SYSTEM RSRAMBUP (Backup) COPIER > FUNCTION > SYSTEM RSRAMRES (Restore)
Backup of DC Controller PCB	COPIER > FUNCTION > SYSTEM DSRAMBUP (Backup) COPIER > FUNCTION > SYSTEM DSRAMRES (Restore)

T-6-20

Data is stored in HDD

#### NOTE:

Before replacing the Reader Controller PCBs, back up the data from Service mode. The backup data can be restored from Service mode when the PCBs are replaced. This enables to maintain the setting data including Service mode stored in the old Reader Controller PCB.

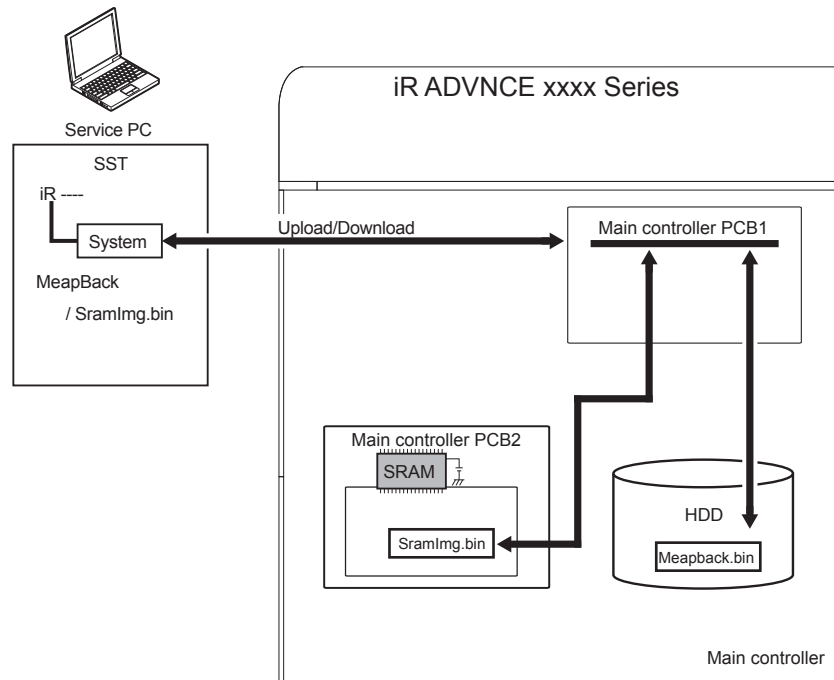
Before replacing the DC controller PCBs, back up the data from Service mode. The backup data can be restored from Service mode when the PCBs are replaced. This enables to maintain the setting data including Service mode stored in the old Controller PCB.

Before replacing the Main Controller PCB 2, upload SramImg.bin. By downloading SramImg.bin after replacement, the new Main Controller PCB 2 inherits the data including Service mode stored in the old PCB

## Steps to Upload Data

### CAUTION:

- When the Canon quality-appointed staff determines the need for an analysis of debug log by the R&D department, we ask the field to collect log for an investigation to determine the cause.
- The backup data can be downloaded only on the machine from which the data were uploaded.
- This machine does not use SramRCON and SramDcon

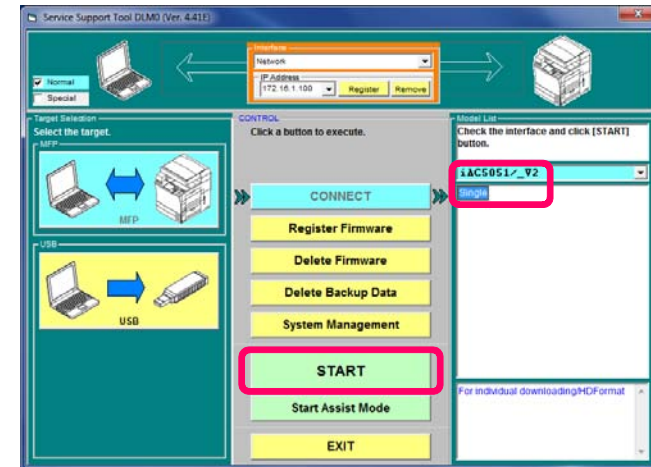


F-6-114

Listed below are the sample steps to upload MeapBack.

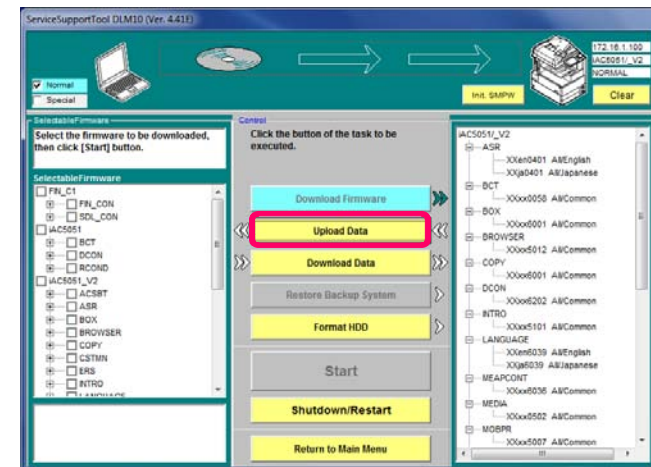
- 1) Enter Download mode.
- 2) Connect the PC to the machine to start SST.

- 3) Select the model to be connected and the information file for individual download ("Single"). Check the network settings and click "Start".



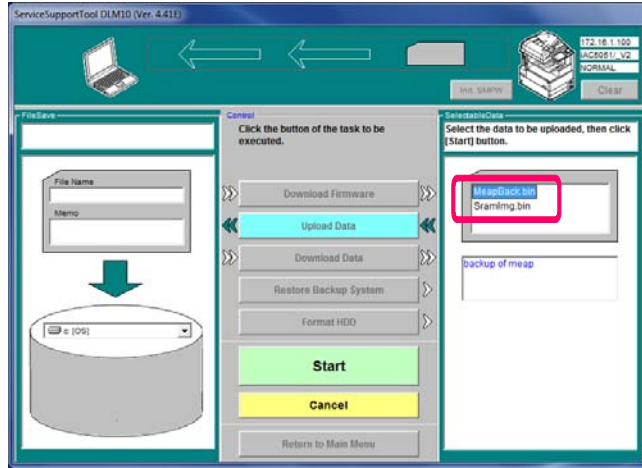
F-6-115

- 4) Click "Upload Data" button.



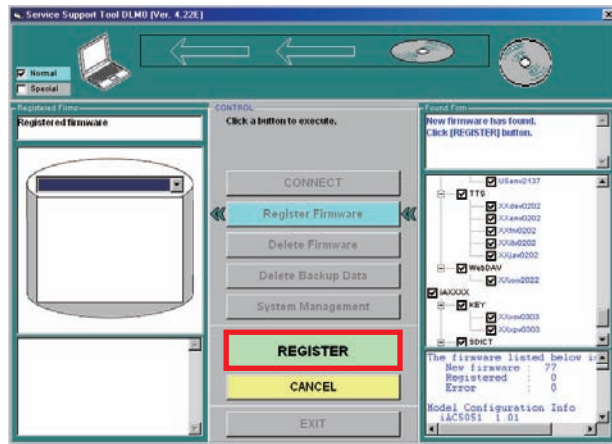
F-6-116

5) Select "MeapBack.bin" to click "Start" button.



F-6-117

6) Enter the file name to be saved and comments when necessary. Click "Save" button.



F-6-118

7) Click "OK" button

### Steps to Download Data

#### CAUTION:

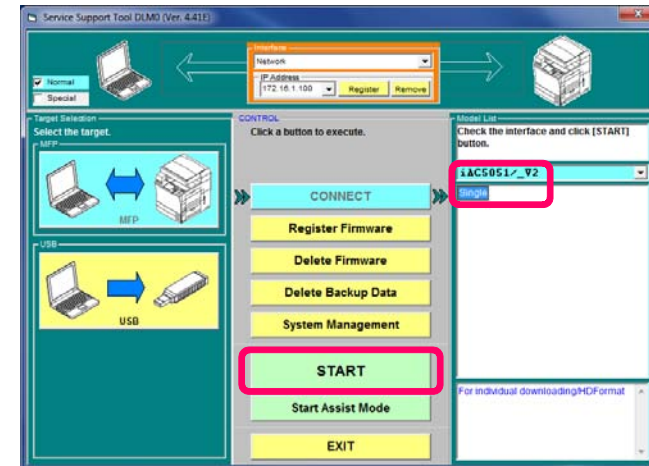
The backup data can be downloaded to the machine from which the data were uploaded

Store Meapbackup.bin; and "Settings/Registration > Data Management> Initialize All Data/Setings"; Restore it; even if it, cannot log in to SMS.

Restore Meapbackup.bin which backed up after "Initialize All Data/Setings"; store it.

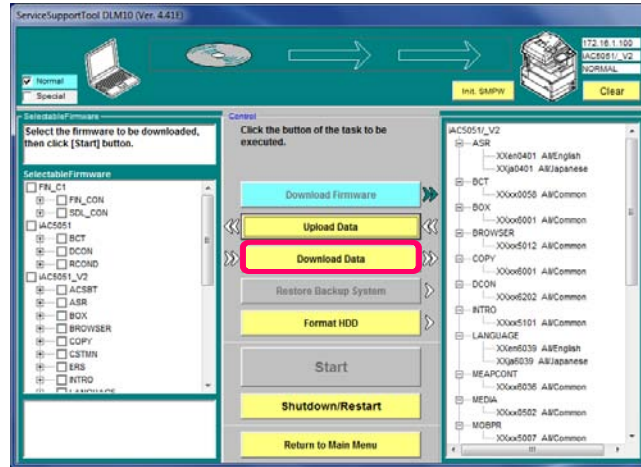
Listed below were the sample steps to download MeapBack.

- 1) Enter Download mode
- 2) Connect the PC to the machine and start SST.
- 3) Select the model to be connected and "Single". Check the network setting and click "Start" button.



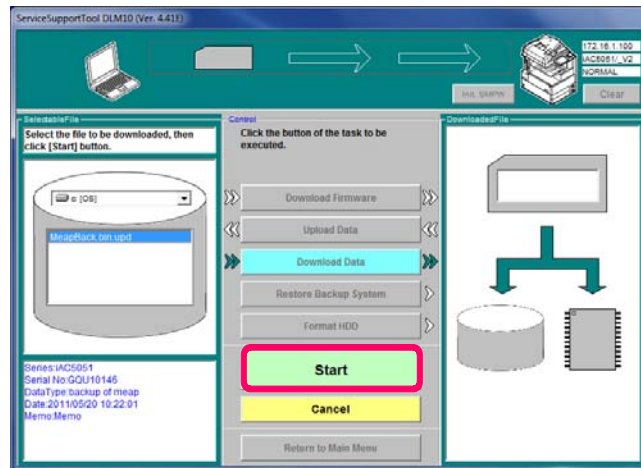
F-6-119

4) Click "Download Data" button.



F-6-120

5) Select the data to be downloaded and click "Start" button.



F-6-121

6) When the data are successfully downloaded, click "OK" button.

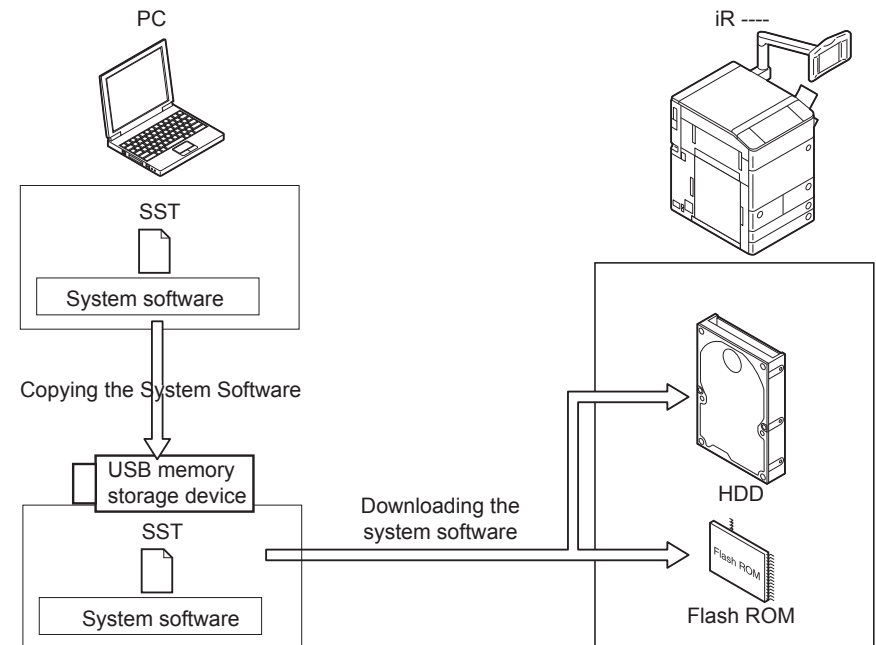
7) Restart the machine

## Version Upgrade using USB memory Storage Device

### Relation between SST and USB memory Storage Device

When using the USB memory storage device storage device for version upgrade, the system software should be copied to the USB memory storage device storage device. By inserting the USB memory storage device storage device to the slot of the machine, the system software can be upgraded.

The figure below shows the relation between SST and USB memory storage device storage device.



F-6-122

When downloading the system software, enter any of Download modes below.

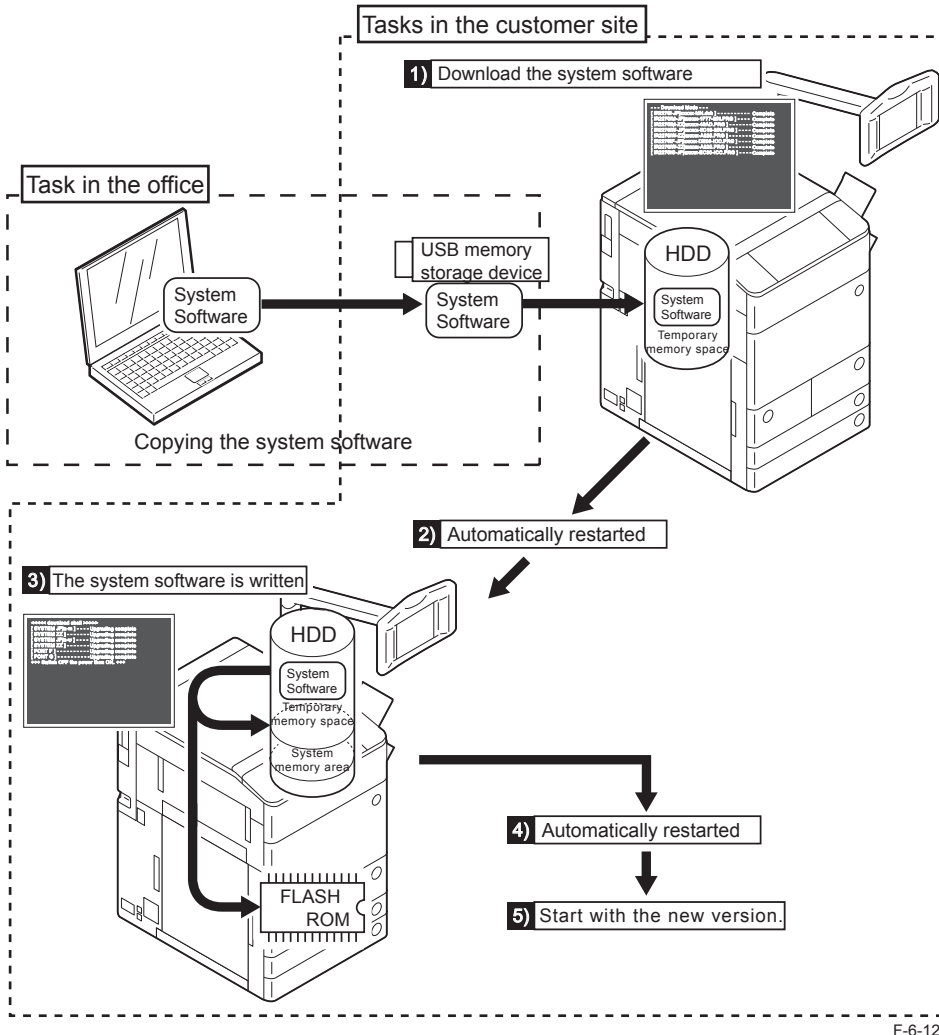
- Normal mode (recommended)  
Select COPIER > FUNCTION > SYSTEM > Download in Service mode and press [OK].
- Safe mode (only when any system error occurs or the machine is unable to start normally; turn ON the main power switch by pressing 2 and 8 keys simultaneously on the numeric keypad)

## ● Downloading System Software

Copy the system software from SST to the USB memory storage device storage device. Right after download from the USB memory storage device storage device, the system software is stored in the temporary memory space in HDD.

The system software is written in the system memory area, Boot area and Flash ROM upon the machine restarted.

When the writing process is successfully completed, the machine is automatically restarted with the new version of the system software.



## ■ Copying System Software

### ● System CD to SST

Copy the system software stored in the system CD to SST.

#### NOTE:

The system software is compressed if the file size exceeds the CD memory capacity. If the above is the case, decompress the file before copying it to SST.

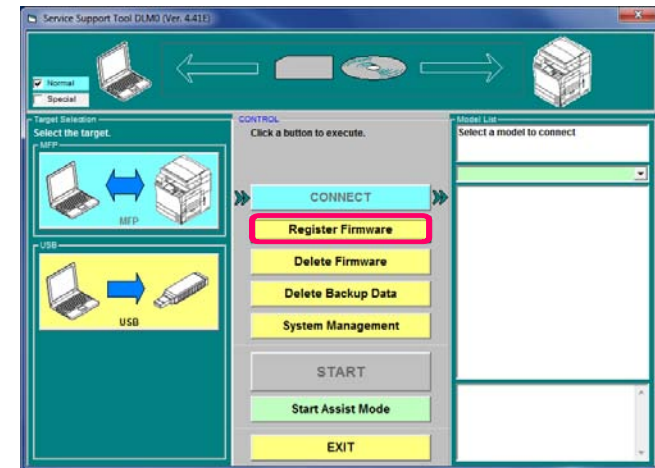
Preparation

Requirements:

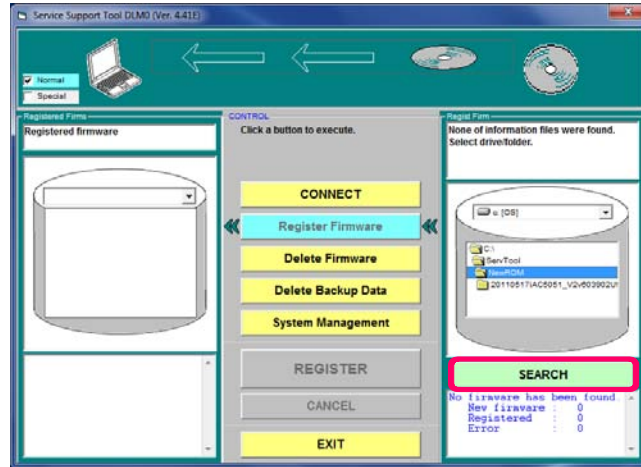
- PC with SST Ver. 4.41 or later installed
- The system CD for this machine

Steps to copy the system software

- 1) Start the PC.
- 2) Set the system CD to the PC.
- 3) Start SST.
- 4) Click "Register Firmware" button.

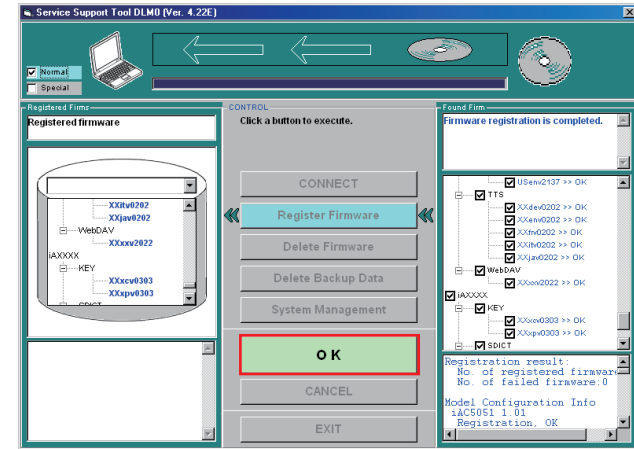


5) Select the drive where the system CD is set and click “Search” button.



F-6-125

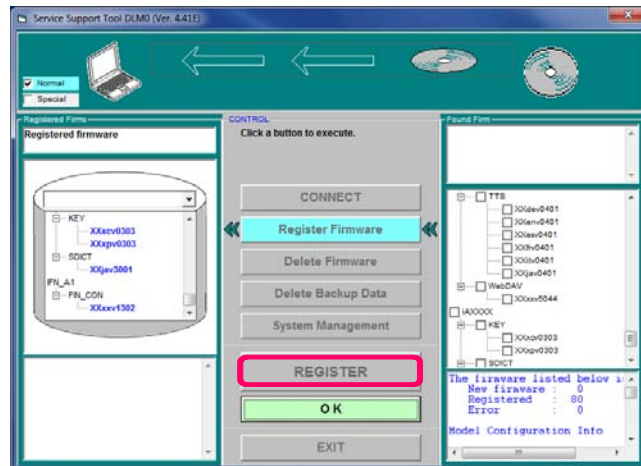
7) The message is shown when the system software is copied. Click “OK” button.



F-6-127

6) The list of the system software components stored in the system CD is shown on the screen.

Uncheck the box(es) of unnecessary folder(s) and/or system software component(s) and click “Copy” button.



F-6-126

## ● SST to USB memory Storage Device

Copy the system software stored in SST to the USB memory storage device storage device.

### Preparation

#### Requirements:

- PC with SST Ver. 4.41 or later installed
- USB memory storage device (\*)

#### Requirements for USB memory storage device:

Interface: USB 1.1 or later (USB 2.0 is recommended)

Memory capacity: 1GB or more is recommended (the total file size of the system software is approx. 500MB).

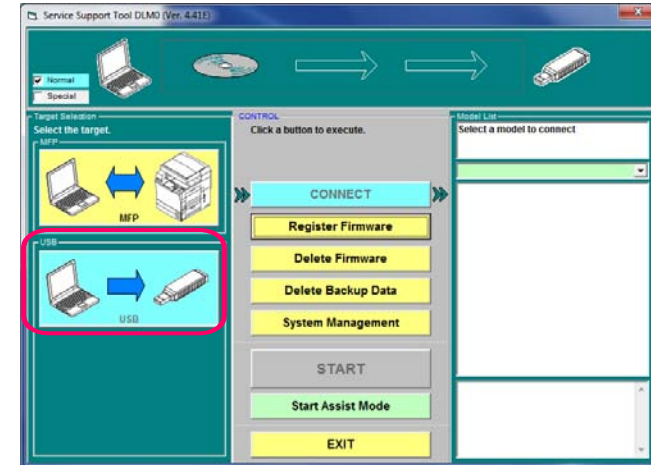
Format: FAT (FAT 16), FAT32 (NTFS and HFS are not supported). The memory is formatted in a partition (multiple partitions are not supported)

Unavailable USB memory: memory that is protected by a password or the encryption technology.

### Steps to copy the system software

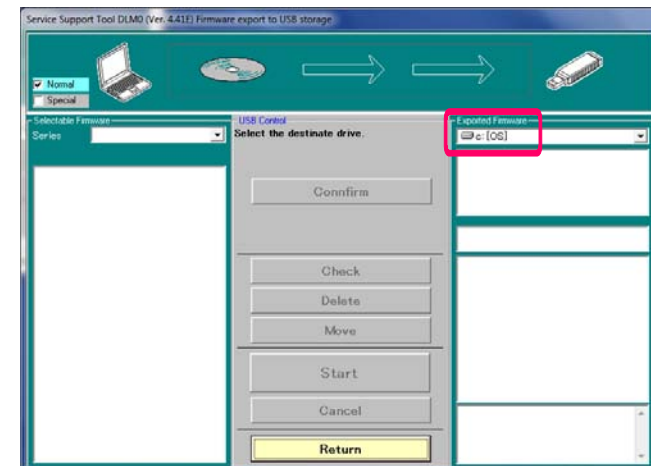
- 1) Start the PC.
- 2) Insert the USB memory storage device storage device to the slot of the PC.
- 3) Start SST.

4) Click the USB icon shown in "Select the target" Screen.



F-6-128

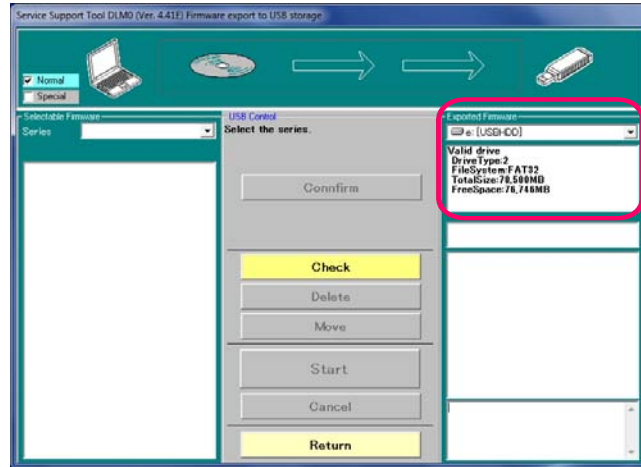
5) Select the drive (removable disk) where the USB memory storage device storage device is inserted.



F-6-129



6) Select "Series" and "Version" (the System Version).



F-6-130

**NOTE:**

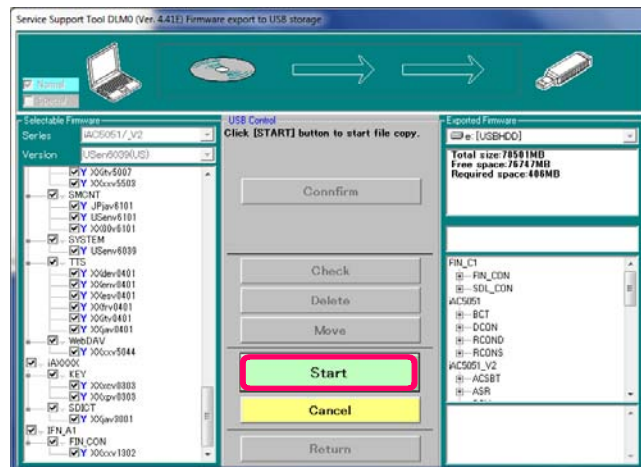
The signs shown in the field of "Firmware registration static" indicate the following:

Y: Stored in SST

N: Not stored in SST

7) Click "Start" button.

Start copying the system software to the USB memory storage device storage device.

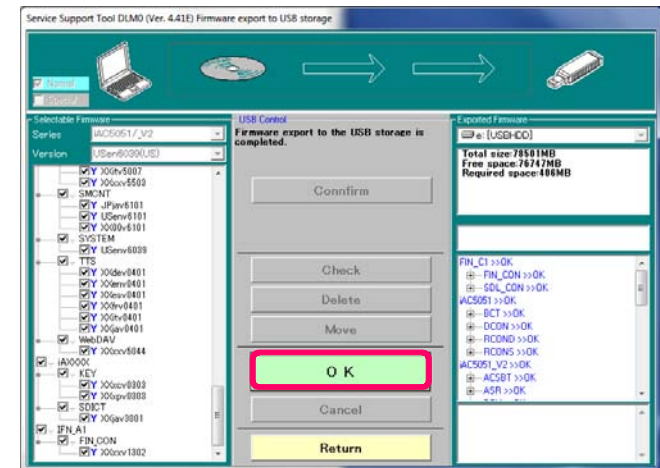


F-6-131

**NOTE:**

When the accessory configuration is known for the machine where the system software is to be downloaded, uncheck the boxes of unnecessary accessories. E753-0001 is triggered if the software for an unnecessary accessory is downloaded. (If this occurred, turn OFF/ON the power to recover the error.)

8) Click "OK" when the system software is successfully copied in the USB memory storage device storage device.



F-6-132

## Connection

### CAUTION:

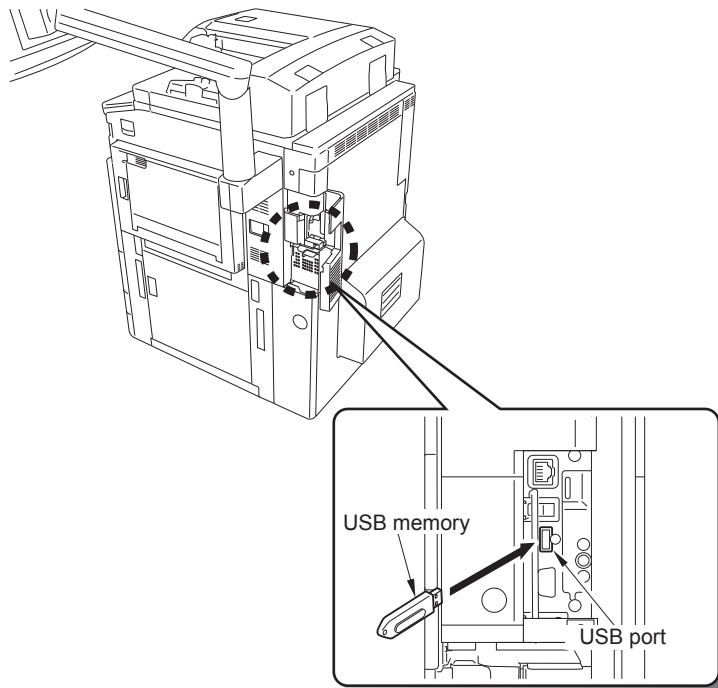
This machine does not communicate with SST once it recognizes a USB memory storage device; therefore, SST and a USB memory storage device cannot be used at the same time.

### Preparation

Item to prepare: a USB memory storage device, which the system software for this machine is stored.

### Procedure

- 1) If a cross cable is connected to this machine, remove the cross cable.
- 2) Connect the USB memory storage device to the USB port.



F-6-133

3) Switch to the download mode to use.

- In the case of normal mode (Recommended)  
Select the following in Service Mode: COPIER > FUNCTION > SYSTEM > DOWNLOAD;  
and then press [OK].
- In the case of safe mode (This mode should not be used as general rule. To be used only when normal startup fails, such as a system error, etc.)

While pressing 2 + 8 keys at the same time, turn ON the Main Power Switch.

Once this machine recognizes the USB memory storage device, the following menu is displayed on the Control Panel.

```
[[[[[ download Menu (USB) ]]]]]]]]]]]
```

```
[1]: Upgrade (Auto)
[2]: Upgrade (w Confirmation)
[3]: Upgrade (Overwrite all)
[4]: Format HDD
[5]: Backup
[7]: Clear downloaded files
[8]: download Menu 2
[9]: Other Menu
```

```
[Reset]: Shutdown
```

F-6-134

### CAUTION:

Depending on the manufacturer or the model, this machine may not recognize the USB memory storage device.

This machine retries the detection of a USB memory storage device for up to 60 seconds after power-ON. The above menu is not displayed if the recognition of a USB memory storage device is failed within the time period.

In such a case, use another USB memory storage device.

## ■ Upgrading System Software

### ● Menu/Function Overview

```

[[[[[ download Menu (USB) ]]]]]]]]]]
-----
[1]: Upgrade (Auto)
[2]: Upgrade (w Confirmation)
[3]: Upgrade (Overwrite all)
[4]: Format HDD
[5]: Backup
[7]: Clear downloaded files
[8]: download Menu 2
[9]: Other Menu

[Reset]: Shutdown

```

F-6-135

#### Downloading System Software

##### [1]: Upgrade(Auto)

To download/write the system software (automatic)

##### [2]: Upgrade (w Confirmation)

To download the system software (confirmation)

##### [3]: Upgrade (Overwrite all)

To download the system software (overwriting)

##### [4]: Format HDD

To format the HDD/BOOTDEV partition

##### [5]: Backup

Collection of debug Log or Service Print(Because You are for R&D review, do not use it other than the following.)

##### [7]: Clear downloaded files

To clear the system software immediately after downloading (before writing)

##### [8]: Download Menu 2

To move to Download Menu 2

##### [9]: Other Menu

Others (e.g.: version information)

##### [Reset]: Shutdown

To execute shutdown sequence

Press the key on the Control Panel to select/execute the functions.

### ● Points to Note When Operating/Using System Software

#### NOTE:

The following download method is recommended to execute normal download of the system software (any download work other than downloading after replacing/formatting the HDD):

Download mode --- Normal mode

Download menu --- [1]: Upgrade (Auto)

#### CAUTION:Prohibition to turn OFF the power during downloading/writing

Do not turn OFF the power during downloading or writing of the system software; otherwise, this machine may not be started even if the power is turned ON.

If the machine fails to be started even if the power is turned ON, start the machine in safe mode (pressing 2 + 8 keys).

When the machine can be started in safe mode, be sure to download the system software once again.

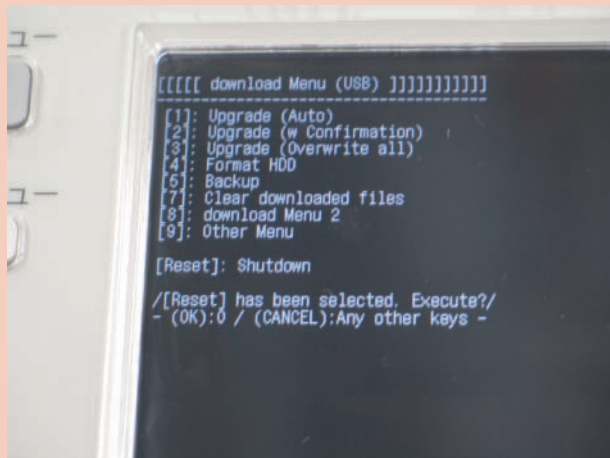
If the machine fails to be started, replace the HDD and then download the system software.

CAUTION:Caution when the power is turned OFF

Be sure to execute shutdown sequence to quit download mode.

Pressing the [Reset] key and then the [0] key on the menu screen executes the shutdown sequence.

Once the message on the touch panel disappears, turn OFF the Main Power Switch.



F-6-136

## ■ Downloading/Writing System Software (Automatic)

### ● [1]: Upgrade (Auto)

The version is compared between the host machine/option and the system software in the USB memory storage device to download only the system software with newer version in the USB memory storage device to the temporary storage area of the HDD.

In safe mode, only the following system software can retrieve the version information (the version is compared).

SYSTEM, LANGUAGE, RUI, MERAPCONT, SDICT

As for system software of the host machine whose version information cannot be obtained, the software for RCON is not downloaded, but other software are downloaded.

For the system software of the option that is not connected, it is handled as follows:

<In the case of startup in normal mode (Recommended)>

For the option that is not connected, the system software is not to be downloaded.

<In the case of startup in safe mode>

The system software of the options which are not connected are not downloaded.

After downloading is complete, this machine is automatically restarted to write the downloaded system software to the HDD system area/flash ROM.

Operation procedure

- 1) Enter download mode.
- 2) Connect the USB memory storage device to the USB port.

3) Press the key on the Control Panel.

[1] -> [0]: To execute downloading/Any key other than [0] key: To return to the menu screen.

```

[[[[[ download Menu (USB) ]]]]]]]]]]
-----
[1]: Upgrade (Auto)
[2]: Upgrade (w Confirmation)
[3]: Upgrade (Overwrite all)
[4]: Format HDD
[5]: Backup
[7]: Clear downloaded files
[8]: download Menu 2
[9]: Other Menu

[Reset]: Shutdown

```

F-6-137

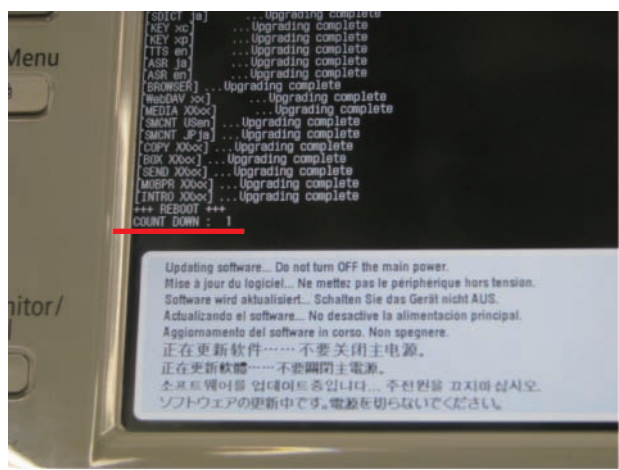
During downloading, download status is displayed on the Control Panel.



F-6-138

Once downloading is complete, this machine is automatically restarted to start writing to the HDD system area/flash ROM.

The screen shows the countdown once writing process is properly complete.



F-6-139

Once the countdown shows 0, this machine is automatically restarted.

4) When the main menu is displayed, press the removal key at the lower right on the touch panel and select removal of the memory media, and then remove the USB memory storage device.

**CAUTION:**

After HDD formatting and downloading, this machine takes a long time (for writing the software).

This machine, in some cases, stays in standby screen up to 10 min during writing. At this time, do not turn off the main power switch.

## ■ Downloading System Software (Confirmation)

### ● [2]: Upgrade (w Confirmation)

The version is compared between the host machine/option and the system software in the USB memory storage device to download the system software with newer version in the USB memory storage device to the temporary storage area of the HDD.

When the system software version in the USB memory storage device is the same or older, a confirmation message is displayed on the Control Panel so that the user can select whether to overwrite or not.

In safe mode, only the following system software can retrieve the version information (the version is compared).

SYSTEM, LANGUAGE, RUI, MERAPCONT, SDICT

As for system software of the host machine whose version information cannot be obtained, the software for RCON is not downloaded, but other software are downloaded.

For the system software of the option that is not connected, it is handled as follows:

<In the case of startup in normal mode (Recommended)>

For the option that is not connected, the system software is not to be downloaded.

<In the case of startup in safe mode>

The system software of the options which are not connected are not downloaded.

Unlike menu [1], this machine is not automatically started despite completion of downloading. By manually turning OFF/ON the power, the system software is written at the time of startup. In this case, starting the machine in safe mode deletes the downloaded system software saved in the temporary storage area; therefore, do not press the numeric keys (2 + 8), but execute normal startup to execute writing.

Operation procedure

- 1) Enter download mode.
  - 2) Connect the USB memory storage device to the USB port.
  - 3) Press the key on the Control Panel.
- [2] -> [0]: To execute downloading/Any key other than [0] key: To return to the menu screen.

```

[[[[[ download Menu (USB) ]]]]]]]]]]]
-----
[1]: Upgrade (Auto)
[2]: Upgrade (w Confirmation)
[3]: Upgrade (Overwrite all)
[4]: Format HDD
[5]: Backup
[7]: Clear downloaded files
[8]: download Menu 2
[9]: Other Menu

/[2] has been selected. Execute?/
- (OK):0 / (CANCEL):Any other keys -

```

F-6-140

During downloading, download status is displayed on the Control Panel.

#### NOTE:

When the system software version in the USB memory storage device is the same or older than the system software in the HDD, a message is displayed in each case to confirm whether to overwrite or not.

Press the key on the Control Panel.

[0]: To overwrite/Any key other than [0]: Not to overwrite

```

////Copying files from USB-dev.///
[Warning] Same version or old version.
-----
[BOOT XXxx]. . . Same. OVERWRITE?
-- (YES):0 / (NO):The other keys--

```

F-6-141

Once downloading is complete, a message is displayed to encourage pressing the "Reset" key.



F-6-142

- 4) Press the "Reset" key.  
Shutdown sequence is executed.
- 5) Once the message on the touch panel disappears, turn OFF the Main Power Switch.
- 6) Remove the USB memory storage device.
- 7) Ensure the LED at the lower right on the Control Panel is turned OFF, and turn ON the Main Power Switch.

Writing to the HDD system area/flash ROM is started after the startup. The screen shows the countdown once the writing process is properly completed.

The screen shows the countdown once the writing process is properly completed. This machine is restarted with the downloaded system software at the count of 0.

## ■ Downloading System Software (Overwriting)

### ● [3]: Upgrade (Overwrite all)

Regardless of the system software version in the host machine, all the system software in the USB memory storage device is downloaded.

Regardless of the system software version in the host machine, all the system software in the USB memory storage device is downloaded.

Unlike menu [1], this machine is not automatically started despite completion of downloading.

By manually turning OFF/ON the power, the system software is written at the time of startup.

In this case, starting the machine in safe mode deletes the downloaded system software saved in the temporary storage area; therefore, do not press the numeric keys (2 + 8), but execute normal startup to execute writing.

#### Operation procedure

- 1) Enter download mode.
  - 2) Connect the USB memory storage device to the USB port.
  - 3) Press the key on the Control Panel.
- [3] -> [0]: To execute downloading/Any key other than [0] key: To return to the menu screen.

```

[[[[[ download Menu (USB) ]]]]]]]]]]]
-----
[1]: Upgrade (Auto)
[2]: Upgrade (w Confirmation)
[3]: Upgrade (Overwrite all)
[4]: Format HDD
[5]: Backup
[7]: Clear downloaded files
[8]: download Menu 2
[9]: Other Menu

/[3] has been selected. Execute?/
- (OK) :0 / (CANCEL) :Any other keys -
    
```

F-6-143

During downloading, download status is displayed on the Control Panel.

**CAUTION:**

In overwriting download mode of the USB memory storage device, all the system software stored in the USB memory storage device is downloaded as well. Therefore, be sure to keep the following in mind: If the USB memory storage device includes the system software of non-connecting option, E753-0001 is displayed when the writing process is completed.

In the case of an error in downloading of the non-connecting option, the machine can be recovered by turning OFF/ON the power.

To prevent such error, uncheck the applicable system software so that the system software of the non-connecting option is not downloaded when downloading the system software from SST to USB.

Once downloading is complete, a message is displayed to encourage pressing the “Reset” key.



F-6-144

- 4) Press the “Reset” key.  
Shutdown sequence is executed.
- 5) Once the message on the touch panel disappears, turn OFF the Main Power Switch.
- 6) Remove the USB memory storage device.
- 7) After checking that the LED is turned OFF at the lower right on the Control Panel, turn ON the Main Power Switch.

Writing to the HDD system area/flash ROM is started after the startup. The screen shows the countdown once the writing process is properly complete.

When the countdown shows 0, this machine is restarted with the downloaded system software.

## ■ Formatting HDD

### ● HDD Format Overview

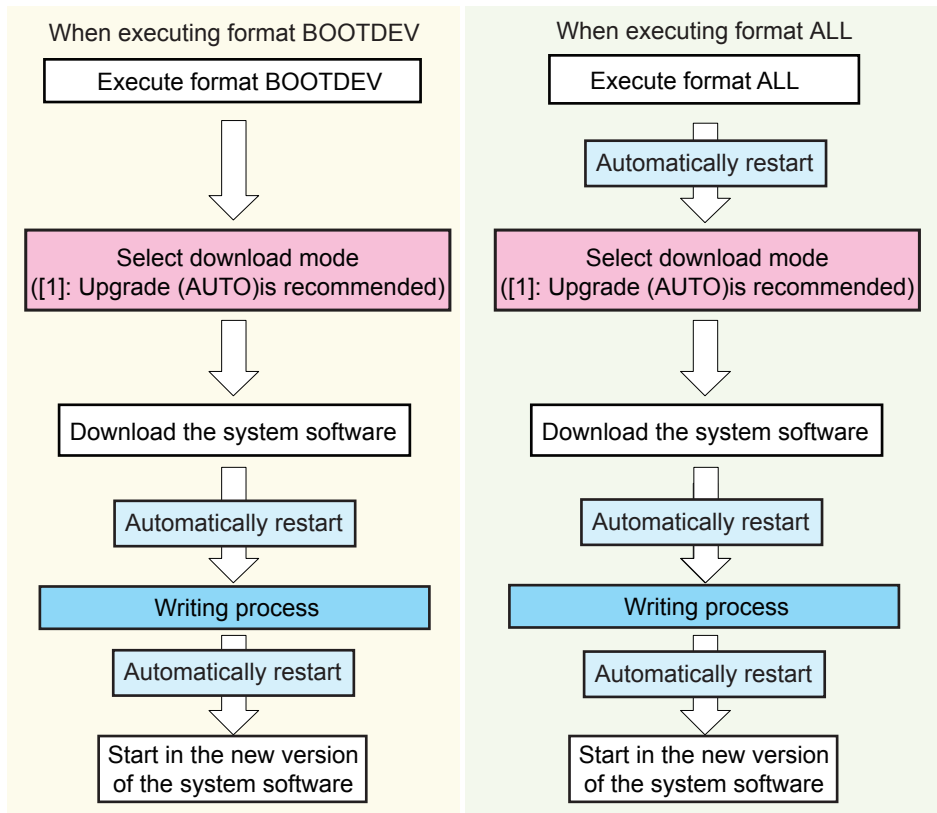
The following 2 types of formatting methods are available with this machine:

- ALL: To initialize the entire HDD
    - In the case of installing the HDD provided as a service part (a new HDD).
    - In the case of cleaning the entire software and data in the HDD to reinstall the system software.
- All the user data and MEAP application in the HDD is deleted when executing Format ALL with the machine in use; therefore, be sure to obtain agreement from the user to execute Format ALL.
- BOOTDEV: to format the system software storage area on HDD.
    - In the case of normal upgrading by cleaning the storage area of the system software to reinstall the system software, HDD formatting is not required.
    - User data is not erased.

After formatting, this machine cannot be started unless the system software is downloaded. When Format ALL is executed, initialization process is reflected to the HDD so that this machine is automatically restarted to automatically enter download mode. In the case of formatting BOOTDEV, the machine is not automatically restarted, but the system software can be downloaded.

After formatting is executed, be sure to download the system software by “[1]: Upgrade (AUTO)” in main menu.





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### ● [4]: Format HDD

This mode executes formatting of BOOTDEV partition or the entire HDD.

Operation procedure

- 1) Enter download mode.
  - 2) Connect the USB memory storage device to the USB port.
  - 3) Press the key on the Control Panel.
- [4] -> [0]: To execute formatting /Any key other than [0] key: To return to the menu screen.

```
[[[[[ download Menu (USB) ]]]]]]]]]
```

```
-----
[1]: Upgrade (Auto)
[2]: Upgrade (w Confirmation)
[3]: Upgrade (Overwrite all)
[4]: Format HDD
[5]: Backup
[7]: Clear downloaded files
[8]: download Menu 2
[9]: Other Menu
```

```
/[4] has been selected. Execute?/
- (OK):0 / (CANCEL):Any other keys -
```

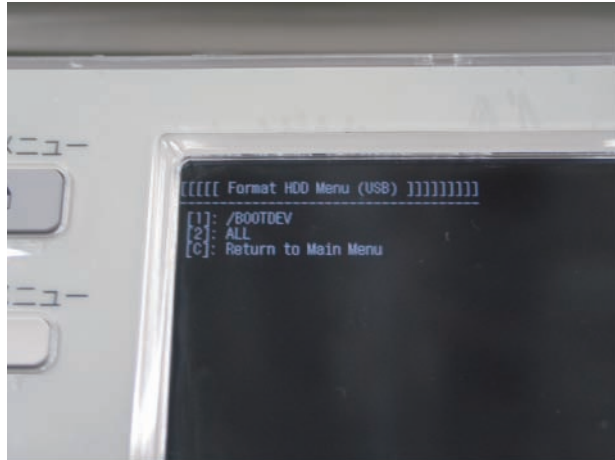
F-6-146

4) Press the key on the Control Panel.

[1] -> [0]: To execute formatting BOOTDEV/Any key other than [0]: To return to the menu screen.

[2] -> [0]: To execute formatting the entire HDD/Any key other than [0]: To return to the menu screen.

[C]: To return to the menu screen.



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Once downloading is complete, a message is displayed to encourage pressing the “Reset” key.

5) Press any key to return to the menu screen.

6) Download the system software.

Refer to “Separate Download” for details.

## Backup

### [5]: Backup

#### CAUTION:

This function includes R&D review. Do not usually use it other than the following function.

The USB memory collecting log uses the USB memory where You registered a system software for this Host machine with by SST.

#### Operation procedure

1) Enter download mode.

2) Connect the USB memory storage device to the USB port.

3) Press the key on the Control Panel.

[5] -> [0]: To execute formatting /Any key other than [0] key: To return to the menu screen.

4) SRAM backup of Main Controller PCB 2

[1] Sublog -> Collect debugging log.

[4] ServicePrint -> Save the service data which P-PRINT or etc. output to paper with a text format.

```

[[[[[ Backup Menu (USB) ]]]]]]]]]]]
-----

```

```

[1]: Sublog

```

```

[4]: ServicePrint

```

```

[5]: Netcap

```

```

[C]: Return to Main Menu

```

F-6-148

## Clearing Download File

### [7]: Clear downloaded files

This menu clears the system software stored in the temporary storage area of the HDD.

This function is used to clear the downloaded file without writing it after downloading the system software in menu [2] or [3].

Operation procedure

- 1) After downloading by menu [2] or [3], press the "Reset" key to execute shutdown sequence, and then turn OFF the main power once the screen display disappears.
- 2) Start the machine in safe mode (while pressing 2 + 8 keys at the same time, turn ON the Main Power Switch).

If the system software is stored in the HDD temporary storage area when starting the machine in safe mode, the system software is deleted. In such a case, the following message is displayed on the touch panel.

"All downloaded file is deleted."

- 3) Turn OFF the Main Power Switch.
- 4) Remove the USB memory storage device.

## Download Menu 2

### [8]: Download Menu 2

[8]: Download Menu 2

[1]: Service Mode Password Clear

```
[[[[[ download Menu 2nd (USB) ]]]]]
```

```
[1]: Service Mode Password Clear
```

```
[C]: Return to Main Menu
```

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## Other Menu

### [9]: Other Menu

This mode displays other menu.

Operation procedure

- 1) Enter download mode.
  - 2) Connect the USB memory storage device to the USB port.
  - 3) Press the key on the Control Panel.
- [9] -> [0]: To display other menu/Any key other than [0] key: To return to the menu screen.

### [1]: Version Information

This mode displays the version of download mode.



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Press any key to return to the main menu.

## Troubleshooting

### ■ Error Code: E753-0001

#### ● Cause

In the case of an error during writing process of the system software or in the case of writing the system software of the option that is not installed, an error is determined to display E753-0001.

#### ● Remedy

The result of writing process is displayed at the upper side of E753-0001 error display. Check if the target option is properly installed and see if the software to download is for the correct target option, and then execute downloading again.

#### ● Upgrading by SST

Be sure to use Assist mode as a general rule because the system software of the non-connecting option is not to be downloaded in Assist mode.

In Single mode, it is available to download the system software of the option that is not installed.

In the case of downloading the Finisher's system software, make the download mode of the Host Machine in normal mode and connect to SST, and then download just the system software of the Finisher with the version information displayed at the right side of the SST screen.

In the case that Super G3FAX Board – AE1 is not installed or in the case of download mode in safe mode, G3CCB/G3CCM is not displayed on the list of downloadable system software.

## Making Initial Checks

### List of Initial Check Items

Item	No.	Detail	Check
Site Environment	1	The voltage of the power supply is as rated ( $\pm 10\%$ ).	
	2	The site is not a high temperature / humidity environment (near a water faucet, water boiler, humidifier), and it is not in a cold place. The machine is not near a source of fire or dust.	
	3	The site is not subject to ammonium gas.	
	4	The site is not exposed to direct rays of the sun. (Otherwise, provide curtains.)	
	5	The site is well ventilated, and the floor keeps the machine level.	
	6	The machine's power plug remains connected to the power outlet.	
Checking the Paper	7	The paper is of a recommended type.	
	8	The paper is not moist. Try paper fresh out of package.	
Checking the Placement of Paper	9	Check the cassette and the manual feed tray to see if the paper is not in excess of a specific level.	
	10	If a transparency is used, check to make sure that it is placed in the correct orientation in the manual feed tray.	
Checking the Durables	11	Check the table of durables to see if any has reached the end of its life.	
Checking the Periodically Replaced Parts	12	Check the scheduled servicing table and the periodically replaced parts table, and replace any part that has reached the time of replacement.	

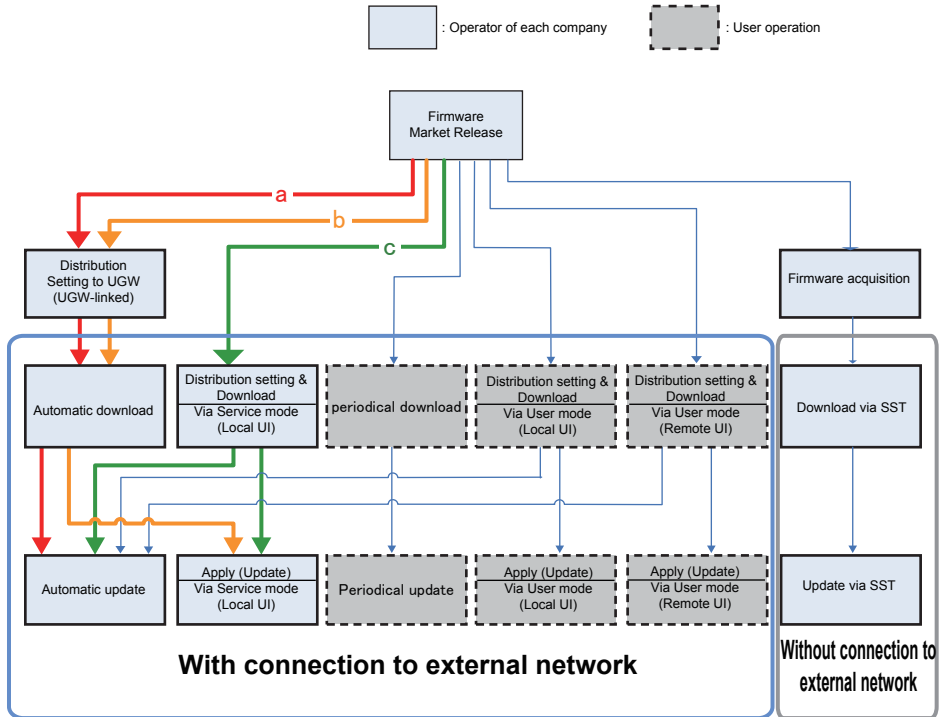
T-6-21

## Version Upgrade via CDS

### Overview

Among the 4 methods in which service technicians provide firmware install services, the following 3 methods are available using Updater functions.

- UGW-linked Download and Update (Full-remote Update)
- UGW-linked Download (Remote Distribution Update)
- Manual Download and Update (On-site Update from Service Mode)



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\*1: Schedules for UGW-linked distribution are maintained on CDS.

**NOTE:**

- See User Manual of the device for how to connect the device to the external network.
- When needed, perform the communication test before actual download to check if the communication with the distribution server is normal.

## Preparation

### Overview of Preparation

The following should be prepared before using Updater.

- For updating of firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)	Periodical update validation
UGW-linked Download and Update	Yes	Yes	Yes	-	-	-
UGW-linked Download	Yes	Yes	Yes	-	-	-
Manual Download and Update	Yes	Yes	-	-	-	-
Manual Download and Update via Local UI	Yes	Yes	-	Yes	-	-
Manual Download and Update via Remote UI	Yes	Yes	-	Yes	-	-
Special Download and Update via Remote UI	Yes	-	-	-	Yes	-
Periodical update	Yes	Yes	-	-	-	Yes

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- For Install of Application

Installation Method	Network Settings	Enabling [Install Application/Options] Button of User Mode
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

T-6-23

## Setting Sales Company's HQ

When using devices input in the markets listed below, the default setting of Sales Company's HQ should be changed before obtaining firmware distributed from CDS. Unless the setting is changed properly, the desired firmware may not be able to be selected.

Market	Default Setting of Sales Company's HQ	Setting of Sales Company's HQ after Change
Canada	US	CA
Latin America	US/SG	LA
Hong Kong	SG	HK

T-6-24

Go to the following screen to change the setting of Sales Company's HQ.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER > FUNCTION > INSTALL > CDS-CTL
--------------------	--	---------------------------------------

### NOTE:

The list below shows the setting of Sales Company's HQ for CDS-CTS by market. Check and adhere to the appropriate setting for your market.  
<List of Sales Company's HQ and the settings for CDS-CTL>

Japan = JP	China = CN
USA = US	Hong Kong = HK
Singapore = SG	Australia = AU
Europe = NL	Canada = CA
Korea = KR	Latin America = LA

## Network Settings

### 1. Connecting to External Network

The method of connecting to external network is similar to a normal network connection method. Refer to user manual of the device for details.

#### NOTE:

- See User Manual for how to connect the device to the external network.
- Before using UGW link or User mode, see the sections below to prepare as required.
  - "Enabling UGW Link"
  - "Enabling [Update Firmware] Button of User Mode"
  - "Enabling [Install Application/Options] Button of User Mode"

#### NOTE:

"External Network" here means the network connecting the device to CDS via Internet.

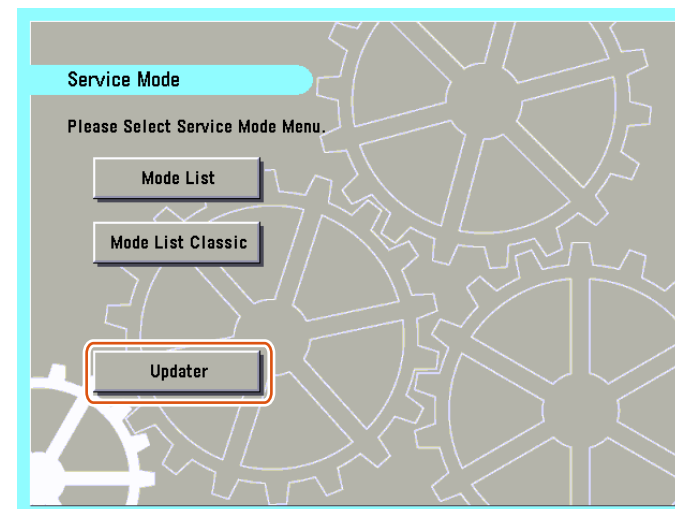
### 2. Confirming URL Setting of Distribution Server

This section describes how to confirm the URL setting of the distribution server.

1. Start [Service Mode] at Level 1.

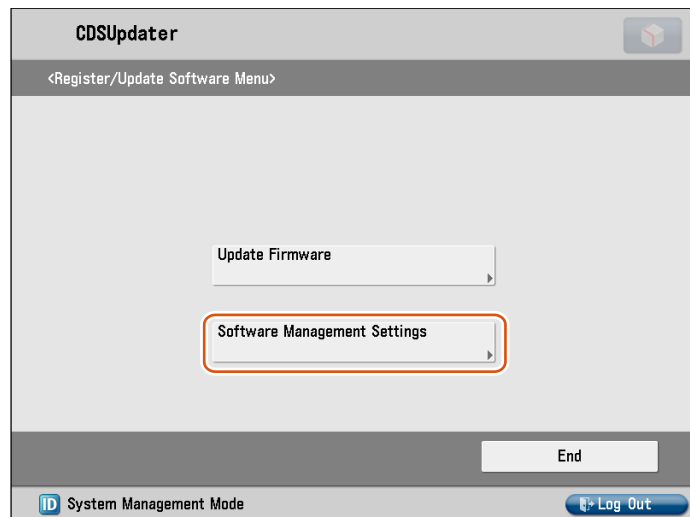
- 1). Press [Setting/Registration (User Mode)] button on the control panel.
- 2). Press [2] and [8] buttons at a time on the control panel.
- 3). Press [Setting/Registration (User Mode)] button on the control panel.
- 4). [Service Mode] screen is shown.

2. Press [Updater] button.



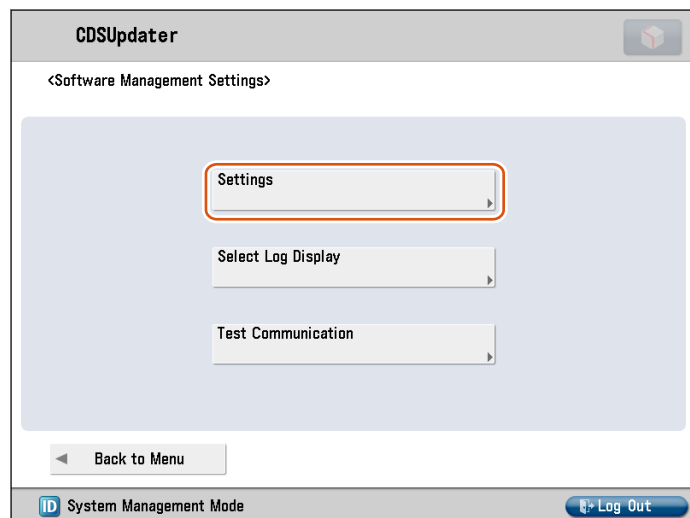
F-6-152

3. Press [Software Management Settings] button.



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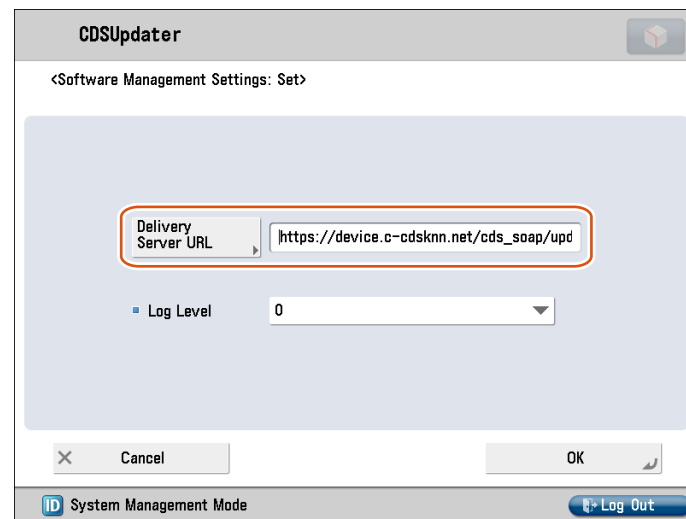
4. Press [Settings] button.



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5. Ensure to enter “https://device.c-cdsknn.net/cds\_soap/updaterif” in the field beside the [Delivery Server URL] button.

If the URL is not entered or a wrong URL is entered in the field, click [Delivery Server URL] button to show the virtual keypad. Check the URL and enter the correct one.



F-6-155

6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.



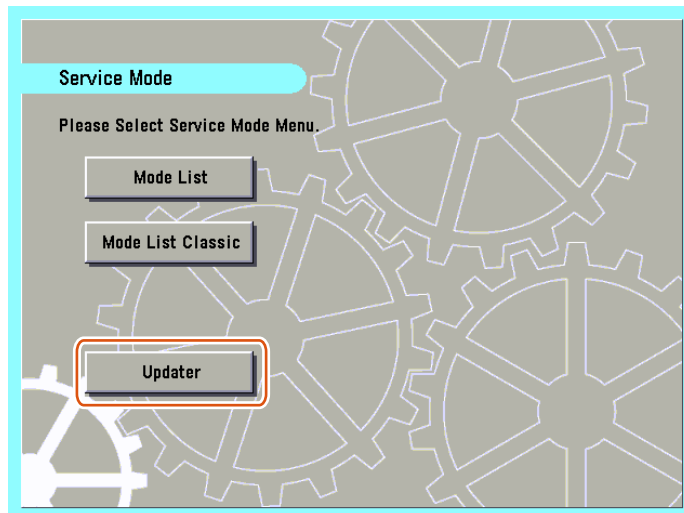
### 3. Communication Test

This section describes how to check if the communication is normally done to the distribution server and/or the file server.

1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User Mode)] button on the control panel.
  - 2). Press [2] and [8] buttons at a time on the control panel.
  - 3). Press [Setting/Registration (User Mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.

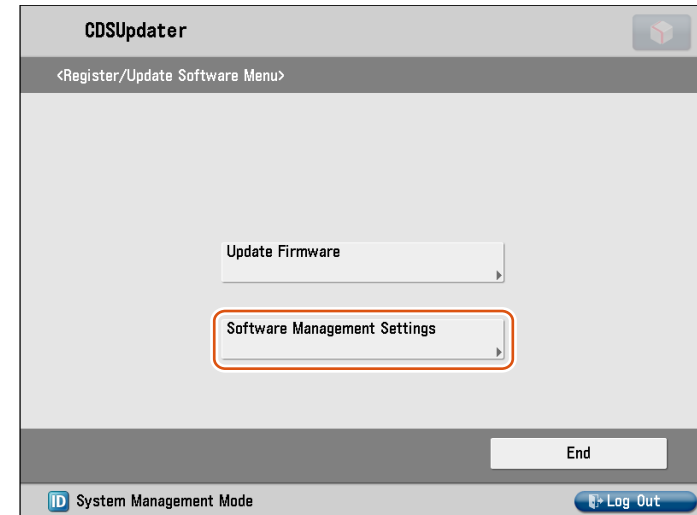
**NOTE:**  
CDS and RDS are another servers.  
You need the communication test of CDS by all means even if You succeed in a communication test of the RDS.

2. Press [Updater] button.



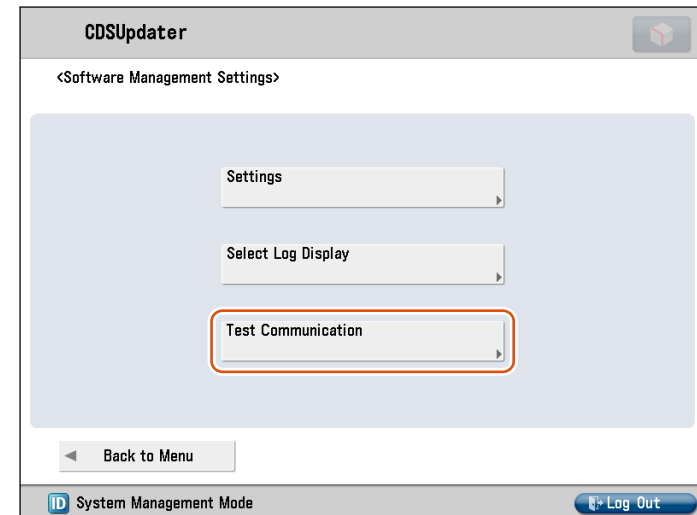
F-6-156

3. Press [Software Management Settings] button.



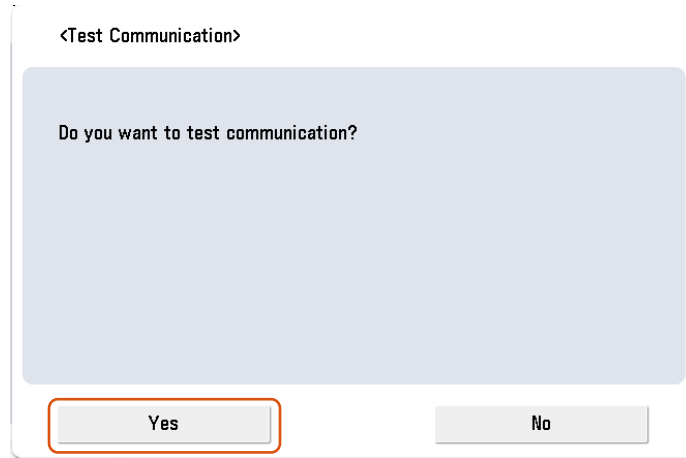
F-6-157

4. Press [Test Communication] button.



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5. Press [Yes] button.

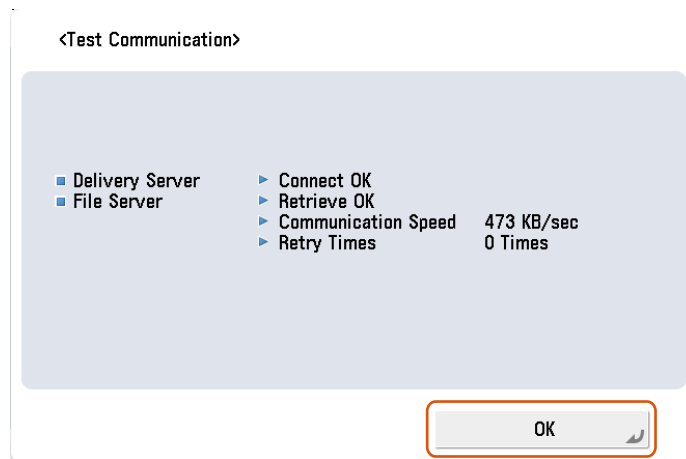


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Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).

Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown. Press [OK] button to exit this operation.



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## ■ Enabling UGW Link

When installing the firmware in the method of “UGW-linked Download and Update” or “UGW-linked Download”, the following should be set before actually using UGW link.

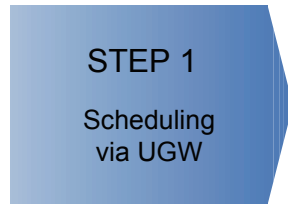
Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-UGW (0 -> 1)
	Setting of UGW WebPortal	In [Customer Management] screen, set [Do not distribute firmware] to [Distribute firmware].
Sales Company's HQ	Setting of Authorities on UGW WebPortal	See "Analysis>Firmware Distribution Information" to grant the appropriate authorities to each account.

### NOTE:

- See “imageWARE Remote Operator’s Manual / e-Maintenance Business Operation Manual” for how to operate UGW WebPortal.
- [Distribute Firmware] should be set on [Customer Management] screen for staff in charge of setting for [Enter customer information] or [Command for firmware distribution] in order to allow them to select the desired device on [Firmware Distribution Information] screen.

## a. UGW-linked Download and Update (Full-remote Update)

See the figure below for the operational flow of “UGW-linked Download and Update”.



F-6-161

### STEP1: Scheduling via UGW

The firmware distribution schedule to the certain device should be set on UGW. See “UGW-linked Download and Update” in chapter 5 of Operation Manual of Content Delivery System V1.0 for Firmware Distribution for details.

The device checks the schedule concerned every 12 hours on UGW. This allows the device to register the firmware distribution setting, enabling automatic firmware download and update.

#### CAUTION:

Firmware update will not be triggered when any of the following jobs remains in the queue.

- Print
- Scan
- Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

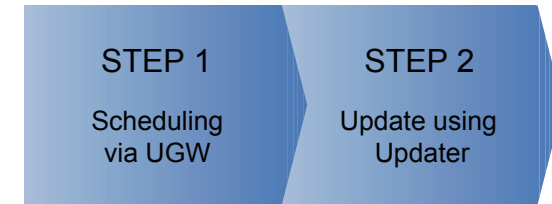
See the section of “Wait for EOJ (end of job) Function” under “Limitations and Cautions”, “Updater” of Chapter 2 “Technology” of this manual for more detailed information.

#### NOTE:

To contacts registered for E-mail notification on UGW, the E-mail is sent from UGW upon completing firmware update.

## b. UGW-linked Download (Remote Distribution Update)

See the figure below for the operational flow of “UGW-linked download”.



F-6-162

### STEP 1: Scheduling via UGW

The firmware distribution schedule to the certain device should be set on UGW. See “UGW-linked Download” in Operation Manual of CDS V1.0 (for Firmware Distribution) for details.

#### NOTE:

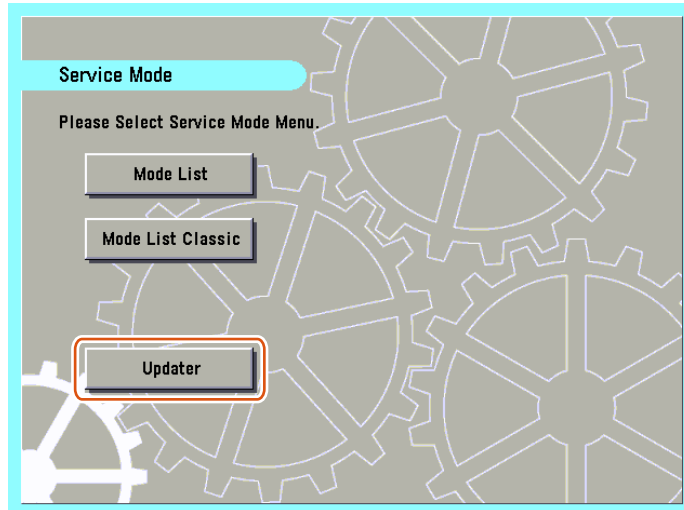
The firmware downloaded by scheduling via UGW can be checked/deleted from User mode, but cannot be updated. If a user download the other firmware, the firmware downloaded with “UGW-linked Download” is overwritten.

### STEP 2: Update using Updater

The firmware downloaded on the device can be updated using Updater functions.

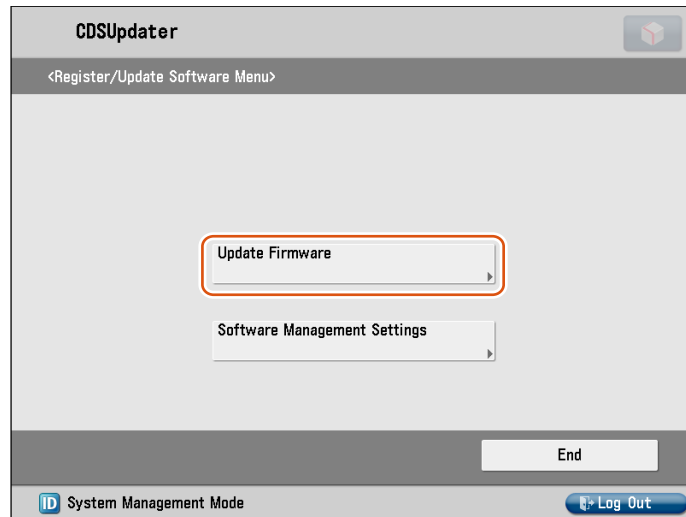
1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User mode)] button on the control panel.
  - 2). Press [2] and [8] buttons at a time on the control panel.
  - 3). Press [Setting/Registration (User mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.

2. Press [Updater] button.



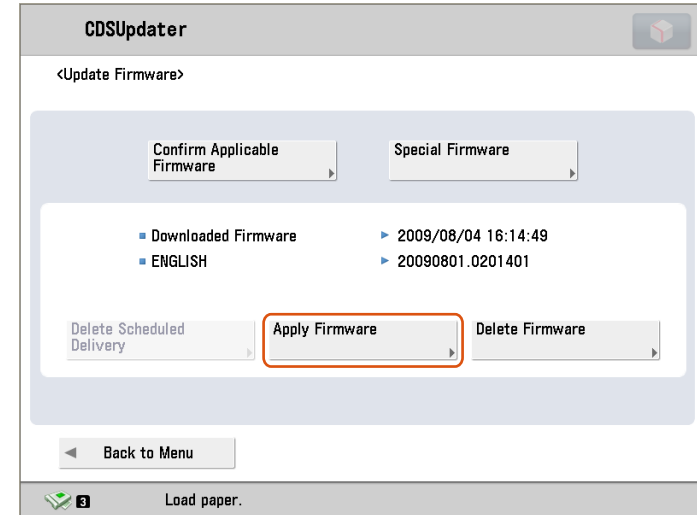
F-6-163

3. Press [Update Firmware] button.



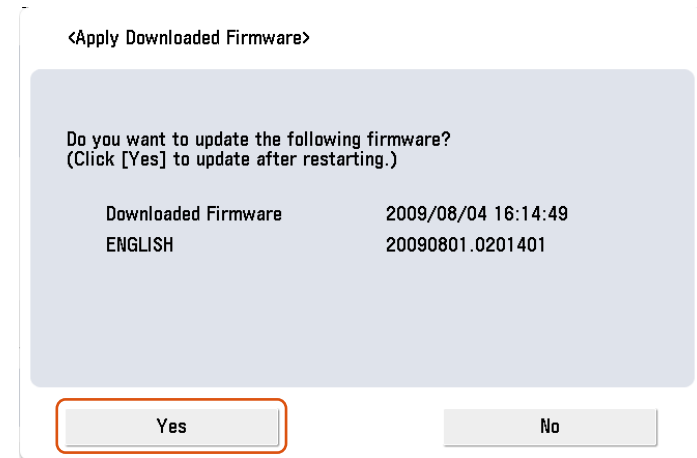
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4. Press [Apply Firmware] button.



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5. Confirm the downloaded firmware and press [Yes] button.



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6. The firmware is applied to the device. The device is automatically restarted when the firmware is successfully applied.
7. When the device is restarted, confirm the version of the firmware.
  - 1). Press [Check Counter Key] button on the control panel.
  - 2). Press [Check Device Configuration] button.
  - 3). Confirm if the updated firmware version corresponds to [Controller Version].

Now the firmware is successfully updated in the method of "Manual Download and Update".

**CAUTION:**

Firmware update will not be triggered when any of the following jobs remains in the queue.

- Print
- Scan
- Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

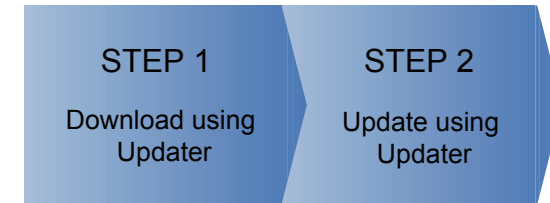
See the section of "Wait for EOJ (end of job) Function" under "Limitations and Cautions", "Updater" of Chapter 2 "Technology" of this manual for more detailed information.

**NOTE:**

To contacts registered for E-mail notification on UGW, the E-mail is sent from UGW upon completing firmware update.

## c. Manual Download and Update (On-site Update from Service Mode)

The figure below shows the operational flow of "Manual Download and Update".

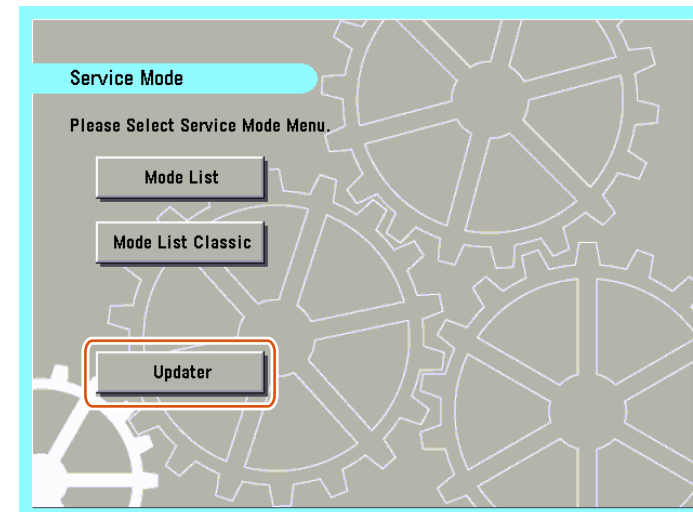


F-6-167

### STEP 1: Download using Updater

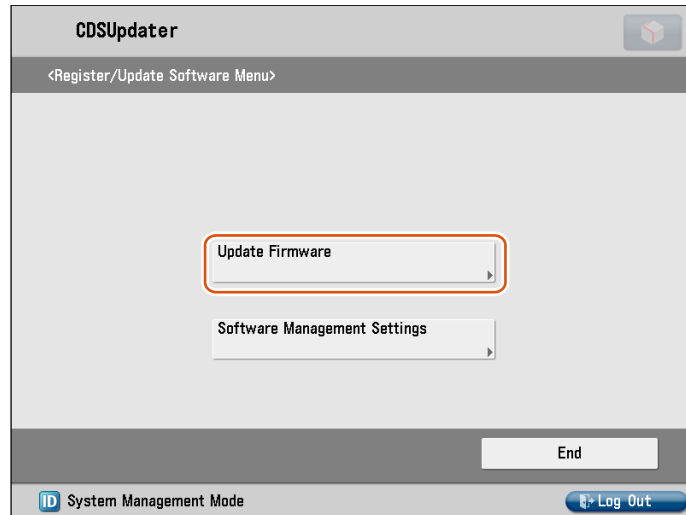
The firmware can be downloaded from CDS to the device using Updater.

1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User mode)] button on the control panel.
  - 2). Press [2] and [8] buttons at a time on the control panel.
  - 3). Press [Setting/Registration (User mode)] on the control panel.
  - 4). [Service Mode] screen is shown.
2. Press [Updater] button.



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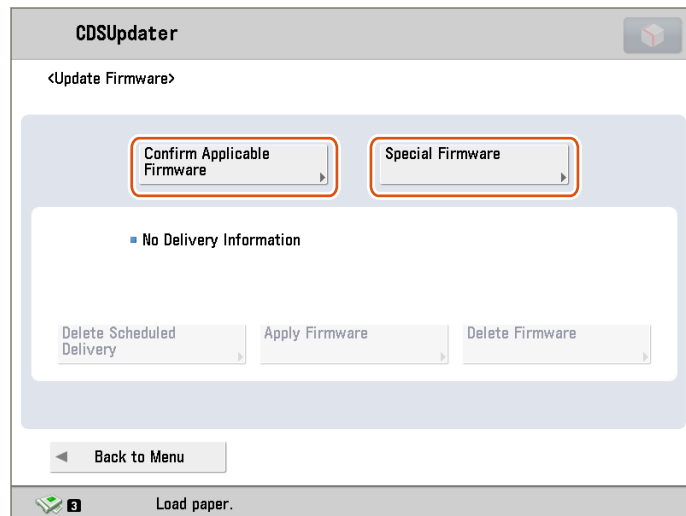
3. Press [Update Firmware] button.



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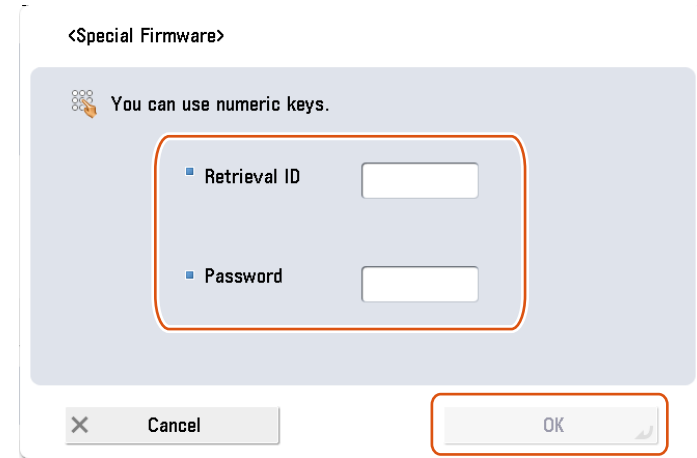
4. Confirm the firmware to be updated in either of the following 2 ways.

- To update to the official edition, press [Confirm Applicable Firmware] button and go to Step 6.
- To update to the individual response edition, press [Special Firmware] and go to Step 5.



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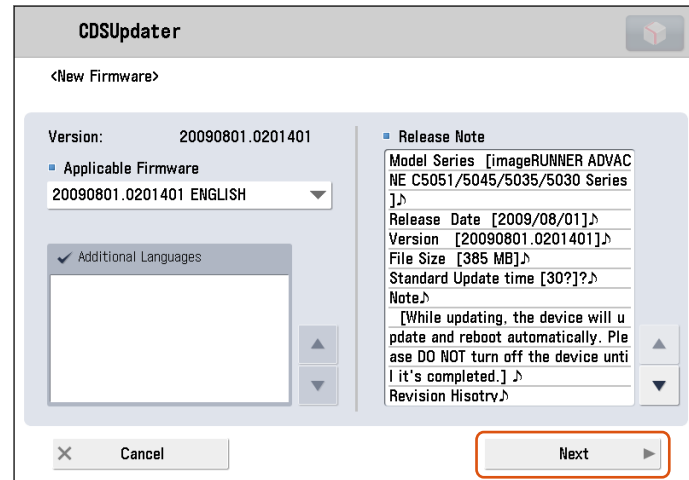
5. [Special Firmware] screen is shown as below. Enter the fields and press [OK] button.



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- [Retrieval ID]:  
Enter numeric up to 8 characters.
- [Password]:  
Enter numeric up to 8 characters.

6. [New Firmware] screen is shown as below. Check the contents and press [Next] button.



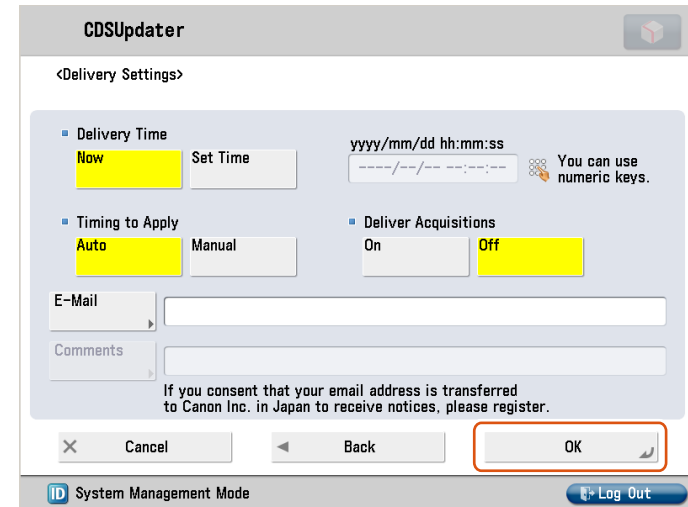
F-6-172

- [Version]:  
The current firmware version is shown.
- [Applicable Firmware]:  
Select the firmware applicable to the device from the dropdown list.
- [Additional Languages]:  
If there are any additional languages, they are displayed.  
More than 1 language can be selected, and it is possible to add another language when upgrading the firmware.  
Up to 8 languages can be added. The languages already registered in the device are always selected, and SST is used to delete an unnecessary language from the device. Include English and Japanese in eight languages.
- [Release Note]:  
If any release note is published, the contents are shown here.

**NOTE:**

To update to the individual response edition, the firmware corresponding to the ID and password that you input is displayed in [Applicable Firmware].

7. [Delivery Settings] screen is shown as below. Enter the fields and press [OK] button.



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- [Delivery Time]:  
Press either [Now] or [Set Time] button.
  - [Now]:  
The firmware is downloaded immediately after distribution schedule is set.
  - [Set Time]:  
Be sure to specify the date (within 30 days) and time. The firmware is downloaded on the specified date and time.  
Enter the date and time using the numeric keypad in the format of "yyyy/mm/dd hh:mm:ss"
- [Timing to Apply]:  
Press either [Auto] or [Manual] button.
  - [Auto]:  
The firmware is applied automatically upon firmware downloaded.
  - [Manual]:  
The firmware is automatically downloaded. Go to [Apply Firmware] to set up for updating the downloaded firmware.
- [Updated Module Only]:  
Press either [On] or [Off] button.
  - [On]:  
Only difference between the current and new firmware is downloaded.
  - [Off]:  
The firmware to be applied is wholly downloaded.

- [E-mail]:  
E-mails concerning update statuses are sent from the device to the contact registered here.  
Enter the E-mail address of the service technician in charge.  
Enter 1-byte alphanumeric or symbols up to 64 characters.
- [Comments]:  
Enter the comment in 1-byte alphanumeric or symbols up to 128 characters.  
Enter the comment to be automatically included in E-mail. Model Name in the comment will be helpful to identify the device relevant to the E-mail.

**NOTE:**

[Timing to Apply]

- For firmware versions with no remote update permission, [Auto] cannot be selected in [Timing to Apply]

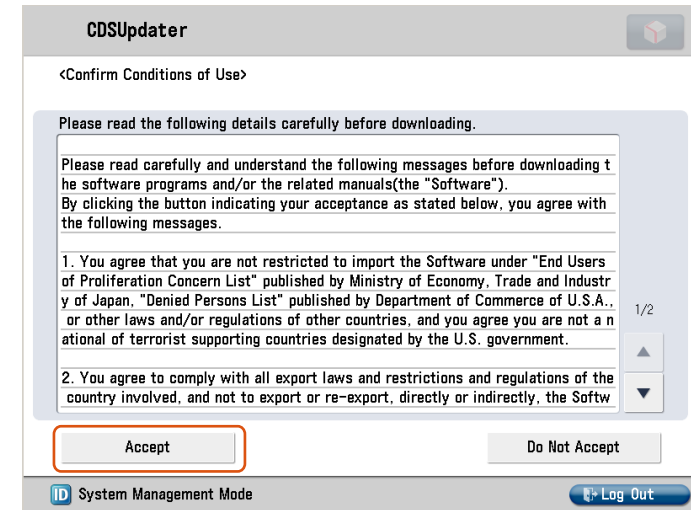
[Updated Module Only]

- For firmware versions with difference-only delivery disabled, only [OFF] can be selected in [Updated Module Only].

[E-mail]

- To send E-mails to multiple destinations, each E-mail address should be delimited with comma (,) or semi-colon (;).
- For E-mail addresses entered in this field, a notification E-mail is sent at the following timing.
  - Distribution Set
  - Distribution Started
  - Distribution Finished
  - Update Started
  - Update Finished
  - Error Occurred

8. Confirm Export Criteria screen is shown as below. Check the contents and press [Accept] button.



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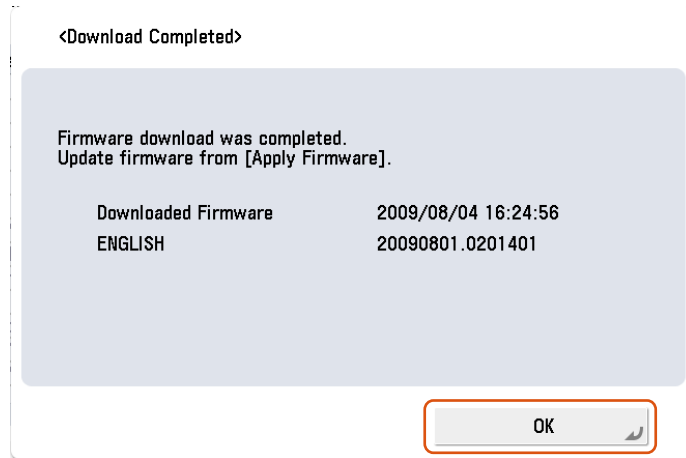
9. One of the screens below is shown according to the setting.
  - When Distribution Time and Timing to Apply of Distribution Setting are set to [Now] and [Auto], respectively:  
Firmware is downloaded and updated automatically to the device. The device is automatically restarted upon update completed. Now STEP 1 is successfully completed.



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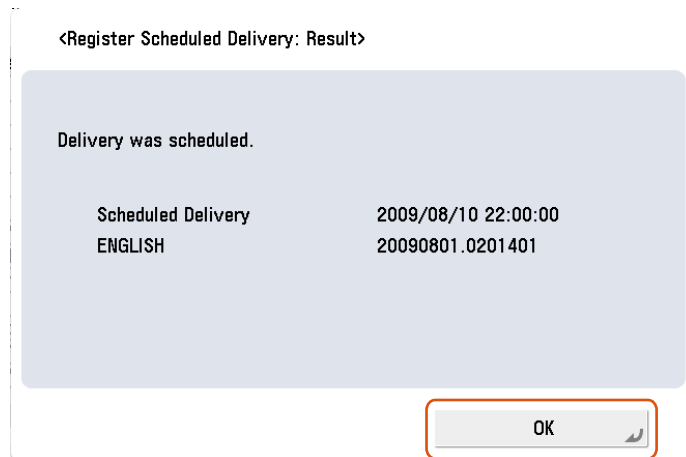


- When Distribution Time and Timing to Apply of Distribution Setting are set to [Now] and [Manual], respectively:  
Confirm the firmware and press [OK] button. Now STEP 1 is successfully completed.



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- When Distribution Time is set to [Set Time] in Distribution Setting:  
Confirm the distribution schedule and press [OK] button. Now STEP 1 is successfully completed.



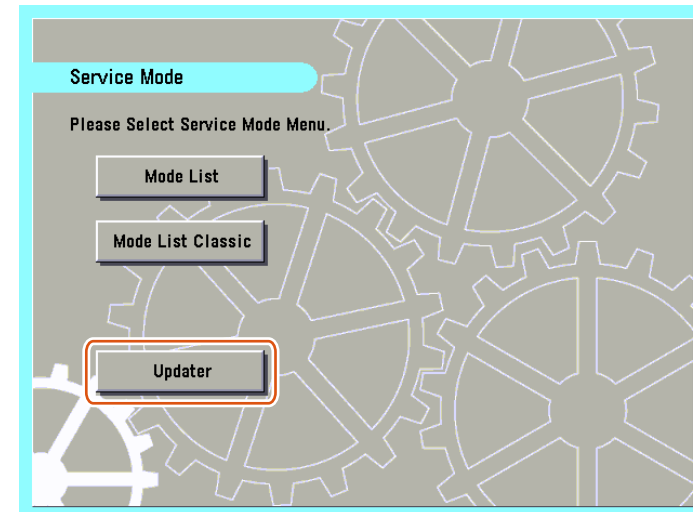
F-6-177

## STEP 2: Update using Updater

The firmware downloaded to the device can be updated using Updater functions.

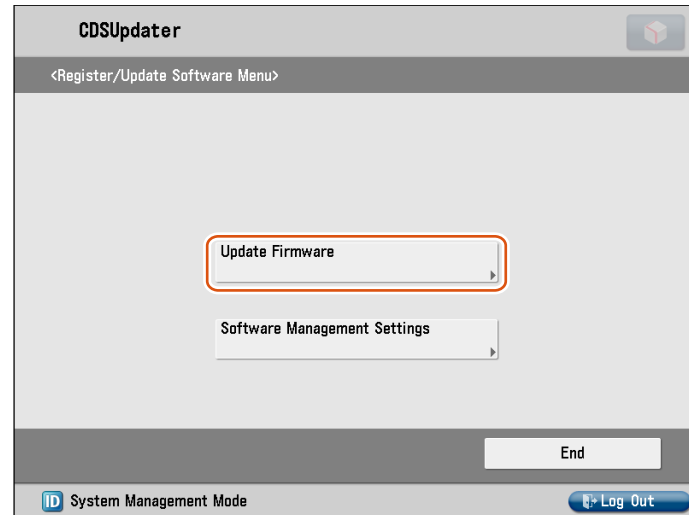
When Timing to Apply is set to [Auto] in Distribution Setting in STEP 1, the firmware is updated automatically. Only when Timing to Apply is set to [Manual], follow the steps below to update the firmware.

- Start [Service Mode] at Level 1.
  - Press [Setting/Registration (User mode)] button on the control panel.
  - Press [2] and [8] buttons at a time on the control panel.
  - Press [Setting/Registration (User mode)] button on the control panel.
  - [Service Mode] screen is shown.
- Press [Updater] button.



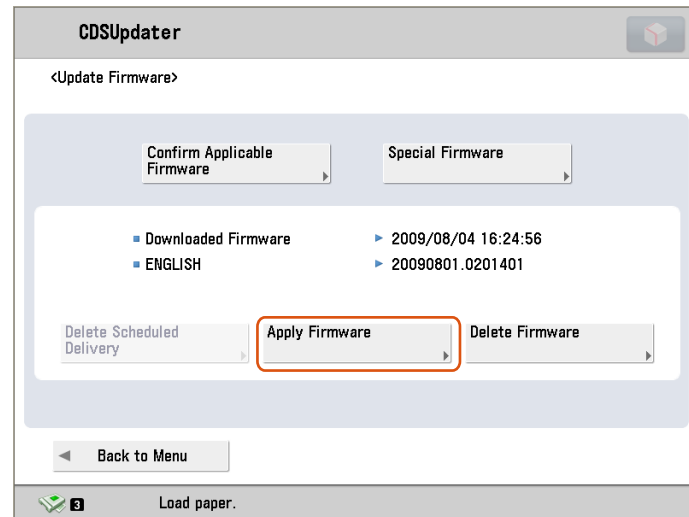
F-6-178

3. Press [Update Firmware] button.



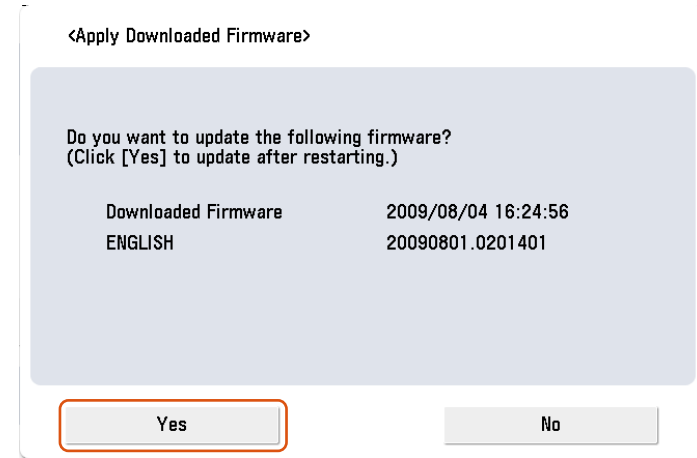
F-6-179

4. Press [Apply Firmware] button.



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5. Confirm the downloaded firmware and press [Yes] button.



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6. The firmware is applied to the device. The device is automatically restarted when the firmware is successfully applied.

7. When the device is restarted, confirm the version of the firmware.

- 1). Press [Check Counter Key] button on the control panel.
- 2). Press [Check Device Configuration] button.
- 3). Confirm if the updated firmware version corresponds to [Controller Version].

Now the firmware is successfully updated in the method of "Manual Download and Update".

#### CAUTION:

Firmware update will not be triggered when any of the following jobs remains in the queue.

- Print
- Scan
- Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

See the section of "Wait for EOJ (end of job) Function" under "Limitations and Cautions", "Updater" of Chapter 2 "Technical Information" of this manual for more detailed information.

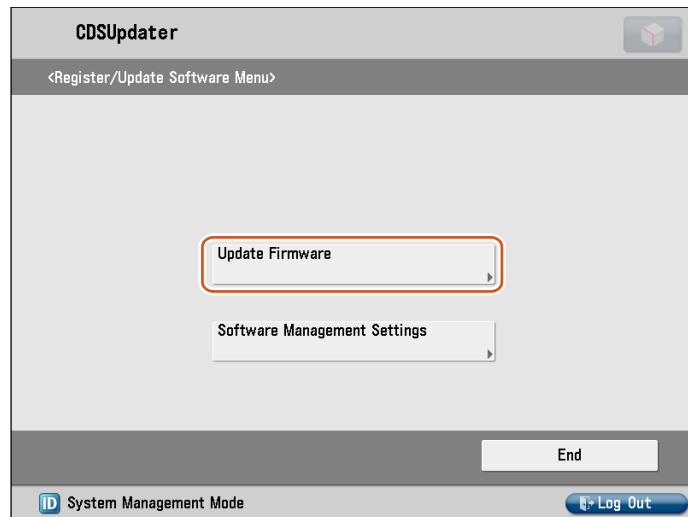
## Deleting Firmware Distribution Schedule

This section describes how to delete firmware distribution schedule set by Updater.

1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User Mode)] button on the control panel.
  - 2). Press [2] and [8] button at a time on the control panel.
  - 3). Press [Setting/Registration (User Mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.

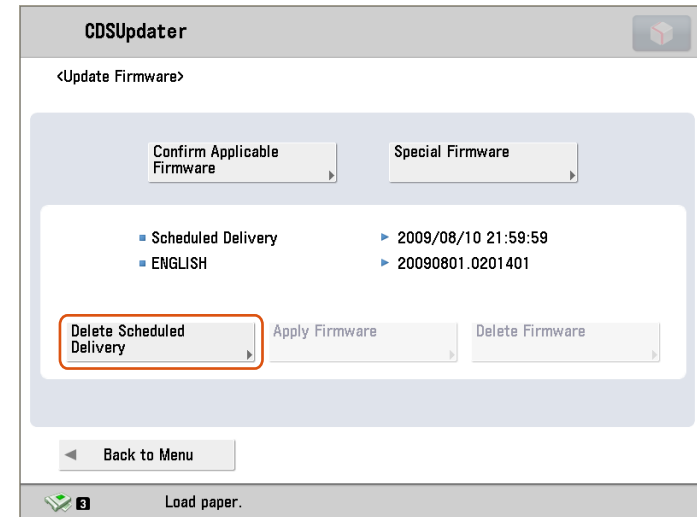
2. Press [Updater] button.

3. Press [Update Firmware] button.



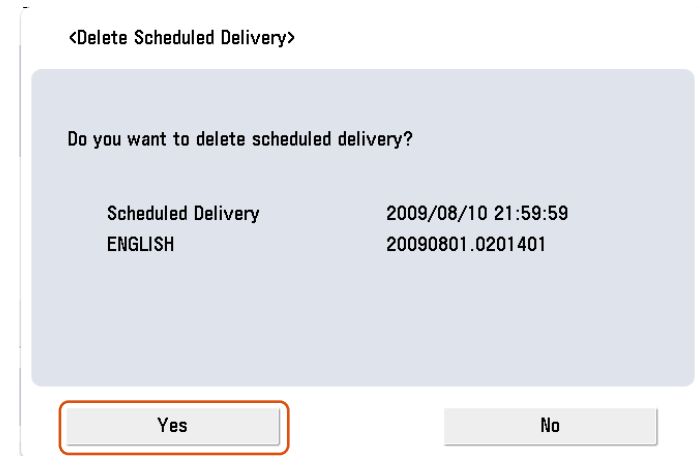
F-6-182

4. Press [Delete Scheduled Delivery] button.



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5. Confirm the contents of the distribution schedule and press [Yes] button.



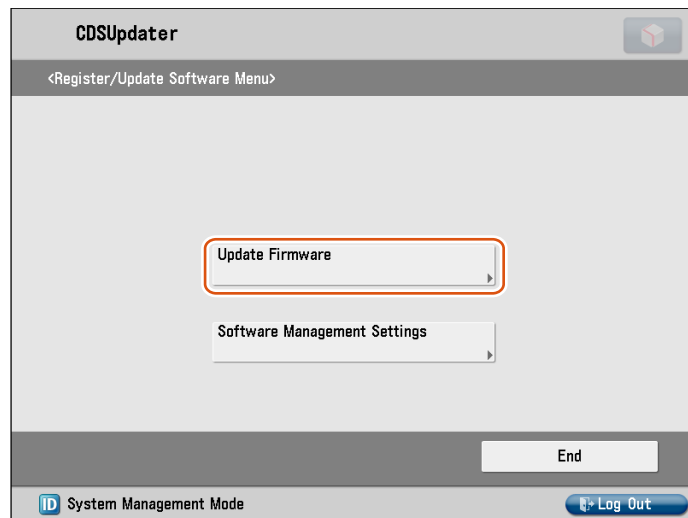
F-6-184

6. Confirm the result of deletion shown on the screen and press [OK] button. Now the firmware distribution schedule is successfully deleted.

## Updating Downloaded Firmware (Applying Firmware)

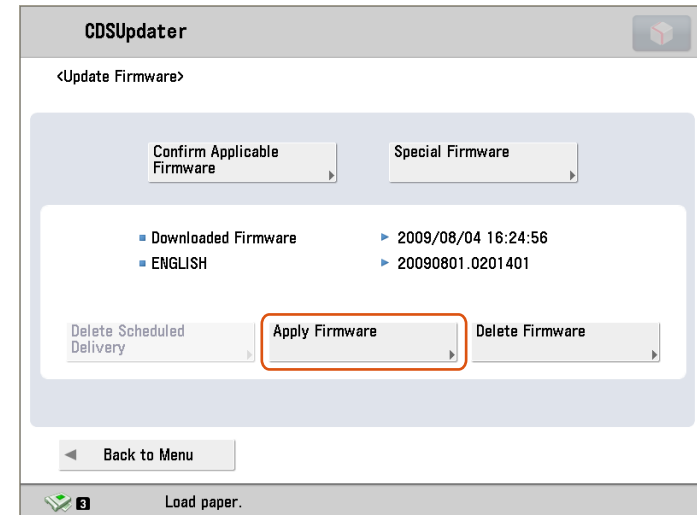
This section describes how to update the downloaded firmware.

1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User mode)] button on the control panel.
  - 2). Press [2] and [8] buttons at a time on the control panel.
  - 3). Press [Setting/Registration (User mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.
2. Press [Updater] button.
3. Press [Update Firmware] button.



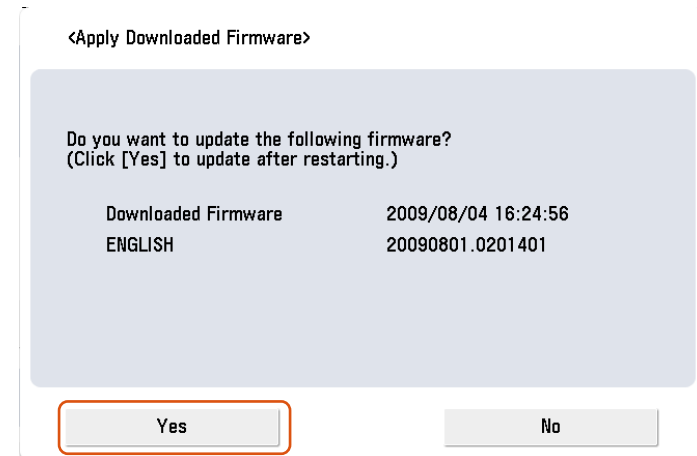
F-6-185

4. Press [Apply Firmware] button.



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5. Confirm the downloaded firmware and press [Yes] button.



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6. The firmware is applied to the device. The device is automatically restarted when the firmware is successfully applied.

7. When the device is restarted, confirm the version of the firmware.

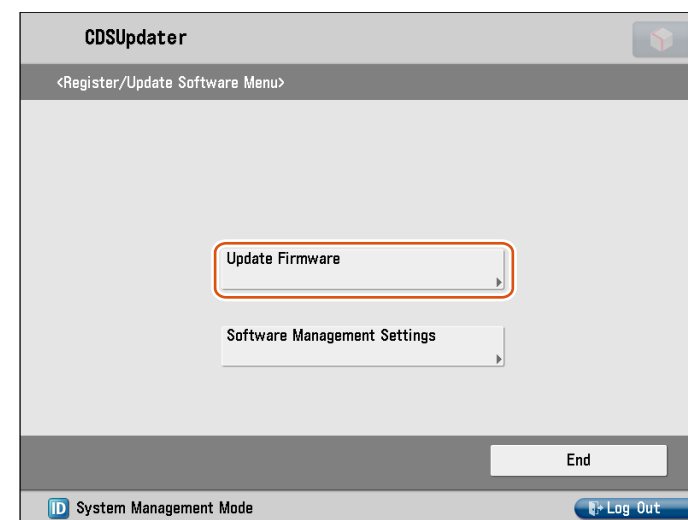
- 1). Press [Check Counter Key] button on the control panel.
- 2). Press [Check Device Configuration] button.
- 3). Confirm if the updated firmware version corresponds to [Controller Version].

Now the firmware is successfully updated in the method.

## Deleting Downloaded Firmware

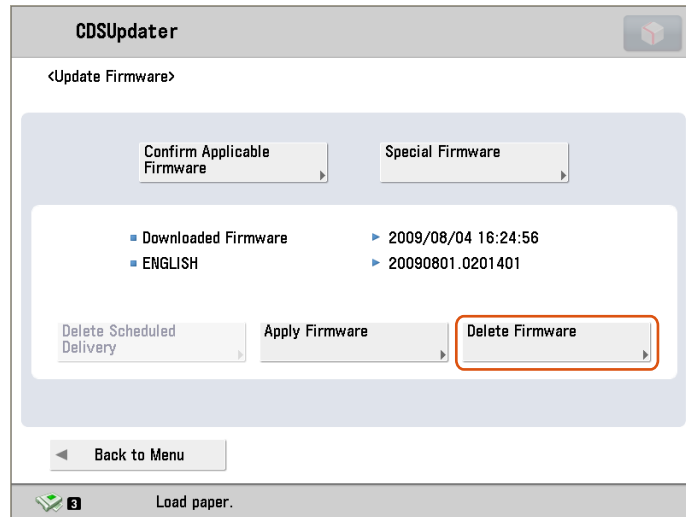
This section describes how to delete the downloaded firmware using Updater.

1. Start [Service Mode] at Level 1.
  - 1). Press [Setting/Registration (User Mode)] button on the control panel.
  - 2). Press [2] and [8] button at a time on the control panel.
  - 3). Press [Setting/Registration (User Mode)] button on the control panel.
  - 4). [Service Mode] screen is shown.
2. Press [Updater] button.
3. Press [Update Firmware] button.



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4. Press [Delete Firmware] button.



F-6-189

5. Confirm the downloaded firmware to be deleted and press [Yes] button.



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6. Confirm the result of deletion and press [OK] button. Now the downloaded firmware is successfully deleted.

## Troubleshooting on Firmware Installation

### No.1

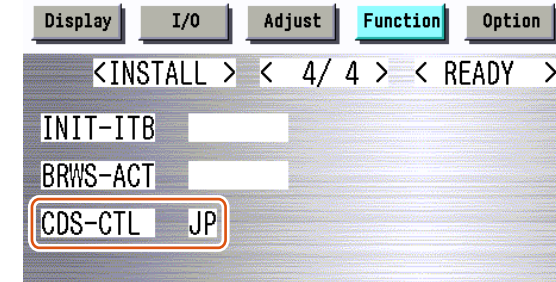
Symptom: I can't find the firmware to be updated using Updater.

Cause: Preparation has not been properly done.

Action: Confirm the setting of Sales Company's HQ bellow.

Setting of Device [SERVICE MODE] (Level1)

COPIER > FUNCTION > INSTALL > CDS-CTL



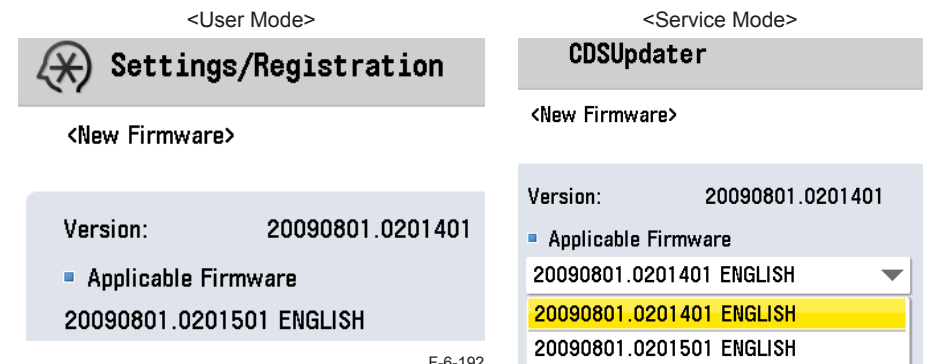
F-6-191

Cause: The version currently in use is not available for update.

Action: Download the release note from CDS separately to upgrade to the version available for update.

Cause: You try to download firmware from User mode. You can download only the latest version of firmware from User mode.

Action: Download from Service mode.



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## No.2

**Symptom:** Firmware download is aborted during operation using Updater functions.

**Cause:** The network cable is disconnected or the power went off due to blackout and the like.

**Action:** Retry download. Firmware under download is cancelled upon aborted.

## No.3

**Symptom:** Firmware update is aborted during operation using Updater functions and the device cannot be started.

**Cause:** The power went off due to blackout and the like.

**Action:** Service technicians should follow the steps below via SST.

1. Press [2] and [8] buttons at a time to start the device.

1) Turn on the power and hold down [2] and [8] buttons at a time on the control panel.

2) [Download Mode] is shown on Local UI.

If the operation above does not trigger the download mode, BOOT (Flash Memory, service parts) should be replaced (takes up to 1 minute for rewriting).

If the operation above successfully triggers the download mode, go to the next steps below.

2. Via SST, format the HDD of BOOT Dev only.

3. Via SST, install the firmware in the device.

## No.4

**Symptom:** Firmware has not been downloaded according to the distribution schedule.

**Cause:** Other firmware distribution schedule is set. Since only 1 distribution schedule is held, the registered schedule may be overridden by the new firmware distribution schedule.

**Action:** Once the schedule is overridden, the firmware cannot be downloaded. Distribution should be rescheduled for the firmware.

**Cause:** At the scheduled distribution date and time, the firmware registered was not found on CDS.

**Action:** Distribution should be rescheduled for the firmware.

**Cause:** After distribution is scheduled, device is updated to other version of firmware via SST. (Status of the firmware in the device is changed.)

**Action:** Distribution should be rescheduled for the firmware.

**Cause:** The power of the device was off at scheduled date and time.

**Action:** Distribution should be rescheduled for the firmware.

## No.5

**Symptom:** The firmware presumed to be downloaded to the device cannot be found.

**Cause:** Since only 1 firmware can be held on the device, the firmware previously downloaded was overridden by the newly downloaded one.

**Action:** Retry the firmware download.

## Information required for Reports

### Information required for Service Technicians to Obtain on Site

- Update Logs
- System Logs (Log Level: 4)

### Information to Report

- Symptom occurred
- Location of the device
- Date and Time that symptom occurred
- Steps taken for reproduction
- Firmware / Application you tried to install
- Occurrence frequency
- Model dependency (if the same symptom occurred in other models)
- Dependency on firmware/MEAP application/system option
- Conditions of symptom occurrence
  - Model
  - Firmware version installed on the device
  - List of MEAP applications installed on the device
  - Network setting information of the device
  - Service mode setting information

Setting of device service mode (Level 1)	COPIER > FUNCTION > INSTALL > CDS-CTL
	COPIER > OPTION > FNC-SW > CDS-UGW
	COPIER > OPTION > FNC-SW > CDS-FIRM
	COPIER > OPTION > FNC-SW > CDS-MEAP
	COPIER > OPTION > FNC-SW > LOCLFIRM

\* As many as the items listed above should be obtained on site. More information provided will be helpful for investigation.

## Debug Logs

### Obtaining Log Files

Updater log files can be obtained by copy & paste from remote UI. This procedure is shown below.

1. Check that the “CDS-MEAP” or “CDS-FIRM” is enabled in the service mode. If they are not enabled, change the value to “1” and then restart the device.

Service mode (Level1) > Mode List

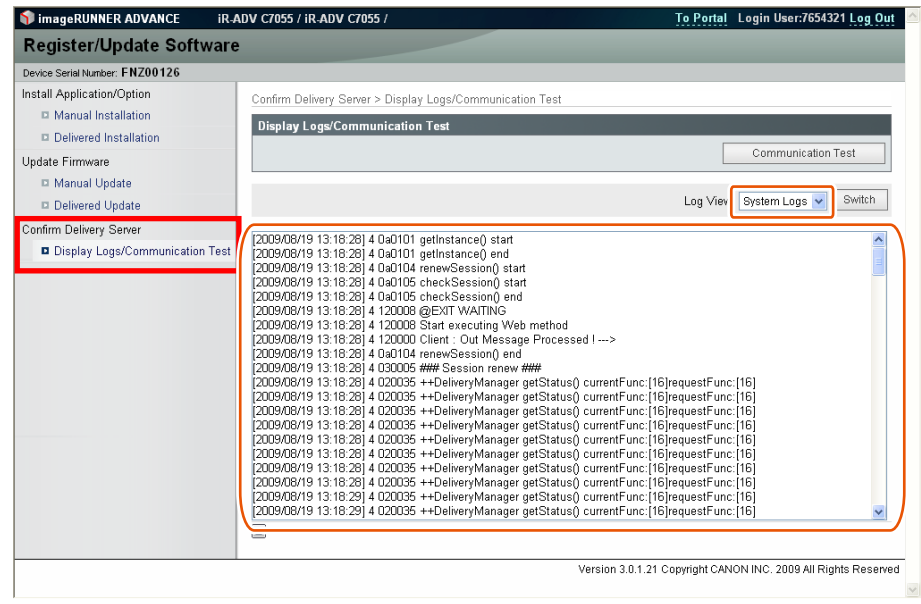
- COPIER > OPTION > FNC-SW > CDS-MEAP: 1
- COPIER > OPTION > FNC-SW > CDS-FIRM: 1

2. Log in the remote UI (URL: <http://<device's IP address or host name>>) using the system administrator right.



3. From "Display Logs/Communication Test" screen, obtain System Logs (log level 4) and Update Logs by copy & paste.

Top page (Remote UI) > [Settings/Registration] > [Management Settings] > [License/Others] > [Register/Update Software] > "Display Logs/Communication Test"



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**NOTE:**

- See "Setting Log Level" in chapter 3 for details of changing Log Level

4. If the value of CDS-MEAP or CDS-FIRM was changed in the service mode, return to the original value and then restart the device to enable this setting.

Obtaining the log files is completed.

## Error Messages

Error messages displayed in LUI on a device are shown below. As to error codes, see the next list.

No.	Messages	Timing of display	Cause	Remedy
1	An error occurred with the delivery server. Contact your sales representative. Error Code: [xxx]	In communicating with the delivery server.	System error occurred in server.	Obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
2	Delivery server is stopped. Wait a while and then try to perform the operation again. Check the following URL for details. <Stopped Delivery Server URL>	In communicating with the delivery server.	Delivery server stopped.	Check the delivery server stop information. After the delivery server starts, perform the operation from this application. When the delivery server stop information is not available, contact the sales company's Support Department.
3	Failed to connect to delivery server. Check the delivery server and network.	In communicating with the delivery server.	Communication error due to incorrect settings of CDS URL. Excluding delivery server stop, communication error to the delivery server occurred.	Set correct CDS URL in the Updater settings. Check if the network environment is correct to solve the cause of the error occurrence. If the network environment of the device is correct, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
4	Download was stopped because an error occurred with the file server. Check the network.	At the time of file download	Communication error to the delivery server occurred.	Check if the network environment is correct to solve the cause of the error occurrence. If the network environment of the device is correct, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
5	Downloaded files are invalid. Check the network.	At the time of file download	The received file is broken.	After checking the network environment of the device, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
6	Failed to retrieve information of special firmware. Check the retrieval ID and password.	Acquisition of applicable firmware information	No information exists about firmware for special firmware retrieval ID or Password is invalid.	Enter the correct firmware ID or Password applicable to the firmware information. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
7	Scheduled delivery information of firmware does not exist. Check it because it may already have been deleted.	Acquisition of applicable firmware information	Delivery information with specified delivery ID does not exist.	Register the delivery schedule again. If this occurs at the time of canceling file download, deleting downloaded firmware or deleting scheduled delivery, no remedy is required.
8	Failed to apply firmware.	Firmware application error	Error due to the application (NLM)	Obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
9	Delivery Server : Connect Failed File Server : Retrieve Failed Error Code: [xxxx]	Communication test, etc. (communication test result dialogue)	In the communication test, failed to connect to the delivery server.	Check the network environment of the device, and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			In SOAP communication, failed to success after 1 min retry.	Set proxy and restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			ID and Password required for proxy to connect to the internet are not configured in device.	Set the user environment to make the access to the following domain available. <a href="https://device.cdsknn.net/">https://device.cdsknn.net/</a> <a href="http://cdsknn.net.edgesuite.net/">http://cdsknn.net.edgesuite.net/</a> If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			The access to the network is limited.	Set the user environment to make the access to the following domain available. <a href="https://device.cdsknn.net/">https://device.cdsknn.net/</a> <a href="http://cdsknn.net.edgesuite.net/">http://cdsknn.net.edgesuite.net/</a> If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			Delivery server stopped.	Contact Field Support Group in the sale company. After confirmation that the delivery server has been restored, restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company again.
10	Delivery Server : Connect OK File Server : Retrieve Failed Error Code: [xxxx]	Delivery Server : Connect OK File Server : Retrieve Failed Error Code: [XXXX]	Due to no return of data for the communication test, time-out (in HTTP communication, no response for 1min) occurred. After that, retried but failed to connect to server.	Check the network environment of the device and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			The network cable was disconnected during data download in the communication test.	Reconnect the network cable and then restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			The file server stopped during data download in the communication test.	Contact the sales company's Support Department. After confirmation that the delivery server has been restored, restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company again.
			Hash value in the communication test file is incorrect.	Check the network environment and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
11	An error occurred. Error Code: [xxx]	communication test, etc. (main screen)	The max value (space/file) was exceeded and new log was not accepted. Normally an old log file is deleted before the max value (space/file) is exceeded, but error may occur due to other element (e.g. I/O error).	Check if the log file exceeded the max value. <Update log> Max space: 128KB/file Max file number: 4  <System log> Max space: 512KB/file Max file number: 4  If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			Notice of version information (main screen)	Failed to acquire version information of device due to no CDS registration of firmware version of device.
		At the time of notifying version information, failed to connect to the delivery server.	Check if the network environment is correct to solve the cause of the error occurrence. If the network environment of the device is correct, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.	
		No return of notifying version information	Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.	
		Network cable was disconnected during notice of version information.	Re-connect the network cable and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.	
		Failed to send notice of version information since the main power was turned OFF and then ON during the sending.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.	
		Server stopped at the time of sending notice of version information.	Check the network environment of the device and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.	
		An internal error occurred at the time of sending notice of version information.	Obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.	

No.	Messages	Timing of display	Cause	Remedy
11	An error occurred. Error Code: [xxx]	UGW linkage (main screen)	UGW linkage was turned ON when eRDS was OFF.	For a device using eRDS, turn ON the eRDS. For a device not using eRDS, turn OFF the UGW linkage. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			An internal error occurred at the time of acquiring delivery information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
		On-site (error dialogue)	An internal error occurred at the time of acquiring applicable firmware information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			An internal error occurred at the time of sending approval information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			An internal error occurred at the time of delivery order	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
		Immediate download (error dialogue)	An internal error occurred at the time of requesting firmware delivery information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			During the download, all space in the storage disk was occupied. (DiskFull)	After adding vacant space of the storage disk, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			At the end of receipt, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
		Manual update (error dialogue)	At the update start, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
		Automatic update (error dialogue)	At the update start, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
		Deletion of downloaded firmware	At the time of notifying cancellation, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.

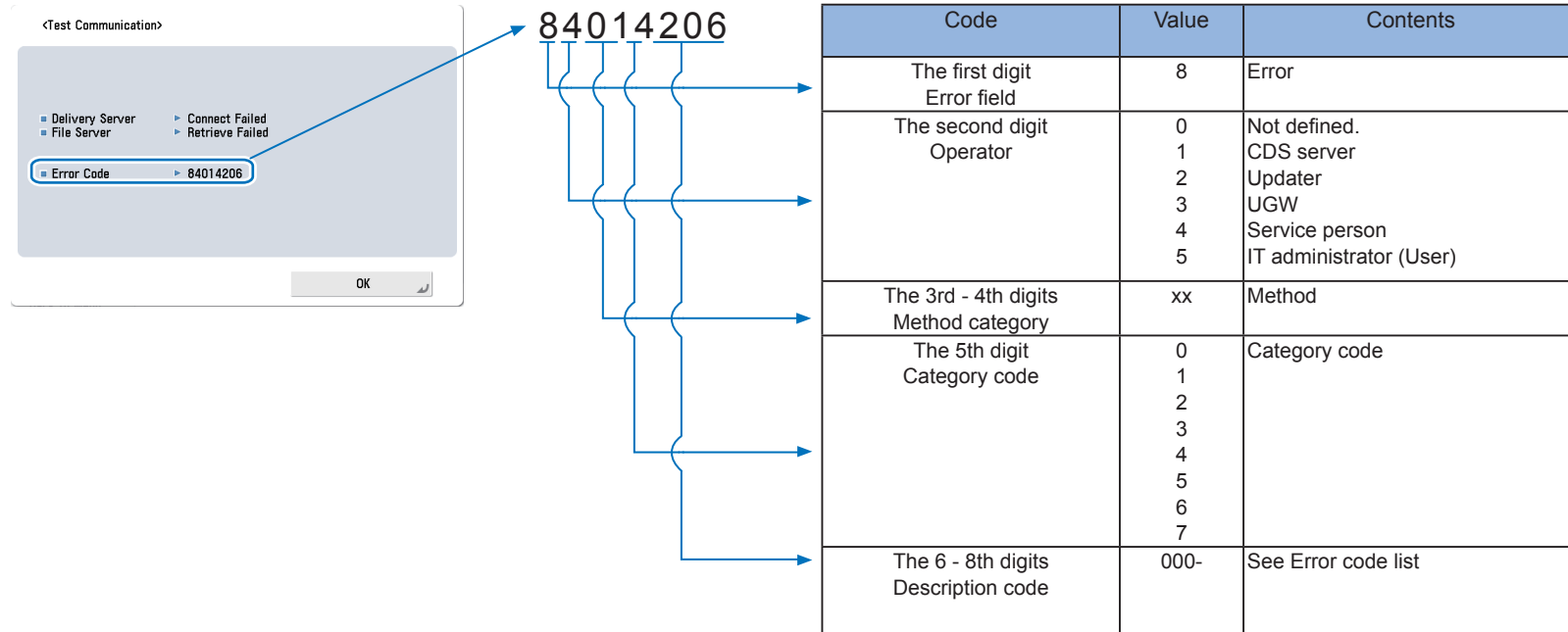
No.	Messages	Timing of display	Cause	Remedy
12	An error occurred. Check the Update Firmware screen.	UGW linkage (main screen)	eRDS sent an order but Updater failed to connect to server.	Conduct a communication test to analyze the cause of the error. After solving the cause, resend the order from the eRDS. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			Delivery server stopped.	Contact the sales company's Support Department. After confirming restoration of the delivery server, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			Scheduled date and time acquired from the delivery server was before current time (15 or more min had passed.)	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			Scheduled data and time acquired from the delivery server did not exist.	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
		Immediate download (main screen)	At the time of immediate download, turned OFF and then ON the power of device main body.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
		Manual update (main screen) Automatic update (main screen)	Updated version was different from the ordered version.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			After the update, failed to connect to the delivery server.	Check the network environment and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			After the update, delivery server stopped.	Contact the sales company's Support Department. After confirming restoration of the delivery server, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			After the update, the network cable was disconnected.	Re-connect the network cable and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			After the update, server returned an error.	Obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			After the update, an internal error occurred.	If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
13	Delivery Error Error Code: [xxx]	UGW linkage (Update Firmware screen)	eRDS sent an order but Updater failed to connect to the server.	Conduct a communication test to analyze the cause of the error. After solving the cause, resend the order from the eRDS. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			The delivery server stopped.	Contact the sales company's Support Department. After confirming restoration of the delivery server, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			The scheduled data and time acquired from delivery server does not exist.	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
14	Delivery Error Delivery Time Delivery Firmware Label Delivery Firmware version Error Code: [ xxx ]	UGW linkage (Update Firmware screen)  Immediate download (Update Firmware screen)	The scheduled date and time acquired from delivery server was before current time (15 or more min had passed).	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			At the time of immediate download, turned OFF and then ON the power of device main body.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
15	Applicable firmware is not registered.	On-site (error dialogue)	At the user site, no latest firmware exists.	This means the current firmware is the latest, so this error has no impact. But when the latest firmware to be retrieved must exist e.g. released new firmware information has been notified, contact Field Support Group in the sales company.
			No applicable firmware exists on CDS, so the service person can't select any applicable firmware.	Contact the sales company's Support Department.
16	Restart failed. Turn the main power OFF and ON.	Manual update (error dialogue)	An error occurred at the time of the device restart.	After turning OFF and then ON the main power of the device, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
		Automatic update (error dialogue)	An error occurred at the time of the device restart.	After turning OFF and then ON the main power of the device, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
17	Specify [E-Mail Address] with up to 64 characters.	At the time of periodical update setting	The specified E-mail address exceeded 64 characters.	Specify E-mail address within 64 characters.
18	The following characters cannot be used for the [E-Mail Address]: .;"()[]<>\	At the time of periodical update setting		
19	Specify [Comments] with up to 128 characters.	At the time of periodical update setting	Comments exceeded 128 characters.	Specify comments within 128 characters.
20	The [Delivery Server URL] is incorrect.	In setting with the deliver server URL.	The specified deliver server URL is wrong.	Enter the right URL( <a href="https://device.c-cdsknn.net/cds_soap/updaterif">https://device.c-cdsknn.net/cds_soap/updaterif</a> )

## Error Codes

Error Codes displayed on LUI in a device and how to read them.

### How to read an error code



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## Error Code

The error code list is shown below. Remedy are error codes of "-", and for all the error codes out of the list, contact Field Support Group in the sales company.

Error Code (hex number)					Description	Remedy	Cause of error				
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category	The 5th digit Category code	The 6 - 8th digits Description code			CDS delivery server	UP DATER	CDS file server	Network	
8					Error						
	0				Not defined.						
	1				CDS server						
		x	x		Relating method code						
				0	Not categorized						
				0	0	1	No value is set in a mandatory data entry item	-	✓	-	-
				0	0	2	In a string type of a data entry item, digit number and/or character type is/are set against the regulations	-	✓	-	-
				0	0	3	In an data entry item, the value is set against the regulations (E.g. the set value is other than "Operator: 4. Service person, 5. User")	-	✓	-	-
				0	0	4	No applicable delivery information exists	✓	-	-	-
				1			Operation				
				0	0	1	Inconsistency between the current firmware component in the data entry item and delivery information (E.g. the conditions for automatic update are not met. The settings of a mandatory additional set are invalid)	✓	✓	-	-
				0	0	2	In a notice of delivery-allowed information, an install-set was release to the market, but the market release was stopped during the delivery	✓	-	-	-
				0	0	3	No mail template file exists	✓	-	-	-
				0	0	4	The device serial number in the data entry item differs from that in delivery information	✓	-	-	-
				0	0	5	User is selected as Operator in the data entry items and the retrieval type is other than the latest	✓	-	-	-
				0	0	6	The retrieval type in the data entry item is special and registration ID and individual Password are not set (* Operator did not enter registration ID and individual Password)	✓	-	-	-
				0	0	7	The retrieval type in the data entry item is special and Operator is not Service person	✓	-	-	-
				0	0	8	As to the device serial number in the data entry items, there is no applicable device code product	✓	-	-	-
				0	0	9	The retrieval type in the data entry items is special and there are no basic-set applicable to the registration ID and Password (* When wrong registration ID or Password was entered by an operator)	✓	-	-	-
				0	0	A	The delivery status is Applying	✓	-	-	-
				0	0	B	No approval information exists about EULA or the export criteria when the delivery is determined	✓	-	-	-
				0	0	C	The delivery status is Distributing/Distributed/Applying/Finished/Failed	✓	-	-	-
				0	0	D	The delivery status is Distributing/Distributed/Applying/Finished/Failed	✓	-	-	-

Error Code (hex number)					Description	Remedy	Cause of error			
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category	The 5th digit Category code	The 6 - 8th digits Description code			CDS delivery server	UP DATER	CDS file server	Network
				0 0 E	The delivery status is New/Waiting to Distribute/Distributed/Applying/Finished/Failed		✓	-	-	-
				0 0 F	The delivery code is other than Distributing. (Firmware delivery)		✓	-	-	-
				0 0 0	The delivery status is New/Waiting to Distribute/Distributing/Applying/Finished/Failed		✓	-	-	-
				0 0 1	The delivery status is Distributing/Distributed/Applying/Finished/Failed		✓	-	-	-
				0 0 2	Device is "Not applicable to CDS" (Firmware delivery)		✓	-	-	-
			2	I/O						
				0 0 1	The specified license access number does not exist in LMS		✓	-	-	-
				0 0 2	The specified license access number has been deauthorized		✓	-	-	-
				0 0 3	The package product of the entered license access number doesn't include MEAP application/System Option		✓	-	-	-
				0 0 4	The sales company for the MEAP application isn't identical with the sale company for the package product		✓	-	-	-
				0 0 5	The number of licenses to be issued will exceed the limit number allowed to register		✓	-	-	-
				0 0 6	As for System Option for the same function, the license keys were issued more than the defined number of times for the same device serial number		✓	-	-	-
				0 0 7	No device product exists applicable to the optional product		✓	-	-	-
				0 0 8	No product exists applicable to the device serial number		✓	-	-	-
				0 0 9	The product of the entered license access number cannot be used with this device because the settings of the sales company are incorrect		✓	-	-	-
				0 0 A	No product linked to the license access number is registered in CDS for delivery		✓	-	-	-
				0 0 B	Although the product linked to the license access number is registered in CDS for delivery, the delivery is stopped now		✓	-	-	-
				0 0 C	No existence of optional product applicable to the device serial number.		✓	-	-	-
				0 0 D	The license access number has been registered for another device		✓	-	-	-
				0 0 E	For the device product applicable to the device serial number, no available software (MEAP application, System Option) exists		✓	-	-	-
				0 1 0	LMS system error		✓	-	-	-
	2~5									
		x	x		Relating method code					
				0	Not cartelized					
				0 0 0	Not defined					Normally not indicated
				1 0 0	Unknown error					Normally not indicated
			1		Operation					
				0 0 1	Processing exclusively					Start the operation again after terminating other Updater operations being executed simultaneously
				1 0 1	Failed to process preparation for use					

Error Code (hex number)					Description	Remedy	Cause of error					
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category	The 5th digit Category code	The 6 - 8th digits Description code			CDS delivery server	UP DATER	CDS file server	Network		
				1 0 2	Failed to process use end	-	-	✓	-	-		
				1 0 3	Time out during restart of readiness preparation	-	-	✓	-	-		
				1 0 4	Session time-out excluding after application inquiry (after issuing delivery ID)	Start the operation again from the beginning	-	✓	-	-		
				1 0 5	CDS URL is not set	Set CDS URL	-	✓	-	-		
				1 0 6	There is another job	Start the operation again after terminating the job of the device	-	✓	-	-		
			2	I/O								
				1 x x	An internal error about file operation	-	-	✓	-	-		
				2 x x	An internal error about xML file operation	-	-	✓	-	-		
				3 0 1	Failed to output the license file	-	-	✓	-	-		
			3	Device								
				1 x x	An internal error in CPCA	-	-	✓	-	-		
				2 x x	An internal error in IMI	-	-	✓	-	-		
				3 x x	An internal error in SMS	-	-	✓	-	-		
				4 x x	An internal error in NLM	-	-	✓	-	-		
			4	SOAP communication								
				1 0 1	The processing thread stopped	-	-	✓	-	-		
				1 0 2	Processing SOAP communication now	-	-	✓	-	-		
				1 0 3	The function type is not matched	-	-	✓	-	-		
				1 0 4	An invalid SOAP response error	-	✓	-	-	-		
				2 0 1	An internal error about application information	-	-	✓	-	-		
				2 0 2	config.xml is NOT FOUND	-	-	✓	-	-		
				2 0 3	type.xml is NOT FOUND	-	-	✓	-	-		
				2 0 4	An error in binding type.xml	-	-	✓	-	-		
				2 0 5	An error in creating a service tab	-	-	✓	-	-		
				2 0 6	A runtime error in performing the web method	-	-	✓	-	✓		
				2 0 7	An unknown host error in performing the web method	<ul style="list-style-type: none"> <li>Check the network environment of the device and start the operation again</li> <li>Check if the URL settings of the CDS server are correct, and start the operation again after resetting</li> </ul>	✓	✓	-	✓		
				3 0 1	The delivery server is stopped	-	✓	-	-	-		
				3 0 2	An error occurrence in the delivery server	-	✓	✓	-	-		
			5	HTTP communication								
				1 0 1	Specified Hash Algorithm is unknown	-	-	✓	-	-		
				2 0 1	Invalid HTTP request	-	-	✓	✓	✓		
				2 0 2	Failed to connect to the server	Check the network environment of the device and start the operation again	-	✓	✓	✓		
				2 0 3	Failed to find the server	Check the network environment of the device and start the operation again	-	✓	✓	✓		
				2 0 4	An input/output error occurred during the connecting process to the server	-	-	✓	✓	✓		
				2 0 5	Failed to read a HTTP response	-	-	✓	✓	✓		
				2 0 6	Error in a HTTP response	-	-	✓	✓	✓		
				3 0 1	Failed to retrieve the data stream	-	-	✓	-	✓		
				3 0 2	Failed to create the file object for receipt	-	-	✓	-	✓		
				3 0 3	Failed to create the data stream of the file for receipt	-	-	✓	-	✓		
				3 0 4	Failed to receive the data	Check the network environment of the device and start the operation again	-	✓	✓	✓		

Error Code (hex number)						Description	Remedy	Cause of error					
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category	The 5th digit Category code	The 6 - 8th digits Description code	CDS delivery server			UP DATER	CDS file server	Network			
				3	0	5	An error about reserving the file data for receipt	-	-	-	-	-	
				3	0	6	Failed to close the data stream	-	-	-	-	-	
				3	0	7	Failed to close the file data for receipt	-	-	-	-	-	
				3	0	8	Invalid hash code of the download file	Check the network environment of the device and start the operation again	✓	✓	✓	✓	
				3	0	9	The proxy authorization method is not applicable	Check the proxy authentication method used, and start the operation again after changing the settings to use the corresponding proxy authentication	-	✓	-	✓	
				6	Socket communication								
				1	0	1	Failed to connect the eRDS	-	-	✓	-	✓	
				1	0	2	No response from eRDS	-	-	✓	-	✓	
				1	0	3	No notice of start from the eRDS	-	-	✓	-	✓	
				1	0	4	Error of socket reading	-	-	✓	-	✓	
				1	0	5	Socket communication time-out	-	-	✓	-	✓	
				7	Other internal codes								
				0	0	2	One of installation, start or authorization failed (When installation or authorization failed, it is regarded as an error) *	-	-	✓	-	-	
				0	3	x	An internal error in processing the installation	-	-	✓	-	-	
				1	x	x	An error by using invalid API	-	-	✓	-	-	
				2	x	x	An internal error in SMS	-	-	✓	-	-	
				3	0	1	No existence of delivery ID	-	-	✓	-	-	
				3	0	2	Invalid delivery ID	-	-	✓	-	-	
				3	0	3	The updated firmware information is not identical with the firmware information after activation of the Updater	-	-	✓	-	-	
				3	0	4	The process of firmware download is incomplete	-	-	✓	-	-	
				3	0	5	The update process is incomplete	-	-	✓	-	-	
				3	0	6	The installment process is incomplete	-	-	✓	-	-	
				4	0	1	Failed to retrieve delivery information	-	-	✓	-	-	
				5	0	1	Failed to execute the delivery process	-	-	✓	-	-	
				5	0	2	The scheduled delivery was not executed within the defined period of time	Scheduled deliveries not executed within the defined period of time are abandoned, so register a scheduled delivery again. When setting the date and time of the scheduled delivery, be sure to designate a time when the device is ON	-	-	✓	-	-

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\* Not displayed on a device UI

## Debug log

### Scope of Application

#### Purpose

- When the Canon quality-appointed staff determines the need for an analysis of debug log by the R&D department, we ask the field to collect log for an investigation to determine the cause.
- This is intended to improve efficiency in log collection when a trouble occurs.

#### Adding Users for Log Collection

Collecting logs previously required operation in service mode.

##### Automatic Storage:

To set the types of logs to be stored and the timing to store logs in the HDD.

Lev2 COPIER > FUNCTION > SYSTEM > DOWNLOAD > DEBUG-1

Default value:3:

Save SUBLOG in overwrite mode at detection of Reboot/Exception/Encode

The details refer to an item of DEBUG-1.

##### Manual Storage:

Execute "Counter Key(10 sec. or longer) + 1.2.3" to save the debug log.

#### Collecting logs:

SST or place USB memory

COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK

### Overview

#### Function Overview

Debug log is an integrated log for failure analysis that gathers logs prepared by the software modules in the device for debug purpose.

In the case of a field failure that is hard to be reproduced, this measure is intended to improve efficiency in failure analysis and reduce the time for failure support by collecting debug log at the user site (which was created immediately after the failure) and sending it to the R&D.

When the Canon quality-appointed staff determines the need for an analysis of firmware debug log by the R&D department, we ask the field to collect log for an investigation to determine the cause.

#### Effective Instances of Collecting Debug Log

- The error occurs only at the customer site and cannot be reproduced by the sales company

or the Canon staff who is in charge of quality follow-up.

- When the error frequency is low.
  - When the error is suspected of links with firmware rather than a mechanical/electrical failure.
- \* Collection of Sublog is not necessary when the reproduction procedure is identified and the error can be reproduced by the sales company HQ or the Canon staff who is in charge of quality follow-up.

With imageRUNNER ADVANCE, Sublog can be saved in the HDD using the standard function of the machine without using the Sublog Board.

The Sublog Board is also assigned as a tool with imageRUNNER ADVANCE. The Sublog Board is required for an error that requires rebooting because the Sublog Board has a battery.

### Storing System Information

#### Storage Method of System Information

##### Automatic Storage

At the time of shipment, 101 is specified in service mode Lev2: COPIER > FUNCTION > SYSTEM > DEBUG-1 to 3.

Debug log is automatically stored in the case of the following:

Exception + E-code + reboot

The log consists of the number of 10 logs from the latest log extended to the older logs.

##### Manual Storage

Counter Key + 1.2.3

Execute "Counter Key + 1.2.3" to save the debug log.

Note that the Control Panel is locked during the saving process; therefore, the screen does not change even though you press the OK button on <Check Counter>.

#### Description of Log to be Collected

The log consists of the number of 10 logs from the latest log extended to the older logs.

Latest log ten are always left.

Logs older than the specified period are overwritten (deleted).

When collecting logs from the machine, the log file in the machine is deleted.



## Collecting System Information

### Collection Destination

To retrieve debug log to an external location from the device, use a USB memory device, FTP server or SST (Ver. 4.41 or later).

### Collection Method

Retrieve debug log from the machine by any of the following methods.

- Make the machine recognize the USB memory device. Select the following in service mode Lev2: COPIER > FUNCTION > SYSTEM > DOWNLOAD; and click OK.
- Start the machine with the 2 and 8 keys and use SST on a PC with the network cable connected to transfer the debug log.
- Start the machine with the 2 and 8 keys and transfer the debug log to a USB memory device that stores the system of the machine.

Method	Storage
Holding down the counter + 1.2.3	Store log to an HDD
SST	The data is collected as a set of operation.
Starting the machine with the 2 and 8 keys and using a USB memory device	The data is collected as a set of operation.

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## Collecting Debug Log (USB memory device)

### NOTE:

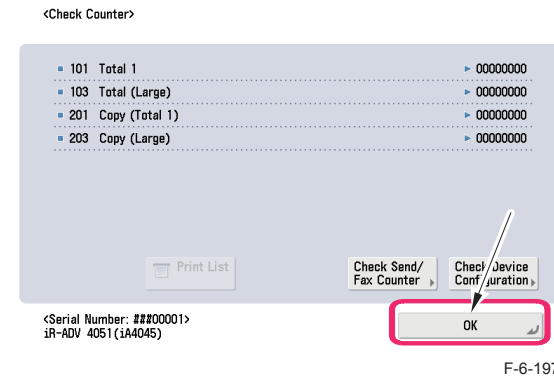
When the data is sent to the USB memory device: USB memory where the system software for this machine has been registered using the SST.

### Manual Saving by Holding Down the Counter + 1.2.3

1. Reproduce the error.
2. Hold down the [Counter] button (10 sec. or longer).
3. Press 1 on the numeric keypad.
4. Press 2 on the numeric keypad.
5. Press 3 on the numeric keypad. (UI is locked at this stage) The machine starts generation of the file that was converted from Log data on the HDD into text-based data.

The screen does not change even though you press the OK button on the touch panel of the

machine. If the screen changes by pressing the OK button, data transfer has been completed.



Lev1 COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK  
 [5] Execute [BACKUP].  
 [1] Execute [Sublog].

### When the data is sent to the USB memory device:

The file name is "file name \*\* + year date time.BIN".

Example:

SUBLOG02\_201103290130.BIN

☒ SUBLOG.BIN	9,514 KB
☒ SUBLOG_DCON.BIN	53 KB
☒ SUBLOG_DCON01.BIN	45 KB
☒ SUBLOG_DCON02.BIN	53 KB
☒ SUBLOG_DCON03.BIN	53 KB
☒ SUBLOG_DCON04.BIN	53 KB
☒ SUBLOG_RCON.BIN	59 KB
☒ SUBLOG_RCON01.BIN	59 KB
☒ SUBLOG_RCON02.BIN	59 KB
☒ SUBLOG_RCON03.BIN	59 KB
☒ SUBLOG_RCON04.BIN	59 KB
☒ SUBLOG01_201102150122.BIN	9,593 KB
☒ SUBLOG02_201103290130.BIN	9,320 KB
☒ SUBLOG03_201103290737.BIN	9,433 KB
☒ SUBLOG04_201103290739.BIN	9,514 KB

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Note:  
Date to be added to the file name shows the date that the log was transferred.  
Display it by time of local Time.

## DEBUG-1

### Function

Service Mode Lev.2

COPIER > FUNCTION > SYSTEM > DOWNLOAD > DEBUG-1



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DEBUG-1		Setting of log type and save timing
Lv.2	Details	To set the types of logs to be stored and the timing to store logs in the HDD. Logs are used to analyze the cause of a trouble.
	Use case	When analyzing the cause of a problem
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Do not use this at the normal service. Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	0 to 3 0: Save PLOG at detection of Reboot/Exception 1: Save PLOG at detection of Reboot/Exception/Encode 2: Save SUBLOG at detection of Reboot/Exception/Encode 3: Save SUBLOG in overwrite mode at detection of Reboot/Exception/Encode
	Default value	3

T-6-28

## Uploading Data by SST

The following shows a method to collect a log by connecting a PC with SST (Ver. 4.41 or later) running to the machine.

### Preconditions:

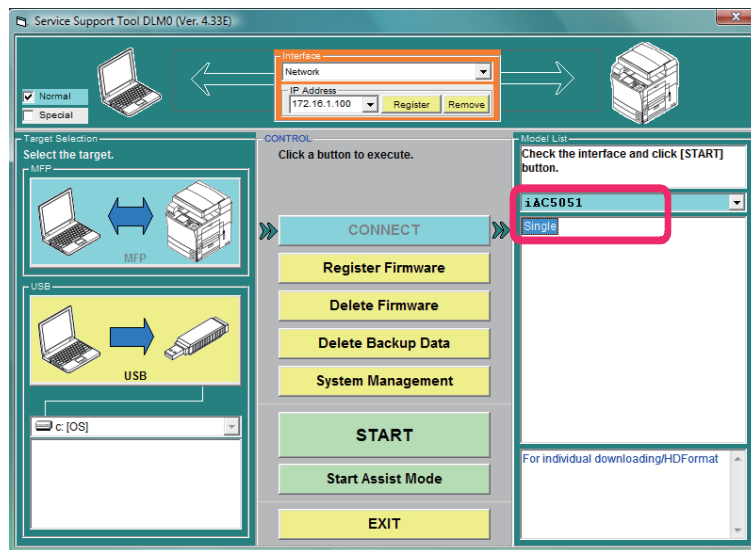
The log is stored in the machine by holding down the counter + 1.2.3 or the automatic log collection function.

A PC with SST running is connected to the machine and the machine is at download mode by starting it with the 2 and 8 keys.

#### Note:

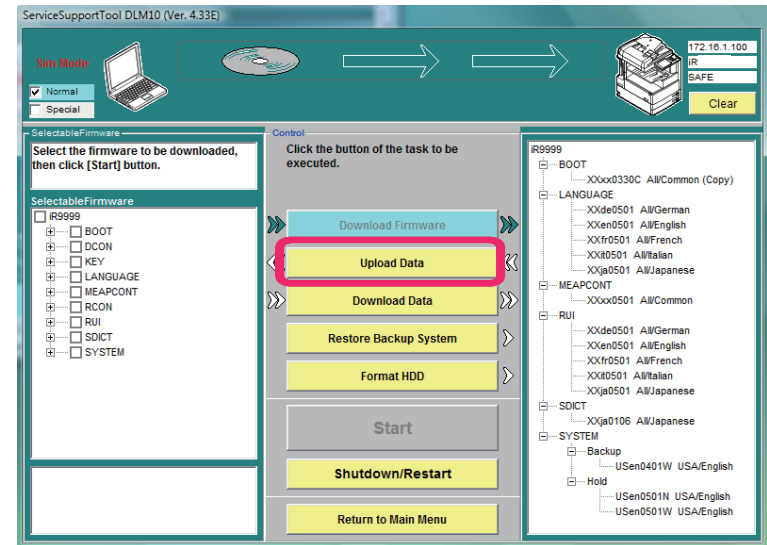
Executing a log collection by SST deletes logs in the machine.

1. Start SST (Ver. 4.41 or later) and select iRC5051 from Model List. Press the Start button.



F-6-200

2. Press the Upload Data button.



F-6-201

3. Select the data to be uploaded, then click [Start] button.

When there is no log in the machine, it results in blank option items for "data to upload".

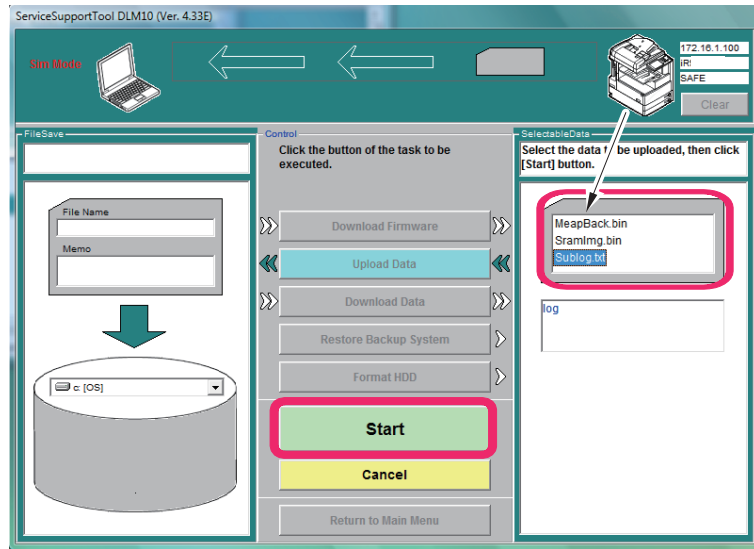
When the file name is longer than the frame, it displays that it is a log in the comment column just below.

It is displayed as "log" in the figure below.

#### Note:

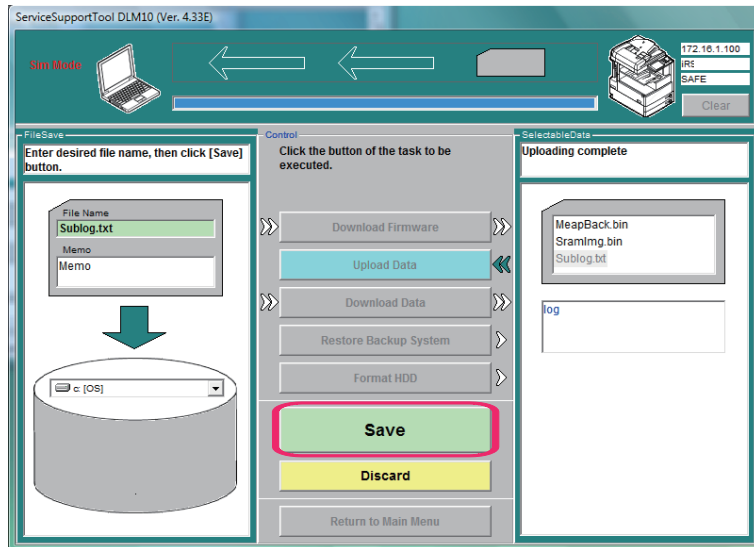
The log is not stored when You cancel it before pushing the Start button.  
It is deleted from the main body.





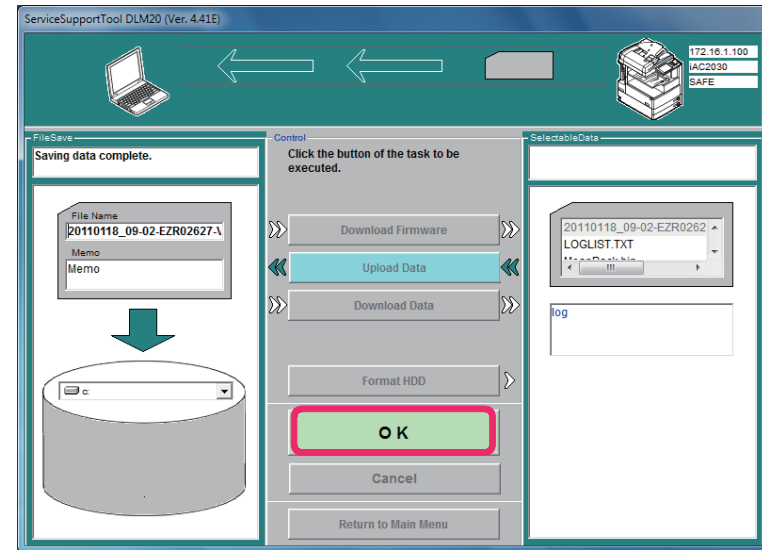
F-6-202

4. Press the "Save" button.



F-6-203

5. Check that the data storage is completed and click the "OK" button.





F-6-204

6. Check that the log is stored in the specified location in the PC.

In the initial setting:

Windows(C:) > ServData > iRC5051 > EXR02627 (Serial number)

 SUBLOG.BIN.upd	2011/04/13 9:51
 SUBLOG.BIN.upd.txt	2011/04/13 9:53

F-6-205



# Error Code

- Overview
- Error Code
- Jam Code
- Alarm Code

## Overview

### Outline

This chapter describes various codes which are displayed when a failure occurs on the product. These are classified into 3 codes as follows.

Code type	Explanation	Reference
Error code	This code is displayed when an error occurs on the machine.	p. 7-3
Jam code	This code is displayed when a jam occurs inside the machine.	p. 7-101
Alarm code	This code is displayed when a function of the machine is malfunctioned.	p. 7-115

T-7-1

- Error code notation

An error code is shown in 7-digit [E000XXX] on the display on the operation panel. However, [000] in 2 to 4 digit is not used. Thus, an error code is described as [EXXX] using 5 to 7 digit in the service manual. (e.g.: E012 = E000012)

### Location code

Error code, jam code, and alarm code include the location information.

Location information is displayed as 2-digit numbers as follows.

In the jam display screen, the “L” row corresponds to the location code.

Device	JAM	ERR	ALARM
imageRUNNER ADVANCE 8105/8095/8085 Series	00	Main Controller = 00 Printer engine = 05	Others of listed below
Duplex Color Image Reader Unit-C1	01	04	02
Paper Deck Unit-C1	00	05	04
POD Deck Lite-A1	00	05	04
Document Insertion Unit-K1	IPC : 02 ARCNET : 71	05	-
Paper Folding Unit-H1	02	05	-
Professional Puncher-C1/Professional Puncher Integration Unit-B1	IPC : 02 ARCNET : 31	05	65
Staple Finisher-D1/Booklet Finisher-D1	02	05	61, 62
Staple Finisher-F1/Booklet Finisher-F1	02	05	61, 62
Booklet Trimmer-D1	02	05	-

T-7-2

### Pickup position code

When jam occurs, pickup location is indicated with the following pickup position code.

In the jam display screen, the “P” row corresponds to the pickup position code.

Pickup position	Pickup position code
At Finisher jam/At error avoidance jam/At ADF jam without pickup operation (at SEND, Inbox, etc.)	00
Right Deck	01
Left Deck	02
Cassette 3	03
Cassette 4	04
Multi-purpose Tray	05
Side Paper Deck	06
Duplex (At duplex printing, jam occurs after paper passes through the Duplex Paper Sensor (PS38).)	F0

T-7-3

### Points to Note When Clearing MN-CON

- Execution of clearing MN-COM deletes all data in Address Book, Forwarding Settings, Settings/Registration (Preferences), Adjustment/Maintenance, Function Settings, Set Destination, Management Settings, TPM Settings, etc. Before execution of this operation, ask user to back up the data and get approval for this operation.
- When clearing MN-CON while any login application other than Default Authentication is, error such as not displayed login screen occurred. In this case, access SMS once and switch login application to Default Authentication to recover to the normal status.

### Points to Note When Clearing HDD

As a remedy for error codes (E602-XXXX, E611-0000), HDD partition is selected and the target partition may be cleared.

When clearing partition, be sure to check which data will be deleted by referring Detail of HDD partition and explain to the user before starting work.

## Error Code

### Error Code Details

#### E000 to E069

E Code	Detail Code	Location	Item	Description
E000	-0001	-05	Title	Fixing Assembly low temperature error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the Fixing Assembly. (Connection error of the Drawer, connector disconnection, open circuit) -&gt; Replace the Heater Assembly.</li> <li>2. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10) (connector disconnection, open circuit, the caught cable).</li> <li>3. Replace the Fixing Power Supply PCB (PCB10).</li> <li>4. Replace the Main Driver PCB (PCB2).</li> <li>5. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	Temperature of the Fixing Main Thermistor (THM1) does not reach 70 degC although 35 seconds have passed after starting the Fixing Roller temperature control.
E000	-0002	-05	Title	Fixing Assembly low temperature error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the Fixing Assembly. (Connection error of the Drawer, connector disconnection, open circuit) -&gt; Replace the Heater Assembly.</li> <li>2. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10) (connector disconnection, open circuit, the caught cable).</li> <li>3. Replace the Fixing Power Supply PCB (PCB10).</li> <li>4. Replace the Main Driver PCB (PCB2).</li> <li>5. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	Temperature of the Fixing Main Thermistor (THM1) does not reach 10 degC although 35 seconds have passed after starting the Fixing Roller temperature control.
E000	-0010	-05	Title	Fixing Assembly low temperature error
			Remedy	Clear the error.
			Description	Turning OFF and then ON the power without clearing the error.

E Code	Detail Code	Location	Item	Description
E001	-0002	-05	Title	Fixing Assembly high temperature error (software detection)
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the cable of the Thermistor is caught. -&gt; Replace the Thermistors. -&gt; Replace the Fixing Upper Unit.</li> <li>2. IH control error. -&gt; Replace the Fixing Power Supply PCB (PCB10), the DC Controller PCB (PCB1), or the Main Driver PCB (PCB2).</li> </ol>
			Description	<ul style="list-style-type: none"> <li>• The Fixing Main Thermistor (THM1) detects 230 degC or higher.</li> <li>• The Fixing Sub Thermistor 1 (THM2)/Fixing Sub Thermistor 2 (THM4) detects 230 degC or higher for 2 consecutive seconds.</li> </ul>
E001	-0003	-05	Title	Fixing Assembly high temperature error (hardware detection)
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the cable of the Thermistor is caught. -&gt; Replace the Thermistors. -&gt; Replace the Fixing Upper Unit.</li> <li>2. Replace the Main Driver PCB (PCB2).</li> <li>3. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	<ul style="list-style-type: none"> <li>• The Fixing Main Thermistor (THM1) detects hardware overheating.</li> <li>• The Fixing Sub Thermistor 1 (THM2)/Fixing Sub Thermistor 2 (THM4) detects hardware overheating.</li> </ul>
E001	-0004	-05	Title	Fixing Assembly high temperature error (hardware detection)
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the cable of the Thermistor is caught or is open circuit. -&gt; Replace the Thermistors. -&gt; Replace the Fixing Upper Unit.</li> <li>2. Replace the Main Driver PCB (PCB2).</li> <li>3. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	Abnormal temperature difference among the Thermistors was detected.
E001	-0010	-05	Title	Fixing Assembly high temperature error
			Remedy	Clear the error.
			Description	Turning OFF and then ON the power without clearing the error.

E Code	Detail Code	Location	Item	Description
E002	-0001	-05	Title	Fixing Assembly temperature rise error
			Remedy	1. Check the connection of the Fixing Main Thermistor (THM1). -> Replace the Fixing Main Thermistor Unit. 2. Check the installation of the Fixing Main Thermistor. -> Replace the Fixing Upper Unit. 3. Replace the Fixing Power Supply PCB (PCB10). 4. Replace the Main Driver PCB (PCB2). 5. Replace the DC Controller PCB (PCB1). 6. Replace the Relay PCB (PCB5).
			Description	<ul style="list-style-type: none"> <li>Temperature of the Fixing Main Thermistor (THM1) does not reach 100 degC although 25 seconds have passed since it reached above 70 degC after starting the Fixing Roller temperature control.</li> <li>Temperature of the Fixing Main Thermistor does not reach 130 degC although 25 seconds have passed since it reached above 100 degC after starting the Fixing Roller temperature control.</li> <li>Temperature of the Fixing Main Thermistor does not reach 150 degC although 20 seconds have passed since it reached above 130 degC after starting the Fixing Roller temperature control.</li> </ul>
E002	-0010	-05	Title	Fixing Assembly temperature rise error
			Remedy	Clear the error.
			Description	Turning OFF and then ON the power without clearing the error.
E003	-0000	-05	Title	Fixing Assembly temperature decrease error
			Remedy	1. Check the connection of the Fixing Main Thermistor (THM1). -> Replace the Fixing Main Thermistor Unit. 2. Check the installation of the Fixing Main Thermistor. -> Replace the Fixing Upper Unit. 3. Replace the Fixing Power Supply PCB (PCB10). 4. Replace the Main Driver PCB (PCB2). 5. Replace the DC Controller PCB (PCB1). 6. Replace the Relay PCB (PCB5).
			Description	The Fixing Main Thermistor (THM1) detects 70 degC or lower for 2 seconds or longer although the temperature reached above 100 degC after starting the Fixing Roller temperature control.
E003	-0010	-05	Title	Fixing Assembly temperature decrease error
			Remedy	Clear the error.
			Description	Turning OFF and then ON the power without clearing the error.

E Code	Detail Code	Location	Item	Description
E004	-0010	-05	Title	Fixing Power Supply error
			Remedy	Clear the error.
			Description	Turning OFF and then ON the power without clearing the error.
E004	-0102	-05	Title	Fixing Power Supply error
			Remedy	Replace the Fixing Power Supply PCB (PCB10). Replace the Main Driver PCB (PCB2).
			Description	Fixing current error.
E004	-0205	-05	Title	Fixing Power Supply error
			Remedy	1. Check the harness of the Fixing Main Thermistor (THM1) in the Fixing Assembly. 2. Check the connection of the harness of the Fixing Assembly on the host machine side. 3. Replace the Main Driver PCB (PCB2).
			Description	Detect that the Fixing Main Thermistor (THM1) is not connected.
E005	-0000	-05	Title	Fixing Cleaning Web absent error
			Remedy	1. Replace the Fixing Cleaning Web. 2. Replace the Fixing Cleaning Web Level Sensor (PS45). 3. Replace the DC Controller PCB (PCB1). After executing the measures, clear the Fixing Cleaning Web counter (COPIER > COUNTER > MISC > FIXWEB).
			Description	After noticing the Fixing Cleaning Web absent, the web was pulled out 2000 times.
E005	-0001	-05	Title	Error in Fixing Cleaning Web Drive Solenoid connection
			Remedy	1. Check the Connector of the Fixing Cleaning Web Drive Solenoid. 2. Check the output of the DC Power Supply PCB (24V) (PCB31). Using a tester, check whether 24V is output from 3PIN through 6PIN of J513 on the Relay PCB. In case of error, replace the DC Power Supply PCB (24V) (PCB31) (on the right). 3. Replace the Fixing Cleaning Web Drive Solenoid (SL9).
			Description	Connection of the Fixing Cleaning Web Drive Solenoid (SL9) is not detected when the power is turned ON.
E005	-0010	-05	Title	Fixing Cleaning Web error
			Remedy	Clear the error.
			Description	Turning OFF and then ON the power without clearing the error.

E Code	Detail Code	Location	Item	Description
E012	-0001	-05	Title	Drum Motor (M1) error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the Main Driver PCB (PCB2) and the Drum Motor (M1). Motor side: J2138, PCB side: J109</li> <li>2. Check the voltage of the Drum Motor (M1) J2151. If voltage is 0V, check the connection of the Relay PCB J520.</li> <li>3. Replace the Drum Motor (M1).</li> <li>4. Check the gear of the Drum Drive Shaft. If the load is too much, replace the Process Unit and the Drum Drive Unit (Shaft).</li> <li>5. Replace the Main Driver PCB (PCB2).</li> <li>6. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	Lock error of the Drum Motor (M1).
E013	-0001	-05	Title	Error in Waste Toner Lock Detection Connector disconnection
			Remedy	Check the connection of the Waste Toner Lock Detection Switch (SW5) and the Main Driver PCB (PCB2). Switch side: J3050, PCB side: J103
			Description	The Waste Toner Lock Detection Switch (SW5) detects locked state 3 times for 200 msec at power-on.
E013	-0002	-05	Title	Error in Waste Toner Feed Screw Lock detection
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Waste Toner Container and the Waste Toner Container Pipe. If toner overflowed from the Waste Toner Container clogs the outlet of the Waste Toner Pipe, remove the clogged toner. After removing it, check that the screw can be seen from the outlet of the pipe.</li> <li>2. Check the connection of the Waste Toner Lock Detection Switch (SW5) and the Main Driver PCB (PCB2).</li> <li>3. Check the connection of the Main Driver PCB (PCB2) and the DC Controller PCB (PCB1). Main Controller side: J3050, DC Controller side: J103</li> <li>4. Replace the Waste Toner Lock Detection Switch (SW5).</li> <li>5. Replace the Waste Toner Feed Unit.</li> <li>6. Replace the Main Driver PCB (PCB2).</li> <li>7. Replace the DC Controller PCB (PCB1). (When the error is still displayed after replacing the Waste Toner Feed Unit and the Main Driver PCB (PCB2).)</li> </ol>
			Description	The Waste Toner Lock Detection Switch detects locked state 3 times for 200 msec while the Developing Assembly is driven.

E Code	Detail Code	Location	Item	Description
E014	-0001	-05	Title	Fixing Motor error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the gear of the Fixing Drive Unit. -&gt; Replace the gear.</li> <li>2. Replace the Fixing Motor (M3).</li> <li>3. Check the connection drawer between the Fixing Assembly and the host machine.</li> <li>4. Replace the Main Driver PCB (PCB2).</li> </ol>
			Description	Lock error of the Fixing Motor (M3).
E017	-0001	-05	Title	ETB disengagement error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the ETB Disengage Sensor (PS56). Sensor side: J2101, J3270, PCB side: J343 (Duplex Driver PCB (PCB4))</li> <li>2. Check the connection of the Duplex Feed Left Motor (M19). Motor side: J2107, J3044 (relay), PCB side: J330 (Duplex Driver PCB (PCB4))</li> <li>3. Replace the ETB Disengage Sensor (PS56).</li> <li>4. Replace the Duplex Feed Left Motor (M19).</li> <li>5. Replace the Duplex Driver PCB (PCB4).</li> <li>6. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	Disengagement of the ETB is not completed within the specified period of time.

**NOTE:**

Check if the Disengagement Cam is stained. If necessary, clean it.  
Check if the drive system (gear, Motor, one-way) is failed. If necessary, replace it.  
Check if the link with the Fixing Feed Handle is failed. If necessary, replace it.

E Code	Detail Code	Location	Item	Description
E017	-0002	-05	Title	ETB engagement error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the ETB Disengage Sensor (PS55). Sensor side: J2100, J3270, PCB side: J343 (Duplex Driver PCB (PCB4))</li> <li>2. Check the connection of the Duplex Feed Left Motor (M19). Motor side: J2107, J3044 (relay), PCB side: J330 (Duplex Driver PCB (PCB4))</li> <li>3. Replace the ETB Engage Sensor (PS55).</li> <li>4. Replace the Duplex Feed Left Motor (M19).</li> <li>5. Replace the Duplex Driver PCB (PCB4).</li> <li>6. Replace the DC Controller PCB (PCB1).</li> </ol> <p><b>NOTE:</b> Check if the Disengagement Cam is stained. If necessary, clean it. Check if the drive system (gear, Motor, one-way) is failed. If necessary, replace it. Check if the link with the Fixing Feed Handle is failed. If necessary, replace it.</p>
			Description	Engagement of the ETB is not completed within the specified period of time.

E Code	Detail Code	Location	Item	Description
E017	-0003	-05	Title	ETB HP error
			Remedy	<p>If this error occurs at installation, the ETB Disengage Member (Transfer Frame Stopper) may be left unremoved. Refer to the troubleshooting "Remedy to be implemented when the ETB Disengage Member (Transfer Frame Stopper) is left unremoved" in the Service Manual, and check whether the ETB Disengage Member is left unremoved or not and implement appropriate procedure.</p> <p>If this error occurs at times other than installation, follow the following steps to implement check and remedy.</p> <ol style="list-style-type: none"> <li>1. Check the connection of the ETB Disengage Sensor (PS56). Sensor side: J2101, J3270, PCB side: J343 (Duplex Driver PCB (PCB4))</li> <li>2. Check the connection of the Duplex Feed Left Motor (M19). Motor side: J2107, J3044 (relay), PCB side: J330 (Duplex Driver PCB (PCB4))</li> <li>3. Replace the ETB Disengage Sensor (PS56).</li> <li>4. Replace the Duplex Feed Left Motor (M19).</li> <li>5. Replace the Duplex Driver PCB (PCB4).</li> <li>6. Replace the DC Controller PCB (PCB1).</li> </ol> <p><b>NOTE:</b> Check if the Disengagement Cam is stained. If necessary, clean it. Check if the drive system (gear, Motor, one-way) is failed. If necessary, replace it. Check if the link with the Fixing Feed Handle is failed. If necessary, replace it.</p>
			Description	Engagement of the ETB was not completed at initialization.

E Code	Detail Code	Location	Item	Description
E020	-0000	-05	Title	Developing Assembly toner absent error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the Developing Toner Sensor (TS1). Sensor side: J2133, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2))</li> <li>2. Check the connection of the Magnet Roller Clutch (CL5). Sensor side: J2036, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2))</li> <li>3. Check the connection of the Toner Feed Motor (M28). Motor side: J2035, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2))</li> <li>4. Check the connection of the Buffer Toner Sensor (TS3). Sensor side: J2039, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2))</li> <li>5. Replace the Developing Toner Sensor (TS1).</li> <li>6. Replace the Magnet Roller Clutch (CL5).</li> <li>7. Replace the Toner Feed Motor (M28).</li> <li>8. Replace the Buffer Toner Sensor (TS3).</li> <li>9. Replace the Main Driver PCB (PCB2).</li> <li>10. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	Toner in the Developing Assembly was empty for 2 minutes.
E020	-0001	-05	Title	Error in Developing Toner Sensor connection detection
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the Developing Toner Sensor (TS1). Sensor side: J2133, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2))</li> <li>2. Replace the Developing Toner Sensor (TS1).</li> <li>3. Replace the Main Driver PCB (PCB2).</li> <li>4. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	The connection detection port was OFF at power-on.
E020	-0002	-05	Title	Error in Buffer Toner Sensor connection detection
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the Buffer Toner Sensor (TS3). Sensor side: J2039, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2))</li> <li>2. Replace the Buffer Toner Sensor (TS3).</li> <li>3. Replace the Main Driver PCB (PCB2).</li> <li>4. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	The connection detection port was OFF at power-on.

E Code	Detail Code	Location	Item	Description
E020	-0003	-05	Title	Error in the Toner Excess Supply Sensor connection detection
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the Toner Excess Supply Sensor (TS2). Sensor side: J2038, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2))</li> <li>2. Replace the Toner Excess Supply Sensor (TS2).</li> <li>3. Replace the Main Driver PCB (PCB2).</li> <li>4. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	The connection detection port was OFF at power-on.
E020	-0004	-05	Title	Error in Magnet Roller Clutch connection detection
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the Magnet Roller Clutch (CL5). Sensor side: J2036, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2))</li> <li>2. Replace the Magnet Roller Clutch (CL5).</li> <li>3. Replace the Main Driver PCB (PCB2).</li> <li>4. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	The connection detection port was OFF at power-on.
E020	-0020	-05	Title	Error in Developing Assembly Toner Sensor Cleaning Scraper displacement
			Remedy	<ol style="list-style-type: none"> <li>1. Turn OFF the main power.</li> <li>2. Replace the Developing Assembly.</li> <li>3. Turn ON the main power.</li> </ol>
			Description	State without toner was detected continuously.
E020	-0021	-05	Title	Error in Developing Assembly Toner Sensor Cleaning Scraper displacement
			Remedy	<ol style="list-style-type: none"> <li>1. Turn OFF the main power.</li> <li>2. Replace the Developing Assembly.</li> <li>3. Turn ON the main power.</li> </ol>
			Description	State with toner was detected continuously.
E023	-0001	-05	Title	Developing Motor error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the Connector. Motor side: J2319, Main Driver PCB (PCB2) side: J109</li> <li>2. Check the voltage of the Developing Motor (M2) J2152. If voltage is 0V, check the connection of the Relay PCB J520.</li> <li>3. Check the load of the Developing Motor (M2). Manually turn the Developing Motor (M2) located at the rear of the host machine to check it.</li> <li>4. Replace the Developing Motor (M2).</li> <li>5. Replace the Developing Clutch (CL1). (When an error occurs while the Developing Clutch is ON.)</li> <li>6. Replace the Main Driver PCB (PCB2).</li> <li>7. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	Lock error of the Developing Motor (M2).



E Code	Detail Code	Location	Item	Description
E023	-0002	-05	Title	Error in Magnet Roller Clutch connection detection
			Remedy	1. Check the connection of the Magnet Roller Clutch (CL5). Sensor side: J2006, Main Driver PCB (PCB2) side: J109 2. Replace the Magnet Roller Clutch (CL5). 3. Replace the Main Driver PCB (PCB2). 4. Replace the DC Controller PCB (PCB1).
			Description	Connection of the Magnet Roller Clutch (CL5) cannot be detected 5 times with 20 msec time interval.
E025	-0001	-05	Title	Toner Feed Motor error
			Remedy	1. Check the connection of the Connector. Motor side: J2036, Buffer Unit relay: J3124, Front side relay: J3090, Rear side relay: J3091, Main Driver PCB (PCB2) side: J115 2. Replace the Toner Feed Motor (M28). 3. Check if toner is clogged inside of the Buffer. Turn the Drive Shaft of the Motor with your hand to check it. If the load is too much, inside of the Buffer may be clogged, so clean inside of it. 4. Replace the Main Driver PCB (PCB2). 5. Replace the DC Controller PCB (PCB1).
			Description	Overcurrent of the Toner Feed Motor (M28) was detected.
E027	-0001	-05	Title	Toner Supply Motor error
			Remedy	1. Check the connection of the Connector. Motor side: J2037, Front side relay: J3080, Rear side relay: J3063, Main Driver PCB (PCB2) side: J117 2. Remove the Toner Container, and check if an error occurs. If an error does not occur, reinstall the Toner Container and check again. If an error occurs, check the driving area of connection point of the container. If an error occurs, go on to 3. 3. Replace the Toner Supply Motor (M10). 4. Replace the Main Driver PCB (PCB2). 5. Replace the DC Controller PCB (PCB1).
			Description	Lock error of the Toner Supply Motor (M10).
E032	-0001	-00	Title	Failure of NE Controller Counter
			Remedy	Disconnection of cable.
			Description	Detection of open circuit of count pulse signal.
E041	-0001	-05	Title	Right Deck Lifter Motor error
			Remedy	1. Check for displacement of the Lifter Wire of the Right Deck. 2. Check for hindrance to smooth movement of the Deck Base Plate of the Right Deck.
			Description	Overcurrent of the Right Deck Lifter Motor was detected.

E Code	Detail Code	Location	Item	Description
E041	-0002	-05	Title	Left Deck Lifter Motor error
			Remedy	1. Check for displacement of the Lifter Wire of the Left Deck. 2. Check for hindrance to smooth movement of the Deck Base Plate of the Left Deck.
			Description	Overcurrent of the Left Deck Lifter Motor was detected.
E041	-0003	-05	Title	Cassette 3 Lifter Motor error
			Remedy	1. Check for error around the Lifter of the Cassette 3. 2. Check for hindrance to smooth movement of the Cassette Base Plate of the Cassette 3.
			Description	Overcurrent of the Cassette 3 Lifter Motor was detected.
E041	-0004	-05	Title	Cassette 4 Lifter Motor error
			Remedy	1. Check for error around the Lifter of the Cassette 4. 2. Check for hindrance to smooth movement of the Cassette Base Plate of the Cassette 4.
			Description	Overcurrent of the Cassette 4 Lifter Motor was detected.
E053	-0001	-05	Title	Error in Reverse Upper Flapper Solenoid connection detection
			Remedy	1. Check the connection of the Reverse Upper Flapper Solenoid (SL5). Solenoid side: J2115, Duplex Driver PCB side: J340 2. Replace the Reverse Upper Flapper Solenoid (SL5). 3. Replace the Duplex Driver PCB (PCB4). 4. Replace the DC Controller PCB (PCB1).
			Description	Connection of the Reverse Upper Flapper Solenoid (SL5) cannot be detected 5 times with 20 msec time interval.

E Code	Detail Code	Location	Item	Description
E060	-0001	-05	Title	Primary Charging Shutter HP open error
			Remedy	<p>1. Check the position of the Primary Charging Shutter and the Cleaning Pad.</p> <p>1-A. In the case that the Primary Charging Shutter and the Cleaning Pad fail to operate (stopped at HP at front side)</p> <p>1-A-1. Check the connection of the Primary Charging Wire Cleaning Motor (M6). Motor side: J3017, J3060 (iR-ADV 8xxx)/J3160 (iR-ADV 6xxx) (relay), PCB side: J3177 (relay), J107 (Main Driver PCB (PCB2))</p> <p>1-A-2. Replace the Primary Charging Wire Cleaning Motor (M6).</p> <p>1-B. In the case that the Primary Charging Shutter and the Cleaning Pad are stopped at rear side (close operation position)</p> <p>1-B-1. Check the connection of the Primary Charging Shutter Sensor (PS94). Sensor side: J2029, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2))</p> <p>1-B-2. Replace the Primary Charging Shutter Sensor (PS94).</p> <p>1-C. In the case that the Primary Charging Shutter and the Cleaning Pad are stopped along the way</p> <p>1-C-1. Check the loosening of screw on the Slider Pin and abrasion of the pin. Tighten the screw or replace the Slider Pin.</p> <p>1-C-2. Replace the Primary Charging Assembly.</p> <p>1-D. In the case that the Primary Charging Shutter stops at front side and the Cleaning Pad moves to rear side</p> <p>1-D-1. Check if the Shutter Mounting Plate is deformed. If so, replace the Shutter Unit.</p> <p>1-D-2. Check the loosening of screw on the Slider Pin and abrasion of the pin. Tighten the screw or replace the Slider Pin.</p> <p>1-D-3. Replace the Primary Charging Assembly.</p> <p>2. Replace the Main Driver PCB (PCB2).</p> <p>3. Replace the DC Controller PCB (PCB1).</p>
			Description	The Primary Charging Shutter Sensor (PS94) detects that the shutter is opened although it is moved to the close position.

E Code	Detail Code	Location	Item	Description
E060	-0002	-05	Title	Primary Charging Shutter HP close error
			Remedy	<p>1. Check the position of the Primary Charging Shutter and the Cleaning Pad.</p> <p>1-A. In the case that the Primary Charging Shutter and the Cleaning Pad fail to operate (stopped at HP at front side)</p> <p>1-A-1. Check the connection of the Primary Charging Wire Cleaning Motor (M6). Motor side: J3017, J3060 (iR-ADV 8xxx)/J3160 (iR-ADV 6xxx) (relay), PCB side: J3177 (relay), J107 (Main Driver PCB (PCB2))</p> <p>1-A-2. Replace the Primary Charging Wire Cleaning Motor (M6).</p> <p>1-B. In the case that the Primary Charging Shutter and the Cleaning Pad are stopped at rear side (close operation position)</p> <p>1-B-1. Check the connection of the Primary Charging Shutter Sensor (PS94). Sensor side: J2029, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2))</p> <p>1-B-2. Replace the Primary Charging Shutter Sensor (PS94).</p> <p>1-C. In the case that the Primary Charging Shutter and the Cleaning Pad are stopped along the way</p> <p>1-C-1. Check the loosening of screw on the Slider Pin and abrasion of the pin. Tighten the screw or replace the Slider Pin.</p> <p>1-C-2. Replace the Primary Charging Assembly.</p> <p>2. Replace the Main Driver PCB (PCB2).</p> <p>3. Replace the DC Controller PCB (PCB1).</p>
			Description	The Primary Charging Shutter Sensor (PS94) detects that the shutter is closed although it is moved to the open position.

E Code	Detail Code	Location	Item	Description
E061	-0001	-05	Title	Potential control error (VL)
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the Pre-exposure LED (connector connection, open circuit, the caught cable).</li> <li>2. Check the installation of the Primary Charging Assembly (connector connection, open circuit, the caught cable).</li> <li>3. Check the fixation state of the Drum and the Drum Shaft. (Check if the drum fixation cylinder is properly installed.)</li> <li>4. Check if the Dustproof Glass is soiled. If necessary, clean it.</li> <li>5. Check the installation of the Laser Scanner Unit (connector connection, open circuit, the caught cable).</li> <li>6. Check the installation of the Primary Charging High Voltage PCB (PCB11), and its connection (connector connection, open circuit, the caught cable).</li> <li>7. Check the installation of the Potential Sensor (connector connection, open circuit, the caught cable).</li> <li>8. Check the installation of the Drum Motor (M1), and its connection (connector connection, open circuit, the caught cable).</li> <li>9. Replace the parts. <ul style="list-style-type: none"> <li>• Primary Charging Assembly</li> <li>• Laser Scanner Unit</li> <li>• Potential Sensor</li> <li>• Primary Charging High Voltage PCB (PCB11)</li> <li>• Drum Motor (M1)</li> <li>• Main Driver PCB (PCB2)</li> <li>• DC Controller PCB (PCB1)</li> </ul> </li> </ol>
			Description	<p>The measured value in the dark area (VL) differs +/-30V or higher than the target potential at potential control.</p> <p><b>NOTE:</b> If the difference is somewhere between +/-10V and less than 30V, alarm is indicated.</p>

E Code	Detail Code	Location	Item	Description
E061	-0101	-05	Title	Potential control error (VD)
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection of the Pre-exposure LED (connector connection, open circuit, the caught cable).</li> <li>2. If the current value of the Primary Charging Roller (COPIER &gt; DISPLAY &gt; DPOT &gt; PRIM-C) is 1550 micro A or higher, execute 2-1 to 3. <ol style="list-style-type: none"> <li>2-1. Increase the grid voltage of the Primary Charging Assembly by 100V (COPIER &gt; ADJUST &gt; HV-PRI &gt; PRI-GRID).</li> <li>2-2. Execute the potential control (COPIER &gt; FUNCTION &gt; DPC &gt; DPC).</li> <li>2-3. Turn OFF and then ON the power.</li> </ol> </li> <li>3. Check the installation of the Primary Charging Assembly (connector connection, open circuit, the caught cable).</li> <li>4. Check the installation of the Primary Charging High Voltage PCB (PCB11), and its connection (connector connection, open circuit, the caught cable).</li> <li>5. Check the installation of the Drum Motor (M1), and its connection (connector connection, open circuit, the caught cable).</li> <li>6. Replace the parts. <ul style="list-style-type: none"> <li>• Primary Charging Assembly</li> <li>• Primary Charging High Voltage PCB</li> <li>• Drum Motor (M1)</li> <li>• Main Driver PCB (PCB2)</li> <li>• DC Controller PCB (PCB1)</li> </ul> </li> </ol>
			Description	Potential in the dark area did not fall within the range (target value +/-10V) although retry was executed 8 times at VD potential control.
E064	-00FF	-05	Title	High voltage setting error
			Remedy	<ol style="list-style-type: none"> <li>1. Turn OFF and then ON the main power.</li> <li>2. Replace the DCON PCB.</li> </ol>
			Description	With the state in which the developing AC is output, 600V or higher developing DC output was detected. (Basically, this error is not detected. However, to detect that the image formation-related backup data is corrupted or to protect the hardware in case of 600V or higher developing DC output, this is to be an error.)

E Code	Detail Code	Location	Item	Description
E065	-0001	-05	Title	Primary charging/grid high voltage output leak error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection between the Main Driver PCB (PCB2) and the High Voltage Unit. Main Driver side: J111, High Voltage Unit side: J3097</li> <li>2. Check the connection between the Relay PCB (PCB5) and the High Voltage Unit. Relay side: J519, High Voltage Unit side: J3099</li> <li>3. Replace the Primary Charging Assembly.</li> <li>4. Check the connection inside of the High Voltage Unit. High Voltage Unit Relay (J3097) and Primary Charging High Voltage PCB (PCB11) (J3501) High Voltage Unit relay (J3099) and Pre-transfer Charging PCB (PCB26) (J3545, J3500)</li> <li>5. Replace the Main Driver PCB (PCB2).</li> <li>6. Replace the Primary Grid High Voltage Connector (FM4-1006).</li> </ol>
			Description	The leak detection signal was detected 5 times in a row for every 20 msec.

E Code	Detail Code	Location	Item	Description
E066	-0001	-05	Title	Pre-transfer Charging Shutter HP open error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the position of the Pre-transfer Charging Shutter. <ol style="list-style-type: none"> <li>1-A. In the case that the Pre-transfer Charging Shutter fails to operate (stopped at HP at front side) Check the connection of the Pre-transfer Charging Wire Cleaning Motor (M7). Sensor side: J3108, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2))</li> <li>1-B. In the case that the Pre-transfer Charging Shutter is stopped at rear side (close operation position) <ol style="list-style-type: none"> <li>1-B-1. Check that the Primary Fan Duct is closed. Close the Primary Fan Duct.</li> <li>1-B-2. Check movement of the pin to push the Pre-transfer Charging Shutter Sensor (PS95). Replace the Pin.</li> <li>1-B-3. Check movement of the flag on the Pre-transfer Charging Shutter Sensor (PS95). Replace the flag/spring.</li> <li>1-B-4. Check the connection of the Pre-transfer Charging Shutter Sensor (PS95). Sensor side: J2114, J3215 (relay), J3067 (relay) PCB side: J3066 (relay), J130 (Main Driver PCB (PCB2))</li> </ol> </li> <li>1-C. In the case that the Pre-transfer Charging Shutter is stopped along the way <ol style="list-style-type: none"> <li>1-C-1. Check abrasion of the Slider Pin. Replace the Slider Pin.</li> <li>1-C-2. Replace the Pre-transfer Charging Assembly.</li> </ol> </li> </ol> </li> <li>2. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	The Pre-transfer Charging Shutter Sensor (PS95) detects that the shutter is opened although it is moved to the close position.

E Code	Detail Code	Location	Item	Description
E066	-0002	-05	Title	Pre-transfer Charging Shutter HP close error
			Remedy	<p>1. Check the position of the Pre-transfer Charging Shutter.</p> <p>1-A. In the case that the Pre-transfer Charging Shutter fails to operate (stopped at HP at front side) Check the connection of the Pre-transfer Charging Wire Cleaning Motor (M7). Sensor side: J3108, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2))</p> <p>1-B. In the case that the Pre-transfer Charging Shutter is stopped at rear side (close operation position) 1-B-1. Check that the Primary Fan Duct is closed. Close the Primary Fan Duct. 1-B-2. Check movement of the pin to push the Pre-transfer Charging Shutter Sensor (PS95). Replace the Pin. 1-B-3. Check movement of the flag on the Pre-transfer Charging Shutter Sensor (PS95). Replace the flag/spring. 1-B-4. Check the connection of the Pre-transfer Charging Shutter Sensor (PS95). Sensor side: J2114, J3215 (relay), J3067 (relay) PCB side: J3066 (relay), J130 (Main Driver PCB (PCB2))</p> <p>1-C. In the case that the Pre-transfer Charging Shutter is stopped along the way 1-C-1. Check abrasion of the Slider Pin. Replace the Slider Pin. 1-C-2. Replace the Pre-transfer Charging Assembly. 2. Replace the DC Controller PCB (PCB1).</p>
			Description	The Pre-transfer Charging Shutter Sensor (PS95) detects that the shutter is closed although it is moved to the open position.

E Code	Detail Code	Location	Item	Description
E067	-0001	-05	Title	Developing high voltage output leak error
			Remedy	<p>1. Check the connection between the Main Driver PCB (PCB2) and the High Voltage Unit. Main Driver side: J112, High Voltage Unit side: J3098</p> <p>2. Check the connection between the Relay PCB (PCB5) and the High Voltage Unit. Relay side: J519, High Voltage Unit side: J3099</p> <p>3. Replace the Developing Assembly.</p> <p>4. Check the connection point of the Developing Assembly. If it is soiled, clean it.</p> <p>5. Check the connection inside of the High Voltage Unit. Check the connection of the High Voltage Unit Relay (J3097) and the Developing High Voltage PCB (J3511). High Voltage Unit Relay (J3099) and Pre-transfer Charging PCB (J3545, J3500, J3510)</p> <p>6. Replace the Main Driver PCB (PCB2).</p>
			Description	The leak detection signal was detected 5 times in a row for every 20 msec.
E068	-0001	-05	Title	Pre-transfer charging high voltage output leak error
			Remedy	<p>1. Check the connection between the Main Driver PCB (PCB2) and the High Voltage Unit. Main Driver side: J112, High Voltage Unit side: J3098</p> <p>2. Check the connection between the Relay PCB (PCB5) and the High Voltage Unit. Relay side: J519, High Voltage Unit side: J3099</p> <p>3. Replace the Pre-transfer Charging Assembly.</p> <p>4. Check the connection inside of the High Voltage Unit. Check the connection of the High Voltage Unit Relay (J3098) and the Transfer High Voltage PCB (J3544). Check the connection of the High Voltage Unit Relay (J3099) and the Pre-transfer Charging PCB (J3545, J3500)</p> <p>5. Replace the Main Driver PCB (PCB2).</p> <p>6. Replace the Pre-transfer High Voltage Connector (FM4-1007).</p> <p>7. Replace the Pre-transfer Transformer (Post Charging Trance) of the High Voltage Unit.</p>
			Description	The leak detection signal was detected 5 times in a row for every 20 msec.

E Code	Detail Code	Location	Item	Description
E069	-0001	-05	Title	Transfer high voltage output leak error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the connection between the Duplex Driver PCB (PCB4) and the High Voltage Unit. Check the connection at Duplex Driver side (J343) and the Transfer High Voltage side (J3066). Check the connection at Duplex Driver side (J311) and the Transfer High Voltage side (J3061). (In addition, check that 24V is output.)</li> <li>2. Check the connection of the Transfer High Voltage PCB (J3306).</li> <li>3. Replace the ETB Unit.</li> <li>4. Replace the Duplex Driver PCB (PCB4).</li> </ol>
			Description	The leak detection signal was detected 5 times in a row for every 20 msec.

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## ■ E100 to E197

E Code	Detail Code	Location	Item	Description
E100	-11xx	-05	Title	BD unlock error
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the door is opened. Close the door.</li> <li>2. Check the connection between the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor and BD PCB: J3011</li> <li>3. Replace the Laser Scanner Unit.</li> <li>4. Replace the Laser Driver PCB (PCB35).</li> <li>5. Replace the DC Controller PCB (PCB1).</li> </ol> <p><b>NOTE:</b> When condensation occurs inside of the machine or the Laser Scanner Unit, this error also occurs. When condensation occurs, leave the machine or the unit as it is until condensation disappears. (Use the machine or the unit in an environment where condensation does not occur.)</p>
			Description	Locked state was not detected within the specified period of time at start-up.
E100	-12xx	-05	Title	BD unlock error
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the door is opened. Close the door.</li> <li>2. Check the connection between the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor and BD PCB: J3011</li> <li>3. Replace the Laser Scanner Unit.</li> <li>4. Replace the Laser Driver PCB (PCB35).</li> <li>5. Replace the DC Controller PCB (PCB1).</li> </ol> <p><b>NOTE:</b> When condensation occurs inside of the machine or the Laser Scanner Unit, this error also occurs. When condensation occurs, leave the machine or the unit as it is until condensation disappears. (Use the machine or the unit in an environment where condensation does not occur.)</p>
			Description	After the BD range was specified, lock was unlocked for 1 second or longer.

E Code	Detail Code	Location	Item	Description
E100	-13xx	-05	Title	Polygon Motor BD unlock error (Laser diode is not lit up/failure of the BD PCB/power supply error, or condensation)
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the door is opened. Close the door.</li> <li>2. Check the connection between the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor and BD PCB: J3011</li> <li>3. Replace the Laser Scanner Unit.</li> <li>4. Replace the Laser Driver PCB (PCB35).</li> <li>5. Replace the DC Controller PCB (PCB1).</li> </ol> <p><b>NOTE:</b> When condensation occurs inside of the machine or the Laser Scanner Unit, this error also occurs. When condensation occurs, leave the machine or the unit as it is until condensation disappears. (Use the machine or the unit in an environment where condensation does not occur.)</p>
			Description	During the Polygon speed change, lock was unlocked for 1 second or longer. (Laser diode is not lit up/failure of the BD PCB/power supply error, or condensation)
E100	-FFFF	-05	Title	Polygon Motor BD unlock error
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the door is opened. Close the door.</li> <li>2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011</li> <li>3. Replace the Laser Scanner Unit.</li> <li>4. Replace the Laser Driver PCB (PCB35).</li> <li>5. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	Failed to get the Detailed Code (communication error, power supply error, PCB failure, etc.).

E Code	Detail Code	Location	Item	Description
E102	-0001	-05	Title	EEPROM writing error
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the door is opened. Close the door.</li> <li>2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011</li> <li>3. Replace the Laser Scanner Unit.</li> <li>4. Replace the Laser Driver PCB (PCB35).</li> <li>5. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	Failed to write to EEPROM (Power is not supplied/EEPROM failure).
E103	-0001	-05	Title	Different Laser Scanner Unit model error
			Remedy	Replace the Laser Scanner Unit with the one for the correct model.
			Description	The scanner for 6075/6065/6055 models was installed to the imageRUNNER ADVANCE 8105/8095/8085 models, and vice versa.
E110	-11xx	-05	Title	Polygon Motor FG unlock error
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the door is opened. Close the door.</li> <li>2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011</li> <li>3. Replace the Laser Scanner Unit.</li> <li>4. Replace the Laser Driver PCB (PCB35).</li> <li>5. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	Locked state was not detected within the specified period of time at start-up. (Power is not supplied/Polygon Motor signal error)

E Code	Detail Code	Location	Item	Description
E110	-12xx	-05	Title	Polygon Motor FG unlock error
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the door is opened. Close the door.</li> <li>2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011</li> <li>3. Replace the Laser Scanner Unit.</li> <li>4. Replace the Laser Driver PCB (PCB35).</li> <li>5. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	After the BD range was specified, lock was unlocked for 1 second or longer. (Power is not supplied/Polygon Motor signal error)
E110	-13xx	-05	Title	Polygon Motor FG unlock error
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the door is opened. Close the door.</li> <li>2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011</li> <li>3. Replace the Laser Scanner Unit.</li> <li>4. Replace the Laser Driver PCB (PCB35).</li> <li>5. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	During the Polygon speed change, lock was unlocked for 1 second or longer. (Power is not supplied/Polygon Motor signal error)
E110	-FFFF	-05	Title	Polygon Motor FG unlock error
			Remedy	<ol style="list-style-type: none"> <li>1. Check if the door is opened. Close the door.</li> <li>2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011</li> <li>3. Replace the Laser Scanner Unit.</li> <li>4. Replace the Laser Driver PCB (PCB35).</li> <li>5. Replace the DC Controller PCB (PCB1).</li> </ol>
			Description	Failed to get the Detailed Code (communication error, power supply error, PCB failure).



E Code	Detail Code	Location	Item	Description
E121	-0001	-05	Title	Laser Scanner Cooling Fan error
			Remedy	1. Check the connection of the Connector. 2. Replace the Laser Scanner Cooling Fan (FM16).
			Description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Laser Scanner Cooling Fan (FM16) is turned ON.
E197	-0001	-05	Title	Error in Main Driver PCB connection detection
			Remedy	1. Check the connection of the DC Controller PCB (PCB1) and the Main Driver PCB (PCB2). DC Controller side: J411, J412, Main Driver side: J125, J126 2. Check the Main Driver PCB (PCB2) power supply connection. Check the connection at the Main Driver side (J128) and the DC Controller side (J414), and check the voltage. 3. Replace the Main Driver PCB (PCB2). 4. Replace the DC Controller PCB (PCB1).
			Description	Failed to establish a communication between the DC Controller PCB (PCB1) and the Main Driver PCB (PCB2).
E197	-0002	-05	Title	Error in Feed Driver PCB connection detection
			Remedy	1. Check the connection of the DC Controller PCB (PCB1) and the Feed Driver PCB (PCB3). DC Controller side: J421, Feed Driver side: J204 2. Check the connection of the Feed Driver PCB (PCB3) and the DC-DC Converter PCB. Check the connection at the Feed Driver side (J218) and the DC-DC Converter side (J9033). 3. Check the power supply of the Feed Driver PCB (PCB3). Check if appropriate voltages are applied to the Feed Driver side (12V to 1pin, 5V to 3pin, 3.3V to 4pin). -> If not, replace the DC-DC Converter PCB. 4. Replace the Feed Driver PCB (PCB3). 5. Replace the DC Controller PCB (PCB1).
			Description	Failed to establish a communication between the DC Controller PCB (PCB1) and the Feed Driver Pub (PCB3).

E Code	Detail Code	Location	Item	Description
E197	-0003	-05	Title	Error in Duplex Driver PCB connection detection
			Remedy	1. Check the connection between the DC Controller PCB (PCB1) and the Fixing Feed Drawer. DC Controller side: J431, J432, Fixing Feed Drawer (host machine side): J3002D Fixing Feed Drawer (Fixing Feed side): J3002L, Duplex Driver side: J300, J301 2. Check the connection of the Duplex Driver PCB (PCB4) and the DC-DC Converter PCB. Check the connection at the Duplex Driver side (J311) and the DC-DC Converter side (J9034). 3. Check the power supply of the Duplex Driver PCB (PCB4). Check if appropriate voltages are applied to the Duplex Driver side (12V to 1pin, 5V to 3pin, 3.3V to 4pin). -> If not, replace the DC-DC Converter PCB. 4. Replace the Duplex Driver PCB (PCB4). 5. Replace the DC Controller PCB (PCB1).
			Description	Failed to establish a communication between the DC Controller PCB (PCB1) and the Duplex Driver PCB (PCB4).
E197	-0004	-05	Title	Error in Relay PCB connection detection
			Remedy	1. Check the connection of the DC Controller PCB (PCB1) and the Relay PCB (PCB5). DC Controller side: J451, Relay side: J514 2. Replace the Relay PCB (PCB5). 3. Replace the DC Controller PCB (PCB1).
			Description	Connection between the DC Controller PCB (PCB1) and the Relay PCB (PCB5) is disconnected.
E197	-0005	-05	Title	Error in Main Driver PCB Analog Connector connection detection
			Remedy	1. Check the connection of the DC Controller PCB (PCB1) and the Main Driver PCB (PCB2). DC Controller side: J413, Main Driver side: J124 2. Replace the Main Driver PCB (PCB2). 3. Replace the DC Controller PCB (PCB1).
			Description	Connection between the DC Controller PCB (PCB1) and the Main Driver PCB (PCB2) is disconnected.

E Code	Detail Code	Location	Item	Description
E197	-0006	-05	Title	Error in Duplex Driver PCB Drawer Connector connection detection
			Remedy	1. Check the connection between the DC Controller PCB (PCB1) and the Fixing Feed Drawer. DC Controller side: J431, J432, Fixing Feed Drawer (host machine side): J3002D Fixing Feed Drawer (Fixing Feed side): J3002L, Feed Driver side: J300, J301 2. Replace the Duplex Driver PCB (PCB4). 3. Replace the DC Controller PCB (PCB1).
			Description	Connection between the DC Controller PCB (PCB1) and the Duplex Driver PCB (PCB4) is disconnected.
E197	-0008	-05	Title	Error in Fixing Drawer Connector connection detection
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Fixing Drawer. Main Driver side: J105, Fixing Drawer (host machine side): J3001D Check the Harness of the Fixing Drawer (Fixing side) (J3001L). 2. Replace the Main Driver PCB (PCB2).
			Description	Connection between the DC Controller PCB (PCB1) and the Main Driver PCB (PCB2) is disconnected.
E197	-0009	-05	Title	Error in the Process Unit connection detection
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Process Unit. PCB side: J107, Process Unit side: J3060 2. Replace the Process Unit.
			Description	Connection between the Main Driver PCB (PCB2) and the Process Unit is disconnected.
E197	-0010	-05	Title	Error in Primary Charging High Voltage PCB connection detection
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Primary Charging High Voltage PCB (PCB11). Main Driver side: J111, Primary Charging High Voltage side: J3501 2. Replace the Primary Charging High Voltage PCB (PCB11).
			Description	Connection between the Main Driver PCB (PCB2) and the Primary Charging High Voltage PCB (PCB11) is disconnected.

E Code	Detail Code	Location	Item	Description
E197	-0011	-05	Title	Error in Developing High Voltage PCB connection detection
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Developing High Voltage PCB (PCB12). Main Driver side: J112, Developing High Voltage side: J3511 2. Replace the Developing High Voltage PCB (PCB12).
			Description	Connection between the Main Driver PCB (PCB2) and the Developing High Voltage PCB (PCB12) is disconnected.
E197	-0012	-05	Title	Error in Transfer High Voltage PCB connection detection
			Remedy	1. Check the connection between the Duplex Driver PCB (PCB4) and the Transfer High Voltage PCB (PCB13). Duplex Driver side: J343, Transfer High Voltage side: J3062 2. Replace the Transfer High Voltage PCB (PCB13).
			Description	Connection between the Duplex Driver PCB (PCB4) and the Transfer High Voltage PCB (PCB13) is disconnected.
E197	-0181	-05	Title	Serial communication error
			Remedy	Replace the DC Controller PCB (PCB1).
			Description	Failure of reception from the video signal control ASIC. Data reception was failed 5 times in a row when reading data from the video signal control ASIC (at FG lock detection, BD lock detection).

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## ■ E202 to E280

E Code	Detail Code	Location	Item	Description
E202	-0001	-04	Title	Scanner HP error
			Remedy	1. Connector disconnection/open circuit of the Scanner HP Sensor (SR2). 2. Failure of the Scanner HP Sensor (SR2). 3. Failure of the Scanner Motor (M1). 4. Failure of the Reader Controller PCB (PCB1).
			Description	An error occurs during the Scanner Unit (Paper Front) HP detection operation (outward).
E202	-0002	-04	Title	Scanner HP error
			Remedy	1. Connector disconnection/open circuit of the Scanner HP Sensor (SR2). 2. Failure of the Scanner HP Sensor (SR2). 3. Failure of the Scanner Motor (M1). 4. Failure of the Reader Controller PCB (PCB1).
			Description	An error occurs during the Scanner Unit (Paper Front) HP detection operation (homeward).
E202	-0101	-04	Title	Glass HP error
			Remedy	1. Connector disconnection/open circuit of the Glass Shift HP Sensor (SR11). 2. Failure of the Glass Shift HP Sensor (SR11). 3. Failure of the Glass Shift Motor (M9). 4. Failure of the DADF Driver PCB (PCB1).
			Description	An error occurs during the Glass HP detection operation (outward).
E202	-0102	-04	Title	Glass HP error
			Remedy	1. Connector disconnection/open circuit of the Glass Shift HP Sensor (SR11). 2. Failure of the Glass Shift HP Sensor (SR11). 3. Failure of the Glass Shift Motor (M9). 4. Failure of the DADF Driver PCB (PCB1).
			Description	An error occurs during the Glass HP detection operation (homeward).
E227	-0001	-04	Title	Power supply (24V) error
			Remedy	1. Connector disconnection/open circuit of the Reader Power Supply. 2. Failure of power supply.
			Description	24V port is OFF when the power is turned ON.
E227	-0002	-04	Title	Power supply (24V) error
			Remedy	1. Connector disconnection/open circuit of the Reader Power Supply. 2. Failure of power supply.
			Description	24V port is OFF when a job is started.

E Code	Detail Code	Location	Item	Description
E227	-0003	-04	Title	Power supply (24V) error
			Remedy	1. Connector disconnection/open circuit of the Reader Power Supply. 2. Failure of power supply.
			Description	24V port is OFF when a job is ended.
E227	-0004	-04	Title	Power supply (24V) error
			Remedy	1. Connector disconnection/open circuit of the Reader Power Supply. 2. Failure of power supply.
			Description	24V port is OFF when loading.
E227	-0101	-04	Title	Power supply (24V) error
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (PCB1). 2. Connector disconnection/open circuit of the Reader Power Supply. 3. Failure of power supply.
			Description	24V port is OFF when the power of DADF is turned ON.
E227	-0102	-04	Title	Power supply (24V) error
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (PCB1). 2. Connector disconnection/open circuit of the Reader Power Supply. 3. Failure of power supply.
			Description	24V port is OFF when a job is started in the DADF.
E227	-0103	-04	Title	Power supply (24V) error
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (PCB1). 2. Connector disconnection/open circuit of the Reader Power Supply. 3. Failure of power supply.
			Description	24V port is OFF when a job is ended in the DADF.
E240	-0000	-05	Title	Communication error between Main Controller and DC Controller
			Remedy	1. Check the connection of the Main Controller PCB and the DC Controller PCB (PCB1). Main Controller side: J712, DC Controller side: J442 2. Replace the DC Controller PCB (PCB1). 3. Replace the Main Controller PCB.
			Description	Communication error occurs between the CPU of the Main Controller PCB and the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E240	-0001	-05	Title	3 minutes passed with pickup request waiting status
			Remedy	1. Check the connection of the Connector. 2. Check the connection of the Sub PCB in the Main Controller PCB 1 Box. 3. Check the connections of the DC Controller PCB and the Main Controller PCB 1. Replace the PCB(s) if necessary.
			Description	It was detected that 3 minutes passed with pickup request waiting status.
E240	-0002	-05	Title	3 minutes passed with image output request waiting status
			Remedy	1. Check the connection of the Connector. 2. Check the connection of the Sub PCB in the Main Controller PCB 1 Box. 3. Check the connections of the DC Controller PCB and the Main Controller PCB 1. Replace the PCB(s) if necessary.
			Description	It was detected that 3 minutes passed with image output request waiting status.
E240	-0003	-05	Title	Software sequence error after the jam
			Remedy	1. Check the connection of the Connector. 2. Check the connection of the Sub PCB in the Main Controller PCB 1 Box. 3. Check the connections of the DC Controller PCB and the Main Controller PCB 1. Replace the PCB(s) if necessary.
			Description	A software sequence error (engine bug) was detected after the jam.
E246	-0001	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E246	-0002	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E246	-0003	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E246	-0005	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E247	-0001	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---

E Code	Detail Code	Location	Item	Description
E247	-0002	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E247	-0003	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E247	-0004	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E248	-0000	-00	Title	SRAM error
			Remedy	Main Controller PCB 2.
			Description	SRAM check error when the power is turned ON.
E248	-0001	-04	Title	EEPROM error
			Remedy	Failure of the Reader Controller PCB (PCB1).
			Description	An error when EEPROM power for the Reader Controller PCB (PCB1) is turned ON.
E248	-0002	-04	Title	EEPROM error
			Remedy	Failure of the Reader Controller PCB (PCB1).
			Description	EEPROM writing error for the Reader Controller PCB (PCB1).
E248	-0003	-04	Title	EEPROM error
			Remedy	Failure of the Reader Controller PCB (PCB1).
			Description	Reading error after writing to EEPROM for the Reader Controller PCB (PCB1).
E263	-0000	-05	Title	Error in Current Sensor reference voltage generation
			Remedy	1. Check the connection between the AC Driver PCB and the Main Driver PCB (connector disconnection, open circuit, short circuit of harness). AC Driver side: J615, Main Driver side: J103 2. Replace the AC Driver PCB. 3. Replace the Main Driver PCB (PCB2).
			Description	When CP54 on the Main Driver PCB was measured with a tester, the reference voltage (normally 2.5 V) was not within the range of reference value (2.2 to 2.7 V).

E Code	Detail Code	Location	Item	Description
E263	-0001	-05	Title	Current Sensor error
			Remedy	1. Check the connection between the AC Driver PCB and the Main Driver PCB (connector disconnection, open circuit, short circuit of harness). AC Driver side: J615, Main Driver side: J103 2. Replace the AC Driver PCB. 3. Replace the Main Driver PCB (PCB2).
			Description	An error is detected in the value of the Current Sensor (SE601) (the value remains at the upper limit).
E263	-0002	-05	Title	Current Sensor error
			Remedy	1. Check the connection between the AC Driver PCB and the Main Driver PCB (connector disconnection, open circuit, short circuit of harness). AC Driver side: J615, Main Driver side: J103 2. Replace the AC Driver PCB. 3. Replace the Main Driver PCB (PCB2).
			Description	An error is detected in the value of the Current Sensor (SE601) (the value remains at the lower limit).
E263	-0003	-05	Title	Error in Current Sensor accuracy
			Remedy	1. Check the connection between the AC Driver PCB and the Main Driver PCB (connector disconnection, open circuit, short circuit of harness). AC Driver side: J615, Main Driver side: J103 2. Replace the AC Driver PCB. 3. Replace the Main Driver PCB (PCB2).
			Description	The value of the Current Sensor (SE601) is not within the range of reference value.
E270	-0001	-04	Title	Error in paper front vertical scanning synchronous signal
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (Reader). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (Reader). 4. Failure of the Reader Controller PCB (PCB1).
			Description	Vertical scanning synchronous signal (VSYNC) is not sent appropriately from the CMOS PCB (Scanner Unit (Paper Front)), so the image error occurs or the operation stops abnormally.

E Code	Detail Code	Location	Item	Description
E270	-0002	-04	Title	Error in horizontal scanning/vertical scanning synchronous signal
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (Reader/DADF). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (Reader/DADF). 4. Failure of the Reader Controller PCB (PCB1).
			Description	Due to the horizontal scanning synchronous signal (HSYNC) error, the vertical scanning synchronous signal (VSYNC) is not sent, so the image error occurs or the operation stops abnormally.
E270	-0101	-04	Title	Error in paper back vertical scanning synchronous signal
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (DADF). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (DADF). 4. Failure of the Reader Controller PCB (PCB1).
			Description	Vertical scanning synchronous signal (VSYNC) is not sent appropriately from the CMOS PCB (Scanner Unit (Paper Back)), so the image error occurs or the operation stops abnormally.
E280	-0001	-04	Title	Communication error between Reader Controller PCB (PCB1) and Scanner Unit (Reader)
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (Reader). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (Reader). 4. Failure of the Reader Controller PCB (PCB1).
			Description	Within the specified period of time, communication between the Reader Controller PCB and Scanner Unit (Paper Front) is not started.
E280	-0101	-04	Title	Communication error between Reader Controller PCB (PCB1) and Scanner Unit (DADF)
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (DADF). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (DADF). 4. Failure of the Reader Controller PCB (PCB1).
			Description	Within the specified period of time, communication between the Reader Controller PCB and Scanner Unit (Paper Back) is not started.

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## ■ E301 to E355

E Code	Detail Code	Location	Item	Description
E301	-0001	-04	Title	Paper front light intensity NG
			Remedy	Failure of the Scanner Unit (Reader).
			Description	Light intensity is below the reference level at paper front shading.
E301	-0101	-04	Title	Paper back light intensity NG
			Remedy	Failure of the Scanner Unit (DADF).
			Description	Light intensity is below the reference level at paper back shading.
E302	-0001	-04	Title	Error in paper front shading
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (Reader). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (Reader). 4. Failure of the Reader Controller PCB (PCB1).
			Description	Error in shading RAM access, or the shading value is either below or higher than the reference level.
E302	-0101	-04	Title	Error in paper back shading
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (DADF). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Operation error of the Glass Shift Motor (M9). 4. Failure of the Scanner Unit (DADF). 5. Failure of the Reader Controller PCB (PCB1).
			Description	Error in shading RAM access, or the shading value is either below or higher than the reference level.
E315	-0007	-00	Title	Codec error
			Remedy	Replacement of the Main Controller PCB.
			Description	JBIG encode error.
E315	-000d	-00	Title	Codec error
			Remedy	1. Replacement of SDRAM. 2. Replacement of HDD. 3. Replacement of the Main Controller PCB.
			Description	JBIG decode error.
E315	-000e	-00	Title	Codec error
			Remedy	1. Replacement of SDRAM. 2. Replacement of HDD. 3. Replacement of the Main Controller PCB.
			Description	Software decode error.

E Code	Detail Code	Location	Item	Description
E315	-0025	-00	Title	Codec error
			Remedy	Replacement of the Main Controller PCB.
			Description	ROTU hardware error.
E315	-0027	-00	Title	Codec error
			Remedy	Replacement of the Main Controller PCB.
			Description	ROTU timeout error.
E315	-0033	-00	Title	MemFill hardware error
			Remedy	Replacement of the Main Controller PCB.
			Description	MemFill hardware error.
E315	-0035	-00	Title	Codec error
			Remedy	Replacement of the Main Controller PCB.
			Description	MemFill timeout error.
E315	-0100	-00	Title	Codec error
			Remedy	Replacement of the Main Controller PCB.
			Description	PrcOverRun error.
E315	-0500	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
E315	-0501	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Abnormal interruption is detected after starting the operation.
E315	-0510	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
E315	-0511	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Abnormal interruption is detected after starting the operation.
E315	-0520	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
E315	-0521	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Abnormal interruption is detected after starting the operation.

E Code	Detail Code	Location	Item	Description
E315	-0530	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
E315	-0531	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Abnormal interruption is detected after starting the operation.
E315	-0540	-00	Title	JPEG decode error
			Remedy	1. Turn OFF and then ON the power. If it is not recovered or it occurs frequently, perform the following measures. 2. Format the HDD. If it is not recovered, replace the HDD. 3. Replace the memory on the Main Controller 2 (DDR2-SDRAM). 4. Replace the Main Controller PCB 2.
			Description	This error occurs when images buffered in the HDD or memory were corrupted when performing image processing. JPEG decode is used when handling color (or gray) images. Therefore, the error does not occur for normal copy or PDL print. But it may occur with SEND.
E315	-0541	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Abnormal interruption is detected after starting the operation.
E315	-0550	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
E315	-0551	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Abnormal interruption is detected after starting the operation.
E315	-0560	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
E315	-0561	-00	Title	Codec error
			Remedy	jcdImage device.
			Description	Abnormal interruption is detected after starting the operation.
E350	-0000	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---

E Code	Detail Code	Location	Item	Description
E350	-0001	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E350	-0002	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E350	-0003	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E350	-3000	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E351	-0000	-00	Title	Main Controller PCB 2 communication error
			Remedy	1. Disconnect and then connect the connector of the Main Controller PCB 2. 2. Replace the Main Controller PCB 2.
			Description	Main Controller PCB 2 communication error.
E354	-0001	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E354	-0002	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E355	-0001	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E355	-0003	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---
E355	-0004	-00	Title	System error
			Remedy	Contact to the sales companies.
			Description	---

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## E400 to E490

E Code	Detail Code	Location	Item	Description
E400	-0001	-04	Title	Communication error between Reader Controller PCB (PCB1) and DADF
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (PCB1). 2. Failure of the DADF Driver PCB (PCB1). 3. Failure of the Reader Controller PCB (PCB1).
			Description	Reception error occurs at the time of communication between the Reader Controller PCB and the DADF.
E400	-0002	-04	Title	Communication error between Reader Controller PCB (PCB1) and DADF
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (PCB1). 2. Failure of the DADF Driver PCB (PCB1). 3. Failure of the Reader Controller PCB (PCB1).
			Description	Reception error occurs at the time of communication between the Reader Controller PCB and the DADF.
E401	-0001	-04	Title	Pickup Roller Unit lifting error
			Remedy	1. Connector disconnection/open circuit of the Pickup Roller Unit Lifter HP Sensor (SR12). 2. Connector disconnection/open circuit of the Pickup Roller Unit Lifter Motor (M10). 3. Failure of the Pickup Roller Unit Lifter HP Sensor (SR12). 4. Failure of the Pickup Roller Unit Lifter Motor (M10).
			Description	The level of the Pickup Roller Unit Lifter HP Sensor (SR12) does not change within the specified period of time although the Pickup Roller Unit Lifter Motor (M10) is driven.
E401	-0002	-04	Title	Pickup Roller Unit lifting error
			Remedy	1. Connector disconnection/open circuit of the Pickup Roller Unit Lifter HP Sensor (SR12). 2. Connector disconnection/open circuit of the Pickup Roller Unit Lifter Motor (M10). 3. Failure of the Pickup Roller Unit Lifter HP Sensor (SR12). 4. Failure of the Pickup Roller Unit Lifter Motor (M10).
			Description	The level of the Pickup Roller Unit Lifter HP Sensor (SR12) does not change within the specified period of time although the Pickup Roller Unit Lifter Motor (M10) is driven.

E Code	Detail Code	Location	Item	Description
E407	-0001	-04	Title	Tray Lifter Motor (M8) error
			Remedy	1. Connector disconnection/open circuit of the Tray HP Sensor (SR13). 2. Connector disconnection/open circuit of the Tray Lifter Motor (M8). 3. Failure of the Tray HP Sensor (SR13). 4. Failure of the Tray Lifter Motor (M8).
			Description	The Tray HP Sensor (SR13) is not turned ON or OFF within the specified period of time although the Tray Lifter Motor (M8) is driven.
E407	-0002	-04	Title	Tray Lifter Motor (M8) error
			Remedy	1. Connector disconnection/open circuit of the Paper Surface Sensor (SR6). 2. Connector disconnection/open circuit of the Tray Lifter Motor (M8). 3. Failure of the Paper Face Sensor (SR6). 4. Failure of the Tray Lifter Motor (M8).
			Description	The Paper Surface Sensor (SR6) is not turned ON within the specified period of time although the Tray Lifter Motor (M8) is driven.
E413	-0001	-04	Title	DADF Disengagement Motor 1 (M6) error
			Remedy	1. Connector disconnection/open circuit of the Disengagement HP Sensor 1 (SR15). 2. Connector disconnection/open circuit of the Disengagement Motor 1 (M6). 3. Failure of the Disengagement HP Sensor 1 (SR15). 4. Failure of the Disengagement Motor 1 (M6). 5. Failure of the DADF Driver PCB (PCB1).
			Description	The DADF Disengagement HP Sensor 1 (SR15) is not turned ON within the specified period of time although the DADF Disengagement Motor 1 (M6) is driven.
E413	-0002	-04	Title	DADF Disengagement Motor 1 (M6) error
			Remedy	1. Connector disconnection/open circuit of the Disengagement HP Sensor 1 (SR15). 2. Connector disconnection/open circuit of the Disengagement Motor 1 (M6). 3. Failure of the Disengagement HP Sensor 1 (SR15). 4. Failure of the Disengagement Motor 1 (M6). 5. Failure of the DADF Driver PCB (PCB1).
			Description	The DADF Disengagement HP Sensor 1 (SR15) is not turned OFF within the specified period of time although the DADF Disengagement Motor 1 (M6) is driven.



E Code	Detail Code	Location	Item	Description
E413	-0011	-04	Title	DADF Disengagement Motor 2 (M7) error
			Remedy	<ol style="list-style-type: none"> <li>1. Connector disconnection/open circuit of the Disengagement HP Sensor 2 (SR16).</li> <li>2. Connector disconnection/open circuit of the Disengagement Motor 2 (M7).</li> <li>3. Failure of the Disengagement HP Sensor 2 (SR16).</li> <li>4. Failure of the Disengagement Motor 2 (M7).</li> <li>5. Failure of the DADF Driver PCB (PCB1).</li> </ol>
			Description	The DADF Disengagement HP Sensor 2 (SR16) is not turned ON within the specified period of time although the DADF Disengagement Motor 2 (M7) is driven.
E413	-0012	-04	Title	DADF Disengagement Motor 2 (M7) error
			Remedy	<ol style="list-style-type: none"> <li>1. Connector disconnection/open circuit of the Disengagement HP Sensor 2 (SR16).</li> <li>2. Connector disconnection/open circuit of the Disengagement Motor 2 (M7).</li> <li>3. Failure of the Disengagement HP Sensor 2 (SR16).</li> <li>4. Failure of the Disengagement Motor 2 (M7).</li> <li>5. Failure of the DADF Driver PCB (PCB1).</li> </ol>
			Description	The DADF Disengagement HP Sensor 2 (SR16) is not turned OFF within the specified period of time although the DADF Disengagement Motor 2 (M7) is driven.
E423	-0001	-04	Title	DADF SDRAM error
			Remedy	Error in SDRAM (video image memory) on the Reader Controller PCB (PCB1).
			Description	SDRAM access error.
E423	-0002	-04	Title	DADF SDRAM error
			Remedy	Error in SDRAM (video image memory) on the Reader Controller PCB (PCB1).
			Description	SDRAM Verify error.
E490	-0001	-04	Title	Different DADF model error
			Remedy	<ol style="list-style-type: none"> <li>1. Installed DADF is a different model.</li> <li>2. Failure of the Reader Controller PCB (PCB1).</li> <li>3. Failure of the DC Controller PCB.</li> <li>4. Failure of the Main Controller PCB.</li> </ol>
			Description	Not proper DADF is installed.

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## ■ E500 to E5F9

E Code	Detail Code	Location	Item	Description
E500	-0000	-05	Title	Error in IPC communication (Finisher-D1)
			Remedy	1. IPC cable is disconnected. 2. IPC cable is faulty. 3. The Finisher Controller PCB is faulty. 4. The host machine Controller PCB is faulty.
			Description	Communication failed between the host machine and the Finisher.
E500	-0001	-05	Title	a. IError in ARCNET communication b. IError in IPC communication
			Remedy	a-1. Connection failure of the ARCNET cable connection. a-2. ARCNET PCB a-3. Finisher controller PCB a-4. Connection between Finisher and Paper Folding Unit / Booklet Trimmer a-5. DC controller PCB / Booklet Trimmer controller PCB b-1. IPC cable communication b-2. Finisher controller PCB b-3. Host machine controller PCB b-4. Failure in the IPC communication cable b-5. Connection between Finisher and Paper Folding Unit / Booklet Trimmer b-6. DC controller PCB / Booklet Trimmer controller PCB * If any of those is not assumed as a cause, this error might have occurred on another option.
			Description	a. ICommunication failed between the host machine and the Finisher / Paper Folding Unit / Booklet Trimmer. b. ITimeout error of communication with the host machine
E500	-0001	-05	Title	Error in communication between the host machine - ACC
			Remedy	1. Connection failure between the host machine and the Professional Puncher Integration Unit 2. Failure of interface PCB (PCB5) of Professional Puncher Integration Unit 3. Communication between Professional Puncher and Integration Unit 4. Professional Puncher controller PCB * If any of those is not assumed as a cause, this error might have occurred on another option.
			Description	Communication failed between the host machine and the Professional Puncher / Integration Unit.

E Code	Detail Code	Location	Item	Description
E500	-0001	-05	Title	Error in ARCNET communication
			Remedy	1. Connection failure of Inserter DC controller PCB/Option controller PCB 2. Connection failure of Communication cable 3. Connection failure of Communication driver PCB 4. Failure in Inserter DC controller PCB/Option controller PCB 5. Failure in communication cable 6. Failure in Communication driver PCB * If any of those is not assumed as a cause, this error might have occurred on another option.
			Description	Communication failed between the host machine and the Document Insertion Unit.
E500	-0022	-05	Title	Error due to unexpected operation
			Remedy	If an error cannot be released by turning OFF/ON the power, contact a sales company.
			Description	-
E500	-0098	-05	Title	Error due to unexpected operation
			Remedy	If an error cannot be released by turning OFF/ON the power, contact a sales company.
			Description	-
E500	-0099	-05	Title	Error due to unexpected operation
			Remedy	If an error cannot be released by turning OFF/ON the power, contact a sales company.
			Description	-
E500	-00A1	-05	Title	Error due to unexpected operation
			Remedy	If an error cannot be released by turning OFF/ON the power, contact a sales company.
			Description	-
E500	-00A2	-05	Title	Error due to unexpected operation
			Remedy	If an error cannot be released by turning OFF/ON the power, contact a sales company.
			Description	-
E500	-00A3	-05	Title	Error due to unexpected operation
			Remedy	If an error cannot be released by turning OFF/ON the power, contact a sales company.
			Description	-
E500	-00A4	-05	Title	Error due to unexpected operation
			Remedy	If an error cannot be released by turning OFF/ON the power, contact a sales company.
			Description	-

E Code	Detail Code	Location	Item	Description
E500	-00D4	-05	Title	Error due to unexpected operation
			Remedy	If an error cannot be released by turning OFF/ON the power, contact a sales company.
			Description	-
E503	-0001	-05	Title	Error in communication between the Finisher - Saddle Stitcher (Finisher-D1)
			Remedy	1. The connector on the wiring between the Finisher Controller PCB and the Saddle Stitcher Controller PCB is disconnected. 2. The wiring between the Finisher Controller PCB and the Saddle Stitcher Controller PCB is faulty. 3. The Finisher Controller PCB is faulty. 4. The Saddle Stitcher Controller PCB is faulty.
			Description	Communication failed between the Finisher and the Saddle Stitcher
E503	-0002	-05	Title	Error in communication between the Finisher - Saddle Stitcher (Finisher-D1)
			Remedy	1. The connector on the wiring between the Finisher Controller PCB and the Saddle Stitcher Controller PCB is disconnected. 2. The wiring between the Finisher Controller PCB and the Saddle Stitcher Controller PCB is faulty. 3. The Finisher Controller PCB is faulty. 4. The Saddle Stitcher Controller PCB is faulty.
			Description	Communication failed between the Finisher and the Saddle Stitcher
E503	-0003	-05	Title	Professional Puncher-C1 communication/connection error
			Remedy	1. Check that the power of the Professional Puncher-C1 is ON. 2. Check the connection between the Professional Puncher-C1 and the Professional Puncher Integration Unit-B1. 3. Replace the communication cable between the Professional Puncher-C1 and the Professional Puncher Integration Unit-B1.
			Description	The power of the Professional Puncher-C1 was OFF, or a serial communication error was detected at the puncher side.
E503	-0006	-05	Title	Error in communication between the finisher - paper folding unit
			Remedy	1. Connector on the finisher controller PCB is disconnected. 2. Connector on the paper folding unit DC controller PCB is disconnected. 3. Finisher controller PCB is faulty. 4. Paper folding unit DC controller PCB is faulty.
			Description	Communication failed between the finisher - paper folding unit

E Code	Detail Code	Location	Item	Description
E503	-0021	-05	Title	Error in communication between the Finisher - Insertion Unit (Finisher-D1)
			Remedy	1. The connector on the cable between the Finisher and the Insertion Unit is disconnected. 2. The cable between the Finisher and the Insertion Unit is faulty. 3. The Finisher Controller PCB is faulty. 4. The Insertion Unit Controller PCB is faulty.
			Description	Communication failed between Finisher - Insertion Unit
E503	-0022	-05	Title	Error in communication between the Finisher - Insertion Unit (Finisher-D1/Document Insertion Unit-K1)
			Remedy	1. The connector on the cable between the Finisher and the Insertion Unit is disconnected. 2. The cable between the Finisher and the Insertion Unit is faulty. 3. The Finisher Controller PCB is faulty. 4. The Insertion Unit Controller PCB is faulty.
			Description	Communication failed between Finisher - Insertion Unit
E503	-0041	-05	Title	Error in communication between the Finisher - Integration Unit (Finisher-D1)
			Remedy	1. The connector on the cable between the Finisher and the Integration Unit is disconnected. 2. The cable between the Finisher and the Integration Unit is faulty. 3. The Finisher Controller PCB is faulty. 4. The Integration Controller PCB is faulty.
			Description	Communication failed between Finisher - Integration Unit
E503	-0042	-05	Title	Error in communication between the Finisher - Integration Unit (Finisher-D1)
			Remedy	1. The connector on the cable between the Finisher and the Integration Unit is disconnected. 2. The cable between the Finisher and the Integration Unit is faulty. 3. The Integration Controller PCB is faulty. 4. The Finisher Controller PCB is faulty.
			Description	Communication failed between Finisher - Integration Unit
E503	-0051	-05	Title	Error in communication between the Integration Unit - Professional Puncher (Finisher-D1)
			Remedy	1. The connector on the cable between the Integration Unit and the Professional Puncher is disconnected. 2. The cable between the Integration Unit and the Professional Puncher is faulty. 3. The Integration Controller PCB is faulty. 4. The Professional Puncher Controller PCB is faulty.
			Description	Communication failed between the Integration Unit - Professional Puncher

E Code	Detail Code	Location	Item	Description
E503	-0053	-05	Title	Error in communication between the Integration Unit - Professional Puncher (Professional Puncher Integration Unit-B1)
			Remedy	1. The connector on the cable between the Integration Unit and the Professional Puncher is disconnected. 2. The cable between the Integration Unit and the Professional Puncher is faulty. 3. The Integration Controller PCB is faulty. 4. The Professional Puncher Controller PCB is faulty.
			Description	Communication failed between the Integration Unit - Professional Puncher (Error in communication of Professional Puncher)
E503	-0061	-05	Title	Error in communication between the Finisher - Paper Folding Unit (Finisher-D1)
			Remedy	1. The connector on the cable between the Finisher and the Paper Folding Unit is disconnected. 2. The cable between the Finisher and the Paper Folding Unit is faulty. 3. The Finisher Controller PCB is faulty. 4. The Paper Folding Unit Controller PCB is faulty.
			Description	Communication failed between the Finisher - Paper Folding Unit
E503	-0062	-05	Title	Error in communication between the Finisher - Paper Folding Unit (Paper Folding Unit-H1/Finisher-D1)
			Remedy	1. The connector on the cable between the Finisher and the Paper Folding Unit is disconnected. 2. The cable between the Finisher and the Paper Folding Unit is faulty. 3. The Finisher Controller PCB is faulty. 4. The Paper Folding Unit Controller PCB is faulty.
			Description	Communication failed between the Finisher - Paper Folding Unit
E503	-0081	-05	Title	Error in communication between the Saddle Stitcher - Trimmer (Finisher-D1)
			Remedy	1. The connector on the wiring between the Saddle Stitcher and the Trimmer is disconnected. 2. The wiring between the Saddle Stitcher and the Trimmer is faulty. 3. The Trimmer Controller PCB is faulty. 4. The Saddle Stitcher Controller PCB is faulty. 5. The Finisher Controller PCB is faulty.
			Description	Communication failed between the Finisher - Trimmer

E Code	Detail Code	Location	Item	Description
E503	-0082	-05	Title	Error in communication between the Saddle Stitcher - Trimmer (Finisher-D1)
			Remedy	1. The connector on the wiring between the Saddle Stitcher and the Trimmer is disconnected. 2. The wiring between the Saddle Stitcher and the Trimmer is faulty. 3. The Trimmer Controller PCB is faulty. 4. The Saddle Stitcher Controller PCB is faulty. 5. The Finisher Controller PCB is faulty.
			Description	Communication failed between the Finisher - Trimmer
E503	-8004	-05	Title	Error in option communication (trimmer)
			Remedy	1. Check the connection of ARCNET cable 2. Communication PCB 3. Finisher controller PCB
			Description	Communication cannot be make with trimmer.
E505	-0001	-05	Title	Finisher back-up RAM (EEPROM) error (Finisher-D1/E1)
			Remedy	The Finisher Controller PCB is faulty.
			Description	The checksum for the EEPROM data has an error. (The value written in EEPROM and the value extracted from EEPROM doesn't conform.)
E505	-0003	-05	Title	Insertion unit back-up RAM error (Finisher-D1)
			Remedy	The Insertion Unit Controller PCB is faulty.
			Description	The value written in EEPROM and the value extracted from EEPROM doesn't conform.
E505	-0005	-05	Title	Paper Folding Unit backup RAM error (Paper Folding Unit-H1/Finisher-D1)
			Remedy	The Paper Folding Unit Controller PCB is faulty.
			Description	The value written in EEPROM and the value extracted from EEPROM doesn't conform.
E505	-0008	-05	Title	Error in reading of multi functional folding machine
			Remedy	EEPROM
			Description	Reading of EEPROM of multi functional folding machine failed.
E505	-0009	-05	Title	Error in writing of multi functional folding machine
			Remedy	EEPROM
			Description	Writing of EEPROM of multi functional folding machine failed.
E509	-0002	-05	Title	Error in BootROM
			Remedy	BootROM
			Description	Combination of finisher controller and BootROM is mismatch.

E Code	Detail Code	Location	Item	Description
E509	-0002	-05	Title	Name mismatch between BOOTROM of integration unit and firmware
			Remedy	Failure in DC controller PCB (PCB1) of integration unit
			Description	Software combination error of BOOTROM and firmware is detected.
E509	-0004	-05	Title	Error in trimmer B1 connection
			Remedy	Different trimmer (trimmer B1) connection
			Description	Trimmer B1 is connected.
E514	-8001	-05	Title	a. Error in assist operation (Finisher-F1) b. Error in the Gripper Base Motor (Finisher-D1)
			Remedy	a-1. Connector of assist HP sensor a-2. Connector of assist motor a-3. Replacement of assist HP sensor a-4. Replacement of assist motor a-5. Replacement of finisher controller PCB b-1. The connector of the Gripper Base Rear Sensor (S117) or the Gripper Base Motor (M116) are disconnected. b-2. The wiring of the Gripper Base Rear Sensor (S117) or the Gripper Base Motor (M116) are faulty. b-3. The Gripper Base Rear Sensor (S117) is faulty. b-4. The Gripper Base Motor (M116) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Assist HP sensor does not come ON within 5 sec after the assist motor starts operation. b. The gripper does not come off the Gripper Base Rear Sensor when the Gripper Base Motor has been driven for 3 seconds.
E514	-8002	-05	Title	a. Error in assist operation (Finisher-F1) b. Error in the Gripper Base Motor (Finisher-D1)
			Remedy	a-1. Connector of assist HP sensor a-2. Connector of assist motor a-3. Replacement of assist HP sensor a-4. Replacement of assist motor a-5. Replacement of finisher controller PCB b-1. The connector of the Gripper Base Rear Sensor (S117) or the Gripper Base Motor (M116) are disconnected. b-2. The wiring of the Gripper Base Rear Sensor (S117) or the Gripper Base Motor (M116) are faulty. b-3. The Gripper Base Rear Sensor (S117) is faulty. b-4. The Gripper Base Motor (M116) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Assist HP sensor does not go OFF within 5 sec after the assist motor starts operation. b. The Gripper Base Rear Sensor does not detect the gripper when the Gripper Base Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E514	-8003	-05	Title	Error in the Gripper Motor (Finisher-D1)
			Remedy	1. The connector of the Gripper HP Sensor (S140) or the Gripper Motor (M117) are disconnected. 2. The wiring of the Gripper HP Sensor (S140) or the Gripper Motor (M117) are faulty. 3. The Gripper HP Sensor (S140) is faulty. 4. The Gripper Motor (M117) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The gripper does not come off the Gripper HP Sensor when the Gripper Motor has been driven for 3 seconds.
E514	-8004	-05	Title	Error in the Gripper Motor (Finisher-D1)
			Remedy	1. The connector of the Gripper HP Sensor (S140) or the Gripper Motor (M117) are disconnected. 2. The wiring of the Gripper HP Sensor (S140) or the Gripper Motor (M117) are faulty. 3. The Gripper HP Sensor (S140) is faulty. 4. The Gripper Motor (M117) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The Gripper HP Sensor does not detect the gripper when the Gripper Motor has been driven for 3 seconds.
E514	-8005	-05	Title	Error in the Gripper Motor (Finisher-D1)
			Remedy	1. The connector of the Gripper Position Sensor (S115) or the Gripper Motor (M117) are disconnected. 2. The wiring of the Gripper Position Sensor (S115) or the Gripper Motor (M117) are faulty. 3. The Gripper Position Sensor (S115) is faulty. 4. The Gripper Motor (M117) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The gripper does not come off the Position Sensor when the Gripper Motor has been driven for 3 seconds.
E514	-8006	-05	Title	Error in the Gripper Motor (Finisher-D1)
			Remedy	1. The connector of the Gripper Position Sensor (S115) or the Gripper Motor (M117) are disconnected. 2. The wiring of the Gripper Position Sensor (S115) or the Gripper Motor (M117) are faulty. 3. The Gripper Position Sensor (S115) is faulty. 4. The Gripper Motor (M117) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The Gripper Position Sensor does not detect the gripper when the Gripper Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E518	-8001	-05	Title	Error in Folding Feed Motor lock (Paper Folding Unit-H1)
			Remedy	1. Connector of the Folding Feed Motor (M11) is disconnected. 2. Folding Feed Motor (M11) is faulty.
			Description	The lock signal turns on for the specified time from the drive start of Folding Feed Motor.
E530	-8000	-05	Title	Error in the Front or Rear Alignment Motor (Finisher-D1)
			Remedy	1. The connector of the Front/Rear Alignment HP Sensor (S108/S109) or the Front/Rear Alignment Motor (M108/M109) are disconnected. 2. The wiring of the Front/Rear Alignment HP Sensor (S108/S109) or the Front/Rear Alignment Motor (M108/M109) are faulty. 3. The Front/Rear Alignment HP Sensor (S108/S109) is faulty. 4. The Front/Rear Alignment Motor (M108/M109) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The Front or Rear Alignment Motor operate abnormally during initialization.
E530	-8001	-05	Title	a. Error in front alignment motor (Finisher-F1) b. Error in the Front Alignment Motor (Finisher-D1)
			Remedy	a-1. Connector check of front alignment guide HP sensor a-2. Connector check of front alignment motor a-3. Replacement of front alignment guide HP sensor a-4. Replacement of front alignment motor a-5. Replacement of finisher controller PCB b-1. The connector of the Front Alignment HP Sensor (S108) or the Front Alignment Motor (M108) are disconnected. b-2. The wiring of the Front Alignment HP Sensor (S108) or the Front Alignment Motor (M108) are faulty. b-3. The Front Alignment HP Sensor (S108) is faulty. b-4. The Front Alignment Motor (M108) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Front alignment guide HP sensor does not go OFF within 5 sec after the front alignment motor starts operation. b. The front alignment plate does not come off the Front Alignment HP Sensor when the Front Alignment Motor has been driven for 4 seconds.

E Code	Detail Code	Location	Item	Description
E530	-8002	-05	Title	a. Error in alignment operation (Finisher-F1) b. Error in the Front Alignment Motor (Finisher-D1)
			Remedy	a-1. Connector of rear alignment guide HP sensor a-2. Connector of rear alignment motor a-3. Replacement of rear alignment guide HP sensor a-4. Replacement of rear alignment motor a-5. Replacement of finisher controller PCB b-1. The connector of the Front Alignment HP Sensor (S108) or the Front Alignment Motor (M108) are disconnected. b-2. The wiring of the Front Alignment HP Sensor (S108) or the Front Alignment Motor (M108) are faulty. b-3. The Front Alignment HP Sensor (S108) is faulty. b-4. The Front Alignment Motor (M108) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Rear alignment guide HP sensor does not go OFF within 5 sec after the rear alignment motor starts operation. b. The Front Alignment HP Sensor does not detect the Front Alignment plate when the Front Alignment Motor has been driven for 4 seconds.
E531	-8001	-05	Title	a. Error in staple (Finisher-F1) b. Error in the Staple Motor (Finisher-D1)
			Remedy	a-1. Connector check of staple unit a-2. Replacement of staple unit a-3. Connector check of staple position HP sensor a-4. Replacement of staple position HP sensor a-5. Replacement of finisher controller PCB. b-1. The connector of the staple position switch (SW103) is disconnected. b-2. The wiring of the staple position switch (SW103) is faulty. b-3. The staple position switch (SW103) is installation failure or faulty. b-4. The connector of the staple unit is disconnected. b-5. The wiring of the staple unit is faulty. b-6. The staple unit is faulty. b-7. The Finisher Controller PCB is faulty.
			Description	a. Staple position HP sensor does not come ON within 500 msec after the staple motor starts operation. b. The staple unit does not come off the Staple HP Sensor when the Staple Motor has been driven for 400 msec.

E Code	Detail Code	Location	Item	Description
E531	-8002	-05	Title	a. Error in staple (Finisher-F1) b. Error in the Staple Motor (Finisher-D1)
			Remedy	a-1. Connector check of staple unit a-2. Replacement of staple unit a-3. Connector check of staple HP sensor a-4. Replacement of staple HP sensor a-5. Replacement of finisher controller PCB b-1. The connector of the staple unit is disconnected. b-2. The wiring of the staple unit is faulty. b-3. The staple unit is faulty. b-4. The Finisher Controller PCB is faulty.
			Description	a. Staple HP sensor does not go OFF within 500 msec after the staple motor starts operation. b. The Staple HP Sensor does not detect the staple unit when the Staple Motor has been driven for 400 msec.
E532	-8000	-05	Title	Error in the Staple Shift Motor (Finisher-D1)
			Remedy	1. The connector of the Stapler Shift HP Sensor (S107) or the Staple Shift Motor (M107) are disconnected. 2. The wiring of the Stapler Shift HP Sensor (S107) or the Staple Shift Motor (M107) are faulty. 3. The Stapler Shift HP Sensor (S107) is faulty. 4. The Staple Shift Motor (M107) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The Staple Shift Motor operate abnormally during initialization.
E532	-8001	-05	Title	a. Error in staple slide (Finisher-F1) b. Error in the Stapler Shift Motor (Finisher-D1)
			Remedy	a-1. Connector check of staple shift motor a-2. Replacement of staple shift motor a-3. Connector check of staple HP sensor a-4. Replacement of staple HP sensor a-5. Replacement of finisher controller PCB b-1. The connector of the Stapler Shift HP Sensor (S107) or the Staple Shift Motor (M107) are disconnected. b-2. The wiring of the Stapler Shift HP Sensor (S107) or the Staple Shift Motor (M107) are faulty. b-3. The Stapler Shift HP Sensor (S107) is faulty. b-4. The Staple Shift Motor (M107) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Staple HP sensor does not come ON within 500 msec after the staple shift motor starts operation. b. The staple unit does not come off the Stapler Shift HP Sensor when the Staple Shift Motor has been driven for 5 seconds.

E Code	Detail Code	Location	Item	Description
E532	-8002	-05	Title	a. Error in staple slide (Finisher-F1) b. Error in the Stapler Shift Motor (Finisher-D1)
			Remedy	a-1. Connector check of staple shift motor a-2. Replacement of staple shift motor a-3. Connector check of staple HP sensor a-4. Replacement of staple HP sensor a-5. Replacement of finisher controller PCB b-1. The connector of the Stapler Shift HP Sensor (S107) or the Staple Shift Motor (M107) are disconnected. b-2. The wiring of the Stapler Shift HP Sensor (S107) or the Staple Shift Motor (M107) are faulty. b-3. The Stapler Shift HP Sensor (S107) is faulty. b-4. The Staple Shift Motor (M107) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Staple HP sensor does not go OFF within 500 msec after the staple shift motor starts operation. b. The Stapler Shift HP Sensor does not detect the staple unit when the Staple Shift Motor has been driven for 5 seconds.
E535	-0001	-05	Title	Error in the Swing Guide Motor (Finisher-D1)
			Remedy	1. The connector of the Swing Guide HP Sensor (S110) or the Swing Guide Motor (M110) are disconnected. 2. The wiring of the Swing Guide HP Sensor (S110) or the Swing Guide Motor (M110) are faulty. 3. The Swing Guide HP Sensor (S110) is faulty. 4. The Swing Guide Motor (M110) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The swing guide does not come off the Swing Guide HP Sensor when the Swing Guide Motor has been driven for 3 seconds.
E535	-0002	-05	Title	Error in the Swing Guide Motor (Finisher-D1)
			Remedy	1. The connector of the Swing Guide HP Sensor (S110) or the Swing Guide Motor (M110) are disconnected. 2. The wiring of the Swing Guide HP Sensor (S110) or the Swing Guide Motor (M110) are faulty. 3. The Swing Guide HP Sensor (S110) is faulty. 4. The Swing Guide Motor (M110) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The Swing Guide HP Sensor does not detect the swing guide when the Swing Guide Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E535	-0003	-05	Title	Error in the Swing Guide Motor (Finisher-D1)
			Remedy	1. The connector of the Swing Guide Height Detection Sensor (S118) or the Swing Guide Motor (M110) are disconnected. 2. The wiring of the Swing Guide Height Detection Sensor (S118) or the Swing Guide Motor (M110) are faulty. 3. The Swing Guide Height Detection Sensor (S118) is faulty. 4. The Swing Guide Motor (M110) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The Swing Guide Height Detection Sensor failed to be ON even though specified period of time has passed when lowering the swing guide.
E535	-0004	-05	Title	Error in the Swing Guide Motor (Finisher-D1)
			Remedy	1. The connector of the Swing Guide Height Detection Sensor (S118) or the Swing Guide Motor (M110) are disconnected. 2. The wiring of the Swing Guide Height Detection Sensor (S118) or the Swing Guide Motor (M110) are faulty. 3. The Swing Guide Height Detection Sensor (S118) is faulty. 4. The Swing Guide Motor (M110) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The Swing Guide Height Detection Sensor failed to be OFF even though specified period of time has passed when raising the swing unit.
E535	-8001	-05	Title	Error in swing guide motor
			Remedy	1. Connector check of swing guide motor 2. Replacement of swing guide motor 3. Connector check of swing guide HP sensor 4. Replacement of swing guide HP sensor 5. Replacement of finisher controller PCB
			Description	Swing guide HP sensor does not come ON within 2 sec after the swing guide motor starts operation.
E535	-8002	-05	Title	Error in swing guide motor
			Remedy	1. Connector check of swing guide motor 2. Replacement of swing guide motor 3. Connector check of swing guide HP sensor 4. Replacement of swing guide HP sensor 5. Replacement of finisher controller PCB
			Description	Swing guide HP sensor does not go OFF within 2 sec after the swing guide motor starts operation.

E Code	Detail Code	Location	Item	Description
E537	-8001	-05	Title	a. Error in front alignment motor (Finisher-F1) b. Error in the Rear Alignment Motor (Finisher-D1)
			Remedy	a-1. Connector check of front alignment guide HP sensor a-2. Connector check of front alignment motor a-3. Replacement of front alignment guide HP sensor a-4. Replacement of front alignment motor a-5. Replacement of finisher controller PCB b-1. The connector of the Rear Alignment HP Sensor (S109) or the Rear Alignment Motor (M109) are disconnected. b-2. The wiring of the Rear Alignment HP Sensor (S109) or the Rear Alignment Motor (M109) are faulty. b-3. The Rear Alignment HP Sensor (S109) is faulty. b-4. The Rear Alignment Motor (M109) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Front alignment guide HP sensor does not come ON within 5 sec after the front alignment motor starts operation. b. The rear alignment plate does not come off the Rear Alignment HP Sensor when the Rear Alignment Motor has been driven for 4 seconds.
E537	-8002	-05	Title	a. Error in alignment operation (Finisher-F1) b. Error in the Rear Alignment Motor (Finisher-D1)
			Remedy	a-1. Connector of rear alignment guide HP sensor a-2. Connector of rear alignment motor a-3. Replacement of rear alignment guide HP sensor a-4. Replacement of rear alignment motor a-5. Replacement of finisher controller PCB b-1. The connector of the Rear Alignment HP Sensor (S109) or the Rear Alignment Motor (M109) are disconnected. b-2. The wiring of the Rear Alignment HP Sensor (S109) or the Rear Alignment Motor (M109) are faulty. b-3. The Rear Alignment HP Sensor (S109) is faulty. b-4. The Rear Alignment Motor (M109) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Rear alignment guide HP sensor does not come ON within 5 sec after the rear alignment motor starts operation. b. The Rear Alignment HP Sensor does not detect the rear alignment plate when the Rear Alignment Motor has been driven for 4 seconds.
E539	-8001	-05	Title	Error in delivery angle adjustment motor (HP sensor delay)
			Remedy	1. Connector check of delivery angle HP sensor 2. Connector check of delivery angle adjustment motor 3. Replacement of delivery angle HP sensor 4. Replacement of delivery angle adjustment motor 5. Replacement of finisher controller PCB
			Description	HP sensor does not come ON within 5 sec after the operation start.



E Code	Detail Code	Location	Item	Description
E539	-8002	-05	Title	Error in delivery angle adjustment motor (HP sensor stationary)
			Remedy	1. Connector check of delivery angle HP sensor 2. Connector check of delivery angle adjustment motor 3. Replacement of delivery angle HP sensor 4. Replacement of delivery angle adjustment motor 5. Replacement of finisher controller PCB
			Description	HP sensor does not go OFF within 5 sec after the operation start.
E540	-8001	-05	Title	a. Error in tray A (upper tray) (Finisher-F1) b. Tray 1 time out error (Finisher-D1)
			Remedy	a-1. Connector check of tray A up/down motor rotation sensor a-2. Connector check of tray A up/down motor a-3. Replacement of tray A up/down motor rotation sensor a-4. Replacement of tray A up/down motor a-5. Replacement of finisher controller PCB b-1. The connectors of the Tray 1 Area Sensors (S122/S123/S124) or the Tray 1 Shift Motor (M105) are disconnected. b-2. The wiring of the Tray 1 Area Sensors (S122/S123/S124) or the Tray 1 Shift Motor (M105) are faulty. b-3. The Tray 1 Area Sensors (S122/S123/S124) is faulty. b-4. The Tray 1 Shift Motor (M105) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Tray A up/down motor rotation sensor does not come ON within 300 msec after the tray A up/down motor starts operation. b. The tray 1 does not return to home position when the Tray 1 Shift Motor has been driven for 20 seconds. The tray 1 does not come off the Tray 1 Area Sensor at the same area when the Tray 1 Shift Motor has been driven for 4 seconds.
E540	-8002	-05	Title	a. Error in tray A (upper tray) (Finisher-F1) b. Tray 1 area error (Finisher-D1)
			Remedy	a-1. Connector check of tray A area sensor a-2. Replacement of tray A area sensor a-3. Replacement of finisher controller PCB b-1. The connectors of the Tray 1 Area Sensors (S122/S123/S124) or the Tray 1 Shift Motor (M105) are disconnected. b-2. The wiring of the Tray 1 Area Sensors (S122/S123/S124) or the Tray 1 Shift Motor (M105) are faulty. b-3. The Tray 1 Area Sensors (S122/S123/S124) is faulty. b-4. The Tray 1 Shift Motor (M105) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Detected position of tray A is below the tray B. b. The tray 1 detects the discontinuous area with the Tray 1 Area Sensors.

E Code	Detail Code	Location	Item	Description
E540	-8003	-05	Title	a. Error in tray A (upper tray) (Finisher-F1) b. Error in the Tray 1 Lower Safety Switch (Finisher-D1)
			Remedy	a-1. Connector check of tray adjacent switch a-2. Replacement of tray adjacent switch a-3. Replacement of finisher controller PCB b-1. The connector of the Tray 1 Lower Safety Switch (SW110) or the Tray 1 Shift Motor (M105) are disconnected. b-2. The wiring of the Tray 1 Lower Safety Switch (SW110) or the Tray 1 Shift Motor (M105) are faulty. b-3. The Tray 1 Lower Safety Switch (SW110) is faulty. b-4. The Tray 1 Shift Motor (M105) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Tray adjacent switch is activated. b. The Tray 1 Lower Safety Switch is turned ON while the tray 1 operates.
E540	-8013	-05	Title	Error in the Swing Guide Safety Switch (Finisher-D1)
			Remedy	1. The connector of the Swing Guide Safety Switch (front/rear) (SW102/SW104) or the Staple Position Switch (SW103) are disconnected. 2. The connector of the Swing Guide Solenoid (SL101) or the Tray 1 Shift Motor (M105) are disconnected. 3. The wiring of the Swing Guide Safety Switch (front/rear) (SW102/SW104) or the Staple Position Switch (SW103) are faulty. 4. The wiring of the Swing Guide Solenoid (SL101) or the Tray 1 Shift Motor (M105) are faulty. 5. The Swing Guide Safety Switch (front/rear) (SW102/SW104) is faulty. 6. The Staple Position Switch (SW103) is faulty. 7. The Swing Guide Solenoid (SL101) is faulty. 8. The Tray 1 Shift Motor (M105) is faulty. 9. The Finisher Controller PCB is faulty.
			Description	The Swing Guide Safety Switch (front/rear) is turned ON while the tray 1 operates.
E540	-80FF	-05	Title	Error in tray A (upper tray)
			Remedy	1. Connector check of tray A up/down motor rotation sensor 2. Connector check of tray A up/down motor 3. Replacement of tray A up/down motor rotation sensor 4. Replacement of tray A up/down motor 5. Replacement of finisher controller PCB
			Description	Up/down operation is not completed within 25 sec after the tray A up/down motor starts operation.

E Code	Detail Code	Location	Item	Description
E542	-8001	-05	Title	a. Error in tray B (lower tray) (Finisher-F1) b. Tray 2 time out error (Finisher-D1)
			Remedy	a-1. Connector check of tray B up/down motor rotation sensor a-2. Connector check of tray B up/down motor a-3. Replacement of tray B up/down motor rotation sensor a-4. Replacement of tray B up/down motor a-5. Replacement of finisher controller PCB b-1. The connectors of the Tray 2 Area Sensors (S125/S126/S127) or the Tray 2 Shift Motor (M217) are disconnected. b-2. The wiring of the Tray 2 Area Sensors (S125/S126/S127) or the Tray 2 Shift Motor (M217) are faulty. b-3. The Tray 2 Area Sensors (S125/S126/S127) is faulty. b-4. The Tray 2 Shift Motor (M217) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Tray B up/down motor rotation sensor does not come ON within 300 msec after the tray B up/down motor starts operation. b. The tray 2 does not return to home position when the Tray 2 Shift Motor has been driven for 20 seconds. The tray 2 does not come off the Tray 2 Area Sensor at the same area when the Tray 2 Shift Motor has been driven for 4 seconds.
E542	-8002	-05	Title	a. Error in tray B (lower tray) (Finisher-F1) b. Tray 2 area error (Finisher-D1)
			Remedy	a-1. Connector check of tray B area sensor a-2. Replacement of tray B area sensor a-3. Replacement of finisher controller PCB b-1. The connectors of the Tray 2 Area Sensors (S125/S126/S127) or the Tray 2 Paper Sensor (S105) are disconnected. b-2. The connector of the Tray 2 Shift Motor (M217) is disconnected. b-3. The wiring of the Tray 2 Area Sensors (S125/S126/S127) or the Tray 2 Paper Sensor (S105) are faulty. b-4. The wiring of the Tray 2 Shift Motor (M217) is faulty. b-5. The Tray 2 Area Sensors (S125/S126/S127) is faulty. b-6. The Tray 2 Paper Sensor (S105) is faulty. b-7. The Tray 2 Shift Motor (M217) is faulty. b-8. The Finisher Controller PCB is faulty.
			Description	a. Detected position of tray B is above tray A. b. The tray 2 detects the discontinuous area with the Tray 2 Area Sensors.

E Code	Detail Code	Location	Item	Description
E542	-8003	-05	Title	a. Error in tray B (lower tray) (Finisher-F1) b. Error in the Tray 1 Lower Safety Switch (Finisher-D1)
			Remedy	a-1. Connector check of tray adjacent switch a-2. Replacement of tray adjacent switch a-3. Replacement of finisher controller PCB b-1. The connector of the Tray 1 Lower Safety Switch (SW110) or the Tray 2 Shift Motor (M217) are disconnected. b-2. The wiring of the Tray 1 Lower Safety Switch (SW110) or the Tray 2 Shift Motor (M217) are faulty. b-3. The Tray 1 Lower Safety Switch (SW110) is faulty. b-4. The Tray 2 Shift Motor (M217) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Tray adjacent switch is activated. b. The Tray 1 Lower Safety Switch is turned ON while the tray 2 operates.
E542	-8013	-05	Title	Error in the Swing Guide Safety Switch (Finisher-D1)
			Remedy	1. The connector of the Swing Guide Safety Switch (front/rear) (SW102/SW104) or the Staple Position Switch (SW103) are disconnected. 2. The connector of the Swing Guide Solenoid (SL101) or the Tray 2 Shift Motor (M217) are disconnected. 3. The wiring of the Swing Guide Safety Switch (front/rear) (SW102/SW104) or the Staple Position Switch (SW103) are faulty. 4. The wiring of the Swing Guide Solenoid (SL101) or the Tray 2 Shift Motor (M217) are faulty. 5. The Swing Guide Safety Switch (front/rear) (SW102/SW104) is faulty. 6. The Staple Position Switch (SW103) is faulty. 7. The Swing Guide Solenoid (SL101) is faulty. 8. The Tray 2 Shift Motor (M217) is faulty. 9. The Finisher Controller PCB is faulty.
			Description	The Swing Guide Safety Switch (front/rear) is turned ON while the tray 2 operates.
E542	-80FF	-05	Title	Error in tray B (lower tray)
			Remedy	1. Connector check of tray B up/down motor rotation sensor 2. Connector check of tray B up/down motor 3. Replacement of tray B up/down motor rotation sensor 4. Replacement of tray B up/down motor 5. Replacement of finisher controller PCB
			Description	Up/down operation is not completed within 25 sec after the tray B up/down motor starts operation.

E Code	Detail Code	Location	Item	Description
E551	-0001	-05	Title	a. Error in power fan of the integration unit b. Error in Power Supply Cooling Fan (Document Insertion Unit-K1) c. Error in the Power Supply Fan of the Finisher (Finisher-D1)
			Remedy	a-1. Contact failure on connector of power fan (FM1) a-2. Failure of power fan (FM1) b-1. Connector of the Power Supply Cooling Fan (F1) is disconnected b-2. Power Supply Cooling Fan (F1) is faulty c-1. The connector of the Power Supply Fan (FAN101) is disconnected. c-2. The wiring of the Power Supply Fan (FAN101) is faulty. c-3. The Power Supply Fan (FAN101) is faulty. c-4. The Finisher Controller PCB is faulty.
			Description	b. The lock detection signal is detected ON while the Power Supply Cooling Fan is driven, or the fan lock detection signal is detected OFF while the Power Supply Cooling Fan is stopped. c. The lock signal is detected 1.2 sec. or more while the fan operates.
E551	-0001	-05	Title	Error in power fan
			Remedy	1. Contact failure on connector of power fan (FM1) on the integration unit 2. Failure of power fan (FM1) on the integration unit
			Description	Fan lock detection signal is detected ON.
E551	-0001	-05	Title	Error in power supply fan (F1) of the insertion unit
			Remedy	1. Power supply fan is faulty 2. Connector of the power supply fan is disconnected
			Description	Fan lock detection signal is detected ON while the power supply fan is driven
E551	-0002	-05	Title	A. Error in Power Supply Cooling Fan of Paper Folding Unit (Paper Folding Unit-H1) B. Error in the Power Supply Fan of the Finisher (Finisher-D1)
			Remedy	A-1. Connector of the Power Supply Cooling Fan (F1) is disconnected A-2. Power Supply Cooling Fan (F1) is faulty B-1. The connector of the Power Supply Fan (FAN101) is disconnected. B-2. The wiring of the Power Supply Fan (FAN101) is faulty. B-3. The Power Supply Fan (FAN101) is faulty. B-4. The Finisher Controller PCB is faulty.
			Description	A. The lock detection signal is detected ON while the Power Supply Cooling Fan is driven, or the fan lock detection signal is detected OFF while the Power Supply Cooling Fan is stopped. B. The lock status is released when the fan stops.

E Code	Detail Code	Location	Item	Description
E551	-0002	-05	Title	Error in power fan on the integration unit
			Remedy	1. Contact failure on connector of power fan (FM1) 2. Failure of power fan (FM1)
			Description	The lock status is released when the fan stops.
E551	-0004	-05	Title	Cooling fan (F1) error in paper folding unit
			Remedy	1. Disconnection of connector on cooling fan 2. Breakage of cooling fan
			Description	Power fan lock signal is detected.
E551	-0011	-05	Title	Error in the Power Supply Fan of the Insertion Unit
			Remedy	1. The connector of the Fan (F1) is disconnected. 2. The wiring of the Fan (F1) is faulty. 3. The Fan (F1) is faulty. 4. The Insertion Unit Controller PCB is faulty.
			Description	The lock signal is detected for the specified times while the fan operates.
E551	-0011	-05	Title	Error in the Power Supply Fan of the Insertion Unit
			Remedy	1. The connector of the Fan (F1) is disconnected. 2. The wiring of the Fan (F1) is faulty. 3. The Fan (F1) is faulty. 4. The Insertion Unit Controller PCB is faulty.
			Description	The lock signal is detected for the specified times while the fan operates.
E551	-0021	-05	Title	Error in the Power Supply Fan of the Paper Folding Unit
			Remedy	1. The connector of the Fan (F1) is disconnected. 2. The wiring of the Fan (F1) is faulty. 3. The Fan (F1) is faulty. 4. The Paper Folding Unit Controller PCB is faulty.
			Description	The lock signal is detected for the specified times while the fan operates.
E562	-8001	-05	Title	Error in Slowing Timing Sensor (Paper Folding Unit-H1)
			Remedy	1. Connector of the Slowing Timing Sensor (S30) is disconnected. 2. Slowing Timing Sensor (S30) is faulty.
			Description	The receiving-light intensity failed to be within the threshold although the emitting-light intensity is adjusted to be within the threshold when adjusting the Sensor.
E562	-8002	-05	Title	Error in Disengagement Timing Sensor (Paper Folding Unit-H1)
			Remedy	1. Connector of the Disengagement Timing Sensor (S31) is disconnected. 2. Disengagement Timing Sensor (S31) is faulty.
			Description	The receiving-light intensity failed to be within the threshold although the emitting-light intensity is adjusted to be within the threshold when adjusting the Sensor.

E Code	Detail Code	Location	Item	Description
E562	-8003	-05	Title	Error in Folding Position Accuracy Sensor (Paper Folding Unit-H1)
			Remedy	1. Connector of the Folding Position Accuracy Sensor (S32) is disconnected. 2. Folding Position Accuracy Sensor (S32) is faulty.
			Description	The receiving-light intensity failed to be within the threshold although the emitting-light intensity is adjusted to be within the threshold when adjusting the Sensor.
E562	-8004	-05	Title	Error in the Upper Stopper HP Sensor (Paper Folding Unit-H1)
			Remedy	1. Connector of the Upper Stopper HP Sensor (S23) is disconnected. 2. Upper Stopper HP Sensor (S23) is faulty.
			Description	The receiving-light intensity failed to be within the threshold although the emitting-light intensity is adjusted to be within the threshold when adjusting the Sensor.
E566	-8001	-05	Title	Error in side registration detection
			Remedy	1. Connector check of side registration detection unit shift motor and side registration detection unit HP sensor 2. Replacement of side registration detection unit shift motor and side registration detection unit HP sensor 3. Replacement of finisher controller PCB
			Description	Side registration detection unit HP sensor does not come ON within 5 sec after the side registration detection unit shift motor starts operation.
E566	-8002	-05	Title	Error in side registration detection
			Remedy	1. Connector check of side registration detection unit shift motor and side registration detection unit HP sensor 2. Replacement of side registration detection unit shift motor and side registration detection unit HP sensor 3. Replacement of finisher controller PCB
			Description	Side registration detection unit HP sensor does not go OFF within 5 sec after the side registration detection unit shift motor starts operation.
E567	-8001	-05	Title	Error in shift roller operation
			Remedy	1. Connector check of side registration shift motor and shift roller unit HP sensor 2. Replacement of side registration shift motor and shift roller unit HP sensor 3. Replacement of finisher controller PCB
			Description	Shift roller unit HP sensor does not come ON within 5 sec after the side registration shift motor starts operation.

E Code	Detail Code	Location	Item	Description
E567	-8002	-05	Title	Error in shift roller operation
			Remedy	1. Connector check of side registration shift motor and shift roller unit HP sensor 2. Replacement of side registration shift motor and shift roller unit HP sensor 3. Replacement of finisher controller PCB
			Description	Shift roller unit HP sensor does not go OFF within 5 sec after the side registration shift motor starts operation.
E568	-8001	-05	Title	a. Error in feed roller disengage operation (Finisher-F1) b. Error in the Feed Roller Disengage/Buffer Flapper Motor (Finisher-D1)
			Remedy	a-1. Connector check of feed roller disengage motor and feed roller HP sensor a-2. Replacement of feed roller disengage motor and feed roller HP sensor a-3. Replacement of finisher controller PCB b-1. The connector of the Feed Roller Separation HP Sensor (S111) or the Feed Roller Disengage/Buffer Flapper Motor (M119) are disconnected. b-2. The wiring of the Feed Roller Separation HP Sensor (S111) or the Feed Roller Disengage/Buffer Flapper Motor (M119) are faulty. b-3. The Feed Roller Separation HP Sensor (S111) is faulty. b-4. The Feed Roller Disengage/Buffer Flapper Motor (M119) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Feed roller HP sensor does not come ON within 5 sec after the feed roller disengage motor starts operation. b. The disengage roller does not come off the Feed Roller Separation HP Sensor when the Feed Roller Disengage/Buffer Flapper Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E568	-8002	-05	Title	a. Error in feed roller disengage operation (Finisher-F1) b. Error in the Feed Roller Disengage/Buffer Flapper Motor (Finisher-D1)
			Remedy	a-1. Connector check of feed roller disengage motor and feed roller HP sensor a-2. Replacement of feed roller disengage motor and feed roller HP sensor a-3. Replacement of finisher controller PCB b-1. The connector of the Feed Roller Separation HP Sensor (S111) or the Feed Roller Disengage/Buffer Flapper Motor (M119) are disconnected. b-2. The wiring of the Feed Roller Separation HP Sensor (S111) or the Feed Roller Disengage/Buffer Flapper Motor (M119) are faulty. b-3. The Feed Roller Separation HP Sensor (S111) is faulty. b-4. The Feed Roller Disengage/Buffer Flapper Motor (M119) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Feed roller HP sensor does not go OFF within 5 sec after the feed roller disengage motor starts operation. b. The Feed Roller Separation HP Sensor does not detect the disengage roller when the Feed Roller Disengage/Buffer Flapper Motor has been driven for 3 seconds.
E568	-8003	-05	Title	Error in the Feed Roller Disengage/Buffer Flapper Motor (Finisher-D1)
			Remedy	1. The connector of the Buffer Flapper HP Sensor (S142) or the Feed Roller Disengage/Buffer Flapper Motor (M119) are disconnected. 2. The wiring of the Buffer Flapper HP Sensor (S142) or the Feed Roller Disengage/Buffer Flapper Motor (M119) are faulty. 3. The Buffer Flapper HP Sensor (S142) is faulty. 4. The Feed Roller Disengage/Buffer Flapper Motor (M119) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The buffer flapper does not come off the Buffer Flapper HP Sensor when the Feed Roller Disengage/Buffer Flapper Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E568	-8004	-05	Title	Error in the Feed Roller Disengage/Buffer Flapper Motor (Finisher-D1)
			Remedy	1. The connector of the Buffer Flapper HP Sensor (S142) or the Feed Roller Disengage/Buffer Flapper Motor (M119) are disconnected. 2. The wiring of the Buffer Flapper HP Sensor (S142) or the Feed Roller Disengage/Buffer Flapper Motor (M119) are faulty. 3. The Buffer Flapper HP Sensor (S142) is faulty. 4. The Feed Roller Disengage/Buffer Flapper Motor (M119) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The Buffer Flapper HP Sensor does not detect the buffer flapper when the Feed Roller Disengage/Buffer Flapper Motor has been driven for 3 seconds.
E569	-8001	-05	Title	Upper Stopper Motor of Paper Folding Unit failed to go through HP (Paper Folding Unit-H1)
			Remedy	1. Connector of the Upper Stopper Motor (M8) is disconnected. 2. Upper Stopper Motor (M8) is faulty. 3. Connector of the Upper Stopper HP Sensor (S23) is disconnected. 4. Upper Stopper HP Sensor (S23) is faulty.
			Description	The Upper Stopper HP Sensor failed to be OFF despite the drive of specified pulse in the case that the Upper Stopper Motor started to be driven while the Upper Stopper HP Sensor was ON.
E569	-8002	-05	Title	Upper Stopper Motor of Paper Folding Unit failed to return to HP (Paper Folding Unit-H1)
			Remedy	1. Connector of the Upper Stopper Motor (M8) is disconnected. 2. Upper Stopper Motor (M8) is faulty. 3. Connector of the Upper Stopper HP Sensor (S23) is disconnected. 4. Upper Stopper HP Sensor (S23) is faulty.
			Description	The Upper Stopper HP Sensor failed to be ON despite the drive of specified pulse in the case that the Upper Stopper Motor started to be driven while the Upper Stopper HP Sensor was OFF.

E Code	Detail Code	Location	Item	Description
E569	-8003	-05	Title	Upper stopper motor of paper folding unit failed to go through HP
			Remedy	1. Connector of the upper stopper motor (M8) is disconnected 2. Upper stopper motor is faulty 3. Connector of the upper stopper HP sensor (S23) is disconnected 4. Upper stopper HP sensor is faulty
			Description	The upper stopper HP sensor failed to be OFF despite the drive of specified pulse in the case that the upper stopper motor started to be driven while the upper stopper HP sensor was ON.
E569	-8004	-05	Title	Upper stopper motor of paper folding unit failed to return to HP
			Remedy	1. Connector of the upper stopper motor (M8) is disconnected 2. Upper stopper motor is faulty 3. Connector of the upper stopper HP sensor (S23) is disconnected 4. Upper stopper HP sensor is faulty
			Description	The upper stopper HP sensor failed to be ON despite the drive of specified pulse in the case that the upper stopper motor started to be driven while the upper stopper HP sensor was OFF.
E56A	-8001	-05	Title	C-fold Stopper Motor of Paper Folding Unit failed to go through HP (Paper Folding Unit-H1)
			Remedy	1. Connector of the C-fold Stopper Motor (M9) is disconnected. 2. C-fold Stopper Motor (M9) is faulty. 3. Connector of the C-fold Stopper HP Sensor (S24) is disconnected. 4. C-fold Stopper HP Sensor (S24) is faulty.
			Description	The C-fold Stopper Motor HP Sensor failed to be OFF despite the drive of specified pulse in the case that the C-fold Stopper Motor started to be driven while the C-fold Stopper Motor HP Sensor was ON.
E56A	-8002	-05	Title	C-fold Stopper Motor of Paper Folding Unit failed to return to HP (Paper Folding Unit-H1)
			Remedy	1. Connector of the C-fold Stopper Motor (M9) is disconnected. 2. C-fold Stopper Motor (M9) is faulty. 3. Connector of the C-fold Stopper HP Sensor (S24) is disconnected. 4. C-fold Stopper HP Sensor (S24) is faulty.
			Description	The C-fold Stopper Motor HP Sensor failed to be ON despite the drive of specified pulse in the case that the C-fold Stopper Motor started to be driven while the C-fold Stopper Motor HP Sensor was OFF.

E Code	Detail Code	Location	Item	Description
E56B	-8001	-05	Title	Folding Tray Motor of Paper Folding Unit failed to go through HP (Paper Folding Unit-H1)
			Remedy	1. Connector of the Folding Tray Motor (M7) is disconnected. 2. Folding Tray Motor (M7) is faulty. 3. Connector of the Folding Tray HP Sensor (S28) is disconnected. 4. Folding Tray HP Sensor (S28) is faulty.
			Description	The Folding Tray HP Sensor failed to be OFF despite the drive of specified pulse in the case that the Folding Tray Motor started to be driven while the Folding Tray HP Sensor was ON.
E56B	-8002	-05	Title	Folding Tray Motor of Paper Folding Unit failed to return to HP (Paper Folding Unit-H1)
			Remedy	1. Connector of the Folding Tray Motor (M7) is disconnected. 2. Folding Tray Motor (M7) is faulty. 3. Connector of the Folding Tray HP Sensor (S28) is disconnected. 4. Folding Tray HP Sensor (S28) is faulty.
			Description	The Folding Tray HP Sensor failed to be ON despite the drive of specified pulse in the case that the Folding Tray Motor started to be driven while the Folding Tray HP Sensor was OFF.
E56D	-8001	-05	Title	Error in the Stacking Tray Paper Retainer Motor (Finisher-D1)
			Remedy	1. The connector of the Stacking Tray Paper Retainer HP Sensor (S114) or the Stacking Tray Paper Retainer Motor (M114) are disconnected. 2. The wiring of the Stacking Tray Paper Retainer HP Sensor (S114) or the Stacking Tray Paper Retainer Motor (M114) are faulty. 3. The Stacking Tray Paper Retainer HP Sensor (S114) is faulty. 4. The Stacking Tray Paper Retainer Motor (M114) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The stacking tray paper retainer does not come off the Stacking Tray Paper Retainer HP Sensor when the Stacking Tray Paper Retainer Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E56D	-8002	-05	Title	Error in the Stacking Tray Paper Retainer Motor (Finisher-D1)
			Remedy	1. The connector of the Stacking Tray Paper Retainer HP Sensor (S114) or the Stacking Tray Paper Retainer Motor (M114) are disconnected. 2. The wiring of the Stacking Tray Paper Retainer HP Sensor (S114) or the Stacking Tray Paper Retainer Motor (M114) are faulty. 3. The Stacking Tray Paper Retainer HP Sensor (S114) is faulty. 4. The Stacking Tray Paper Retainer Motor (M114) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The Stacking Tray Paper Retainer HP Sensor does not detect the stacking tray paper retainer when the Stacking Tray Paper Retainer Motor has been driven for 3 seconds.
E56E	-8001	-05	Title	Lead-edge Retaining Guide Motor of Paper Folding Unit failed to go through HP (Paper Folding Unit-H1)
			Remedy	1. Connector of the Lead-edge Retaining Guide Motor (M10) is disconnected. 2. Lead-edge Retaining Guide Motor (M10) is faulty. 3. Connector of the Lead-edge Retaining Guide HP Sensor (S25) is disconnected. 4. Lead-edge Retaining Guide HP Sensor (S25) is faulty.
			Description	The Lead-edge Retaining Guide HP Sensor failed to be OFF despite the drive of specified pulse in the case that the Lead-edge Retaining Guide Motor started to be driven while the Lead-edge Retaining Guide HP Sensor was ON.
E56E	-8002	-05	Title	Lead-edge Retaining Guide Motor of Paper Folding Unit failed to return to HP (Paper Folding Unit-H1)
			Remedy	1. Connector of the Lead-edge Retaining Guide Motor (M10) is disconnected. 2. Lead-edge Retaining Guide Motor (M10) is faulty. 3. Connector of the Lead-edge Retaining Guide HP Sensor (S25) is disconnected. 4. Lead-edge Retaining Guide HP Sensor (S25) is faulty.
			Description	The Lead-edge Retaining Guide HP Sensor failed to be ON despite the drive of specified pulse in the case that the Lead-edge Retaining Guide Motor started to be driven while the Lead-edge Retaining Guide HP Sensor was OFF.
E56F	-8001	-05	Title	Error in inlet roller disengage operation
			Remedy	1. Connector check of inlet roller disengage motor and inlet roller HP sensor 2. Replacement of inlet roller disengage motor and inlet roller HP sensor 3. Replacement of finisher controller PCB
			Description	Inlet roller HP sensor does not come ON within 5 sec after the inlet roller disengage motor starts operation.

E Code	Detail Code	Location	Item	Description
E56F	-8002	-05	Title	Error in inlet roller disengage operation
			Remedy	1. Connector check of inlet roller disengage motor and inlet roller HP sensor 2. Replacement of inlet roller disengage motor and inlet roller HP sensor 3. Replacement of finisher controller PCB
			Description	Inlet roller HP sensor does not go OFF within 5 sec after the inlet roller disengage motor starts operation.
E577	-8001	-05	Title	Error in paddle rotation/up&down operation
			Remedy	1. Replacement of paddle rotation motor and paddle rotation HP sensor 2. Replacement of finisher controller PCB
			Description	Paddle rotation HP sensor does not come ON within 5 sec after the paddle rotation motor starts operation.
E577	-8002	-05	Title	Error in paddle rotation/up&down operation
			Remedy	1. Replacement of paddle rotation motor and paddle rotation HP sensor 2. Replacement of finisher controller PCB
			Description	Paddle rotation HP sensor does not go OFF within 5 sec after the paddle rotation motor starts operation.
E577	-8003	-05	Title	Error in paddle rotation/up&down operation
			Remedy	1. Connector check of paddle up/down motor and paddle up/down HP sensor 2. Replacement of paddle up/down motor and paddle up/down HP sensor 3. Replacement of finisher controller PCB
			Description	Paddle up/down HP sensor does not come ON within 5 sec after the paddle up/down motor starts operation.
E577	-8004	-05	Title	Error in paddle rotation/up&down operation
			Remedy	1. Connector check of paddle up/down motor and paddle up/down HP sensor 2. Replacement of paddle up/down motor and paddle up/down HP sensor 3. Replacement of finisher controller PCB
			Description	Paddle up/down HP sensor does not go OFF within 5 sec after the paddle up/down motor starts operation.

E Code	Detail Code	Location	Item	Description
E578	-8001	-05	Title	a. Error in feed belt operation (Finisher-F1) b. Error in the Paper Return Guide Motor (Finisher-D1)
			Remedy	a-1. Connector check of feed belt shift motor and feed belt HP sensor a-2. Replacement of feed belt shift motor and feed belt HP sensor a-3. Replacement of finisher controller PCB b-1. The connector of the Paper Return Guide HP Sensor (S112) or the Paper Return Guide Motor (M112) are disconnected. b-2. The wiring of the Paper Return Guide HP Sensor (S112) or the Paper Return Guide Motor (M112) are faulty. b-3. The Paper Return Guide HP Sensor (S112) is faulty. b-4. The Paper Return Guide Motor (M112) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Feed belt HP sensor does not come ON within 5 sec after the feed belt shift motor starts operation. b. The paper return guide does not come off the Paper Return Guide HP Sensor when the Paper Return Guide Motor has been driven for 3 seconds.
E578	-8002	-05	Title	a. Error in feed belt operation (Finisher-F1) b. Error in the Paper Return Guide Motor (Finisher-D1)
			Remedy	a-1. Connector check of feed belt shift motor and feed belt HP sensor a-2. Replacement of feed belt shift motor and feed belt HP sensor a-3. Replacement of finisher controller PCB b-1. The connector of the Paper Return Guide HP Sensor (S112) or the Paper Return Guide Motor (M112) are disconnected. b-2. The wiring of the Paper Return Guide HP Sensor (S112) or the Paper Return Guide Motor (M112) are faulty. b-3. The Paper Return Guide HP Sensor (S112) is faulty. b-4. The Paper Return Guide Motor (M112) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Feed belt HP sensor does not go OFF within 5 sec after the feed belt shift motor starts operation. b. The Paper Return Guide HP Sensor does not detect the paper return guide when the Paper Return Guide Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E57A	-8001	-05	Title	Error in process stopper operation
			Remedy	1. Connector check of process stopper shift motor and process tray HP sensor 2. Replacement of process stopper shift motor and process tray HP sensor 3. Replacement of finisher controller PCB
			Description	Process tray HP sensor does not come ON within 5 sec after the process stopper shift motor starts operation.
E57A	-8002	-05	Title	Error in process stopper operation
			Remedy	1. Connector check of process stopper shift motor and process tray HP sensor 2. Replacement of process stopper shift motor and process tray HP sensor 3. Replacement of finisher controller PCB
			Description	Process tray HP sensor does not go OFF within 5 sec after the process stopper shift motor starts operation.
E57A	-8003	-05	Title	Error in process stopper operation
			Remedy	1. Connector check of process stopper shift motor 2. Replacement of process stopper shift motor 3. Replacement of finisher controller PCB
			Description	When the process stopper starts operation, the stapler interferes and operation cannot proceed.



E Code	Detail Code	Location	Item	Description
E57B	-8001	-05	Title	a. Error in paper rear edge drop operation (Finisher-F1) b. Error in the Paper Trailing Edge Pushing Guide Motor (Finisher-D1)
			Remedy	a-1. Connector check of paper rear edge drop motor and paper rear edge drop guide HP sensor a-2. Replacement of paper rear edge drop motor and paper rear edge drop guide HP sensor a-3. Replacement of finisher controller PCB b-1. The connector of the Paper Trailing Edge Pushing Guide HP Sensor (S113) or the Paper Trailing Edge Pushing Guide Motor (M113) are disconnected. b-2. The wiring of the Paper Trailing Edge Pushing Guide HP Sensor (S113) or the Paper Trailing Edge Pushing Guide Motor (M113) are faulty. b-3. The Paper Trailing Edge Pushing Guide HP Sensor (S113) is faulty. b-4. The Paper Trailing Edge Pushing Guide Motor (M113) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Paper rear edge drop guide HP sensor does not come ON within 5 sec after the paper rear edge drop motor starts operation. b. The paper trailing edge pushing guide does not come off the Paper Trailing Edge Pushing Guide HP Sensor when the Paper Trailing Edge Pushing Guide Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E57B	-8002	-05	Title	a. Error in paper rear edge drop operation (Finisher-F1) b. Error in the Paper Trailing Edge Pushing Guide Motor (Finisher-D1)
			Remedy	a-1. Connector check of paper rear edge drop motor and paper rear edge drop guide HP sensor a-2. Replacement of paper rear edge drop motor and paper rear edge drop guide HP sensor a-3. Replacement of finisher controller PCB b-1. The connector of the Paper Trailing Edge Pushing Guide HP Sensor (S113) or the Paper Trailing Edge Pushing Guide Motor (M113) are disconnected. b-2. The wiring of the Paper Trailing Edge Pushing Guide HP Sensor (S113) or the Paper Trailing Edge Pushing Guide Motor (M113) are faulty. b-3. The Paper Trailing Edge Pushing Guide HP Sensor (S113) is faulty. b-4. The Paper Trailing Edge Pushing Guide Motor (M113) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Paper rear edge drop guide HP sensor does not go off within 5 sec after the paper rear edge drop motor starts operation. b. The Paper Trailing Edge Pushing Guide HP Sensor does not detect the paper trailing edge pushing guide when the Paper Trailing Edge Pushing Guide Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E57C	-8001	-05	Title	a. Error in upper guide operation (Finisher-F1) b. Error in the Processing Tray Paper Retainer Motor (Finisher-D1)
			Remedy	a-1. Connector check of upper guide motor and upper guide HP sensor a-2. Replacement of upper guide motor and upper guide HP sensor a-3. Replacement of finisher controller PCB b-1. The connector of the Paper Retainer HP Sensor (S135) or the Processing Tray Paper Retainer Motor (M118) are disconnected. b-2. The wiring of the Paper Retainer HP Sensor (S135) or the Processing Tray Paper Retainer Motor (M118) are faulty. b-3. The Paper Retainer HP Sensor (S135) is faulty. b-4. The Processing Tray Paper Retainer Motor (M118) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Upper guide HP sensor does not come ON within 5 sec after the upper guide motor starts operation. b. The paper retainer does not come off the Paper Retainer HP Sensor when the Processing Tray Paper Retainer Motor has been driven for 3 seconds.
E57C	-8002	-05	Title	a. Error in upper guide operation (Finisher-F1) b. Error in the Processing Tray Paper Retainer Motor (Finisher-D1)
			Remedy	a-1. Connector check of upper guide motor and upper guide HP sensor a-2. Replacement of upper guide motor and upper guide HP sensor a-3. Replacement of finisher controller PCB b-1. The connector of the Paper Retainer HP Sensor (S135) or the Processing Tray Paper Retainer Motor (M118) are disconnected. b-2. The wiring of the Paper Retainer HP Sensor (S135) or the Processing Tray Paper Retainer Motor (M118) are faulty. b-3. The Paper Retainer HP Sensor (S135) is faulty. b-4. The Processing Tray Paper Retainer Motor (M118) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Upper guide HP sensor does not go OFF within 5 sec after the upper guide motor starts operation. b. The Paper Retainer HP Sensor does not detect the paper retainer when the Processing Tray Paper Retainer Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E583	-8001	-05	Title	a. Error in stack delivery auxiliary tray operation (Finisher-F1) b. Error in the Tray Auxiliary Guide Motor (Finisher-D1)
			Remedy	a-1. Connector check of stack delivery auxiliary tray motor and stack delivery auxiliary tray HP sensor a-2. Replacement of stack delivery auxiliary tray motor and stack delivery auxiliary tray HP sensor a-3. Replacement of finisher controller PCB b-1. The connector of the Tray Auxiliary Guide Front HP Sensor (S137) or the Tray Auxiliary Guide Rear HP Sensor (S136) are disconnected. b-2. The connector of the Tray Auxiliary Guide Motor (M120) is disconnected. b-3. The wiring of the Tray Auxiliary Guide Front HP Sensor (S137) or the Tray Auxiliary Guide Rear HP Sensor (S136) are faulty. b-4. The wiring of the Tray Auxiliary Guide Motor (M120) is faulty. b-5. The Tray Auxiliary Guide Front HP Sensor (S137) is faulty. b-6. The Tray Auxiliary Guide Rear HP Sensor (S136) is faulty. b-7. The Tray Auxiliary Guide Motor (M120) is faulty. b-8. The Finisher Controller PCB is faulty.
			Description	a. Stack delivery auxiliary tray HP sensor does not come ON within 5 sec after the stack delivery auxiliary tray motor starts operation. b. The tray auxiliary guide does not come off the Tray Auxiliary Guide Front/Rear HP Sensors when the Tray Auxiliary Guide Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E583	-8002	-05	Title	a. Error in stack delivery auxiliary tray operation (Finisher-F1) b. Error in the Tray Auxiliary Guide Motor (Finisher-D1)
			Remedy	a-1. Connector check of stack delivery auxiliary tray motor and stack delivery auxiliary tray HP sensor a-2. Replacement of stack delivery auxiliary tray motor and stack delivery auxiliary tray HP sensor a-3. Replacement of finisher controller PCB b-1. The connector of the Tray Auxiliary Guide Front HP Sensor (S137) or the Tray Auxiliary Guide Rear HP Sensor (S136) are disconnected. b-2. The connector of the Tray Auxiliary Guide Motor (M120) is disconnected. b-3. The wiring of the Tray Auxiliary Guide Front HP Sensor (S137) or the Tray Auxiliary Guide Rear HP Sensor (S136) are faulty. b-4. The wiring of the Tray Auxiliary Guide Motor (M120) is faulty. b-5. The Tray Auxiliary Guide Front HP Sensor (S137) is faulty. b-6. The Tray Auxiliary Guide Rear HP Sensor (S136) is faulty. b-7. The Tray Auxiliary Guide Motor (M120) is faulty. b-8. The Finisher Controller PCB is faulty.
			Description	a. Stack delivery auxiliary tray HP sensor does not go OFF within 5 sec after the stack delivery auxiliary tray motor starts operation. b. The Tray Auxiliary Guide Front/Rear HP Sensors does not detect the tray auxiliary guide when the Tray Auxiliary Guide Motor has been driven for 3 seconds.
E584	-0002	-05	Title	Error in the Stack Delivery Lower/Shutter Motor (Finisher-D1)
			Remedy	1. The connector of the Shutter HP Sensor (S106) or the Stack Delivery Lower/Shutter Motor (M122) are disconnected. 2. The wiring of the Shutter HP Sensor (S106) or the Stack Delivery Lower/Shutter Motor (M122) are faulty. 3. The Shutter HP Sensor (S106) is faulty. 4. The Stack Delivery Lower/Shutter Motor (M122) is faulty. 5. The Finisher Controller PCB is faulty.
			Description	The Shutter HP Sensor does not detect the shutter when the Stack Delivery Lower/Shutter Motor has been driven for 3 seconds.

E Code	Detail Code	Location	Item	Description
E584	-8001	-05	Title	a. Error in shutter (Finisher-F1) b. Error in the Stack Delivery Lower/Shutter Motor (Finisher-D1)
			Remedy	a-1. Connector check of paddle rotation motor and shutter HP sensor a-2. Replacement of paddle rotation motor and shutter HP sensor a-3. Replacement of finisher controller PCB b-1. The connector of the Shutter HP Sensor (S106) or the Stack Delivery Lower/Shutter Motor (M122) are disconnected. b-2. The wiring of the Shutter HP Sensor (S106) or the Stack Delivery Lower/Shutter Motor (M122) are faulty. b-3. The Shutter HP Sensor (S106) is faulty. b-4. The Stack Delivery Lower/Shutter Motor (M122) is faulty. b-5. The Finisher Controller PCB is faulty.
			Description	a. Shutter HP sensor does not come ON within 5 sec after the paddle rotation motor starts operation. b. The shutter does not come off the Shutter HP Sensor when the Stack Delivery Lower/Shutter Motor has been driven for 3 seconds.
E584	-8002	-05	Title	a. Error in shutter (Finisher-F1) b. Error in the stack delivery lower/shutter motor (Finisher-D1)
			Remedy	a-1. Connector check of paddle rotation motor and shutter HP sensor a-2. Replacement of paddle rotation motor and shutter HP sensor a-3. Replacement of finisher controller PCB b-1. Connector of the shutter HP sensor (S106) is disconnected. b-2. The shutter HP sensor (S106) is faulty. b-3. The stack delivery lower/shutter motor (M122) is faulty. b-4. The finisher controller PCB is faulty.
			Description	a. Shutter HP sensor does not go OFF within 5 sec after the paddle rotation motor starts operation. b. The shutter HP sensor does not detect the shutter.

E Code	Detail Code	Location	Item	Description
E584	-8003	-05	Title	Error in the Stack Delivery Lower/Shutter Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Shutter Close Detection Sensor (S148) or the Stack Delivery Lower/Shutter Motor (M122) are disconnected.</li> <li>2. The wiring of the Shutter Close Detection Sensor (S148) or the Stack Delivery Lower/Shutter Motor (M122) are faulty.</li> <li>3. The Shutter Close Detection Sensor (S148) is faulty.</li> <li>4. The Stack Delivery Lower/Shutter Motor (M122) is faulty.</li> <li>5. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The shutter does not come off the Shutter Close Detection Sensor when the Stack Delivery Lower/Shutter Motor has been driven for 3 seconds.
E584	-8004	-05	Title	Error in the Stack Delivery Lower/Shutter Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Shutter Close Detection Sensor (S148) or the Stack Delivery Lower/Shutter Motor (M122) are disconnected.</li> <li>2. The wiring of the Shutter Close Detection Sensor (S148) or the Stack Delivery Lower/Shutter Motor (M122) are faulty.</li> <li>3. The Shutter Close Detection Sensor (S148) is faulty.</li> <li>4. The Stack Delivery Lower/Shutter Motor (M122) is faulty.</li> <li>5. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Shutter Close Detection Sensor does not detect the shutter when the Stack Delivery Lower/Shutter Motor has been driven for 3 seconds.
E590	-8000	-05	Title	Error in punch operation
			Remedy	<ol style="list-style-type: none"> <li>1. Check of punch motor</li> <li>2. Check of punch motor FG sensor (SR38)</li> <li>3. Replacement of punch unit</li> <li>4. Replacement of finisher controller PCB</li> </ol>
			Description	Clock error of punch motor is detected.

E Code	Detail Code	Location	Item	Description
E590	-8001	-05	Title	<ol style="list-style-type: none"> <li>a. Error in punch operation (Finisher-F1)</li> <li>b. Error in the Punch Motor (Finisher-D1)</li> </ol>
			Remedy	<ol style="list-style-type: none"> <li>a-1. Check of punch motor</li> <li>a-2. Check of punch motor FG sensor (SR38)</li> <li>a-3. Replacement of punch unit</li> <li>a-4. Replacement of finisher controller PCB</li> <li>b-1. The connector of the Punch HP Sensor (S104) or the Punch Motor Clock Sensor (S105) are disconnected.</li> <li>b-2. The connector of the Punch Motor (M102) is disconnected.</li> <li>b-3. The wiring of the Punch HP Sensor (S104) or the Punch Motor Clock Sensor (S105) are faulty.</li> <li>b-4. The wiring of the Punch Motor (M102) is faulty.</li> <li>b-5. The Punch HP Sensor (S104) is faulty.</li> <li>b-6. The Punch Motor Clock Sensor (S105) is faulty.</li> <li>b-7. The Punch Motor (M102) is faulty.</li> <li>b-8. The Puncher Driver PCB (PCB1) is faulty.</li> <li>b-9. The Finisher Controller PCB is faulty.</li> </ol>
			Description	<ol style="list-style-type: none"> <li>a. If the punch motor HP sensor (PS36) cannot be detected within 200 msec after the punch motor starts driving.</li> <li>b. During initialization, the Punch HP Sensor does not detect the Puncher when the Punch Motor has been driven for 500msec. after the Puncher has come off the Punch HP Sensor. After initialization, the Punch Motor does not return to home position.</li> </ol>

E Code	Detail Code	Location	Item	Description
E590	-8002	-05	Title	a. Error in punch operation (Finisher-F1) b. Error in the Punch Motor (Finisher-D1)
			Remedy	a-1. Check of punch motor a-2. Check of punch motor FG sensor (SR38) a-3. Replacement of punch unit a-4. Replacement of finisher controller PCB b-1. The connector of the Punch HP Sensor (S104) or the Punch Motor Clock Sensor (S105) are disconnected. b-2. The connector of the Punch Motor (M102) is disconnected. b-3. The wiring of the Punch HP Sensor (S104) or the Punch Motor Clock Sensor (S105) are faulty. b-4. The wiring of the Punch Motor (M102) is faulty. b-5. The Punch HP Sensor (S104) is faulty. b-6. The Punch Motor Clock Sensor (S105) is faulty. b-7. The Punch Motor (M102) is faulty. b-8. The Puncher Driver PCB (PCB1) is faulty. b-9. The Finisher Controller PCB is faulty.
			Description	a. If the punch motor HP sensor (PS36) is still detected after 200 msec from the start of punch motor driving. b. The Puncher does not come off the Punch HP Sensor when the Punch Motor has been driven for 200msec. The Puncher does not come off the Punch HP Sensor during initialization.
E590	-8003	-05	Title	Punch Motor clock error (Finisher-D1)
			Remedy	1. The connector of the Punch HP Sensor (S104) or the Punch Motor Clock Sensor (S105) are disconnected. 2. The connector of the Punch Motor (M102) is disconnected. 3. The wiring of the Punch HP Sensor (S104) or the Punch Motor Clock Sensor (S105) are faulty. 4. The wiring of the Punch Motor (M102) is faulty. 5. The Punch HP Sensor (S104) is faulty. 6. The Punch Motor Clock Sensor (S105) is faulty. 7. The Punch Motor (M102) is faulty. 8. The Puncher Driver PCB (PCB1) is faulty. 9. The Finisher Controller PCB is faulty.
			Description	The drive pulse of the Punch Motor does not reach 100 pulses when the Punch Motor has been driven for 100 msec. after the Puncher has come off the Punch HP Sensor.
E590	-8004	-05	Title	Error in punch operation
			Remedy	1. Check of punch motor 2. Check of punch motor FG sensor (SR38) 3. Replacement of punch unit 4. Replacement of finisher controller PCB
			Description	If the punch motor HP sensor (PS36) cannot be detected at the operation switch of 2/hole/3-hole, 2-hole/4-hole (France).

E Code	Detail Code	Location	Item	Description
E593	-8001	-05	Title	Error in the Punch Slide Motor (Finisher-D1)
			Remedy	1. The connector of the Horizontal Registration HP Sensor (S101) or the Punch Slide Motor (M101) are disconnected. 2. The wiring of the Horizontal Registration HP Sensor (S101) or the Punch Slide Motor (M101) are faulty. 3. The Horizontal Registration HP Sensor (S101) is faulty. 4. The Punch Slide Motor (M101) is faulty. 5. The Puncher Driver PCB (PCB1) is faulty. 6. The Finisher Controller PCB is faulty.
			Description	The punch unit does not come off the Horizontal Registration HP Sensor when the Punch Slide Motor has been driven for 680 msec.
E593	-8002	-05	Title	Error in the Punch Slide Motor (Finisher-D1)
			Remedy	1. The connector of the Horizontal Registration HP Sensor (S101) or the Punch Slide Motor (M101) are disconnected. 2. The wiring of the Horizontal Registration HP Sensor (S101) or the Punch Slide Motor (M101) are faulty. 3. The Horizontal Registration HP Sensor (S101) is faulty. 4. The Punch Slide Motor (M101) is faulty. 5. The Puncher Driver PCB (PCB1) is faulty. 6. The Finisher Controller PCB is faulty.
			Description	The Horizontal Registration HP Sensor does not detect the punch unit when the Punch Slide Motor has been driven for 3.3 seconds.
E5A3	-0001	-05	Title	Error in the Registration Motor (Finisher-D1)
			Remedy	1. The connector of the Registration HP Sensor (S105) or the Registration Motor (M102) are disconnected. 2. The wiring of the Registration HP Sensor (S105) or the Registration Motor (M102) are faulty. 3. The Registration HP Sensor (S105) is faulty. 4. The Registration Motor (M102) is faulty. 5. The Trimmer Controller PCB (PCB1) is faulty.
			Description	The Registration HP Sensor does not turn ON when the Registration Motor has been driven for 2.933 seconds.
E5A3	-0002	-05	Title	Error in the Registration Motor (Finisher-D1)
			Remedy	1. The connector of the Registration HP Sensor (S105) or the Registration Motor (M102) are disconnected. 2. The wiring of the Registration HP Sensor (S105) or the Registration Motor (M102) are faulty. 3. The Registration HP Sensor (S105) is faulty. 4. The Registration Motor (M102) is faulty. 5. The Trimmer Controller PCB (PCB1) is faulty.
			Description	The Registration HP Sensor does not turn OFF when the Registration Motor has been driven for 670 msec.

E Code	Detail Code	Location	Item	Description
E5A4	-8001	-05	Title	Error in the Press Motor (Finisher-D1)
			Remedy	1. The connector of the Press Motor HP Sensor (S106) or the Press Motor (M105) are disconnected. 2. The wiring of the Press Motor HP Sensor (S106) or the Press Motor (M105) are faulty. 3. The Press Motor HP Sensor (S106) is faulty. 4. The Press Motor (M105) is faulty. 5. The Trimmer Controller PCB (PCB1) is faulty.
			Description	The Press Motor HP Sensor does not turn ON when the Press Motor has been driven for 926 msec.
E5A4	-8002	-05	Title	Error in the Press Motor (Finisher-D1)
			Remedy	1. The connector of the Press Motor HP Sensor (S106) or the Press Motor (M105) are disconnected. 2. The wiring of the Press Motor HP Sensor (S106) or the Press Motor (M105) are faulty. 3. The Press Motor HP Sensor (S106) is faulty. 4. The Press Motor (M105) is faulty. 5. The Trimmer Controller PCB (PCB1) is faulty.
			Description	The Press Motor HP Sensor does not turn OFF when the Press Motor has been driven for 601 msec.
E5A7	-8011	-05	Title	The feeding claw operating motor (M02) of the booklet trimmer has not been arrived at home position.
			Remedy	1. Connector check 2. Replacement of sensor 3. Replacement of motor
			Description	The feeding claw home position sensor (PI04) failed to be ON
E5A7	-8012	-05	Title	The feeding claw operating motor (M02) of the booklet trimmer is remained at home position.
			Remedy	1. Connector check 2. Replacement of sensor 3. Replacement of motor
			Description	The feeding claw home position sensor (PI04) failed to be OFF
E5A7	-8021	-05	Title	The head-and-tail guide motor (M03) of the booklet trimmer has not been arrived at home position
			Remedy	1. Connector check 2. Replacement of sensor 3. Replacement of motor
			Description	The head-and-tail guide home position sensor (PI03) failed to be ON

E Code	Detail Code	Location	Item	Description
E5A7	-8022	-05	Title	The head-and-tail guide motor (M03) of the booklet trimmer is remained at home position
			Remedy	1. Connector check 2. Replacement of sensor 3. Replacement of motor
			Description	The head-and-tail guide home position sensor (PI03) failed to be OFF
E5A7	-8025	-05	Title	EEPROM error with the booklet trimmer
			Remedy	Replacement of trimmer controller PCB
			Description	There is a failure with the numerical value for home position that has been saved
E5A7	-8033	-05	Title	The driver with the trimming area feed motor (M04) of the booklet trimmer is faulty
			Remedy	1. Connector check 2. Replacement of motor 3. Replacement of driver PCB
			Description	There was a failure in the trimming area feed motor driver PCB (A04)
E5A7	-8043	-05	Title	The driver with the trimming motor (M05) of the booklet trimmer is faulty
			Remedy	
			Description	There was a failure in the trimming motor driver PCB (A05)
E5A7	-8044	-05	Title	The upper limit is failed to be detected with the upper blade of the booklet trimmer
			Remedy	
			Description	The upper blade upper limit sensor (PI06) failed to be ON although the upper blade has moved for a certain distance
E5A7	-8051	-05	Title	The stopper shift motor (M06) of the booklet trimmer has not been arrived at home position
			Remedy	
			Description	The stopper home position sensor (PI05) failed to be ON
E5A7	-8051	-05	Title	The stopper shift motor (M06) of the booklet trimmer is remained at home position
			Remedy	
			Description	The stopper home position sensor (PI05) failed to be OFF
E5A7	-8055	-05	Title	Home position data of trimming stopper positioning motor is incorrect
			Remedy	1. Home position adjustment 2. Replace the trimmer controller PCB
			Description	

E Code	Detail Code	Location	Item	Description
E5A7	-8061	-05	Title	The conveyer retaining roller shift motor (M08) of the booklet trimmer has not been arrived at home position
			Remedy	1. Connector check 2. Replacement of sensor 3. Replacement of motor
			Description	The retaining roller home position sensor (PI14) failed to be ON
E5A7	-8062	-05	Title	The conveyer retaining roller shift motor (M08) of the booklet trimmer is remained at home position
			Remedy	1. Connector check 2. Replacement of sensor 3. Replacement of motor
			Description	The retaining roller home position sensor (PI14) failed to be OFF
E5A7	-8065	-05	Title	Home position data of conveyer delivery roller motor is incorrect.
			Remedy	1. Home position adjustment 2. Replace the trimmer controller PCB
			Description	
E5A7	-8073	-05	Title	The driver with the main feed motor (M10) of the booklet trimmer is faulty
			Remedy	1. Connector check 2. Replacement of motor 3. Replacement of driver PCB
			Description	There was a failure in the main feed motor driver PCB (A10)
E5AA	-8001	-05	Title	Error in the Cutter Motor (Finisher-D1)
			Remedy	1. The connector of the Cutter Motor Clock Sensor (S108) or the Cutter Motor (M106) are disconnected. 2. The wiring of the Cutter Motor Clock Sensor (S108) or the Cutter Motor (M106) are faulty. 3. The Cutter Motor Clock Sensor (S108) is faulty. 4. The Cutter Motor (M106) is faulty. 5. The Trimmer Controller PCB (PCB1) is faulty.
			Description	The home position of the trimming blade is not detected when the Cutter Motor has been driven for 5 seconds.

E Code	Detail Code	Location	Item	Description
E5AA	-8002	-05	Title	Error in the Cutter Motor (Finisher-D1)
			Remedy	1. The connector of the Cutter Motor Clock Sensor (S108) or the Cutter Motor (M106) are disconnected. 2. The wiring of the Cutter Motor Clock Sensor (S108) or the Cutter Motor (M106) are faulty. 3. The Cutter Motor Clock Sensor (S108) is faulty. 4. The Cutter Motor (M106) is faulty. 5. The Trimmer Controller PCB (PCB1) is faulty.
E5AA	-8003	-05	Title	Cutter Motor clock error (Finisher-D1)
			Remedy	1. The connector of the Cutter Motor Clock Sensor (S108) or the Cutter Motor (M106) are disconnected. 2. The wiring of the Cutter Motor Clock Sensor (S108) or the Cutter Motor (M106) are faulty. 3. The Cutter Motor Clock Sensor (S108) is faulty. 4. The Cutter Motor (M106) is faulty. 5. The Trimmer Controller PCB (PCB1) is faulty.
E5AA	-8003	-05	Description	The Cutter Motor Clock Sensor does not detect the Motor clock when the Cutter Motor has been driven for 625 msec.
E5AE	-8000	-05	Title	Trimmer stationary paper error
			Remedy	1. The paper has jammed in the Trimmer. 2. The connector of the Inlet Sensor (S101) is disconnected. 3. The wire of the Inlet Sensor (S101) is faulty. 4. The Inlet Sensor (S101) is faulty. 5. The Trimmer Controller PCB (PCB1) is faulty.
			Description	The Inlet Sensor detects the stationary paper after performing the paper delivery operation.
E5BA	-8001	-05	Title	Error in the Front Estrangement Motor (Finisher-D1)
			Remedy	1. The connector of the Front Estrangement Motor HP Sensor (S102) or the Front Estrangement Motor (M103) are disconnected. 2. The wiring of the Front Estrangement Motor HP Sensor (S102) or the Front Estrangement Motor (M103) are faulty. 3. The Front Estrangement Motor HP Sensor (S102) is faulty. 4. The Front Estrangement Motor (M103) is faulty. 5. The Trimmer Controller PCB (PCB1) is faulty.
			Description	The Front Estrangement Motor HP Sensor does not turn ON when the Front Estrangement Motor has been driven for 191msec.

E Code	Detail Code	Location	Item	Description
E5BA	-8002	-05	Title	Error in the Front Estrangement Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Front Estrangement Motor HP Sensor (S102) or the Front Estrangement Motor (M103) are disconnected.</li> <li>2. The wiring of the Front Estrangement Motor HP Sensor (S102) or the Front Estrangement Motor (M103) are faulty.</li> <li>3. The Front Estrangement Motor HP Sensor (S102) is faulty.</li> <li>4. The Front Estrangement Motor (M103) is faulty.</li> <li>5. The Trimmer Controller PCB (PCB1) is faulty.</li> </ol>
			Description	The Front Estrangement Motor HP Sensor does not turn OFF when the Front Estrangement Motor has been driven for 724 msec. after the Front Estrangement Motor HP Sensor has turned ON.
E5BA	-8011	-05	Title	Error in the Rear Estrangement Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Rear Estrangement Motor HP Sensor (S104) or the Rear Estrangement Motor (M104) are disconnected.</li> <li>2. The wiring of the Rear Estrangement Motor HP Sensor (S104) or the Rear Estrangement Motor (M104) are faulty.</li> <li>3. The Rear Estrangement Motor HP Sensor (S104) is faulty.</li> <li>4. The Rear Estrangement Motor (M104) is faulty.</li> <li>5. The Trimmer Controller PCB (PCB1) is faulty.</li> </ol>
			Description	The Rear Estrangement Motor HP Sensor does not turn ON when the Rear Estrangement Motor has been driven for 180 msec.
E5BA	-8012	-05	Title	Error in the Rear Estrangement Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Rear Estrangement Motor HP Sensor (S104) or the Rear Estrangement Motor (M104) are disconnected.</li> <li>2. The wiring of the Rear Estrangement Motor HP Sensor (S104) or the Rear Estrangement Motor (M104) are faulty.</li> <li>3. The Rear Estrangement Motor HP Sensor (S104) is faulty.</li> <li>4. The Rear Estrangement Motor (M104) is faulty.</li> <li>5. The Trimmer Controller PCB (PCB1) is faulty.</li> </ol>
			Description	The Rear Estrangement Motor HP Sensor does not turn OFF when the Rear Estrangement Motor has been driven for 537 msec.

E Code	Detail Code	Location	Item	Description
E5BB	-8001	-05	Title	Error in the Waste Paper Full Sensor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Waste Paper Full Sensor (emitting/receiving) (S011) is disconnected.</li> <li>2. The wire of the Waste Paper Full Sensor (emitting/receiving) (S011) is faulty.</li> <li>3. The Waste Paper Full Sensor (emitting/receiving) (S011) is faulty.</li> <li>4. The Trimmer Controller PCB (PCB1) is faulty.</li> </ol>
			Description	The A/D input value does not enter into the D/A output upper limit of the Waste Paper Full Sensor.
E5BB	-8002	-05	Title	Error in the Waste Paper Full Sensor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Waste Paper Full Sensor (emitting/receiving) (S011) is disconnected.</li> <li>2. The wire of the Waste Paper Full Sensor (emitting/receiving) (S011) is faulty.</li> <li>3. The Waste Paper Full Sensor (emitting/receiving) (S011) is faulty.</li> <li>4. The Trimmer Controller PCB (PCB1) is faulty.</li> </ol>
			Description	The A/D input value does not enter into the D/A output lower limit of the Waste Paper Full Sensor.
E5F0	-8001	-05	Title	Error in the Saddle Lead Edge Stopper Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Lead Edge Stopper HP Sensor (S205) or the Saddle Lead Edge Stopper Motor (M203) are disconnected.</li> <li>2. The wiring of the Saddle Lead Edge Stopper HP Sensor (S205) or the Saddle Lead Edge Stopper Motor (M203) are faulty.</li> <li>3. The Saddle Lead Edge Stopper HP Sensor (S205) is faulty.</li> <li>4. The Saddle Lead Edge Stopper Motor (M203) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Saddle Lead Edge Stopper HP Sensor does not detect the Saddle lead edge stopper when the Saddle lead edge stopper has been moved for 182 mm by Saddle Lead Edge Stopper Motor.



E Code	Detail Code	Location	Item	Description
E5F0	-8002	-05	Title	Error in the Saddle Lead Edge Stopper Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Lead Edge Stopper HP Sensor (S205) or the Saddle Lead Edge Stopper Motor (M203) are disconnected.</li> <li>2. The wiring of the Saddle Lead Edge Stopper HP Sensor (S205) or the Saddle Lead Edge Stopper Motor (M203) are faulty.</li> <li>3. The Saddle Lead Edge Stopper HP Sensor (S205) is faulty.</li> <li>4. The Saddle Lead Edge Stopper Motor (M203) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Saddle lead edge stopper does not come off the Saddle Lead Edge Stopper HP Sensor when the Saddle Lead Edge Stopper Motor has been driven for 50 pulses.
E5F1	-8000	-05	Title	Error in saddle folding
			Remedy	<ol style="list-style-type: none"> <li>1. Connector check of saddle fold/feed motor and saddle fold/feed motor rotation sensor</li> <li>2. Replacement of saddle fold/feed motor and saddle fold/feed motor rotation sensor</li> <li>3. Replacement of saddle controller PCB</li> </ol>
			Description	Saddle fold/feed motor rotation sensor does not come ON for 1 sec after the saddle fold/feed motor starts operation.
E5F1	-8001	-05	Title	Saddle folder/feeder clock error (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Folder/Feeder Motor Sensor (S214) or the Saddle Folder/Feeder Motor (M206) are disconnected.</li> <li>2. The wiring of the Saddle Folder/Feeder Motor Sensor (S214) or the Saddle Folder/Feeder Motor (M206) are faulty.</li> <li>3. The Saddle Folder/Feeder Motor Sensor (S214) is faulty.</li> <li>4. The Saddle Folder/Feeder Motor (M206) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The drive speed of the Saddle Folder/Feeder Motor is less than 5 mm/sec.
E5F1	-8002	-05	Title	Error in the Saddle Folder/Feeder Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Folder HP Sensor (S229) or the Saddle Folder/Feeder Motor (M206) are disconnected.</li> <li>2. The wiring of the Saddle Folder HP Sensor (S229) or the Saddle Folder/Feeder Motor (M206) are faulty.</li> <li>3. The Saddle Folder HP Sensor (S229) is faulty.</li> <li>4. The Saddle Folder/Feeder Motor (M206) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Saddle Folder HP Sensor does not detect the home position of the paper fold roller during initialization.

E Code	Detail Code	Location	Item	Description
E5F2	-8001	-05	Title	Error in the Saddle Roller Guide Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Roller Guide HP Sensor (S207) or the Saddle Roller Guide Motor (M204) are disconnected.</li> <li>2. The wiring of the Saddle Roller Guide HP Sensor (S207) or the Saddle Roller Guide Motor (M204) are faulty.</li> <li>3. The Saddle Roller Guide HP Sensor (S207) is faulty.</li> <li>4. The Saddle Roller Guide Motor (M204) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Saddle Roller Guide HP Sensor does not detect the Saddle roller guide when the saddle roller guide has been moved for 20 mm by Saddle Roller Guide Motor.
E5F2	-8002	-05	Title	Error in the Saddle Roller Guide Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Roller Guide HP Sensor (S207) or the Saddle Roller Guide Motor (M204) are disconnected.</li> <li>2. The wiring of the Saddle Roller Guide HP Sensor (S207) or the Saddle Roller Guide Motor (M204) are faulty.</li> <li>3. The Saddle Roller Guide HP Sensor (S207) is faulty.</li> <li>4. The Saddle Roller Guide Motor (M204) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The saddle roller guide does not come off the Saddle Roller Guide HP Sensor when the Saddle Roller Guide Motor has been driven for 50 pulses.
E5F3	-8001	-05	Title	Error in the Saddle Alignment Guide Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Alignment Plate HP Sensor (S206) or the Saddle Alignment Guide Motor (M202) are disconnected.</li> <li>2. The wiring of the Saddle Alignment Plate HP Sensor (S206) or the Saddle Alignment Guide Motor (M202) are faulty.</li> <li>3. The Saddle Alignment Plate HP Sensor (S206) is faulty.</li> <li>4. The Saddle Alignment Guide Motor (M202) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Saddle Alignment Plate HP Sensor does not detect the saddle alignment guide when the saddle alignment guide has been moved for 177 mm by Saddle Alignment Guide Motor.

E Code	Detail Code	Location	Item	Description
E5F3	-8002	-05	Title	Error in the Saddle Alignment Guide Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Alignment Plate HP Sensor (S206) or the Saddle Alignment Guide Motor (M202) are disconnected.</li> <li>2. The wiring of the Saddle Alignment Plate HP Sensor (S206) or the Saddle Alignment Guide Motor (M202) are faulty.</li> <li>3. The Saddle Alignment Plate HP Sensor (S206) is faulty.</li> <li>4. The Saddle Alignment Guide Motor (M202) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The saddle alignment guide does not come off the Saddle Alignment Plate HP Sensor when the Saddle Alignment Guide Motor has been driven for 50 pulses.
E5F4	-8001	-05	Title	<ol style="list-style-type: none"> <li>a. Error in saddle staple</li> <li>b. Error in the Saddle Stitcher Motor (Finisher-D1)</li> </ol>
			Remedy	<ol style="list-style-type: none"> <li>a-1. Connector check of staple unit</li> <li>a-2. Replacement of staple unit</li> <li>a-3. Replacement of saddle controller PCB</li> <li>b-1. The connector of the Saddle Stitcher HP Sensor (S223) or the Saddle Stitcher Motor (M209) are disconnected.</li> <li>b-2. The wiring of the Saddle Stitcher HP Sensor (S223) or the Saddle Stitcher Motor (M209) are faulty.</li> <li>b-3. The Saddle Stitcher HP Sensor (S223) is faulty.</li> <li>b-4. The Saddle Stitcher Motor (M209) is faulty.</li> <li>b-5. The Saddle Stitcher Controller PCB is faulty.</li> <li>b-6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	<ol style="list-style-type: none"> <li>a. Home position cannot be detected within 500 msec after the saddle unit starts operation.</li> <li>b. The Saddle Stitcher HP Sensor does not detect the saddle stitcher unit when the Saddle Stitcher Motor has been driven for 480 msec.</li> </ol>

E Code	Detail Code	Location	Item	Description
E5F4	-8002	-05	Title	<ol style="list-style-type: none"> <li>a. Error in saddle staple</li> <li>b. Error in the Saddle Stitcher Motor (Finisher-D1)</li> </ol>
			Remedy	<ol style="list-style-type: none"> <li>a-1. Connector check of staple unit</li> <li>a-2. Replacement of staple unit</li> <li>a-3. Replacement of saddle controller PCB</li> <li>b-1. The connector of the Saddle Stitcher HP Sensor (S223) or the Saddle Stitcher Motor (M209) are disconnected.</li> <li>b-2. The wiring of the Saddle Stitcher HP Sensor (S223) or the Saddle Stitcher Motor (M209) are faulty.</li> <li>b-3. The Saddle Stitcher HP Sensor (S223) is faulty.</li> <li>b-4. The Saddle Stitcher Motor (M209) is faulty.</li> <li>b-5. The Saddle Stitcher Controller PCB is faulty.</li> <li>b-6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	<ol style="list-style-type: none"> <li>a. Home position is still detected after 500 msec from the start of saddle unit operation.</li> <li>b. The Saddle Stitcher unit does not come off the Saddle Stitcher HP Sensor when the Saddle Stitcher Motor has been driven for 480msec.</li> </ol>
E5F5	-8001	-05	Title	Error in the Saddle Trailing Edge Retainer Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Trailing Edge Retainer Move HP Sensor (S219) or the Saddle Trailing Edge Retainer Motor (M210) are disconnected.</li> <li>2. The wiring of the Saddle Trailing Edge Retainer Move HP Sensor (S219) or the Saddle Trailing Edge Retainer Motor (M210) are faulty.</li> <li>3. The Saddle Trailing Edge Retainer Move HP Sensor (S219) is faulty.</li> <li>4. The Saddle Trailing Edge Retainer Motor (M210) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Saddle Trailing Edge Retainer Move HP Sensor does not detect the saddle trailing edge retainer when the saddle trailing edge retainer has been moved for 96 mm by Saddle Trailing Edge Retainer Motor.

E Code	Detail Code	Location	Item	Description
E5F5	-8002	-05	Title	Error in the Saddle Trailing Edge Retainer Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Trailing Edge Retainer Move HP Sensor (S219) or the Saddle Trailing Edge Retainer Motor (M210) are disconnected.</li> <li>2. The wiring of the Saddle Trailing Edge Retainer Move HP Sensor (S219) or the Saddle Trailing Edge Retainer Motor (M210) are faulty.</li> <li>3. The Saddle Trailing Edge Retainer Move HP Sensor (S219) is faulty.</li> <li>4. The Saddle Trailing Edge Retainer Motor (M210) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Saddle trailing edge retainer does not come off the Saddle Trailing Edge Retainer Move HP Sensor when the Saddle Trailing Edge Retainer Motor has been driven for 50 pulses.
E5F6	-8001	-05	Title	Error in the Saddle Paper Push-on Plate Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Paper Push-on Plate HP Sensor (S218) or the Saddle Paper Push-on Plate Motor (M205) are disconnected.</li> <li>2. The wiring of the Saddle Paper Push-on Plate HP Sensor (S218) or the Saddle Paper Push-on Plate Motor (M205) are faulty.</li> <li>3. The Saddle Paper Push-on Plate HP Sensor (S218) is faulty.</li> <li>4. The Saddle Paper Push-on Plate Motor (M205) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Saddle Paper Push-on Plate HP Sensor does not detect the saddle paper push-on plate when the Saddle Paper Push-on Plate Motor has been driven for 500 msec.
E5F6	-8002	-05	Title	Error in the Saddle Paper Push-on Plate Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Paper Push-on Plate HP Sensor (S218) or the Saddle Paper Push-on Plate Motor (M205) are disconnected.</li> <li>2. The wiring of the Saddle Paper Push-on Plate HP Sensor (S218) or the Saddle Paper Push-on Plate Motor (M205) are faulty.</li> <li>3. The Saddle Paper Push-on Plate HP Sensor (S218) is faulty.</li> <li>4. The Saddle Paper Push-on Plate Motor (M205) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The saddle paper push-on plate does not come off the Saddle Paper Push-on Plate HP Sensor when the Saddle Paper Push-on Plate Motor has been driven for 150 msec.

E Code	Detail Code	Location	Item	Description
E5F6	-8003	-05	Title	Saddle Paper Push-on Plate Motor clock error (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Paper Push-on Plate Motor Sensor (S213) or the Saddle Paper Push-on Plate Motor (M205) are disconnected.</li> <li>2. The wiring of the Saddle Paper Push-on Plate Motor Sensor (S213) or the Saddle Paper Push-on Plate Motor (M205) are faulty.</li> <li>3. The Saddle Paper Push-on Plate Motor Sensor (S213) is faulty.</li> <li>4. The Saddle Paper Push-on Plate Motor (M205) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The drive speed of the Saddle Paper Push-on Plate Motor is less than 6 clocks.
E5F7	-8001	-05	Title	Error in the Saddle Trailing Edge Retainer Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Trailing Edge Retainer HP Sensor (S221) or the Saddle Trailing Edge Retainer Motor (M210) are disconnected.</li> <li>2. The wiring of the Saddle Trailing Edge Retainer HP Sensor (S221) or the Saddle Trailing Edge Retainer Motor (M210) are faulty.</li> <li>3. The Saddle Trailing Edge Retainer HP Sensor (S221) is faulty.</li> <li>4. The Saddle Trailing Edge Retainer Motor (M210) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Saddle Trailing Edge Retainer HP Sensor does not detect the Saddle trailing edge retainer when the Saddle Trailing Edge Retainer Motor has been driven for 80 pulses.
E5F7	-8002	-05	Title	Error in the Saddle Trailing Edge Retainer Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Trailing Edge Retainer HP Sensor (S221) or the Saddle Trailing Edge Retainer Motor (M210) are disconnected.</li> <li>2. The wiring of the Saddle Trailing Edge Retainer HP Sensor (S221) or the Saddle Trailing Edge Retainer Motor (M210) are faulty.</li> <li>3. The Saddle Trailing Edge Retainer HP Sensor (S221) is faulty.</li> <li>4. The Saddle Trailing Edge Retainer Motor (M210) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The saddle trailing edge retainer does not come off the Saddle Trailing Edge Retainer HP Sensor when the Saddle Trailing Edge Retainer Motor has been driven for 50 pulses.

E Code	Detail Code	Location	Item	Description
E5F8	-8001	-05	Title	Error in the Saddle Tapping Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Paper Tapping HP Sensor (S215) or the Saddle Tapping Motor (M213) are disconnected.</li> <li>2. The wiring of the Saddle Paper Tapping HP Sensor (S215) or the Saddle Tapping Motor (M213) are faulty.</li> <li>3. The Saddle Paper Tapping HP Sensor (S215) is faulty.</li> <li>4. The Saddle Tapping Motor (M213) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Saddle Paper Tapping HP Sensor does not detect the Saddle tapping plate when the Saddle Tapping Motor has been driven for 50 pulses.
E5F8	-8002	-05	Title	Error in the Saddle Tapping Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Paper Tapping HP Sensor (S215) or the Saddle Tapping Motor (M213) are disconnected.</li> <li>2. The wiring of the Saddle Paper Tapping HP Sensor (S215) or the Saddle Tapping Motor (M213) are faulty.</li> <li>3. The Saddle Paper Tapping HP Sensor (S215) is faulty.</li> <li>4. The Saddle Tapping Motor (M213) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The saddle tapping plate does not come off the Saddle Paper Tapping HP Sensor when the Saddle Tapping Motor has been driven for 50 pulses.
E5F9	-8001	-05	Title	Error in the Saddle Lead-in Roller Disengage Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Lead-in Roller HP Sensor (S222) or the Saddle Lead-in Roller Disengage Motor (M214) are disconnected.</li> <li>2. The wiring of the Saddle Lead-in Roller HP Sensor (S222) or the Saddle Lead-in Roller Disengage Motor (M214) are faulty.</li> <li>3. The Saddle Lead-in Roller HP Sensor (S222) is faulty.</li> <li>4. The Saddle Lead-in Roller Disengage Motor (M214) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The Saddle Lead-in Roller HP Sensor does not detect the Saddle lead-in roller when the Saddle Lead-in Roller Disengage Motor has been driven for 50 pulses.

E Code	Detail Code	Location	Item	Description
E5F9	-8002	-05	Title	Error in the Saddle Lead-in Roller Disengage Motor (Finisher-D1)
			Remedy	<ol style="list-style-type: none"> <li>1. The connector of the Saddle Lead-in Roller HP Sensor (S222) or the Saddle Lead-in Roller Disengage Motor (M214) are disconnected.</li> <li>2. The wiring of the Saddle Lead-in Roller HP Sensor (S222) or the Saddle Lead-in Roller Disengage Motor (M214) are faulty.</li> <li>3. The Saddle Lead-in Roller HP Sensor (S222) is faulty.</li> <li>4. The Saddle Lead-in Roller Disengage Motor (M214) is faulty.</li> <li>5. The Saddle Stitcher Controller PCB is faulty.</li> <li>6. The Finisher Controller PCB is faulty.</li> </ol>
			Description	The saddle lead-in roller does not come off the Saddle Lead-in Roller HP Sensor when the Saddle Lead-in Roller Disengage Motor has been driven for 50 pulses.
E5FA	-8000	-05	Title	Error in saddle press
			Remedy	<ol style="list-style-type: none"> <li>1. Replacement of saddle press motor and saddle press position sensor</li> <li>2. Replacement of saddle controller PCB</li> </ol>
			Description	Saddle press position sensor does not come ON within 200 msec after the saddle press motor starts operation.
E5FA	-8001	-05	Title	Error in saddle press
			Remedy	<ol style="list-style-type: none"> <li>1. Replacement of saddle press motor and saddle press position sensor</li> <li>2. Replacement of saddle controller PCB</li> </ol>
			Description	Saddle press HP sensor does not come ON within 1 sec after the saddle press motor starts operation.
E5FA	-8002	-05	Title	Error in saddle press
			Remedy	<ol style="list-style-type: none"> <li>1. Replacement of saddle press motor and saddle press position sensor</li> <li>2. Replacement of saddle controller PCB</li> </ol>
			Description	Saddle press HP sensor does not go OFF within 1 sec after the saddle press motor starts operation.
E5FB	-8001	-05	Title	Error in saddle disengage operation
			Remedy	<ol style="list-style-type: none"> <li>1. Check of saddle lead-in roller disengage motor and saddle lead-in roller HP sensor</li> <li>2. Replacement of saddle lead-in roller disengage motor and saddle lead-in roller HP sensor</li> <li>3. Replacement of saddle controller PCB</li> </ol>
			Description	Saddle lead-in roller HP sensor does not come ON within 5 sec after the saddle lead-in roller disengage motor starts operation.

E Code	Detail Code	Location	Item	Description
E5FB	-8002	-05	Title	Error in saddle disengage operation
			Remedy	1. Check of saddle lead-in roller disengage motor and saddle lead-in roller HP sensor 2. Replacement of saddle lead-in roller disengage motor and saddle lead-in roller HP sensor 3. Replacement of saddle controller PCB
			Description	Saddle lead-in roller HP sensor does not go OFF within 5 sec after the saddle lead-in roller disengage motor starts operation.
E5FC	-8001	-05	Title	Error in saddle knocking motor
			Remedy	1. Check of saddle knocking motor and saddle paper knocking HP sensor 2. Replacement of saddle knocking motor and saddle paper knocking HP sensor 3. Replacement of saddle controller PCB
			Description	Saddle paper knocking HP sensor does not come ON within 5 sec after the saddle knocking motor starts operation.
E5FC	-8002	-05	Title	Error in saddle knocking motor
			Remedy	1. Check of saddle knocking motor and saddle paper knocking HP sensor 2. Replacement of saddle knocking motor and saddle paper knocking HP sensor 3. Replacement of saddle controller PCB
			Description	Saddle paper knocking HP sensor does not come OFF within 5 sec after the saddle knocking motor starts operation.
E5FD	-8001	-05	Title	Error in saddle trailing edge holding shift motor
			Remedy	1. Check of saddle trailing edge holding shift motor and saddle trailing edge holding shift HP sensor 2. Replacement of saddle trailing edge holding shift motor and saddle trailing edge holding shift HP sensor 3. Replacement of saddle controller PCB
			Description	Saddle trailing edge holding shift HP sensor does not come ON within 5 sec after the saddle training edge holding shift motor starts operation.
E5FD	-8002	-05	Title	Error in saddle trailing edge holding shift motor
			Remedy	1. Check of saddle trailing edge holding shift motor and saddle trailing edge holding shift HP sensor 2. Replacement of saddle trailing edge holding shift motor and saddle trailing edge holding shift HP sensor 3. Replacement of saddle controller PCB
			Description	Saddle trailing edge holding shift HP sensor does not come OFF within 5 sec after the saddle training edge holding shift motor starts operation.

E Code	Detail Code	Location	Item	Description
E5FE	-8001	-05	Title	Error in saddle trailing edge holding motor
			Remedy	1. Check of saddle trailing edge holding motor and saddle trailing edge retainer HP sensor 2. Replacement of saddle trailing edge holding motor and saddle trailing edge retainer HP sensor 3. Replacement of saddle controller PCB
			Description	Saddle trailing edge retainer HP sensor does not come ON within 5 sec after the saddle training edge holding motor starts operation.
E5FE	-8002	-05	Title	Error in saddle trailing edge holding motor
			Remedy	1. Check of saddle trailing edge holding motor and saddle trailing edge retainer HP sensor 2. Replacement of saddle trailing edge holding motor and saddle trailing edge retainer HP sensor 3. Replacement of saddle controller PCB
			Description	Saddle trailing edge retainer HP sensor does not come OFF within 5 sec after the saddle training edge holding motor starts operation.

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## E602

E Code	Detail Code	Location	Item	Description
E602	-0001	-00	Title	Hard disk error
			Remedy	1. Connection of the HDD cable. 2. Reinstall the system. 3. HDD. 4. Main Controller PCB.
			Description	HDD detection error. Unable to detect HDD, not become Ready, return an error. Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
E602	-0002	-00	Title	Hard disk error
			Remedy	1. Reinstall the system. 2. HDD.
			Description	There is no startup file. There is no program for main CPU in /BOOTDEV/BOOT/ on HDD. Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
E602	-0003	-00	Title	Hard disk error
			Remedy	1. Reinstall the system. 2. HDD.
			Description	HDD WriteAbort error. Unable to read /BOOTDEV sector on HDD.
E602	-0006	-00	Title	Hard disk error
			Remedy	1. Reinstall the system. 2. HDD.
			Description	There is no SubBootable for the PDL type in /BOOTDEV/BOOT. Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
E602	-0007	-00	Title	Hard disk error
			Remedy	1. Reinstall the system. 2. HDD.
			Description	No ICC profile corresponding to PDL type exists in /BOOTDEV/PDL
E602	-0009	-00	Title	Hard disk error
			Remedy	1. Reinstall the system. 2. HDD.
			Description	There is no FONT file which is required when executing report print, FAX/IFAX transmission and reception, or stamp print in /BOOTDEV/BOOT.

E Code	Detail Code	Location	Item	Description
E602	-0012	-00	Title	Hard disk error
			Remedy	1. Reinstall the system. 2. HDD.
			Description	The file on HDD in which the Web browser refers to is corrupted or deleted.
E602	-0100	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTDEV.
E602	-0101	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTDEV.
E602	-0102	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTDEV.
E602	-0103	-00	Title	Hard disk error
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
			Description	Error in /FSTDEV.

E Code	Detail Code	Location	Item	Description
E602	-0104	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTDEV.
E602	-0105	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTDEV.
E602	-0110	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTDEV.
E602	-0111	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTDEV.
E602	-0112	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTDEV.

E Code	Detail Code	Location	Item	Description
E602	-0113	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTDEV.
E602	-0114	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTDEV.
E602	-0115	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTDEV.
E602	-0121	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTDEV.

E Code	Detail Code	Location	Item	Description
E602	-0122	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTDEV.
E602	-0123	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTDEV.
E602	-0124	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTDEV.
E602	-0125	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTDEV.

E Code	Detail Code	Location	Item	Description
E602	-0200	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /IMG_MNG.
E602	-0201	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /IMG_MNG.
E602	-0202	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /IMG_MNG.
E602	-0203	-00	Title	Hard disk error
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
			Description	Error in /IMG_MNG.



E Code	Detail Code	Location	Item	Description
E602	-0204	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /IMG_MNG.
E602	-0205	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /IMG_MNG.
E602	-0210	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /IMG_MNG.
E602	-0211	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /IMG_MNG.
E602	-0212	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /IMG_MNG.

E Code	Detail Code	Location	Item	Description
E602	-0213	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /IMG_MNG.
E602	-0214	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /IMG_MNG.
E602	-0215	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /IMG_MNG.
E602	-0221	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /IMG_MNG.

E Code	Detail Code	Location	Item	Description
E602	-0222	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /IMG_MNG.
E602	-0223	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /IMG_MNG.
E602	-0224	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /IMG_MNG.
E602	-0225	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /IMG_MNG.

E Code	Detail Code	Location	Item	Description
E602	-0300	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTCDEV.
E602	-0301	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTCDEV.
E602	-0302	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTCDEV.
E602	-0303	-00	Title	Hard disk error
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
			Description	Error in /FSTCDEV.

E Code	Detail Code	Location	Item	Description
E602	-0304	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTCDEV.
E602	-0305	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTCDEV.
E602	-0310	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTCDEV.
E602	-0311	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTCDEV.
E602	-0312	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTCDEV.

E Code	Detail Code	Location	Item	Description
E602	-0313	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTCDEV.
E602	-0314	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTCDEV.
E602	-0315	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTCDEV.
E602	-0321	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /FSTCDEV.

E Code	Detail Code	Location	Item	Description
E602	-0322	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTCDEV.
E602	-0323	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTCDEV.
E602	-0324	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTCDEV.
E602	-0325	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /FSTCDEV.

E Code	Detail Code	Location	Item	Description
E602	-0400	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /THUMDEV.
E602	-0401	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /THUMDEV.
E602	-0402	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /THUMDEV.
E602	-0403	-00	Title	Hard disk error
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
			Description	Error in /THUMDEV.

E Code	Detail Code	Location	Item	Description
E602	-0404	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /THUMDEV.
E602	-0405	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /THUMDEV.
E602	-0410	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /THUMDEV.
E602	-0411	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /THUMDEV.
E602	-0412	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /THUMDEV.

E Code	Detail Code	Location	Item	Description
E602	-0413	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /THUMDEV.
E602	-0414	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /THUMDEV.
E602	-0415	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /THUMDEV.
E602	-0421	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /THUMDEV.

E Code	Detail Code	Location	Item	Description
E602	-0422	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /THUMDEV.
E602	-0423	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /THUMDEV.
E602	-0424	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /THUMDEV.
E602	-0425	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /THUMDEV.

E Code	Detail Code	Location	Item	Description
E602	-0500	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_GEN.
E602	-0501	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_GEN.
E602	-0502	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_GEN.
E602	-0503	-00	Title	Hard disk error
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
			Description	Error in /APL_GEN.

E Code	Detail Code	Location	Item	Description
E602	-0504	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_GEN.
E602	-0505	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_GEN.
E602	-0510	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_GEN.
E602	-0511	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_GEN.
E602	-0512	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_GEN.

E Code	Detail Code	Location	Item	Description
E602	-0513	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_GEN.
E602	-0514	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_GEN.
E602	-0515	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_GEN.
E602	-0521	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_GEN.

E Code	Detail Code	Location	Item	Description
E602	-0522	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_GEN.
E602	-0523	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_GEN.
E602	-0524	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_GEN.
E602	-0525	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_GEN.

E Code	Detail Code	Location	Item	Description
E602	-0600	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_GEN.
E602	-0601	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_GEN.
E602	-0602	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_GEN.
E602	-0603	-00	Title	Hard disk error
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
			Description	Error in /TMP_GEN.



E Code	Detail Code	Location	Item	Description
E602	-0604	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_GEN.
E602	-0605	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_GEN.
E602	-0610	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_GEN.
E602	-0611	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_GEN.
E602	-0612	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_GEN.

E Code	Detail Code	Location	Item	Description
E602	-0613	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_GEN.
E602	-0614	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_GEN.
E602	-0615	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_GEN.
E602	-0621	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_GEN.

E Code	Detail Code	Location	Item	Description
E602	-0622	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_GEN.
E602	-0623	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_GEN.
E602	-0624	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_GEN.
E602	-0625	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_GEN.

E Code	Detail Code	Location	Item	Description
E602	-0700	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_FAX.
E602	-0701	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_FAX.
E602	-0702	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_FAX.
E602	-0703	-00	Title	Hard disk error
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
			Description	Error in /TMP_FAX.

E Code	Detail Code	Location	Item	Description
E602	-0704	-00	Title	Hard disk error
			Remedy	<p>1. Check the Cable and Power Connector.</p> <p>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</p> <p>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /TMP_FAX.
E602	-0705	-00	Title	Hard disk error
			Remedy	<p>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /TMP_FAX.
E602	-0710	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <p>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /TMP_FAX.
E602	-0711	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <p>1. Check the Cable and Power Connector.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /TMP_FAX.
E602	-0712	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <p>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /TMP_FAX.

E Code	Detail Code	Location	Item	Description
E602	-0713	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <p>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</p> <p>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</p> <p>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /TMP_FAX.
E602	-0714	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <p>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /TMP_FAX.
E602	-0715	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <p>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /TMP_FAX.
E602	-0721	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <p>1. Check the Cable and Power Connector.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /TMP_FAX.

E Code	Detail Code	Location	Item	Description
E602	-0722	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_FAX.
E602	-0723	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_FAX.
E602	-0724	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_FAX.
E602	-0725	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_FAX.

E Code	Detail Code	Location	Item	Description
E602	-0800	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_PSS.
E602	-0801	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_PSS.
E602	-0802	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_PSS.
E602	-0803	-00	Title	Hard disk error
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
			Description	Error in /TMP_PSS.

E Code	Detail Code	Location	Item	Description
E602	-0804	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_PSS.
E602	-0805	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_PSS.
E602	-0810	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_PSS.
E602	-0811	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_PSS.
E602	-0812	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_PSS.

E Code	Detail Code	Location	Item	Description
E602	-0813	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_PSS.
E602	-0814	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_PSS.
E602	-0815	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_PSS.
E602	-0821	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /TMP_PSS.

E Code	Detail Code	Location	Item	Description
E602	-0822	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_PSS.
E602	-0823	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_PSS.
E602	-0824	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_PSS.
E602	-0825	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /TMP_PSS.

E Code	Detail Code	Location	Item	Description
E602	-0900	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /PDLDEV.
E602	-0901	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /PDLDEV.
E602	-0902	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /PDLDEV.
E602	-0903	-00	Title	Hard disk error
			Remedy	Recovery of Boot partition must be executed in Safe Mode using SST. 1. Execute HDD-CHECK (duration: several dozen minutes) with CHK-TYPE = 0, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, move to the download mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.
			Description	Error in /PDLDEV.

E Code	Detail Code	Location	Item	Description
E602	-0904	-00	Title	Hard disk error
			Remedy	<p>1. Check the Cable and Power Connector.</p> <p>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</p> <p>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /PDLDEV.
E602	-0905	-00	Title	Hard disk error
			Remedy	<p>Recovery of Boot partition must be executed in Safe Mode using SST.</p> <p>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /PDLDEV.
E602	-0910	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <p>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /PDLDEV.
E602	-0911	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <p>1. Check the Cable and Power Connector.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /PDLDEV.

E Code	Detail Code	Location	Item	Description
E602	-0912	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <p>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /PDLDEV.
E602	-0913	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <p>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</p> <p>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</p> <p>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /PDLDEV.
E602	-0914	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <p>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /PDLDEV.
E602	-0915	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <p>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</p> <p>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</p>
			Description	Error in /PDLDEV.

E Code	Detail Code	Location	Item	Description
E602	-0921	-00	Title	Hard disk error
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /PDLDEV.
E602	-0922	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /PDLDEV.
E602	-0923	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /PDLDEV.
E602	-0924	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /PDLDEV.

E Code	Detail Code	Location	Item	Description
E602	-0925	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /PDLDEV.
E602	-1000	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /BOOTDEV.
E602	-1001	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /BOOTDEV.
E602	-1002	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /BOOTDEV.



E Code	Detail Code	Location	Item	Description
E602	-1003	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.</li> </ol>
			Description	Error in /BOOTDEV.
E602	-1004	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /BOOTDEV.
E602	-1005	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /BOOTDEV.
E602	-1010	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /BOOTDEV.
E602	-1011	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /BOOTDEV.

E Code	Detail Code	Location	Item	Description
E602	-1012	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /BOOTDEV.
E602	-1013	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /BOOTDEV.
E602	-1014	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /BOOTDEV.
E602	-1015	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /BOOTDEV.

E Code	Detail Code	Location	Item	Description
E602	-1021	-00	Title	Hard disk error
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /BOOTDEV.
E602	-1022	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /BOOTDEV.
E602	-1023	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /BOOTDEV.
E602	-1024	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /BOOTDEV.

E Code	Detail Code	Location	Item	Description
E602	-1025	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /BOOTDEV.
E602	-1100	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_MEAP.
E602	-1101	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_MEAP.
E602	-1102	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_MEAP.

E Code	Detail Code	Location	Item	Description
E602	-1103	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. If possible, ask the customer to retrieve the data in the Address Book from the remote UI.</li> <li>2. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>3. If the measures above do not solve the problem, move to the download mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> </ol>
			Description	Error in /APL_MEAP.
E602	-1104	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_MEAP.
E602	-1105	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_MEAP.
E602	-1110	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_MEAP.

E Code	Detail Code	Location	Item	Description
E602	-1111	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_MEAP.
E602	-1112	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_MEAP.
E602	-1113	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_MEAP.
E602	-1114	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_MEAP.

E Code	Detail Code	Location	Item	Description
E602	-1115	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_MEAP.
E602	-1121	-00	Title	Hard disk error
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_MEAP.
E602	-1122	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_MEAP.
E602	-1123	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_MEAP.
E602	-1124	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_MEAP.

E Code	Detail Code	Location	Item	Description
E602	-1125	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_MEAP.
E602	-1200	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1201	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1202	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.

E Code	Detail Code	Location	Item	Description
E602	-1203	-00	Title	Hard disk error
			Remedy	Recovery of Boot partition must be executed in Safe Mode using SST. 1. Execute HDD-CHECK (duration: several dozen minutes) with CHK-TYPE = 0, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, move to the download mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.
			Description	Error in /APL_SEND.
E602	-1204	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1205	-00	Title	Hard disk error
			Remedy	Recovery of Boot partition must be executed in Safe Mode using SST. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1210	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.

E Code	Detail Code	Location	Item	Description
E602	-1211	-00	Title	Hard disk error
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1212	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1213	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1214	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.

E Code	Detail Code	Location	Item	Description
E602	-1215	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1221	-00	Title	Hard disk error
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1222	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1223	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1224	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.

E Code	Detail Code	Location	Item	Description
E602	-1225	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_SEND.
E602	-1300	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_KEEP.
E602	-1301	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_KEEP.
E602	-1302	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_KEEP.

E Code	Detail Code	Location	Item	Description
E602	-1303	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.</li> </ol>
			Description	Error in /APL_KEEP.
E602	-1304	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_KEEP.
E602	-1305	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_KEEP.
E602	-1310	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_KEEP.
E602	-1311	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_KEEP.

E Code	Detail Code	Location	Item	Description
E602	-1312	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_KEEP.
E602	-1313	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_KEEP.
E602	-1314	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_KEEP.
E602	-1315	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_KEEP.

E Code	Detail Code	Location	Item	Description
E602	-1321	-00	Title	Hard disk error
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_KEEP.
E602	-1322	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_KEEP.
E602	-1323	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_KEEP.
E602	-1324	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_KEEP.

E Code	Detail Code	Location	Item	Description
E602	-1325	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_KEEP.
E602	-1400	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_LOG.
E602	-1401	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_LOG.
E602	-1402	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_LOG.



E Code	Detail Code	Location	Item	Description
E602	-1403	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.</li> </ol>
			Description	Error in /APL_LOG.
E602	-1404	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_LOG.
E602	-1405	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_LOG.
E602	-1410	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_LOG.
E602	-1411	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_LOG.

E Code	Detail Code	Location	Item	Description
E602	-1412	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_LOG.
E602	-1413	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_LOG.
E602	-1414	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_LOG.
E602	-1415	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_LOG.

E Code	Detail Code	Location	Item	Description
E602	-1421	-00	Title	Hard disk error
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_LOG.
E602	-1422	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_LOG.
E602	-1423	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_LOG.
E602	-1424	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_LOG.

E Code	Detail Code	Location	Item	Description
E602	-1425	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_LOG.
E602	-1500	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /CRBDEV.
E602	-1501	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /CRBDEV.
E602	-1502	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /CRBDEV.

E Code	Detail Code	Location	Item	Description
E602	-1503	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.</li> </ol>
			Description	Error in /CRBDEV.
E602	-1504	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /CRBDEV.
E602	-1505	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /CRBDEV.
E602	-1510	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /CRBDEV.
E602	-1511	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /CRBDEV.

E Code	Detail Code	Location	Item	Description
E602	-1512	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /CRBDEV.
E602	-1513	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /CRBDEV.
E602	-1514	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /CRBDEV.
E602	-1515	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /CRBDEV.

E Code	Detail Code	Location	Item	Description
E602	-1521	-00	Title	Hard disk error
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /CRBDEV.
E602	-1522	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /CRBDEV.
E602	-1523	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /CRBDEV.
E602	-1524	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /CRBDEV.

E Code	Detail Code	Location	Item	Description
E602	-1525	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /CRBDEV.
E602	-1600	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_CDS.
E602	-1601	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_CDS.
E602	-1602	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_CDS.

E Code	Detail Code	Location	Item	Description
E602	-1603	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.</li> </ol>
			Description	Error in /APL_CDS.
E602	-1604	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_CDS.
E602	-1605	-00	Title	Hard disk error
			Remedy	<ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_CDS.
E602	-1610	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_CDS.
E602	-1611	-00	Title	Hard disk error
			Remedy	<p>This is the error which usually does not occur in Read/Write level.</p> <ol style="list-style-type: none"> <li>1. Check the Cable and Power Connector.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_CDS.

E Code	Detail Code	Location	Item	Description
E602	-1612	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_CDS.
E602	-1613	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_CDS.
E602	-1614	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_CDS.
E602	-1615	-00	Title	Hard disk error
			Remedy	<p>Error due to data corruption or software bug.</p> <ol style="list-style-type: none"> <li>1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.</li> <li>2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Error in /APL_CDS.

E Code	Detail Code	Location	Item	Description
E602	-1621	-00	Title	Hard disk error
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_CDS.
E602	-1622	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_CDS.
E602	-1623	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_CDS.
E602	-1624	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_CDS.

E Code	Detail Code	Location	Item	Description
E602	-1625	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Error in /APL_CDS.
E602	-2000	-00	Title	Authentication error between Host Machine and Encryption Board
			Remedy	1. Connection error between the Encryption Board and the Main Controller PCB (turn OFF and then ON the power). 2. Execute the key clear of the Encryption Board using SST (at this time, HDD becomes unformatted; thus, it is necessary to execute HDD format and system reinstallation).
			Description	Authentication error between Host Machine and Encryption Board.
E602	-2001	-00	Title	Discrepancy in the Encryption Board operation
			Remedy	Execute the key clear of the Encryption Board using SST (at this time, HDD becomes unformatted; thus, it is necessary to execute HDD format and system reinstallation).
			Description	Although the Host Machine does not have the authentication information of the Encryption Board, the authenticated Encryption Board is installed.
E602	-2002	-00	Title	Failure of Encryption Board, others
			Remedy	1. Connection error between the Encryption Board and the Main Controller PCB (turn OFF and then ON the power). 2. Execute the key clear of the Encryption Board using SST (at this time, HDD becomes unformatted; thus, it is necessary to execute HDD format and system reinstallation). 3. After replacing the Encryption Board, execute HDD format and system reinstallation using SST. 4. Main Controller PCB.
			Description	Failure of Encryption Board, others.

E Code	Detail Code	Location	Item	Description
E602	-4000	-00	Title	OS startup error
			Remedy	1. Cable connection error. 2. After HDD All Format, reinstall the system software. 3. HDD.
			Description	Unable to install OS. Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
E602	-4001	-00	Title	OS startup error
			Remedy	1. Cable connection error. 2. After HDD All Format, reinstall the system software. 3. HDD.
			Description	No OS startup script. Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
E602	-FF00	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.
E602	-FF01	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.
E602	-FF02	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.

E Code	Detail Code	Location	Item	Description
E602	-FF03	-00	Title	Hard disk error
			Remedy	1. Execute HDD-CHECK (duration: several dozen minutes) with CHK-TYPE = 0, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, execute HDD-CLEAR with CHK-TYPE = 1, 2, 3, 5, and then turn OFF and then ON the power.
			Description	Unidentified partition error.
E602	-FF04	-00	Title	Hard disk error
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.
E602	-FF05	-00	Title	Hard disk error
			Remedy	This is the error which does not occur usually. 1. Execute HDD-CLEAR with CHK-TYPE = 1, 2, 3, 5, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.
E602	-FF10	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.
E602	-FF11	-00	Title	Hard disk error
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.

E Code	Detail Code	Location	Item	Description
E602	-FF12	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.
E602	-FF13	-00	Title	Hard disk error
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.
E602	-FF14	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.
E602	-FF15	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.

E Code	Detail Code	Location	Item	Description
E602	-FF21	-00	Title	Hard disk error
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.
E602	-FF22	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.
E602	-FF23	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.
E602	-FF24	-00	Title	Hard disk error
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
			Description	Unidentified partition error.



E Code	Detail Code	Location	Item	Description
E602	-FF25	-00	Title	Hard disk error
			Remedy	<p>The document data (such as Box on the HDD) can be damaged.</p> <ol style="list-style-type: none"> <li>1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power.</li> <li>2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND)</li> <li>3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.</li> </ol>
			Description	Unidentified partition error.

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## ■ E604 to E677

E Code	Detail Code	Location	Item	Description
E604	-1024	-00	Title	Insufficient memory
			Remedy	DDR2-SDRAM
			Description	Insufficient memory (require 1024 MB).
E609	-0008	-00	Title	Hard disk error
			Remedy	HDD.
			Description	Temperature of the HDD does not rise to the specified temperature within the specified period of time at the time of startup.
E609	-0009	-00	Title	Hard disk error
			Remedy	HDD.
			Description	At the time of recovery from sleep, it does not reach to the specified temperature.
E610	-0001	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Check the hardware configuration.
			Description	The Encryption Board does not exist.
E610	-0002	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Check the hardware configuration.
			Description	Not meeting the memory configuration to execute encryption operation.
E610	-0101	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Turn OFF and then ON the power.
			Description	Failed to initialize the memory of key storage area.
E610	-0102	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Turn OFF and then ON the power.
			Description	Failed to initialize the encryption processing part.
E610	-0201	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Turn OFF and then ON the power.
			Description	Error in the encryption processing part.

E Code	Detail Code	Location	Item	Description
E610	-0202	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Turn OFF and then ON the power.
			Description	Error in the encryption processing part.
E610	-0301	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Turn OFF and then ON the power.
			Description	Failed to create the encryption key.
E610	-0302	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Turn OFF and then ON the power. Due to this error, HDD content is initialized.
			Description	Failure of the encryption key is detected.
E610	-0303	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Turn OFF and then ON the power. Due to this error, HDD content is initialized.
			Description	Failure of the encryption key is detected.
E610	-0401	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Turn OFF and then ON the power.
			Description	Error is detected during encryption.
E610	-0402	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Turn OFF and then ON the power.
			Description	Error is detected during decryption.
E610	-0501	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Remedy	Turn OFF and then ON the power.
			Description	Error in document management information on /FSTDEV.

E Code	Detail Code	Location	Item	Description
E611	-0000	-00	Title	Rebooting due to SRAM corruption when executing a transmission job that secures disconnection of the power
			Remedy	Clear SRAM to erase the job that secures disconnection of the power.
			Description	In the case that reboot is repeated at recovery from power down because SRAM information is corrupted and the job information saved on SRAM cannot be read, the phenomenon that the communication is repeated occurs.
E674	-0001	-00	Title	FAX error
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
			Description	Communication error with the FAX PCB.
E674	-0002	-00	Title	FAX error
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
			Description	Communication error with the FAX PCB.
E674	-0004	-00	Title	FAX error
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
			Description	Error in access of the modem IC.
E674	-0008	-00	Title	FAX error
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
			Description	Error in access of the port IC.
E674	-000C	-00	Title	FAX error
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
			Description	Error in access of the modem IC/port IC.
E674	-0010	-00	Title	FAX error
			Remedy	Replace the Main Controller PCB.
			Description	FAX error.
E674	-0011	-00	Title	FAX error
			Remedy	Replace the Main Controller PCB.
			Description	FAX error.
E674	-0030	-00	Title	FAX error
			Remedy	Download the system software for 2-line FAX.
			Description	Checksum error.
E674	-0100	-00	Title	FAX error
			Remedy	Turn OFF and then ON the power.
			Description	Logging is failed after completion of FAX communication, and unable to read.

E Code	Detail Code	Location	Item	Description
E674	-0200	-00	Title	HDD access error
			Remedy	1. Turn OFF/ON the main power switch. 2. Reinstall all the formats and the system. 3. Replace the HDD. 4. Replace the Main Controller PCB 1.
			Description	An error occurred when accessing the HDD.
E677	-0001	-00	Title	Print server error
			Remedy	1. Check power supply to the Exhaust Fan. 2. Replace the Exhaust Fan.
			Description	Exhaust Fan operation error on the print server is detected.
E677	-0003	-00	Title	Print server error
			Remedy	Check the cable connection, reinstallation.
			Description	Error is detected at the configuration check performed at startup.
E677	-0004	-00	Title	Print server error
			Remedy	1. Check power supply to the CPU Fan. 2. Replace the CPU Fan.
			Description	CPU Fan operation error on the print server is detected.
E677	-0010	-00	Title	Print server error
			Remedy	Replace the print server with the proper one.
			Description	Not proper print server is connected.
E677	-0080	-00	Title	Print server error
			Remedy	Check the cable connection, reinstallation.
			Description	Communication error at startup.

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## ■ E710 to E760

E Code	Detail Code	Location	Item	Description
E710	-0001	-00	Title	Printer IPC error
			Remedy	Disconnection of cable.
			Description	Error is detected by IPC communication IC of the printer engine at power ON.
E711	-0001	-00	Title	IPC communication error
			Remedy	Check the Cable.
			Description	Occurrence of error was set for 4 times or more for 1.5 seconds to the error register of the IPC Chip.
E711	-0001	-05	Title	IPC communication error (retransmission request reception error)
			Remedy	1. Check the cable connection. Check the connection between DCON side (J462) and Finisher Lattice side (J9043) Finisher Cable 2. Replace the DC Controller PCB.
			Description	Communication between the host machine and the Finisher was lost.
E711	-0002	-05	Title	IPC communication error (reception timeout)
			Remedy	1. Check the cable connection. Check the connection between DCON side (J462) and Finisher Lattice side (J9043) Finisher Cable 2. Replace the DC Controller PCB.
			Description	Communication between the host machine and the Finisher was lost.
E711	-0004	-05	Title	IPC communication error (checksum error)
			Remedy	1. Check the cable connection. Check the connection between DCON side (J462) and Finisher Lattice side (J9043) Finisher Cable 2. Replace the DC Controller PCB.
			Description	Communication between the host machine and the Finisher was lost.
E711	-0020	-05	Title	IPC communication error (recovery error)
			Remedy	1. Check the cable connection. Check the connection between DCON side (J462) and Finisher Lattice side (J9043) Finisher Cable 2. Replace the DC Controller PCB.
			Description	Communication between the host machine and the Finisher was lost.

E Code	Detail Code	Location	Item	Description
E711	-0040	-05	Title	IPC communication error (serial error)
			Remedy	1. Check the cable connection. Check the connection between DCON side (J462) and Finisher Lattice side (J9043) Finisher Cable 2. Replace the DC Controller PCB.
			Description	Communication between the host machine and the Finisher was lost.
E713	-0001	-05	Title	Finisher IPC communication error (retransmission request reception error)
			Remedy	1. Check the cable connection of the Finisher. DC Controller side: J462, Finisher Lattice side: J9043 2. Replace the Finisher Controller PCB.
			Description	Communication between the host machine and the Finisher was lost.
E713	-0002	-05	Title	Finisher IPC communication error (reception timeout)
			Remedy	1. Check the cable connection of the Finisher. DC Controller side: J462, Finisher Lattice side: J9043 2. Replace the Finisher Controller PCB.
			Description	Communication between the host machine and the Finisher was lost.
E713	-0004	-05	Title	Finisher IPC communication error (checksum error)
			Remedy	1. Check the cable connection of the Finisher. DC Controller side: J462, Finisher Lattice side: J9043 2. Replace the Finisher Controller PCB.
			Description	Communication between the host machine and the Finisher was lost.
E713	-0020	-05	Title	Finisher IPC communication error (recovery error)
			Remedy	1. Check the cable connection of the Finisher. DC Controller side: J462, Finisher Lattice side: J9043 2. Replace the Finisher Controller PCB.
			Description	Communication between the host machine and the Finisher was lost.
E713	-0040	-05	Title	Finisher IPC communication error (serial error)
			Remedy	1. Check the cable connection of the Finisher. DC Controller side: J462, Finisher Lattice side: J9043 2. Replace the Finisher Controller PCB.
			Description	Communication between the host machine and the Finisher was lost.

E Code	Detail Code	Location	Item	Description
E717	-0001	-00	Title	Communication error with the NE Controller
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
			Description	Error when the NE Controller is started. The NE Controller which was connected before turning OFF the power is not connected at power-on.
E717	-0002	-00	Title	Communication error with the NE Controller
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
			Description	IPC error at NE Controller operation. Open circuit of IPC, unable to recover the IPC communication.
E719	-0001	-00	Title	Error in coin manager
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
			Description	Error when the coin manager is started. The coin manager which was connected before turning OFF the power is not connected at power-on.
E719	-0002	-00	Title	Error in coin manager
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
			Description	IPC error at coin manager operation. Open circuit of IPC, unable to recover the IPC communication. When open circuit of the pickup/delivery signal cable is detected. Invalid connection is detected.
E719	-0003	-00	Title	Error in coin manager
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
			Description	Communication error with the coin manager occurs during unit price acquisition at startup.
E719	-0011	-00	Title	Error when the Card Reader is started
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
			Description	The Card Reader which was connected before turning OFF the power is not connected at power-on.

E Code	Detail Code	Location	Item	Description
E719	-0012	-00	Title	IPC error at Card Reader operation
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
			Description	Open circuit of IPC, unable to recover the IPC communication.
E719	-0031	-00	Title	Communication error when the Card Reader (serial) is started
			Remedy	1. Check the cable connection of the Card Reader (connector connection error, open circuit), and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR. 2. After removing the Card Reader, execute the following service mode, and then reinstall the Card Reader. <ul style="list-style-type: none"> <li>• COPIER&gt;FUNCTION&gt;CLEAR&gt;CARD</li> <li>• COPIER&gt;FUNCTION&gt;CLEAR&gt;ERR</li> </ul>
			Description	Unable to start communication with the Card Reader at startup.
E719	-0032	-00	Title	Communication error after the Card Reader (serial) is started
			Remedy	Check the cable connection of the Card Reader (connector connection error, open circuit), and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
			Description	Although communication with the Card Reader was possible at startup, it became unavailable in the middle of it.
E720	-0001	-05	Title	Different model error
			Remedy	Check the configuration of options.
			Description	Not proper Finisher is connected.
E720	-0002	-05	Title	Different model error
			Remedy	Check the configuration of options.
			Description	Not proper Option Deck is connected.
E720	-0100	-05	Title	Different model error
			Remedy	Check the configuration of options.
			Description	Finisher-D1 is connected to iR-ADV 8105PRO/8095PRO for Japan.
E720	-02xx	-05	Title	Different model error
			Remedy	Check the configuration of options.
			Description	Option that is not supported is connected. xx= 02: Finisher, 11 to 13: POD Deck, 21: Multi Inserter, 31: GBC Puncher, 51 to 52: Stacker, 61: Perfect Binder, 71: Inserter

E Code	Detail Code	Location	Item	Description
E720	-0300	05	Title	Different model error
			Remedy	Check the configuration of options.
			Description	Service mode (COPIER> OPTION> ACCPST-D) is set when Finisher-D1 is connected.
E730	-1001	-00	Title	PDL software error
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power.
			Description	Initialization error.
E730	-100A	-00	Title	PDL software error
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power.
			Description	Systematic fatal error, such as initialization failure, occurs.
E730	-9004	-00	Title	Third party PDL communication error
			Remedy	1. Turn OFF and then ON the power. 2. Check the cable connection. 3. Replace the Open I/F PCB, F Link PCB (Main/Sub). 4. Replace the Main Controller PCB.
			Description	Communication error with the print server.
E730	-9005	-00	Title	Third party PDL communication error
			Remedy	1. Turn OFF and then ON the power. 2. Check the cable connection. 3. Replace the Open I/F PCB, F Link PCB (Main/Sub). 4. Replace the Main Controller PCB.
			Description	Error in video cable connection with the print server.
E730	-A006	-00	Title	PDL communication error
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power. 3. Check the connection of the Main Controller PCB. 4. Reinstall the firmware. 5. Replace the Main Controller PCB.
			Description	No reply from PDL. Due to failure of Subbootable, or no existence, there is no reply from PDL.
E730	-A007	-00	Title	Mismatched PDL version
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power. 3. System All Format and installation.
			Description	Version of the host machine control software and version of PDL control software are different.
E730	-B013	-00	Title	PDL embedded font error
			Remedy	1. Turn OFF and then ON the power. 2. Reinstall the system. 3. System All Format and installation.
			Description	Font data is corrupted.

E Code	Detail Code	Location	Item	Description
E732	-0000	-00	Title	Reader communication error
			Remedy	1. Check the connection of the Connector with the Reader. 2. Check the power of the Reader (check if the initialization operation is executed at startup). 3. Replace the Reader Controller PCB and the Main Controller PCB.
			Description	Negotiation failure.
E732	-0001	-00	Title	Reader communication error
			Remedy	1. Check the connection of the Connector with the Reader. 2. Check the power of the Reader (check if the initialization operation is executed at startup). 3. Replace the Reader Controller PCB and the Main Controller PCB.
			Description	Communication error.
E732	-0010	-00	Title	Reader communication error
			Remedy	1. Check the connection of the Connector with the Reader. 2. Check the power of the Reader (check if the initialization operation is executed at startup). 3. Replace the Reader Controller PCB and the Main Controller PCB.
			Description	Unable to detect Vsync from the Reader Controller although 2 minutes have passed after the completion of register setting of the Main Controller.
E732	-0020	-00	Title	Scanner communication error
			Remedy	Reader Controller 12V cannot be detected (Hardware failure of DDI-S)
			Description	1. Check of connector of scanner connection 2. Check of scanner power (check whether initialization operation is executed or not at start-up) 3. Replace the Reader Controller PCB and the Main Controller PCB
E732	-0021	-00	Title	Scanner communication error
			Remedy	1PIN power distribution cannot be detected (Hardware failure of DDI-S)
			Description	1. Check of connector of scanner connection 2. Check of scanner power (check whether initialization operation is executed or not at start-up) 3. Replace the Reader Controller PCB and the Main Controller PCB

E Code	Detail Code	Location	Item	Description
E732	-0022	-00	Title	Scanner communication error
			Remedy	36PIN power distribution cannot be detected (Hardware failure of DDI-S)
			Description	1. Check of connector of scanner connection 2. Check of scanner power (check whether initialization operation is executed or not at start-up) 3. Replace the Reader Controller PCB and the Main Controller PCB
E732	-0023	-00	Title	Scanner communication error
			Remedy	SPRDY-S signal cannot be detected (Hardware failure of DDI-S)
			Description	1. Check of connector of scanner connection 2. Check of scanner power (check whether initialization operation is executed or not at start-up) 3. Replace the Reader Controller PCB and the Main Controller PCB
E732	-8888	-00	Title	Error in the reader type
			Remedy	Replace to the proper reader.
			Description	When a scanner for the different model is detected during the communication with the reader.
E732	-9999	-00	Title	Detection of Reader
			Remedy	---
			Description	The Reader is detected for the first time with the printer model. (On the user screen, only the message"Turn OFF and then ON the power again", instead of an error code, is displayed. It is recorded as an error log in Service Mode > DISPLAY > ERR.)
E733	-0000	-00	Title	Communication error between the Main Controller PCB 1 and the DC Controller PCB
			Remedy	1. Check the cable connection (connector connection error/ open circuit). • DC Controller PCB: J441, J442, Main Controller PCB 2: J21, J22 • Main Controller PCB 2: J2, Main Controller PCB 1: J1019 2. Replace the DC Controller PCB/Main Controller PCB 2/ Main Controller PCB1.
			Description	Unable to make communication between the Main Controller PCB 1 and the DC Controller PCB. (Communication error was detected at startup.)

E Code	Detail Code	Location	Item	Description
E733	-0001	-00	Title	Communication error between the Main Controller PCB 1 and the DC Controller PCB
			Remedy	1. Turn OFF and then ON the power. 2. Check the cable connection (connector connection error/ open circuit). • DC Controller PCB: J441, J442, Main Controller PCB 2: J21, J22 • Main Controller PCB 2: J2, Main Controller PCB 1: J1019 3. Replace the DC Controller PCB/Main Controller PCB 2/ Main Controller PCB1.
			Description	Unable to make communication between the Main Controller PCB 1 and the DC Controller PCB. (Communication error was detected during power distribution (while the power is ON).)
E733	-0002	-00	Title	Communication error between the Main Controller PCB 1 and the DC Controller PCB
			Remedy	1. Check the cable connection (connector connection error/ open circuit). • DC Controller PCB: J441, J442, Main Controller PCB 2: J21, J22 • Main Controller PCB 2: J2, Main Controller PCB 1: J1019 2. Replace the DC Controller PCB/Main Controller PCB 2/ Main Controller PCB1.
			Description	Error was detected in the signal from the DC Controller PCB to the Main Controller PCB 1. (Communication between the DC Controller PCB and the Main Controller PCB 1 is normal.)

E Code	Detail Code	Location	Item	Description
E733	-0010	-00	Title	Communication error between the Main Controller PCB 2 and the DC Controller PCB
			Remedy	1. Check the cable connection (connector connection error/open circuit). <ul style="list-style-type: none"> <li>DC Controller PCB: J441, J442, Main Controller PCB 2: J21, J22</li> <li>Main Controller PCB 2: J2, Main Controller PCB 1: J1019</li> </ul> 2. Replace the DC Controller PCB/Main Controller PCB 2/ Main Controller PCB1.
			Description	An image request signal is not sent from the Main Controller PCB 2 to the DC Controller PCB. Or, a vertical synchronization signal (a signal to synchronize the write start timing in horizontal scanning direction at the time of laser exposure) is not sent from the DC Controller PCB to the Main Controller PCB 2. Since the Main Controller PCB 1 monitors whether the foregoing communication is made normally, this error may occur when communication between the Main Controller PCB 2 and the Main Controller PCB 1 is not available.
E740	-0002	-00	Title	Network Controller error
			Remedy	1. Check the connection of the LAN Connector. 2. Check the connection of the Main Controller PCB 1. 3. Replacement of the Main Controller PCB 1.
			Description	Invalid MAC address.
E743	-0000	-04	Title	DDI communication error
			Remedy	1. Connection error between the Main Controller PCB and the Reader Controller PCB. 2. Failure of the Reader Controller PCB (PCB1). 3. Failure of the Main Controller PCB.
			Description	The Reader Controller PCB detected the communication error between the Main Controller PCB and the Reader Controller PCB.
E743	-0003	-04	Title	DDI communication error
			Remedy	1. Connection error between the Main Controller PCB and the Reader Controller PCB. 2. Failure of the Reader Controller PCB (PCB1). 3. Failure of the Main Controller PCB.
			Description	The Reader Controller PCB detected the communication error between the Main Controller PCB and the Reader Controller PCB.

E Code	Detail Code	Location	Item	Description
E743	-0004	-04	Title	DDI communication error
			Remedy	1. Connection error between the Main Controller PCB and the Reader Controller PCB. 2. Failure of the Reader Controller PCB (PCB1). 3. Failure of the Main Controller PCB.
			Description	The Reader Controller PCB detected the communication error between the Main Controller PCB and the Reader Controller PCB.
E744	-0001	-00	Title	Error in language file/BootROM
			Remedy	Download the correct version of the language file.
			Description	Version of language in HDD and version of Bootable are different.
E744	-0002	-00	Title	Error in language file/BootROM
			Remedy	Download the correct version of the language file.
			Description	Size of the language in HDD is too big.
E744	-0003	-00	Title	Error in language file/BootROM
			Remedy	Download the correct version of the language file.
			Description	Unable to find the language to be switched to that is described in the Config.txt in HDD.
E744	-0004	-00	Title	Error in language file/BootROM
			Remedy	Download the correct version of the language file.
			Description	Unable to switch to the language in HDD.
E744	-1000	-00	Title	Error in language file/BootROM
			Remedy	Replace the Boot ROM with the one for the correct model.
			Description	The Boot ROM for the different model is installed.
E744	-2000	-00	Title	Controller firmware mismatch
			Remedy	This error normally does not occur. This error occurs when using the HDD which was used with another model. Replace the HDD with the one which was originally installed or a new one for the model.
			Description	Invalid controller firmware was detected.
E744	-4000	-05	Title	Engine ID error
			Remedy	Replace the DC Controller PCB (PCB1) or redownload.
			Description	The Main Controller PCB model and the DC Controller PCB (PCB1) model are not matched.
E746	-0003	-00	Title	Different Image Analysis PCB model
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
			Description	Different Image Analysis PCB model.



E Code	Detail Code	Location	Item	Description
E746	-0021	-00	Title	Image Analysis PCB self-check error detection
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
			Description	Image Analysis PCB self-check error detection.
E746	-0022	-00	Title	Invalid Image Analysis PCB version
			Remedy	1. Upgrade the Image Analysis PCB software. 2. Replace the Image Analysis PCB.
			Description	Invalid Image Analysis PCB version.
E746	-0023	-00	Title	No reply from Image Analysis PCB
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
			Description	No reply from Image Analysis PCB.
E746	-0024	-00	Title	Image Analysis PCB operation error
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
			Description	Image Analysis PCB operation error.
E746	-0031	-00	Title	Hardware error (TPM)
			Remedy	The TPM PCB is not installed, the TPM PCB for other model is installed, or failure of TPM Chip.
			Description	Hardware error (TPM).
E746	-0032	-00	Title	Error in engine ID of SoftID
			Remedy	Format the system. Format the HDD using SST or USB memory, and download the system software. For details, see "Chapter 6: Upgrading". For your reference, the method using USB memory is described below. 1. Prepare the USB memory which system software was registered. 2. Execute the following service mode: COPIER>FUNCTION>SYSTEM>DOWNLOAD to enter the download mode. 3. Insert the USB memory to the equipment. 4. Execute [4]: Format HDD in the main menu. After formatting is completed, the machine reboots automatically and starts with the download mode. 5. Execute [1]: Upgrade (Auto) in the main menu. System software is downloaded and the machine restarts automatically.
			Description	Mismatched data in TPM

E Code	Detail Code	Location	Item	Description
E746	-0033	-00	Title	Error in engine ID of SoftID
			Remedy	When the TPM key was backed up, it can be restored. 1. Connect the USB memory which stores the TPM key. 2. Go to Management Settings > Data Management > TPM Settings, and then click "Restore TPM Key". 3. Enter the password set at backup operation. 4. When the restoration completion screen is displayed, click "OK". Remove the USB memory, and turn OFF and then ON the main power.  When the TPM key was not backed up, formatting the system is required. Format the HDD using SST or USB memory, and download the system software. For details, see "Chapter 6: Upgrading". For your reference, the method using USB memory is described below. 1. Prepare the USB memory which system software was registered. 2. Execute the following service mode: COPIER>FUNCTION>SYSTEM>DOWNLOAD to enter the download mode. 3. Insert the USB memory to the equipment. 4. Execute [4]: Format HDD in the main menu. After formatting is completed, the machine reboots automatically and starts with the download mode. 5. Execute [1]: Upgrade (Auto) in the main menu. System software is downloaded and the machine restarts automatically.
			Description	Error that can be recovered
E746	-0034	-00	Title	Error occurs, but auto recovery of system is possible (TPM)
			Remedy	Mismatch of key occurs. However, recovery by restart is possible. Turn OFF and then ON the power.
			Description	Error occurs, but auto recovery of system is possible (TPM).
E748	-2000	-00	Title	Main Controller PCB access error
			Remedy	Replace the Main Controller PCB 1/2.
			Description	Main Controller PCB Chip access error.
E748	-2001	-00	Title	Main Controller PCB access error
			Remedy	1. Remove and then reinstall the DDR2-SDRAM(M0/M1/P). 2. Replace the Main Controller PCB 1/2.
			Description	Main Controller PCB memory access error.

E Code	Detail Code	Location	Item	Description
E748	-2010	-00	Title	Flash PCB error / HDD error
			Remedy	Flash PCB error has occurred, or the HDD cannot be recognized.
			Description	1. After turning OFF the main power, disconnect the HDD interface connector (J12) of the Main Controller PCB 2 and turn ON the main power. 2. If the error code E748-2010 remains unchanged, it means a Flash PCB error, so replace the Flash PCB, and install the system using SST or USB. 3. When it changed to another error code(For example E602), refer to the remedy of the applicable code.
E748	-2011	-00	Title	Flash board error
			Remedy	Contact to the sales companies
			Description	---
E748	-2012	-00	Title	Flash board error
			Remedy	Contact to the sales companies
			Description	---
E748	-2021	-00	Title	Main controller board 2 access errors
			Remedy	Main controller board 1/2 removing and inserting, replacement
			Description	Main controller board 2 access errors
E748	-2023	-00	Title	Main controller board 2 access errors
			Remedy	DDR2-SDRAM (M0/M1/P) removing and inserting, replacement
			Description	Main controller board 2 access errors
E748	-2024	-00	Title	Main controller board 2 access errors
			Remedy	Main controller board 1/2 removing and inserting, replacement
			Description	Main controller board 2 access errors
E748	-4910	-00	Title	Main Controller PCB 2 error
			Remedy	Replace the Main Controller PCB 2.
			Description	Main Controller PCB 2 error.
E748	-9000	-00	Title	System error
			Remedy	Contact to the sales companies
			Description	---
E753	-0001	-00	Title	Download error
			Remedy	Turn OFF and then ON the power.
			Description	Firmware update error.

E Code	Detail Code	Location	Item	Description
E753	-0001	-05	Title	Download Error
			Remedy	Check the log to find where the download error has been occurred. <FIN_D1> Staple Finisher-D1/Booklet Finisher-D1/Paper Folding Unit-H1/Document Insertion Unit-K1/Inner Booklet Trimmer-A1 <PIU_B1> Professional Puncher Integration Unit-B1  When any of the above system software is displayed, check if the target option has been installed. When the target option has not been installed: Turn OFF and then ON the main power supply to restore (since there is no system software to be updated.).  When the target option has been installed: Check if the accessory is correctly installed and if the target system software to be downloaded is for the installed option. Then download the appropriate system software again.
			Description	System Software Update Error Error occurs when updating system software of uninstalled options
E760	-0001	-00	Title	Main Controller PCB 2 internal error
			Remedy	1. Turn OFF and then ON the main power. 2. Remove and then install the DDR2-SDRAM (J11 and J13) on the Main Controller PCB 2. 3. Replace the DDR2-SDRAM on the Main Controller PCB 2. 4. Replace the Main Controller PCB 2. NOTE: If the error occurs periodically or it occurs with specific jobs although it can be solved by turning OFF and then ON the power, upgrade the system software to the latest version.
			Description	Error was detected in the Image Processing Chip on the Main Controller PCB 2.

T-7-12

## ■ E804 to E996

E Code	Detail Code	Location	Item	Description
E804	-0000	-05	Title	Power Supply Cooling Fan 1/2 error
			Remedy	1. Check the connection of the Connector. 2. Replace the Power Supply Cooling Fan 1 (FM14)/Power Supply Cooling Fan 2 (FM15).
			Description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Power Supply Cooling Fan 1 (FM14)/Power Supply Cooling Fan 2 (FM15) is turned ON. The error detection signal cable is shared with the Fans, and it is not detected with which Fan the error occurs.
E804	-0001	-05	Title	Fixing Power Supply Cooling Fan error
			Remedy	1. Check the connection of the Connector. 2. Replace the Fixing Power Supply Cooling Fan (FM7).
			Description	The Fan stop signal is detected for 1.5 seconds or longer and retry is failed 4 times in a row although the Fixing Power Supply Cooling Fan (FM7) is turned ON.
E806	-0000	-05	Title	Making Image Exhaust Fan error
			Remedy	1. Check the connection of the Connector. 2. Replace the Making Image Exhaust Fan (FM3).
			Description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Making Image Exhaust Fan (FM3) is turned ON.
E808	-0001	-05	Title	Fixing Power Supply error
			Remedy	1. Check the outlet voltage. -> Connect to the correct outlet. 2. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10). 3. Replace the Fixing Power Supply PCB (PCB10). 4. Replace the Main Driver PCB (PCB2).
			Description	Detected 290V or higher inlet voltage at power-on.
E808	-0002	-05	Title	Fixing Power Supply error
			Remedy	1. Check the outlet voltage. -> Connect to the correct outlet. 2. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10). 3. Replace the Fixing Power Supply PCB (PCB10). 4. Replace the Main Driver PCB (PCB2).
			Description	Detected 50 V or lower inlet voltage at power-on.

E Code	Detail Code	Location	Item	Description
E808	-0003	-05	Title	Fixing Power Supply error
			Remedy	1. Check the clogging of the Fixing Power Supply Cooling Fan (FM7). 2. Check the clogging of the Louver on right side of the host machine (Multi-purpose Tray side). 3. Check the connection of the Fixing Power Supply PCB (PCB10) Output Connector. 4. Replace the Fixing Power Supply PCB (PCB10).
			Description	Inlet current is 1A or lower for 1 second or longer although the maximum voltage is output.
E808	-0004	-05	Title	Fixing Power Supply error
			Remedy	Replace the Main Driver PCB (PCB2).
			Description	Detected OFF with 12V of the Main Driver PCB (PCB2) output.
E808	-0005	-05	Title	12V OFF detection when relay is turned ON
			Remedy	1. Check the conduction of the Fixing Thermal Switch 1/2 (TP1/2). 2. Check the drawer between the Fixing Assembly and the host machine. 3. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10). 4. Replace the Fixing Power Supply Unit. 5. Replace the Main Driver PCB (PCB2).
			Description	Detected OFF with 12V of the Fixing Power Supply output after IH relay is turned ON.
E808	-0006	-05	Title	ASIC error
			Remedy	Replace the DC Controller PCB (PCB1).
			Description	ASIC error.
E808	-0007	-05	Title	Fixing Power Supply error
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10). 2. Replace the Fixing Power Supply PCB with the one for the correct location (voltage). 3. Replace the DC Controller PCB (PCB1).
			Description	The detected power voltage differs from the voltage of the port in the IH Power Supply.

E Code	Detail Code	Location	Item	Description
E808	-0008	-05	Title	Fixing Power Supply error
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10). 2. Check the connection between the Fixing Power Supply PCB (PCB10) and the Heater Unit. 3. Replace the Fixing Roller and Heater Unit. 4. Replace the Fixing Power Supply PCB (PCB10). 5. Replace the Main Driver PCB (PCB2).
			Description	Current fluctuation error.
E808	-0009	-05	Title	Fixing Power Supply error
			Remedy	Replace the DC Controller PCB (PCB1).
			Description	Unable to clear the error flag at power-on.
E820	-0000	-05	Title	Developer Lower Cooling Fan error
			Remedy	1. Check the connection of the Connector. 2. Replace the Developer Lower Cooling Fan (FM30).
			Description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Developer Lower Cooling Fan (FM30) is turned ON.
E820	-0001	-05	Title	Developer Upper Cooling Fan error
			Remedy	1. Check the connection of the Connector. 2. Replace the Developer Upper Cooling Fan (FM31).
			Description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Developer Upper Cooling Fan (FM31) is turned ON.
E820	-0002	-05	Title	Duplex Driver Cooling Fan error
			Remedy	1. Check the connection of the Connector. 2. Replace the Duplex Driver Cooling Fan (FM41).
			Description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Duplex Driver Cooling Fan (FM41) is turned ON.
E824	-0000	-05	Title	Primary Charging Air Supply Fan error
			Remedy	1. Check the connection of the Connector. 2. Replace the Primary Charging Air Supply Fan (FM2).
			Description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Primary Charging Air Supply Fan (FM2) is turned ON.

E Code	Detail Code	Location	Item	Description
E840	-0001	-05	Title	Fixing Shutter Motor error
			Remedy	1. Check the operation of the Fixing Shutter Gear (overload, etc.). 2. Check the operation of the Fixing Shutter Motor (M15) at the initialization operation of the Fixing Shutter. 3. Check the detection of the Fixing Shutter HP Sensor (PS53) (if the Sensor operates normally). 4. Check the drawer of the Fixing Assembly and the host machine. 5. Replace the Fixing Upper Unit and the Fixing Drawer Harness Unit. 6. Replace the Main Driver PCB (PCB2) (check the fuse (FU11)).
			Description	The Fixing Shutter HP Sensor (PS53) failed the detection at the Fixing Shutter operation.
E880	-0001	-00	Title	Controller Fan error
			Remedy	Connector disconnection, failure of Fan.
			Description	Error in the Main Controller Cooling Fan (FM4) is detected.
E880	-0005	-00	Title	Controller Fan error
			Remedy	Connector disconnection, failure of Fan.
			Description	Error in the HDD Cooling Fan (FM) is detected.
E905	-0001	-05	Title	POD Deck Air Assist Fan error
			Remedy	1. Check connector disconnection/improper connection. => Disconnect and then connect the connector. Target connector: Deck Lite Controller J04, J05 BoxDriver J51, J52, J57 2. Replace the Swing Motor (M3) and the Air Assist Fan (FM1, FM2, FM3). 3. Replace the Deck Lite Controller PCB. 4. Replace the BoxDriver PCB.
			Description	[POD Deck Lite] When the Air Assist Swing Motor fails to return to the HP although a specified period of time has passed
E905	-0002	-05	Title	POD Deck Air Assist Fan error
			Remedy	1. Check connector disconnection/improper connection. => Disconnect and then connect the connector. Target connector: Deck Lite Controller J30 2. Replace the Motor Cooling Fan (FM4). 3. Replace the Deck Lite Controller PCB.
			Description	[POD Deck Lite] When the Pickup Motor Cooling Fan is not locked

E Code	Detail Code	Location	Item	Description
E905	-0003	-05	Title	POD Deck Air Assist Fan error
			Remedy	1. Check connector disconnection/improper connection. => Disconnect and then connect the connector. Target connector: Deck Lite Controller J30 2. Replace the Motor Cooling Fan (FM4). 3. Replace the Deck Lite Controller PCB.
			Description	[POD Deck Lite] When the Pickup Motor Cooling Fan is not unlocked
E906	-0001	-05	Title	POD Deck Air Heater error
			Remedy	1. Check connector disconnection/improper connection. => Disconnect and then connect the connector. Target connector: Deck Lite Controller J03, J05 BoxDriver J52, J54, J58, J59 2. Replace the Air Heater. 3. Replace the Deck Lite Controller PCB.
			Description	[POD Deck Lite] Air Heater high temperature error When 120 deg C or higher temperature is detected for 1 second consecutively
E906	-0002	-05	Title	POD Deck Air Heater error
			Remedy	1. Check connector disconnection/improper connection. => Disconnect and then connect the connector. Target connector: Deck Lite Controller J03, J05 BoxDriver J52, J54, J58, J59 2. Replace the Air Heater. 3. Replace the Deck Lite Controller PCB.
			Description	[POD Deck Lite] Air Heater low temperature error When the heater does not become Ready although a specified period of time has passed
E996	-xxxx	-05	Title	Timeout error
			Remedy	Turn OFF and then ON the main power.
			Description	The DC Controller is not stopped. The Detailed Code varies according to the state transition of the software.

T-7-13

## Jam Code

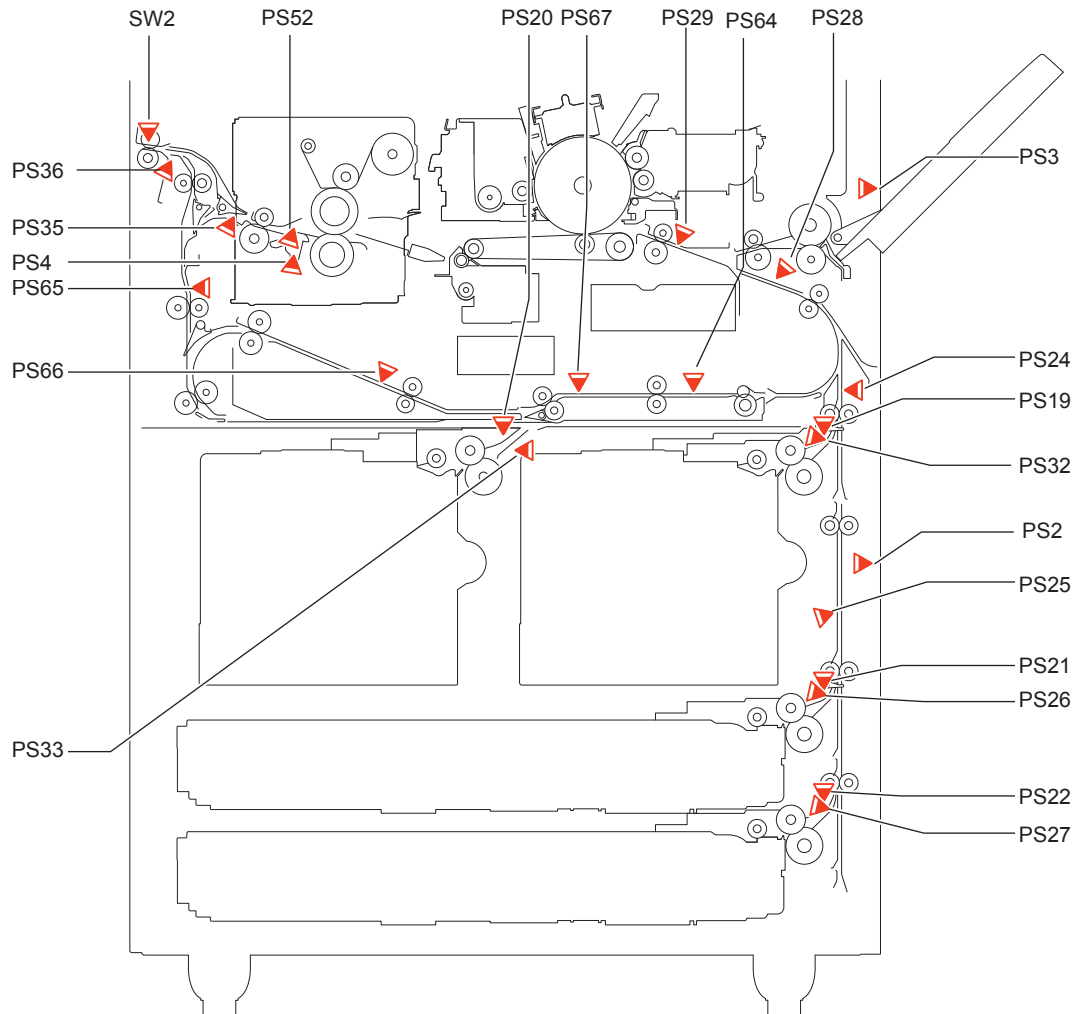
### Jam Type

Jam types are shown below.

Type	Meaning
DELAY	Delay jam
STNRY	Stationary jam
OVERLAP	Double feed detection
TIMING NG	Timing error
OHP NG	Incorrect paper
ADF OP	ADF open
COVER OP	Cover open
RESIDUAL	Residual jam
PICKUP NG	Pickup error
POWER ON	Power ON
DOOR OP	Door open
SEQ NG	Sequence jam
DELAY ESC	Delay jam while ejecting to the escape delivery tray
OTH JAM	Other jams
STNRY ESC	Stationary jam while ejecting to the escape delivery tray
STP	Staple
SDL STP	Saddle stitch staple
INIT ROT	Residual (at initial rotation)
UP DEVICE	Upper stream device jam
OTHER	Others
ERROR	Error
RETRY ERR	Retry error
STOP	Press Stop key
ROT	Keeps rotating
PROGRAM	Program
TIME OUT	Time-out
PUNCH	Punch
MEDIA NG	Misprint

T-7-14

## Main Unit



F-7-1

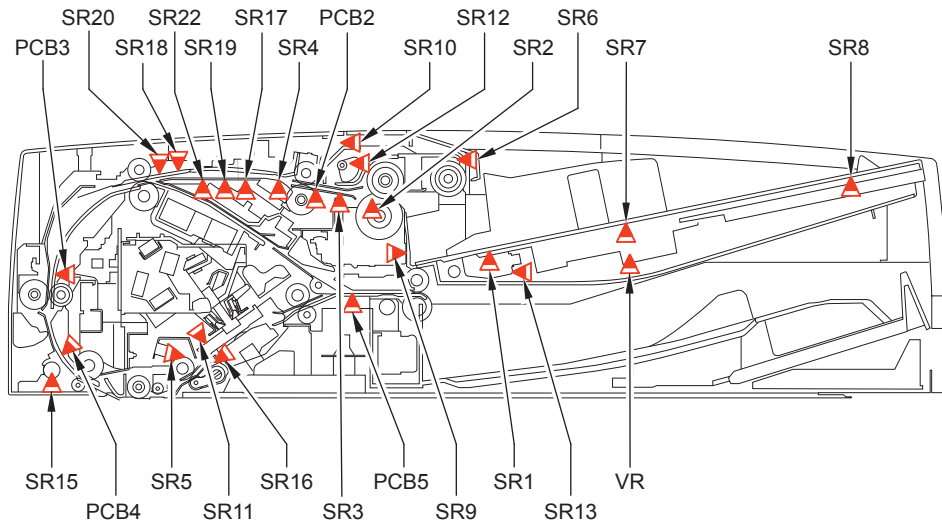
ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
00	0101	DELAY	Right Deck Pickup Sensor 1	PS19
00	0102	DELAY	Right Deck Pull Out Sensor	PS32
00	0103	DELAY	Vertical Path Sensor 1	PS24
00	0104	DELAY	Writing Judging Sensor	PS28
00	0105	DELAY	Registration Sensor	PS29
00	0106	DELAY	Left Deck Pickup Sensor 1	PS20
00	0107	DELAY	Left Deck Pull Out Sensor	PS33
00	0108	DELAY	Duplex Merging Sensor	PS67
00	0109	DELAY	Duplex Outlet Sensor	PS64
00	010A	DELAY	Cassette 3 Pickup Sensor 1	PS21
00	010B	DELAY	Vertical Path Sensor 3	PS26
00	010C	DELAY	Vertical Path Sensor 2	PS25
00	010D	DELAY	Cassette 4 Pickup Sensor 1	PS22
00	010E	DELAY	Vertical Path Sensor 4	PS27
00	0111	DELAY	Fixing Outlet Sensor	PS52
00	0112	DELAY	Inner Delivery Sensor	PS35
00	0113	DELAY	Outer Delivery Sensor	PS36
00	0114	DELAY	Reverse Vertical Path Sensor	PS65
00	0115	DELAY	Duplex Left Sensor	PS66
00	0202	STNRY	Right Deck Pull Out Sensor	PS32
00	0203	STNRY	Vertical Path Sensor 1	PS24
00	0204	STNRY	Writing Judging Sensor	PS28
00	0205	STNRY	Registration Sensor	PS29
00	0207	STNRY	Left Deck Pull Out Sensor	PS33
00	0208	STNRY	Duplex Merging Sensor	PS67
00	0209	STNRY	Duplex Outlet Sensor	PS64
00	020B	STNRY	Vertical Path Sensor 3	PS26
00	020C	STNRY	Vertical Path Sensor 2	PS25
00	020E	STNRY	Vertical Path Sensor 4	PS27
00	0212	STNRY	Inner Delivery Sensor	PS35
00	0213	STNRY	Outer Delivery Sensor	PS36
00	0214	STNRY	Reverse Vertical Path Sensor	PS65
00	0215	STNRY	Duplex Left Sensor	PS66
00	0305	TIMING NG	Registration Sensor	PS29
00	0A02	POWER ON	Right Deck Pull Out Sensor	PS32
00	0A03	POWER ON	Vertical Path Sensor 1	PS24
00	0A04	POWER ON	Writing Judging Sensor	PS28
00	0A05	POWER ON	Registration Sensor	PS29
00	0A07	POWER ON	Left Deck Pull Out Sensor	PS33
00	0A08	POWER ON	Duplex Merging Sensor	PS67
00	0A09	POWER ON	Duplex Outlet Sensor	PS64
00	0A0B	POWER ON	Vertical Path Sensor 3	PS26
00	0A0C	POWER ON	Vertical Path Sensor 2	PS25
00	0A0E	POWER ON	Vertical Path Sensor 4	PS27

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
00	0A0F	POWER ON	Fixing Entrance Sensor	PS51
00	0A10	POWER ON	Fixing Toenail Jam Sensor	PS4
00	0A11	POWER ON	Fixing Outlet Sensor	PS52
00	0A12	POWER ON	Inner Delivery Sensor	PS35
00	0A13	POWER ON	Outer Delivery Sensor	PS36
00	0A14	POWER ON	Reverse Vertical Path Sensor	PS65
00	0A15	POWER ON	Duplex Left Sensor	PS66
00	0B01	DOOR OP	Front Door Open Detection Switch	DOOR OP
00	0B02	DOOR OP	Multi-purpose Tray Cover Sensor	DOOR OP
00	0B03	DOOR OP	Vertical Path Cover Open/Close Sensor	DOOR OP
00	0CA1	OTHER	FeedSts time out jam	OTHER
00	0CA2	OTHER	RefeedStart time out jam	OTHER
00	0CA3	OTHER	ImageSet time out jam	OTHER
00	0CA4	OTHER	PageComplete time out jam	OTHER
00	0CA5	OTHER	Fixing temperature control time out jam	OTHER
00	0C10	OTHER	Fixing Toenail jam	PS4
00	0CF1	OTHER	Retry jam	OTHER
00	0D91	OTHER	Different Size jam(short paper length)	OTHER
02	1E00	OTHER	Finisher Sequence Error jam	OTHER

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## Duplex Color Image Reader-C1



F-7-2

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
01	0051	DELAY	Delivery sensor	PCB5
01	0052	STNRY	Delivery sensor	PCB5
01	0071	TIMING NG		TIMING NG
01	0073	HP NG	Disengaging HP sensor 1	SR15
01	0074	HP NG	Disengaging HP sensor 2	SR16
01	0075	HP NG	Pickup roller unit lifter HP sensor	SR12
01	0090	ADF OP	DADF open/closed sensor 1/2	ADF OP
01	0091	ADF OP	DADF open/closed sensor 1/2	ADF OP
01	0092	COVER OP	Cover open/closed sensor	SR10
01	0093	COVER OP	Cover open/closed sensor	SR10
01	0094	POWER ON	All feed sensor <sup>*3</sup>	POWER ON
01	0095	PICKUP NG	Post-separation sensor 1/2/3	SR2,SR3,PCB2

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\*1 The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.

If the same jam is detected although the above operation is performed, an error code will be notified.

\*2 The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.

If it is not recovered by the above operation, it is considered an error near the target sensor. Disconnect and then connect the connectors around the target sensor, check if the cable is open circuit, and replace the sensor.

\*3 Please confirm the following sensors from service mode.

Leading Edge Position Sensor (SR22): COPIER> IO> FEEDER> P003> 2 (1: Paper presence)

Delivery Sensor (PCB5): COPIER> IO> FEEDER> P004> 0 (0: Paper presence)

Read Sensor 2 (SR5): COPIER> IO> FEEDER> P004> 1 (0: Paper presence)

Read Sensor 1 (PCB4): COPIER> IO> FEEDER> P004> 2 (0: Paper presence)

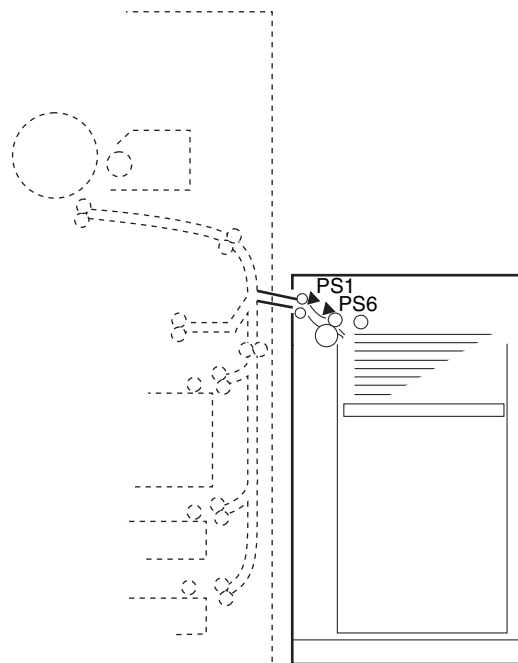
Registration Sensor (PCB3): COPIER> IO> FEEDER> P004> 3 (0: Paper presence)

Delay sensor (SR4): COPIER> IO> FEEDER> P004> 6 (0: Paper presence)

Post-separation Sensor 3 (PCB2): COPIER> IO> FEEDER> P004> 7 (0: Paper presence)

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
01	0001	DELAY	Post-separation sensor 1/2/3	SR2,SR3,PCB2
01	0002	STNRY	Post-separation sensor 1/2/3	SR2,SR3,PCB2
01	0003	DELAY	Delay detection sensor	SR4
01	0004	STNRY	Delay detection sensor	SR4
01	0005	DELAY	Registration sensor	PCB3
01	0006	STNRY	Registration sensor	PCB3
01	0007	DELAY	Lead sensor 1	PCB4
01	0008	STNRY	Lead sensor 1	PCB4
01	0009	DELAY	Lead sensor 2	SR5
01	0010	STNRY	Lead sensor 2	SR5
01	0011	DELAY	Delivery sensor	PCB5
01	0012	STNRY	Delivery sensor	PCB5
01	0042	STNRY	Post-separation sensor 3	SR2,SR3,PCB2
01	0043	DELAY	Delay detection sensor	SR4
01	0044	STNRY	Delay detection sensor	SR4
01	0045	DELAY	Registration sensor	PCB3
01	0046	STNRY	Registration sensor	PCB3
01	0047	DELAY	Lead sensor 1	PCB4
01	0048	STNRY	Lead sensor 1	PCB4
01	0049	DELAY	Lead sensor 2	SR5
01	0050	STNRY	Lead sensor 2	SR5

## Paper Deck Unit-C1

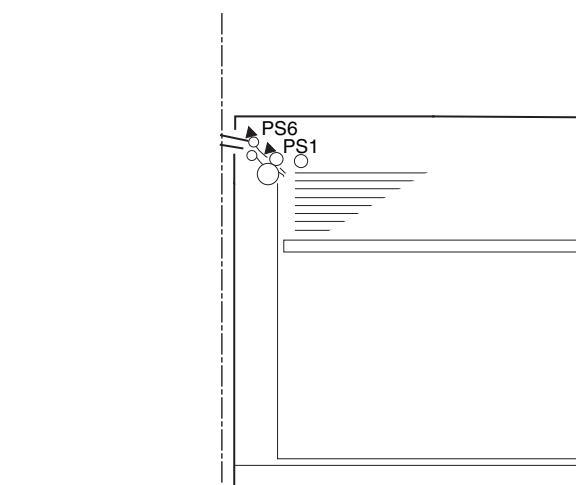


F-7-3

ACC ID	Jam Code	Type	Sensor Name / Description	Sensor ID
00	0117	DELAY	Deck feed sensor	PS1
00	0118	DELAY	Deck pickup sensor	PS6
00	0218	STNRY	Deck pickup sensor	PS6
00	0A18	POWER ON	Deck pickup sensor	PS6

T-7-17

## POD Deck Light-A1

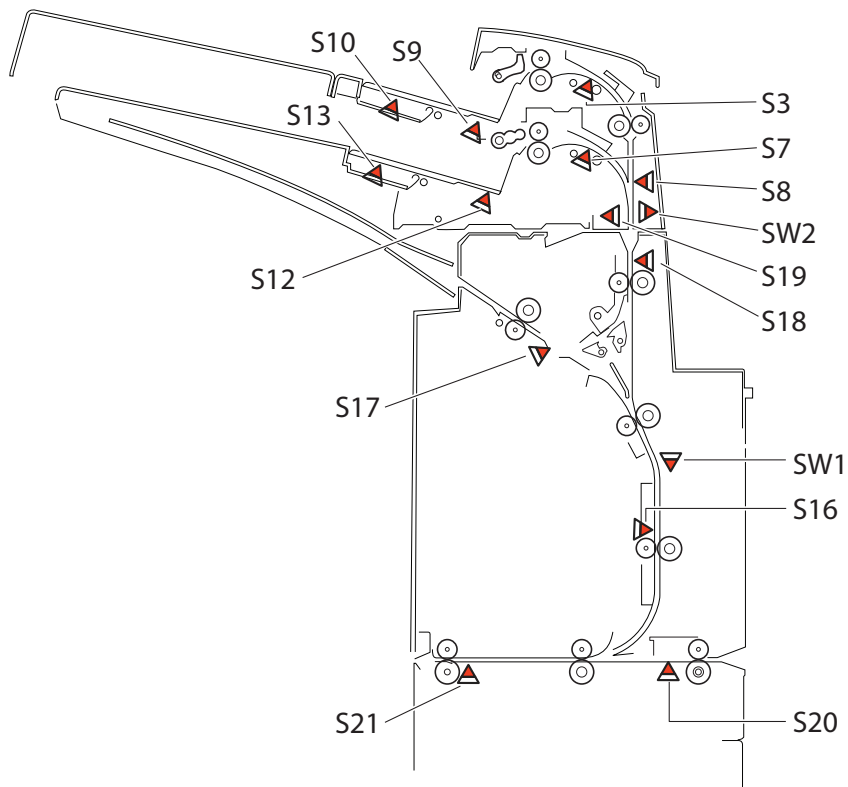


F-7-4

ACC ID	Jam Code	Type	Sensor Name / Description	Sensor ID
00	0117	DELAY	Deck feed sensor	PS1
00	0118	DELAY	Deck pickup sensor	PS6
00	0218	STNRY	Deck pickup sensor	PS6
00	0A18	POWER ON	Deck pickup sensor	PS6

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## Inserter-K1



F-7-5

## ARCNET Connection

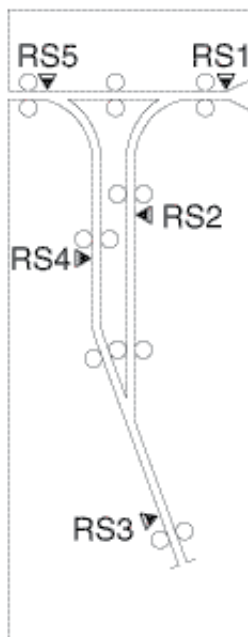
ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
71	20E0	DELAY	Inlet Sensor Delay jam1	S20
71	20E2	DELAY	Outlet Sensor Delay jam1	S21
71	20E4	DELAY	Registration Sensor Delay jam	S3, S7
71	20E5	DELAY	Middle Feed Sensor Delay jam	S8
71	20E6	DELAY	Reverse Inlet Sensor Delay jam	S18
71	20E7	DELAY	Reverse Sensor Delay jam	S17
71	20E8	DELAY	Reverse Timing Sensor Delay jam	S16
71	21F0	STNRY	Inlet Sensor Stationary jam	S20
71	21F2	STNRY	Outlet Sensor Stationary jam	S21
71	21F4	STNRY	Registration Sensor Stationary jam	S3, S7
71	21F5	STNRY	Middle Feed Sensor Stationary jam	S8
71	21F6	STNRY	Reverse Entrance Sensor Stationary jam	S18
71	21F7	STNRY	Reverse Sensor Stationary jam	S17
71	21F8	STNRY	Reverse Timing Sensor Stationary jam	S16
71	2200	OTHER	Early Timing jam	TIMING NG
71	2300	POWER ON	Power ON jam	POWER ON
71	2400	DOOR OP	Cover Open jam	DOOR OP
71	2C00	OTHER	Sequence error jam	SEQ NG
71	2C01	ERROR	Error Avoidance jam	ERROR
71	2FC0	TIME OUT	EntryStart Time Out jam	TIME OUT
71	2FC1	TIME OUT	EjectStartAck Time Out jam	TIME OUT
71	2FC2	DOOR OP	Upper Tray Paper Absent jam	S9
71	2FC3	DOOR OP	Lower Tray Paper Absent jam	S12
71	2FC4	OTHER	Different Inserter Width jam	S10
71	2FCF	STOP	Emergency Stop jam	STOP

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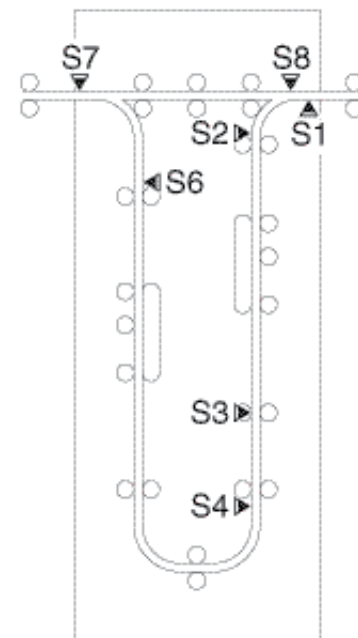
## ■ IPC Connection

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
02	10E0	DELAY	Inlet Sensor Delay jam1	S20
02	10E2	DELAY	Outlet2 Sensor Delay jam1	S21
02	10E4	DELAY	Registration Sensor Delay jam	S3, S7
02	10E5	DELAY	Middle Feed Sensor Delay jam	S8
02	10E6	DELAY	Reverse Entrance Sensor Delay jam	S18
02	10E7	DELAY	Reverse Sensor Delay jam	S17
02	10E8	DELAY	Reverse Timing Sensor Delay jam	S16
02	11F0	STNRY	Inlet Sensor Stationary jam	S20
02	11F2	STNRY	Outlet2 Sensor Stationary jam	S21
02	11F4	STNRY	Registration Sensor Stationary jam	S3, S7
02	11F5	STNRY	Middle Feed Sensor Stationary jam	S8
02	11F6	STNRY	Reverse Entrance Sensor Stationary jam	S18
02	11F7	STNRY	Reverse Sensor Stationary jam	S17
02	11F8	STNRY	Reverse Timing Sensor Stationary jam	S16
02	13CD	POWER ON	Power ON jam	POWER ON
02	14CC	COVER OP	Cover Open jam	SW1
02	1FC0	TIME OUT	EntryStart Time Out jam	TIME OUT
02	1FC1	TIME OUT	EjectStartAck Time Out jam	TIME OUT
02	1FC2	OTHER	Upper Tray Paper Absent jam	S9
02	1FC3	OTHER	Lower Tray Paper Absent jam	S12
02	1FC4	OTH JAM	Different Inserter Width jam	OTH JAM
02	1FCE	ERROR	Error Avoidance jam	ERROR
02	1FCF	STOP	Emergency Stop jam	STOP

T-7-20

 Professional Puncher-C1/Integration Unit-B1

F-7-6



F-7-7

## ARCNET Connection

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
31	1002	DELAY	Inlet Sensor	RS1
31	1004	DELAY	Pull in Sensor	RS2
31	1006	DELAY	Reverse Sensor	RS3
31	1008	DELAY	Reverse Delivery Sensor	RS4
31	100A	DELAY	Delivery Sensor	RS5
31	1103	STNRY	Inlet Sensor	RS1
31	1105	STNRY	Pull in Sensor	RS2
31	1107	STNRY	Reverse Sensor	RS3
31	1109	STNRY	Reverse Delivery Sensor	RS4
31	110B	STNRY	Delivery Sensor	RS5
31	11A3	STNRY	Punch Sensor 1	S1
31	11A5	STNRY	Punch Sensor 8	S8
31	11A7	STNRY	Punch Sensor 7	S7
31	11B3	STNRY	Punch Sensor 2	S2
31	11B5	STNRY	Punch Sensor 3	S3
31	11B7	STNRY	Punch Sensor 4	S4
31	11B9	STNRY	Punch Sensor 6	S6
31	1231	OTHER	Early Timing jam	TIMING NG
31	1320	POWER ON	Power ON	POWER ON
31	1422	DOOR OP	Door Open jam	DOOR OP
31	1721	INIT ROT	Residual jam	RESIDUAL
31	1C01	OTHER	Time-out error	TIME OUT
31	1F01	ERROR	ERROR	SIGNAL
31	1F30	OTHER	Error in completion of paper feed from upper stream device	SEQ NG
31	1F07	TIMING NG	Reverse Sensor	RS3
31	1FA0	OTHER	Timing error	TIMING NG
31	1FC0	OTHER	Other jams	TOOL OF
31	1FC2	OTHER	Timing error	TIMING NG
31	1FD0	ERROR	Error	MOTOR NG
31	1FD1	ERROR	Error	SIGNAL NG
31	1FD2	ERROR	Error	SIGNAL NG
31	FF01	UP DEVICE	Error	UP DEVICE

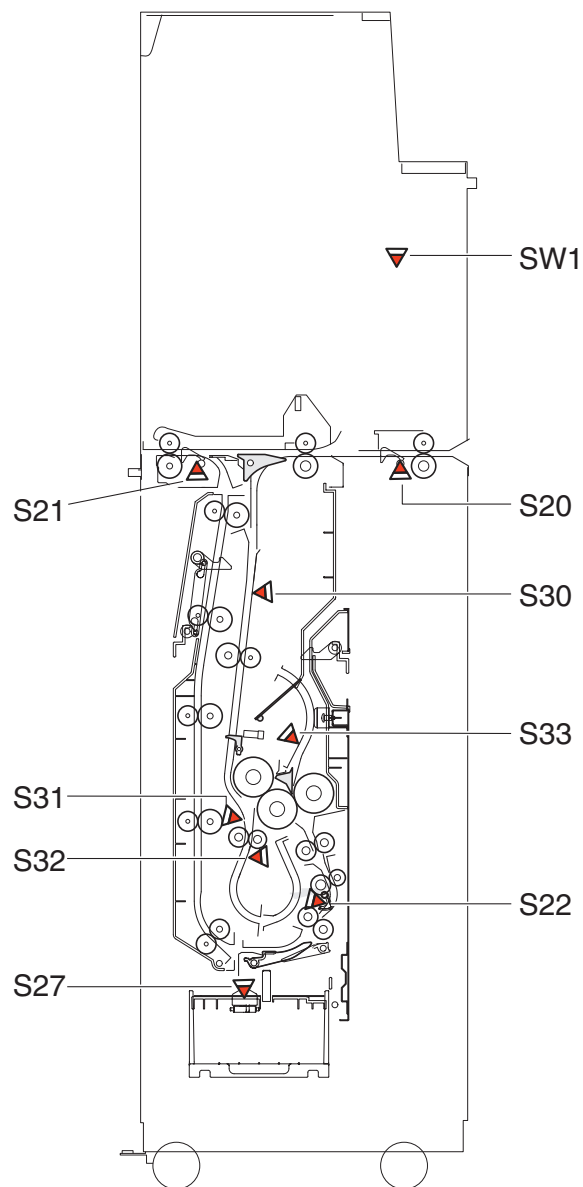
T-7-21

## IPC Connection

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
02	1051	DELAY	Inlet Sensor	RS1
02	1053	DELAY	Pull in Sensor	RS2
02	1055	DELAY	Reverse Sensor	RS3
02	1057	DELAY	Reverse Delivery Sensor	RS4
02	1059	DELAY	Delivery Sensor	RS5
02	1152	STNRY	Inlet Sensor	RS1
02	1154	STNRY	Pull in Sensor	RS2
02	1156	STNRY	Reverse Sensor	RS3
02	1158	STNRY	Reverse Delivery Sensor	RS4
02	115A	STNRY	Delivery Sensor	RS5
02	1161	STNRY	Punch Sensor 1	S1
02	1162	STNRY	Punch Sensor 8	S8
02	1163	STNRY	Punch Sensor 7	S7
02	1164	STNRY	Punch Sensor 2	S2
02	1165	STNRY	Punch Sensor 3	S3
02	1166	STNRY	Punch Sensor 4	S4
02	1167	STNRY	Punch Sensor 6	S6
02	1370	POWER ON	Power ON jam	POWER ON
02	1472	COVER OP	Door Open jam	COVER OP
02	1F5E	TIMING NG	Reverse Sensor	RS3
02	1F5F	MOTOR NG	IFU Operation Error of Path Switching Motor	ERROR
02	1F71	OTH JAM	Idle rotation jam	OTH JAM
02	1F73	OTH JAM	Jam during Paper feed from Upper Stream Device	OTH JAM
02	1F74	TIME OUT	EntryStart Time Out jam	TIME OUT
02	1F75	TIME OUT	EjectStartAck Time Out jam	TIME OUT
02	1F76	OTH JAM	Punch Unit Error(Die comes off during operation)	OTH JAM
02	1F77	TIME OUT	Puncher IFU paper feed time out	TIME OUT
02	1F78	TIME OUT	Time Out jam(Error Avoidance)	TIME OUT
02	1F79	SIGNAL	Error in completion of paper feed from upper stream device	ERROR
02	1F7A	SIGNAL	Error in start of paper feed from upper stream device	ERROR
02	1F7B	UP DEVICE	Upper stream device jam	UP DEVICE
02	1F7F	OTH JAM	Emergency Stop jam	OTH JAM

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## Paper Folding Unit-H1



F-7-8

## ARCNET Connection

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
02	1082	DELAY	Entrance sensor	S20
02	1084	DELAY	Delivery sensor 2	S21
02	1086	DELAY	Slowdown timing sensor	S30
02	1088	DELAY	Release timing sensor	S31
02	108A	DELAY	Fold position sensor	S32
02	108C	DELAY	Upper stopper paper sensor	S33
02	108E	DELAY	Delivery sensor 1	S22
02	1092	DELAY	Fold tray paper sensor	S27
02	109E	STOP	Press Stop key	STOP
02	1183	STNRY	Entrance sensor	S20
02	1185	STNRY	Delivery sensor 2	S21
02	1187	STNRY	Slowdown timing sensor	S30
02	1189	STNRY	Release timing sensor	S31
02	118B	STNRY	Fold position sensor	S32
02	118D	STNRY	Upper stopper paper sensor	S33
02	118F	STNRY	Delivery sensor 1	S22
02	1193	STNRY	Fold tray paper sensor	S27
02	119F	OTHER	Other jams	OTHER
02	139C	POWER ON	Power ON	POWER ON
02	149B	COVER OP	Cover open	COVER OP
02	179C	POWER ON	Power ON	POWER ON
02	1C9D	ERROR	Error	ERROR
02	1F9A	OTHER	Other jams	SIGNAL

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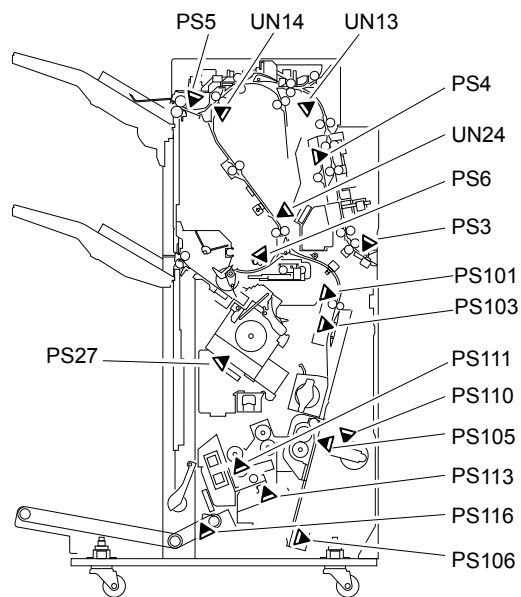
## ■ IPC Connection

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
02	10E1	DELAY	Inlet Sensor Delay jam	S20
02	10E3	DELAY	Outlet2 Sensor Delay jam	S21
02	10E9	DELAY	Slowdown Timing Sensor Delay jam	S30
02	10EA	DELAY	Release Timing Sensor Delay jam	S31
02	10EB	DELAY	Fold Position Adjustment Sensor Delay jam	S32
02	10EC	DELAY	Upper Stopper Paper Detection Sensor Delay jam	S33
02	10ED	DELAY	Outlet1 Sensor Delay jam	S22
02	10EE	DELAY	Fold Tray Empty Sensor Delay jam	S27
02	11F1	STNRY	Inlet Sensor Stationary jam	S20
02	11F3	STNRY	Outlet2 Sensor Stationary jam	S21
02	11F9	STNRY	Slowdown Timing Sensor Stationary jam	S30
02	11FA	STNRY	Release Timing Sensor Stationary jam	S31
02	11FB	STNRY	Fold Position Adjustment Sensor Stationary jam	S32
02	11FC	STNRY	Upper Stopper Paper Detection Sensor Stationary jam	S33
02	11FD	STNRY	Outlet1 Sensor Stationary jam	S22
02	11FE	STNRY	Fold Tray Empty Sensor Stationary jam	S27
02	13DD	POWER ON	Power ON jam	POWER ON
02	14DC	COVER OP	Cover Open jam	SW1
02	1FD0	STOP	EntryStart Time Out jam	TIME OUT
02	1FD1	TIME OUT	EjectStart Time Out jam	TIME OUT
02	1FDE	ERROR	Error Avoidance jam	ERROR
02	1FDF	STOP	Emergency Stop jam	STOP

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## Staple Finisher-F1/Booklet Finisher-F1

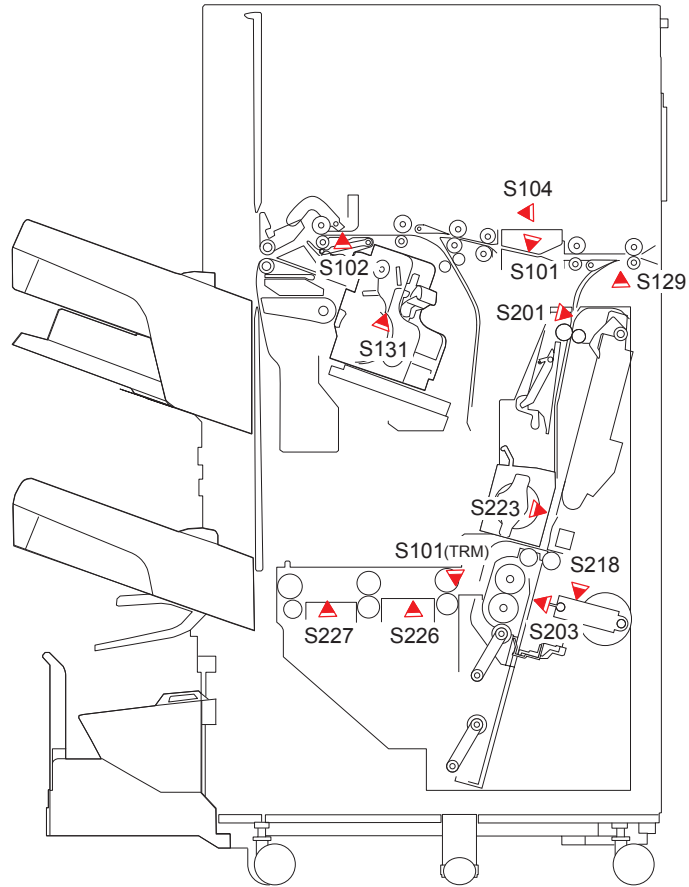


F-7-9

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
02	1002	DELAY	Inlet sensor	PS3
02	1004	DELAY	Shift unit trailing edge sensor	PS4
02	1006	DELAY	Buffer path 1 sensor PCB	UN13
02	1008	DELAY	Buffer path 2 sensor PCB	UN14
02	100A	DELAY	Upper delivery sensor	PS5
02	100C	DELAY	Lower sensor	UN24
02	100E	DELAY	Lower delivery sensor	PS6
02	1042	DELAY	Saddle inlet sensor	PS101
02	1044	DELAY	Saddle vertical path sensor	PS103
02	1046	DELAY	Saddle lead edge stopper HP sensor	PS105
02	104A	DELAY	Saddle delivery tray paper sensor 2	PS111
02	1054	DELAY	Saddle paper push-on plate motor sensor	PS113
02	1103	STNRY	Inlet sensor	PS3
02	1105	STNRY	Shift unit trailing edge sensor	PS4
02	1107	STNRY	Buffer path 1 sensor PCB	UN13
02	1109	STNRY	Buffer path 2 sensor PCB	UN14
02	110B	STNRY	Upper delivery sensor	PS5
02	110D	STNRY	Lower sensor	UN24
02	110F	STNRY	Lower delivery sensor	PS6
02	1143	STNRY	Saddle inlet sensor	PS101
02	1145	STNRY	Saddle vertical path sensor	PS103
02	1147	STNRY	Saddle lead edge stopper HP sensor	PS105
02	114B	STNRY	Saddle delivery tray paper sensor 2	PS111
02	1155	STNRY	Saddle paper push-on plate motor sensor	PS113
02	1231	RESIDUAL	Residual jam	RESIDUAL
02	1320	POWER ON	Power ON	POWER ON
02	1422	DOOR OP	Door open	FRONT CVR
02	1524	STP	Staple HP sensor	PS27
02	1550	SDL STP	Saddle staple HP sensor	SDL STP
02	1721	INIT ROT	Residual jam	RESIDUAL
02	1C01	RETRY ERR	Time Out jam	RETRY ERR
02	1F03	UP DEVICE	Upper stream device jam	UP DEVICE
02	1F25	OTHER	Stop due to jam accompanied with sequence error	SEQ NG
02	1F30	UP DEVICE	Upper stream device jam	UP DEVICE
02	1F31	UP DEVICE	Upper stream device jam	UP DEVICE
02	1F4B	TIME OUT	Time Out jam	TIME OUT
02	1F52	OTHER	Saddle press HP sensor	PS110
02	1FFF	ERROR	Error	ERROR

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## Staple Finisher-D1/Booklet Finisher-D1

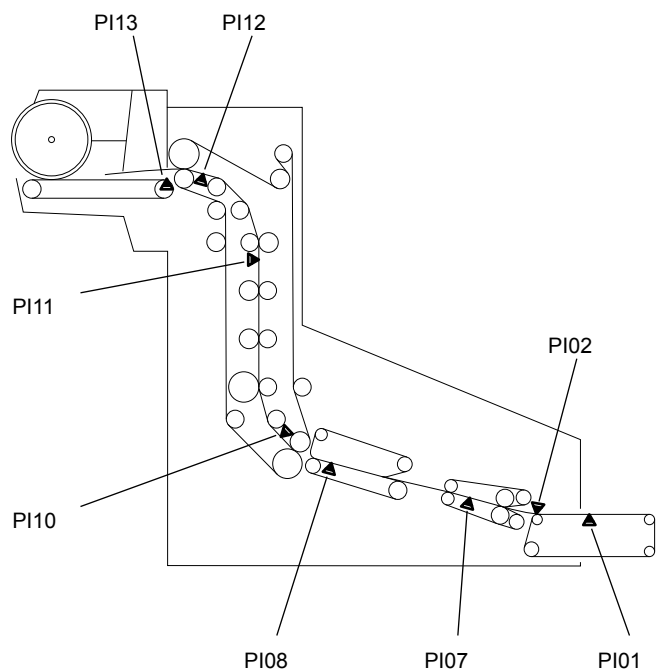


F-7-10

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
02	1011	DELAY	Finisher Inlet Sensor Delay jam	S101
02	1012	DELAY	Finisher Feed Sensor Delay jam	S102
02	1091	DELAY	Saddle Feed Path Sensor 1 Delay jam	S226
02	1092	DELAY	Saddle Delivery Path Sensor 2 Delay jam	S227
02	1093	DELAY	Saddle Inlet Sensor Delay jam	S201
02	1094	DELAY	Trimmer Inlet Sensor Delay jam	S201, S203 S226, S227
02	1121	STNRY	Finisher Inlet Sensor Stationary jam	S101
02	1122	STNRY	Finisher Feed Sensor Stationary jam	S102
02	112F	OTH JAM	Finisher Error Avoidance jam	OTH JAM
02	11A1	STNRY	Saddle Feed Path Sensor 1 Feed Stationary jam	S226
02	11A2	STNRY	Saddle Delivery Path Sensor 2 Feed Stationary jam	S227
02	11A3	STNRY	Saddle Inlet Sensor Feed Stationary jam	S201
02	11A4	STNRY	Trimmer Inlet Sensor Stationary jam	S201, S203 S226, S227
02	11AF	OTH JAM	Trimmer Error Avoidance jam	OTH JAM
02	1205	OTH JAM	Early Timing jam	S101
02	1307	POWER ON	Power ON jam	S101, S102
02	1387	POWER ON	Saddle power ON jam	S201, S203 S226, S227
02	138A	POWER ON	Trimmer Power ON jam	POWER ON
02	1408	COVER OP	Door Open jam	S129
02	1488	COVER OP	Saddle Door Open jam	S129
02	148B	COVER OP	Trimmer Door Open jam	S129
02	1506	STP	Staples jam	S131
02	1586	SDL STP	Saddle Staples jam	S223
02	1F45	PUNCH	Punch jam	S104
02	1F4F	OTH JAM	Punch Error Avoidance jam	OTH JAM
02	1F8F	OTH JAM	Saddle Error Avoidance jam	OTH JAM

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## Booklet Trimmer-D1



F-7-11

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
02	10C2	DELAY	Infeed section entrance booklet sensor (Photoelectric)	PI01
02	10C4	DELAY	Infeed section exit booklet sensor (Photoelectric)	PI02
02	10C6	DELAY	Trim section entrance booklet sensor (Photoelectric)	PI07
02	10C8	DELAY	Stopper booklet sensor (Photoelectric)	PI08
02	10CA	DELAY	Trim section exit booklet sensor (Photoelectric)	PI10
02	10CC	DELAY	Booklet lifter booklet sensor (Photoelectric)	PI11
02	10CE	DELAY	Delivery section booklet sensor (Photoelectric)	PI12
02	10D0	DELAY	Conveyor section booklet sensor (Photoelectric)	PI13
02	11C3	STNRY	Infeed section entrance booklet sensor (Photoelectric)	PI01
02	11C5	STNRY	Infeed section exit booklet sensor (Photoelectric)	PI02
02	11C7	STNRY	Trim section entrance booklet sensor (Photoelectric)	PI07
02	11C9	STNRY	Stopper booklet sensor (Photoelectric)	PI08
02	11CB	STNRY	Trim section exit booklet sensor (Photoelectric)	PI10
02	11CD	STNRY	Booklet lifter booklet sensor (Photoelectric)	PI11
02	11CF	STNRY	Delivery section booklet sensor (Photoelectric)	PI12
02	13DC	POWER ON	Power ON	POWER ON
02	14DB	COVER OP	Cover open	COVER OP
02	17DD	INIT ROT	Residual jam	RESIDUAL
02	17DE	ROT	Residual jam	RESIDUAL
02	1FD6	OTHER	Stop due to jam accompanied with sequence error	SEQ NG
02	1FD7	OTHER	Stop due to jam accompanied with sequence error	SEQ NG
02	1FD8	OTHER	Stop due to jam accompanied with sequence error	SEQ NG
02	1FD9	PROGRAM	Program error	PROGRAM
02	1FDA	OTHER	Timing error	TIMING NG
02	1FDF	OTHER	Other jams	SIZE NG

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## Alarm Code

### List of Alarm Code

Alarm Code	Title	A. movement /B. cause /C. measures
00-0246	Error code display (4-digit)	Soft counter PCB cannot write normally
00-0247	Error code display (4-digit)	Soft counter PCB cannot restore data
01-0001	Fails to obtain counter information (RDS creates)	-
01-0002	No change in device status after specified period of time has passed (RDS server creates)	-
01-0004	IP address change notification (RDS server creates)	-
02-0020	Dust correction (paper front) occurrence	Movement: Execute correction process to the pixel where dust is detected (image on paper front) Cause: Dust is detected on the Stream Read Glass (paper front). Measures: Clean the Stream Read Glass (paper front), and check if the Platen Roller 1 is soiled. If necessary, clean it.
02-0021	Dust correction (paper back) occurrence	Movement: Execute correction process to the pixel where dust is detected (image on paper back with 1-Path DADF). Cause: Dust is detected on the Scanner Glass (paper back). Measures: Clean and check the Scanner Glass (paper back), and check if the Platen Roller 2 is soiled.

Alarm Code	Title	A. movement /B. cause /C. measures
04-0001	Right Deck Lifter error	Movement: The Right Deck Lifter Motor (M4) is stopped. Not using the Right Deck. Cause: The Right Deck Lifter does not rise, failure of the Right Deck Paper Height Sensor (PS6). Measures: 1. Turn OFF/ON the power. When it is recovered, the measure is completed. If it is not recovered, execute the following measures. 2. Check if the Deck Lifter rises. If not, execute the following measures. If an alarm occurs although it rises, execute step 5 and later steps. 3. Check the connection between the Right Deck Lifter Motor (M4) and the Feed Driver PCB (PCB3). Motor side: J2069, PCB side: J225 4. Replace the Right Deck. 5. Check the connection between the Right Deck Paper Height Sensor (PS6) and the Feed Driver PCB (PCB3). Sensor side: J2063, J3633 (relay), PCB side: J222 6. Check the operation of the Right Deck Paper Height Sensor (PS6), and replace it. 7. Replace the Feed Driver PCB (PCB3).
04-0002	Left Deck Lifter error	Movement: The Left Deck Lifter Motor (M5) is stopped. Not using the Left Deck. Cause: The Left Deck Lifter does not rise, failure of the Left Deck Paper Height Sensor (PS10). Measures: 1. Turn OFF and then ON the power. When it is recovered, the measure is completed. If it is not recovered, execute the following measures. 2. Check if the Deck Lifter rises. If not, execute the following measures. If an alarm occurs although it rises, execute step 5 and later steps. 3. Check the connection between the Left Deck Lifter Motor (M5) and the Feed Driver PCB (PCB3). Motor side: J2051, PCB side: J225 4. Replace the Left Deck. 5. Check the connection between the Left Deck Paper Height Sensor (PS10) and the Feed Driver PCB (PCB3). Sensor side: J2045, J3634 (relay), PCB side: J221 6. Check the operation of the Left Deck Paper Height Sensor (PS10), and replace it if necessary. 7. Replace the Feed Driver PCB (PCB3).

Alarm Code	Title	A. movement /B. cause /C. measures
04-0003	Cassette 3 Lifter error	<p>Movement: The Cassette 3 Lifter Motor (M20) is stopped. Not using the Cassette 3.</p> <p>Cause: The Cassette Lifter does not rise, failure of the Cassette 3 Paper Height Sensor (PS17).</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Turn OFF and then ON the power. When it is recovered, the measure is completed. If it is not recovered, execute the following measures.</li> <li>2. Check if the Deck Lifter rises. If not, execute the following measures. If an alarm occurs although it rises, execute step 5 and later steps.</li> <li>3. Check the connection between the Cassette 3 Lifter Motor (M20) and the Feed Driver PCB (PCB3). Motor side: J2072, PCB side: J225</li> <li>4. Replace the Cassette 3.</li> <li>5. Check the connection between the Cassette 3 Paper Height Sensor (PS17) and the Feed Driver PCB (PCB3). Sensor side: J2080, J3635 (relay), PCB side: J223</li> <li>6. Check the operation of the Cassette 3 Paper Height Sensor (PS17), and replace it if necessary.</li> <li>7. Replace the Feed Driver PCB (PCB3).</li> </ol>
04-0004	Cassette 4 Lifter error	<p>Movement: The Cassette 4 Lifter Motor (M21) is stopped. Not using the Cassette 4.</p> <p>Cause: The Cassette 4 Lifter does not rise, failure of the Cassette 4 Paper Height Sensor (PS18).</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Turn OFF and then ON the power. When it is recovered, the measure is completed. If it is not recovered, execute the following measures.</li> <li>2. Check if the Deck Lifter rises. If not, execute the following measures. If an alarm occurs although it rises, execute step 5 and later steps.</li> <li>3. Check the connection between the Cassette 4 Lifter Motor (M21) and the Feed Driver PCB (PCB3). Motor side: J2074, PCB side: J225</li> <li>4. Replace the Cassette 4.</li> <li>5. Check the connection between the Cassette 4 Paper Height Sensor (PS18) and the Feed Driver PCB (PCB3). Sensor side: J2091, J3636 (relay), PCB side: J224</li> <li>6. Check the operation of the Cassette 4 Paper Height Sensor (PS18), and replace it if necessary.</li> <li>7. Replace the Feed Driver PCB (PCB3).</li> </ol>

Alarm Code	Title	A. movement /B. cause /C. measures
04-0008	Option Deck Lifter error	<p>Movement: The Option Deck Pickup Motor (M) is stopped. Not using the Left Deck.</p> <p>Cause: The Option Deck does not rise, failure of the Option Deck Paper Height Sensor (PS).</p> <p>Measures: Clear the error by turning OFF/ON the power.</p>
04-0010	Jam left untouched (RDS creates)	-
04-0031	Right Deck Lifter Motor overcurrent alarm	<p>Movement: The Right Deck Lifter Motor (M4) is stopped. Not using the Right Deck.</p> <p>Cause: The Right Deck is above the upper limit or is stopped along the way.</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Check the connection between the Right Deck Lifter Motor (M4) and the Feed Driver PCB (PCB3). Motor side: J2069, PCB side: J225</li> <li>2. Replace the Right Deck Lifter Motor (M4).</li> <li>3. Check the Right Deck Upper Limit Sensor (PS8).</li> <li>4. Check the Right Deck Lifter Gear (damage, foreign matter, etc.).</li> <li>5. Replace the Feed Driver PCB (PCB3).</li> </ol>
04-0032	Left Deck Lifter Motor overcurrent alarm	<p>Movement: The Left Deck Lifter Motor (M5) is stopped. Not using the Left Deck.</p> <p>Cause: The Left Deck is above the upper limit or is stopped along the way.</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Check the connection between the Left Deck Lifter Motor (M5) and the Feed Driver PCB (PCB3). Motor side: J2069, PCB side: J225</li> <li>2. Replace the Left Deck Lifter Motor (M5).</li> <li>3. Check the Left Deck Upper Limit Sensor (PS12).</li> <li>4. Check the Left Deck Lifter Gear (damage, foreign matter, etc.).</li> <li>5. Replace the Feed Driver PCB (PCB3).</li> </ol>

Alarm Code	Title	A. movement /B. cause /C. measures
04-0033	Cassette 3 Lifter Motor overcurrent alarm	<p>Movement: The Cassette 3 Lifter Motor (M20) is stopped. Not using the Cassette 3.</p> <p>Cause: The Cassette 3 is above the upper limit or is stopped along the way.</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Check the connection between the Cassette 3 Lifter Motor (M20) and the Feed Driver PCB (PCB3). Motor side: J2072, PCB side: J225</li> <li>2. Replace the Cassette 3 Lifter Motor (M20).</li> <li>3. Check the Cassette 3 Upper Limit Sensor (PS68).</li> <li>4. Check the Cassette 3 Lifter Gear (damage, foreign matter, etc.).</li> <li>5. Replace the Feed Driver PCB (PCB3).</li> </ol>
04-0034	Cassette 4 Lifter Motor overcurrent alarm	<p>Movement: The Cassette 4 Lifter Motor (M21) is stopped. Not using the Cassette 4.</p> <p>Cause: The Cassette 4 is above the upper limit or is stopped along the way.</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Check the connection between the Cassette 4 Lifter Motor (M21) and the Feed Driver PCB (PCB3). Motor side: J2072, PCB side: J225</li> <li>2. Replace the Cassette 4 Lifter Motor (M21).</li> <li>3. Check the Cassette 4 Upper Limit Sensor (PS71).</li> <li>4. Check the Cassette 4 Lifter Gear (damage, foreign matter, etc.).</li> <li>5. Replace the Feed Driver PCB (PCB3).</li> </ol>
04-0069	Error in Right Deck Pickup Solenoid connection	<p>Movement: Jam occurred when picking up from the Right Deck.</p> <p>Cause: Connection of the Right Deck Pickup Solenoid (SL6) cannot be detected.</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Check the connection of the Right Deck Pickup Solenoid (SL6). Solenoid side: J2070, Pickup Unit side: J3633, Feed Driver PCB side: J222</li> <li>2. Replace the Right Deck Pickup Solenoid (SL6).</li> <li>3. Replace the Feed Driver PCB (PCB3).</li> </ol>
04-0070	Error in Left Deck Pickup Solenoid connection	<p>Movement: Jam occurred when picking up from the Left Deck.</p> <p>Cause: Connection of the Left Deck Pickup Solenoid (SL7) cannot be detected.</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Check the connection of the Left Deck Pickup Solenoid (SL7). Solenoid side: J2052, Pickup Unit side: J3634, Feed Driver PCB side: J221</li> <li>2. Replace the Left Deck Pickup Solenoid (SL7).</li> <li>3. Replace the Feed Driver PCB (PCB3).</li> </ol>

Alarm Code	Title	A. movement /B. cause /C. measures
04-0071	Error in Cassette 3 Pickup Solenoid connection	<p>Movement: Jam occurred when picking up from the Cassette 3.</p> <p>Cause: Connection of the Cassette 3 Pickup Solenoid (SL3) cannot be detected.</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Check the connection of the Cassette 3 Pickup Solenoid (SL3). Solenoid side: J2073, Pickup Unit side: J3635, Feed Driver PCB side: J223</li> <li>2. Replace the Cassette 3 Pickup Solenoid (SL3).</li> <li>3. Replace the Feed Driver PCB (PCB3).</li> </ol>
04-0072	Error in Cassette 4 Pickup Solenoid connection	<p>Movement: Jam occurred when picking up from the Cassette 4.</p> <p>Cause: Connection of the Cassette 4 Pickup Solenoid (SL4) cannot be detected.</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Check the connection of the Cassette 4 Pickup Solenoid (SL4). Solenoid side: J2075, Pickup Unit side: J3636, Feed Driver PCB side: J224</li> <li>2. Replace the Cassette 4 Pickup Solenoid (SL4).</li> <li>3. Replace the Feed Driver PCB (PCB3).</li> </ol>
04-0073	Error in Multi-purpose Pickup Solenoid connection	<p>Movement: Jam occurred when picking up from the Multi-purpose Tray.</p> <p>Cause: Connection of the Multi-purpose Pickup Solenoid (SL2) cannot be detected.</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Check the connection of the Multi-purpose Pickup Solenoid (SL2). Solenoid side: J2001, Relay: J3060, J3121, J3235, Main Driver PCB side: J106</li> <li>2. Replace the Multi-purpose Pickup Solenoid (SL2).</li> <li>3. Replace the Main Driver PCB (PCB2).</li> </ol>
04-0074	Error in Left Deck Merging Solenoid connection	<p>Movement: Jam occurred when picking up from the Left Deck.</p> <p>Cause: Connection of the Left Deck Merging Solenoid (SL11) cannot be detected.</p> <p>Measures:</p> <ol style="list-style-type: none"> <li>1. Check the connection of the Left Deck Merging Solenoid (SL11). Solenoid side: J2106, Relay side: J3270, Duplex Driver PCB side: J343</li> <li>2. Replace the Left Deck Merging Solenoid (SL11).</li> <li>3. Replace the Duplex Driver PCB (PCB4).</li> </ol>

Alarm Code	Title	A. movement /B. cause /C. measures
04-0075	Error in Reverse Detachment Solenoid connection	Movement: Jam occurred at the time of large size paper reverse delivery. Cause: Connection of the Reverse Detachment Solenoid (SL12) cannot be detected. Measures: 1. Check the connection of the Reverse Detachment Solenoid (SL12). Solenoid side: J2176, Duplex Driver PCB side: J340 2. Replace the Reverse Detachment Solenoid (SL12). 3. Replace the Duplex Driver PCB (PCB4).
06-0003	Web absence notice	Movement: The Web Drive Solenoid is turned ON 4 times after the Fixing Cleaning Web Level Sensor performs detection. Cause: Remaining level of the Fixing Cleaning Web is low. Measures: Replace the Fixing Cleaning Web.
09-0006	2D Shading ROM error 1	Movement: Turn OFF the 2D Shading. Cause: After clearing the drum, not reading the EEPROM. Measures: Execute COPIER>FUNCTION>2D-SHADE>2D-READ.
09-0007	2D Shading ROM error 2	Movement: Turn OFF the 2D Shading. Cause: After reading ROM data, calculated checksum value and checksum of ROM does not match. Measures: Install the correct ROM.
09-0008	Drum HP signal noise alarm	Movement: Only when the 2D shading is ON, the accuracy of shading is degraded and an image error occurs. Uneven density may occur. Cause: The Drum HP cycle is shorter than the specified cycle. Measures: 1. Install the Drum HP Sensor (PS61) and check the connector. 2. Check the Drum HP Flag. 3. Check the harness between the Drum HP Sensor (PS61) and the Main Driver PCB (PCB2). (Between J2137 and J107) 4. Replace the Drum HP Sensor (PS61). 5. Replace the Main Driver PCB (PCB2). 6. Check the harness between the Main Driver PCB (PCB2) and the DCON PCB (PCB1). (Between J125 and J411 and between J126 and J412) 7. Replace the DCON PCB (PCB1).

Alarm Code	Title	A. movement /B. cause /C. measures
09-0009	Drum HP signal absence alarm	Movement: Only when the 2D shading is ON, the accuracy of shading is degraded and an image error occurs. Uneven density may occur. Cause: The Drum HP cycle is longer than the specified cycle. Measures: 1. Install the Drum HP Sensor (PS61) and check the connector. 2. Check the Drum HP Flag. 3. Check the harness between the Drum HP Sensor (PS61) and the Main Driver PCB (PCB2). (Between J2137 and J107) 4. Replace the Drum HP Sensor (PS61). 5. Replace the Main Driver PCB (PCB2). 6. Check the harness between the Main Driver PCB (PCB2) and the DCON PCB (PCB1). (Between J125 and J411 and between J126 and J412) 7. Replace the DCON PCB (PCB1).
10-0001	No toner (Bk) (RDS creates)	-
10-0006	Patch Sensor error 1	Movement: Not update the D-max control value. Cause: At LED light intensity correction, P(0) is at target value or higher, or P(6) is at target value or lower. Measures: 1. Clean the Patch Sensor (PS90). 2. Check the connector connection of the Patch Sensor (PS90). Sensor: J2143, Relay: J3255, J3060, J3177, Main Driver PCB (PCB2): J107 3. Check the connector connection of the Patch Sensor Shutter Solenoid (SL10). Sensor: J2143, Relay: J3249, J3060, J3177, Main Driver PCB (PCB2): J107 4. Replace the Patch Sensor (PS90). 5. Replace the Patch Sensor Shutter Solenoid (SL10). 6. Replace the Patch Shutter.

Alarm Code	Title	A. movement /B. cause /C. measures
10-0007	Patch Sensor error 2	<p>Movement: Not update the D-max control value. Cause: Max-Min of the background is 100 level or higher. Measures:</p> <ol style="list-style-type: none"> <li>1. Clean the Patch Sensor (PS90).</li> <li>2. Check the connector connection of the Patch Sensor (PS90). Sensor: J2143, Relay: J3255, J3060, J3177, Main Driver PCB (PCB2): J107</li> <li>3. Check the connector connection of the Patch Sensor Shutter Solenoid (SL10). Sensor: J2143, Relay: J3249, J3060, J3177, Main Driver PCB (PCB2): J107</li> <li>4. Replace the Patch Sensor (PS90).</li> <li>5. Replace the Patch Sensor Shutter Solenoid (SL10).</li> <li>6. Replace the Patch Shutter.</li> </ol>
10-0008	Patch Sensor error 3	<p>Movement: Not update the D-max control value. Cause: Patch density is too dark. Measures:</p> <ol style="list-style-type: none"> <li>1. Clean the Patch Sensor (PS90).</li> <li>2. Check the connector connection of the Patch Sensor (PS90). Sensor: J2143, Relay: J3255, J3060, J3177, Main Driver PCB (PCB2): J107</li> <li>3. Check the connector connection of the Patch Sensor Shutter Solenoid (SL10). Sensor: J2143, Relay: J3249, J3060, J3177, Main Driver PCB (PCB2): J107</li> <li>4. Replace the Patch Sensor (PS90).</li> <li>5. Replace the Patch Sensor Shutter Solenoid (SL10).</li> <li>6. Replace the Patch Shutter.</li> </ol>

Alarm Code	Title	A. movement /B. cause /C. measures
10-0009	Patch Sensor error 4	<p>Movement: Not update the D-max control value. Cause: Patch density is too light. Supplement for cause(alarm detection at installation and replacement of the Developing Assembly): Although this alarm is detected right after installation and replacement of the Developing Assembly, it is not an error. The alarm is detected because toner in the Developing Assembly is empty. When the patch density becomes normal by executing toner stirring (COPIER&gt;FUNCTION&gt;INSTALL&gt;TONER-S) and auto gradation adjustment, the alarm is cleared. If the date and time of occurrence of the alarm differs from the timing of installation and replacement of the Developing Assembly, perform the following measures. Measures:</p> <ol style="list-style-type: none"> <li>1. Clean the Patch Sensor (PS90).</li> <li>2. Check the connector connection of the Patch Sensor (PS90). Sensor: J2143, Relay: J3255, J3060, J3177, Main Driver PCB (PCB2): J107</li> <li>3. Check the connector connection of the Patch Sensor Shutter Solenoid (SL10). Sensor: J2143, Relay: J3249, J3060, J3177, Main Driver PCB (PCB2): J107</li> <li>4. Replace the Patch Sensor (PS90).</li> <li>5. Replace the Patch Sensor Shutter Solenoid (SL10).</li> <li>6. Replace the Patch Shutter.</li> </ol>
10-0010	D-max control contrast potential (Vcont) error 1	<p>Movement: Vcont of D-max control is between 150V and 270V, and correction amount at a time is 50V or less. Cause: Vcont calculated with D-max control is less than 150V. Measures:</p> <ul style="list-style-type: none"> <li>• If density of output image is sufficient, measures are not needed.</li> <li>• When the density is light (dark), execute PASCAL.</li> <li>• If the problem is not corrected, check/replace the Developing Assembly.</li> </ul>
10-0011	D-max control contrast potential (Vcont) error 2	<p>Movement: Vcont of D-max control is between 150V and 270V, and correction amount at a time is 50V. Cause: Vcont calculated with D-max control is greater than 270V. Measures:</p> <ul style="list-style-type: none"> <li>• If density of output image is sufficient, measures are not needed.</li> <li>• When the density is light (dark), execute PASCAL.</li> <li>• If the problem is not corrected, check/replace the Developing Assembly.</li> </ul>



Alarm Code	Title	A. movement /B. cause /C. measures
10-0012	D-max control contrast potential (Vcont) error 3	<p>Movement: Vcont of D-max control is between 150V and 270V, and correction amount at a time is 50V or less. Cause: Difference of Vcont from its of the last D-max control is 50V or higher. Supplement for cause(alarm detection at installation and replacement of the Developing Assembly): Although the alarm is detected after execution of auto gradation adjustment (full adjust) at installation and replacement of the Developing Assembly, it is not an error. The alarm is detected because "previous Vcont" that is a target for comparison is 0V at installation. At replacement of the Developing Assembly, "previous Vcont" that is a target for comparison is the value determined by the original Developing Assembly. Therefore, depending on the individual difference in the Developing Assembly, 50V or more difference occurs and the alarm is detected. The alarm is cleared by either re-executing auto gradation adjustment (full adjust) or printing 6,000 or more sheets (auto execution of D-max control). If the date and time of occurrence of the alarm differs from the timing of installation and replacement of the Developing Assembly, perform the following measures.</p> <p>Measures:</p> <ul style="list-style-type: none"> <li>• If density of output image is sufficient, measures are not needed.</li> <li>• When the density is light (dark), execute PASCAL.</li> <li>• If the problem is not corrected, check/replace the Developing Assembly.</li> </ul>
11-0002	Waste Toner Container full (Photosensitive Drum)	<p>Movement: A message "The waste toner container is full." is displayed on the Control Panel, and the machine is stopped. Cause: The Waste Toner Counter reaches 600000. Measures: Clean the Waste Toner Container. Reset the Waste Toner Counter.</p>

Alarm Code	Title	A. movement /B. cause /C. measures
30-0004	Pre-transfer Charging PCB Harness disconnection (connection error)	<p>Movement: Pre-transfer charging high voltage is not output. An image error like discharge trace occurs. Cause: Connection error of the Pre-transfer Charging PCB (PCB26). Measures: 1. Check the connection between the Main Driver PCB (PCB2) and the High Voltage Unit. Main Driver PCB side: J112, High Voltage Unit side: J3098 2. Check the connection inside of the High Voltage Unit. High Voltage Unit inlet side: J3098, Pre-transfer Charging PCB side: J3544 3. Replace the Pre-transfer Charging PCB (PCB26). 4. Replace the Main Driver PCB (PCB2).</p>
31-0005	Environment Sensor reading alarm	<p>Movement: It becomes as follow: environment temperature= 0 degC, environment humidity= 0%. Cause: Connection of the Environment Sensor cannot be detected. Measures: 1. Check the connection of the Environment Sensor (THU1). 2. Replace the Environment Sensor (THU1).</p>
31-0007	Error in Patch Sensor Shutter Solenoid connection	<p>Movement: Patch control (D-max/D-half control) is not executed. Use the previous correction value. Cause: Connection of the Patch Sensor Shutter Solenoid (SL10) cannot be detected. Measures: 1. Check the connection of the Patch Sensor Shutter Solenoid (SL10). Solenoid side: J3049, Relay: J3060, J3177, Main Driver PCB side: J107 2. Replace the Patch Sensor Shutter Solenoid (SL10). 3. Replace the Main Driver PCB (PCB2).</p>
31-0008	Error in Patch Sensor Shutter Solenoid connection	<p>Movement: HDD failure is expected to occur in a short time due to occurrence of physical error in HDD. It does not occur in the HDD of mirroring configuration. Cause: Error in the S.M.A.R.T. value of HDD Measures: 1. Back up the data stored in HDD. 2. Replace the HDD. 3. Restore the data.</p> <p>S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology): Self-diagnosis function built in the HDD. The occurrence rate of reading error, reading and writing speed, the total number of Motor start-up and stop times, the total length of power-on time, etc. are monitored.</p>

Alarm Code	Title	A. movement /B. cause /C. measures
32-0002	Potential control (VL control) error	<p>Movement: Not reflecting the result of VL control. To the laser power determined with VL control, the power with which the previous potential control was succeeded (within target potential +/-10V) is applied.</p> <p>Cause: The measured value in the dark area (VL) differs over +/-10V but less than +/-30V than the target potential at potential control.</p> <p>Measures: If there is no influence on image, measures are not needed. If not, execute the following measures.</p> <ol style="list-style-type: none"> <li>1. Check the installation of the Pre-exposure LED (connector connection, open circuit, the caught cable).</li> <li>2. Check the installation of the Primary Charging Assembly (connector connection, open circuit, the caught cable).</li> <li>3. Check the fixation state of the Drum and the Drum Shaft (check if the drum fixation cylinder is properly installed).</li> <li>4. Check if the Dustproof Glass is soiled. If necessary, clean it.</li> <li>5. Check the installation of the Laser Scanner Unit (connector connection, open circuit, the caught cable).</li> <li>6. Check the installation and connection of the Primary Charging High Voltage PCB (PCB11) (connector connection, open circuit, the caught cable).</li> <li>7. Check the installation of the Potential Sensor (connector connection, open circuit, the caught cable).</li> <li>8. Check the installation and connection of the Drum Motor (M1) (connector connection, open circuit, the caught cable).</li> <li>9. Replace the parts. <ul style="list-style-type: none"> <li>• Primary Charging Assembly</li> <li>• Laser Scanner Unit</li> <li>• Potential Sensor</li> <li>• Primary Charging High Voltage PCB (PCB11)</li> <li>• Drum Motor (M1)</li> <li>• Main Driver PCB (PCB2)</li> <li>• DC Controller PCB (PCB1)</li> </ul> </li> </ol>
33-0001	Delivery Assembly Decurler Fan alarm	<p>Movement: No change.</p> <p>Cause: Connector disconnection of the Paper Cooling Fan (FM5). Failure of the Paper Cooling Fan (FM5).</p> <p>Measures: Check the connector -&gt; Replace the Paper Cooling Fan (FM5).</p>
33-0002	Feed Fan alarm	<p>Movement: No change.</p> <p>Cause: Connector disconnection of the Registration Motor/ Duplex Motor Cooling Fan (FM42). Failure of the Registration Motor/Duplex Motor Cooling Fan (FM42).</p> <p>Measures: Check the connector -&gt; Replace the Registration Motor/Duplex Motor Cooling Fan (FM42).</p>

Alarm Code	Title	A. movement /B. cause /C. measures
33-0010	Stream Reading Fan alarm	<p>Movement: Nothing in particular (Fan stops).</p> <p>Cause: The Fan rotation signal cannot be detected after 3 seconds have passed since the Scanner Unit Heat Exhaust Fan (FM1) is turned ON.</p> <p>Measures: Check the connector connection -&gt; Replace the Scanner Unit Heat Exhaust Fan (FM1).</p>
33-0013	Power Unit Fan 1 alarm	<p>Movement: No change.</p> <p>Cause: Connector disconnection of the Feed Driver Cooling Fan (FM40). Failure of the Feed Driver Cooling Fan (FM40).</p> <p>Measures: Check the connector -&gt; Replace the Feed Driver Cooling Fan (FM40).</p>
33-0022	Read Motor Cooling Fan alarm	<p>Movement: Nothing in particular (Fan stops).</p> <p>Cause: The Fan rotation signal cannot be detected after 3 seconds have passed since the Motor Driver Cooling Fan (FM1) or the Read Motor Cooling Fan (FM2) is turned ON.</p> <p>Measures: Check the connector connection -&gt; Replace the Motor Driver Cooling Fan (FM1) or the Read Motor Cooling Fan (FM2).</p>
33-0023	Scanner Unit (DADF) Cooling Fan alarm	<p>Movement: Nothing in particular (Fan stops).</p> <p>Cause: The Fan rotation signal cannot be detected after 3 seconds have passed since the (DADF) Scanner Unit Cooling Fan (FM3) is turned ON.</p> <p>Measures: Check the connector connection -&gt; Replace the DADF Scanner Unit Cooling Fan (FM3).</p>
33-0025	Scanner Unit (Reader) Cooling Fan alarm	<p>Movement: Nothing in particular (Fan stops).</p> <p>Cause: The Fan rotation signal cannot be detected after 3 seconds have passed since the (Reader) Scanner Unit Cooling Fan (FM2) is turned ON.</p> <p>Measures: Check the connector connection -&gt; Replace the (Reader) Scanner Unit Cooling Fan (FM2).</p>
33-0026	Charging Assembly Fan 1 alarm	<p>Movement: No change.</p> <p>Cause: Connector disconnection of the Pre-transfer Charging Assembly Air Supply Fan (FM32) or the Pre-transfer Charging Assembly Exhaust Fan (FM33). Failure of the Pre-transfer Charging Assembly Air Supply Fan (FM32) or the Pre-transfer Charging Assembly Exhaust Fan (FM33).</p> <p>Measures: Check the connector connection -&gt; Replace the Pre-transfer Charging Assembly Air Supply Fan (FM32) or the Pre-transfer Charging Assembly Exhaust Fan (FM33).</p>

Alarm Code	Title	A. movement /B. cause /C. measures
33-0027	Charging Assembly Fan 2 alarm	Movement: No change. Cause: Connector disconnection of the Primary Charging Assembly Exhaust Fan (FM17). Failure of the Primary Charging Assembly Exhaust Fan (FM17). Measures: Check the connector -> Replace the Primary Charging Assembly Exhaust Fan (FM17).
33-0028	Power Unit Fan 2 alarm	Movement: No change. Cause: Connector disconnection of the Duplex Driver Cooling Fan (FM41). Failure of the Duplex Driver Cooling Fan (FM41). Measures: Check the connector -> Replace the Duplex Driver Cooling Fan (FM41).
37-0001	For R&D	-
37-0002	For R&D	-
37-0003	For R&D	-
37-0004	For R&D	-
37-0005	For R&D	-
37-0006	For R&D	-
37-0007	For R&D	-
37-1000	For R&D	-
37-2000	For R&D	-
38-0001	For R&D	-
38-0002	For R&D	-
50-0007	Insufficient light intensity in Post-separation Sensor 3	Movement: Nothing in particular. Cause: Light intensity is insufficient when adjusting output of the Post-separation Sensor 3 (PCB2). Measures: Clean the Post-separation Sensor 3 (PCB2) (periodical maintenance).
50-0008	Insufficient light intensity in Lead Sensor 1	Movement: Nothing in particular. Cause: Light intensity is insufficient when adjusting output of the Lead Sensor 1 (PCB4). Measures: Clean the Lead Sensor 1 (PCB4) (periodical maintenance).
50-0009	Insufficient light intensity in Delivery Sensor	Movement: Nothing in particular. Cause: Light intensity is insufficient when adjusting output of the Delivery Sensor (PCB5). Measures: Clean the Delivery Sensor (PCB5) (periodical maintenance).

Alarm Code	Title	A. movement /B. cause /C. measures
50-0010	Alarm due to original separation failure	Movement: Nothing in particular. Cause: Condition unable to separate 1st sheet of original from the ADF occurs 3 times . Measures: Check rotation of the Pickup Motor (M1) -> Check the life of the Pickup Roller -> Check if paper lint is at the Pickup Slot.
50-0013	Insufficient light intensity in Registration Sensor	Movement: Nothing in particular. Cause: Light intensity is insufficient when adjusting output of the Registration Sensor (PCB3). Measures: Clean the Registration Sensor (PCB3) (periodical maintenance).
60-0001	Shift Tray alarm	Movement: Shift Tray operation is stopped. Cause: Home position at startup of the host machine cannot be detected. Measure: Check connector disconnection of the HP Sensor (Front) (PS101) and the HP Sensor (Rear) (PS102) -> Replace the HP Sensor (Front) (PS101) and the HP Sensor (Rear) (PS102).
61-0001	Finisher Staple alarm	Movement: A user message is displayed on the Control Panel. If staple job is being processed during a print job, printing is stopped. Measures: Load staples.
62-0001	Saddle Staple alarm	Movement: A user message is displayed on the Control Panel, and printing is stopped. If staple job is being processed during a print job, printing is stopped. Measures: Load staples.
65-0001	Punch alarm	Movement: A user message is displayed on the Control Panel. If punching is being operated during a print job, operation varies depending on the detection level. • Level 1: Continue operation. • Level 2 (in case that punching operated 1000 times after the detection level 1): Stop printing. Measures: Remove the punched trash.
73-0006	LIPS	Error in configuration acquisition/management
73-0007	LIPS	Memory management error in LIPS
73-0008	LIPS	File management error in LIPS
73-0009	LIPS	Reception data management error
73-0011	LIPS	Macro management error
73-0014	LIPS	Font management error
73-0015	LIPS	Letter drawing error
73-0017	LIPS	Image drawing error
73-0021	LIPS	Utility execution control error

Alarm Code	Title	A. movement /B. cause /C. measures
73-0024	LIPS	Boot error in LIPS
73-0026	LIPS	Data format error of image mode
75-0001	Error occurred in Yukon	-
75-0002	Error occurred due to invalid SVG analysis from Yukon	-
76-0001	Font	No memory for internal font
76-0002	Font	Fails to secure the work area to analyze the font that is downloaded at "Resource Download".
76-0003	Font	Fails to access to the file that stores the font.
76-0004	Font	Fails to allocate the FM work memory.
76-0005	Font	Fails to analyze the internal font.
76-0006	Font	Alignment of font data is wrong.
76-0007	Font	Fails to allocate work memory with scalar. There are 3 types depending on where to occur.
76-0008	Font	Fails to allocate work memory with scalar. There are 3 types depending on where to occur.
78-0003	GL	Invalid GL entry
78-0005	GL	System memory full
79-0001	Canon-made PCL	PCL initialization error
79-0002	Canon-made PCL	PCL processing error
79-0003	Canon-made PCL	Overflow of work memory for translator
79-0004	Canon-made PCL	Download overflow
80-0001	BDL	Admin error
80-0003	BDL	Data Area error
80-0004	BDL	Wrapper error
80-0007	BDL	Resource error
80-0008	BDL	Attribute error
80-0009	BDL	VolatileResource error
80-0010	BDL	Graphics error
80-0011	BDL	Char error
80-0012	BDL	Image error
80-0013	BDL	Image error
80-0015	BDL	Print data cannot process this version.
80-0016	BDL	Overflow of work memory for translator

Alarm Code	Title	A. movement /B. cause /C. measures
80-0019	BDL	In case of invalid data format in BDL custom mode
81-0001	Imaging	Fails to allocate the memory.
81-0002	Imaging	Rendering error
81-0003	Imaging	Overflow of work memory for translator
81-0004	Imaging	Imaging initialization error
81-0005	Imaging	Imaging processing error
81-0006	Imaging	Error when the setting is long length paper + 1200dpi. (Because of memory, long length paper + 1200dpi is not available.)
81-0007	Imaging	Error when long length paper + color is set.
83-0005	PDF	PDF memory full
83-0015	PDF	PDF data decoding error
83-0016	PDF	Page range error
83-0017	PDF	PDF error
84-0001	XPS memory full error	-
84-0002	XPS spool full error	-
84-0003	XPS print range error	-
84-0004	XPS document data error	-
84-0005	XPS page data error	-
84-0006	XPS image data error	-
84-0007	XPS font data error	-
84-0008	XPS non-support image error	-
84-0009	XPS rendering error	-

T-7-28



# Service Mode

- Overview
- COPIER
- FEEDER
- SORTER
- BOARD

## Overview

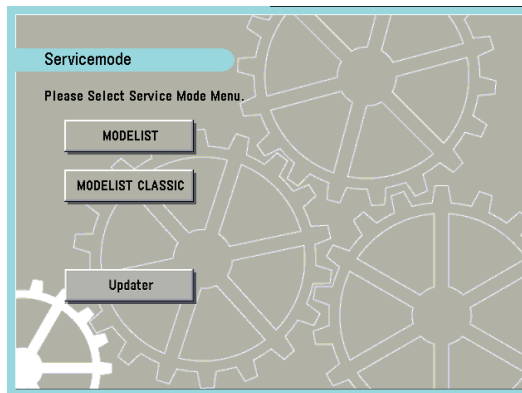
Instructions on how to use service mode items can be found within the service mode itself. The information explains what items have been added or changed from previous models.

### Entering Service Mode

Contact the sales company for the method to enter service mode.

### Service Mode Menu

TOP Screen



F-8-1

- "MODELIST" A brand new additional mode in the host machine. A function that can be used as a reference on how to use each item in Service Mode is installed. The new function, which will be described later, is available in MODELIST Mode.
- "MODELIST CLASSIC" This mode is same as the old machine. The new function, which will be described later, is not available in the MODELIST CLASSIC Mode.
- "Updater" This is a MEAP application with functions of network communication to Content Delivery System V1.0 (hereinafter CDS) and installation of firmware, MEAP applications or system options. (Refer to Updater V1.0 service manual.)

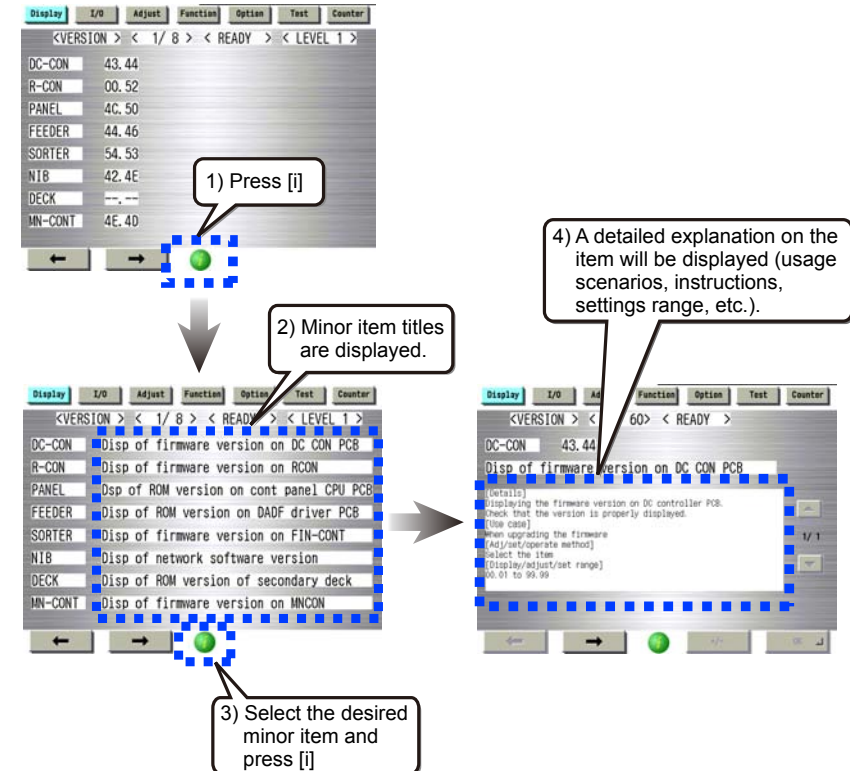
If "MODELIST" or "MODELIST CLASSIC" or "Updater" is pressed, the screen will switch to initial screen for each mode.

### Service mode item explanations

Explanatory texts for the initial window, main items, sub items and minor items can be displayed.

Select the desired initial window, main item, sub item or minor item, then press [i] (Information button) to display an explanatory text (hereafter, service mode contents) on the selected item.

E.g., COPIER > DISPLAY > Version window



- The service mode contents can be displayed in J/E/F//G/S languages.
- Service mode contents, like system software, can be upgraded by SST.

F-8-2

## I/O information enhancement

On the COPIER > I/O, the mode to confirm input output signal of electrical parts used (sensor, motor, fan, etc), makes it easier to look for the intended electrical part.

And the screen will also display the input output signal.

Device classification

Electrical parts classification

1) Press the button.  
Which button to press, will depend on which electrical parts intended and its device classification. For instance, if the host machine uses paper pass detection sensor, then press the button on the "COPIER" and "P-Sensor" position.

2) Then the selected electrical parts classification's mark, name, port number and 0/1 content will appear.

3) If the "i" button is pressed, the screen displaying the electrical parts array will appear.

test: sample image

PS66 PS11 PS147 PS60 PS53 PS51 PS45 PS44 PS36  
 PS67 PS64 PS10 PS19 PS54 PS52 PS46 PS35 PS14  
 PS77 PS34  
 PS79 PS26  
 PS148 PS42  
 PS76 PS27  
 PS84 PS81  
 PS104 PS117  
 PS103 PS116  
 PS81 PS118  
 PS102 PS115  
 PS65 PS100 PS87 PS88 PS49 PS47 PS118 PS115 PS119  
 PS82 PS66 PS86 PS59 PS50 PS48 PS89 PS90 PS120

F-8-3

## Display of Error Code/Alarm Code description

The detail description of each code can be viewed on the error code and alarm code occurrence record screen.

ERROR CODE : COPIER > DISPLAY > ERR

Display I/O Adjust Function Option Test Counter

< ERR > < 2/ 7 > < READY > < LEVEL 1 >

No.	DATE	TIME1	TIME2	CODE	DTL	L	P
09	0102	0304	050	E804-0003			
10	----	----	---				
11	0102	0304	050				
12	0102	0304	050				
13	0102	0304	050				
14	0102	0304	0506	E0748	4910	00	00
15	0102	0304	0506	E0804	0002	00	00
16	0102	0304	0506	E0804	0003	00	00

1/ 1

DONE

3) If the "i" button is pressed, the screen displaying the electrical parts array will appear.

F-8-4

ALARM CODE : COPIER &gt; DISPLAY &gt; ERR

No.	DATE	TIME1	TIME2	CODE	DTI	CNTR
09	0308	1345	1600			
10	0308	1345	1600			
11	0308	1345	1600			
12	0308	1345	1600			
13	0308	1345	1600			
14	0308	1345	1600	040046	0000	0
15	0308	1345	1600	040047	0000	0
16	0308	1345	1600	040048	0000	0

F-8-5

## COPIER > OPTION > BODY, Item Segmentation

On the current machine, there are extremely many items in the COPIER > OPTION > BODY (in related to host machine specification), that it is difficult to reach the intended item.

In order to reach the intended item in shorter time, all items inside the BODY is classified to 15 categories.

Classification	Name	Description
Function switching	<b>FNC-SW</b>	Language, cassette, paper size type, NAVI/DA connection, count-up spec., document size detection, dirt detection level
Display switching/ display timing	<b>DSPLY-SW</b>	UI (User Interface) display related
Image related (fixing)	<b>IMG-FIX</b>	Fixing related
Image related (transfer)	<b>IMG-TR</b>	Transfer related
Image related (developing)	<b>IMG-DEV</b>	Developer related
Image related (laser/ latent image)	<b>IMG-LSR</b>	Laser, latent image related
Image related (reader/ ADF)	<b>IMG-RDR</b>	Reader, ADF image related
Image related (controller, other general items)	<b>IMG-MCON</b>	MN-CON image related, and image related items other than those referred to above.
Image quality/ copy speed	<b>IMG-SPD</b>	Power down sequence
Cleaning	<b>CLEANING</b>	Cleaning of charging unit, drum, transfer roller, etc.
Environment settings	<b>ENV-SET</b>	Temperature, humidity, environmental heater, condensation, log acquisition
Paper feed (pickup, delivery)	<b>FEED-SW</b>	Stack performance, motor speed adjustment, delivery functions, etc.
Noise reduction	<b>SOUND</b>	Noise related
Network	<b>NETWORK</b>	Network settings, IFAX, SEND, E-RDS, etc.
Customization	<b>CUSTOM</b>	Customization

T-8-1



## Security features

To prevent unauthorized access to Service Mode, Password set is enabled.

### Related service modes

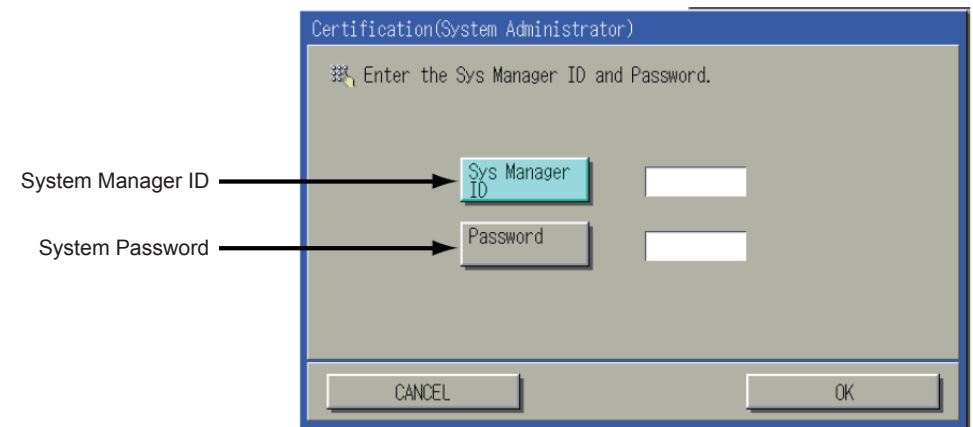
- COPIER > OPTION > FNC-SW > PSWD-SW (Level1)  
Set password type for transition to service mode.  
<Setting range>  
0: No password (default)  
1: Service engineer  
2: System administrator and Service engineer.
- COPIER > OPTION > FNC-SW > SM-PSWD (Level2)  
Password for service engineer for transition to service mode.  
<Setting range>

To reinforce the security, change the password from a default.

\*\*\*\*\* (eight digit numeral) [default: 11111111]

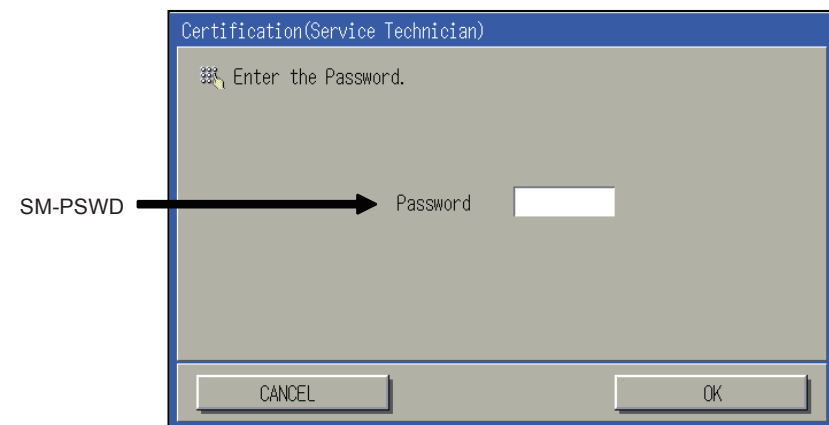
After the above setting, to enter Service Mode, enter password screen will appear.

- 1) Additional Functions > System Settings > System Manager Settings > enter System Manager ID > enter System Password Settings > press OK button.



F-8-6

- 2) After entering the password for service technician (Service mode: COPIER > Option > FNC-SW > SM-PSWD), press OK button.

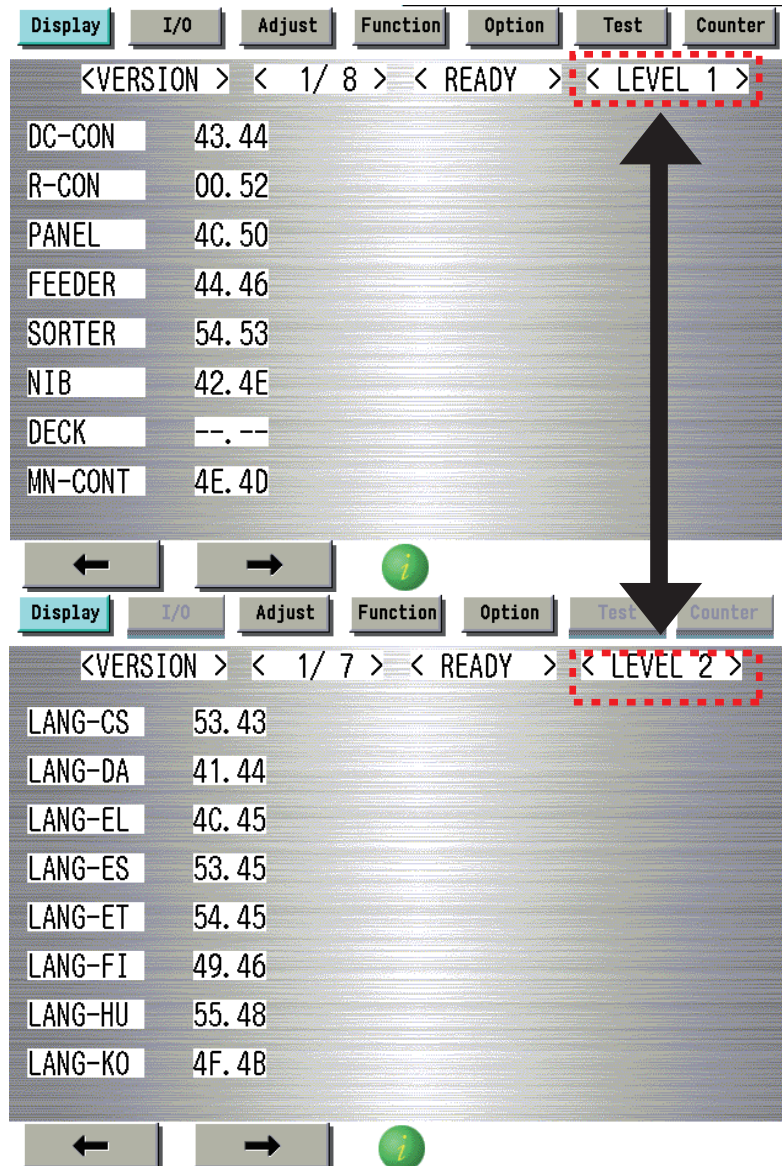


F-8-7

## Switching Screen (Level 1 < - > 2)

Switching screens between level 1 and 2 has been made easier.

When level 1 screen is displayed, press <LEVEL 1> in the right upper side of the screen, and it will switch to level 2.



F-8-8

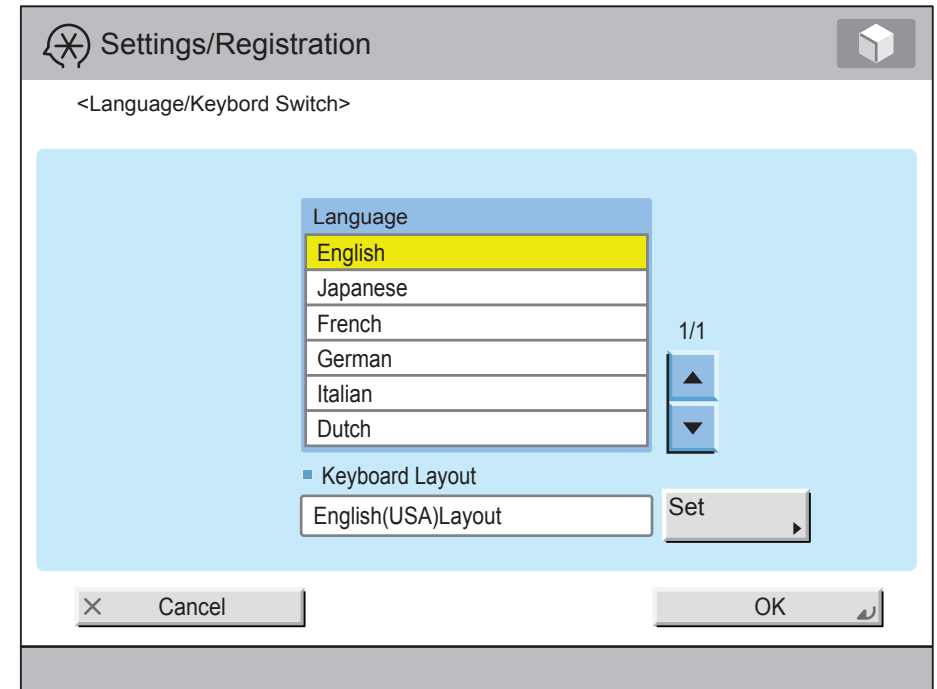
## Language switch

The language of the explanatory text displayed in the Service Mode can be switched by performing the below language switch operation in User Mode

The explanatory text can be displayed by installing the Service Mode Content (SCMNT) in HDD.

Service Mode Content (SCMNT) can be installed and upgraded on SST.

Settings/Registration > Preferences > Display Settings > Language/Keyboard Switch



F-8-9

### NOTE:

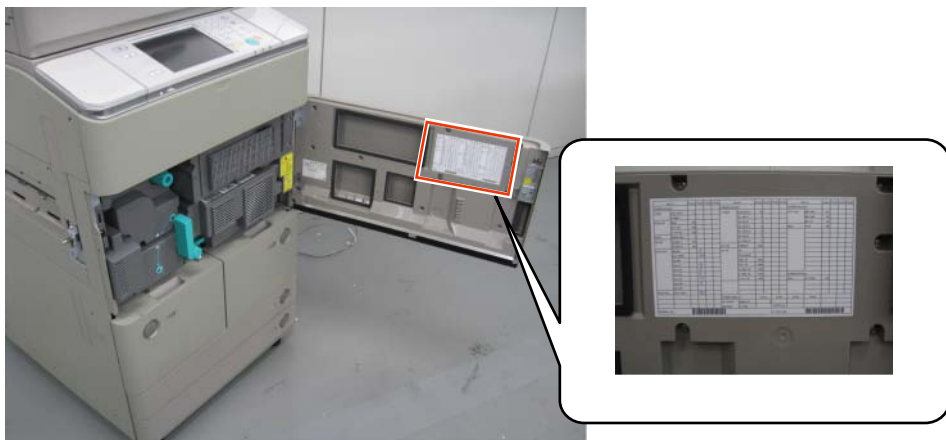
If the Service Mode Content (SMCNT) of the concerned language is not installed, English explanatory text will be displayed.

If English-language Service Mode Content (SMCNT) is not installed either, explanatory text can't be displayed.

## Back-up of service mode

In factory setting, adjustments are made for each machine, and adjustment values are written in the service label.

When you replaced the DC controller PCB, or executed the RAM clear function, adjustment values for ADJUST or OPTION return to default. Therefore, when you made adjustments and changed values of the Service Mode in the field, be sure to write down the changed values in the service label. When there is no relevant field in the service label, write down the values in a blank field.



F-8-10

## COPIER

 DISPLAY

 VERSION

COPIER > DISPLAY > VERSION		
DC-CON		
Display of DCON firmware version		
Lv.1	Details	To display the firmware version of DC Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
R-CON		
Display of RCON firmware version		
Lv.1	Details	To display the firmware version of Reader Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
PANEL		
Dis of Control Panel CPU PCB ROM version		
Lv.1	Details	To display the ROM version of Control Panel CPU PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
FEEDER		
Display of DADF Driver PCB ROM version		
Lv.1	Details	To display the firmware version of DADF Driver PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SORTER		
Display of FIN-CONT firmware version		
Lv.1	Details	To display the firmware version of Finisher Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NIB		
Display of network software version		
Lv.1	Details	To display the version of the network software.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
PS/PCL		
Dis of UFR Board (PS/PCL func) version		
Lv.1	Details	To display the version of UFR Board (PS/PCL function).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SDL-STCH		
Dis of Saddle Sttch Ctrllr PCB ROM ver		
Lv.1	Details	To display the ROM version of the Saddle Stitcher Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
DECK		
Display of POD Deck ROM version		
Lv.1	Details	To display the ROM version of ROM version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MN-CONT		
Display of MNCON firmware version		
Lv.1	Details	To display the firmware version of Main Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
RIP1		
Display of RIP1 software version		
Lv.1	Details	To display the software version to be downloaded to RIP1 (PS/PCL Expansion Accelerator Board).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
DIAG-DVC		
Dis of self diagnosis device ROM version		
Lv.1	Details	To display the ROM version of self diagnosis device.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
RUI		
Display of remote UI version		
Lv.1	Details	To display the version of remote UI.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
PUNCH		
Display of Finisher Inner Punch Unit		
Lv.1	Details	To display the version of Finisher Inner Punch Unit.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-EN		
Display of English language file version		
Lv.1	Details	To display the version of English language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
LANG-FR		Display of French language file version
Lv.1	Details	To display the version of French language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-DE		Display of German language file version
Lv.1	Details	To display the version of German language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-IT		Display of Italian language file version
Lv.1	Details	To display the version of Italian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-JP		Display of Japanese language file ver
Lv.1	Details	To display the version of Japanese language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-CS		Display of Czech language file version
Lv.2	Details	To display the version of Czech language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-DA		Display of Danish language file version
Lv.2	Details	To display the version of Danish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-EL		Display of Greek language file version
Lv.2	Details	To display the version of Greek language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-ES		Display of Spanish language file version
Lv.2	Details	To display the version of Spanish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-ET		Display of Estonian language file ver
Lv.2	Details	To display the version of Estonian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
LANG-FI		Display of Finnish language file version
Lv.2	Details	To display the version of Finnish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-HU		Display of Hungarian language file ver
Lv.2	Details	To display the version of Hungarian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-KO		Display of Korean language file version
Lv.2	Details	To display the version of Korean language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-NL		Display of Dutch language file version
Lv.2	Details	To display the version of Dutch language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-NO		Display of Norwegian language file ver
Lv.2	Details	To display the version of Norwegian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-PL		Display of Polish language file version
Lv.2	Details	To display the version of Polish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-PT		Display of Portuguese language file ver
Lv.2	Details	To display the version of Portuguese language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-RU		Display of Russian language file version
Lv.2	Details	To display the version of Russian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-SL		Display of Slovenian language file ver
Lv.2	Details	To display the version of Slovenian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
LANG-SV		Display of Swedish language file version
Lv.2	Details	To display the version of Swedish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-TW		Dis of Chinese language file ver: trad
Lv.2	Details	To display the version of Chinese language file (traditional).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-ZH		Dis of Chinese language file ver: simpl
Lv.2	Details	To display the version of Chinese language file (simplified).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-BU		Display of Bulgarian language file ver
Lv.2	Details	To display the version of Bulgarian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-CR		Display of Croatian language file ver
Lv.2	Details	To display the version of Croatian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-RM		Display of Romanian language file ver
Lv.2	Details	To display the version of Romanian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-SK		Display of Slovak language file version
Lv.2	Details	To display the version of Slovak language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-TK		Display of Turkish language file version
Lv.2	Details	To display the version of Turkish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEAP		Display of MEAP contents version
Lv.1	Details	To display the version of MEAP contents in HDD.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
OCR-CN		Display of Chinese OCR: simplified
Lv.1	Details	To display the version of Chinese OCR (simplified). “--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
OCR-JP		Display of Japanese OCR version
Lv.1	Details	To display the version of Japanese OCR. “--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
OCR-KR		Display of Korean OCR version
Lv.1	Details	To display the version of Korean OCR. “--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
OCR-TW		Display of Chinese OCR ver: traditional
Lv.1	Details	To display the version of Chinese OCR (traditional). “--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-JA		Dis of Japanese voice dictionary version
Lv.1	Details	To display the version of Japanese voice dictionary. “--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-EN		Dis of English voice dictionary version
Lv.1	Details	To display the version of English voice dictionary. “--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-IT		Dis of Italian voice dictionary version
Lv.1	Details	To display the version of Italian voice dictionary. “--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
TTS-FR		Dis of French voice dictionary version
Lv.1	Details	To display the version of French voice dictionary. “--.--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-ES		Dis of Spanish voice dictionary version
Lv.1	Details	To display the version of Spanish voice dictionary. “--.--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-DE		Dis of German voice dictionary version
Lv.1	Details	To display the version of German voice dictionary. “--.--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
WEB-BRWS		Display of Web browser version
Lv.1	Details	To display the version of Web browser. “--.--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
HELP		Display of easy NAVI version
Lv.1	Details	To display the version of “EASY NAVI” file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Caution	Version should be displayed for EASY NAVI function because it is an external file.
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	EASY NAVI function is equipped as standard instead of the conventional HELP function.
LANG-CA		Display of Catalan language file version
Lv.2	Details	To display the version of Catalan language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
WEBDAV		Display of WebDAV version
Lv.1	Details	To display the version of “WebDAV” file. “--.--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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TIMESTMP		Display of timestamp version
Lv.1	Details	To display the version of “Time Stamp” file. “--.--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ASR-JA		Dis of Japanese ASR dictionary version
Lv.1	Details	To display the version of Japanese automatic speech recognition dictionary. “--.--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ASR: Automatic Speech Recognition (voice recognition)
ASR-EN		Dis of English ASR dictionary version
Lv.1	Details	To display the version of English automatic speech recognition dictionary. “--.--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ASR: Automatic Speech Recognition (voice recognition)
MEDIA-JA		Dis of Japanese media information ver
Lv.2	Details	To display the version of Japanese media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-EN		Dis of English media information version
Lv.2	Details	To display the version of English media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-DE		Dis of German media information version
Lv.2	Details	To display the version of German media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-IT		Dis of Italian media information version
Lv.2	Details	To display the version of Italian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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MEDIA-FR	Dis of French media information version	
Lv.2	Details	To display the version of French media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-ZH	Dis of Chinese media info ver: smpl	
Lv.2	Details	To display the version of Chinese media information (simplified).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-SK	Dis of Slovak media information version	
Lv.2	Details	To display the version of Slovak media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-TK	Dis of Turkish media information version	
Lv.2	Details	To display the version of Turkish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-CS	Dis of Czech media information version	
Lv.2	Details	To display the version of Czech media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-EL	Dis of Greek media information version	
Lv.2	Details	To display the version of Greek media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-ES	Dis of Spanish media information version	
Lv.2	Details	To display the version of Spanish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-ET	Dis of Estonian media information ver	
Lv.2	Details	To display the version of Estonian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-FI	Dis of Finnish media information version	
Lv.2	Details	To display the version of Finnish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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MEDIA-HU	Dis of Hungarian media information ver	
Lv.2	Details	To display the version of Hungarian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-KO	Dis of Korean media information version	
Lv.2	Details	To display the version of Korean media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-NL	Dis of Dutch media information version	
Lv.2	Details	To display the version of Dutch media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-NO	Dis of Norwegian media information ver	
Lv.2	Details	To display the version of Norwegian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-PL	Dis of Polish media information version	
Lv.2	Details	To display the version of Polish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-PT	Dis of Portuguese media information ver	
Lv.2	Details	To display the version of Portuguese media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-RU	Dis of Russian media information version	
Lv.2	Details	To display the version of Russian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-SL	Dis of Slovenian media information ver	
Lv.2	Details	To display the version of Slovenian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-SV	Dis of Swedish media information version	
Lv.2	Details	To display the version of Swedish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99



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MEDIA-TW		Dis of Chinese media info version:trad
Lv.2	Details	To display the version of Chinese media information (traditional).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-BU		Dis of Bulgarian media information ver
Lv.2	Details	To display the version of Bulgarian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-CR		Dis of Croatian media information ver
Lv.2	Details	To display the version of Croatian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-RM		Dis of Romanian media information ver
Lv.2	Details	To display the version of Romanian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-CA		Dis of Catalan media information version
Lv.2	Details	To display the version of Catalan media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
FAX1		Display of 1-line FAX PCB ROM version
Lv.1	Details	To display the ROM version of 1-line FAX PCB. Nothing is displayed if the PCB is not connected.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	ASCII character string (21 digits)
FAX2/3/4		Dis of 2/3/4-line FAX PCB ROM version
Lv.1	Details	To display the ROM version of 2/3/4-line FAX PCB. Nothing is displayed if the PCB is not connected.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	ASCII character string (21 digits)
IOCS		Display of BIOS version
Lv.1	Details	To display the BIOS version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SYSTEM		Dis of Linux kernel/tool/driver/file ver
Lv.1	Details	To display the version of Linux kernel/tool/driver/file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ROOT		Display of ROOT version
Lv.1	Details	To display the ROOT version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
FLASH		Dis of Encryption Board firmware version
Lv.2	Details	To display the firmware version of Encryption Board.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TRIM		Display of Trimmer ROM version
Lv.1	Details	To display the ROM version of Trimmer.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
FOLD		Dis of Paper Folding Unit ROM version
Lv.1	Details	To display the ROM version of Paper Folding Unit.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INS		Display of Inserter ROM version
Lv.1	Details	To display the ROM version of Inserter.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INS-IF		Dis of Inserter Relay PCB ROM version
Lv.1	Details	To display the ROM version of Inserter Relay PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
PUNCH-IF		Dis of Multi-hole Puncher IFU ROM ver
Lv.1	Details	To display the ROM version of Interface Unit for Multi-hole Puncher.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-JP		Dis of service mode Japanese file ver
Lv.1	Details	To display the version of Japanese language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
S-LNG-EN		Dis of service mode English file version
Lv.1	Details	To display the version of English language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-FR		Dis of service mode French file version
Lv.1	Details	To display the version of French language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-IT		Dis of service mode Italian file version
Lv.1	Details	To display the version of Italian language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-GR		Dis of service mode German file version
Lv.1	Details	To display the version of German language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-SP		Dis of service mode Spanish file version
Lv.1	Details	To display the version of Spanish language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
UI-RES		Display of UI resource file version
Lv.1	Details	To display the UIRES version. UIRES consists of the resource file which is necessary to display the native screen (top screen and software keyboard screen) of UI.
	Use case	When checking the version at the time of downloading UIRES to MFP
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-AP		Display of COPY (JAVA UI) version
Lv.1	Details	To display the version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-AP		Display of SEND (JAVA UI) version
Lv.1	Details	To display the version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
BOX-AP		Display of BOX (JAVA UI) version
Lv.1	Details	To display the version of BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MOBPR-AP		Display of mobile print(JAVA UI) version
Lv.1	Details	To display the version of the mobile print application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
RPTL-AP		Display of RUI portal version
Lv.1	Details	To display the RUI portal version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-AP		Dis of useful func introduce appli ver
Lv.1	Details	To display the version of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TSP-JLK		Dis of PCAM Option Board version
Lv.1	Details	To display the version of the PCAM Option Board.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-FR		Dis of COPY appli French file version
Lv.1	Details	To display the French language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-IT		Dis of COPY appli Italian file version
Lv.1	Details	To display the Italian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-DE		Dis of COPY appli German file version
Lv.1	Details	To display the German language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
COPY-ES		Dis of COPY appli Spanish file version
Lv.1	Details	To display the Spanish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ZH		Dis COPY appli Chinese file ver: smpl
Lv.2	Details	To display the simplified Chinese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-TW		Dis of COPY appli Chinese file ver:trad
Lv.2	Details	To display the traditional Chinese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-KO		Dis of COPY appli Korean file version
Lv.2	Details	To display the Korean language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-CS		Dis of COPY appli Czech file version
Lv.2	Details	To display the Czech language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-DA		Dis of COPY appli Danish file version
Lv.2	Details	To display the Danish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-EL		Dis of COPY appli Greek file version
Lv.2	Details	To display the Greek language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
COPY-ET		Dis of COPY appli Estonian file version
Lv.2	Details	To display the Estonian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-FI		Dis of COPY appli Finnish file version
Lv.2	Details	To display the Finnish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-HU		Dis of COPY appli Hungarian file version
Lv.2	Details	To display the Hungarian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-NL		Dis of COPY appli Dutch file version
Lv.2	Details	To display the Dutch language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-NO		Dis of COPY appli Norwegian file version
Lv.2	Details	To display the Norwegian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-PL		Dis of COPY appli Polish file version
Lv.2	Details	To display the Polish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-PT		Dis of COPY appli Portuguese file ver
Lv.2	Details	To display the Portuguese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
COPY-RU		Dis of COPY appli Russian file version
Lv.2	Details	To display the Russian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-SL		Dis of COPY appli Slovenian file version
Lv.2	Details	To display the Slovenian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-SV		Dis of COPY appli Swedish file version
Lv.2	Details	To display the Swedish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ID		Dis of COPY appli Indonesian file ver
Lv.2	Details	To display the Indonesian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-BU		Dis of COPY appli Bulgarian file version
Lv.2	Details	To display the Bulgarian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-CR		Dis of COPY appli Croatian file version
Lv.2	Details	To display the Croatian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-RM		Dis of COPY appli Romanian file version
Lv.2	Details	To display the Romanian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
COPY-SK		Dis of COPY appli Slovak file version
Lv.2	Details	To display the Slovak language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-TK		Dis of COPY appli Turkish file version
Lv.2	Details	To display the Turkish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-CA		Dis of COPY appli Catalan file version
Lv.2	Details	To display the Catalan language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-FR		Dis of SEND appli French file version
Lv.1	Details	To display the French language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-IT		Dis of SEND appli Italian file version
Lv.1	Details	To display the Italian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-DE		Dis of SEND appli German file version
Lv.1	Details	To display the German language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ES		Dis of SEND appli Spanish file version
Lv.1	Details	To display the Spanish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SEND-ZH		Dis SEND appli Chinese file ver: smpl
Lv.2	Details	To display the simplified Chinese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-TW		Dis of SEND appli Chinese file ver:trad
Lv.2	Details	To display the traditional Chinese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-KO		Dis of SEND appli Korean file version
Lv.2	Details	To display the Korean language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-CS		Dis of SEND appli Czech file version
Lv.2	Details	To display the Czech language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-DA		Dis of SEND appli Danish file version
Lv.2	Details	To display the Danish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-EL		Dis of SEND appli Greek file version
Lv.2	Details	To display the Greek language file version of the SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ET		Dis of SEND appli Estonian file version
Lv.2	Details	To display the Estonian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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SEND-FI		Dis of SEND appli Finnish file version
Lv.2	Details	To display the Finnish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-HU		Dis of SEND appli Hungarian file version
Lv.2	Details	To display the Hungarian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-NL		Dis of SEND appli Dutch file version
Lv.2	Details	To display the Dutch language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-NO		Dis of SEND appli Norwegian file version
Lv.2	Details	To display the Norwegian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-PL		Dis of SEND appli Polish file version
Lv.2	Details	To display the Polish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-PT		Dis of SEND appli Portuguese file ver
Lv.2	Details	To display the Portuguese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-RU		Dis of SEND appli Russian file version
Lv.2	Details	To display the Russian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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SEND-SL	Dis of SEND appli Slovenian file version	
Lv.2	Details	To display the Slovenian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-SV	Dis of SEND appli Swedish file version	
Lv.2	Details	To display the Swedish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ID	Dis of SEND appli Indonesian file ver	
Lv.2	Details	To display the Indonesian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-BU	Dis of SEND appli Bulgarian file version	
Lv.2	Details	To display the Bulgarian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-CR	Dis of SEND appli Croatian file version	
Lv.2	Details	To display the Croatian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-RM	Dis of SEND appli Romanian file version	
Lv.2	Details	To display the Romanian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-SK	Dis of SEND appli Slovak file version	
Lv.2	Details	To display the Slovak language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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SEND-TK	Dis of SEND appli Turkish file version	
Lv.2	Details	To display the Turkish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-CA	Dis of SEND appli Catalan file version	
Lv.2	Details	To display the Catalan language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-FR	Dis of useful func intro French file ver	
Lv.1	Details	To display the version of French language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-IT	Dis useful func intro Italian file ver	
Lv.1	Details	To display the version of Italian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-DE	Dis of useful func intro German file ver	
Lv.1	Details	To display the version of German language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ES	Dis useful func intro Spanish file ver	
Lv.1	Details	To display the version of Spanish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ZH	Useful func intro Chinese file ver: smpl	
Lv.2	Details	To display the version of simplified Chinese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-TW		Useful func intro Chinese file ver: trad
Lv.2	Details	To display the version of traditional Chinese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-KO		Dis of useful func intro Korean file ver
Lv.2	Details	To display the version of Korean language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-CS		Dis of useful func intro Czech file ver
Lv.2	Details	To display the version of Czech language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-DA		Dis of useful func intro Danish file ver
Lv.2	Details	To display the version of Danish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-EL		Dis of useful func intro Greek file ver
Lv.2	Details	To display the version of Greek language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ET		Dis useful func intro Estonian file ver
Lv.2	Details	To display the version of Estonian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-FI		Dis useful func intro Finnish file ver
Lv.2	Details	To display the version of Finnish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-HU		Dis useful func intro Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-NL		Dis of useful func intro Dutch file ver
Lv.2	Details	To display the version of Dutch language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-NO		Dis useful func intro Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-PL		Dis of useful func intro Polish file ver
Lv.2	Details	To display the version of Polish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-PT		Dis useful func intro Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-RU		Dis useful func intro Russian file ver
Lv.2	Details	To display the version of Russian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-SL		Dis useful func intro Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-SV		Dis useful func intro Swedish file ver
Lv.2	Details	To display the version of Swedish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ID		Dis of useful func intro Indon file ver
Lv.2	Details	To display the version of Indonesian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-BU		Dis useful func intro Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-CR		Dis useful func intro Croatian file ver
Lv.2	Details	To display the version of Croatian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-RM		Dis useful func intro Romanian file ver
Lv.2	Details	To display the version of Romanian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-SK		Dis of useful func intro Slovak file ver
Lv.2	Details	To display the version of Slovak language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-TK		Dis useful func intro Turkish file ver
Lv.2	Details	To display the version of Turkish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-CA		Dis useful func intro Catalan file ver
Lv.2	Details	To display the version of Catalan language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-FR		Dis of custom menu French file version
Lv.1	Details	To display the version of French language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-IT		Dis of custom menu Italian file version
Lv.1	Details	To display the version of Italian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-DE		Dis of custom menu German file version
Lv.1	Details	To display the version of German language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ES		Dis of custom menu Spanish file version
Lv.1	Details	To display the version of Spanish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ZH		Dis custom menu Chinese file ver: smpl
Lv.2	Details	To display the version of simplified Chinese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-TW		Dis of custom menu Chinese file ver: trad
Lv.2	Details	To display the version of traditional Chinese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99



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CSTMN-KO		Dis of custom menu Korean file version
Lv.2	Details	To display the version of Korean language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-CS		Dis of custom menu Czech file version
Lv.2	Details	To display the version of Czech language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-DA		Dis of custom menu Danish file version
Lv.2	Details	To display the version of Danish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-EL		Dis of custom menu Greek file version
Lv.2	Details	To display the version of Greek language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ET		Dis of custom menu Estonian file version
Lv.2	Details	To display the version of Estonian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-FI		Dis of custom menu Finnish file version
Lv.2	Details	To display the version of Finnish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-HU		Dis of custom menu Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-NL		Dis of custom menu Dutch file version
Lv.2	Details	To display the version of Dutch language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-NO		Dis of custom menu Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-PL		Dis of custom menu Polish file version
Lv.2	Details	To display the version of Polish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-PT		Dis of custom menu Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-RU		Dis of custom menu Russian file version
Lv.2	Details	To display the version of Russian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-SL		Dis of custom menu Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-SV		Dis of custom menu Swedish file version
Lv.2	Details	To display the version of Swedish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-ID		Dis of custom menu Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-BU		Dis of custom menu Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-CR		Dis of custom menu Croatian file version
Lv.2	Details	To display the version of Croatian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-RM		Dis of custom menu Romanian file version
Lv.2	Details	To display the version of Romanian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-SK		Dis of custom menu Slovak file version
Lv.2	Details	To display the version of Slovak language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-TK		Dis of custom menu Turkish file version
Lv.2	Details	To display the version of Turkish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-CA		Dis of custom menu Catalan file version
Lv.2	Details	To display the version of Catalan language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-FR		Dis of accessibility French file version
Lv.1	Details	To display the version of French language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-IT		Dis of accessibility Italian file ver
Lv.1	Details	To display the version of Italian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-DE		Dis of accessibility German file version
Lv.1	Details	To display the version of German language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ES		Dis of accessibility Spanish file ver
Lv.1	Details	To display the version of Spanish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ZH		Dis Accessibility Chinese file ver: smpl
Lv.2	Details	To display the version of simplified Chinese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-TW		Dis accessibility Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-KO		Dis of accessibility Korean file version
Lv.2	Details	To display the version of Korean language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-CS		Dis of accessibility Czech file version
Lv.2	Details	To display the version of Czech language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-DA		Dis of accessibility Danish file version
Lv.2	Details	To display the version of Danish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-EL		Dis of accessibility Greek file version
Lv.2	Details	To display the version of Greek language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ET		Dis of accessibility Estonian file ver
Lv.2	Details	To display the version of Estonian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-FI		Dis of accessibility Finnish file ver
Lv.2	Details	To display the version of Finnish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-HU		Dis of accessibility Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-NL		Dis of accessibility Dutch file version
Lv.2	Details	To display the version of Dutch language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-NO		Dis of accessibility Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-PL		Dis of accessibility Polish file version
Lv.2	Details	To display the version of Polish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-PT		Dis of accessibility Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-RU		Dis of accessibility Russian file ver
Lv.2	Details	To display the version of Russian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-SL		Dis of accessibility Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-SV		Dis of accessibility Swedish file ver
Lv.2	Details	To display the version of Swedish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ID		Dis of accessibility Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-BU		Dis of accessibility Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-CR		Dis of accessibility Croatian file ver
Lv.2	Details	To display the version of Croatian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-RM		Dis of accessibility Romanian file ver
Lv.2	Details	To display the version of Romanian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-SK		Dis of accessibility Slovak file version
Lv.2	Details	To display the version of Slovak language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-TK		Dis of accessibility Turkish file ver
Lv.2	Details	To display the version of Turkish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-CA		Dis of accessibility Catalan file ver
Lv.2	Details	To display the version of Catalan language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-FR		Display of ERS French file version
Lv.1	Details	To display the version of French language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ERS-IT		Display of ERS Italian file version
Lv.1	Details	To display the version of Italian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-DE		Display of ERS German file version
Lv.1	Details	To display the version of German language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-ES		Display of ERS Spanish file version
Lv.1	Details	To display the version of Spanish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-ZH		Display of ERS Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-TW		Display of ERS Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-KO		Display of ERS Korean file version
Lv.2	Details	To display the version of Korean language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-CS		Display of ERS Czech file version
Lv.2	Details	To display the version of Czech language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-DA		Display of ERS Danish file version
Lv.2	Details	To display the version of Danish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ERS-EL		Display of ERS Greek file version
Lv.2	Details	To display the version of Greek language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-ET		Display of ERS Estonian file version
Lv.2	Details	To display the version of Estonian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-FI		Display of ERS Finnish file version
Lv.2	Details	To display the version of Finnish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-HU		Display of ERS Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-NL		Display of ERS Dutch file version
Lv.2	Details	To display the version of Dutch language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-NO		Display of ERS Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-PL		Display of ERS Polish file version
Lv.2	Details	To display the version of Polish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-PT		Display of ERS Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ERS-RU		Display of ERS Russian file version
Lv.2	Details	To display the version of Russian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-SL		Display of ERS Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-SV		Display of ERS Swedish file version
Lv.2	Details	To display the version of Swedish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-ID		Display of ERS Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-BU		Display of ERS Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-CR		Display of ERS Croatian file version
Lv.2	Details	To display the version of Croatian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-RM		Display of ERS Romanian file version
Lv.2	Details	To display the version of Romanian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-SK		Display of ERS Slovak file version
Lv.2	Details	To display the version of Slovak language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ERS-TK		Display of ERS Turkish file version
Lv.2	Details	To display the version of Turkish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-CA		Display of ERS Catalan file version
Lv.2	Details	To display the version of Catalan language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-FR		Display of UAC French file version
Lv.1	Details	To display the version of French language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-IT		Display of UAC Italian file version
Lv.1	Details	To display the version of Italian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-DE		Display of UAC German file version
Lv.1	Details	To display the version of German language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-ES		Display of UAC Spanish file version
Lv.1	Details	To display the version of Spanish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-ZH		Display of UAC Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control

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NLS-TW		Display of UAC Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-KO		Display of UAC Korean file version
Lv.2	Details	To display the version of Korean language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-CS		Display of UAC Czech file version
Lv.2	Details	To display the version of Czech language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-DA		Display of UAC Danish file version
Lv.2	Details	To display the version of Danish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-EL		Display of UAC Greek file version
Lv.2	Details	To display the version of Greek language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-ET		Display of UAC Estonian file version
Lv.2	Details	To display the version of Estonian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-FI		Display of UAC Finnish file version
Lv.2	Details	To display the version of Finnish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control

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NLS-HU	Display of UAC Hungarian file version	
Lv.2	Details	To display the version of Hungarian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-NL	Display of UAC Dutch file version	
Lv.2	Details	To display the version of Dutch language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-NO	Display of UAC Norwegian file version	
Lv.2	Details	To display the version of Norwegian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-PL	Display of UAC Polish file version	
Lv.2	Details	To display the version of Polish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-PT	Display of UAC Portuguese file ver	
Lv.2	Details	To display the version of Portuguese language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-RU	Display of UAC Russian file version	
Lv.2	Details	To display the version of Russian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-SL	Display of UAC Slovenian file version	
Lv.2	Details	To display the version of Slovenian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control

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NLS-SV	Display of UAC Swedish file version	
Lv.2	Details	To display the version of Swedish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-ID	Display of UAC Indonesian file ver	
Lv.2	Details	To display the version of Indonesian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-BU	Display of UAC Bulgarian file version	
Lv.2	Details	To display the version of Bulgarian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-CR	Display of UAC Croatian file version	
Lv.2	Details	To display the version of Croatian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-RM	Display of UAC Romanian file version	
Lv.2	Details	To display the version of Romanian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-SK	Display of UAC Slovak file version	
Lv.2	Details	To display the version of Slovak language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-TK	Display of UAC Turkish file version	
Lv.2	Details	To display the version of Turkish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control

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NLS-CA		Display of UAC Catalan file version
Lv.2	Details	To display the version of Catalan language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
LS-ROM-V		Dis of Laser Scanner Unit EEPROM ver
Lv.2	Details	To display the EEPROM version of Laser Scanner Unit.
	Use case	At trouble analysis
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	001 to 999
LS-UNT-V		Dis of Laser Scanner Unit version
Lv.2	Details	To display the version of Laser Scanner Unit.
	Use case	At trouble analysis
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	001 to 999
LS-SRL		Dis of serial No. of Laser Scanner Unit
Lv.2	Details	To display the serial number of Laser Scanner Unit.
	Use case	At trouble analysis
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00000001 to 99999999
BCT		Display of self diagnosis tool version
Lv.1	Details	To display the version of self diagnosis tool.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-FR		Display of BOX appli French file version
Lv.1	Details	To display the version of French language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-IT		Dis of BOX appli Italian file version
Lv.1	Details	To display the version of Italian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-DE		Display of BOX appli German file version
Lv.1	Details	To display the version of German language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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BOX-ES		Dis of BOX appli Spanish file version
Lv.1	Details	To display the version of Spanish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ZH		Dis of BOX appli Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-TW		Dis of BOX appli Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-KO		Display of BOX appli Korean file version
Lv.2	Details	To display the version of Korean language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-CS		Display of BOX appli Czech file version
Lv.2	Details	To display the version of Czech language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-DA		Display of BOX appli Danish file version
Lv.2	Details	To display the version of Danish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-EL		Display of BOX appli Greek file version
Lv.2	Details	To display the version of Greek language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99



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BOX-ET		Dis of BOX appli Estonian file version
Lv.2	Details	To display the version of Estonian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-FI		Dis of BOX appli Finnish file version
Lv.2	Details	To display the version of Finnish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-HU		Dis of BOX appli Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-NL		Display of BOX appli Dutch file version
Lv.2	Details	To display the version of Dutch language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-NO		Dis of BOX appli Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-PL		Display of BOX appli Polish file version
Lv.2	Details	To display the version of Polish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-PT		Display of BOX appli Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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BOX-RU		Dis of BOX appli Russian file version
Lv.2	Details	To display the version of Russian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-SL		Dis of BOX appli Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-SV		Dis of BOX appli Swedish file version
Lv.2	Details	To display the version of Swedish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ID		Display of BOX appli Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-BU		Dis of BOX appli Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-CR		Dis of BOX appli Croatian file version
Lv.2	Details	To display the version of Croatian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-RM		Dis of BOX appli Romanian file version
Lv.2	Details	To display the version of Romanian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
BOX-SK		Display of BOX appli Slovak file version
Lv.2	Details	To display the version of Slovak language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-TK		Dis of BOX appli Turkish file version
Lv.2	Details	To display the version of Turkish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-CA		Dis of BOX appli Catalan file version
Lv.2	Details	To display the version of Catalan language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
HOLD-AP		Display of job hold application version
Lv.1	Details	To display the version of the job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-FR		Dis of job hold French file version
Lv.1	Details	To display the French language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-IT		Dis of job hold Italian file version
Lv.1	Details	To display the Italian language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-DE		Dis of job hold German file version
Lv.1	Details	To display the German language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-ES		Dis of job hold Spanish file version
Lv.1	Details	To display the Spanish language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
HOLD-ZH		Job hold Chinese file version: simpl
Lv.2	Details	To display the simplified Chinese language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-TW		Job hold Chinese file version: trad
Lv.2	Details	To display the traditional Chinese language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-KO		Dis of job hold Korean file version
Lv.2	Details	To display the Korean language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-CS		Dis of job hold Czech file version
Lv.2	Details	To display the Czech language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-DA		Dis of job hold Danish file version
Lv.2	Details	To display the Danish language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-EL		Dis of job hold Greek file version
Lv.2	Details	To display the Greek language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-ET		Dis of job hold Estonian file version
Lv.2	Details	To display the Estonian language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-FI		Dis of job hold Finnish file version
Lv.2	Details	To display the Finnish language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-HU		Dis of job hold Hungarian file version
Lv.2	Details	To display the Hungarian language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
HOLD-NL		Dis of job hold Dutch file version
Lv.2	Details	To display the Dutch language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-NO		Dis of job hold Norwegian file version
Lv.2	Details	To display the Norwegian language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-PL		Dis of job hold Polish file version
Lv.2	Details	To display the Polish language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-PT		Dis of job hold Portuguese file version
Lv.2	Details	To display the Portuguese language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-RU		Dis of job hold Russian file version
Lv.2	Details	To display the Russian language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-SL		Dis of job hold Slovenian file version
Lv.2	Details	To display the Slovenian language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-SV		Dis of job hold Swedish file version
Lv.2	Details	To display the Swedish language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-ID		Dis of job hold Indonesian file version
Lv.2	Details	To display the Indonesian language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-BU		Dis of job hold Bulgarian file version
Lv.2	Details	To display the Bulgarian language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
HOLD-CR		Dis of job hold Croatian file version
Lv.2	Details	To display the Croatian language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-RM		Dis of job hold Romanian file version
Lv.2	Details	To display the Romanian language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-SK		Dis of job hold Slovak file version
Lv.2	Details	To display the Slovak language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-TK		Dis of job hold Turkish file version
Lv.2	Details	To display the Turkish language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
HOLD-CA		Dis of job hold Catalan file version
Lv.2	Details	To display the Catalan language file version of job hold application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

T-8-2

## ■ USER

COPIER > DISPLAY > USER	
SPDTYPE	Dis of Ctrllr Board engine speed type
Lv.1	Details
	To display the engine speed type (ppm) of Controller Board.
	Use case
	When checking the engine speed type of Controller Board
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	85 to 105
BRWS-ST5	Display of service browser ON/OFF
Lv.1	Details
	To display whether the service browser can be used. If the value is 1, [Service Browser] button is displayed on the service mode initial screen. The value of BRWS-ST5 switches whenever COPIER> FUNCTION> INSTALL> BRWS-ACT is executed, but ON/OFF of service browser is enabled after reboot. If the service browser does not start even though the value of BRWS-ST5 is 1, turn OFF/ON the main power switch.
	Use case
	When checking the operation mode of the service browser
	Caution
	The value of BRWS-ST5 is linked with COPIER> FUNCTION> INSTALL> BRWS-ACT, but the service browser cannot start even though 1 is displayed unless the main power switch is turned OFF/ ON.
	Display/adj/set range
	1 to 2 1: ON (Available), 2: OFF (Not available)
	Related service mode
	COPIER> FUNCTION> INSTALL> BRWS-ACT

T-8-3

## ■ ACC-ST5

COPIER > DISPLAY > ACC-ST5	
FEEDER	Display of DADF connection state
Lv.1	Details
	To display the connecting state of DADF.
	Use case
	When checking the connection between the machine and DADF
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 1 0: Not connected, 1: Connected
SORTER	Connect state of Finisher-related option
Lv.1	Details
	To display the connecting state of Finisher-related options.
	Use case
	When checking the connection of Finisher-related options
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	Left column (connecting state of Finisher-related options): 1 to 5 1: Without Saddle 2: With Saddle, without Folding Unit 3: With Saddle and Inserter, without Folding Unit 4: With Saddle and Folding Unit, without Inserter 5: With Saddle, Inserter and Folding Unit Right column (connecting state of Finisher-belonged Inserter): 0 to 4 0: no hole, 1: 2-hole, 2: 2/3-hole, 3: 4-hole, 4: 4-hole (SW)
DECK	Dis of Paper Deck connection state
Lv.1	Details
	To display the connecting state of the Paper Deck.
	Use case
	When checking the connection between the machine and the Paper Decks
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 8 0: Not connected 1: Connected (small) (Display is hidden on this machine.) 2: Connected (large) 3: POD Deck Lite (with Multi-purpose Tray) 4: POD Deck Lite (without Multi-purpose Tray ) 5: Multi-purpose Tray only 6: POD deck 7: 2-POD deck connected 8: 3-POD deck connected (Display is hidden on this machine.)
CARD	Dis of connection state of Card Reader
Lv.1	Details
	To display the connecting state of Card Reader.
	Use case
	When checking the connection between the machine and the Card Reader
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 1 0: No card is inserted while the Card Reader is connected. (Copy is not available.) 1: Card Reader is not connected, or card is inserted while the Card Reader is connected. (Copy is available.)

COPIER > DISPLAY > ACC-STS		
DATA-CON	Dis of NE Controller connection state	
Lv.1	Details	To display the connecting state of NE Controller.
	Use case	When checking the connection between the machine and the NE Controller
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
RAM	Display of MNCON PCB memory capacity	
Lv.1	Details	To display the memory capacity of the Main Controller PCB.
	Use case	When checking the memory capacity of the machine
	Adj/set/operate method	N/A (Display only)
	Unit	MB
	Default value	512
COINROBO	Dis of Coin Manager connection state	
Lv.1	Details	To display the connecting state of the Coin Manager.
	Use case	When checking the connection between the machine and the Coin Manager
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
NIB	Display of Network PCB connection state	
Lv.1	Details	To display the connecting state of the Network PCB.
	Use case	When checking the connection between the machine and the Network PCB
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 3 0: Not connected, 1: Ethernet PCB connected, 2: Token Ring PCB connected, 3: Ethernet PCB + Token Ring PCB connected
PS/PCL	Install state dis of PS/PCL firmware	
Lv.1	Details	To display the installation state of PS/PCL firmware.
	Use case	When checking whether NetWare firmware is installed to the machine
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 2 0: Not installed, 1: PS/PCL, 2: PS Kanji
NETWARE	Dis of NetWare firmware install state	
Lv.1	Details	To display the installation state of the NetWare firmware.
	Use case	When checking whether NetWare firmware is installed to the machine
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not installed, 1: Installed

COPIER > DISPLAY > ACC-STS		
SEND	Display of SEND support PCB existence	
Lv.1	Details	To display whether there is PCB to support SEND function. SEND function can be used only when the PCB is mounted.
	Use case	When checking the connection between the machine and the PCB that supports SEND function
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not mounted, 1: Mounted
TRIM-CN	Display of Trimmer connection state	
Lv.1	Details	To display the connecting state of Trimmer.
	Use case	When checking the connection between the machine and Trimmer
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
HDD	Display of HDD model name	
Lv.1	Details	To display the model name of HDD.
	Use case	When checking the model name of HDD used on the machine
	Adj/set/operate method	N/A (Display only)
PCI1	Display of PCI1-connected PCB name	
Lv.1	Details	To display the name of the PCB that is connected to PCI1.
	Use case	When checking the name of the PCB that is connected to PCI1
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-: No PCB connected Voice Board: Voice PCB 3DES Board: Encryption PCB 1Gbit-Board: Giga Ethernet PCB
PCI2	Display of PCI2-connected PCB name	
Lv.1	Details	To display the name of the PCB that is connected to PCI2.
	Use case	When checking name of the PCB that is connected to PCI2
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-: No PCB connected i SLOT: i SLOT Wireless LAN PCB Voice Board: Voice PCB Voice Board R: Voice Recognition PCB (Display is hidden on this machine.) 3DES Board: Encryption PCB 1Gbit-Board: Giga Ethernet PCB
IA-RAM	Display of MNCON PCB memory(IA) capacity	
Lv.1	Details	To display the memory (IA) capacity of the Main Controller PCB.
	Use case	When checking the memory capacity of the Main Controller PCB
	Adj/set/operate method	N/A (Display only)
	Unit	MB
	Default value	512

T-8-4

## ANALOG

COPIER > DISPLAY > ANALOG	
TEMP	Display of inside temperature
Lv.1	Details
	To display the temperature inside the machine detected by Environment Sensor.
	Use case
	When checking the temperature inside the machine
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 60
	Unit
	Deg C
	Appropriate target value
	20 to 27
	Related service mode
	COPIER> DISPLAY> ANALOG> HUM, ABS-HUM, PDK-TEMP
HUM	Display of inside humidity
Lv.1	Details
	To display the humidity inside the machine detected by Environment Sensor.
	Use case
	When checking the humidity inside the machine
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 100
	Unit
	%
	Appropriate target value
	30 to 70
	Related service mode
	COPIER> DISPLAY> ANALOG> TEMP, ABS-HUM, PDK-HUM
ABS-HUM	Display of inside moisture content
Lv.1	Details
	To display the absolute moisture content inside the machine detected by Environment Sensor.
	Use case
	When checking the moisture content inside the machine
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 100
	Unit
	g (g/m3)
	Appropriate target value
	0 to 22
	Related service mode
	COPIER> DISPLAY> ANALOG> TEMP, HUM
FIX-U	Dis of Fixing Roller center temperature
Lv.1	Details
	To display the center temperature of the Fixing Roller detected by the Fixing Main Thermistor.
	Use case
	When checking the temperature at the center of Fixing Roller
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 999
	Unit
	Deg C
FIX-UE	Dis of Fixing Roller edge temperature
Lv.1	Details
	To display the edge temperature of the Fixing Roller detected by the Fixing Sub Thermistor 1. Fixing Sub Thermistor 1 is located in the rear nip inlet side of Fixing Roller.
	Use case
	When checking the edge temperature of the Fixing Roller
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 999
	Unit
	Deg C

COPIER > DISPLAY > ANALOG	
FIX-UE2	Dis of Fixing Roller edge temperature 2
Lv.1	Details
	To display the edge temperature of the Fixing Roller detected by the Fixing Sub Thermistor 2. Fixing Sub Thermistor 2 is located in the rear nip outlet side of Fixing Roller.
	Use case
	When checking the edge temperature of the Fixing Roller
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 999
	Unit
	Deg C
PDK-TEMP	Dis of POD Deck compartment temp
Lv.1	Details
	To display the compartment temperature of POD Deck Lite. It may be out of order if the indicated temperature is greatly different from the machine right after power-on.
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 60
	Unit
	Deg C
	Related service mode
	COPIER> DISPLAY> ANALOG> TEMP, PDK-HUM
PDK-HUM	Dis of POD Deck compartment humidity
Lv.1	Details
	To display the compartment humidity of POD Deck Lite. It may be out of order if the indicated temperature is greatly different from the machine right after power-on.
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 100
	Unit
	%
	Related service mode
	COPIER> DISPLAY> ANALOG> HUM, PDK-TEMP

T-8-5

## ■ CST-STS

COPIER > DISPLAY > CST-STS		
WIDTH-C3	Display of Cassette 3 paper size	
Lv.2	Details	To display the paper size of Cassette 3.
	Use case	When checking the paper size of Cassette 3
	Adj/set/operate method	N/A (Display only)
WIDTH-C4	Display of Cassette 4 paper size	
Lv.2	Details	To display the paper size of Cassette 4.
	Use case	When checking the paper size of Cassette 4
	Adj/set/operate method	N/A (Display only)
WIDTH-MF	Dis of Multi-purpose Tray ppr width size	
Lv.2	Details	To display the paper width size set on the Multi-purpose Tray.
	Use case	When checking the paper width side set on the Multi-purpose Tray
	Adj/set/operate method	N/A (Display only)
	Unit	mm

T-8-6

## ■ HV-STS

COPIER > DISPLAY > HV-STS		
PRIMARY		Display of primary charging current
Lv.1	Details	To display the current that is applied to the Primacy Charging Assembly at the latest. The result set in COPIER> ADJUST> HV-PRI> PRIMARY is reflected.
	Use case	When checking ON/OFF of potential control
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1600
	Unit	micro A
	Related service mode	COPIER> ADJUST> HV-PRI> PRIMARY
PRI-GRID		Dis of Primary Charging Ass'y grid bias
Lv.1	Details	To display the grid bias voltage that is applied to the Primacy Charging Assembly at the latest. The result set in COPIER> ADJUST> HV-PRI> PRI-GRID is reflected.
	Use case	When checking ON/OFF of potential control
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	500 to 900
	Unit	1 V
	Related service mode	COPIER> ADJUST> HV-PRI> PRI-GRID
PRE-TR		Dis of pre-transfer charge DC current
Lv.1	Details	To display the DC component of current that is applied to the Pre-transfer Charging Assembly at the latest.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-650 to 0
	Unit	micro A
TR		Dis of transfer current: Plain, 1st side
Lv.1	Details	To display the current that is applied to plain paper (1st side) in the Pre-transfer Charging Assembly at the latest.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
	Unit	micro A
BIAS		Dis of developing DC bias setting VL
Lv.1	Details	To display the setting value of developing DC bias.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
	Unit	V
TR-V		Dis of ATVC detection voltage value
Lv.1	Details	To display the ATVC detection voltage value.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
	Unit	V

COPIER > DISPLAY > HV-STS		
TR-LV-I		Dis ppr lead edge trns bias output crnt
Lv.1	Details	To display the current value in the paper leading edge position at transfer bias output.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 100
	Unit	micro A
TR-LV-T		Dis ppr lead edge trns bias output tmng
Lv.1	Details	To display the transfer bias output timing in the paper leading edge position.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-50 to 50
	Unit	0.1 mm

T-8-7

## ■ CCD

COPIER > DISPLAY > CCD		
TARGET-B		Shading target value (B)
Lv.2	Details	To display the shading target value of Blue. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 to 2047
TARGET-G		Shading target value (G)
Lv.2	Details	To display the target value of Green. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 to 2047
TARGET-R		Shading target value (R)
Lv.2	Details	To display the shading target value of Red. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 to 2047
GAIN-OB		Gain level of Img Sensor odd bit(B): frt
Lv.2	Details	To display the Blue gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
GAIN-OG		Gain level of Img Sensor odd bit(G): frt
Lv.2	Details	To display the Green gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48



COPIER > DISPLAY > CCD		
GAIN-OR		Gain level of Img Sensor odd bit(R): frt
Lv.2	Details	To display the Red gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	GAIN-EB	
Lv.2	Details	To display the Blue gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	GAIN-EG	
Lv.2	Details	To display the Green gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	GAIN-ER	
Lv.2	Details	To display the Red gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	LAMP-BW	
Lv.2	Details	To display the LED light intensity adjustment value of Scanner Unit (paper front) in B&W scanning mode.
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 164
	Appropriate target value	20 to 163
	Supplement/memo	LED cannot be replaced individually. Replace the Scanner Unit.

COPIER > DISPLAY > CCD		
LAMP-CL		Scan Lamp intensity adj VL(color): frt
Lv.2	Details	To display the LED light intensity adjustment value of Scanner Unit (paper front) in color scanning mode.
	Use case	When image failure occurs at front side scanning in color mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 164
	Appropriate target value	33 to 163
	Supplement/memo	LED cannot be replaced individually. Replace the Scanner Unit.
LAMP2-BW		Scan Lamp intensity adj VL(B&W): back
Lv.2	Details	To display the LED light intensity adjustment value of Scanner Unit (paper back) in B&W scanning mode.
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 164
	Appropriate target value	33 to 163
	Supplement/memo	LED cannot be replaced individually. Replace the Scanner Unit.
LAMP2-CL		Scan Lamp intensity adj VL(color): back
Lv.2	Details	To display the LED light intensity adjustment value of Scanner Unit (paper back) in color scanning mode.
	Use case	When image failure occurs at back side scanning in color mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 164
	Appropriate target value	33 to 163
	Supplement/memo	LED cannot be replaced individually. Replace the Scanner Unit.
OFST-BW		Img Sensor offset value (B&W) [Front]
Lv.2	Details	To display the CMOS Sensor offset value at B&W scanning.
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 96
	Appropriate target value	1 to 95
OFST-CL		Img Sensor offset value (color) [Front]
Lv.2	Details	To display the CMOS Sensor offset value at color scanning.
	Use case	When image failure occurs at front side scanning in color mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 96
	Appropriate target value	1 to 95
	OFST2-BW	
Lv.2	Details	To display the CMOS Sensor offset value at B&W scanning.
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 96
	Appropriate target value	1 to 95

COPIER > DISPLAY > CCD		
GAIN-BW1		Img Sensor gain level adj VL1(B&W): frt
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 1 of Scanner Unit (paper front).
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
GAIN-BW2		Img Sensor gain level adj VL2(B&W): frt
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 2 of Scanner Unit (paper front).
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
GAIN-BW3		Img Sensor gain level adj VL3(B&W): frt
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 3 of Scanner Unit (paper front).
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
GAIN-BW4		Img Sensor gain level adj VL4(B&W): frt
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 4 of Scanner Unit (paper front).
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
GAIN2BW1		Img Sensor gain level adj VL1(B&W): Back
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 1 of Scanner Unit (paper back).
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
GAIN2BW2		Img Sensor gain level adj VL2(B&W): Back
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 2 of Scanner Unit (paper back).
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47

COPIER > DISPLAY > CCD		
GAIN2BW3		Img Sensor gain level adj VL3(B&W): Back
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 3 of Scanner Unit (paper back).
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
GAIN2BW4		Img Sensor gain level adj VL4(B&W): Back
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 4 of Scanner Unit (paper back).
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
GAIN2-OR		Gain level of Img Sensor odd bit(R): bck
Lv.2	Details	To display the Red gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
GAIN2-OG		Gain level of Img Sensor odd bit(G): bck
Lv.2	Details	To display the Green gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
GAIN2-OB		Gain level of Img Sensor odd bit(B): bck
Lv.2	Details	To display the Blue gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47

COPIER > DISPLAY > CCD		
GAIN2-ER		Gain level of Img Sensor even bit(R):bck
Lv.2	Details	To display the Red gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
GAIN2-EG		Gain level of Img Sensor even bit(G):bck
Lv.2	Details	To display the Green gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
GAIN2-EB		Gain level of Img Sensor even bit(B):bck
Lv.2	Details	To display the Blue gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 to 47
OFST2-CL		Img Sensor offset value (color) [Back]
Lv.2	Details	To display the CMOS Sensor offset value at color scanning.
	Use case	When image failure occurs at back side scanning in color mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 96
	Appropriate target value	1 to 95

T-8-8

## DPOT

COPIER > DISPLAY > DPOT		
DPOT-K		Display of Bk Drum surface potential
Lv.1	Details	To display the current surface potential Vd on the Bk Photosensitive Drum that is specified as a result of the potential control. The value after the calculation of potential offset is displayed. If the offset value is not adjusted, negative value may be detected during printing.
	Use case	When the density failure or foggy image occurs, check whether the surface potential of the Drum is the factor.
	Adj/set/operate method	N/A (Display only)
	Caution	- To update the display, be sure to move to a different screen, and then move back to display it again. (The potential at the moment of showing this screen is displayed.) - If the value is out of range (-30 to 30), there is a possibility of Potential Sensor disconnection.
	Display/adj/set range	-30 to 600
Unit		V
VL1T		Dis of bright area target potential VL
Lv.1	Details	To display the bright area target potential value.
	Adj/set/operate method	N/A (Display only)
	Unit	V
VL1M		Dis of bright area measured potential VL
Lv.1	Details	To display the bright area measured potential value.
	Adj/set/operate method	N/A (Display only)
	Unit	V
VDT		Dis of dark area target potential VL
Lv.1	Details	To display the dark area target potential value.
	Adj/set/operate method	N/A (Display only)
	Unit	V
VDM		Dis of dark area measured potential VL
Lv.1	Details	To display the dark area measured potential value.
	Adj/set/operate method	N/A (Display only)
	Unit	V
BIAS-C		Dis of dev bias potential control result
Lv.2	Details	To display the developing bias potential control result.
	Adj/set/operate method	N/A (Display only)
	Unit	V
LPOWER-C		Output laser intnsty potntl ctrl result
Lv.2	Details	To display the output laser intensity potential control result.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255

COPIER > DISPLAY > DPOT	
PRIM-C	Dis pry chg current potntl ctrl result
Lv.2	Details
	To display the potential control result of primary charging current.
	Adj/set/operate method
	N/A (Display only)
	Unit
	micro A
	Related service mode
	COPIER > ADJUST > HV-PRI > PRI-GRID
VLT-L	Bright area target potential VL: thin
Lv.1	Details
	To display the bright area target potential VL with thin paper.
	Use case
	At occurrence of an image density failure
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	50 to 500
	Unit
	1 V
VLT-H1	Bright area target potential VL: heavy 1
Lv.1	Details
	To display the bright area target potential VL with heavy paper 1.
	Use case
	At occurrence of an image density failure
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	50 to 500
	Unit
	1 V
VLT-H2	Bright area target potential VL: heavy 2
Lv.1	Details
	To display the bright area target potential VL with heavy paper 2.
	Use case
	At occurrence of an image density failure
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	50 to 500
	Unit
	1 V

T-8-9

## ■ DENS

COPIER > DISPLAY > DENS	
DMAX-STS	Display of D-max control execution state
Lv.1	Details
	To display the D-max control execution state.
	Use case
	- At periodical maintenance - When a density failure occurs - When an alarm or error occurs
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 2 0: During execution 1: D-max control is not reflected due to failure in Patch Sensor output value. (Only potential control is executed.) 2: Not executed (D-max control is OFF with DMAX-SW, DMAXS-SW).
	Appropriate target value
	0
	Default value
	0
	Related service mode
	COPIER> OPTION> IMG-MCON> DMAX-SW COPIER> OPTION> IMG-DEV> DMAXS-SW
DMAX-N	Dis of uncoated paper group dev contrast
Lv.1	Details
	To display the developing contrast Vcont determined by D-max control for uncoated paper group. This value is reflected to VCONT-N, but when the offset adjustment is performed with DUPDWN-N, this value becomes different.
	Use case
	When any error occurs on the maximum density or gradation, identify the cause with this mode.
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	50 to 300
	Unit
	V
	Appropriate target value
	90 to 248
	Related service mode
	COPIER> OPTION> IMG-DEV> DUPDWN-N COPIER> DISPLAY> DPOT> VCONT-N
	Supplement/memo
	Uncoated paper group: uncoated paper/recycled paper/textured paper/label/postcard/cotton

COPIER > DISPLAY > DENS	
DMAX-N-L	Uncoat ppr D-max ctrl Vcont, dens/tgt VL
Lv.2	Details
	To display the list of uncoated paper group's D-max control Vcont, patch detection density and target density value at the latest. This list consists of maximum Vcont during D-max control and patch detection density (DENS) 1 to 5.
	Use case
	When any error occurs on the maximum density or gradation, identify the cause with this mode. Characteristics of V-D (Vcont and density) can be grasped, and it is easily identified as high voltage error, laser error, etc.
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	Vcont: 50 to 300 Patch detection density: 0 to 1023
	Unit
	Vcont: V Patch detection density: None
	Appropriate target value
	Vcont: 150 to 250 Patch detection density: 500 to 1023
	Related service mode
	COPIER> DISPLAY> DENS> DMAX-N
	Supplement/memo
	Uncoated paper group: uncoated paper/recycled paper/textured paper/label/postcard/cotton
P-LED	Patch sensor LED light correction result
Lv.2	Details
	Displaying the LED light intensity correction result (DA value) of the patch sensor The correction result is used for D-max control or D-half control.
	Use case
	To separate the cause in the case of failure in maximum density or gradation.
	Adj/set/operate method
	N/A (display only)
	Display/adjust/set range
	0 to 255
	Appropriate target value
	35 to 96
	Related service mode
	COPIER> FUNCTION> MISC-P> P-LED
P-B-AVE	ETB background dtct result average VL
Lv.2	Details
	To display the average value of ETB background detection result by Patch Sensor. Detection result is used for D-max control and D-half control.
	Use case
	When any error occurs on the maximum density or gradation, identify the cause with this mode.
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 1023
	Appropriate target value
	650 to 850
	Related service mode
	COPIER> DISPLAY> DENS> P-B-MAX, P-B-MIN

COPIER > DISPLAY > DENS	
P-B-MAX	ETB background dtct result maximum VL
Lv.2	Details
	To display the maximum value of ETB background detection result by Patch Sensor. Detection result is used for D-max control and D-half control.
	Use case
	When any error occurs on the maximum density or gradation, identify the cause with this mode.
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 1023
	Appropriate target value
	650 to 900
	Related service mode
	COPIER> DISPLAY> DENS> P-B-AVE, P-B-MIN
P-B-MIN	ETB background dtct result minimum VL
Lv.2	Details
	To display the minimum value of ETB background detection result by Patch Sensor. Detection result is used for D-max control and D-half control.
	Use case
	When any error occurs on the maximum density or gradation, identify the cause with this mode.
	Adj/set/operate method
	N/A (Display only)
	Display/adj/set range
	0 to 1023
	Appropriate target value
	600 to 850
	Related service mode
	COPIER> DISPLAY> DENS> P-B-AVE, P-B-MAX

T-8-10

## ■ SENSOR

COPIER > DISPLAY > SENSOR		
DOC-SZ	Dis size detected by Original Size Sensr	
Lv.2	Details	To display the original size detected by Original Size Sensor.
	Use case	When checking whether the machine detects the paper on Copyboard Glass correctly
	Adj/set/operate method	1) Place the original on Copyboard Glass. 2) Close the Copyboard Cover/DADF. 3) Select the item.
	Caution	Unless the Copyboard Cover/DADF is closed, this is not displayed correctly.
	Display/adj/set range	A, B, L configuration size

T-8-11

## ■ MISC

COPIER > DISPLAY > MISC		
LPOWER	Display of laser light intensity	
Lv.2	Details	To display the laser power setting value during image formation in real time. Check that laser power is different between coated paper and plain paper.
	Use case	At occurrence of an image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255

T-8-12

## ENVRNT

### Environment Indication

The readings of the environment sensor and the fixing thermistor (main) are indicated as a history of changes in the following: machine inside temperature (deg C), humidity (%), fixing roller surface (middle; deg C).

Display	I/O	Adjust	Function	Option	Test	Counter
< ENVRNT > < 1/13 > < READY > < LEVEL 1 >						
No.	DATE	TIME	D+°C	E+%	F+°C	F2+°C
001	0101	0000	000	000	000	----
002	0201	0000	000	000	000	----
003	0301	0000	000	000	000	----
004	0401	0000	000	000	000	----
005	0501	0000	000	000	000	----
006	0601	0000	000	000	000	----
007	0701	0000	000	000	000	----
008	0801	0000	000	000	000	----

F-8-11

Item	Description
No.	order of data acquisition (the higher the number, the order the data)
DATE	date of data acquisition
TIME	time of data acquisition
D+deg C	machine inside temperature
E+%	machine inside humidity
F+deg C	fixing roller surface (middle) temperature

T-8-13

#### NOTE:

The interval at which data is acquired may be changed using the following service mode item: COPIER > OPTION > BODY > ENVV-IN.

## 2D-SHADE

		COPIER > DISPLAY > 2D-SHADE
2D-ST5		Display of 2D shading ON/OFF
Lv.1	Details	To display ON/OFF of 2D shading. When 0 is displayed although 1 is set with COPIER > OPTION > IMG-LSR > 2D-SHADE, check the Drum Lot number with DRM-LOT. If no number has been registered, execute COPIER > FUNCTION > 2D-SHADE > 2D-READ.
	Use case	When uneven image occurs
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
Related service mode		COPIER > DISPLAY > 2D-SHADE > DRM-LOT COPIER > FUNCTION > 2D-SHADE > 2D-READ COPIER > OPTION > IMG-LSR > 2D-SHADE
DRM-LOT		Display of Drum Lot number
Lv.2	Details	To display the Photosensitive Drum Lot number (10 digits) read at power-on. Lot number is stored in ROM for 2D shading. Check that the displayed value is matched with the Lot number in the seal affixed on the Photosensitive Drum.
	Use case	When uneven image occurs
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	10-digit alphanumerics
	Related service mode	COPIER > DISPLAY > 2D-SHADE > 2D-ST5
CHK-SUM		Display of checksum calculation result
Lv.1	Details	To display the checksum calculation result at power-on. Calculation result is stored in ROM for 2D shading. When the calculation result is NG, ROM for 2D shading has a failure, so replace this ROM.
	Use case	When uneven image occurs
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: at normal state, 1: at failure occurrence

T-8-14

## I/O (I/O display mode)

### Host Machine\_DC Controller (DC-CON>P001 to P030)

Address	bit	Name	Symbol	Remarks
P001	15	Not used	-	
	14	Not used	-	
	13	DC Power Supply PCB (24V) (Fixing/Feed) Remote Signal	-	0: ON
	12	DC Power Supply PCB (24V) Remote Signal	-	0: ON
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Fixing Feed Drawer Connector Connection Signal	-	0: Connect
	7	Main Driver PCB Connector Connection Signal	PCB2	0: Connect
	6	Relay PCB Connection Signal	PCB5	0: Connect
	5	Not used	-	
	4	DC Power Supply PCB (12V) Laser Output Signal	PCB29	0: Normal
	3	DC Power Supply PCB (24V) B Interlock System Output Signal	PCB31	0: Normal
	2	DC Power Supply PCB (24V) B Output Signal	PCB31	0: Normal
1	DC Power Supply PCB (24V) A Interlock System Output Signal	PCB30	0: Normal	
0	DC Power Supply PCB (24V) A Output Signal	PCB30	0: Normal	
P002	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Power Supply Cooling Fan 1/2 Error	FM14/FM15	1: Error
	7	For R&D use	-	
	6	For R&D use	-	
	5	For R&D use	-	
	4	For R&D use	-	
	3	For R&D use	-	
	2	For R&D use	-	
1	For R&D use	-		
0	For R&D use	-		

Address	bit	Name	Symbol	Remarks
P003	15	Primary Charging Shutter Sensor	PS94	1: HP front
	14	Not used	-	
	13	For R&D use	-	
	12	For R&D use	-	
	11	For R&D use	-	
	10	For R&D use	-	
	9	For R&D use	-	
	8	For R&D use	-	
	7	For R&D use	-	
	6	For R&D use	-	
	5	For R&D use	-	
	4	For R&D use	-	
	3	Fixing Sub Thermistor 2 Excessive Temperature Rise Detection	THM4	1: Excessive temperature rise * The value returns to 0 when temperature of the Fixing Assembly decreases.
	2	Not used	-	
1	Fixing Sub Thermistor 1 Excessive Temperature Rise Detection	THM2	1: Excessive temperature rise * The value returns to 0 when temperature of the Fixing Assembly decreases.	
0	Fixing Main Thermistor Excessive Temperature Rise Detection	THM1	1: Excessive temperature rise * The value returns to 0 when temperature of the Fixing Assembly decreases.	



Address	bit	Name	Symbol	Remarks
P004	15	Not used	-	
	14	Thermistor temperature difference error detection Fixing Sub Thermistor 2 > Fixing Main Thermistor	THM1/ THM4	1: Error * The value returns to 0 when temperature of the Fixing Assembly decreases.
	13	Thermistor temperature difference error detection Fixing Sub Thermistor 1 > Fixing Sub Thermistor 2	THM2/ THM4	1: Error * The value returns to 0 when temperature of the Fixing Assembly decreases.
	12	For R&D use	-	
	11	For R&D use	-	
	10	For R&D use	-	
	9	Thermistor temperature difference error detection Fixing Main Thermistor > Fixing Sub Thermistor 1	THM1/ THM2	1: Error * The value returns to 0 when temperature of the Fixing Assembly decreases.
	8	Thermistor temperature difference error detection Fixing Sub Thermistor 1 > Fixing Main Thermistor	THM1/ THM2	1: Error * The value returns to 0 when temperature of the Fixing Assembly decreases.
	7	Thermistor Connection	THM1	0: Connect
	6	Front Door Open Detection Switch	SW2	0: Close, 1: Open
	5	Fixing Feed Lever	-	1: Fixing Feed Unit presence
	4	Fixing Power Supply PCB 12V OFF	PCB10	1: 12V to Fixing Power Supply PCB is OFF or safety circuit operation
	3	Outer Delivery Sensor	PS36	1: Paper presence
	2	Not used	-	
	1	Fixing Motor Error	M3	1: Stop
0	Fixing Power Supply Cooling Fan Error	FM7	1: Stop	

Address	bit	Name	Symbol	Remarks
P005	15	Roller Bias OFF	-	0: OFF, 1: ON
	14	Pre-transfer Charging PCB Remote	PCB26	0: ON
	13	Develop High Voltage PCB Remote	PCB12	0: ON
	12	Primary Charging High Voltage PCB Remote	PCB11	0: ON
	11	Fixing Motor ON	M3	1: ON
	10	Fixing Motor CCW	M3	0: CW (paper feed direction)
	9	Not used	-	
	8	Not used	-	
	7	Fixing Power Supply PCB 12V ON	PCB10	0: 12V forcible OFF
	6	Fixing Power Supply PCB Relay 2 ON	-	1: ON
	5	Fixing Power Supply PCB Relay 1 ON	-	1: ON
	4	Not used	-	
	3	Developer Lower Cooling Fan/ Developer Upper Cooling Fan Half Speed	FM30/FM31	1: Half Speed
	2	Developer Lower Cooling Fan/ Developer Upper Cooling Fan Full Speed	FM30/FM31	1: Full Speed
	1	Not used	-	
0	Not used	-		
P006	15	For R&D use	-	
	14	Not used	-	
	13	Not used	-	
	12	Multi Cassette Heater ON	H02	0: ON
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	For R&D use	-	
	2	For R&D use	-	
	1	Pre-transfer Charging Wire Cleaning Motor ON 2	M7	ON1/ON2 Signal= 0/0: Stop 0/1: Front -> Rear 1/0: Rear -> Front
0	Pre-transfer Charging Wire Cleaning Motor ON 1	M7	ON1/ON2 Signal= 0/0: Stop 0/1: Front -> Rear 1/0: Rear -> Front	

Address	bit	Name	Symbol	Remarks
P007	15	Shift Tray Rear Tray Full Sensor / Shift Tray Front Tray Full Sensor	PS104 (rear) / PS105 (front)	0: Full
	14	Shift Tray Paper Sensor	PS103	0: Paper presence
	13	Shift Tray Rear Home Position Sensor	PS102	1: HP
	12	Shift Tray Front Home Position Sensor	PS101	1: HP
	11	Process Unit Connection	-	0: Connect
	10	Shift Tray Connection	-	0: Connect
	9	Fixing Cleaning Web Drive Solenoid Connection	SL9	0: Connect, 1: Not connect or Driving
	8	Patch Sensor Shutter Solenoid Connection	SL10	0: Connect, 1: Not connect or Driving
	7	Fixing Cleaning Web Level Sensor	PS45	1: Web level is low or Connector disconnection
	6	Fixing Toenail Jam Sensor	PS4	0: JAM
	5	Fixing Outlet Sensor	PS52	1: Paper presence
	4	Fixing Inlet Sensor	PS51	1: Paper presence or Connector disconnection
	3	Not used	-	
	2	Fixing Shutter Home Position Sensor	PS53	0: HP or middle size 1, or small size 1
	1	Not used	-	
	0	Pre-transfer Charging Shutter Sensor	PS95	1: HP front

Address	bit	Name	Symbol	Remarks	
P008	15	Fixing Power Supply Detection	PCB10	0: iRA8105 Series	
	14	Not used	-		
	13	Not used	-		
	12	Fixing Power Supply PCB 12V Detection	PCB10	0: Fixing Power Supply PCB 12V-ON	
	11	Not used	-		
	10	Not used	-		
	9	Primary Charging High Voltage PCB 24V Detection	PCB11	0: 24V-ON, 1: Error	
	8	Primary Charging High Voltage PCB Connection	PCB11	0: Connect	
	7	Develop High Voltage PCB 24V Detection	PCB12	0: 24V-ON, 1: Error	
	6	Develop High Voltage PCB Connection	PCB12	0: Connect	
	5	Pre-transfer Charging PCB 24V Detection	PCB26	0: 24V-ON, 1: Error	
	4	Pre-transfer Charging PCB Connection	PCB26	0: Connect	
	3	Drum Home Position Sensor	PS61	1: HP	
	2	Fixing Drawer Connection	-	0: Connect	
	1	Reserve Fan Error	-	1: Error	
	0	AC Driver PCB Location Detection	PCB6 or PCB7	0: 100V, 1: 200V	
	P009	15	5V sensor ON Signal (Fixing Assembly)	-	1: ON
		14	Not used	-	
		13	Not used	-	
		12	Not used	-	
11		Not used	-		
10		Transfer High Voltage PCB AC ON	PCB13	0: ON	
9		Transfer High Voltage PCB DC ON	PCB13	0: ON	
8		Not used	-		
7		Pre-exposure LED_ON	-	1: ON	
6		Shift Motor CW	M101	0: CW	
5		Shift Motor CCW	M101	0: CCW	
4		Not used	-		
3		Shift Tray Rear Tray Full Sensor / Shift Tray Front Tray Full Sensor ON	PS104 (rear) / PS105 (front)	0: ON	
2	Develop High Voltage PCB AC ON	PCB12	0: ON		
1	Develop High Voltage PCB DC ON	PCB12	0: ON		
0	Primary Charging High Voltage PCB ON	PCB11	0: ON		

Address	bit	Name	Symbol	Remarks
P010	15	Not used	-	
	14	Patch Sensor_ON	PS90	1: ON
	13	Primary Charging Wire Cleaning Motor ON 2	M6	ON1/ON2 Signal= 0/0: Stop 0/1: Front -> Rear 1/0: Rear -> Front
	12	Primary Charging Wire Cleaning Motor ON 1	M6	ON1/ON2 Signal= 0/0: Stop 0/1: Front -> Rear 1/0: Rear -> Front
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	
P011	15	Developing Motor Error	M2	1: Stop
	14	Drum Motor Error	M1	1: Stop
	13	Waste Toner Lock Detection Switch	SW5	1: Lock (toner clogging) or Connector disconnection
	12	Toner Exchange Cover Sensor	PS54	0: Cover Open or Connector disconnection
	11	Not used	-	
	10	Toner Supply Motor Error	M10	1: Overcurrent Error (logical change)
	9	Not used	-	
	8	Toner Feed Motor Error	M28	1: Overcurrent Error (logical change)
	7	Buffer Toner Sensor	TS3	1: Toner presence
	6	Buffer Toner Sensor Connection	TS3	0: Connect
	5	Toner Excess Supply Sensor	TS2	1: Toner presence
	4	Toner Excess Supply Sensor Connection	TS2	0: Connect
	3	Developing Toner Sensor	TS1	1: Toner presence
	2	Developing Toner Sensor Connection	TS1	0: Connect
	1	Magnet Roller Clutch Connection	CL5	0: Connect, 1: Not connect or Driving
	0	Developing Clutch Connection	CL1	0: Connect, 1: Not connect or Driving

Address	bit	Name	Symbol	Remarks	
P012	15	Primary Charging Exhaust Fan Error	FM17	1: Stop	
	14	Laser Scanner Cooling Fan Error	FM16	1: Stop	
	13	Primary Charging Air Supply Fan Error	FM2	1: Stop	
	12	Not used	-		
	11	Multi-purpose Tray Paper Last Paper Sensor	PS28	1: Paper presence	
	10	Multi-purpose Pickup Solenoid Connection	SL2	0: Connect, 1: Not connect or Driving	
	9	Multi-purpose Tray Paper Sensor	PS23	1: Paper presence	
	8	Vertical Path Sensor 1	PS24	1: Paper presence	
	7	For R&D use	-		
	6	Front Door Open Detection Switch	SW2	1: Open	
	5	Multi-purpose Cover Open/Close Sensor	PS3	0: Open	
	4	For R&D use	-		
	3	For R&D use	-		
	2	Pre-transfer Charging Assembly Air Supply Fan/Pre-transfer Charging Exhaust Fan Error	FM32/FM33	1: Error	
	1	Developer Upper Cooling Fan Error	FM31	1: Error	
	0	Developer Lower Cooling Fan Error	FM30	1: Error	
	P013	15	Not used	-	
		14	Not used	-	
		13	Not used	-	
12		Not used	-		
11		Not used	-		
10		Not used	-		
9		Not used	-		
8		Not used	-		
7		Not used	-		
6		Not used	-		
5		Not used	-		
4		Not used	-		
3		Not used	-		
2		For R&D use	-		
1		For R&D use	-		
0		For R&D use	-		

Address	bit	Name	Symbol	Remarks
P014	15	Not used	-	
	14	Pre-transfer Charging Assembly Air Supply Fan/Pre-transfer Charging Exhaust Fan Full Speed ON	FM32/FM33	1: Full Speed
	13	Not used	-	
	12	Not used	-	
	11	Drum Motor_ON	M1	1: ON
	10	Drum Motor_CCW	M1	0: CW
	9	Not used	-	
	8	Not used	-	
	7	Pre-transfer Charging Assembly Air Supply Fan/Pre-transfer Charging Exhaust Fan Half Speed ON	FM32/FM33	1: Half Speed
	6	Voltage Sensor PCB ON	PCB15	1: ON
	5	Not used	-	
	4	Not used	-	
	3	Developing Motor_ON	M2	1: ON
	2	Developing Motor_CCW	M2	0: CW
	1	Not used	-	
0	Not used	-		
P015	15	Right Deck Pickup Sensor 1/2	PS19	1: Paper presence
	14	Right Deck Pickup Solenoid Connection	SL6	0: Connect, 1: Not connect or Driving
	13	Right Deck Paper Height Sensor	PS6	0: Lifter Up
	12	Vertical Path Sensor 2	PS25	1: Paper presence
	11	Vertical Path Sensor 3	PS26	1: Paper presence
	10	Right Deck Upper Limit Sensor	PS8	1: Upper limit
	9	Vertical Path Cover Open/Close Sensor	PS2	0: Open
	8	Right Deck Pull Out Sensor	PS32	1: Paper presence
	7	For R&D use	-	
	6	For R&D use	-	
	5	For R&D use	-	
	4	For R&D use	-	
	3	Right Deck Paper Level Sensor 2	PS48	Detect paper level by combination of the Paper Level Sensor 1/2
	2	Right Deck Paper Level Sensor 1	PS47	0: OFF 1: ON (Condition that the flag blocks the sensor) As for the combination, refer to the Pickup/Feed System in Service Manual.
	1	Right Deck Lifter Motor	M4	1: Error
0	Right Deck Paper Sensor	PS7	0: Paper absence, 1: Paper presence	

Address	bit	Name	Symbol	Remarks
P016	15	Cassette3 Lifter Motor Error	M20	1: Error
	14	Cassette 3 Paper Level Sensor 2	PS70	Detect paper level by combination of the Paper Level Sensor 1/2
	13	Cassette 3 Paper Level Sensor 1	PS69	0: OFF 1: ON (Condition that the flag blocks the sensor) As for the combination, refer to the Pickup/Feed System in Service Manual.
	12	Cassette 3 Paper Height Sensor	PS17	0: Lifter Up
	11	Cassette 3 Pickup Sensor 1	PS21	1: Paper presence
	10	Cassette 3 Upper Limit Sensor	PS68	1: Upper limit
	9	Cassette 3 Paper Sensor	PS13	0: Paper absence, 1: Paper presence
	8	Cassette 3 Pickup Solenoid Connection	SL3	0: Connect, 1: Not connect or Driving
	7	Cassette 3 Paper Length Detection Switch	SW9	Detect paper size by combination of 4 switches
	6	Cassette 3 Paper Length Detection Switch	SW9	0: ON (Condition that the switch is pressed)
	5	Cassette 3 Paper Length Detection Switch	SW9	1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	4	Cassette 3 Paper Length Detection Switch	SW9	
	3	Cassette 3 Paper Width Detection Switch	SW7	Detect paper size by combination of 4 switches
	2	Cassette 3 Paper Width Detection Switch	SW7	0: ON (Condition that the switch is pressed)
	1	Cassette 3 Paper Width Detection Switch	SW7	1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
0	Cassette 3 Paper Width Detection Switch	SW7		

Address	bit	Name	Symbol	Remarks
P017	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	
P018	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	

Address	bit	Name	Symbol	Remarks
P019	15	Not used	-	
	14	Not used	-	
	13	Vertical Path Sensor 4	PS27	1: Paper presence
	12	Not used	-	
	11	Feed Driver Cooling Fan Error	FM40	1: Error
	10	Making Image Exhaust Fan Error	FM3	1: Stop
	9	Cassette 4 Pickup Solenoid Connection	SL4	0: Connect, 1: Not connect or Driving
	8	Cassette 4 Paper Level Sensor 2	PS73	Detect paper level by combination of the Paper Level Sensor 1/2 0: OFF 1: ON (Condition that the flag blocks the sensor) As for the combination, refer to the Pickup/Feed System in Service Manual.
	7	Cassette 4 Paper Level Sensor 1	PS72	
	6	Cassette 4 Paper Height Sensor	PS18	0: Lifter Up
	5	Cassette 4 Lifter Motor Error	M21	1: Error
	4	Cassette 4 Pickup Sensor 1	PS22	1: Paper presence
	3	Cassette 4 Upper Limit Sensor	PS71	1: Upper limit
	2	Cassette 4 Paper Sensor	PS14	1: Paper presence
	1	Left Deck Pickup Solenoid Connection	SL7	0: Connect, 1: Not connect or Driving
	0	Left Deck Paper Level Sensor 2	PS50	Detect paper level by combination of the Paper Level Sensor 1/2 0: OFF 1: ON (Condition that the flag blocks the sensor) As for the combination, refer to the Pickup/Feed System in Service Manual.

Address	bit	Name	Symbol	Remarks
P020	15	Left Deck Paper Level Sensor 1	PS49	Detect paper level by combination of the Paper Level Sensor 1/2 0: OFF 1: ON (Condition that the flag blocks the sensor) As for the combination, refer to the Pickup/Feed System in Service Manual.
	14	Left Deck Lifter Motor Error	M5	1: Error
	13	Left Deck Upper Limit Sensor	PS12	1: Upper limit
	12	Left Deck Pickup Sensor 1	PS20	1: Paper presence
	11	Left Deck Pull Out Sensor	PS33	1: Paper presence
	10	Left Deck Paper Height Sensor	PS10	0: Lifter Up
	9	Left Deck Paper Sensor	PS11	1: Paper presence
	8	Not used	-	
	7	Cassette 4 Paper Length Detection Switch	SW10	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	6	Cassette 4 Paper Length Detection Switch	SW10	
	5	Cassette 4 Paper Length Detection Switch	SW10	
	4	Cassette 4 Paper Length Detection Switch	SW10	
	3	Cassette 4 Paper Width Detection Switch	SW8	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	2	Cassette 4 Paper Width Detection Switch	SW8	
	1	Cassette 4 Paper Width Detection Switch	SW8	
0	Cassette 4 Paper Width Detection Switch	SW8		

Address	bit	Name	Symbol	Remarks
P021	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Feed Driver Cooling Fan Half Speed	FM40	1: ON
	10	Feed Driver Cooling Fan Full Speed	FM40	1: ON
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Making Image Exhaust Fan Half Speed	FM3	1: ON
P022	15	Making Image Exhaust Fan Full Speed	FM3	1: ON (priority)
	14	For factory use	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
4	Not used	-		
3	Not used	-		
2	Not used	-		
1	Not used	-		
0	Not used	-		

Address	bit	Name	Symbol	Remarks
P023	15	For R&D use	-	
	14	For R&D use	-	
	13	For R&D use	-	
	12	For R&D use	-	
	11	Registration Sensor	PS29	1: Paper presence
	10	Duplex Outlet Sensor	PS64	1: Paper presence
	9	Not used	-	
	8	Left Deck Merging Solenoid Connection	SL11	0: Connect, 1: Not connect or Driving
	7	Not used	-	
	6	Reverse Upper Flapper Solenoid Connection	SL5	0: Connect, 1: Not connect or Driving
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
0	Not used	-		
P024	15	ETB Disengage Sensor	PS56	1: HP
	14	ETB Engage Sensor	PS55	1: Engage
	13	Side Registration Sensor	PS31	0: Detect
	12	Transfer Cleaner Cooling Fan Error	FM8	1: Stop
	11	Duplex Left Sensor	PS66	1: Paper presence
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Duplex Driver Cooling Fan Error	FM41	1: Stop
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
0	Not used	-		

Address	bit	Name	Symbol	Remarks
P025	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	For factory use	-	
	2	Not used	-	
	1	Not used	-	
0	Not used	-		
P026	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
0	Not used	-		

Address	bit	Name	Symbol	Remarks
P027	15	Transfer High Voltage PCB Connection	PCB13	0: Connect
	14	Not used	-	
	13	Transfer High Voltage PCB 24V Check	PCB13	1: Error
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Duplex Merging Sensor	PS67	1: Paper presence
	6	Registration Motor/Duplex Motor Cooling Fan	FM42	1: Stop
	5	Reverse Vertical Path Sensor	PS65	1: Paper presence
	4	Not used	-	
	3	Paper Cooling Fan Error	FM5	1: Stop
	2	Not used	-	
	1	For R&D use	-	
	0	For R&D use	-	
P028	15	For R&D use	-	
	14	For R&D use	-	
	13	For R&D use	-	
	12	For R&D use	-	
	11	For R&D use	-	
	10	For R&D use	-	
	9	For R&D use	-	
	8	For R&D use	-	
	7	Reverse Detachment Solenoid Connection	SL12	0: Connect, 1: Not connect or Driving
	6	Inner Delivery Sensor	PS35	1: Paper presence
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	

Address	bit	Name	Symbol	Remarks
P029	15	Transfer High Voltage Positive Bias Constant Current mode	PCB13	0: ON
	14	Transfer High Voltage Negative Bias Constant Current	PCB13	0: ON
	13	Transfer High Voltage Positive Bias Constant Voltage mode	PCB13	0: ON
	12	Transfer High Voltage PCB Remote	PCB13	0: Active
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Paper Cooling Fan Half Speed	FM5	1: Half Speed
	1	Paper Cooling Fan Full Speed	FM5	1: Full Speed
	0	Operation Check LED Port	-	1: ON
P030	15	Registration Motor/Duplex Motor Cooling Fan Half Speed	FM42	1: Half Speed
	14	Registration Motor/Duplex Motor Cooling Fan Full Speed	FM42	1: Full Speed
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Transfer Cleaner Cooling Fan Half Speed	FM8	1: Half Speed
	3	Transfer Cleaner Cooling Fan Full Speed	FM8	1: Full Speed (priority)
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	

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## ■ Host Machine\_Main Controller (DC-CON>P001 to P005))

Address	bit	Name	Symbol	Remarks
P001	0 - 7	For R&D use	-	
	8	Data Analyzer Board power state	-	0: Abnormal, 1: Normal
	9 - 11	For R&D use	-	
	12	Main Controller PCB 2 Version bit0	PCB51	
	13	Main Controller PCB 2 Version bit1	PCB51	
	14	Main Controller PCB 2 Version bit2	PCB51	
	15	Main Controller PCB 2 Version bit3	PCB51	
P002	0 - 15	Not used	-	
P003	0 - 15	Not used	-	
P004	0 - 10	Not used	-	
	11	Power Supply Cooling Fan 1/2	FM14/FM15	0: Normal, 1: Abnormal
	12 - 14	For R&D use	-	
	15	Reader Controller PCB power state	-	0: ON, 1: OFF
P005	0	SCPRDY (Controller reception is available)	-	
	1 - 3	For R&D use	-	
	4	SPRDY (Reader power ON)	-	
	5 - 10	For R&D use	-	
	11	/PPRDY (Printer power ON)	-	
	12	/PCPRDY (Controller reception is available)	-	
	13 - 15	For R&D use	-	
P006	0 - 4	For R&D use	-	
	5	Channel Link PCB Connection	PCB52	0: Connect, 1: Not connect
	6	DC Controller PCB Connection	PCB1	0: Connect, 1: Not connect
	7 - 15	For R&D use	-	

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## ■ Reader (R-CON>P001 to P005)

Address	bit	Name	Symbol	Remarks
P001	0	Scanner Unit HP Sensor Interruption	SR2	1: HP
	1	DDI-SPO1	-	Not used
	2	Fan Lock Signal (Reserve)	-	-
	3	DDI-SRTS	-	0: Reception is available
	4	DDI-SCPRDY	-	0: Controller ready
	5	Silent Mode	-	1: Normal start-up, 0: Silent start-up
	6	Board Test	-	1: Normal start-up, 0: PCB check
	7	12V Power Supply Monitor	-	0: Power supply
P002	0	24V Power Supply Monitor	-	0: Power supply
	1	Reader-DADF Connect	-	1: Connect, 0: Unconnected AP
	2	Location Information 0	-	Not used
	3	Location Information 1	-	Not used
	4	Debug LED	-	Not used
	5	Memory Identification	-	1: Model with memory, 0: Model without memory
	6	Model Identification	-	1: X-system or Copyboard, 0: S-system
	7	Original Size Sensor 1	CF1	0: Original presence
P003	0	Original Size Sensor 2	CF2	0: Original presence
	1	DADF Sensor 1	SR1	1: Close, 0: Open
	2	DADF Sensor 2	SR3	1: Close, 0: Open
	3	Scanner Unit Heat Exhaust Fan Lock Signal	FM1	1: Failure
	4	Scanner Unit Cooling Fan Lock Signal	FM2	1: Failure
	5	LED Select 1	-	DIPSW2, 3 (1,1): Rank A, (1,0): Rank B, (0,1): Rank C
	6	LED Select 2	-	Rank B, (0,1): Rank C
	7	-	-	-

Address	bit	Name	Symbol	Remarks
P004	0	B_DDI_SPI1	-	Fix to 1
	1	B_DDI_SCTS	-	0: Transmission is available
	2	B_DDI_SPRDY	-	0: Engine ready
	3	Debug Inspection Activation LED	-	1: ON
	4	DF/Reader Selector	-	1: DADF, 0: Reader
	5	Size Detection LED	-	1: ON
	6	Watchdog Output	-	0: (Toggle operation)
P005	7	Scanner Motor Current Setting 1	M1	(0,0): 100%, (0,1): 75%, (1,0): 50%, (1,1): 25%
	0	Scanner Motor Current Setting 2	M1	
	1	Scanner Motor Reset	M1	0: Reset (100nsec)
	2	Scanner Motor Enable	M1	1: Enable
	3	Scanner Unit Cooling Fan ON	FM2	1: ON
	4	Scanner Motor Direction	M1	1: Back scan, 0: Scan
	5	-	-	-
	6	-	-	-
	7	-	-	-

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## ADF (FEEDER>P001 to P007)

Address	bit	Name	Symbol	Remarks
P001	0	24V Power Supply Monitor	-	0: Power supply
	1	Reverse Sensor	SR23	1: Paper presence
	2	DADF Fan Alarm	-	0: Failure
	3	LTR-R/LGL Identification Sensor	SR8	1: Paper presence
	4	AB/Inch Identification Sensor	SR7	1: A4R, STMTR, B6R
	5	Tray Sensor	SR9	0: Open
	6	Tray HP Sensor	SR13	1: HP (lower limit)
P002	7	Paper Surface Sensor	SR6	1: Paper surface detection
	0	Cover Sensor	SR10	0: Open
	1	Original Sensor	SR1	1: Original presence
	2	Stamp Presence/Absence	-	0: Stamp presence
	3	Post-separation 3 Sensor (Reserve)	PCB2	1: Paper presence
	4	Post-separation 2 Sensor	SR3	0: Paper presence
	5	Post-separation 1 Sensor	SR2	0: Paper presence
	6	Pickup Roller Unit Lifting HP Sensor	SR12	1: HP (Escape)
	7	Scanner Unit Cooling Fan Alarm	FM3	0: Failure
	P003	0	Disengagement HP Sensor 2	SR16
1		1-path Duplex Model Identification	-	1: 1-path duplex, 0: Reverse duplex
2		Leading Edge Position Sensor	SR22	1: Paper presence
3		Disengagement HP Sensor 1	SR15	1: HP (Disengagement)
4		Original Size Sensor 4	SR20	1: Paper presence
5		Original Size Sensor 3	SR19	1: Paper presence
6		Original Size Sensor 2	SR18	1: Paper presence
P004	7	Original Size Sensor 1	SR17	1: Paper presence
	0	Delivery Sensor	PCB5	0: Paper presence
	1	Read Sensor 2	SR5	0: Paper presence
	2	Read Sensor 1	PCB4	0: Paper presence
	3	Registration Sensor	PCB3	0: Paper presence
	4	ITOP	-	Not used
	5	Glass Shift HP Sensor	SR11	0: HP
P005	6	Feed Sensor	-	0: Paper presence
	7	Post-separation Sensor 3	PCB2	0: Paper presence
	0	Pickup Motor Direction	M1	1: Rotation direction, 0: (Not used)
	1	DA Enable	-	1: Enable, 0: Reset
	2	Tray Lifting Motor Direction	M8	1: Up, 0: Down
	3	Stamp Solenoid	SL2	1: ON
	4	Original LED	LED	1: ON
	5	Tray Lifting Motor Current	M8	1: Operation is available
	6	Disengagement Motor 1 Current	M6	1: Operation is available
	7	Disengagement Motor 2 Current	M7	1: Operation is available

Address	bit	Name	Symbol	Remarks
P006	0	Glass Shift Motor Current	M9	1: Operation is available
	1	Glass Shift Motor Direction	M9	1: Shading direction (Right upper)
	2	DADF Fan ON	-	1: ON
	3	Pickup Motor Direction	M1	1: ON
	4	Separation Motor Current	-	1: Operation is available
	5	Pickup Motor Current	M1	1: Operation is available
	6	Registration Motor Current	M3	1: Operation is available
P007	7	Read Motor Current	M4	1: Operation is available
	0	Pickup Motor Current	M1	1: Operation is available
	1	Scanner Unit Cooling Fan ON	FM3	1: ON
	2	Pickup Clutch	-	1: ON
	3	Delivery Motor Current	M5	1: Operation is available
	4	Delivery Motor Direction	M5	1: CCW (Delivery direction)
	5	-	-	-
	6	-	-	-
7	-	-	-	

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### ■ Paper Deck Unit - C1 (DC-CON>P048 to P050)

Address	bit	Description	Symbol	Remarks
P048	15		-	-
	14	not used	-	-
	13	not used	-	-
	12	not used	-	-
	11	not used	-	-
	10	deck main motor hold	M1	-
	9	deck open solenoid	SL2	0:open/1:close
	8	deck lifter motor	M2	0:up/1:down
	7	deck lifter motor ON signal	M2	0:OFF/1:ON
	6	deck main motor ON signal	M1	0:OFF/1:ON
	5	not used	-	-
	4	not used	-	-
	3	deck pickup clutchON ON signal	CL2	0:OFF/1:ON
	2	not used	-	-
P049	1	deck pickup roller releasing solenoid	SL1	0:OFF/1:ON
	0	deck open indicator	LED100	-
	15	not used	-	-
	14	not used	-	-
	13	not used	-	-
	12	not used	-	-
	11	not used	-	-
	10	not used	-	-
	9	not used	-	-
	8	not used	-	-
	7	not used	-	-
	6	not used	-	-
	5	not used	-	-
	4	not used	-	-
3	not used	-	-	
2	not used	-	-	
1	not used	-	-	
0	not used	-	-	

Address	bit	Description	Symbol	Remarks
P050	15	for R&D	-	-
	14	not used	-	-
	13	for R&D	-	-
	12	for R&D	-	-
	11	deck open sensor	PS9	0:close/1:open
	10	deck set sensor	PS5	0:connected/1:unconnected
	9	deck lifter lower limit detecting switch	SW2	0:ON/1:OFF
	8	deck paper level sensor	PS8	0:paper present/1:paper absent
	7	deck paper supply position sensor	PS7	0:paper present/1:paper absent
	6	deck main motor lock signal	M1	-
	5	deck pickup roller releasing solenoid ON signal	SL1	0:ON/1:OFF
	4	deck pickup sensor	PS6	0:paper present/1:paper absent
	3	deck feed sensor	PS1	0:paper present/1:paper absent
	2	deck lifter position sensor	PS4	0:ON/1:OFF
	1	deck paper sensor	PS2	0:paper present/1:paper absent
0	deck open detecting switch	SW1	0:open/1:close	

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## POD Deck Lite - A1 (DC-CON>P047 to P050)

Address	bit	Name	Symbol	Remarks
P047	15	Not used	-	-
	14	Not used	-	-
	13	Not used	-	-
	12	Not used	-	-
	11	Not used	-	-
	10	Not used	-	-
	9	Not used	-	-
	8	Not used	-	-
	7	Expansion Fan OFF	FAN3	1: OFF, 0: ON
	6	Not used	-	-
	5	Air Heater Control Signal	H1	0 (0,0): 60 degC, 3 (1,1): 90 degC
	4			
	3	Swing Control Signal	M3	0 (0,0): 250 pps, 3 (1,1): 850 pps
	2			
	1	Fan Control Signal	FAN1, FAN2, FAN3	0 (0,0): 26V, 3 (1,1): 13.5V
0				
P048	15	BANK-RX1	-	Auto at bank switching
	14	BANK-RX0	-	Auto at bank switching
	13	BANK-TX	-	Fix to 1
	12	Deck Pickup Clutch ON	CL1	1: ON, 0: OFF
	11	Hot Air Fan OFF	FAN1	1: OFF, 0: ON
	10	Air Heater ON	H1	1: ON, 0: OFF
	9	Open/Close Solenoid ON	SL2, SL3	1: ON, 0: OFF
	8	Lifter DOWN/UP	-	1: Down, 0: Up
	7	Deck Lifter Motor ON	M2	1: ON, 0: OFF
	6	Cold Fan OFF	FAN2	1: ON, 0: OFF
	5	Cassette Heater ON	H2, H3	1: ON, 0: OFF
	4	Motor Cooling Fan	FAN4	1: ON, 0: OFF
	3	Deck Pickup Motor Current 1	M1	-
	2	Deck Pickup Motor Current 0	M1	-
	1	Deck Pickup Solenoid ON	SL1	1: OFF, 0: ON
0	Indication LED ON	-	1: ON, 0: OFF	

Address	bit	Name	Symbol	Remarks
P049	15	Not used	-	-
	14	Heater Error 1	-	1: Normal, 0: Error
	13	Heater Ready	-	1: Ready, 0: Not ready
	12	POD Deck Detection	-	1: Detect, 0: Not detect
	11	Motor Cooling Fan Error	FAN4	1: Normal, 0: Error
	10	Deck Foreign Matter Sensor	PS13	1: Foreign matter absence, 0: Foreign matter presence
	9	Paper Level Sensor	PS12	1: Paper absence, 0: Paper presence
	8	Hot Air Fan/Cold Air Fan/Expansion Fan/Swing Motor Error, Receptacle Load Error	FAN1, FAN2, FAN3, M3	1: Normal, 0: Error
	7	Temperature DATA [3]	-	1: bit3=1, 0: bit3=0
	6	Temperature DATA [2]	-	1: bit2=1, 0: bit2=0
	5	Temperature DATA [1]	-	1: bit1=1, 0: bit1=0
	4	Temperature DATA [0]	-	1: bit0=1, 0: bit0=0
	3	Humidity DATA [3]	-	1: bit3=1, 0: bit3=0
	2	Humidity DATA [2]	-	1: bit2=1, 0: bit2=0
	1	Humidity DATA [1]	-	1: bit1=1, 0: bit1=0
	0	Humidity DATA [0]	-	1: bit0=1, 0: bit0=0
P050	15	Large Deck ID	-	Fix to 0
	14	Deck Lifter Motor Error	M2	1: Error, 0: Normal
	13	Deck Lite ID	-	Fix to 0
	12	Deck Lite ID	-	Fix to 1
	11	Deck Receptacle Left Open Sensor	PS9	1: Open, 0: Close
	10	Deck Engagement/Disengagement Sensor	PS5	1: Unconnected, 0: Connected
	9	Deck Lifter Lower Limit Detection Switch	SW2	1: Normal, 0: Abnormal
	8	Deck Paper Level Sensor	PS8	1: Paper absence, 0: Paper presence
	7	Deck Supply Position Sensor	PS7	1: Paper absence, 0: Paper presence
	6	Deck Receptacle Right Open Sensor	PS10	1: Open, 0: Close
	5	5V Detection	-	1: 5V OFF, 0: 5V ON
	4	Deck Pullout Sensor	PS6	1: Paper presence, 0: Paper absence
	3	Deck Pickup Sensor	PS1	1: Paper presence, 0: Paper absence
	2	Deck Lifter Position Sensor	PS4	1: Paper absence, 0: Paper presence
	1	Deck Paper Sensor	PS2	1: Paper absence, 0: Paper presence
	0	Receptacle Open Switch	SW3	1: ON, 0: OFF

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### ■ Inserter - K1 : ARCNET Connection (SORTER > P425 to P451)

Address	bit	Name	Symbol	Remarks
P425	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	paper delivery start response	-	0 : OFF / 1ON
	2	paper delivery start Request	-	0 : ON / 1 : OFF
	1	-	-	-
	0	-	-	-
P426	15	-	-	-
	14	Inlet motor CLK	-	-
	13	lower tray document set LED	-	0 : ON / 1 : OFF
	12	exit motor1CLK	-	-
	11	upper tray document set LED	-	0 : ON / 1 : OFF
	10	exit motor phase switching 2	-	P31=0,P32=0 : 2phase
	9	exit motor phase switching 1	-	P31=1,P32=0 : 1-2phase
	8	exit motor2CLK	-	-
	7	-	-	-
	6	-	-	-
	5	upper tray width sensor	S10	-
	4	lower tray width sensor	S13	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-

Address	bit	Name	Symbol	Remarks
P427	15	-	-	-
	14	-	-	-
	13	Reserve solenoid	SOL1	0 : PWM / 1 : PWM
	12	upper tray registration sensor	S3	0 : no paper / 1 : paper
	11	lower tray registration sensor	S7	0 : no paper / 1 : paper
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	EEPROM / IO DO signal	-	0 : data bit 0 / 1 : data bit 1
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-
P428	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	EEPROM CS signal	-	-
	9	EEPROM / DA / IO / DIsignal	-	-
	8	EEPROM / DA / IO / CLK signal	-	-
	7	PMmotoroutput Enable	-	0 : OFF / 1ON
	6	upper tray registration clutch	CL1	0 : OFF / 1ON
	5	lower tray registration clutch	CL2	0 : OFF / 1ON
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	Reserve unit motor rotation direction	-	0 : CCW / 1 : CW
	0	Reserve unit motor phase switching1	-	0 : 2phase / 1 : 1-2phase

Address	bit	Name	Symbol	Remarks
P429	15	-	-	-
	14	-	-	-
	13	PM motor chip Enable	-	0 : OFF / 1ON
	12	exit motor1Enable	-	0 : OFF / 1ON
	11	Brushless motor Enable	-	0 : OFF / 1ON
	10	HB motor Enable	-	0 : OFF / 1ON
	9	Inlet motor phase switching2	-	PH0=0,PH1=0 : 2phase
	8	Inlet motor phase switching1	-	PH0=1,PH1=0 : 1-2phase
	7	paper delivery start response	-	0 : ON / 1 : OFF
	6	paper delivery start	-	0 : OFF / 1ON
	5	drive switching motor rotation direction	-	0 : CW / 1 : CCW
	4	drive switching motor CLK	-	-
	3	lower tray lift motor rotation direction	-	0 : CW / 1 : CCW
	2	lower tray lift motor CLK	-	-
	1	upper tray lift motor rotation direction	-	0 : CW / 1 : CCW
	0	upper tray lift motor CLK	-	-
P430	15	pickup motor rotation direction	-	0 : CCW / 1 : CW
	14	upper tray lift motor current	-	0 : PWM / 1 : PWM
	13	lower tray lift motor current	-	0 : PWM / 1 : PWM
	12	drive switching motor current	-	0 : PWM / 1 : PWM
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	external I / O data bus 6	-	-
	6	Reserve unit motor CLK	-	-
	5	external I / O data bus 5	-	-
	4	external I / O data bus 4	-	-
	3	external I / O data bus 3	-	-
	2	external I / O data bus 2	-	-
	1	external I / O data bus 1	-	-
	0	pickup motor CLK	-	-

Address	bit	Name	Symbol	Remarks
P431	15	lower tray pick sensor	S6	0 : outside pick position / 1 : pick position
	14	lower tray last paper sensor2	S15	0 : no paper / 1 : paper
	13	lower tray last paper sensor1	S14	0 : paper / 1 : no paper
	12	lower tray Empty sensor	S12	0 : paper / 1 : no paper
	11	upper tray lower limit sensor	S4	0 : outside lower limit / 1 : lower limit
	10	upper tray pick sensor	S2	0 : outside pick position / 1 : pick position
	9	upper tray last paper sensor1	S11	0 : paper / 1 : no paper
	8	upper tray Empty sensor	S9	0 : paper / 1 : no paper
	7	Reserve timing sensor	S16	0 : no paper / 1 : paper
	6	Reserve sensor	S17	0 : no paper / 1 : paper
	5	Reserve inlet sensor	S18	0 : no paper / 1 : paper
	4	Intermediate feed sensor	S8	0 : no paper / 1 : paper
	3	drive switching sensor	S1	0 : outside HP / 1 : inside HP
	2	unit open / close sensor	S19	0 : close / 1 : open
	1	upper cover open / close switch	SW2	0 : close / 1 : open
	0	lower tray lower limit sensor	S5	0 : outside lower limit / 1 : lower limit
P432	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	power supply lock detect signal 3	-	0 : normal / 1 : lock
	5	-	-	-
	4	-	-	-
	3	Delivery2 sensor	S21	0 : no paper / 1 : paper
	2	inlet sensor	S20	0 : no paper / 1 : paper
1	Front upper cover switch	SW1	0 : close / 1 : open	
0	Brushless motorLock detection signal	-	0 : normal / 1 : lock	

Address	bit	Name	Symbol	Remarks
P433	15	DSW8	-	0 : ON / 1 : OFF
	14	DSW7	-	0 : ON / 1 : OFF
	13	DSW6	-	0 : ON / 1 : OFF
	12	DSW5	-	0 : ON / 1 : OFF
	11	DSW4	-	0 : ON / 1 : OFF
	10	DSW3	-	0 : ON / 1 : OFF
	9	DSW2	-	0 : ON / 1 : OFF
	8	DSW1	-	0 : ON / 1 : OFF
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	Wire-speed sorting Identification signal	-	0 : low speed machine / 1 : high speed machine
	3	PCB Identification signal2	-	BIT2=1,BIT3=0 : insetion
	2	PCB Identification signal1	-	-
	1	PSW2	-	0 : ON / 1 : OFF
	0	PSW1	-	0 : ON / 1 : OFF
P434	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	fan 2 Enable	-	0 : OFF / 1 : ON
	10	-	-	-
	9	PCB LED2	PCB2	0 : ON / 1 : OFF
	8	PCB LED1	PCB1	0 : ON / 1 : OFF
	7	-	-	-
	6	-	-	-
5	-	-	-	
4	-	-	-	
3	-	-	-	
2	-	-	-	
1	-	-	-	
0	-	-	-	
P439	-	lower tray document wide detection AD	-	-
P440	-	upper tray document wide detection AD	-	-
P445	-	Inlet motor 1 current	-	-
P450	-	pickup motor current	-	-
P451	-	Reserve motor current	-	-

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## ■ Inserter - K1 : IPC Connection (SORTER>P038 to P047)

Address	bit	Name	Symbol	Remarks
P038	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	paper delivery start response	-	0:OFF/1ON
	2	paper delivery start Request	-	0:ON/1:OFF
	1	-	-	-
	0	-	-	-
P039	15	-	-	-
	14	Inlet motor CLK	-	-
	13	lower tray document set LED	-	0:ON/1:OFF
	12	exit motor1CLK	-	-
	11	upper tray document set LED	-	0:ON/1:OFF
	10	exit motor phase switching 2	-	P31=0,P32=0:2phase
	9	exit motor phase switching 1	-	P31=1,P32=0:1-2phase
8	exit motor2CLK	-	-	
	7	-	-	-
	6	-	-	-
	5	upper tray width sensor	S10	-
	4	lower tray width sensor	S13	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-
P040	15	-	-	-
	14	-	-	-
	13	Reserve solenoid	SOL1	0:PWM/1:PWM
	12	upper tray registration sensor	S3	0:no paper /1:paper
	11	lower tray registration sensor	S7	0:no paper /1:paper
	10	-	-	-
	9	-	-	-
8	-	-	-	

Address	bit	Name	Symbol	Remarks
	7	EEPROM/I/O DO signal	-	0:data bit 0/1:data bit 1
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-
P041	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	EEPROM CS signal	-	-
9	EEPROM/DA/I/O/ DI signal	-	-	
8	EEPROM/DA/I/O/ CLK signal	-	-	
	7	PMmotoroutput Enable	-	0:OFF/1ON
	6	upper tray registration clutch	CL1	0:OFF/1ON
	5	lower tray registration clutch	CL2	0:OFF/1ON
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	Reserve unit motor rotation direction	-	0:CCW/1:CCW
	0	Reserve unit motor phase switching1	-	0:2phase/1:1-2phase
P042	15	-	-	-
	14	-	-	-
	13	PM motor chip Enable	-	0:OFF/1ON
	12	exit motor1Enable	-	0:OFF/1ON
	11	Brushless motor Enable	-	0:OFF/1ON
	10	HB motor Enable	-	0:OFF/1ON
	9	Inlet motor phase switching2	-	PH0=0,PH1=0:2phase
	8	Inlet motor phase switching1	-	PH0=1,PH1=0:1-2phase
	7	paper delivery start response	-	0:ON/1:OFF
	6	paper delivery start	-	0:OFF/1ON
	5	drive switching motor rotation direction	-	0:CCW/1:CCW
	4	drive switching motor CLK	-	-
	3	lower tray lift motor rotation direction	-	0:CCW/1:CCW
	2	lower tray lift motor CLK	-	-
	1	upper tray lift motor rotation direction	-	0:CCW/1:CCW
	0	upper tray lift motor CLK	-	-



Address	bit	Name	Symbol	Remarks
P043	15	pickup motor rotation direction	-	0:CCW/1:CW
	14	upper tray lift motor current	-	0:PWM/1:PWM
	13	lower tray lift motor current	-	0:PWM/1:PWM
	12	drive switching motor current	-	0:PWM/1:PWM
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	external I/O data bus 6	-	-
	6	Reserve unit motor CLK	-	-
	5	external I/O data bus 5	-	-
	4	external I/O data bus 4	-	-
	3	external I/O data bus 3	-	-
	2	external I/O data bus 2	-	-
	1	external I/O data bus 1	-	-
	0	pickup motor CLK	-	-
P044	15	lower tray pick sensor	S6	0:outside pick position/1:pick position
	14	lower tray last paper sensor2	S15	0:no paper /1:paper
	13	lower tray last paper sensor1	S14	0:paper/1:no paper
	12	lower tray Empty sensor	S12	0:paper/1:no paper
	11	upper tray lower limit sensor	S4	0:outside lower limit/1:lower limit
	10	upper tray pick sensor	S2	0:outside pick position/1:pick position
	9	upper tray last paper sensor1	S11	0:paper/1:no paper
	8	upper tray Empty sensor	S9	0:paper/1:no paper
	7	Reserve timing sensor	S16	0:no paper /1:paper
	6	Reserve sensor	S17	0:no paper /1:paper
	5	Reserve inlet sensor	S18	0:no paper /1:paper
	4	Intermediate feed sensor	S8	0:no paper /1:paper
	3	drive switching sensor	S1	0:outside HP/1:inside HP
	2	unit open/close sensor	S19	0:close/1:open
	1	upper cover open/close switch	SW2	0:close/1:open
	0	lower tray lower limit sensor	S5	0:outside lower limit/1:lower limit
P045	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-

Address	bit	Name	Symbol	Remarks	
	7	-	-	-	
	6	power supply lock detect signal 3	-	0:normal /1:lock	
	5	-	-	-	
	4	-	-	-	
	3	Delivery2 sensor	S21	0:no paper /1:paper	
	2	inlet sensor	S20	0:no paper /1:paper	
	1	Front upper cover switch	SW1	0:close/1:open	
	0	Brushless motor Lock detection signal	-	0:normal /1:lock	
	P046	15	DSW8	-	0:ON/1:OFF
		14	DSW7	-	0:ON/1:OFF
13		DSW6	-	0:ON/1:OFF	
12		DSW5	-	0:ON/1:OFF	
11		DSW4	-	0:ON/1:OFF	
10		DSW3	-	0:ON/1:OFF	
9		DSW2	-	0:ON/1:OFF	
8		DSW1	-	0:ON/1:OFF	
7		-	-	-	
	6	-	-	-	
	5	-	-	-	
	4	Wire-speed sorting Identification signal	-	0:low speed machine/1: high speed machine	
	3	PCB Identification signal2	-	BIT2=1,BIT3=0:insetion	
	2	PCB Identification signal1	-	-	
	1	PSW2	-	0:ON/1:OFF	
	0	PSW1	-	0:ON/1:OFF	
	P047	15	-	-	-
		14	-	-	-
13		-	-	-	
12		-	-	-	
11		fan 2 Enable	-	0:OFF/1:ON	
10		-	-	-	
9		PCB LED2	PCB2	0:ON/1:OFF	
8		PCB LED1	PCB1	0:ON/1:OFF	

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## Paper Folding Unit - H1 : ARCNET Connection

(SORTER > P029 to P038)

Address	bit	Name	Symbol	Remarks
P029	15	Upper stopper paper sensor	S33	1 : paper
	14	Fold position sensor	S32	1 : paper
	13	Separation timing sensor	S31	1 : paper
	12	Speed down timing sensor	S30	1 : paper
	11	paper delivery start response	-	0 : OFF / 1 : ON
	10	paper delivery start request	-	0 : ON / 1 : OFF
	9	-	-	-
	8	-	-	-
	7	Rotation direction of fold position adjustment motor	-	0 : CW / 1 : CCW
	6	Rotation direction of fold position adjustment motor CLK	-	-
	5	-	-	-
	4	fold feed motor CLK	-	-
	3	C-fold stopper solenoid	SOL5	0 : PWM / 1 : PWM
	2	-	-	-
1	Separation solenoid	SOL3	0 : PWM / 1 : PWM	
0	Fold tray branch flapper solenoid	SOL2	0 : PWM / 1 : PWM	
P030	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	0 : ON / 1 : OFF
	10	Exit Motor phase switching 2	-	P31=0,P32=0 : 2phase
	9	Exit Motor phase switching 1	-	P31=1,P32=0 : 1-2phase
	8	Exit Motor 2CLK	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	Upper stopper paper sensor AD	S33	1 : paper
	2	Fold position accuracy sensor AD	S32	1 : paper
1	Separation timing sensor AD	S31	1 : paper	
0	Speed down timing sensor AD	S30	1 : paper	

Address	bit	Name	Symbol	Remarks
P031	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	Fold tray branch flapper solenoid	SOL4	0 : PWM / 1 : PWM
	9	Flash write Communication received	-	-
	8	Flash write Communication Send	-	-
	7	EEPROM / IO DO signal	-	0 : data bit0 / 1 : : data bit1
	6	C-fold tray motor CLK	-	-
	5	lead edge holding guide motor CLK	-	-
	4	Rotation direction of lead edge holding guide motor	-	0 : CW / 1 : CCW
	3	C-fold stopper adjustment motor CLK	-	-
	2	Rotation direction of C-fold stopper adjustment motor	-	0 : CW / 1 : CCW
	1	upper stopper motor	-	-
	0	Rotation direction of upper stopper motor	-	0 : CW / 1 : CCW
P032	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	External DAC CS signal	-	1 : OFF / 0 : ON
	10	EEPROM CS signal	-	-
	9	EEPROM / DA / IO / DI signal	-	-
	8	EEPROM / DA / IO / CLK signal	-	-
	7	PM motor output Enable	-	0 : OFF / 1 : ON
	6	-	-	-
	5	-	-	-
	4	External I / O Address bus3	-	-
	3	External I / O Address bus2	-	-
	2	External I / O Address bus1	-	-
	1	-	-	-
	0	-	-	-

Address	bit	Name	Symbol	Remarks
P033	15	Fold position adjustment clutch (negative)	CL4	0 : OFF / 1 : ON
	14	Fold position adjustment clutch (positive)	CL3	0 : OFF / 1 : ON
	13	PM motor chip Enable	-	0 : OFF / 1 : ON
	12	exit motor1Enable	-	0 : OFF / 1 : ON
	11	Brushless motor Enable	-	0 : OFF / 1 : ON
	10	HB motor Enable	-	0 : OFF / 1 : ON
	9	entrance motor phase switching 2	-	PH0=0,PH1=0 : 2phase excitation
	8	entrance motor switching 2	-	PH0=1,PH1=0 : 1-2phase excitation
	7	paper delivery start response	-	0 : ON / 1 : OFF
	6	paper delivery start	-	0 : OFF / 1 : ON
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-
P034	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	C-fold stopper adjustment motorcurrent	-	0 : PWM / 1 : PWM
	10	upper stopper motor current	-	0 : PWM / 1 : PWM
	9	C-fold stopper adjustment motor current	-	0 : PWM / 1 : PWM
	8	lead edge holding guide motor current	-	0 : PWM / 1 : PWM
	7	external I / O Data Bus 6	-	-
	6	-	-	-
	5	external I / O Data Bus5	-	-
	4	external I / O Data Bus4	-	-
	3	external I / O Data Bus3	-	-
	2	external I / O Data Bus2	-	-
	1	external I / O Data Bus1	-	-
	0	-	-	-

Address	bit	Name	Symbol	Remarks
P035	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-
P036	15	Fold unit pull-out sensor	S29	0 : close / 1 : open
	14	Fold tray paper sensor	S27	1 : paper
	13	Fold tray full sensor	S26	1 : paper
	12	Fold tray HP sensor	S28	0 : HP outside / 1HP input
	11	Delivery 1 sensor	S22	1 : paper
	10	2nd fold push-on stopper HP sensor	S23	0 : HP outside / 1HP input
	9	C-fold stopper HP sensor	S24	0 : HP outside / 1HP input
	8	Lead edge holding guide HP sensor	S25	0 : HP outside / 1HP input
	7	-	-	-
	6	power supply fan lock detection signal3		0 : normal / 1 : Lock
	5	-	-	-
	4	-	-	-
	3	Delivery 2 sensor	S21	1 : paper
	2	Inlet sensor	S20	1 : paper
	1	front upper cover sensor	-	0 : close / 1 : open
	0	Brushless motor Lock detection signal		0 : close / 1 : open

Address	bit	Name	Symbol	Remarks
P037	15	DSW8	-	0 : ON / 1 : OFF
	14	DSW7	-	0 : ON / 1 : OFF
	13	DSW6	-	0 : ON / 1 : OFF
	12	DSW5	-	0 : ON / 1 : OFF
	11	DSW4	-	0 : ON / 1 : OFF
	10	DSW3	-	0 : ON / 1 : OFF
	9	DSW2	-	0 : ON / 1 : OFF
	8	DSW1	-	0 : ON / 1 : OFF
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	Wire-speed sorting Identification signal	-	0 : low speed machine / 1 : high speed machine
	3	PCB Identification signal2	-	BIT2=1,BIT3=0 : insetion
2	PCB Identification signal1	-	-	
1	PSW2	-	0 : ON / 1 : OFF	
0	PSW1	-	0 : ON / 1 : OFF	
P038	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	fan 2 Enable	-	0 : OFF / 1 : ON
	10	-	-	-
	9	PCB LED2	-	0 : ON / 1 : OFF
	8	PCB LED1	-	0 : ON / 1 : OFF
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
0	-	-	-	

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## ■ Paper Folding Unit - H1 : IPC Connection (SORTER>P028 to P037)

Address	bit	Name	Symbol	Remarks	
P028	7	Upper stopper paper sensor	S33	1:paper	
	6	Hold position sensor	S32	1:paper	
	5	Separation timing sensor	S31	1:paper	
	4	Speed down timing sensor	S30	1:paper	
	3	paper delivery start response	-	0:OFF/1:ON	
	2	paper delivery start request	-	0:ON/1:OFF	
	1	-	-	-	
	0	-	-	-	
	P029	15	Rotation direction of Hold position adjustment motor	-	0:CW/1:CCW
		14	Rotation direction of Hold position adjustment motor CLK	-	-
13		-	-	-	
12		Saddle Holder/Feeder Motor CLK	-	-	
11		C-Hold stopper solenoid	SOL5	0:PWM/1:PWM	
10		-	-	-	
9		Separation solenoid	SOL3	0:PWM/1:PWM	
8		Hold tray branch flapper solenoid	SOL2	0:PWM/1:PWM	
7		-	-	-	
6		Entrance Motor CLK	-	-	
P030	5	-	-	0:ON/1:OFF	
	4	Exit Motor 1CLK	-	-	
	3	-	-	0:ON/1:OFF	
	2	Exit Motor phase switching 2	-	P31=0,P32=0:2phase	
	1	Exit Motor phase switching 1	-	P31=1,P32=0:1-2phase	
	0	Exit Motor 2CLK	-	-	
	15	-	-	-	
	14	-	-	-	
	13	-	-	-	
	12	-	-	-	
11	Upper stopper paper sensor AD	S33	1:paper		
10	Hold position accuracy sensor AD	S32	1:paper		
9	Separation timing sensor AD	S31	1:paper		
8	Speed down timing sensor AD	S30	1:paper		
P037	7	-	-	-	
	6	-	-	-	
	5	-	-	-	
	4	-	-	-	
	3	-	-	-	
	2	Hold tray branch flapper solenoid	SOL4	0:PWM/1:PWM	
	1	Flash write Communication received	-	-	
	0	Flash write Communication Send	-	-	

Address	bit	Name	Symbol	Remarks
P031	15	EEPROM/IO DO signal	-	0:data bit0/1:data bit1
	14	C-Hold tray motor CLK	-	-
	13	lead edge holding guide motor CLK	-	-
	12	Rotation direction of lead edge holding guide motor	-	0:CW/1:CCW
	11	C-Hold stopper adjustment motor CLK	-	-
	10	Rotation direction of C-Hold stopper adjustment motor	-	0:CW/1:CCW
	9	upper stopper motor	-	-
	8	Rotation direction of upper stopper motor	-	0:CW/1:CCW
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	External DAC CS signal	-	1:OFF/0:ON
	2	EEPROM CS signal	-	-
	1	EEPROM/DA/IO/ DI signal	-	-
	0	EEPROM/DA/IO/ CLK signal	-	-
P032	15	PM motor output Enable	-	0:OFF/1:ON
	14	-	-	-
	13	-	-	-
	12	External I/O Address bus3	-	-
	11	External I/O Address bus2	-	-
	10	External I/O Address bus1	-	-
	9	-	-	-
	8	-	-	-
	7	Hold position adjustment clutch (negative)	CL4	0:OFF/1:ON
	6	Hold position adjustment clutch (positive)	CL3	0:OFF/1:ON
	5	PM motor chip Enable	-	0:OFF/1:ON
	4	exit motor1Enable	-	0:OFF/1:ON
	3	Brushless motor Enable	-	0:OFF/1:ON
	2	HB motor Enable	-	0:OFF/1:ON
	1	entrance motor phase switching 2	-	PH0=0,PH1=0:2phase excitation
	0	entrance motor switching 2	-	PH0=1,PH1=0:1-2phase excitation
P033	15	paper delivery start response	-	0:ON/1:OFF
	14	paper delivery start	-	0:OFF/1:ON
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-

Address	bit	Name	Symbol	Remarks
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	C-Hold stopper adjustment motor current	-	0:PWM/1:PWM
	2	upper stopper motor current	-	0:PWM/1:PWM
	1	C-Hold stopper adjustment motor current	-	0:PWM/1:PWM
	0	lead edge holding guide motor current	-	0:PWM/1:PWM
P034	15	external I/O Data Bus 6	-	-
	14	-	-	-
	13	external I/O Data Bus5	-	-
	12	external I/O Data Bus4	-	-
	11	external I/O Data Bus3	-	-
	10	external I/O Data Bus2	-	-
	9	external I/O Data Bus1	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-
P035	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	Hold unit pull-out sensor	S29	0:close/1:open
	6	Hold tray paper sensor	S27	1:paper
	5	Hold tray full sensor	S26	1:paper
	4	Hold tray HP sensor	S28	0:HP outside/1HP input
	3	Delivery 1 sensor	S22	1:paper
	2	2nd Hold push-on stopper HP sensor	S23	0:HP outside/1HP input
	1	C-Hold stopper HP sensor	S24	0:HP outside/1HP input
	0	Lead edge holding guide HP sensor	S25	0:HP outside/1HP input

Address	bit	Name	Symbol	Remarks
P036	15	-	-	-
	14	power supply fan lock detection signal3		0:normal/1:Lock
	13	-	-	-
	12	-	-	-
	11	Delivery 2 sensor	S21	1:paper
	10	Inlet sensor	S20	1:paper
	9	front upper cover sensor	-	0:close/1:open
	8	Brushless motor Lock detection signal		0:close/1:open
	7	DSW8	-	0:ON/1:OFF
	6	DSW7	-	0:ON/1:OFF
	5	DSW6	-	0:ON/1:OFF
	4	DSW5	-	0:ON/1:OFF
	3	DSW4	-	0:ON/1:OFF
	2	DSW3	-	0:ON/1:OFF
	1	DSW2	-	0:ON/1:OFF
	0	DSW1	-	0:ON/1:OFF
P037	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	Wire-speed sorting Identification signal	-	0:low speed machine/1: high speed machine
	11	PCB Identification signal2	-	BIT2=1,BIT3=0:insetion
	10	PCB Identification signal1	-	-
	9	PSW2	-	0:ON/1:OFF
	8	PSW1	-	0:ON/1:OFF
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	fan 2 Enable	-	0:OFF/1:ON
	2	-	-	-
	1	PCB LED2	-	0:ON/1:OFF
	0	PCB LED1	-	0:ON/1:OFF

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## ■ Staple Finisher-F1 / Booklet Finisher-F1 (SORTER > P001 to P075)

Address	bit	Name	Symbol	Remarks
P001	15	-	-	-
	14	ARCNET-INT	-	-
	13	Not use	-	-
	12	Not use	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	Stack delivery motor	M19	-
	5	check LED	-	0 : OFF,1 : ON
	4	-	-	-
	3	Saddle feed motor	M101	-
	2	-	-	-
	1	-	-	-
0	-	-	-	
P002	15	Delivery motor	M5	-
	14	Processing feed motor	M26	-
	13	Processing feed motor	M26	-
	12	-	-	-
	11	Inlet feed motor	M1	-
	10	Punch motor FG	M24	-
	9	Punch motor FG	M4	-
	8	Shift feed motor FG	M2	-
	7	-	-	-
	6	-	-	-
	5	SST Connect	-	1 : SST Connect
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
0	-	-	-	

Address	bit	Name	Symbol	Remarks
P003	15	-	-	-
	14	ASIC reset output	-	0 : RESET
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	DL hard latch Command	-	1 : latch
	9	DL hard latch input	-	0 : Normal,1 : Download
	8	DL latch release	-	0 : release
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	ASIC0 chip select	-	0 : Active
	2	SRAM chip select	-	0 : Active
	1	ARCNET chip select	-	0 : Active
0	-	-	-	
P004	15	ASIC1 chip select	-	0 : Active
	14	Trimmer RXD	-	-
	13	Trimmer TXD	-	-
	12	WD_PULSE	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	for R&D	-	-
	6	for R&D	-	-
	5	for R&D	-	-
	4	for R&D	-	-
	3	for R&D	-	-
	2	for R&D	-	-
	1	for R&D	-	-
0	for R&D	-	-	

Address	bit	Name	Symbol	Remarks
P005	15	-	-	-
	14	-	-	-
	13	Tray A lift motor CW	M22	0 : CCW,1 : CW
	12	Tray A lift motor Clk	M22	-
	11	Tray A lift motor OFF	M23	0 : ON,1 : OFF
	10	Auxiliary tray lift solenoid	SL9	0 : ON,1 : OFF
	9	Staple motor direction switching	M25	-
	8	Staple motor ON	M25	-
	7	Tray B lift motor Current switching 2	M23	-
	6	Tray B lift motor Current switching 1	M23	-
	5	Tray B lift motor CW	M23	0 : CCW,1 : CW
	4	Tray B lift motor Clk	M23	-
	3	Tray B lift motor OFF	M23	0 : ON,1 : OFF
	2	Tray A paper surface sensor PCB A / D Input selector3	UN16	0 : selected,1 : not selected
	1	Tray A paper surface sensor PCB A / D Input selector2	UN16	0 : selected,1 : not selected
0	Tray A paper surface sensor PCB A / D Input selector1	UN16	0 : selected,1 : not selected	
P006	15	Buffer front feed motor Current switching 2	M3	-
	14	Buffer front feed motor Current switching 1	M3	-
	13	Buffer front feed motor	M3	0 : CW,1 : CCW
	12	Buffer front feed motor	M3	-
	11	Processing feed motor Current switching 2	M26	-
	10	Processing feed motor Current switching 1	M26	-
	9	Processing feed motor	M26	0 : CW,1 : CCW
	8	Processing feed motor	M26	-
	7	Buffer motor	M4	-
	6	Buffer motor	M4	-
	5	Buffer motor	M4	0 : CW,1 : CCW
	4	Buffer motor	M4	-
	3	Staple motor	M25	-
	2	Staple motor	M25	-
	1	Staple motor	M25	0 : CCW,1 : CW
0	Staple motor	M25	-	

Address	bit	Name	Symbol	Remarks
P007	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	Tray A paper sensor	PS32	0 : No paper,1 : paper
	10	Tray adjacent switch	MSW2	0 : detect, 1 : not detect
	9	guide Safety detection		0 : not detect,1 : detect
	8	Tray area sensor 4	UN19	0 : Shading
	7	Tray area sensor 3	UN19	0 : Shading
	6	Tray area sensor 2	UN19	0 : Shading
	5	Tray area sensor 1	UN19	0 : Shading
	4	Tray B area sensor	PS33	0 : no paper,1 : paper
	3	Tray area sensor 4	UN20	0 : Shading
	2	Tray area sensor 3	UN20	0 : Shading
P008	1	Tray area sensor 2	UN20	0 : Shading
	0	Tray area sensor 1	UN20	0 : Shading
	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	No staple detect	-	0 : No staple,1 : staple
	10	READY detect	-	0 : not ready,1 : ready
	9	Staple 24VDOWN detect	-	0 : ON,1 : OFF
	8	Staple HP sensor	PS27	1 : HP
	7	Staple position sensor 4	PS31	0 : NG,1 : OK
	6	Staple position sensor 3	PS30	0 : NG,1 : OK
	5	Staple position sensor 2	PS29	0 : NG,1 : OK
	4	Staple position sensor 1	PS28	0 : NG,1 : OK
3	-	-	-	
2	Needle chip full sensor	PS42	1 : not set or full	
1	-	-	-	
0	-	-	-	

Address	bit	Name	Symbol	Remarks
P009	15	Inlet feed motor	M1	-
	14	Inlet feed motor	M1	-
	13	Inlet feed motor	M1	0 : CW,1 : CCW
	12	Inlet feed motor	M1	-
	11	feed roller disengage motor current switching 2	M8	-
	10	feed roller disengage motor current switching 1	M8	-
	9	feed roller disengage motor current switching B phase	M8	-
	8	feed roller disengage motor current switching A phase	M8	-
	7	Shift feed motor Current switching 2	M2	-
	6	Shift feed motor Current switching 1	M2	-
	5	Shift feed motor CW	M2	0 : CW,1 : CCW
	4	Shift feed motor Clk	M2	-
	3	Inlet roller disengage motor current set	M27	-
	2	Inlet roller disengage motor current set	M27	-
	1	Inlet roller disengage motor current B phase	M27	-
	0	Inlet roller disengage motor current A phase	M27	-
	P010	15	7segLED_A	-
14		7segLED_B	-	0 : OFF,1 : ON
13		7segLED_C	-	0 : OFF,1 : ON
12		7segLED_D	-	0 : OFF,1 : ON
11		7segLED_E	-	0 : OFF,1 : ON
10		7segLED_F	-	0 : OFF,1 : ON
9		7segLED_G	-	0 : OFF,1 : ON
8		7segLED_Dot	-	0 : OFF,1 : ON
7		Horizontal registration shift motor Current switching 2	M7	-
6		Horizontal registration shift motor Current switching 1	M7	-
5		Horizontal registration shift motor CW / CCW	M7	0 : CW,1 : CCW
4		Horizontal registration shift motor Clock (1-2 phase)	M7	-
3		Delivery motor Current switching 2	M5	-
2		Delivery motor Current switching 1	M5	-
1	Delivery motor CW / CCW	M5	0 : CW,1 : CCW	
0	Delivery motor Clk	M5	-	



Address	bit	Name	Symbol	Remarks
P011	15	DIPSW(adjust4)	DIPSW4	0 : ON,1 : OFF
	14	DIPSW(adjust3)	DIPSW3	0 : ON,1 : OFF
	13	DIPSW(adjust2)	DIPSW2	0 : ON,1 : OFF
	12	DIPSW(adjust1)	DIPSW1	0 : ON,1 : OFF
	11	DIPSW(adjust0)	DIPSW0	0 : ON,1 : OFF
	10	DIPSW(PunchIdentification0)	DIPSW0	0 : ON,1 : OFF
	9	DIPSW(PunchIdentification1)	DIPSW1	0 : ON,1 : OFF
	8	DIPSW(PunchIdentification2)	DIPSW2	0 : ON,1 : OFF
	7	CHK-SW8	CHK-SW8	0 : ON,1 : OFF
	6	CHK-SW7	CHK-SW7	0 : ON,1 : OFF
	5	CHK-SW6	CHK-SW6	0 : ON,1 : OFF
	4	CHK-SW5	CHK-SW5	0 : ON,1 : OFF
	3	CHK-SW4	CHK-SW4	0 : ON,1 : OFF
	2	CHK-SW3	CHK-SW3	0 : ON,1 : OFF
	1	CHK-SW2	CHK-SW2	0 : ON,1 : OFF
	0	CHK-SW1	CHK-SW1	0 : ON,1 : OFF
P012	15	Upper cover sensor	PS2	0 : open,1 : close
	14	feed cooling fan error	FM2	0 : normal,1 : error
	13	Front door sensor	PS1	0 : open,1 : close
	12	Chip tray sensor	PS40	0 : not set,1 : set
	11	Punch 2 / 3 hole sensor	PS39	0 : 2 hole,1 : 3hole
	10	door 24V power down detect	-	1 : power down
	9	Chad sensor	PS46	1 : full
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-PSW	-	0 : PUSH
	1	+PSW	-	0 : PUSH
	0	ENTER PSW	-	0 : PUSH

Address	bit	Name	Symbol	Remarks
P013	15	-	-	-
	14	upper guide motor Current switching	M20	-
	13	upper guide motor B phase	M20	-
	12	upper guide motor A phase	M20	-
	11	-	-	-
	10	feed belt move motor Current switching	M17	-
	9	feed belt move motor B phase	M17	-
	8	feed belt move motor A phase	M17	-
	7	-	-	-
	6	Paper trailing edge drop motor Current switching	M16	-
	5	Paper trailing edge drop motor B phase	M16	-
	4	Paper trailing edge drop motor A phase	M16	-
	3	Punch motor	M24	0 : ON,1 : OFF
	2	Upper path switch solenoid	SL2	0 : OFF,1 : ON
	1	Saddle path switch solenoid	SL3	0 : OFF,1 : ON
	0	Buffer path switch solenoid	SL1	0 : OFF,1 : ON
P014	15	Horizontal registration detection select 3	-	0 : not selected, 1 : selected
	14	Horizontal registration detection select 2	-	0 : not selected, 1 : selected
	13	Horizontal registration detection select 1	-	0 : not selected, 1 : selected
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	Punch motor direction Switching	M24	-
	6	Punch motor ON signal	M24	-
	5	Horizontal registration detection unit move motor B*	M6	-
	4	Horizontal registration detection unit move motor A*	M6	-
	3	Horizontal registration detection motor Current switching 2	M6	-
	2	Horizontal registration detection motor Current switching 1	M6	-
	1	Horizontal registration detection unit move motor B*	M6	-
	0	Horizontal registration detection unit move motor A*	M6	-

Address	bit	Name	Symbol	Remarks
P015	15	Upper guide HP sensor	PS26	0 : HP outside, 1 : HP inside
	14	Paper trailing edge drop guide HP sensor	PS24	0 : HP outside, 1 : HP inside
	13	Feed roller HP sensor	PS9	0 : HP outside, 1 : HP inside
	12	Shift roller unit HP sensor	PS8	0 : HP outside, 1 : HP inside
	11	Punch front sensor	PS37	0 : front,1 : rear
	10	Punch motor HP sensor	PS36	0 : HP outside, 1 : HP inside
	9	Staple HP sensor	PS27	0 : HP outside, 1 : HP inside
	8	Horizontal registration detection unit HP sensor	PS7	0 : HP outside, 1 : HP inside
	7	Lower path sensor PCB	UN22	0 : paper,1no paper
	6	Upper delivery sensor	PS5	0 : no paper,1 : paper
	5	Inlet sensor	PS3	0 : no paper,1 : paper
	4	Shift unit trailing edge sensor	PS4	0 : no paper,1 : paper
	3	Buffer path 1 sensor PCB	UN13	0 : paper,1no paper
	2			-
	1	Buffer path 2 sensor PCB	UN14	0 : paper,1no paper
	0	Lower delivery sensor	PS6	0 : no paper,1 : paper
P016	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	Inlet roller HP sensor	PS43	0 : HP outside,1 : HP inside
	6	Horizontal registration sensor 3	UN24	0 : paper,1no paper
	5	Horizontal registration sensor 2	UN24	0 : paper,1no paper
	4	Horizontal registration sensor 1	UN24	0 : paper,1no paper
	3	-	-	-
	2	-	-	-
1	-	-	-	
0	Feed belt HP sensor	PS25	-	

Address	bit	Name	Symbol	Remarks
P017	15	Trimmer Out	-	-
	14	Stack delivery auxiliary tray motor ON	M13	-
	13	Stack delivery auxiliary tray motor B	M13	-
	12	Stack delivery auxiliary tray motor A	M13	-
	11			
	10	Paddle rotation motor Current switching 1	M14	-
	9	Paddle rotation motor CW	M14	0 : CW,1 : CCW
	8	Paddle rotation motor Clk	M14	-
	7	Processing rib tray solenoid	SL8	0 : OFF,1 : ON
	6	Paddle lift motor Current switching	M15	-
	5	Paddle lift motor B phase	M15	-
	4	Paddle lift motor A phase	M15	-
	3	Square hold Download	-	0 : OFF,1 : ON
	2	Square hold mode signal	-	0 : OFF,1 : ON
	1	Square hold remote	-	0 : OFF,1 : ON
	0	Trimmer Remote	-	0 : OFF,1 : ON
P018	15	Square hold reset signal	-	0 : RESET
	14	Delivery angle change motor current switching 1	M28	-
	13	Delivery angle change motor current switching B phase	M28	-
	12	Delivery angle change motor current switching A phase	M28	-
	11	Stack delivery motor Current switching 2	M19	-
	10	Stack delivery motor Current switching 1	M19	-
	9	Stack delivery motor CW	M19	0 : CW,1 : CCW
	8	Stack delivery motor Clk	M19	-
	7	Assist motor Current switching 2	M12	-
	6	Assist motor Current switching 1	M12	-
	5	Assist motor CW	M12	0 : CW,1 : CCW
	4	Assist motor Clk	M12	-
3	Swing guide motor Current switching 2	M18	-	
2	Swing guide motor Current switching 1	M18	-	
1	Swing guide motor CW / CCW	M18	0 : CW,1 : CCW	
0	Swing guide motor Clk	M18	-	

Address	bit	Name	Symbol	Remarks
P019	15	Square hold connected detection	-	0 : conect,1not connect
	14	Trimmer connect detection	-	0 : conect,1not connect
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-
P020	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	Square hold input 3	-	-
	7	Square hold input 2	-	-
	6	Square hold input 1	-	-
	5	tray B ISAsensor	-	0 : paper,1no paper
	4	Tray B paper surface sensor PCB (receiving)	UN18	0 : paper,1no paper
	3	tray B sensor	-	0 : paper,1no paper
	2	tray B SAsensor	-	0 : paper,1no paper
1	Tray A paper surface sensor PCB (receiving)	UN16	0 : paper,1no paper	
0	tray A sensor	-	0 : paper,1no paper	

Address	bit	Name	Symbol	Remarks
P021	15	-	-	-
	14	Processing stopper move motor current switching	M11	-
	13	Processing stopper move motor B phase	M11	-
	12	Processing stopper move motor A phase	M11	-
	11	motor standby HB	-	0 : OFF,1 : ON
	10	Staple move motor Current switching	M21	-
	9	Staple move motor B	M21	-
	8	Staple move motor A	M21	-
	7	CZ hold Separate	-	0 : Separate(Kill), 1 : not Separate
	6	CZ hold set	-	0 : reset off ,1 : reset
	5	CZ hold download mode	-	0 : OFF,1 : ON
	4	-	-	-
	3	motor standby PM	-	0 : OFF,1 : ON
	2	5V power on	-	0 : DOWN,1 : ON
	1	fan on signal	-	0 : OFF,1 : ON
	0	saddle separate	-	0 : not separate, 1 : separate(kill)
P022	15	Square hold output3	-	-
	14	Square hold output2	-	-
	13	Front alignment motor B*	M9	-
	12	Front alignment motor A*	M9	-
	11	Square hold output1	-	-
	10	Front alignment motor current switching IH	-	-
	9	Front alignment motor B	M9	-
	8	Front alignment motor A	M9	-
	7	CZ hold FOLDENTRY	-	0 : OFF,1 : paper
	6	power remote output	-	0 : DOWN,1 : ON
	5	Front alignment motor B* phase	M10	-
	4	Front alignment motor A* phase	M10	-
	3	CZ hold FOLDEXITACK	-	1 : Response
	2	Front alignment motor current switching	-	-
1	Rear alignment motor B	M10	-	
0	Rear alignment motor A	M10	-	

Address	bit	Name	Symbol	Remarks
P023	15	Saddle Press HP sensor	PS110	0 : HP inside, 1 : HP outside
	14	CZ hold FOLDENTRYACK	-	0 : Response
	13	CZ hold FOLDEXIT	-	0 : paper
	12	-	-	-
	11	Processing tray HP sensor	PS13	0 : HP outside,1 : HP inside
	10	Processing tray paper sensor	PS17	0 : no paper,1 : paper
	9	Paper edge area sensor2	PS16	-
	8	Front alignment motor HP sensor	PS12	-
	7	Front alignment HP sensor	PS11	0 : HP outside, 1 : HP inside
	6	Paper edge area sensor 1	PS15	0 : Transmission,1 : Shading
	5	Paddle rotation HP sensor	PS20	0 : HP outside, 1 : HP inside
	4	Delivery angle HP sensor	PS45	0 : HP outside, 1 : HP inside
	3	Stack delivery auxiliary tray HP sensor	PS14	0 : HP outside, 1 : HP inside
	2	Swing guide HP sensor	PS44	0 : HP outside, 1 : HP inside
P024	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	Not use	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	power supply fan error 2	-	0 : normal,1 : error
	5	CZ fold connect detect	-	0 : connect,1not connect
	4	power supply fan error	-	0 : normal,1 : error
	3	Saddle delivery sub tray paper sensor	PS112	0 : paper 1 : No paper
	2	-	-	0 : no paper,1 : paper
1	-	-	0 : no paper,1 : paper	
0	saddle unit connect detection	-	0 : connect,1not connect	

Address	bit	Name	Symbol	Remarks
P025	15	-	-	-
	14	-	-	-
	13	Saddle press front sensor	PS109	0 : no paper,1 : paper
	12	Saddle alignment plate HP sensor	PS106	0 : HP outside,1 : HP inside
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	Saddle lead edge stopper HP sensor	PS105	0 : HP outside,1 : HP inside
	7	-	-	-
	6	-	-	-
	5	Saddle lead-in roller HP sensor	PS122	0 : HP outside,1 : HP inside
	4	Saddle trailing edge retainer move HP sensor	PS119	0 : HP outside,1 : HP inside
	3	-	-	-
	2	-	-	-
	1	-	-	-
P026	15	Saddle press Center Detect	-	0 : not Center ,1 : Center
	14	Saddle press HP sensor	PS110	0 : HP outside, 1 : HP inside
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	saddle roller guide HP sensor	-	0 : Not through the home position,1 : Through the home position
	9	-	-	-
	8	Saddle roller guide HP sensor	PS107	0 : HP outside,1 : HP inside
	7	Saddle vertical path sensor	PS103	0 : no paper,1 : paper
	6	Saddle inlet sensor	PS101	0 : no paper,1 : paper
	5	Saddle paper push-on plate HP sensor	PS108	0 : HP outside, 1 : HP inside
	4	-	-	-
	3	saddle staple detection 2	-	0 : no stapl,1 : stapl
	2	saddle staple detection1	-	0 : no stapl,1 : stapl
	1	Saddle staple HP sensor	-	0 : HP outside, 1 : HP inside
0	Saddle paper tapping HP sensor	PS118	0 : HP outside, 1 : HP inside	

Address	bit	Name	Symbol	Remarks
P027	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	Saddle sticher motor CCW	M109	1 : CCW Active
	10	Saddle sticher motor CW	M109	1 : CW Active
	9	Saddle paper push-on plate motor CCW	M105	0 : CCW Active
	8	Saddle paper push-on plate motor CW	M105	0 : CW Active
	7	Saddle press motor CCW	M108	0 : CCW Active
	6	Saddle press motor CW	M108	0 : CW Active
	5	Saddle folder / feeder motor CCW	M106	0 : CCW Active
	4	Saddle folder / feeder motor CW	M106	0 : CW Active
	3	Saddle lead-in roller disengage motor CW	M114	0 : CW,1 : CCW
	2	Saddle lead-in roller disengage motor IL	M114	-
	1	-	-	-
	0	Saddle alignment roller motor IL	M112	-
P028	15	Saddle alignment guide motor CW	M102	0 : CW,1 : CCW
	14	Saddle alignment guide motor IL	M102	-
	13	Saddle lead edge stopper motor CW	M103	0 : CW,1 : CCW
	12	Saddle lead edge stopper motor current IL	M103	-
	11	check LED	-	0 : OFF,1 : ON
	10	Saddle feed motor CW	M101	0 : CW,1 : CCW
	9	Saddle feed motor current IH	M101	-
	8	Saddle feed motor current IL	M101	-
	7	Saddle trailing edge moving motor CW	M111	0 : CW,1 : CCW
	6	Saddle trailing edge moving motor IL	M111	-
	5	-	-	-
	4	Saddle trailing edge retainer move motor IL	M110	-
	3	jam paper display LED4(Front)	-	0 : OFF,1 : ON
	2	saddle roller guide motor current IL	M104	-
1	motor standby	-	1 : standby	
0	Saddle paper tapping motor current IL	M113	-	

Address	bit	Name	Symbol	Remarks
P029	15	upper stopper paper sensor	-	0 : no paper,1 : paper
	14	hold position sensor	-	0 : no paper,1 : paper
	13	disengage timing sensor	-	0 : no paper,1 : paper
	12	Slowdown timing sensor	-	0 : no paper,1 : paper
	11	paper delivery Start response	-	0 : OFF,1 : ON
	10	paper delivery Start Request	-	0 : ON,1 : OFF
	9	finisher communication received	-	
	8	finisher communication Send	-	
	7	hold position adjust motor rotation Direction	-	0 : CW,1 : CCW
	6	hold position adjust motor CLK	-	-
	5	hold position adjust motor CLK feedback	-	-
	4	hold feed motor CLK	-	-
	3	3 hold stopper solenoid	-	0 : PWM,1 : PWM
	2	presser solenoid	-	0 : PWM,1 : PWM
	1	disengage solenoid	-	0 : PWM,1 : PWM
	0	hold / straight solenoid	-	0 : PWM,1 : PWM
P030	15	-	-	-
	14	Inlet feed motor CLK	M1	-
	13	lower bin document set LED	-	0 : ON,1 : OFF
	12	exit motor 1CLK	-	-
	11	upper bin document set LED	-	0 : ON,1 : OFF
	10	exit motor phase switching2	-	"P31=0, P32=0 : 2phaseExcitation P31=1, P32=0 : 1-2phaseExcitation"
	9	exit motor phase switching1	-	-
	8	exit motor 3CLK	-	-
	7	-	-	-
	6	-	-	-
	5	upper bin tray document wide detection AD	-	-
	4	lower bin tray document wide detection AD	-	-
	3	upper stopper paper sensor AD	-	0 : no paper,1 : paper
	2	hold position accuracy sensor AD	-	0 : no paper,1 : paper
	1	disengage timing sensor AD	-	0 : no paper,1 : paper
	0	Slowdown timing sensor AD	-	0 : no paper,1 : paper

Address	bit	Name	Symbol	Remarks
P031	15	-	-	-
	14	-	-	-
	13	reserve solenoid	-	0 : PWM,1 : PWM
	12	upper bin registration	-	0 : no paper,1 : paper
	11	lower bin registration	-	0 : no paper,1 : paper
	10	Inner tray motor solenoid	-	0 : PWM,1 : PWM
	9	flash write communication received	-	-
	8	flash write communication send	-	-
	7	EEPROM / IO DO signal	-	0 : data bit 0,1 : data bit 1
	6	-	-	-
	5	-	-	-
	4	Saddle lead edge guide hold motor rotation direction	-	0 : CW,1 : CCW
	3	-	-	-
	2	inner 3 hold adjust motor rotation direction	-	0 : CW,1 : CCW
	1	-	-	-
	0	upper stopper motor rotation direction	-	0 : CW,1 : CCW
P032	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	External DAC CS signal	-	0 : ON,1OFF
	10	EEPROM CS signal	-	0 : OFF,1ON
	9	EEPROM / DA / IO DI signal	-	0 : data bit 0,1 : data bit 1
	8	EEPROM / DA / IO CLK signal	-	-
	7	PM motor output Enable	-	0 : OFF,1ON
	6	upper bin registration clutch	-	0 : OFF,1ON
	5	lower bin registration clutch	-	0 : OFF,1ON
	4	External I / O Address bus 3	-	-
	3	External I / O Address bus 2	-	-
	2	External I / O Address bus 1	-	-
	1	Reverse unit motor rotation direction	-	0 : CCW,1CW
	0	Reverse unit motor phase switching1	-	0 : 2phase1 : 1-2phase

Address	bit	Name	Symbol	Remarks
P033	15	hold position adjustment clutch(-)	-	0 : OFF,1 : ON
	14	hold position adjustment clutch(+)	-	0 : OFF,1 : ON
	13	PM motor chip Enable	-	0 : OFF,1ON
	12	exit motor 1Enable	-	0 : OFF,1ON
	11	Brushless motor Enable	-	0 : OFF,1ON
	10	HB motor Enable	-	0 : OFF,1ON
	9	Inlet feed motor phaseswitching2	M1	"PH0=0, PH1=0 : 2phase PH0=1, PH1=0 : 1-2phase"
	8	Inlet motor phaseswitching1	M1	-
	7	paper delivery start response	-	0 : ON,1OFF
	6	paper delivery start	-	0 : ON,1OFF
	5	drive switching motor rotation direction	-	0 : CW,1 : CCW
	4	drive switching motor CLK	-	-
	3	Tray B lift motor rotation direction	M23	0 : CW,1 : CCW
	2	Tray B lift motor CLK	M23	-
	1	Tray A lift motor rotation direction	M22	0 : CW,1 : CCW
	0	Tray A lift motor CLK	M22	-
P034	15	pickup motor rotation direction	-	0 : CCW,1CW
	14	Tray A lift motor current	M22	0 : PWM,1 : PWM
	13	Tray B lift motor current	M23	0 : PWM,1 : PWM
	12	drive switching motor current	-	0 : PWM,1 : PWM
	11	inner 3 tray motor current	-	0 : PWM,1 : PWM
	10	upper stopper motor current	-	0 : PWM,1 : PWM
	9	inner 3 hold stopper adjustment motor current	-	0 : PWM,1 : PWM
	8	lead edge hold guide motor current	-	0 : PWM,1 : PWM
	7	External I / O data bus6	-	-
	6	Reserve unit motorCLK	-	-
	5	External I / O data bus5	-	-
	4	External I / O data bus4	-	-
	3	External I / O data bus3	-	-
	2	External I / O data bus2	-	-
	1	External I / O data bus1	-	-
	0	pickup motorCLK	-	-

Address	bit	Name	Symbol	Remarks
P035	15	lower bin pick sensor	-	0 : outside pick position , 1 : pick position
	14	lower bin tray last paper sensor2	-	0 : no paper,1 : paper
	13	lower bin tray last paper sensor1	-	0 : paper,1 : no paper
	12	lower bin empty sensor	-	0 : paper,1 : no paper
	11	upper bin tray Lower position sensor	-	0 : outside lower position, 1 : lower position
	10	upper bin pick sensor	-	0 : outside pick position , 1 : pick position
	9	upper bin last paper sensor sensor1	-	0 : paper,1 : no paper
	8	upper bin empty sensor	-	0 : paper,1 : no paper
	7	reserve timing sensor	-	0 : no paper,1 : paper
	6	reserve sensor	-	0 : no paper,1 : paper
	5	reserve inlet sensor	-	0 : no paper,1 : paper
	4	middle feed sensor	-	0 : no paper,1 : paper
	3	drive switching sensor	-	0 : outside HP, 1 : inside HP
	2	unit open / close sensor	-	0 : close,1 : open
	1	TOP cover open / close sensor	-	0 : close,1 : open
0	lower bin tray lower position sensor	-	0 : outside lower position, 1 : lower position	
P036	15	hold unit pickup sensor	-	0 : close,1 : open
	14	inner 3 tray paper sensor	-	0 : no paper,1 : paper
	13	inner 3 tray full sensor	-	0 : no paper,1 : paper
	12	inner 3 tray HP sensor	-	0 : outside HP, 1 : inside HP
	11	delivery 1 paper sensor	-	0 : no paper,1 : paper
	10	upper stopper HP sensor	-	0 : outside HP, 1 : inside HP
	9	inner 3stopper HP sensor	-	0 : outside HP, 1 : inside HP
	8	Lead edge hold HP sensor	-	0 : outside HP, 1 : inside HP
	7	-	-	
	6	power supply fan lock signal3	-	0 : normal,1 : lock
	5	fan lock signal2	-	0 : normal,1 : lock
	4	fan lock signal1	-	0 : normal,1 : lock
	3	delivery 2 sensor	-	0 : no paper,1 : paper
	2	Inlet sensor	PS3	0 : no paper,1 : paper
	1	Front Cover sensor	-	0 : Closed, 1 : Open
0	Brushless motor lock detection signal	-	0 : normal,1 : lock	

Address	bit	Name	Symbol	Remarks
P037	15	DSW8	DSW8	0 : ON,1 : OFF
	14	DSW7	DSW7	0 : ON,1 : OFF
	13	DSW6	DSW6	0 : ON,1 : OFF
	12	DSW5	DSW5	0 : ON,1 : OFF
	11	DSW4	DSW4	0 : ON,1 : OFF
	10	DSW3	DSW3	0 : ON,1 : OFF
	9	DSW2	DSW2	0 : ON,1 : OFF
	8	DSW1	DSW1	0 : ON,1 : OFF
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	Wire-speed sorting Identification signal	-	0 : low speed machine / 1 : high speed machine
	3	PCB Identification signal2	-	BIT2=1,BIT3=0 : insetion
	2	PCB Identification signal1	-	-
	1	PSW2	-	0 : ON / 1 : OFF
0	PSW1	-	0 : ON / 1 : OFF	
P038	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	FAN 2 Enable	-	0 : OFF,1 : ON
	10	FAN 1Enable	-	0 : OFF,1 : ON
	9	PCB LED2	-	0 : ON,1 : OFF
	8	PCB LED1	-	0 : ON,1 : OFF
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
0	-	-	-	
P039	-	-	-	-
P040	-	-	-	-
P041	-	-	-	-
P042	-	-	-	-
P043	-	-	-	-
P044	-	-	-	-
P045	-	-	-	-
P046	-	-	-	-
P047	-	-	-	-
P048	-	-	-	-
P049	-	-	-	-
P050	-	Horizontal registration sensor 3	UN24	

Address	bit	Name	Symbol	Remarks
P051		Horizontal registration sensor 2	UN24	
P052		Horizontal registration sensor 1	UN24	
P053		-	-	-
P054		-	-	-
P055		-	-	-
P056		-	-	-
P057		-	-	-
P058		-	-	-
P059		-	-	-
P060		-	-	-
P061		-	-	-
P062		-	-	-
P063		-	-	-
P064		-	-	-
P065		-	-	-
P066		-	-	-
P067		-	-	-
P068		-	-	-
P069		-	-	-
P070		-	-	-
P071		-	-	-
P072		-	-	-
P073		-	-	-
P074		-	-	-
P075		-	-	-

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## ■ Staple Finisher - D1 / Booklet Finisher -D1 (SORTER>P001 to P024)

Address	bit	Name	Symbol	Remarks
P001	15	Horizontal registration HP sensor	S101	1:home position
	14	Punch 2-/3-hole encoder	-	-
	13	-	-	-
	12	-	-	-
	11	Punch 2-/3-hole sensor	S103	1:home position
	10	Punch position sensor	S102	1:home position
	9	-	-	-
	8	-	-	-
	7	Buffer Feed Motor rotation signal	M102	0:CCW/1:CW
	6	Swing Guide Motor clock signal	M110	-
	5	Swing Guide Motor rotation signal	M110	0:CW/1:CCW
	4	Inlet Sensor	S101	0:paper/1:no paper
	3	Swing Guide Height Detection Sensor	S118	1:detected
	2	-	-	-
	1	-	-	-
	0	Feed Path Sensor	S102	0:no paper/1:paper
P002	15	Inlet Feed Motor	M200	0:CW/1:CCW
	14	Inlet Feed Motor	M200	-
	13	Stack Delivery Lower/Shutter Motor rotation	M122	0:CW/1:CCW
	12	Stack Delivery Lower/Shutter Motor clock	M122	-
	11	DA converter 1 clock signal	-	-
	10	DA converter 1 data output signal	-	-
	9	DA converter 1 chip select signal	-	-
	8	Buffer Feed Motor clock signal		
	7	Stacking Tray Paper Retainer Position Sensor	S149	1:home
	6	Stacking Tray Paper Retainer Rear HP Sensor	S138	1:home
	5	Tray Auxiliary Guide Rear HP Sensor	S136	0:home
	4	Rear Alignment HP Sensor	S109	1:home
	3	Stacking Tray Paper Retainer Front HP Sensor	S139	1:home
	2	Stacking Tray Paper Retainer Front HP Sensor	S137	0:home
	1	Front Alignment HP Sensor	S108	1:home
0	Staple HP Sensor	S131	1:home	



Address	bit	Name	Symbol	Remarks
P003	15			
	14			
	13	Tray Auxiliary Guide Motor lock signal	M120	-
	12	-	-	-
	11	-	-	-
	10	Stacking Tray Paper Retainer Motor clock signal	M114	
	9	-	-	-
	8	-	-	-
	7			
	6	DA converter 2 clock signal	-	-
	5			
	4	DA converter 2 data output signal	-	-
	3	-	-	-
2	DA converter 2 chip select signal	-	-	
1	Processing Tray Paper Sensor	S103	1:detected	
0	Stacking Tray Paper Retainer HP Sensor	S114	1:home	
P004	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	EXIO1 chip select	-	-
	10	Tray Paper Surface Sens ON	PBA600	0:light/1:charge
	9	-	-	-
	8	DA converter 2 data input signal	-	-
	7	Staple Alignment Interference Sensor	S128	1:detected
	6	Staple Edging Sensor	S132	1:detected
	5	Staple Sensor	S133	1:detected
	4	Staple Cartridge Sensor	S134	0:50staples/1:100staples
	3	-	-	-
	2	-	-	-
	1	-	-	-
0	-	-	-	

Address	bit	Name	Symbol	Remarks
P005	15	Tray Paper Surface Sensor 3	PBA700	0:no paper/1:paper
	14	Tray Paper Surface Sensor 4	PBA700	0:no paper/1:paper
	13	Tray Paper Surface Sensor 1	PBA700	0:no paper/1:paper
	12	Tray Paper Surface Sensor 2	PBA700	0:no paper/1:paper
	11	Gripper Base Rear Sensor	S117	1:front
	10	Gripper Base Front Sensor	S116	1:rear
	9	Gripper Position Sensor	S115	0:front/1:rear
	8	Gripper HP Sensor	S140	1:home
	7	EXIO2 chip select	-	-
	6	-	-	-
	5	-	-	-
	4	Display LED2	-	0:ON/1:OFF
	3	Display LED1	-	0:ON/1:OFF
	2	Saddle Stitcher Motor CCW signal	M209	(ON,CW,CCW) 1,1,0:CW 1,0,1:CCW 0,1,1:brake 0,0,0:free
	1	Saddle Stitcher Motor ON signal	M209	(ON,CW,CCW) 1,1,0:CW 1,0,1:CCW 0,1,1:brake 0,0,0:free
0	Saddle Stitcher Motor CW signal	M209	(ON,CW,CCW) 1,1,0:CW 1,0,1:CCW 0,1,1:brake 0,0,0:free	
P006	15	Punch E2 data input signal	-	-
	14	Punch DA data input signal	-	-
	13	Punch E2 ship select	-	-
	12	E2 chip select	-	-
	11	Punch DA clock output signal	-	-
	10	Punch DA data output signal	-	-
	9	E2 data input signal	-	-
	8	Punch DA chip select	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	Front Alignment Motor rotation	-	0:CW/1:CCW
	3	Front Alignment Motor CLK	-	
	2	-	-	-
	1	-	-	-
0	-	-	-	

Address	bit	Name	Symbol	Remarks
P007	15	Rear Alignment Motor CLK	M109	
	14	Rear Alignment Motor rotation	M109	0:CW/1:CCW
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	Gripper Base Motor CLK	M116	-
	0	Gripper Base Motor DIR	M116	0:CW/1:CCW
	P008	15	-	-
14		-	-	-
13		-	-	-
12		-	-	-
11		-	-	-
10		-	-	-
9		Gripper Motor CLK	M117	-
8		Gripper Motor DIR	M117	0:CW/1:CCW
7		-	-	-
6		-	-	-
5		-	-	-
4		-	-	-
3		Tray 2 Shift Motor ENBL	M217	0:enable
2		Tray 2 Shift Motor CLK	M217	-
1		Tray 2 Shift Motor CW	M217	0:CW/1:CCW
0		Tray 2 Shift Motor CUR	M217	0:OFF/1:ON

Address	bit	Name	Symbol	Remarks
P009	15	Tray 2 Area Sensor 3	S127	0:no paper /1:paper
	14	Tray 2 Area Sensor 2	S126	0:no paper /1:paper
	13	Tray 2 Area Sensor 1	S125	0:no paper /1:paper
	12	Tray 2 Paper Sensor	S105	0:no paper /1:paper
	11	Tray 1 Shift Motor ENBL	M105	0:enable
	10	Tray 1 Shift Motor CLK	M105	-
	9	Tray 1 Shift Motor CW	M105	0:CW/1:CCW
	8	Tray 1 Shift Motor CUR	M105	0:OFF/1:ON
	7	Stapler Shift HP Sensor	S107	1:home
	6	Escape Tray Paper Sensor	S130	1:detected
	5	Tray 1 Paper Sensor	S104	0:no paper /1:paper
	4	Tray 1 Area Sensor 1	S122	0:no paper /1:paper
	3	Tray 1 Area Sensor 2	S123	0:no paper /1:paper
	2	Tray 1 Area Sensor 3	S124	0:no paper /1:paper
	1	Tray 1 Shift Motor	M105	0:abnormal/1:normal
	0	Tray 2 Shift Motor alarm	M217	0:abnormal/1:normal
	P010	15	Buffer Flapper HP Sensor	S142
14		-	-	-
13		-	-	-
12		Tray 2 Paper Surface Sensor	S143	1:detected
11		Swing Guide HP Sensor	S110	1:home
10		Shutter Close Detection Sensor	S148	
9		Shutter HP Sensor	S106	0:home
8		Paper Trailing Edge Pushing Guide HP Sensor	S113	1:home
7		Stack Delivery Lower/Shutter Motor	M122	0:OFF/1:ON
6		Shutter Clutch	CL102	0:OFF/1:ON
5		Swing Guide Solenoid	SL101	0:OFF 1:ON
4		-	-	-
3		Front Door Sensor	S129	0:open/1:close
2		Paper Return Guide HP Sensor	S112	1:home
1		Paper Retainer HP Sensor	S135	1:home
0		Feed Roller Separation HP Sensor	S111	1:home

Address	bit	Name	Symbol	Remarks
P011	15	-	-	-
	14	-	-	-
	13	Stapler Shift Motor CLK	M107	-
	12	Stapler Shift Motor DIR	M107	0:CCW/1:CW
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	Paper Trailing Edge Pushing Guide Motor CLK	M113	-
	6	Paper Trailing Edge Pushing Guide Motor DIR	M113	0:CW/1:CCW
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
0	-	-	-	
P012	15	Paper Return Guide Roller Motor CLK	M121	-
	14	Paper Return Guide Roller Motor DIR	M121	0:CW/1:CCW
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	Saddle Roller Guide Motor DIR	M204	-
	4	Feed Roller Disengage/Buffer Flapper Motor DIR	M119	0:CW/1:CCW
	3	Processing Tray Paper Retainer Motor CLK	M118	-
	2	Processing Tray Paper Retainer Motor DIR	M118	0:CW/1:CCW
	1	Paper Return Guide Motor CLK	M112	-
0	Paper Return Guide Motor DIR	M112	0:CW/1:CCW	

Address	bit	Name	Symbol	Remarks
P013	15	Punch slide motor CW	M101	0:CW/1:CCW
	14	Punch slide motor CLK	M101	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	Inserter connection	-	0: connected
	6	IF connection	-	0:connected
	5	-	-	-
	4	Punch connection	-	0:connectecd
	3	Punch motor CCW	M102	0:CW/1:CCW
	2	Punch motor CW	M102	0:CCW/1:CW
	1	Punch motor ON	M102	0:OFF/1:ON
0	-	-	-	
P014	15	Power Supply Fan ON signal	FAN101	0:OFF/1:ON
	14	-	-	-
	13	Inserter eject start ack	-	0:OFF/1:ON
	12	Inserter entry start	-	0:OFF/1:ON
	11	IF unit ejection start ack	-	-
	10	IF unit entry start	-	-
	9	Fold eject ack	-	-
	8	Fold entry start	-	-
	7	-	-	-
	6	Power Supply Fan alarm	FAN101	0:OFF/1:ON
	5	Inserter eject start	-	0:ON/1:OFF
	4	Inserter entry start ack	-	0:ON/1:OFF
	3	IF unit ejection start	-	-
	2	IF unit entry start ack	-	-
	1	Fold eject start	-	-
0	Fold entry ack	-	-	

Address	bit	Name	Symbol	Remarks
P015	15	Saddle connection	-	0:connected
	14	-	-	-
	13	Staple Position Switch	SW103	0:close/1:open
	12	Swing Guide Safety Switch	SW102/ SW104	0:close/1:open
	11	Front Door Switch	SW101	0:close/1:open
	10	24V1-DETECT	-	0:ON 1:OFF
	9	24V-DETECT	-	0:ON 1:OFF
	8	Relay ON signal	-	0:OFF/1:ON
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	Feed Motor/Buffer Feed Motor stepping change	M101/ M102	0:2W12phase/1:12phase
	2	Stack Delivery Upper Motor stepping change	M101/ M102	0:2W12phase/1:12phase
	1	-	-	-
P016	0	-	-	-
	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	Stacking Tray Paper Retainer Motor rotation signal	M114	0:CW/1:CCW
	8	Tray Auxiliary Guide Motor rotation signal	M120	0:CCW/1:CW
	7	-	-	-
	6	-	-	-
	5	Push switch (-)	-	0:ON/1:OFF
	4	Push switch (+)	-	0:ON/1:OFF
	3	Dip switch 4	-	0:ON/1:OFF
	2	Dip switch 3	-	0:ON/1:OFF
1	Dip switch 2	-	0:ON/1:OFF	
0	Dip switch 1	-	0:ON/1:OFF	

Address	bit	Name	Symbol	Remarks
P017	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	Punch slide motor standby signal	-	0:stanfby/1:ready
	7	Punch slide motor enable signal	-	0:enable/1:disenable
	6	-	-	-
	5	DipSW input 2	-	0:ON 1:OFF
	4	DipSW input 1	-	0:ON 1:OFF
	3	-	-	-
	2	-	-	-
	1	-	-	-
P018	0	-	-	-
	15	Saddle Delivery Tray Paper Sensor	S228	1:paper
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	Saddle Trailing Edge Retainer Move HP Sensor	S219	1:home
	10	Saddle Trailing Edge Retainer HP Sensor	S221	1:home
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	Saddle Lead Edge Stopper Motor CLK	M203	
	5	-	-	-
	4	-	-	-
	3	Saddle Lead Edge Stopper Solenoid	SL205	
	2	Saddle Alignment Roller Disengage Solenoid (Upper)	SL203	1:ON
1	Saddle Alignment Roller Disengage Solenoid (Lower)	SL204	1:ON	
0	Saddle Inlet Flapper Solenoid	SL206		

Address	bit	Name	Symbol	Remarks
P019	15	Saddle Trailing Edge Moving Motor rotation	M211	1: CW/0: CCW
	14	Saddle Trailing Edge Moving Motor CLK	M211	-
	13	Saddle Trailing Edge Retainer Motor rotation	M210	1: CW/0: CCW
	12	Saddle Trailing Edge Retainer Motor CLK	M210	-
	11	-	-	-
	10	-	-	-
	9	Saddle Alignment Guide Motor rotation	M202	0: CW/1: CCW
	8	Saddle Alignment Guide Motor CLK	M202	-
	7	Saddle Lead-in Roller HP Sensor	S222	1: home
	6	Saddle Folder HP Sensor	S229	-
	5	Staple HP Sensor	S131	1: home
	4	Saddle Paper Push-on Plate HP Sensor	S218	1: home
	3	Saddle Vertical Path Sensor	S203	1: detected
	2	Saddle Delivery Sensor 1	S226	1: paper
	1	Saddle Paper Push-on Plate Motor Sensor	S213	0: ON/1: OFF
P020	0	Saddle Folder/Feeder Motor Sensor	S214	-
	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	Saddle Alignment Plate HP Sensor	S206	1: home
	11	Saddle Lead Edge Stopper HP Sensor	S205	1: home
	10	Saddle Paper Push-on Plate motor PWM	M205	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	Trimmer connection detection	-	0: connected
	5	Saddle Stitcher Staple Sensor 2	S225	1: detected
	4	Saddle Stitcher Staple Sensor 1	S224	1: detected
	3	Saddle Roller Guide HP Sensor	S207	1: home
	2	Saddle Delivery Sensor 2	S227	1: paper
1	Saddle Paper Tapping HP Sensor	S215	1: home	
0	Saddle Inlet Sensor	S201	1: paper	

Address	bit	Name	Symbol	Remarks
P021	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	Saddle Stitcher Motor CCW signal	M209	0: CW/1: CCW
	10	Saddle Stitcher Motor CW signal	M209	0: CCW/1: CW
	9	Saddle Stitcher Motor ON signal	M209	0: OFF/1: ON
	8	Insertion lock power source detection	-	0: detected 24V
	7	Saddle Roller Guide Motor rotation	M204	1: CW/0: CCW
	6	Saddle Roller Guide Motor CLK	M204	-
	5	Saddle Paper Tapping HP Sensor rotation	-	1: CW/0: CCW
	4	Saddle Paper Tapping HP Sensor CLK	-	-
	3	Inlet Feed motor standby	-	0: Standby
	2	Inlet Feed motor output enable	-	0: Enable
	1	Saddle Alignment Roller Motor rotation	M212	1: CW/0: CCW
P022	0	Saddle Alignment Roller Motor CLK	M212	-
	15	Inlet Feed motor rotation	-	1: CW/0: CCW
	14	Inlet Feed motor clock	-	-
	13	Saddle Feed Motor rotation	-	1: CW/0: CCW
	12	Saddle Feed Motor clock	-	-
	11	Inlet Feed motor stepping	-	0: half-step
	10	Saddle Feed Motor stepping	-	0: half-step
	9	Saddle Lead-in Roller Disengage Motor rotation	M214	1: CW/0: CCW
	8	Saddle Lead-in Roller Disengage Motor CLK	M214	-
	7	Saddle Folder/Feeder Motor CW	M206	1: CW
	6	Saddle Folder/Feeder Motor CCW	M206	1: CCW
	5	Saddle Paper Push-on Plate motor CW	M205	1: CW
	4	Saddle Paper Push-on Plate motor CCW	M205	1: CCW
	3	Chip select for DAC	-	0: ENABLE
	2	Data in for DAC	-	-
1	Data out for DAC	-	-	
0	Clock for DAC	-	-	

Address	bit	Name	Symbol	Remarks
P023	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	LED PCB	-	1:LED ON
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-
P024	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	Feed motor current value setting D/A output	-	-
	6	Waste paper full sensor D/A output	-	-
	5	Waste paper full sensor A/D input	-	-
	4	Push switch	-	0:ON/1:OFF
	3	Press motor HP sensor	S106	0:feed position 1:release position
	2	Inlet sensor	S101	1:paper
	1	-	-	-
	0	Waste paper box detection sensor	S109	1:waste paper

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### Inner Trimmer - A1 (SORTER>P024 to P028)

Address	bit	Name	Symbol	Remarks	
P024	7	Feed motor current value setting D/A output	M101	-	
	6	Waste paper full sensor D/A output	S011	-	
	5	Waste paper full sensor A/D input	S011	-	
	4	Push switch	S011	0:ON/1:OFF	
	3	Press motor HP sensor	S106	0:feed position 1:release position	
	2	Inlet sensor	S101	1:paper	
	1	-	-	-	
	0	Waste paper box detection sensor	S109	1:waste paper	
	P025	15	Rear estrangement motor HP sensor	S104	0:release position 1:feed position
		14	Front estrangement motor HP sensor	S102	0:feed position 1:release position
13		Paper delivery sensor	-	1:paper	
12		-	-	-	
11		DIPSW-1	-	0:ON/1:OFF	
10		DIPSW-2	-	0:ON/1:OFF	
9		DIPSW-3	-	0:ON/1:OFF	
8		DIPSW-4	-	0:ON/1:OFF	
7		Press motor CW/CCW switching signal	M105	0:release/1:touch	
6		Press motor standby signal	M105	0:standby/1:ready	
5		Press motor output permission signal	M105	0:permission/1:prohibition	
4		Press motor drive clock output	M105	0:permission/1:prohibition	
3		Feed motor CW/CCW switching signal	M101	0:entrance/1:delivery	
2		Feed motor standby signal	M101	0:standby/1:ready	
1		Feed motor output permission signal	M101	0:permission/1:prohibition	
0	Feed motor drive clock signal	M101	0:permission/1:prohibition		

Address	bit	Name	Symbol	Remarks
P026	15	Registration motor permission signal	M102	0:permission/1:prohibition
	14	Cutter motor encoder lock	M106	0:permission/1:prohibition
	13	Registration motor drive clock output	M102	-
	12	Registration motor standby signal	M102	0:standby/1:ready
	11	Registration motor CW/CCW switching signal	M102	1:registration completion
	10	Registration HP sensor	S105	1:registration completion
	9	Registration motor current setting PWM output	M102	-
	8	24V detection signal	-	0:24V detection
	7	-	-	-
	6	-	-	-
	5	Rear estrangement motor drive clock output	M104	-
	4	Front estrangement motor standby motor	M103	0:standby/1:ready
	3	Front estrangement motor CW/CCW switching signal	M103	0:CW/1:CCW
	2	-	-	-
	1	-	-	-
	0	-	-	-
P027	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	Front estrangement motor current setting PWM output	M103	-
	11	Rear estrangement motor current setting PWM output	M104	-
	10	Press motor current setting PWM output	M105	-
	9	Front estrangement motor output permission signal	M103	0:permission/1:prohibition
	8	Front estrangement motor drive clock output	M103	-
	7	-	-	-
	6	-	-	-
	5	5V shutdown signal	-	1:shutdown
	4	-	-	-
	3	-	-	-
	2	Paddle solenoid ON signal	SL102	0:ON/1:OFF
	1	Stopper solenoid ON signal	SL101	0:ON/1:OFF
	0	Rear estrangement motor output permission signal	M104	0:permission/1:prohibition

Address	bit	Name	Symbol	Remarks
P028	15	-	-	-
	14	LED on PCB	-	0:ON/1:OFF
	13	Cutter motor CCW signal	M106	0:CW/1:CCW
	12	Cutter motor CW signal	M106	0:CCW/1:CW
	11	Cutter motor ON/OFF output	M106	0:OFF/1:ON
	10	Rear estrangement motor CW/CCW switching signal	M104	0:release/1:touch
	9	Front estrangement motor standby signal	M103	0:standby/1:ready
	8	Stopper solenoid/paddle solenoid drive PWM output	SL101/ SL102	-

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## Professional Puncher-C1 / Integration Unit-B1 :

### ARCNET Connection (SORTER > P369 to P380)

Address	bit	Name	Symbol	Remarks
P369	15	Low Speed Model Detect	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	Finisher Connect Detect	-	0 : Finisher Connect
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
1	-	-	-	
0	Reverse motor FG	M4	1 : Low	
P370	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	Pre-reverse feed motor FG	M3	1 : Low
	11	Lead-in motor FG	M2	1 : Low
	10	-	-	1 : Low
	9	Bypass Motor FG	M1	1 : Low
	8	Reverse delivery motor FG	M5	1 : Low
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
1	-	-	-	
0	-	-	-	

Address	bit	Name	Symbol	Remarks
P371	15	-	-	-
	14	-	-	-
	13	SST Connect	-	1 : SST Connect
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	GA Reset	-	1 : reset
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-
P372	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	Download latch Input	-	1 : ON
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	DL latch Input	-	1 : ON
1	-	-	-	
0	DL latch Off	-	1 : ON	



Address	bit	Name	Symbol	Remarks
P373	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	GA CS	-	0 : Active
	10	RAM CS	-	0 : Active
	9	ARCNET CS	-	0 : Active
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	LED	-	1 : ON
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-
P374	15	FinisherEjectStart	-	0 : ON
	14	FinisherEntryStartAck	-	0 : ON
	13	PunchFinComEnable	-	0 : ON
	12	PunchRelayON	-	1 : ON
	11	PunchMachineON	-	0 : ON
	10	PunchPaperLatch	-	0 : ON
	9	PunchPaperEntry	-	1 : ON
	8	PunchPaperExitAck	-	1 : ON
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-

Address	bit	Name	Symbol	Remarks
P375	15	PunchPchComEnable	-	0 : ON
	14	PunchStanby	-	0 : ON
	13	PunchPunchEnable	-	0 : ON
	12	PunchPaperComAck	-	0 : ON
	11	PunchPaperExit	-	0 : ON
	10	PunchDoorOpen	SW1	0 : ON
	9	PunchAbnormal	-	0 : ON
	8	Punch Conect Detection	-	0 : Detect
	7	-	-	-
	6	-	-	-
	5	Front Door Open Detection	MSW1	1 : close
	4	-	-	-
	3	Power-Down Detect	-	0 : Power-Down
	2	-	-	-
	1	FinisherEjectStartAck	-	-
	0	FinisherEntryStart	-	-
P376	15	7segLED_A	-	1 : ON
	14	7segLED_B	-	1 : ON
	13	7segLED_C	-	1 : ON
	12	7segLED_D	-	1 : ON
	11	7segLED_E	-	1 : ON
	10	7segLED_F	-	1 : ON
	9	7segLED_G	-	1 : ON
	8	7segLED_Dot	-	1 : ON
	7	-	-	-
	6	FAN Motor ON	FM1	1 : Rotation
	5	Feed Driver Power Supply ON	-	1 : ON
	4	Bypass Motor CW	M1	1 : CCW
	3	Pre-reverse feed motor CW	M3	1 : CCW
	2	Reverse delivery motor CW	M5	1 : CCW
	1	Reverse motor CW	M4	1 : CCW
	0	Lead-in motor CW	M2	1 : CCW

Address	bit	Name	Symbol	Remarks
P377	15	Pre-reverse feed motor Motor IL	M3	-
	14	Pre-reverse feed motor Motor IH	M3	-
	13	Reverse delivery motor CW Motor IL	M5	-
	12	Reverse delivery motor CW Motor IH	M5	-
	11	Reverse Motor IH	M4	-
	10	Reverse Motor IL	M4	-
	9	Lead-in Motor IH	M2	-
	8	Lead-in Motor IL	M2	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	Path switching MotorIH	-	-
	2	Path switching MotorIL	-	-
	1	Bypass MotorIH	M1	-
	0	Bypass MotorIL	M1	-
P378	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	DIPSW_BIT0	-	1 : OFF
	6	DIPSW_BIT1	-	1 : OFF
	5	DIPSW_BIT2	-	1 : OFF
	4	DIPSW_BIT3	-	1 : OFF
	3	DIPSW_BIT4	-	1 : OFF
	2	DIPSW_BIT5	-	1 : OFF
	1	DIPSW_BIT6	-	1 : OFF
	0	DIPSW_BIT7	-	1 : OFF

Address	bit	Name	Symbol	Remarks
P379	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	FAN Error Detection	FM1	1 : Rotation
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	Delivery Sensor	RS5	1 : paper
	4	Path Switching Motor HP Sensor	PS7	1 : paper
	3	Integration unit reverse path 3 sensor	RS4	1 : paper
	2	Integration unit reverse path 2 sensor	RS3	1 : paper
	1	Integration unit reverse path 1 sensor	RS2	1 : paper
	0	Integration unit bypass 1 sensor	RS1	1 : paper
P380	15	P-puncher bypass 8 sensor	S8	1 : paper
	14	P-puncher bypass 7 sensor	S7	1 : paper
	13	P-puncher bypass 6 sensor	S6	1 : paper
	12	P-puncher bypass 5 sensor	S5	1 : paper
	11	P-puncher bypass 4 sensor	S4	1 : paper
	10	P-puncher bypass 3 sensor	S3	1 : paper
	9	P-puncher bypass 2 sensor	S2	1 : paper
	8	P-puncher bypass 1 sensor	S1	1 : paper
	7	Puncher die Detect HP Sensor	S16	1 : ON
	6	Puncher die sensor 7	S15	1 : ON
	5	Puncher die sensor 6	S14	1 : ON
	4	Puncher die sensor 5	S13	1 : ON
	3	Puncher die sensor 4	S12	1 : ON
	2	Puncher die sensor 3	S11	1 : ON
	1	Puncher die sensor 2	S10	1 : ON
	0	Puncher die sensor 1	S9	1 : ON

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## Professional Puncher-C1 / Integration Unit-B1 : IPC Connection (SORTER > P047 to P059)

Address	bit	Name	Symbol	Remarks
P047	7	Low Speed Model Detect	-	1 : Low
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	Finisher Connect Detect	-	0 : Finisher Connect
	1	-	-	-
	0	-	-	-
	P048	15	-	-
14		-	-	-
13		-	-	-
12		-	-	-
11		-	-	-
10		-	-	-
9		-	-	-
8		Reverse motor FG	M4	1 : Low
7		-	-	-
6		-	-	-
5		-	-	-
4		Pre-reverse feed motor FG	M3	1 : Low
3		Lead-in motor FG	M2	1 : Low
2		-	-	1 : Low
1	Bypass Motor FG	M1	1 : Low	
0	Reverse delivery motor FG	M5	1 : Low	
P049	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	SST Connect	-	1 : SST Connect
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-

Address	bit	Name	Symbol	Remarks
P050	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	GA Reset	-	1 : reset
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	Download latch Input	-	1 : ON
	0	-	-	-
	P051	15	-	-
14		-	-	-
13		-	-	-
12		-	-	-
11		-	-	-
10		DL latch Input	-	1 : ON
9		-	-	-
8		DL latch Off	-	1 : ON
7		-	-	-
6		-	-	-
5		-	-	-
4	-	-	-	
3	GA CS	-	0 : Active	
2	RAM CS	-	0 : Active	
1	ARCNET CS	-	0 : Active	
0	-	-	-	

Address	bit	Name	Symbol	Remarks
P052	15	-	-	-
	14	-	-	-
	13	LED	-	1 : ON
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	FinisherEjectStart	-	0 : ON
	6	FinisherEntryStartAck	-	0 : ON
	5	Punch Fin Com Enable	-	0 : ON
	4	Punch Relay ON	-	1 : ON
	3	Punch Machine ON	-	0 : ON
	2	Punch Paper Latch	-	0 : ON
1	Punch Paper Entry	-	1 : ON	
0	Punch Paper Exit Ack	-	1 : ON	
P053	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	-	-	-
	10	-	-	-
	9	-	-	-
	8	-	-	-
	7	Punch Pch Com Enable	-	0 : ON
	6	Punch Standby	-	0 : ON
	5	Punch Punch Enable	-	0 : ON
	4	Punch Paper Com Ack	-	0 : ON
	3	Punch Paper Exit	-	0 : ON
	2	Punch Door Open	SW1	0 : ON
1	Punch Abnormal	-	0 : ON	
0	Punch Connect Detection	-	0 : Detect	

Address	bit	Name	Symbol	Remarks
P054	15	-	-	-
	14	-	-	-
	13	Front Door Open Detection	MSW1	1 : close
	12	-	-	-
	11	Power-Down Detect	-	0 : Power-Down
	10	-	-	-
	9	FinisherEjectStartAck	-	-
	8	FinisherEntryStart	-	-
	7	7segLED_A	-	1 : ON
	6	7segLED_B	-	1 : ON
	5	7segLED_C	-	1 : ON
	4	7segLED_D	-	1 : ON
	3	7segLED_E	-	1 : ON
	2	7segLED_F	-	1 : ON
1	7segLED_G	-	1 : ON	
0	7segLED_Dot	-	1 : ON	
P055	15	-	-	-
	14	FAN Motor ON	FM1	1 : Rotation
	13	Feed Driver Power Supply ON	-	1 : ON
	12	Bypass Motor CW	M1	1 : CCW
	11	Pre-reverse feed motor CW	M3	1 : CCW
	10	Reverse delivery motor CW	M5	1 : CCW
	9	Reverse motor CW	M4	1 : CCW
	8	Lead-in motor CW	M2	1 : CCW
	7	Pre-reverse feed motor IL	M3	-
	6	Pre-reverse feed motor IH	M3	-
	5	Reverse delivery motor CW Motor IL	M5	-
	4	Reverse delivery motor CW Motor IH	M5	-
	3	Reverse Motor IH	M4	-
	2	Reverse Motor IL	M4	-
1	Lead-in Motor IH	M2	-	
0	Lead-in Motor IL	M2	-	

Address	bit	Name	Symbol	Remarks
P056	15	-	-	-
	14	-	-	-
	13	-	-	-
	12	-	-	-
	11	Path switching MotorIH	-	-
	10	Path switching MotorIL	-	-
	9	Bypass MotorIH	M1	-
	8	Bypass MotorIL	M1	-
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-
P057	15	DIPSW_BIT0	-	1 : OFF
	14	DIPSW_BIT1	-	1 : OFF
	13	DIPSW_BIT2	-	1 : OFF
	12	DIPSW_BIT3	-	1 : OFF
	11	DIPSW_BIT4	-	1 : OFF
	10	DIPSW_BIT5	-	1 : OFF
	9	DIPSW_BIT6	-	1 : OFF
	8	DIPSW_BIT7	-	1 : OFF
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	FAN Error Detection	FM1	1 : Rotation
	2	-	-	-
	1	-	-	-
	0	-	-	-

Address	bit	Name	Symbol	Remarks
P058	15	-	-	-
	14	-	-	-
	13	Delivery Sensor	RS5	1 : paper
	12	Path Switching Motor HP Sensor	PS7	1 : paper
	11	Integration unit reverse path 3 sensor	RS4	1 : paper
	10	Integration unit reverse path 2 sensor	RS3	1 : paper
	9	Integration unit reverse path 1 sensor	RS2	1 : paper
	8	Integration unit bypass 1 sensor	RS1	1 : paper
	7	P-puncher bypass 8 sensor	S8	1 : paper
	6	P-puncher bypass 7 sensor	S7	1 : paper
	5	P-puncher bypass 6 sensor	S6	1 : paper
	4	P-puncher bypass 5 sensor	S5	1 : paper
	3	P-puncher bypass 4 sensor	S4	1 : paper
	2	P-puncher bypass 3 sensor	S3	1 : paper
	1	P-puncher bypass 2 sensor	S2	1 : paper
	0	P-puncher bypass 1 sensor	S1	1 : paper
P059	15	Puncher die Detect HP Sensor	S16	1 : ON
	14	Puncher die sensor 7	S15	1 : ON
	13	Puncher die sensor 6	S14	1 : ON
	12	Puncher die sensor 5	S13	1 : ON
	11	Puncher die sensor 4	S12	1 : ON
	10	Puncher die sensor 3	S11	1 : ON
	9	Puncher die sensor 2	S10	1 : ON
	8	Puncher die sensor 1	S9	1 : ON
	7	-	-	-
	6	-	-	-
	5	-	-	-
	4	-	-	-
	3	-	-	-
	2	-	-	-
	1	-	-	-
	0	-	-	-

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## ■ AE

COPIER > ADJUST > AE	
AE-TBL	Adj of text density at image density adj
Lv.1	Details
	To adjust text density according to the adjusted image density. As the greater value is set, text gets darker.
	Use case
	When clearing the RAM data of the Reader Controller PCB
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When clearing the RAM data of the Reader Controller PCB, enter the value of service label.
	Display/adj/set range
	1 to 9
	Default value
	5

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## ■ ADJ-XY

COPIER > ADJUST > ADJ-XY	
ADJ-X	Adj of img pstn in book mode: vert scan
Lv.1	Details
	To adjust the image reading start position (image leading edge position) in vertical scanning direction. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. When the non-image width is larger than the standard value, set the smaller value. When out of original area is copied, set the larger value. As the value is incremented by 1, the image position moves to the trailing edge side by 0.1mm.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Do not use this at the normal service.
	Display/adj/set range
	1 to 100
	Unit
	0.1 mm
	Default value
	29
ADJ-Y	Adj of img pstn in book mode: horz scan
Lv.1	Details
	To adjust the image reading start position in horizontal scanning direction. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. When the non-image width is larger than the standard value, set the smaller value. When out of original area is copied, set the larger value. As the value is incremented by 1, the image position moves to the rear side by 0.1mm.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range
	36 to 236
	Unit
	0.1 mm
	Default value
	116

COPIER > ADJUST > ADJ-XY		
ADJ-Y-DF	Adj img pstn in DADF mode:horz scan[Fr]t]	
Lv.1	Details	To adjust the image reading start position in horizontal scanning direction at DADF reading. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image position moves to the rear side by 0.1mm.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	2 to 202
	Unit	0.1 mm
	Default value	102
STRD-POS	Adj read pstn in DADF mode: front side	
Lv.1	Details	To adjust the reading position at DADF reading (front side). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-100 to 100
	Unit	0.1 mm
	Default value	0
	Related service mode	COPIER> FUNCTION> INSTALL> STRD-POS
ADJ-X-MG	Adj img ratio in book mod:vert scan[fr]t]	
Lv.1	Details	To make a fine adjustment of image magnification in vertical scanning direction at copyboard reading. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image magnification changes by 0.01%. +: Enlarge -: Reduce
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-50 to 50
	Unit	0.01%
	Default value	0

COPIER > ADJUST > ADJ-XY		
ADJY-DF2	Adj img pstn in DADF mode:horz scan[bck]	
Lv.1	Details	To adjust the image position of back side in horizontal scanning direction at simultaneous duplex reading. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image position moves to the rear side by 0.1mm.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	56 to 220
	Unit	0.1 mm
	Default value	124

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COPIER > ADJUST > CCD		
W-PLT-X		
White level data(X) entry of white plate		
Lv.1	Details	When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	7500 to 9999
	Default value	8271
	Related service mode	COPIER > ADJUST > CCD > W-PLT-Y, W-PLT-Z
W-PLT-Y		
White level data(Y) entry of white plate		
Lv.1	Details	When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	7500 to 9999
	Default value	8735
	Related service mode	COPIER > ADJUST > CCD > W-PLT-X, W-PLT-Z
W-PLT-Z		
White level data(Z) entry of white plate		
Lv.1	Details	When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	7500 to 9999
	Default value	9418
	Related service mode	COPIER > ADJUST > CCD > W-PLT-X, W-PLT-Y

COPIER > ADJUST > CCD		
SH-TRGT		Shading target value (B&W) [Copyboard]
Lv.1	Details	To set the B&W shading target value in copyboard reading mode.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Scanner Unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	700 to 1400
	Default value	1126
100-RG		Img Sensr RG color displace crct VL:Fr
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit (paper front). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by +/- key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0
100-GB		Img Sensr GB color displace crct VL:Fr
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit (paper front). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by +/- key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0



COPIER > ADJUST > CCD		
DFTAR-R		Shading target value (R) [Front side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass/Scanner Unit (paper front)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1159
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2
	DFTAR-G	
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass/Scanner Unit (paper front)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1189
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2
	DFTAR-B	
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass/Scanner Unit (paper front)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1209
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2

COPIER > ADJUST > CCD		
MTF2-M1		MTF value 1 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M2		MTF value 2 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M3		MTF value 3 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M4		MTF value 4 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M5		MTF value 5 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF2-M6	MTF value 6 setting: horz scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M7	MTF value 7 setting: horz scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M8	MTF value 8 setting: horz scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M9	MTF value 9 setting: horz scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S1	MTF value 1 setting: vert scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF2-S2	MTF value 2 setting: vert scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S3	MTF value 3 setting: vert scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S4	MTF value 4 setting: vert scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S5	MTF value 5 setting: vert scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S6	MTF value 6 setting: vert scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF2-S7		MTF value 7 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S8		MTF value 8 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S9		MTF value 9 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
100DF2GB		Img Sensr GB color displace crct VL:bck
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit (paper back). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0

COPIER > ADJUST > CCD		
100DF2RG		Img Sensr RG color displace crct VL:bck
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit (paper back). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0
DFCH2R2		Complex chart No.2 data (R) [Front side]
Lv.1	Details	To derive the front/back side linearity, set the Red data (for paper front) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
DFCH2R10		Complex chart No.10 data(R) [Front side]
Lv.1	Details	To derive the front/back side linearity, set the Red data (for paper front) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
DFCH2B2		Complex chart No.2 data (B) [Front side]
Lv.1	Details	To derive the front/back side linearity, set the Blue data (for paper front) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000

COPIER > ADJUST > CCD		
DFCH2B10	Complex chart No.10 data(B) [Front side]	
Lv.1	Details	To derive the front/back side linearity, set the Blue data (for paper front) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
DFCH2G2	Complex chart No.2 data (G) [Front side]	
Lv.1	Details	To derive the front/back side linearity, set the Green data (for paper front) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
DFCH2G10	Complex chart No.10 data(G) [Front side]	
Lv.1	Details	To derive the front/back side linearity, set the Green data (for paper front) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
CCD-CHNG	Scanner Unit(ppr frt) rpice flag setting	
Lv.1	Details	To set the calculation mode of MTF filter coefficient that is used at the replacement of Scanner Unit (paper front). When replacing the Scanner Unit (paper front), enter 1. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	- When replacing the Scanner Unit (paper front) - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Data at factory shipment is used. 1: Data at factory shipment is not used. (Scanner Unit (paper front) is already replaced.)
	Default value	0
	Related service mode	COPIER> ADJUST> CCD> MTFMCL, MTFSCl, MTFMBW, MTFSBW

COPIER > ADJUST > CCD		
MTF-M1	MTF value 1 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M2	MTF value 2 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M3	MTF value 3 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M4	MTF value 4 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M5	MTF value 5 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF-M6	MTF value 6 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M7	MTF value 7 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M8	MTF value 8 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M9	MTF value 9 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S1	MTF value 1 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF-S2	MTF value 2 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S3	MTF value 3 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S4	MTF value 4 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S5	MTF value 5 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S6	MTF value 6 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF-S7		MTF value 7 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S8		MTF value 8 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S9		MTF value 9 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
DFCH-R2		Complex chart No.2 data (R) [Back side]
Lv.1	Details	To derive the front/back side linearity, set the Red data (for paper back) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
	Related service mode	COPIER> ADJUST> CCD> DFCH-R10, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR

COPIER > ADJUST > CCD		
DFCH-R10		Complex chart No.10 data (R) [Back side]
Lv.1	Details	To derive the front/back side linearity, set the Red data (for paper back) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
	Related service mode	COPIER> ADJUST> CCD> DFCH-R2, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR
DFCH-B2		Complex chart No.2 data (B) [Back side]
Lv.1	Details	To derive the front/back side linearity, set the Blue data (for paper back) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
	Related service mode	COPIER> ADJUST> CCD> DFCH-R10, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR
DFCH-B10		Complex chart No.10 data (B) [Back side]
Lv.1	Details	To derive the front/back side linearity, set the Blue data (for paper back) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
	Related service mode	COPIER> ADJUST> CCD> DFCH-R2, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR

COPIER > ADJUST > CCD	
DFCH-G2	Complex chart No.2 data (G) [Back side]
Lv.1	Details
	To derive the front/back side linearity, set the Green data (for paper back) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	1 to 2550
	Default value
	2000
	Related service mode
	COPIER> ADJUST> CCD> DFCH-R10, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR
DFCH-G10	Complex chart No.10 data (G) [Back side]
Lv.1	Details
	To derive the front/back side linearity, set the Green data (for paper back) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 2550
	Default value
	0
	Related service mode
	COPIER> ADJUST> CCD> DFCH-R2, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR
MTF2-M10	MTF value 10 setting: horz scan [Front]
Lv.1	Details
	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	20 to 85
	Default value
	50
	Related service mode
	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M11	MTF value 11 setting: horz scan [Front]
Lv.1	Details
	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	20 to 85
	Default value
	50
	Related service mode
	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD	
MTF2-M12	MTF value 12 setting: horz scan [Front]
Lv.1	Details
	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	20 to 85
	Default value
	50
	Related service mode
	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S10	MTF value 10 setting: vert scan [Front]
Lv.1	Details
	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	20 to 85
	Default value
	50
	Related service mode
	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S11	MTF value 11 setting: vert scan [Front]
Lv.1	Details
	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	20 to 85
	Default value
	50
	Related service mode
	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S12	MTF value 12 setting: vert scan [Front]
Lv.1	Details
	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	20 to 85
	Default value
	50
	Related service mode
	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M10	MTF value 10 setting: horz scan [Back]
Lv.1	Details
	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	20 to 85
	Default value
	50
	Related service mode
	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF-M11	MTF value 11 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M12	MTF value 12 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S10	MTF value 10 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S11	MTF value 11 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S12	MTF value 12 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
DFCH2K2	Complex chart No.2 data (B&W) [Front]	
Lv.1	Details	To derive the front/back side linearity, set the B&W data (for paper front) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
	Related service mode	COPIER> FUNCTION> CCD> DFCH-R2, DFCH-R10, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10, DFCH-K10
DFCH2K10	Complex chart No.10 data (B&W) [Front]	
Lv.1	Details	To derive the front/back side linearity, set the B&W data (for paper front) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
	Related service mode	COPIER> FUNCTION> CCD> DF-LNR
DFCH-K2	Complex chart No.2 data (B&W) [Back]	
Lv.1	Details	To derive the front/back side linearity, set the B&W data (for paper back) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
	Related service mode	COPIER> ADJUST> CCD> DFCH-R2, DFCH-R10, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10, DFCH-K10
DFCH-K10	Complex chart No.10 data (B&W) [Back]	
Lv.1	Details	To derive the front/back side linearity, set the B&W data (for paper back) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
	Related service mode	COPIER> ADJUST> CCD> DFCH-R2, DFCH-R10, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10, DFCH-K2
	COPIER> FUNCTION> CCD> DF-LNR	



COPIER > ADJUST > CCD		
DFTAR-BW		Shading target value (B&W) [Front side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4 and write the value which is automatically set in the service label.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass/Scanner Unit (paper front)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1209
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4
	DFTBK-G	
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper back), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Scanner Unit (paper back)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1136
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2
DFTBK-B		Shading target value (B) [Back side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper back), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Scanner Unit (paper back)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1126
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2

COPIER > ADJUST > CCD		
DFTBK-R		Shading target value (R) [Back side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper back), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Scanner Unit (paper back)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1156
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2
CCD-CHG2		Scanner Unit(paper back) rplce flag set
Lv.1	Details	To set the calculation mode of MTF filter coefficient that is used at the replacement of Scanner Unit (paper back). When replacing the Scanner Unit (paper back), enter 1. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	- When replacing the Scanner Unit (paper back) - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Data at factory shipment is used. 1: Data at factory shipment is not used. (Scanner Unit (paper back) is already replaced.)
	Default value	0
	Related service mode	COPIER> ADJUST> CCD> MTF2MCL, MTF2SCL, MTF2MBW, MTF2SBW
DFTBK-BW		Shading target value (B&W) [Back side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper back), execute COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4 and write the value which is automatically set in the service label.
	Use case	- When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass/Scanner Unit (paper back)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1126
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4

## ■ LASER

COPIER > ADJUST > LASER	
PVE-OFST	Adj of write start position of laser
Lv.1	Details
	To adjust the image position by changing the laser emitting position. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image moves by 0.1mm. +: Toward rear -: Toward front
	Use case
	When adjusting image position
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Caution
	Use this only when replacing the DC Controller PCB/Laser Scanner Unit. When adjusting the image write start position, use COPIER> ADJUST> FEED-ADJ> ADJ-C1/C2/C3/C4/MF/DK. If it is not sufficient enough, execute mechanical adjustment.
	Display/adj/set range
	-300 to 300
	Unit
	0.1 mm
	Appropriate target value
	0
	Default value
	0
	Related service mode
	COPIER> ADJUST> FEED-ADJ> ADJ-C1, ADJ-C2, ADJ-C3, ADJ-C4, ADJ-MF, ADJ-DK
POWER	Adj laser power at no potential control
Lv.1	Details
	To adjust the laser power when the potential control is not performed.
	Display/adj/set range
	0 to 255
	Related service mode
	COPIER > OPTION > FNC-SW > PO-CNT COPIER > OPTION > TEMPO > F-POT-SW

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## ■ IMG-REG

COPIER > ADJUST > IMG-REG	
MAG-H-K	Fine adj of magnification: horz scan
Lv.1	Details
	To make a fine adjustment of image magnification in horizontal scanning direction by adjusting the rotation speed of the Polygon Mirror/modulating clock. Convert the magnification measurement line length of PG for image position adjustment into a percentage, and enter the amount of change in percentage. As the value is incremented by 1, the image magnification changes by 0.01%. +: Enlarge -: Reduce
	Use case
	- When checking image at initial installation - At check operation when replacing the Laser Scanner Unit - When adjustment is requested by a user
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Caution
	Do not use this at the normal service.
	Display/adj/set range
	-100 to 100
	Unit
	0.01%
	Default value
	0
MAG-V	Fine adj of magnification: vertical scan
Lv.1	Details
	To make a fine adjustment of image magnification in vertical scanning direction by adjusting the rotation speed of the Polygon Mirror/modulating clock. Convert the magnification measurement line length of PG for image position adjustment into a percentage, and enter the amount of change in percentage. As the value is incremented by 1, the image magnification changes by 0.01%. +: Enlarge -: Reduce The setting value is reflected to the rotation speed of the Polygon Mirror set to the DC Controller at the time of shipment.
	Use case
	- When checking image at initial installation - At check operation when replacing the Laser Scanner Unit - When adjustment is requested by a user
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Caution
	Do not use this at the normal service.
	Display/adj/set range
	-100 to 100
	Unit
	0.01%
	Default value
	0

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## DEVELOP

COPIER > ADJUST > DEVELOP		
BIAS	Adjustment of developing bias	
Lv.1	Details	To adjust the developing bias when the potential control is not performed.
	Use case	When potential control is not performed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 600
	Default value	180
TSPLYADJ	[Not used]	
Lv.2	Details	-

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## DENS

COPIER > ADJUST > DENS		
DENS-ADJ	Density correction of copy image	
Lv.1	Details	To correct the density of copy image by changing the F-value table. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. Blurring is alleviated when the value is increased, and fogging is alleviated when the value is decreased.
	Use case	When fogging or blurring at high density area occurs with a copy image
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Density of printer output image cannot be corrected.
	Display/adj/set range	1 to 9
	Appropriate target value	4 to 6
	Default value	5
	Supplement/memo	F-value table: shows the relationship between original density and image density.
P-OFFSET	Display/adj of patch detection offset VL	
Lv.1	Details	To display/adjust the patch detection offset value used by the Patch Sensor.
	Use case	- When density of solid area is out of the specified range although there is no failure at high voltage or the Developing Assembly - When density of solid area is out of the specified range at Sensor replacement or after a long use
	Adj/set/operate method	1) Check whether density varies due to the Patch Sensor (high voltage, etc.) 2) Enter the setting value, and then press OK key. 3) Execute D-max control manually. 4) Check density on solid area with 17 gradations.
	Display/adj/set range	0 to 255
	Default value	64
Related service mode	COPIER> FUNCTION> MISC-P> P-LPADJ, DMAX-N	

COPIER > ADJUST > DENS	
P-DHALF	Fine adj D-half Imnce dens convs table
Lv.1	Details
	To make a fine adjustment of the luminance density conversion table used for D-half control (display/adjustment).
	Use case
	- When halftone density of solid area is out of the specified range although there is no failure at high voltage or the Developing Assembly - When density of solid area is within the specified range but halftone density of solid area is out of the specified range at sensor replacement or after a long use
	Adj/set/operate method
	1) Check whether halftone density varies due to the Patch Sensor (high voltage, etc.) 2) Check that the density of solid area is within the specified range. 3) Enter the setting value, and then press OK key. 4) Execute D-half control. 5) Check the halftone density with the chart pointed out by the user.
	Caution
	D-half control is enabled only for COPY/AdobePS&PDF/EFI.
	Display/adj/set range
	-16 to 16
	Appropriate target value
	-4 to 4
	Default value
	0
	Related service mode
	COPIER> FUNCTION> MISC-P> DHALF
P-B-TGT	Fine adj LED intrnsty tgt VL:D-max/D-half
Lv.2	Details
	To make a fine adjustment of the target value for the LED light intensity adjustment used for D-max control and D-half control (display/adjustment). Decrease the value if the intensity of LED is too strong, and increase the value if the intensity is too weak.
	Use case
	When continuing to use on a temporary basis regardless unevenness of the ITB, soiled sensor, life of sensor, etc.
	Adj/set/operate method
	1) Check whether density varies due to the Patch Sensor (high voltage, etc.) 2) Check that the result of LED light intensity correction is out of the specified range. 3) Enter the setting value, and then press OK key. 4) Execute D-max control manually. 5) Check density on solid area with 17 gradations.
	Display/adj/set range
	0 to 1023
	Appropriate target value
	650 to 850
	Default value
	796
	Related service mode
	COPIER> DISPLAY> DENS> P-LED, P-B-AVE

COPIER > ADJUST > DENS	
DMAX-N-T	Fine adj dens tgt VL:D-max, uncoated ppr
Lv.2	Details
	To make a fine adjustment of density target value used for D-max control of uncoated paper group. (display/adjustment).
	Use case
	When adjusting the density for uncoated paper group only (In principle, density is adjusted with DUPDWN/P-OFFSE value).
	Adj/set/operate method
	1) Check whether density varies due to the Patch Sensor (high voltage, etc.) 2) Check whether the density adjustment is needed only for uncoated paper group. 3) Enter the setting value, and then press OK key. 4) Execute D-max control manually. 5) Check density on solid area with 17 gradations.
	Display/adj/set range
	0 to 1023
	Appropriate target value
	800 to 970
	Default value
	895
	Related service mode
	COPIER> FUNCTION> MISC-P> DMAX-N COPIER> DISPLAY> DENS> DMAX-N COPIER> ADJUST> DENS> P-OFFSET
	Supplement/memo
	Uncoated paper group: uncoated paper/recycled paper/label/postcard

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## BLANK

COPIER > ADJUST > BLANK	
BLANK-T Adjustment of leading edge margin	
Lv.1	Details To adjust the margin on the leading edge of paper. As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0212 mm).
	Use case - When reducing the margin upon user's request - When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method Enter the setting value, and then press OK key.
	Caution Do not use this at the normal service.
	Display/adj/set range 0 to 1000
	Unit 1 pixel
	Appropriate target value 118
	Default value 118
BLANK-L Adjustment of left edge margin	
Lv.1	Details To adjust the margin on the left edge of paper. As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0212 mm).
	Use case - When reducing the margin upon user's request - When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method Enter the setting value, and then press OK key.
	Display/adj/set range 0 to 1000
	Unit 1 pixel
	Appropriate target value 118
	Default value 118
BLANK-R Adjustment of right edge margin	
Lv.1	Details To adjust the margin on the right edge of paper. As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0212 mm).
	Use case - When reducing the margin upon user's request - When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method Enter the setting value, and then press OK key.
	Display/adj/set range 0 to 1000
	Unit 1 pixel
	Appropriate target value 118
	Default value 118

COPIER > ADJUST > BLANK		
BLANK-B		Adjustment of trailing edge margin
Lv.1	Details	To adjust the margin on the trailing edge of paper. As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0212 mm).
	Use case	- When reducing the margin upon user's request - When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1000
	Unit	1 pixel
	Appropriate target value	118
	Default value	118

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## V-CONT

COPIER > ADJUST > V-CONT	
EPOTOFST Manual entry of Potential Sensor offset	
Lv.1	Details
To set the offset auto adjustment value of Potential Sensor manually. As the value is incremented by 1, the offset value changes by 1V. +: Identified as the lower potential than the detected one -: Identified as the higher potential than the detected one	
Use case	
When an error is displayed by executing OFST (auto offset adjustment) at the replacement of Potential Sensor (When the value out of specified range is set due to Potential Sensor disconnection/connection failure/installation failure), restore to the factory setting values. 1) To stop the error, set 0 (V) in EPOTOFST. 2) Check around the Potential Sensor. If there is an error, address it and if not, go to the step 3). 3) Enter the value of service label. 4) If image fogging or the like occurs, increase the value by 10V increment.	
Adj/set/operate method	
Enter the setting value, and then press OK key.	
Caution	
Do not use this at the normal service.	
Display/adj/set range	
0 to 255	
Unit	
1 V	
Default value	
0	
Related service mode	
COPIER> FUNCTION> DPC> OFST	
VL-OFST Bright area tgt potential ofst VL entry	
Lv.1	Details
To set the offset auto adjustment value of bright area target potential VL manually. As the value is incremented by 1, the offset value changes by 1V. +: Increase -: Decrease	
Use case	
When replacing the DC Controller PCB/clearing RAM data	
Adj/set/operate method	
Enter the setting value, and then press OK key.	
Caution	
Do not use this at the normal service.	
Display/adj/set range	
-30 to 30	
Unit	
1 V	
Default value	
0	

COPIER > ADJUST > V-CONT	
VD-OFST Dark area tgt potential ofst VL entry	
Lv.1	Details
To set the offset auto adjustment value of dark area target potential VL manually. As the value is incremented by 1, the offset value changes by 1V. +: Increase -: Decrease	
Use case	
When replacing the DC Controller PCB/clearing RAM data	
Adj/set/operate method	
Enter the setting value, and then press OK key.	
Caution	
Do not use this at the normal service.	
Display/adj/set range	
-30 to 30	
Unit	
1 V	
Default value	
0	
DE-OFST Copy image Vdc offset value entry	
Lv.1	Details
To set the Vdc offset auto adjustment value for potential control of copy image manually. As the value is incremented by 1, the offset value changes by 1V. +: Increase -: Decrease	
Adj/set/operate method	
Enter the setting value, and then press OK key.	
Display/adj/set range	
-50 to 50	
Unit	
1 V	
Default value	
0	
VCONT-1 Dev contrast crct potntl:first time/day	
Lv.1	Details
To make a fine adjustment of correction potential of developing contrast target potential Vcont for the first time of the day.	
Use case	
When image density for the first time of the day is low	
Adj/set/operate method	
Enter the setting value, and then press OK key.	
Display/adj/set range	
0 to 10	
Unit	
1 V	
Default value	
0	
VL-OF-L Bright area target potential:thin	
Lv.2	Details
To make a fine adjustment of bright area target potential VL with thin paper.	
Use case	
When an image density failure occurs with thin paper	
Adj/set/operate method	
Enter the setting value, and then press OK key.	
Display/adj/set range	
-200 to 200	
Unit	
1 V	
Default value	
20	
VL-OF-H1 [Not used]	
Lv.2	Details
-	
VL-OF-H2 [Not used]	
Lv.2	Details
-	

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## ■ PASCAL

COPIER > ADJUST > PASCAL	
OFST-P-K	Bk density adj at test print reading
Lv.1	Details
	To adjust the offset of Bk color test print reading signal at Auto Adjust Gradation (Full Adjust). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the greater value is set, the image after adjustment gets darker.
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by +/- key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range
	-128 to 128
	Default value
	According to the adjustment value of the Reader at factory shipment

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## ■ HV-PRI

COPIER > ADJUST > HV-PRI	
PRIMARY	Adjustment of primary charging current
Lv.1	Details
	To adjust the primary charging current flows to the Primary Charging Assembly when potential control is OFF. When potential control is turned OFF, the specified primary charging current is output.
	Use case
	- When outputting image while potential control is OFF - When changing the primary charging current and then checking the high voltage output
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Caution
	Do not use this at the normal service.
	Display/adj/set range
	0 to 1600
	Unit
	1 micro A
	Default value
	1000
	Related service mode
	COPIER> OPTION> FNC-SW> PO-CNT
PRI-GRID	Adjustment of Pry Chg Ass'y grid bias
Lv.1	Details
	To adjust the grid voltage of the Primary Charging Assembly at potential control. Adjust the offset value for the voltage table that changes according to the durability. When an image failure occurs due to the soiled Primary Charging Wire, set a negative value. If the value in COPIER > DISPLAY > DPOT > PRIM-C is 1550 (micro A) or higher when E061-0101 (potential control error) occurs, set a positive value.
	Use case
	<ul style="list-style-type: none"> <li>• When an image failure occurs due to the soiled Primary Charging Wire</li> <li>• When E061-0101 occurs</li> </ul>
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range
	-50 to 220
	Unit
	1 V
	Default value
	0
	Related service mode
	COPIER > DISPLAY > DPOT > PRIM-C

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## ■ HV-TR

COPIER > ADJUST > HV-TR	
TR-OFS1	Adj transfer target current offset:Plain
Lv.2	Details
	To adjust the offset value of the target current of the Transfer Roller for plain paper. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the Transfer Roller target current.
Use case	When transfer failure occurs
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Transfer Roller target current offset value: -10 to 10
Unit	5 micro A
Default value	0
Related service mode	COPIER> ADJUST> HV-TR> TR-OFS2 to 6

COPIER > ADJUST > HV-TR	
TR-OFS2	Adj transfer tgt current offset:Heavy 1
Lv.2	Details
	To adjust the offset value of the target current of the Transfer Roller for heavy paper 1. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the Transfer Roller target current.
Use case	When transfer failure occurs
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Transfer Roller target current offset value: -10 to 10
Unit	5 micro A
Default value	0
Related service mode	COPIER> ADJUST> HV-TR> TR-OFS1, 3 to 8



COPIER > ADJUST > HV-TR	
TR-OFS3	Adj transfer tgt current offset: Heavy 2
Lv.2	Details
	To adjust the offset value of the target current of the Transfer Roller for heavy paper 2. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the Transfer Roller target current.
	Use case
	When transfer failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	Environment: 0 to 4 0: No specification, 1: Environment 1 and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Transfer Roller target current offset value: -10 to 10
	Unit
	5 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-OFS1, 2, 4 to 6

COPIER > ADJUST > HV-TR	
TR-OFS4	Adj transfer tgt current offset: Thin
Lv.2	Details
	To adjust the offset value of the target current of the Transfer Roller for thin paper. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the Transfer Roller target current.
	Use case
	When transfer failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	Environment: 0 to 4 0: No specification, 1: Environment 1 and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Transfer Roller target current offset value: -10 to 10
	Unit
	5 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-OFS1 to 3, 5 to 6

COPIER > ADJUST > HV-TR	
TR-OFS5	Adj transfer tgt current offset:Special1
Lv.2	Details
	To adjust the offset value of the target current of the Transfer Roller for special paper 1. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the environment and feed speed set in this item and the paper type (special paper 1) set in TR-SP1, the specified offset value is added to the Transfer Roller target current.
	Use case
	When transfer failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	Environment: 0 to 4 0: No specification, 1: Environment 1 and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Transfer Roller target current offset value: -10 to 10
	Unit
	5 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-OFS1 to 4, TR-SP1

COPIER > ADJUST > HV-TR	
TR-OFS6	Adj transfer tgt current offset:Special2
Lv.2	Details
	To adjust the offset value of the target current of the Transfer Roller for special paper 2. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the environment and feed speed set in this item and the paper type (special paper 2) set in TR-SP2, the specified offset value is added to the Transfer Roller target current.
	Use case
	When transfer failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	Environment: 0 to 4 0: No specification, 1: Environment 1 and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Transfer Roller target current offset value: -10 to 10
	Unit
	5 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-OFS1 to 5, TR-SP2
TR-L-OF1	Adj lead edge trns tgt crmt ofst:Plain
Lv.2	Details
	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for plain paper.
	Use case
	When a drum separation failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit
	5 micro A, 1 mm
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-L-OF2 to 6
TR-L-OF2	Adj lead edge trns tgt crmt ofst:Heavy1
Lv.2	Details
	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for heavy paper 1.
	Use case
	When a drum separation failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit
	5 micro A, 1 mm
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-L-OF1, 3 to 6

COPIER > ADJUST > HV-TR		
TR-L-OF3	Adj lead edge trns tgt crmt ofst: Heavy2	
Lv.2	Details	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for heavy paper 2.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit	5 micro A, 1 mm
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF1, 2, 4 to 6
TR-L-OF4	Adj lead edge trns tgt crmt ofst: Thin	
Lv.2	Details	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for thin paper.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit	5 micro A, 1 mm
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF1 to 3, 5 to 6
TR-L-OF5	Adj lead edge trns tgt crmt ofst: Spcl 1	
Lv.2	Details	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for special paper 1. When the paper type is the one (special paper 1) set in the TR-L-SP1, the specified offset value is added to the leading edge transfer target current and the leading edge transfer bias output timing.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit	5 micro A, 1 mm
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF1 to 4, 6, TR-L-SP1
TR-L-OF6	Adj lead edge trns tgt crmt ofst: Spcl 2	
Lv.2	Details	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for special paper 2. When the paper type is the one (special paper 2) set in the TR-L-SP2, the specified offset value is added to the leading edge transfer target current and the leading edge transfer bias output timing.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit	5 micro A, 1 mm
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF1 to 5, TR-L-SP2

COPIER > ADJUST > HV-TR		
P-TR-OF1	Adj of pre-trn charge crmt ofst: Plain	
Lv.2	Details	To adjust the offset value of the pre-transfer charging current for plain paper. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the pre-transfer charging target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1 and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Pre-transfer charging current offset value: -10 to 10
	Unit	10 micro A
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> P-TR-OF2 to 6

COPIER > ADJUST > HV-TR	
P-TR-OF2	Adj of pre-trn charge crmnt ofst:Heavy1
Lv.2	Details
	To adjust the offset value of the pre-transfer charging current for heavy paper 1. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the pre-transfer charging target current.
	Use case
	When transfer failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Pre-transfer charging current offset value: -10 to 10
	Unit
	10 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> P-TR-OF1, 3 to 6

COPIER > ADJUST > HV-TR	
P-TR-OF3	Adj of pre-trn charge crmnt ofst:Heavy2
Lv.2	Details
	To adjust the offset value of the pre-transfer charging current for heavy paper 2. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the pre-transfer charging target current.
	Use case
	When transfer failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Pre-transfer charging current offset value: -10 to 10
	Unit
	10 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> P-TR-OF1, 2, 4 to 6

COPIER > ADJUST > HV-TR	
P-TR-OF4	Adj of pre-trn charge crnt ofst: Thin
Lv.2	Details
	To adjust the offset value of the pre-transfer charging current for thin paper. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the pre-transfer charging target current.
	Use case
	When transfer failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	Environment: 0 to 4 0: No specification, 1: Environment 1 and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Pre-transfer charging current offset value: -10 to 10
	Unit
	10 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> P-TR-OF1 to 3, 5 to 6

COPIER > ADJUST > HV-TR	
P-TR-OF5	Adj pre-trn charge crnt ofst: Special 1
Lv.2	Details
	To adjust the offset value of the pre-transfer charging current for special paper 1. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the environment and feed speed set in this item and the paper type (special paper 1) set in P-TR-SP1, the specified offset value is added to the pre-transfer charging target current.
	Use case
	When transfer failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	Environment: 0 to 4 0: No specification, 1: Environment 1 and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Pre-transfer charging current offset value: -10 to 10
	Unit
	10 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> P-TR-OF1 to 4, 6, P-TR-SP1

COPIER > ADJUST > HV-TR		
P-TR-OF6	Adj pre-trn charge crnt ofst: Special 2	
Lv.2	Details	To adjust the offset value of the pre-transfer charging current for special paper 2. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the environment and feed speed set in this item and the paper type (special paper 2) set in P-TR-SP2, the specified offset value is added to the pre-transfer charging target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1 and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments  Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes  Pre-transfer charging current offset value: -10 to 10
	Unit	10 micro A
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> P-TR-OF1 to 5, P-TR-SP2
TR-SP1	Set trns tgt crnt adj: special paper 1	
Lv.2	Details	To set the paper type of special paper 1 which the offset value of the target current of the Transfer Roller is adjusted. When the actual usage status matches to the paper type set in this item and the environment and feed mode set in TR-OFS5, the offset value is added to the Transfer Roller target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-OFS5

COPIER > ADJUST > HV-TR		
TR-SP2	Set trns tgt crnt adj: special paper 2	
Lv.2	Details	To set the paper type of special paper 2 which the offset value of the target current of the Transfer Roller is adjusted. When the actual usage status matches to the paper type set in this item and the environment and feed mode set in TR-OFS6, the offset value is added to the Transfer Roller target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-OFS6
TR-L-SP1	Set lead edge trns tgt crnt adj: Spcl 1	
Lv.2	Details	To set the paper type of special paper 1 which the offset value of the target current of the Transfer Roller is adjusted. When the paper type is the specified one, the offset value set in TR-L-OF5 is added to the leading edge transfer target current and the leading edge transfer bias output timing.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF5
TR-L-SP2	Set lead edge trns tgt crnt adj: Spcl 2	
Lv.2	Details	To set the paper type of special paper 2 which the offset value of the target current of the Transfer Roller is adjusted. When the paper type is the specified one, the offset value set in TR-L-OF6 is added to the leading edge transfer target current and the leading edge transfer bias output timing.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF6

COPIER > ADJUST > HV-TR	
P-TR-SP1	Set pre-trns charging crnt adj: Spcl 1
Lv.2	Details
	To set the paper type of special paper 1 which the offset value of the pre-transfer charging current is adjusted. When the actual usage status matches to the paper type set in this item and the environment and feed mode set in P-TR-OF5, the offset value is added to the pre-transfer charging current.
	Use case
	When transfer failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> P-TR-OF5
P-TR-SP2	Set pre-trns charging crnt adj: Spcl 2
Lv.2	Details
	To set the paper type of special paper 2 which the offset value of the pre-transfer charging current is adjusted. When the actual usage status matches to the paper type set in this item and the environment and feed mode set in P-TR-OF6, the offset value is added to the pre-transfer charging current.
	Use case
	When transfer failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> P-TR-OF6

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## ■ FEED-ADJ

COPIER > ADJUST > FEED-ADJ	
REGIST	Adj of registration start timing: Plain
Lv.1	Details
	To adjust the timing to turn ON the Registration Motor in the case of plain paper. As the value is incremented by 1, the margin on the leading edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case
	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method
	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range
	-50 to 50
	Unit
	0.1 mm
	Default value
	0
ADJ-C1	Right Deck write start pstn in horz scan
Lv.1	Details
	To adjust the image write start position in the horizontal scanning direction when feeding paper from the Right Deck. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case
	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method
	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution
	If write start position cannot be adjusted in service mode, execute mechanical adjustment.
	Display/adj/set range
	-20 to 20
	Unit
	0.1 mm
	Default value
	0

COPIER > ADJUST > FEED-ADJ	
ADJ-C2	Left Deck write start pstn in horz scan
Lv.1	<p><b>Details</b></p> <p>To adjust the image write start position in the horizontal scanning direction when feeding paper from the Left Deck. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.</p> <p><b>Use case</b></p> <p>When replacing the DC Controller PCB/clearing RAM data</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p><b>Caution</b></p> <p>If write start position cannot be adjusted in service mode, execute mechanical adjustment.</p> <p><b>Display/adj/set range</b></p> <p>-20 to 20</p> <p><b>Unit</b></p> <p>0.1 mm</p> <p><b>Default value</b></p> <p>0</p>
ADJ-C3	Cassette 3 write start pstn in horz scan
Lv.1	<p><b>Details</b></p> <p>To adjust the image write start position in the horizontal scanning direction when feeding paper from the Cassette 3. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.</p> <p><b>Use case</b></p> <p>When replacing the DC Controller PCB/clearing RAM data</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p><b>Caution</b></p> <p>If write start position cannot be adjusted in service mode, execute mechanical adjustment.</p> <p><b>Display/adj/set range</b></p> <p>-20 to 20</p> <p><b>Unit</b></p> <p>0.1 mm</p> <p><b>Default value</b></p> <p>0</p>

COPIER > ADJUST > FEED-ADJ	
ADJ-C4	Cassette 4 write start pstn in horz scan
Lv.1	<p><b>Details</b></p> <p>To adjust the image write start position in the horizontal scanning direction when feeding paper from the Cassette 4. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.</p> <p><b>Use case</b></p> <p>When replacing the DC Controller PCB/clearing RAM data</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p><b>Caution</b></p> <p>If write start position cannot be adjusted in service mode, execute mechanical adjustment.</p> <p><b>Display/adj/set range</b></p> <p>-20 to 20</p> <p><b>Unit</b></p> <p>0.1 mm</p> <p><b>Default value</b></p> <p>0</p>
ADJ-MF	Write start pstn in horz scan: MP tray
Lv.1	<p><b>Details</b></p> <p>To adjust the image write start position in the horizontal scanning direction when feeding paper from the Multi-purpose Tray. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.</p> <p><b>Use case</b></p> <p>When replacing the DC Controller PCB/clearing RAM data</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p><b>Caution</b></p> <p>If write start position cannot be adjusted in service mode, execute mechanical adjustment.</p> <p><b>Display/adj/set range</b></p> <p>-20 to 20</p> <p><b>Unit</b></p> <p>0.1 mm</p> <p><b>Default value</b></p> <p>0</p>



COPIER > ADJUST > FEED-ADJ	
ADJ-DK	Write start pstn in horz scan:Deck/POD D
Lv.1	Details
	To adjust the image write start position in the horizontal scanning direction when feeding paper from the Paper Deck/ POD Deck Lite. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case
	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method
	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution
	If write start position cannot be adjusted in service mode, execute mechanical adjustment.
	Display/adj/set range
	-20 to 20
	Unit
	0.1 mm
	Default value
	0
ADJ-REFE	Write start pstn in horz scan: 2nd side
Lv.1	Details
	To adjust the image write start position on the second side in the horizontal scanning direction. The image write start position is set in the relative amount against the first side regardless of the paper pickup cassette/tray/deck. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case
	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method
	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range
	-50 to 50
	Unit
	0.1 mm
	Default value
	0
RG-MF	Rgst start timing adj: MP Tray, Plain
Lv.1	Details
	To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding plain paper from the Multi-purpose Tray. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.)
	Adj/set/operate method
	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range
	-50 to 50
	Unit
	0.1 mm
	Default value
	-20

COPIER > ADJUST > FEED-ADJ	
REG-THCK	Rgst start timing adj: Heavy, 1/2 speed
Lv.1	Details
	To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding heavy paper. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.)
	Adj/set/operate method
	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range
	-50 to 50
	Unit
	0.1 mm
	Default value
	-20
REG-OHT	Rgst start timing adj: Transp, 1/2 speed
Lv.1	Details
	To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding transparency. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.)
	Adj/set/operate method
	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range
	-50 to 50
	Unit
	0.1 mm
	Default value
	-20
REG-DUP1	Rgst start timing adj: Plain, 2nd side
Lv.1	Details
	To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding the second side of plain paper. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.)
	Adj/set/operate method
	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range
	-50 to 50
	Unit
	0.1 mm
	Default value
	-10

COPIER > ADJUST > FEED-ADJ		
REG-DUP2		Rgst start timing adj: Heavy, 2nd side
Lv.1	Details	To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding the second side of heavy paper. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.)
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	-10
LP-FEED1		Cassette pre-rgst arch amount: Plain
Lv.1	Details	To adjust the arch amount before registration when feeding plain paper from the cassette. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5 mm
	Default value	0
LP-FEED2		Casstt pre-rgst arch amount: Heavy/Transp
Lv.1	Details	To adjust the arch amount before registration when feeding heavy paper/transparency from the cassette. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5 mm
	Default value	0

COPIER > ADJUST > FEED-ADJ		
LP-MULT1		MP Tray pre-rgst arch amount: Plain
Lv.1	Details	To adjust the arch amount before registration when feeding plain paper from the Multi-purpose Tray. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5 mm
	Default value	0
LP-MULT2		MP Tray pre-rgst arch amount: Heavy/Trans
Lv.1	Details	To adjust the arch amount before registration when feeding heavy paper/transparency from the Multi-purpose Tray. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5 mm
	Default value	0
LP-DUP1		Duplex pre-rgst arch amount: Plain
Lv.1	Details	To adjust the arch amount before registration when feeding plain paper in duplex mode. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5 mm
	Default value	0

COPIER > ADJUST > FEED-ADJ		
LP-DUP2		Duplex pre-rgst arch amount:Hvy/Transp
Lv.1	Details	To adjust the arch amount before registration when feeding heavy paper/transparency in duplex mode. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5 mm
	Default value	0
REG-SPD		Speed adj Registration Motor:1/1 speed
Lv.1	Details	To adjust 1/1 speed of the Registration Motor. +: The speed is increased. -: The speed is decreased.
	Use case	- At occurrence of an image failure - When the leading edge margin becomes larger due to wear of the Registration Roller
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-10 to 10
	Default value	0
TBLT-SPD		Fine adjustment of ETB speed
Lv.1	Details	To make a fine adjustment of the ETB speed. +: The speed is increased. -: The speed is decreased. When the speed is changed, image magnification in the vertical scanning direction is changed.
	Use case	When image magnification is changed due to replacement of ETB, etc.
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-200 to 200
	Unit	0.1 mm/sec
	Default value	0

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## ■ CST-ADJ

COPIER > ADJUST > CST-ADJ		
MF-A4R		Adj of MP Tray A4R paper width
Lv.1	Details	To adjust the width of A4R paper in the Multi-purpose Tray. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value, execute COPIER> FUNCTION> CST> A4R.
	Use case	- When replacing the DC Controller PCB/clearing RAM data - When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	0 to 255
Related service mode		COPIER> FUNCTION> CST> A4R
MF-A6R		Adj of MP Tray A6R paper width
Lv.1	Details	To adjust the width of A6R paper in the Multi-purpose Tray. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value, execute COPIER> FUNCTION> CST> A6R.
	Use case	- When replacing the DC Controller PCB/clearing RAM data - When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	0 to 255
Related service mode		COPIER> FUNCTION> CST> A6R

COPIER > ADJUST > CST-ADJ	
MF-A4	Adj of MP Tray A4 paper width
Lv.1	Details
	To adjust the width of A4 paper in the Multi-purpose Tray. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value, execute COPIER> FUNCTION> CST> A4.
	Use case
	- When replacing the DC Controller PCB/clearing RAM data - When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range
	0 to 255
	Related service mode
	COPIER> FUNCTION> CST> A4

T-8-43

## ■ MISC

COPIER > ADJUST > MISC	
SEG-ADJ	
Set criteria for text/photo: front side	
Lv.1	Details
	To set the judgment level of text/photo original in Text/Photo/Map mode. As the value is increased, the original tends to be detected as a photo document, and as the value is decreased, the original tends to be detected as a text document.
	Use case
	When adjusting the classification level of text and photo in Text/Photo/Map mode
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Do not use this at the normal service.
	Display/adj/set range
	-4 to 4
	Default value
	0
K-ADJ	
Set criteria for black text: front side	
Lv.1	Details
	To set the judgment level of black characters at text processing. As the value is increased, the text tends to be detected as black.
	Use case
	When preferring the text to be judged as black
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-3 to 3
	Default value
	0
ACS-ADJ	
Set criteria for B&W/color in ACS:front	
Lv.1	Details
	To set the judgment level of B&W/color original in ACS mode. As the value is increased, the original tends to be detected as a B&W document, and as the value is decreased, the original tends to be detected as a color document.
	Use case
	When adjusting the color detection level in ACS mode
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-3 to 3
	Default value
	0
ACS-EN	
Set judgment area in ACS mode:front side	
Lv.2	Details
	To set the judgment area in ACS mode. As the greater value is set, the judgment area is widened.
	Use case
	When adjusting the judgment area in ACS mode
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-2 to 2
	Default value
	1

COPIER > ADJUST > MISC	
ACS-CNT	Set jdgmt pixel count area in ACS:front
Lv.2	Details
	To set the area which counts the pixel to judge the color presence in ACS mode. As the greater value is set, the judgment area is widened.
	Use case
	When adjusting the area which counts the pixel to judge the color presence in ACS mode
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-2 to 2
	Default value
	0
ACS-EN2	Set ACS mode jdgmt area in DADF mode
Lv.2	Details
	To set the judgment area in ACS mode at DADF reading. As the greater value is set, the judgment area is widened.
	Use case
	When adjusting the judgment area in ACS mode at DADF reading
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-2 to 2
	Default value
	1
ACS-CNT2	Set ACS jdgmt pixel count area in DADF
Lv.2	Details
	To set the area which counts the pixel to judge the color presence in ACS mode at DADF reading. As the greater value is set, the judgment area is widened.
	Use case
	When adjusting the area which counts the pixel to judge the color presence in ACS mode at DADF reading
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-2 to 2
	Default value
	0

COPIER > ADJUST > MISC	
WT-FL-LM	Set of waste toner full dis timing
Lv.1	Details
	If the user sets the darker/lighter copy density than the normal density, the toner level to be consumed is increased/decreased. As a result, the number of images to be printed until the Waste Toner Container becomes full varies. According to the usage of the user, set the number of images (calculation with A4 and 5% image duty) until the full toner message is displayed. Set -2 if the setting is dark, but set -1 according to circumstances. Set 2 if the setting is light, but set 1 according to circumstances.
	Use case
	When adjusting the full toner display timing according to the usage of the user
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-2 to 2 -2: 300,000 (A4, 5% image duty), -1: 400,000, 0: 500,000, 1: 600,000, 2: 700,000
	Default value
	0
SEG-ADJ3	Set text/photo jdgmt stdrd: back side
Lv.1	Details
	To set the judgment level of text/photo original in Text/Photo/Map mode (back side at duplex reading with 1 path). As the value is increased, the original tends to be detected as a photo document, and as the value is decreased, the original tends to be detected as a text document.
	Use case
	When adjusting the classification level of text and photo in Text/Photo/Map mode (back side at duplex reading with 1 path)
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-4 to 4
	Default value
	0
K-ADJ3	Set Bk text jdgmt stdrd: back side
Lv.1	Details
	To set the judgment level of black characters at text processing (back side at duplex reading with 1 path). As the value is increased, the text tends to be detected as black.
	Use case
	When preferring the text to be judged as black (back side at duplex reading with 1 path)
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-3 to 3
	Default value
	0

COPIER > ADJUST > MISC	
ACS-ADJ3	Set ACS B&W/color jdgmt stdrd:back side
Lv.1	<p><b>Details</b></p> <p>To set the judgment level of B&amp;W/color original in ACS mode (back side at duplex reading with 1 path). As the value is increased, the original tends to be detected as a B&amp;W document, and as the value is decreased, the original tends to be detected as a color document.</p> <p><b>Use case</b></p> <p>When adjusting the color detection level in ACS mode (back side at duplex reading with 1 path)</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value (switch negative/positive by +/- key) and press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>-3 to 3</p> <p><b>Default value</b></p> <p>0</p>
ACS-EN3	Set of ACS mode jdgmt area: back side
Lv.2	<p><b>Details</b></p> <p>To set the judgment area in ACS mode (back side at duplex reading with 1 path). As the greater value is set, the judgment area is widened.</p> <p><b>Use case</b></p> <p>When adjusting the judgment area in ACS mode (back side at duplex reading with 1 path)</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value (switch negative/positive by +/- key) and press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>-2 to 2</p> <p><b>Default value</b></p> <p>1</p>
ACS-CNT3	ACS mode jdgmt pixel count area: back
Lv.2	<p><b>Details</b></p> <p>To set the area which counts the pixel to judge the color presence in ACS mode (back side at duplex reading with 1 path). As the greater value is set, the judgment area is widen.</p> <p><b>Use case</b></p> <p>When adjusting the area which counts the pixel to judge the color presence in ACS mode (back side at duplex reading with 1 path)</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value (switch negative/positive by +/- key) and press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>-2 to 2</p> <p><b>Default value</b></p> <p>0</p>

COPIER > ADJUST > MISC	
TBSIS-WB	Setting of blank band ejection time
Lv.2	<p><b>Details</b></p> <p>To set the blank band ejection time. As the value is incremented by 1, the ejection time changes by 0.1 second. +: Increase -: Decrease</p> <p><b>Use case</b></p> <p>When an image failure (streaks of uneven density) occurs</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p><b>Caution</b></p> <p>When a positive value is set, the ejection time increases.</p> <p><b>Display/adj/set range</b></p> <p>-2 to 2</p> <p><b>Unit</b></p> <p>0.1 second</p> <p><b>Appropriate target value</b></p> <p>0</p> <p><b>Default value</b></p> <p>0</p>
DCON-V	Fine adj DC Controller reference voltage
Lv.2	<p><b>Details</b></p> <p>To make a fine adjustment of the reference voltage of CPU drive voltage (3.3V) on the DC Controller PCB.</p> <p><b>Use case</b></p> <p>When the reference voltage is deviated from the center value (3.41 V) significantly</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p><b>Caution</b></p> <p>Because it affects the scanning values of the Potential Sensor and Patch Sensor, image density may vary.</p> <p><b>Display/adj/set range</b></p> <p>-14 to 14</p> <p><b>Unit</b></p> <p>0.01 V</p> <p><b>Default value</b></p> <p>0</p>
HP-OFST	Setting of 2D shading drum HP offset
Lv.1	<p><b>Details</b></p> <p>To set the home position of Photosensitive Drum in the vertical scanning direction at 2D shading. As the value is incremented by 1, the home position moves by 10 mm.</p> <p><b>Use case</b></p> <p>When adjusting the home position of the Photosensitive Drum at the replacement of the drum</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p><b>Display/adj/set range</b></p> <p>-5 to 5</p> <p><b>Unit</b></p> <p>10 mm</p> <p><b>Default value</b></p> <p>0</p>

T-8-44

## ■ EXP-LED

COPIER > ADJUST > EXP-LED		
PR-EXP		Setting of Pre-exposure LED current
Lv.2	Details	To set the current of the Cleaning Pre-exposure LED. Increase the value when taking a measure for drum ghost. Decrease the value when potential is not applied well.
	Use case	- When drum ghost is significant (drum pitch is not correct) - When potential is not applied well
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	110 to 233
	Unit	0.4 micro A
	Default value	213

T-8-45




COPIER > FUNCTION > INSTALL	
TONER-S	Toner supply to Developing Assembly
Lv.1	Details
	To execute a series of operation necessary for supplying toner to the Developing Assembly/Toner Supply area (drive the Developing Cylinder, Toner Stirring/Feed Member, Photosensitive Drum and ETB, and output developing bias) as a whole. After counting down from 600 seconds., it is stopped automatically.
	Use case
	- At installation - When replacing the Developing Assembly - When replacing toner in the Developing Assembly
	Adj/set/operate method
	1) Select the items. "Check the Developer" is displayed. 2) Check connection, and then press OK key. It automatically stops after 10 minutes.
	Caution
	- Although "Check the Developer" is displayed when selecting the item, be sure to check the connection between the Developing Assembly and connector. - The operation can stop manually with OK key when a failure occurs.
	Display/adj/set range
	During operation: xxx second (remaining time), When operation finished normally: END
	Default value
	600
	Required time
	13 minutes
STRD-POS	Scan position auto adj in DADF mode
Lv.1	Details
	To adjust the DADF scanning position automatically.
	Use case
	At DADF installation/uninstallation
	Adj/set/operate method
	1) Set a paper for stream reading position adjustment, and then close the DADF. 2) Select the item, and then press OK key. The operation automatically stops after the adjustment. 3) Write the value displayed by COPIER>ADJUST>ADJ-XY>STRD-POS in the service label.
	Caution
	Write the adjusted value in the service label.
	Display/adj/set range
	At normal termination: OK, At abnormal termination: NG
	Required time
	Approx. 10 seconds
	Related service mode
	COPIER> ADJUST> ADJ-XY> STRD-POS
	Supplement/memo
	For the details of paper for stream reading position adjustment, refer to the Service Manual.

COPIER > FUNCTION > INSTALL	
CARD	Card number setting
Lv.1	Details
	To set the card number to be used for Card Reader. A series of numbers from the entered number to the number of cards specified by CARD-RNG can be used.
	Use case
	- At installation of the Card Reader - After replacement of the HDD
	Adj/set/operate method
	1) Enter the number, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	The card management information (department ID and password) is initialized.
	Display/adj/set range
	1 to 2001
	Default value
	1
	Related service mode
	COPIER> OPTION> FNC-SW> CARD-RNG (Level 2)
E-RDS	Set use/no use of Embedded-RDS function
Lv.1	Details
	To set whether to use the Embedded-RDS function.
	Use case
	When using Embedded-RDS
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range
	0: Not used, 1: Used (All the counter information is sent.)
	Default value
	0
	Related service mode
	COPIER> FUNCTION> INSTALL> RGW-PORT, COM-TEST, COM-LOG, RGW-ADR
	Supplement/memo
	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
RGW-PORT	Set port number of Sales Co's server
Lv.1	Details
	To set the port number of the sales company's server to be used for Embedded-RDS.
	Use case
	When using Embedded-RDS
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range
	1 to 65535
	Default value
	443
	Related service mode
	COPIER> FUNCTION> INSTALL> E-RDS, COM-TEST, COM-LOG, RGW-ADR
	Supplement/memo
	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol



COPIER > FUNCTION > INSTALL	
COM-TEST	Disp connect result w/ Sales Co's server
Lv.1	Details
	To display the result of the connection test with the sales company's server.
	Use case
	When using Embedded-RDS
	Adj/set/operate method
	Select the item, and then press OK key.
	Caution
	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range
	During operation: ACTIVE, When connection is completed: OK, When connection is failed: NG
	Related service mode
	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-LOG, RGW-ADR
	Supplement/memo
	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
COM-LOG	Disp connect error w/ Sales Co's server
Lv.1	Details
	To display error information when the connection with the sales company's server failed.
	Use case
	When using Embedded-RDS
	Adj/set/operate method
	Display only
	Caution
	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range
	Year, date, time, error code, error detail information (maximum 128 characters)
	Related service mode
	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-TEST, RGW-ADR
	Supplement/memo
	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
RGW-ADR	URL setting of Sales Company's server
Lv.1	Details
	To set the URL of the sales company's server to be used for Embedded-RDS.
	Use case
	When using Embedded-RDS
	Adj/set/operate method
	1) Select the URL. 2) Enter the URL, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	- Do not use Shift-JIS character strings. - Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range
	URL
	Default value
	https://a01.ugwdevice.net/ugw/agentif010
	Related service mode
	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-TEST, COM-LOG
	Supplement/memo
	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol

COPIER > FUNCTION > INSTALL	
CNT-DATE	Set counter send start date to SC server
Lv.1	Details
	To set the year, month, date, hour and minute to send counter information to the sales company's server. This is displayed only when the Embedded-RDS third-party extended function is available.
	Use case
	When the Embedded-RDS third-party expanded function is available
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	YYYYMMDDHHMM (12 digits) YYYY: Year, MM: Month, DD: Date, HH: Hour, MM: Minute
	Default value
	000000000000
	Supplement/memo
	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
CNT-INTV	Set counter send interval to SC server
Lv.1	Details
	To set the interval of sending counter information to the sales company's server in a unit of one hour. This is displayed only when the Embedded-RDS third-party extended function is available.
	Use case
	- When restarting potential control after execution of COPIER> OPTION> IMG-FIX> PO-CNT - When the D-max control condition is changed
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	1 to 168 (=1 week)
	Unit
	1 hour
	Default value
	24
	Supplement/memo
	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol

COPIER > FUNCTION > INSTALL	
BRWS-ACT	ON/OFF of service browser
Lv.1	Details
	To set ON/OFF of service browser. ON/OFF of service browser switches whenever the main power switch is turned OFF/ON after execution. If connection with the UGW server is successful, "OK!" is displayed. If "NG!" is displayed, execute a communication test using COM-TEST. The setting is enabled after reboot. Whether the service browser is ON or OFF can be checked in COPIER> DISPLAY> USER> BRWS-ST5 (1: ON, 2: OFF).
	Use case
	<ul style="list-style-type: none"> <li>When using the service browser</li> <li>At operation check</li> </ul>
	Adj/set/operate method
	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	After execution, turn OFF/ON the main power switch. After reboot, be sure to check the usage status in COPIER> DISPLAY> USER> BRWS-ST5.
	Display/adj/set range
	At normal termination: OK!, At abnormal termination: NG!
	Related service mode
	COPIER> FUNCTION> INSTALL> COM-TEST COPIER> DISPLAY> USER> BRWS-ST5
CDS-CTL	Set country/area when using CDS
Lv.1	Details
	To set country/area to enable CDS.
	Use case
	When enabling CDS
	Display/adj/set range
	Country/area set in COPIER> OPTION> FNC-SW> CONFIG, CA (Canada), LA (Latin America) and HK (Hong Kong)
	Default value
	It differs according to the location.
	Related service mode
	COPIER> OPTION> FNC-SW> CONFIG
	Supplement/memo
	CDS: Contents Delivery System
DRM-INIT	Initialization of Photosensitive Drum
Lv.1	Details
	To initialize Photosensitive Drum. Clear drum counter (PT-DRM), Drum Lot number, and checksum stored in the DC Controller.
	Use case
	After replacement of the Photosensitive Drum
	Adj/set/operate method
	Select the item, and then press OK key.
	Display/adj/set range
	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Related service mode
	COPIER > COUNTER > LF> K-DRM-LF

T-8-46

## ■ CCD

COPIER > FUNCTION > CCD	
DF-WLVL1	White level adj in book mode: color
Lv.1	Details
	To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass.
	Use case
	<ul style="list-style-type: none"> <li>When replacing the Copyboard Glass</li> <li>When replacing the Scanner Unit</li> <li>When replacing the Reader Controller PCB/clearing RAM data</li> </ul>
	Adj/set/operate method
	1) Set paper on the Copyboard Glass. 2) Select the item, and then press OK key.
	Caution
	Be sure to execute DF-WLVL2 in a row.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode
	COPIER> FUNCTION> CCD> DF-WLVL2 COPIER> ADJUST> CCD> DFTBK-R, DFTBK-G, DFTBK-B
DF-WLVL2	White level adj in DADF mode: color
Lv.1	Details
	To adjust the white level for DADF scanning automatically by setting the paper which is usually used by the user on the DADF.
	Use case
	<ul style="list-style-type: none"> <li>When replacing the Copyboard Glass</li> <li>When replacing the Scanner Unit</li> <li>When replacing the Reader Controller PCB/clearing RAM data</li> </ul>
	Adj/set/operate method
	1) Set paper on the DADF. 2) Select the item, and then press OK key.
	Caution
	Be sure to execute this item after DF-WLVL1.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode
	COPIER> FUNCTION> CCD> DF-WLVL1 COPIER> ADJUST> CCD> DFTAR-R, DFTAR-G, DFTAR-B, DFTAR2-R, DFTAR2-G, DFTAR2-B, DFTAR-BW, DFTAR2BW, DFTBK-R, DFTBK-G, DFTBK-B
DF-LNR	Deriving of DADF front/back linearity
Lv.1	Details
	To derive the front/back side linearity characteristics in the use of DADF based on the scanning data of the DADF complex chart (No. 2, No. 10).
	Use case
	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method
	1) Enter the value of the reader's service label. (under COPIER> ADJUST> CCD) DFCH-R2, DFCH-G2, DFCH-B2, DFCH-K2, DFCH-R10, DFCH-G10, DFCH-B10, DFCH-K10, DFCH2R2, DFCH2G2, DFCH2B2, DFCH2K2, DFCH2R10, DFCH2G10, DFCH2B10, DFCH2K10 2) Select the item, and then press OK key.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode
	COPIER> ADJUST> CCD> DFCH-R2, DFCH-G2, DFCH-B2, DFCH-K2, DFCH-R10, DFCH-G10, DFCH-B10, DFCH-K10, DFCH2R2, DFCH2G2, DFCH2B2, DFCH2K2, DFCH2R10, DFCH2G10, DFCH2B10, DFCH2K10

COPIER > FUNCTION > CCD		
MTF-CLC	Deriving of MTF filter coefficient	
Lv.1	Details	To derive the MTF filter coefficient to be set for ASIC based on the MTF value of the DADF complex chart.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> MTF-M1 to M12, MTF-S1 to S12, MTF2-M1 to M12, MTF2-S1 to S12
	Supplement/memo	The scanning data of the DADF complex chart is indicated in the label of the Scanner Unit (DADF/Reader).
DF-WLV3	White level adj in book mode (B&W)	
Lv.1	Details	To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass.
	Use case	- When replacing the Copyboard Glass - When replacing the Scanner Unit - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Set paper on the Copyboard Glass. 2) Select the item, and then press OK key.
	Caution	Be sure to execute DF-WLV4 in a row.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> DFTBK-BW
DF-WLV4	White level adj in DADF mode (B&W)	
Lv.1	Details	To adjust the white level for DADF scanning automatically by setting the paper which is usually used by the user on the DADF.
	Use case	- When replacing the Copyboard Glass - When replacing the Scanner Unit - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Set paper on the DADF. 2) Select the item, and then press OK key.
	Caution	Be sure to execute this item after DF-WLV3.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> DFTAR-R, DFTAR-G, DFTAR-B, DFTAR2-R, DFTAR2-G, DFTAR2-B, DFTBK-BW
	BW-TGT	Set of B&W shading target value
Lv.1	Details	After the white level data (X/Y/Z) for the Standard White Plate is set, read the Standard White Plate and set the black and white shading target value.
	Use case	When replacing the Copyboard Glass/Scanner Unit
	Caution	Be sure to execute this item after execution of COPIER> ADJUST> CCD>W-PLT-X, W-PLT-Y, W-PLT-Z.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> W-PLT-X, W-PLT-Y, W-PLT-Z

T-8-47

## ■ DENS

COPIER > FUNCTION > DENS		
DEV-AGG	Exe of dev unevenness elimination mode	
Lv.1	Details	To stir toner when uneven developing occurs, execute image formation with solid white without feeding. Because the Drum Cleaning Blade is flipped when only solid white images are formed, form solid black images periodically. Although the operation takes approx. 10 minutes in the initial settings, the duration of execution (number of times) can be changed with AGG-SW.
	Use case	When unevenness occurs right after executing TONER-S
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	If using frequently, the Drum Cleaning Blade might be flipped.
	Required time	Approx. 10 minutes
	Related service mode	COPIER> FUNCTION> INSTALL> TONER-S COPIER> FUNCTION> DENS> AGG-SW
AGG-SW	Set dev unevenness elimination mod times	
Lv.1	Details	To set the number of times to execute the developing unevenness elimination mode. As the value is incremented by 1, the duration of execution is increased by approx. 5 minutes. +: Increase (When eliminating developing unevenness surely) -: Decrease (When shortening the duration of execution) Although the operation is executed successively for the specified numbers, unevenness can be resolved by executing it approx. 4 times (approx. 20 minutes).
	Use case	When changing the number of times to execute the developing unevenness elimination mode
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	1 to 5
	Unit	Number of times
	Appropriate target value	4
	Default value	2
	Related service mode	COPIER> FUNCTION> DENS> DEV-AGG

T-8-48

## ■ DPC

COPIER > FUNCTION > DPC		
DPC	Execution of potential control	
Lv.1	Details	To execute potential control for the Photosensitive Drum manually. (It is usually executed automatically.)
	Use case	When checking potential control operation
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Required time	Approx. 10 seconds
OFST	Potential adjustment of Potential Sensor	
Lv.1	Details	To adjust the detection potential offset value of the Potential Sensor automatically.
	Use case	- When replacing the Potential Sensor - At diagnosis for a failure of the Potential Sensor
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	An error is displayed when disconnection/connection failure/ installation failure occurs to the Potential Sensor at the time of replacement. In this case, manually set the value to 0 by EPOTOFST and then make an adjustment.
	Required time	Approx. 4 seconds
	Related service mode	COPIER> ADJUST> V-CONT> EPOTOFST

T-8-49

## ■ CST

COPIER > FUNCTION > CST		
C3-STMTR	Reg Cassette 3 STMTR stdrd width	
Lv.1	Details	To register the standard value of STMTR paper width (139.5mm) on the Cassette 3. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> C3-STMTR.
	Adj/set/operate method	1) Set STMTR paper on the Cassette 3, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> C3-STMTR, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> C3-STMTR
C3-A4R	Reg Cassette 3 A4R stdrd width	
Lv.1	Details	To register the standard value of A4R paper width (210 mm) on the Cassette 3. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> C3-A4R.
	Adj/set/operate method	1) Set A4R paper on the Cassette 3, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> C3-A4R, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> C3-A4R
C4-STMTR	Reg Cassette 4 STMTR stdrd width	
Lv.1	Details	To register the standard value of STMTR paper width (139.5 mm) on the Cassette 4. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> C4-STMTR.
	Adj/set/operate method	1) Set STMTR paper on the Cassette 4, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> C4-STMTR, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> C4-STMTR

COPIER > FUNCTION > CST		
C4-A4R		Reg Cassette 4 A4R stdrd width
Lv.1	Details	To register the standard value of A4R paper width (210 mm) on the Cassette 4. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> C4-A4R.
	Adj/set/operate method	1) Set A4R paper on the Cassette 4, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> C4-A4R, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> C4-A4R
MF-A4R		Reg Multi-purpose Tray A4R stdrd width
Lv.1	Details	To register the standard value of A4R paper width (210mm) on the Multi-purpose Tray. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> MF-A4R.
	Adj/set/operate method	1) Set A4R paper on the Multi-purpose Tray, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> MF-A4R, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> MF-A4R
MF-A6R		Reg Multi-purpose Tray A6R stdrd width
Lv.1	Details	To register the standard value of A6R paper width (105 mm) on the Multi-purpose Tray. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> MF-A6R.
	Adj/set/operate method	1) Set A6R paper on the Multi-purpose Tray, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> MF-A6R, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> MF-A6R
MF-A4		Reg Multi-purpose Tray A4 standard width
Lv.1	Details	To register the standard value of A4 paper width (297 mm) on the Multi-purpose Tray. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> MF-A4.
	Adj/set/operate method	1) Set A4 paper on the Multi-purpose Tray, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> MF-A4, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> MF-A4

T-8-50

## ■ CLEANING

COPIER > FUNCTION > CLEANING		
TBLT-CLN		ETB cleaning
Lv.1	Details	To execute three idle rotations of the ETB and clean the ETB. Disengage the Photosensitive Drum and Transfer Roller from the ETB.
	Use case	When ETB cleaning failure/stain on the back of paper occurs
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Required time	Approx. 10 seconds
WIRE-CLN		Cleaning of all Charging Wires
Lv.1	Details	To clean the Charging Wires of Primary Charging Assembly and Pre-transfer Charging Assembly simultaneously (5-reciprocation). Polish new Charging Wires to remove foreign matters or protrusions.
	Use case	- When replacing the Primary Charging Assembly/Pre-transfer Charging Assembly - When replacing the Charging Wire - When vertical lines occur on an image
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Required time	Approx. 90 seconds
WIRE-EX		Check cleaning operation of all Chg Wir
Lv.1	Details	To clean the Charging Wires of Primary Charging Assembly and Pre-transfer Charging Assembly simultaneously (1-reciprocation). Check the reciprocation operation of the Wire Cleaner.
	Use case	When checking operation of the Primary Charging Wire Cleaning Motor after removing, and then installing the Primary Charging Assembly at working around the Process area
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Required time	Approx. 30 seconds

T-8-51

## FIXING

COPIER > FUNCTION > FIXING		
NIP-CHK	Check of fixing nip width	
Lv.1	Details	To check whether the fixing nip width is appropriate by printing. If it is not appropriate, a fixing failure may occur.
	Use case	<ul style="list-style-type: none"> <li>When replacing the fixing-related parts (Fixing Roller, Pressure Roller)</li> <li>When a fixing failure occurs</li> </ul>
	Adj/set/operate method	1) Print approx. 20 sheets of A4 size paper. 2) Set A4 size plain paper/recycled paper on the Multi-purpose Tray. 3) Select the item, and then press OK key. A sheet is stopped once in a state held by the Fixing Nip area, and is delivered approx. 20 seconds later. 4) Measure the nip width of delivered sheet. If the nip widths are as follow it is judged as normal: 7.0 to 8.0 mm at the center, and difference between front and rear is within 0.5mm. If there is an error, execute step 5. 5) Check the Fixing Roller, Pressure Roller, and Fixing Lower Unit, and replace damaged part.
	Related service mode	COPIER> TEST> PG> TYPE

T-8-52

## PANEL

COPIER > FUNCTION > PANEL		
LCD-CHK		Check of LCD Panel dot missing
Lv.1	Details	To check whether there is a missing dot on the LCD Panel of the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that the LCD Panel lights up in the order of white, black, red, green and blue. 3) Press STOP key to terminate checking.
LED-CHK		Check of Control Panel LED
Lv.1	Details	To check whether the LED on the Control Panel lights up.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that the LED lights up in the order. 3) Use LED-OFF to terminate checking.
	Related service mode	COPIER> FUNCTION> PANEL> LED-OFF
LED-OFF		End check of Control Panel LED
Lv.1	Details	To terminate the check of LED on the Control Panel.
	Use case	During execution of LED-CHK
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> FUNCTION> PANEL> LED-CHK
KEY-CHK		Check of key entry
Lv.1	Details	To check the key input on the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item and press the key on the Control Panel. 2) Check that the input value is displayed. 3) Cancel the selection to terminate checking.
TOUCHCHK		Adj of coordinate pstn of Touch Panel
Lv.1	Details	To adjust the coordinate position on the Touch Panel of the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Press the nine "+" keys in sequence.

T-8-53

## PART-CHK

COPIER > FUNCTION > PART-CHK	
CL	Specification of operation Clutch
Lv.1	To specify the Clutch to operate.
Use case	When replacing the Clutch/checking the operation
Adj/set/operate method	Enter the value, and then press OK key.
Display/adj/set range	1 to 6 1: Developing Clutch (CL1) 2: Magnet Roller Clutch (CL5) 3 to 6: Not used
Default value	0
Related service mode	COPIER> FUNCTION> PART-CHK> CL-ON
CL-ON	Operation check of Clutch
Lv.1	To start operation check of the Clutch specified by CL. The operation stops after "ON for 0.5 sec" => "OFF for 10 sec" => "ON for 0.5 sec" => "OFF for 10 sec" => "ON for 0.5 sec".
Use case	When replacing the Clutch/checking the operation
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
Default value	0
Required time	Approx. 22 seconds
Related service mode	COPIER> FUNCTION> PART-CHK> CL
MTR	Specification of operation Motor
Lv.1	To specify the Motor to operate.
Use case	When replacing the Motor/checking the operation
Adj/set/operate method	Enter the value, and then press OK key.
Caution	Be sure to remove the Toner Container before Toner Supply Motor (M10) is activated. If it remains to be installed, toner is supplied.
Display/adj/set range	1 to 16 1: Toner Supply Motor (M10) 2: Toner Feed Motor (M28) 3: Delivery Motor (M13) 4: Reverse Motor (M14) 5: Side Registration Motor (M16) 6: Duplex Feed Right Motor (M18) 7: Duplex Feed Left Motor (M19) 8: Vertical Path Upper Motor (M26) 9: Vertical Path Lower Motor (M27) 10: Vertical Path Middle Motor (M31) 11: Duplex Feed Merging Motor (M32) 12: Multi-purposeTray Registration Front Motor (M33) 13: Registration Motor (M34) 14: ETB Motor (M43) 15 to 16: Not used
Default value	1
Related service mode	COPIER> FUNCTION> PART-CHK> MTR-ON

COPIER > FUNCTION > PART-CHK	
MTR-ON	Operation check of Motor
Lv.1	To start operation check of the Motor specified by MTR. The operation automatically stops after operation of 20 seconds.
Use case	When replacing the Motor/checking the operation
Adj/set/operate method	Select the item, and then press OK key.
Caution	Be sure to remove the Toner Container before Toner Supply Motor (M10) is activated. If it remains to be installed, toner is supplied.
Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
Required time	1 minute
Related service mode	COPIER> FUNCTION> PART-CHK> MTR
SL	Specification of operation Solenoid
Lv.1	To specify the Solenoid to operate.
Use case	When replacing the Solenoid/checking the operation
Adj/set/operate method	Enter the value, and then press OK key.
Display/adj/set range	1 to 10 1: Multi Middle Plate Release Solenoid (SL2) 2: Cassette 3 Pickup Solenoid (SL3) 3: Cassette 4 Pickup Solenoid (SL4) 4: Reverse Upper Flapper Solenoid (SL5) 5: Right Deck Pickup Solenoid (SL6) 6: Not used 7: Left Deck Merging Solenoid (SL11) 8: Fixing Cleaning Web Drive Solenoid (SL9) 9: Patch Sensor Shutter Solenoid (SL10) 10: Reverse Detachment Solenoid (SL12)
Default value	1
Related service mode	COPIER> FUNCTION> PART-CHK> SL-ON
SL-ON	Operation check of Solenoid
Lv.1	To start operation check for the Solenoid specified by SL. The operation stops after "ON for 0.5 sec" => "OFF for 10 sec" => "ON for 0.5 sec" => "OFF for 10 sec" => "ON for 0.5 sec".
Use case	When replacing the Solenoid/checking the operation
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
Required time	1 minute
Related service mode	COPIER> FUNCTION> PART-CHK> SL

T-8-54

## CLEAR

COPIER > FUNCTION > CLEAR	
ERR	Clear of error code
Lv.1	Details To clear error codes (E000, E001, E002, E003, E717, E719). E000, E001, E002, and E003 are fixing-related errors. E004 (IH Power Supply) and E005 (Web absence) do not need to be cleared.
	Use case At error occurrence
	Adj/set/operate method 1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
DC-CON	RAM clear of DC Controller PCB
Lv.1	Details To clear the RAM data of the DC Controller PCB.
	Use case When clearing the RAM data of the DC Controller PCB
	Adj/set/operate method 1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution - Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. - The RAM data is cleared after the main power switch is turned OFF/ON.
	Related service mode COPIER> FUNCTION> MISC-P> P-PRINT
R-CON	RAM clear of Reader Controller PCB
Lv.1	Details To clear the RAM data of the Reader Controller PCB.
	Use case When clearing the RAM data of the Reader Controller PCB
	Adj/set/operate method 1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution - Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. - The RAM data is cleared after the main power switch is turned OFF/ON.
	Related service mode COPIER> FUNCTION> MISC-P> P-PRINT
JAM-HIST	Clear of jam history
Lv.1	Details To clear the jam history.
	Use case When clearing the jam history
	Adj/set/operate method Select the item, and then press OK key.
ERR-HIST	Clear of error code history
Lv.1	Details To clear the error code history.
	Use case When clearing the error code history
	Adj/set/operate method Select the item, and then press OK key.
PWD-CLR	Clear of system administrator password
Lv.1	Details To clear the password of the system administrator set in the user mode.
	Use case When clearing the password of the system administrator
	Adj/set/operate method Select the item, and then press OK key.

COPIER > FUNCTION > CLEAR	
ADRS-BK	Clear of address book
Lv.1	Details To clear the address book data.
	Use case When clearing the address book data
	Adj/set/operate method 1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution The address book data is cleared after the main power switch is turned OFF/ON.
CNT-MCON	Clear of Main Controller service counter
Lv.1	Details To clear the service counter counted by the Main Controller PCB.
	Use case When clearing the service counter counted by the Main Controller PCB
	Adj/set/operate method Select the item, and then press OK key.
	Related service mode COPIER> COUNTER
	Supplement/memo See COUNTER for the target counter.
CNT-DCON	Clear of DC Controller service counter
Lv.1	Details To clear the service counter (FIN-STPR, FIN-PDDL, SADDLE, STPL) counted by the DC Controller PCB.
	Use case When clearing the service counter counted by the DC Controller PCB
	Adj/set/operate method Select the item, and then press OK key.
	Related service mode COPIER> COUNTER> DRBL-2> FIN-STPR, FIN-PDDL, SADDLE, STPL
OPTION	Clear of service mode setting VL(OPTION)
Lv.1	Details To return the value specified in service mode (OPTION) to the default value (value at the time of RAM clear).
	Adj/set/operate method Select the item, and then press OK key.
	Caution - Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. - This item is executed for the data on the Main Controller PCB, DC Controller PCB and Reader Controller PCB.
	Related service mode COPIER> FUNCTION> MISC-P> P-PRINT
MMI	Clear of user mode setting value
Lv.1	Details To clear the user mode setting values (excluding values for Control Panel, common settings, and FAX). - Common Settings - Timer Settings - Adjustment/Cleaning - Report Settings - System Settings - Copy Settings - Communications Settings - Printer Settings
	Use case When clearing various setting values of user mode
	Adj/set/operate method 1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution The setting value is cleared after the main power switch is turned OFF/ON.



COPIER > FUNCTION > CLEAR		
MN-CON	RAM clear of MNCON PCB SRAM Board	
Lv.1	Details	To clear the RAM data of the Main Controller PCB SRAM Board. All data on the SRAM Board is initialized.
	Use case	When clearing the RAM data of the Main Controller PCB SRAM Board
	Adj/set/operate method	1) Select the item, and then press OK key. The machine is automatically rebooted. 2) Turn OFF/ON the main power switch.
	Caution	- Inform the user that all images in Inbox will be deleted and get approval for it. - Since the file management information is initialized, images on the HDD cannot be read. - Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. - The RAM data is cleared after the main power switch is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
CARD	Clear of card ID-related data	
Lv.1	Details	To clear the data related to the card ID (department).
	Use case	When clearing the data related to the card ID
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The value is cleared after the main power switch is turned OFF/ON.
ALARM	Clear of alarm log	
Lv.1	Details	To clear alarm log.
	Use case	When clearing alarm log
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The alarm log is cleared after the main power switch is turned OFF/ON.

COPIER > FUNCTION > CLEAR		
CA-KEY	Deletion of CA certificate and key pair	
Lv.2	Details	To simultaneously delete the CA certificate and key pair which are additionally registered by the user.
	Use case	When a service person replaces/discards the device
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that OK is displayed. 3) Turn OFF/ON the main power switch.
	Caution	- Unless this item is executed at the time of replacement/discard of the device, the CA certificate and key pair which are additionally registered by the user remain in the HDD, which is a problem in terms of security. - Do not execute this item carelessly because the CA certificate and key pair which are additionally registered are deleted when it is executed. If they are deleted mistakenly, they need to be again registered by the user. If no CA certificate and key pair are additionally registered, the machine condition becomes the same as the one at the time of factory shipment. - When NG is displayed in 2), there is a possibility that deletion was not executed. In this case, surely execute the deletion by initializing the HDD, etc.
	Display/adj/set range	At normal termination: OK, At abnormal termination: NG
	Supplement/memo	- The CA certificate is used in the MEAP application with E-RDS and SSL client connection, and the key pair is used in the SSL function of IPP, RUI and MEAP. - When the main power switch is turned OFF/ON, the CA certificate and key pair which were registered at the time of factory shipment are decompressed from the archive (/BOOTDEV/KCMNG), and become available in the E-RDS/SSL function.
	ERDS-DAT	Initialization of E-RDS SRAM data
Lv.1	Details	To initialize the SCM value of the Embedded-RDS stored in the SRAM. SCM values are ON/OFF of E-RDS, server's port number, server's SOAP URL, and communication schedule with the server (how often the data is acquired), etc. The value set by COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, RGW-ADR, COM-LOG is cleared.
	Use case	When upgrading the Bootable in the E-RDS environment
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The method of using the SRAM in E-RDS differs depending on the Bootable version. Therefore, unless the SRAM data is cleared at the time of version upgrade, data inconsistency occurs.
	Display/adj/set range	At normal termination: OK, At abnormal termination: NG
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, RGW-ADR, COM-LOG

COPIER > FUNCTION > CLEAR		
KEY-CLR		Encrypt key clear of HDD Encrypt Board
Lv.2	Details	To clear the encryption key of the HDD Encryption Board (Security Kit) for replacement. Processing is executed at the time of replacement of the Encryption Board, and a new encryption key is generated.
	Use case	When replacing the encryption key for the HDD Encryption Board
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that OK is displayed. 2) Turn OFF/ON the main power switch.
	Caution	Since all data in the HDD becomes unavailable when executing this item, be sure to initialize the HDD after turning OFF/ON the main power switch.
	Display/adj/set range	At normal termination: OK, At abnormal termination: NG
USBM-CLR		Initialize USB MEAP priority rgst info
Lv.1	Details	To initialize the registered ID data retained in the OS field by calling the API provided by the OS.
	Use case	When a failure occurs in USB MEAP priority registration
JV-CACHE		Cache clear of JAVA application
Lv.1	Details	To clear the cache information used by JAVA application.
	Use case	When initializing the JAVA application
	Adj/set/operate method	Select the item, and then press OK key.
FCTX-CLR		Clearing fax job information
Lv.1	Details	To clear fax job information stored on SRAM. Use this mode to restore from E611-0001.
	Use case	When E611-0001 occurs
	Adj/set/operate method	Select the item, and then press OK key.
TR-BLT		Clearing Transfer Belt parts counter
Lv.1	Details	To clear ETB parts counter when replacing to a new Transfer Belt (ETB).
	Use case	When replacing to a new ETB
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> COUNTER> DRBL-1> TR-BLT
GRD-CRNT		Init of Primary Charging Wire current VL
Lv.1	Details	To initialize the current value of the Primary Charging Wire by initializing the voltage value of the grid wire. The current value of the Primary Charging Wire is linked with the usage status; thus, execute initialization at the time of replacement.
	Use case	When replacing the Primary Charging Wire
	Adj/set/operate method	Select the item, and then press OK key.
LANG-CLR		Uninstallation of local language:Java UI
Lv.2	Details	To uninstall the local language (Java UI). If this mode is executed, the language files other than English and Japanese are deleted. Screen is displayed in English.
	Use case	When uninstalling the local language
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Reboot the machine.

COPIER > FUNCTION > CLEAR		
FIN-MCON		Clearing Finisher delvry destination set
Lv.1	Details	To clear the setting of Delivery Tray of the Finisher specified in user mode (Settings/Registration> Function Settings> Common> Paper Output Settings> Output Tray Settings). Since the delivery destination settings are stored in the DC Controller PCB in the machine, malfunction occurs when replacing the Finisher with a different model without clearing the settings. If the model of the Finishers is the same, there is no need to clear the settings.
	Use case	When the Finisher is replaced with a different model in the field
	Adj/set/operate method	Select the item, and then press OK key.
	Related user mode	Settings/Registration> Function Settings> Common> Paper Output Settings> Output Tray Settings

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## MISC-R

COPIER > FUNCTION > MISC-R	
SCANLAMP	
Light-up check of LED	
Lv.1	Details
	To light up the LED for 3 seconds.
	Use case
	When replacing the LED
	Adj/set/operate method
	Select the item, and then press OK key.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Required time
	3 seconds
CLM-PLTN	
Sampling of color copyboard read MTF VL	
Lv.1	Details
	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation.
	When color copyboard reading is performed, the controller performs sampling of the MTF value. This value is set in COPIER> ADJUST> CCD> MTF2-Mx, MTF2-Sx.
	Use case
	At installation
	Adj/set/operate method
	1) Set the MTF chart on the Copyboard Glass. 2) Select the item, and then press OK key.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode
	COPIER> ADJUST> CCD> MTF2-M1 to 12, MTF2-S1 to 12
BWM-PLTN	
Sampling of B&W copyboard read MTF value	
Lv.1	Details
	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation.
	When B&W copyboard reading is performed, the controller performs sampling of the MTF value. This value is set in COPIER> ADJUST> CCD> MTF2-Mx, MTF2-Sx.
	Use case
	At installation
	Adj/set/operate method
	1) Set the MTF chart on the Copyboard Glass. 2) Select the item, and then press OK key.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode
	COPIER> ADJUST> CCD> MTF2-M1 to 12, MTF2-S1 to 12

COPIER > FUNCTION > MISC-R	
CLM-DF1	
Sampling of clr front stream read MTF VL	
Lv.1	Details
	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation.
	When color front side stream reading is performed, the controller performs sampling of the MTF value. This value is set in COPIER> ADJUST> CCD> MTF2-Mx, MTF2-Sx.
	Use case
	At installation
	Adj/set/operate method
	1) Set the MTF chart on the ADF. 2) Select the item, and then press OK key. 3) Perform color front side stream reading with the MTF chart set on the ADF. (CLM-DF1)
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode
	COPIER> ADJUST> CCD> MTF2-M1 to 12, MTF2-S1 to 12
BWM-DF1	
Sampling of B&W front stream read MTF VL	
Lv.1	Details
	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation.
	When B&W front side stream reading is performed, the controller performs sampling of the MTF value. This value is set in COPIER> ADJUST> CCD> MTF2-Mx, MTF2-Sx.
	Use case
	At installation
	Adj/set/operate method
	1) Set the MTF chart on the ADF. 2) Select the item, and then press OK key. 3) Perform B&W front side stream reading with the MTF chart set on the ADF. (BWM-DF1)
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode
	COPIER> ADJUST> CCD> MTF2-M1 to 12, MTF2-S1 to 12

COPIER > FUNCTION > MISC-R	
CLM-DF2	Sampling color back stream read MTF VL
Lv.1	Details
	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation. When color back side stream reading is performed, the controller performs sampling of the MTF value. The MTF value is set in MTF-Mx, MTF-Sx.
	Use case
	At installation
	Adj/set/operate method
	1) Perform color back side stream reading with the MTF chart set on the ADF. (CLM-DF2) 2) Set the MTF chart on the ADF. 3) Select the item, and then press OK key.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode
	COPIER> ADJUST> CCD> MTF-M1 to 12, MTF-S1 to 12
BWM-DF2	Sampling B&W back stream read MTF value
Lv.1	Details
	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation. When B&W back side stream reading is performed, the controller performs sampling of the MTF value. The MTF value is set in MTF-Mx, MTF-Sx.
	Use case
	At installation
	Adj/set/operate method
	1) Perform B&W back side stream reading with the MTF chart set on the ADF. (BWM-DF2) 2) Set the MTF chart on the ADF. 3) Select the item, and then press OK key.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode
	COPIER> ADJUST> CCD> MTF-M1 to 12, MTF-S1 to 12

COPIER > FUNCTION > MISC-R	
CLPLT-EN	Color copyboard read MTF VL initial set
Lv.1	Details
	To return the MTF value for color copyboard reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When CLM-PLTN is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with CLM-PLTN becomes disabled and returned to the factory setting value.
	Use case
	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the front side of a color image even performing a fine adjustment with CLM-TGT after adjusting the MTF value with CLM-PLTN.
	Adj/set/operate method
	Select the item, and then press OK key.
	Caution
	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range
	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value
	0
	Related service mode
	COPIER> FUNCTION> MISC-R> CLM-PLTN, CLM-TGT COPIER> ADJUST> CCD> MTF2-M1 to 12, MTF2-S1 to 12
BWPLT-EN	B&W copyboard read MTF value initial set
Lv.1	Details
	To return the MTF value for B&W copyboard reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When BWM-PLTN is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with BWM-PLTN becomes disabled and returned to the factory setting value.
	Use case
	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the front side of a B&W image even performing a fine adjustment with BWM-TGT after adjusting the MTF value with BWM-PLTN.
	Adj/set/operate method
	Select the item, and then press OK key.
	Caution
	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range
	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value
	0
	Related service mode
	COPIER> FUNCTION> MISC-R> BWM-PLTN, BWM-TGT COPIER> ADJUST> CCD> MTF2-M1 to 12, MTF2-S1 to 12

COPIER > FUNCTION > MISC-R		
CLDF1-EN	Clr front stream read MTF VL initial set	
Lv.1	Details	To return the MTF value for color front side stream reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When CLM-DF1 is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with CLM-DF1 becomes disabled and returned to the factory setting value.
	Use case	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the front side of a color image even performing a fine adjustment with CLM-TGT after adjusting the MTF value with CLM-DF1.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-R> CLM-DF1, CLM-TGT COPIER> ADJUST> CCD> MTF2-M1 to 12, MTF2-S1 to 12
	BWDF1-EN	B&W front stream read MTF VL initial set
Lv.1	Details	To return the MTF value for B&W front side stream reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When BWM-DF1 is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with BWM-DF1 becomes disabled and returned to the factory setting value.
	Use case	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the front side of a B&W image even performing a fine adjustment with BWM-TGT after adjusting the MTF value with BWM-DF1.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-R> BWM-DF1, BWM-TGT COPIER> ADJUST> CCD> MTF2-M1 to 12, MTF2-S1 to 12

COPIER > FUNCTION > MISC-R		
CLDF2-EN	Clr back stream read MTF VL initial set	
Lv.1	Details	To return the MTF value for color back side stream reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When CLM-DF2 is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with CLM-DF2 becomes disabled and returned to the factory setting value.
	Use case	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the back side of a color image even performing a fine adjustment with CLM-TGT after adjusting the MTF value with CLM-DF2.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-R> CLM-DF2, CLM-TGT COPIER> ADJUST> CCD> MTF-M1 to 12, MTF-S1 to 12
	BWDF2-EN	B&W back stream read MTF VL initial set
Lv.1	Details	To return the MTF value for B&W back side stream reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When BWM-DF2 is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with BWM-DF2 becomes disabled and returned to the factory setting value.
	Use case	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the back side of a B&W image even performing a fine adjustment with BWM-TGT after adjusting the MTF value with BWM-DF2.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-R> BWM-DF2, BWM-TGT COPIER> ADJUST> CCD> MTF-M1 to 12, MTF-S1 to 12

COPIER > FUNCTION > MISC-R	
CLM-TGT	Fine adjustment of color MTF value
Lv.1	Details
	To perform the filter processing inside of the Reader Controller so that the MTF value measured by CLM-PLTN/CLM-DF1/CLM-DF2 becomes 55% or lower of the value. When 1 is specified, the MTF correction filter is calculated again, and the MTF value becomes 50% or lower of the value (the image becomes foggy). The backup MTF filter correction coefficient is updated.
	Use case
	When decreasing the MTF value (to make the image foggy) upon user's request (moire, incorrect judgment)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: 55% 1: 50% (The image becomes foggy.)
	Default value
	0
	Required time
	Approx. 2 minutes
	Supplement/memo
	The MTF value is set to 65% at the time of shipment.
BWM-TGT	Fine adjustment of B&W MTF value
Lv.1	Details
	To perform the filter processing inside of the Reader Controller so that the MTF value measured by BWM-PLTN/BWM-DF1/BWM-DF2 becomes 55% or lower of the value. When 1 is specified, the MTF correction filter is calculated again, and the MTF value becomes 50% or lower of the value (the image becomes foggy). The backup MTF filter correction coefficient is updated.
	Use case
	When decreasing the MTF value (to make the image foggy) upon user's request (moire, incorrect judgment)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: 55% 1: 50% (The image becomes foggy.)
	Default value
	0
	Required time
	Approx. 2 minutes
	Supplement/memo
	The MTF value is set to 65% at the time of shipment.
SCANLMP2	Light-up check of LED Lamp Unit: back
Lv.1	Details
	To light up the LED Lamp Unit for back side, which is placed in the ADF, and check whether there is a missing block or no lighting in LED.
	Use case
	When replacing the LED Lamp Unit for back side
	Adj/set/operate method
	Select the item, and then press OK key.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Required time
	Approx. 5 seconds

COPIER > FUNCTION > MISC-R	
RD-SHPOS	Moving to Reader Scanner Unit fix pstn
Lv.2	Details
	To move the Reader Scanner Unit to the position where it is fixed when moving. When moving the Reader after installation, the Reader Scanner Unit may move and get damage. By moving the Scanner Unit to the specified position and securing it in place with a screw before moving, damage can be prevented.
	Use case
	When moving the Reader after installation
	Adj/set/operate method
	Select the item, and then press OK key.
	Caution
	Be sure to move the Scanner Unit to the fixing position and secure it in place with a screw when moving the Reader after installation. Otherwise, the Scanner Unit may get damage.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Required time
	A few seconds

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## MISC-P

COPIER > FUNCTION > MISC-P	
P-PRINT	
Output of service mode setting value	
Lv.1	Details
	To print the service mode setting value.
	Use case
	Before executing the CLEAR service mode, etc.
	Adj/set/operate method
	Select the item, and then press OK key.
	Required time
	Approx. 120 seconds
	Supplement/memo
	It takes approximately 15 seconds before printing starts.
KEY-HIST	
Output of Ctrl Panel key input history	
Lv.1	Details
	To print the key input history on the Control Panel.
	Use case
	When printing the key input history on the Control Panel
	Adj/set/operate method
	Select the item, and then press OK key.
	Required time
	Approx. 40 seconds
HIST-PRT	
Output of jam and error history	
Lv.1	Details
	To print the jam history and error history.
	Use case
	When printing the jam/error history
	Adj/set/operate method
	Select the item, and then press OK key.
	Required time
	Approx. 30 seconds
TRS-DATA	
Moving memory reception data to Inbox	
Lv.2	Details
	To move the data received in memory to Inbox.
	Use case
	When moving the data received in memory to Inbox
	Adj/set/operate method
	Select the item, and then press OK key.
USER-PRT	
Output of user mode list	
Lv.1	Details
	To print the user mode list.
	Use case
	When printing the user mode list
	Adj/set/operate method
	Select the item, and then press OK key.
	Required time
	Approx. 35 seconds
	Supplement/memo
	It takes approximately 3 seconds before printing starts.
LBL-PRNT	
Output of service label	
Lv.1	Details
	To print the service label.
	Use case
	When printing the service label
	Adj/set/operate method
	1) Place A4/LTR paper in Cassette 1. 2) Select the item, and then press OK key.
	Required time
	Approx. 55 seconds
	Supplement/memo
	It takes approximately 15 seconds before printing starts.
PRE-EXP	
Light-up of Pre-exposure LED	
Lv.1	Details
	To light up the Cleaning Pre-exposure LED. Open the Front Cover, and check that the LEDs light up visually. It automatically stops after all light up.
	Use case
	When checking that the Pre-exposure LEDs light up
	Adj/set/operate method
	Select the item, and then press OK key.
	Caution
	Drum memory may occur, so be sure not to execute this item frequently.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Required time
	Approx. 30 seconds

COPIER > FUNCTION > MISC-P	
ENV-PRT	
Temp&hmdy/surface temp of Fix Roll log	
Lv.1	Details
	To output data of the temperature and humidity inside the machine/ surface temperature of the Fixing Roller as a log.
	Use case
	When figuring out the past temperature inside the machine/fixing temperature information at trouble analysis
	Adj/set/operate method
	Select the item, and then press OK key.
	Display/adj/set range
	During operation: ACTIVE, When operation finished normally: OK!
	Required time
	Approx. 30 seconds
PJH-P-1	
Detail info of print job history:100 job	
Lv.1	Details
	To print the print job history for the latest 100 jobs with detailed information. In the case of less than 100 jobs, the history of all print jobs is printed.
	Use case
	When printing the print job history with detailed information
	Adj/set/operate method
	Select the item, and then press OK key.
	Supplement/memo
	Output the print job history with detailed information which is not displayed/printed in the job history screen under "System Monitor>Print>Log>Printer" and in the report of the print job history.
PJH-P-2	
Detail info of print job history:all job	
Lv.1	Details
	To print the history of all print jobs stored in the machine with detailed information (for maximum 5000 jobs). The difference between PJH-P-1 and this item is only the number of jobs printed.
	Use case
	When printing the print job history with detailed information
	Adj/set/operate method
	Select the item, and then press OK key.
	Supplement/memo
	Output the print job history with detailed information which is not displayed/printed in the job history screen under "System Monitor>Print>Log>Printer" and in the report of the print job history.
WB	
Reverse toner forcible eject: blank band	
Lv.2	Details
	To eject the reverse toner forcibly. After execution, it automatically stops.
	Use case
	When operating in a high duty and low humidity environment for a long time (executed by administrator)
	Adj/set/operate method
	Select the item, and then press OK key.
	Display/adj/set range
	In processing: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Required time
	60 seconds

COPIER > FUNCTION > MISC-P		
BB		Toner forcible eject (black band)
Lv.1	Details	Forcibly discharge low-charge toner, and send it to the drum cleaner unit. The operation automatically stops after execution.
	Use case	When operating the machine in low-duty and high-humidity environment for a long period of time (implemented by the administrator)
	Adj/set/operate method	Select the item and press the OK key.
	Display/adjust/set range	During operation: ACTIVE, When operation finished normally: OK, When operation failed: NG
	Required time	60 seconds
	DMAX-N	
Lv.1	Details	To execute D-max control for plain paper group manually. (It is usually executed automatically.) The result is displayed in COPIER> DISPLAY> DENS> DMAX-N.
	Use case	When checking single-part operation at replacement or cleaning of the Patch Sensor
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to execute this item after P-LED and P-BASE.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Required time	4 seconds
	Related service mode	COPIER> DISPLAY> DENS> DMAX-N
P-BASE		Detection of background by Patch Sensor
Lv.2	Details	To detect the ETB background by the Patch Sensor. (It is usually executed automatically.) The result is displayed in COPIER> DISPLAY> DENS> P-B-AVE, P-B-MAX, P-B-MIN.
	Use case	When checking single-part operation at replacement or cleaning of the Patch Sensor/ETB
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to execute this item after P-LED.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Required time	2 seconds
	Related service mode	COPIER> DISPLAY> DENS> P-B-AVE, P-B-MAX, P-B-MIN

COPIER > FUNCTION > MISC-P		
P-LED		Adj of Patch Sensor light intensity
Lv.2	Details	To adjust light intensity of the Patch Sensor. (It is usually executed automatically.) The result is displayed in COPIER> DISPLAY> DENS> P-LED.
	Use case	When checking single-part operation at replacement or cleaning of the Patch Sensor
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Required time	2 seconds
	Related service mode	COPIER> DISPLAY> DENS> P-LED
	USBH-PRT	
Lv.1	Details	To output information of the connected USB device in the form of a report.
	Adj/set/operate method	Select the item, and then press OK key.
DV-RT		Idle rotation of Developing Assembly
Lv.1	Details	To execute idle rotation of the Developing Assembly. Duration can be set by COPIER> OPTION> IMG-DEV>DV-RT-LG.
	Use case	When small vertical lines occurs on an image
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	If using frequently, deterioration of developer or toner scattering might occur.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Default value	0
	Related service mode	COPIER> OPTION> IMG-DEV>DV-RT-LG

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## ■ SENS-ADJ

COPIER > FUNCTION > SENS-ADJ		
STCK-LMT		Adj of Shift Tray Full Sensor position
Lv.2	Details	To adjust position of the Shift Tray Full Sensor (front)/(rear). "ON" is displayed at detection of full, and "OFF" is displayed at other times.
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	At detection of full: ON, At other times: OFF

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## ■ SYSTEM

COPIER > FUNCTION > SYSTEM		
DOWNLOAD		Shift to download mode
Lv.1	Details	To make the machine enter the download mode and wait for a command. Perform downloading by SST.
	Use case	At upgrade
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Perform downloading by SST.
	Caution	Do not turn OFF the power before HOLD is displayed.
	Supplement/memo	SST: Service Support Tool
CHK-TYPE		HD-CLEAR/HD-CHECK exe partition No.
Lv.1	Details	To specify the partition number of the HDD to execute HD-CLEAR/ HD-CHECK.
	Use case	When executing HD-CLEAR/HD-CHECK
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 65535 0: Entire HDD 1: Image accumulation area 2: Universal file storage area 3: PDL file storage area 4: Program file storage area 5: MEAP application 6: Address book transfer setting 7: MEAP storage data 8: System log storage area 9: Advanced Box area 10: Area for distribution server 11: Storage area of universal data
	Related service mode	COPIER> FUNCTION> SYSTEM> HD-CLEAR, HD-CHECK
	Supplement/memo	Universal file: Management information of user setting data, various log data, PDL spool data, and image data, etc.
HD-CHECK		Entire HDD check and recovery
Lv.1	Details	To check the entire HDD and execute recovery processing.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to execute this item after CHK-TYPE.
	Display/adj/set range	During operation: Progress ratio (%), When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> CHK-TYPE

COPIER > FUNCTION > SYSTEM		
HD-CLEAR		Initialization of specified partition
Lv.1	Details	To initialize the HDD partition specified by CHK-TYPE.
	Use case	When initializing the HDD partition
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to execute this item after CHK-TYPE.
	Display/adj/set range	Top 2 digits: Progress ratio (%), Returns to "00" at termination Last 2 digits: Result at termination (00: Normally finished, Others: Abnormally finished)
	Related service mode	COPIER> FUNCTION> SYSTEM> CHK-TYPE
DEBUG-1		Setting of log type and save timing
Lv.2	Details	To set the types of logs to be stored and the timing to store logs in the HDD. Logs are used to analyze the cause of a trouble.
	Use case	When analyzing the cause of a problem
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Do not use this at the normal service. Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	0 to 3 0: Save PLOG at detection of Reboot/Exception 1: Save PLOG at detection of Reboot/Exception/Encode 2: Save SUBLOG at detection of Reboot/Exception/Encode 3: Save SUBLOG in overwrite mode at detection of Reboot/Exception/Encode
	Default value	3
	Related service mode	COPIER > FUNCTION> SYSTEM > DEBUG-2 (Level 2)
	Supplement/memo	PLOG can be printed by COPIER> FUNCTION> SYSTEM> DEBUG-2. SUBLOG cannot be printed. (It should be uploaded from SST.)
DSRAMBUP		Backup of DC Controller PCB SRAM
Lv.2	Details	To back up the setting data in SRAM of the DC Controller PCB.
	Use case	When replacing the DC Controller PCB for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> DSRAMRES
DSRAMRES		Restore of DC Controller PCB SRAM
Lv.2	Details	To restore the setting data which has been backed up in SRAM of the DC Controller PCB.
	Use case	When replacing the DC Controller PCB for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> DSRAMBUP

COPIER > FUNCTION > SYSTEM		
RSRAMBUP		Backup of Reader Controller PCB SRAM
Lv.2	Details	To back up the setting data in SRAM of the Reader Controller PCB.
	Use case	When replacing the Reader Controller PCB for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> RSRAMRES
RSRAMRES		Restore of Reader Controller PCB SRAM
Lv.2	Details	To restore the setting data which has been backed up in SRAM of the Reader Controller PCB.
	Use case	When replacing the Reader Controller PCB for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> RSRAMBUP
R-REBOOT		Reboot of host machine (Remote)
Lv.1	Details	To reboot the host machine.
	Use case	When rebooting the host machine by remote control
	Adj/set/operate method	Select the item, and then press OK key.

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## 2D-SHADE

COPIER > FUNCTION > 2D-SHADE		
M-LINE1	2D shading horizontal scan 1 correction	
Lv.2	Details	To set the correction value of the horizontal scanning direction 1 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> M-LINE2
M-LINE2	2D shading horizontal scan 2 correction	
Lv.2	Details	To set the correction value of the horizontal scanning direction 2 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> M-LINE1
S-LINE1	2D shading vertical scan 1 correction	
Lv.2	Details	To set the correction value of the vertical scanning direction 1 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> S-LINE2, S-LINE3, S-LINE4
S-LINE2	2D shading vertical scan 2 correction	
Lv.2	Details	To set the correction value of the vertical scanning direction 2 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> S-LINE1, S-LINE3, S-LINE4
S-LINE3	2D shading vertical scan 3 correction	
Lv.2	Details	To set the correction value of the vertical scanning direction 3 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> S-LINE1, S-LINE2, S-LINE4
S-LINE4	2D shading vertical scan 4 correction	
Lv.2	Details	To set the correction value of the vertical scanning direction 4 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> S-LINE1, S-LINE2, S-LINE3

COPIER > FUNCTION > 2D-SHADE		
SHD-P1	2D shading pattern 1 output	
Lv.1	Details	To output pattern 1 for 2D shading.
	Use case	When checking 2D shading profile visually and entering manually
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> SHD-P2, SHD-P3
SHD-P2	2D shading pattern 2 output	
Lv.1	Details	To output pattern 2 for 2D shading.
	Use case	When checking 2D shading profile visually and entering manually
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> SHD-P1, SHD-P3
SHD-P3	2D shading pattern 3 output	
Lv.1	Details	To output pattern 3 for 2D shading.
	Use case	When checking 2D shading profile visually and entering manually
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> SHD-P1, SHD-P2
2D-READ	Read 2D shading ROM	
Lv.1	Details	To read 2D shading ROM data. To check ROM for 2D shading, compare the calculated checksum and checksum of ROM. When they are matched, the checksum and Drum Lot number are stored in the DC Controller. When they are not matched, it is judged as an alarm.
	Use case	After executing initialization of Drum at Drum replacement
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During execution: ACTIVE!, At normal termination: OK!, At abnormal termination: NG!
	Related service mode	COPIER > DISPLAY > 2D-SHADE > 2D-ST5 COPIER > OPTION > IMG-LSR > 2D-SHADE

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COPIER > OPTION > FNC-SW	
PO-CNT	ON/OFF of potential control function
Lv.1	Details
	To set ON/OFF of potential control function.
	Use case
	When replacing the Potential Sensor
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to set the value back to 1 (ON) after servicing.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	1
PO-CNTMD	Set potential control execution timing
Lv.2	Details
	To set the combination of timing to execute the potential control.
	Use case
	When productivity decreases at execution of potential control
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 2 0: <ul style="list-style-type: none"> <li>At warm-up rotation performed first time for the day in an HH environment</li> <li>At last rotation in the case that a job right after startup first time for the day takes 10 minutes or longer</li> <li>At last rotation after 1500 sheets since the last potential control</li> <li>At last rotation of the first job after 90 minutes since the last potential control</li> <li>At warm-up rotation of the first job after 10 minutes since the startup first time for the day (30 seconds)</li> </ul> 1: <ul style="list-style-type: none"> <li>At warm-up rotation performed first time for the day in an HH environment</li> <li>At last rotation in the case that a job right after startup first time for the day takes 10 minutes or longer</li> <li>At last rotation after 1500 sheets since the last potential control</li> <li>At warm-up rotation of the first job after 10 minutes since the startup first time for the day (30 seconds)</li> </ul> 2: <ul style="list-style-type: none"> <li>At warm-up rotation performed first time for the day in an HH environment</li> <li>At last rotation after 1500 sheets since the last potential control</li> </ul>
	Default value
	0

COPIER > OPTION > FNC-SW	
MODEL-SZ	Fixed magnifictn & DADF orgnl dtct size
Lv.1	Details
	To set the fixed magnification ratio display and the original detection size with DADF. It is set automatically at the time of installation of the Reader according to the location.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 3 0: AB configuration (6R5E) for Japan, 1: Inch configuration (5R4E) for North/Middle/South America, 2: A configuration (3R3E) for Europe, 3: AB/Inch configuration (6R5E) for Asia, Oceania, South America
	Default value
	It differs according to the location.
SCANSLCT	ON/OFF of scan area calculate function
Lv.2	Details
	To set ON/OFF of the function to calculate scanning area from the specified paper size. When the paper size is larger than the original size, selecting ON reduces productivity because the scanning area gets larger.
	Use case
	When matching the scanning area with the paper size
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF (calculated from the detected original size) 1: ON (calculated from the specified paper size)
	Default value
	0
DH-SW	ON/OFF of D-half control for pln group
Lv.2	Details
	To set ON/OFF of D-half control for plain paper group. When 1 to 3 is set, the control is executed at last rotation/first startup for the day. When 0 is set, it is controlled only with EPC using environment Vcont and Vback. (Conventional B&W machine control)
	Use case
	- When D-half-related failure occurs/when identifying the cause of D-half-related failure - Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to set the value back to 1 (ON) after servicing.
	Display/adj/set range
	0 to 3 0: OFF, 1: At last rotation, 2: At first startup for the day, 3: At last rotation + At first startup for the day
	Default value
	1

COPIER > OPTION > FNC-SW		
SENS-CNF		Setting of original detection size
Lv.2	Details	To set original detection size according to AB configuration/Inch configuration/A configuration. Select 1 (Inch configuration) for Inch configuration/A configuration machine.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: AB configuration, 1: Inch configuration
	Default value	0
CONFIG		Set country/area/lang/location/ppr size
Lv.1	Details	To set the country/region, language, location, paper size configuration for multiple system software in HDD.
	Use case	Upon user's request
	Adj/set/operate method	1) Select the setting item. 2) Switch with +/- key, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	XX YY.ZZ.AA XX: Country/region JP: Japan, US: United States, GB: England, FR: France, DE: Germany, IT: Italia, AU: Australia, SG: Singapore, NL: Netherlands, KR: Korea, CN: China, TW: Taiwan, ES: Spain, SE: Sweden, PT: Portugal, NO: Norway, DK: Denmark, FI: Finland, PL: Poland, HU: Hungary, CZ: Czech, SI: Slovenia, GR: Greek, EE: Estonia, RU: Russia, AD: Andorra, AL: Albania, AM: Armenia, AR: Argentine, AT: Austria, BA: Bosnia Herzegovina, BE: Belgium, BG: Bulgaria, BO: Bolivia, BR: Brazil, CA: Canada, CH: Switzerland, CL: Chile, CY: Cyprus, HR: Croatia, ID: Indonesia, IE: Ireland, IL: Israel, IN: India, IS: Iseland, LU: Luxembourg, LV: Latvia, MX: Mexico, MY: Malaysia, NZ: New Zealand, PE: Peru, PH: Philippine, PY: Paraguay, RO: Romania, SK: Slovakia, TH: Thailand, TR: Turkey, UA: Ukraine, UY: Uruguay, VE: Venezuela, VN: Vietnam YY: Language (Fixed; e.g. ja: Japanese) ZZ: Location (Fixed; e.g. 00: CANON) AA: Paper size configuration (00: AB configuration, 01: Inch configuration, 02: A configuration, 03: Inch/AB configuration)
Related service mode	COPIER> OPTION> FNC-SW> MODEL-SZ	

COPIER > OPTION > FNC-SW		
W/SCNR		Setting of Reader Unit installation
Lv.1	Details	To set installation of the Reader Unit. 1 (Installed) is automatically selected once the Reader Unit is detected at the start of the machine.
	Use case	When installing/removing the Reader Unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not installed, 1: Installed
	Default value	According to the setting at shipment
ORG-LGL		Special paper size set in DADF mode: LGL
Lv.2	Details	To set the size of special paper (LGL configuration) that cannot be recognized in DADF stream reading mode.
	Use case	- Upon user's request - When picking up special paper size original from DADF
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 10 0: LEGAL-R, 1: FOOLSCAP-R, 2: OFICIO-R, 3: FOLIO-R, 4: Australian FOOLSCAP-R, 5: Ecuador OFICIO-R, 6: Bolivia OFICIO-R, 7: Argentine OFICIO-R, 8: Argentine LEGAL-R, 9: Government LEGAL-R, 10: Mexico OFICIO-R
	Default value	0
ORG-LTR		Special paper size set in DADF mode: LTR
Lv.2	Details	To set the size of special paper (LTR configuration) that cannot be recognized in DADF stream reading mode.
	Use case	- Upon user's request - When picking up special paper size original from DADF
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: LETTER, 1: EXECUTIVE, 2: Argentine LETTER, 3: Government LETTER
	Default value	0
ORG-B5		Special paper size set in DADF mode: B5
Lv.2	Details	To set the size of special paper (B5) that cannot be recognized in DADF stream reading mode.
	Use case	- Upon user's request - When picking up special paper size original from DADF
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: B5, 1: Korean government office paper
	Default value	0

COPIER > OPTION > FNC-SW		
INTROT-1		Set last rotation auto adj exe interval
Lv.1	Details	To set the paper interval to execute D-max/D-half control at last rotation. As the value is incremented by 1, the interval is increased by 500 sheets.
	Use case	When matching the use environment of the user
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Increasing the number of sheets (widening the interval) causes higher frequency of image failure.
	Display/adj/set range	1 to 255
	Unit	500 sheets
	Default value	12
DMAX-SW		ON/OFF of D-max control for pln group
Lv.1	Details	To set ON/OFF of D-max control for plain paper group. When 1 to 4 is set, the control is executed at last rotation/first startup for the day. When 3 or 4 is set, it is also executed at last rotation for every 200 sheets up to 1200 sheets after replacement of the Developing Assembly. When the number of sheets exceeds 1200, it is executed for every 6000 sheets as usual. When 0 is set, it is controlled only with EPC using environment Vcont and Vback. (Conventional B&W machine control)
	Use case	When D-max-related failure occurs/when identifying the cause of D-max-related failure
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 4 0: OFF, 1: At last rotation, 2: At first startup for the day, 3: At last rotation + At first startup for the day + At last rotation for every 200 sheets up to 1200 sheets after replacement of the Developing Assembly, 4: At last rotation + At last rotation for every 200 sheets up to 1200 sheets after replacement of the Developing Assembly
	Appropriate target value	1
	Default value	1

COPIER > OPTION > FNC-SW		
MODELSZ2		Ppr size dtct global support in bookmode
Lv.2	Details	To set ON/OFF for global support of document size detection in copyboard reading mode.
	Use case	Upon user's request (mixed media original with AB/Inch configuration)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Do not use this at the normal service. - The Document Size Sensor (Photo Sensor) is additionally required to correctly detect the document size when the original consists of mixed media (AB/Inch configuration).
	Display/adj/set range	0 to 1 0: Detected with detection size according to location, 1: Detected with AB/Inch mixed media.
	Default value	0
SVMD-ENT		Setting of entry method to service mode
Lv.2	Details	To set the way to get in service mode to prevent information leak.
	Use case	As needed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: [Settings/Registration] - Pressing [2] and [8] at the same time - [Settings/Registration] 1: [Settings/Registration] - Pressing [4] and [9] at the same time - [Settings/Registration]
	Default value	0
BASE-SW		Model switch set from MEAP-Full to Base
Lv.1	Details	To switch from the MEAP-Full model to the Base model. Switch this mode in the case of restricting the operation of MEAP application for trouble analysis.
	Use case	When trouble that caused by MEAP application occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Switching from the Base model to the MEAP-Full model is not available.
	Display/adj/set range	0 to 1 0: OFF (Base model), 1: ON (Full model)
	Default value	Depending on the setting of option bit (MeapModelBIT).

COPIER > OPTION > FNC-SW	
SC-L-CNT	Set large paper judgment reference at scan
Lv.1	Details
	To set the judgment reference of the scan counter as to which to use B4 or LTR to determine large size. The threshold is determined by the combination with the setting of B4-L-CNT. SC-L-CNT=0, B4-L-CNT=0: paper exceeding B4 is determined as large size, paper with B4 or smaller is determined as small size. SC-L-CNT=0, B4-L-CNT=1: paper with B4 or larger is determined as large size, paper smaller than B4 is determined as small size.
	Use case
	As needed
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: B4 size, 1: LTR size
	Default value
	0
	Related service mode
	COPIER> OPTION> USER> B4-L-CNT
CKT-LANG	Setting of China/Korea/Taiwan mode
Lv.2	Details
	To set China/Korea/Taiwan mode.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
KSIZE-SW	Set of Chinese paper (K-size) support
Lv.2	Details
	To set to detect/display the Chinese paper (K size paper: 8K, 16K).
	Use case
	When using K size paper
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Go through the following: COPIER > OPTION > FNC-SW > MODEL-SZ; and if MODEL-SZ is "0: AB configuration", this mode is enabled.
	Display/adj/set range
	0 to 1 0: Not supported, 1: Supported
	Default value
	0
	Related service mode
	COPIER> OPTION> FNC-SW> MODEL-SZ
	Supplement/memo
	8K paper: 270 x 390 mm, 16K paper: 270 x 195 mm
PDF-RDCT	PDF reduction set at forwarding
Lv.2	Details
	To set whether to reduce the image for transmission when converting the image received by IFAX into PDF for e-mail/file transmission.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Following the current setting, 1: Image reduction
	Default value
	0

COPIER > OPTION > FNC-SW	
REBOOTSW	Restart setting at E240 error occurrence
Lv.2	Details
	To set whether to reboot in the case of E240 error. In the case of E240 error, the machine is automatically rebooted due to the possibility of continuous operation of the drive system while the spooled print job is cleared. Print job can be obtained if selecting the setting not to reboot.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	- Do not use this at the normal service. - Be sure to get approval from the user by telling the possibility of continuous operation of the drive system in the case of E240 error.
	Display/adj/set range
	0 to 1 0: Rebooted, 1: Not rebooted
	Default value
	0
	Supplement/memo
	E240 error: Communication error between the Main Controller and the DC Controller.
SJB-UNW	Reserve upper limit of secure print job
Lv.2	Details
	To set the upper limit for the number of reserved jobs in secure print job.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: 50 jobs, 1: 90 jobs
	Default value
	0
WEBV-SW	ON/OFF of WebDAV function
Lv.2	Details
	To set ON/OFF of WebDAV function. OFF setting can reduce memory use of the machine. In addition, the following WebDAV-related items are hidden in user mode. - Settings/Registration> Set Destination> Register Destinations> Register New Dest.> File> Protocol> WebDAV - Settings/Registration> Function Settings> Send> Common Settings> Use Divided Chunk Send for WebDAV TX
	Use case
	When reducing memory use of the machine
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: ON, 1: OFF
	Default value
	0
	Related user mode
	Settings/Registration> Set Destination> Register Destinations> Register New Dest.> File> Protocol> WebDAV Settings/Registration> Function Settings> Send> Common Settings> Use Divided Chunk Send for WebDAV TX
	Supplement/memo
	WebDAV function is equipped as standard with the machine.

COPIER > OPTION > FNC-SW	
CARD-RNG	Card number setting (department number)
Lv.2	Details
	To set the number of cards (departments) that can be used with the Card Reader.
	Use case
	When setting the number of cards (departments)
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	1 to 1000
	Default value
	1000
SJOB-CL	Set of scan job canceling by logout
Lv.1	Details
	To set whether to cancel the scan job in operation by logout of the user.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	- The job in scanning operation cannot be canceled. - Cancel by logout is kept in the log.
	Display/adj/set range
	0 to 1 0: Disabled, 1: Enabled
	Default value
	0
	Supplement/memo
	Scan job: A job after the scanning operation is completed.
USB-RCNT	Auto connect set at USB device disconnect
Lv.2	Details
	To set to enable/disable automatic connection when the USB device is disconnected. With the setting to disable automatic connection, USB device cannot be used if disconnecting and then connecting the USB device. To enable connection again, the power needs to be turned OFF/ON. With the setting to enable automatic connection, reconnection is made after disconnecting, and then connecting the USB device.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	With the setting to enable automatic connection, disconnecting of 1 area makes automatic connection of all USB devices if there is USB hub.
	Display/adj/set range
	0 to 1 0: No automatic connection, 1: Automatic connection
	Default value
	0

COPIER > OPTION > FNC-SW	
UNLMTBND	Over 400 binders print job support set
Lv.1	Details
	To set whether to support print job that exceeds 400 binders. With the setting to support, the machine makes prints by sharing binders according to job attribution. Select "1: Not supported" if the user does not print job* with large quantity of binders.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Automatic setting (When the print server is not connected: not supported; When the print server is connected: supported) 1: Not supported
	Default value
	0
	Supplement/memo
	* : A job that requires finishing (such as stapling) in one job. Does not apply in the case of executing finishing with multiple sets of output.
MIBCOUNT	Scope range set of Charge Counter MIB
Lv.2	Details
	To set the range of counter information that can be obtained as MIB (Management Information Base).
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 2 0: All charge counters are obtained, 1: Only displayed counter* is obtained, 2: All charge counters are not obtained * : Counter specified by the following: COPIER > OPTION > USER > COUNTER 1 to 6
	Default value
	0
	Related service mode
	COPIER> OPTION> USER> COUNTER1 to 6
MEAP-PRI	Setting of MEAP task priority
Lv.2	Details
	Selecting "1: ON" increases MEAP task priority.
	Use case
	When improving processing performance of MEAP
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	1
CNTR-SW	Init of parts counter replacement timing
Lv.1	Details
	To return the estimated life of parts counter to the initial value.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter 0, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0: Returned to the initial value
	Default value
	0



COPIER > OPTION > FNC-SW	
ILSZ-JAM	ON/OFF of size difference jam detection
Lv.2	Details
	To set ON/OFF of size difference jam detection.
	Display/adj/set range
	0 to 1 0: ON, 1: OFF
	Default value
	0
W/RAID	Setting of RAID Board installation
Lv.1	Details
	To set installation condition of RAID Board (HDD Mirroring Kit). Select "1: Installed" when installing the RAID Board. Select "0: Not installed" when removing the RAID Board.
	Use case
	When installing/removing RAID Board
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Not installed, 1: Installed
	Default value
	0
PSWD-SW	Password type set to enter service mode
Lv.1	Details
	To set the type of password that is required to enter when getting into service mode. 2 types are available: one for "service technician" and the other for "system administrator + service technician". When selecting the type for "system administrator + service technician", enter the password for service technician after the password entry by the user's system administrator.
	Use case
	Upon request from the user who concerns security
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 2 0: No password, 1: Service technician, 2: System administrator + service technician
	Default value
	0
SM-PSWD	Password setting for service technician
Lv.2	Details
	To set password for service technician that is used when getting into service mode.
	Use case
	When password is required to get into service mode
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to select 1 or 2 with PSWD-SW in advance.
	Display/adj/set range
	1 to 99999999
	Default value
	11111111
	Related service mode
	COPIER> OPTION> FNC-SW> PSWD-SW

COPIER > OPTION > FNC-SW	
CE/SCNR	Dis/set scan connector disconnect times
Lv.1	Details
	To display/change the number of Scanner connector disconnection detection. To count up every time when connector disconnection is detected. When 0 is set, the number of detection can be reset.
	Use case
	When checking/clearing the number of connector disconnection
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 5
	Default value
	0
	Supplement/memo
	When the connector is disconnected, "Check the connector" is displayed on the Control Panel. After detecting certain times, an error code (E732-000) is displayed.
RPT2SIDE	Set of report 1-sided/2-sided output
Lv.1	Details
	To set whether to use 1-sided or 2-sided for report output of service mode.
	Use case
	When making 2-sided report output to reduce the number of output pages
	Display/adj/set range
	0 to 1 0: 1-sided, 1: 2-sided
	Default value
	0
	Related service mode
	COPIER> FUNCTION> MISC-P> P-PRINT
BRWS-FAV	Set of service browser favorite register
Lv.2	Details
	To set whether to allow registration of favorites in the browser for service. When 1 is set, favorites in the browser for service can be edited, and any URLs can be accessed.
	Use case
	When service engineers edit favorites in the browser for service
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Disabled, 1: Enabled
	Default value
	0
STND-PNL	Set Upright Control Panel installation
Lv.2	Details
	To set whether the Upright Control Panel is installed. When the Flat Control Panel is installed, set 1.
	Use case
	At installation of the Upright Control Panel
	Display/adj/set range
	0 to 1 0: Flat Control Panel, 1: Upright Control Panel
	Default value
	1

COPIER > OPTION > FNC-SW		
INVALPDL		Disable of PDL license
Lv.1	Details	To disable the registered PDL license. When "1: Disabled" is set, PDL is disabled even if a PDL license is registered. This is set to the machines installed at convenience stores, which do not allow PDL to be used.
	Use case	When prohibiting the use of PDL
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Registered PDL license is enabled, 1: Disabled
	Default value	0
IMGCNTPR		Setting of image quality mode
Lv.1	Details	To set the image quality mode. The counter priority mode is applied when 1 is set, and the image quality priority mode is applied when 0 is set.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Image quality priority mode, 1: Counter priority mode
	Default value	0
CDS-FIRM		Set to allow firmware update by admin
Lv.1	Details	To set whether to permit update of the firmware by user (administrator). When "1: Enabled" is set, Updater can be activated from the user mode.
	Use case	When allowing the administrator to update the firmware
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	Europe: 1, Other than Europe: 0
	Supplement/memo	CDS: Content Delivery System
CDS-MEAP		Set to allow MEAP installation by admin
Lv.1	Details	To set whether to permit the user (administrator) to install MEAP applications and enable iR options from CDS. When "1: Enabled" is set, Updater can be activated from the user mode.
	Use case	When allowing the administrator to install MEAP applications and enable iR options from CDS
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled (This setting can be specified for China, Korea and Taiwan models only.)
	Default value	1
	Supplement/memo	CDS: Content Delivery System

COPIER > OPTION > FNC-SW		
CDS-UGW		Set to allow firmware update from UGW
Lv.1	Details	To set whether to permit update of the firmware from the UGW server. When "1: Enabled" is set, Updater accepts the operation from the UGW server in cooperation with CDS.
	Use case	When allowing update of the firmware from the UGW server
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Supplement/memo	CDS: Content Delivery System
LOCLFIRM		Set to allow firmware update by file
Lv.1	Details	To set whether to permit the user (administrator) to update the firmware from the remote UI using a local file. This update is executed as a measure for vulnerability in emergency situations.
	Use case	When allowing the administrator to update the firmware using a file
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	1
RSHDW-SW		ON/OFF of remote shutdown
Lv.1	Details	A shared multi-function machine is not likely to be shut down at power failure. Set ON/OFF of the remote shutdown function to prevent accident. When "1: ON" is set, the machine can be shut down from the remote shutdown menu displayed in the remote UI.
	Use case	When preventing an accident at specified power-off time.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
T-RUN-LV		No.of keep print at Toner Cntner rplce
Lv.1	Details	To set the number of prints to be kept from the indication of Toner Container replacement until job is interrupted. The time to keep printing varies depending on image ratio and productivity.
	Use case	When replacing the Toner Container while printing without interruption
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Approx. 900 sheets, 1: Approx. 140 sheets (A4, 5% image ratio)
	Default value	0

COPIER > OPTION > FNC-SW	
BXNUPLOG	ON/OFF of Nup log at Inbox print
Lv.2	Details
	To set whether to keep Nup log at Inbox print.
	Use case
	When keeping Nup log at Inbox print
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	At normal service: 0, At customization: 1
SDLMTWRN	Cpcty warn dis ON/OFF at E-mail/I-Fax TX
Lv.1	Details
	To set whether to display the warning message when sending data that exceeds the upper limit value for the transmission data size via E-mail/I-Fax.
	Use case
	For customization
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
	Related user mode
	Function Settings > Send > E-Mail/I-Fax Settings > Maximum Data Size for Sending
JLK-PWSC	ON/OFF of PCAM password auth doc scan
Lv.2	Details
	To set whether to scan the PCAM password authentication document with the MEAP application.
	Use case
	When scanning the PCAM password authentication document
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
ATUDILOG	ON/OFF of UDI log record
Lv.2	Details
	To set ON/OFF of UDI log record mode. UDI log file is normally written in HDD file, but it is deleted at start-up so the UDI log is not recorded. When 1 is set, UDI log is recorded in HDD at job assignment, and is written out with sub log when obtaining it with USB memory (it can be also obtained from SST).
	Use case
	When investigation is not possible with only sub log at the time of trouble occurrence
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to get approval from the user by telling that third party other than Canon cannot recover the original document and image from UDI log.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0

COPIER > OPTION > FNC-SW	
FAX-INT	Set FAX RX print interruption oprtn mode
Lv.2	Details
	To set the mode performing interruption operation of FAX reception print automatically.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Normal, 1: Interruption operation mode
	Default value
	0
CDS-LVUP	Set to allow CDS periodical update
Lv.1	Details
	To set whether to allow the user (administrator) to use the periodical update function linked with CDS. When 1 is set, the periodical update function can be used from the user mode.
	Use case
	When allowing the user to use the periodical update function
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Do not set 1 in Japan. The firmware cannot be updated by user.
	Display/adj/set range
	0 to 1 0: Disabled, 1: Enabled
	Default value
	The value differs according to the location.
	Supplement/memo
	CDS: Content Delivery System
UA-OFFSW	RFC-compatible character stringMIB write
Lv.1	Details
	As default, MIB object which NVT-ASCII can be written exists in order to link with LUI entry value. This violates RFC order, so a problem like garbled 2-byte characters may occur in the SNMP monitoring system, such as the 3rd vendor's MPS. Whether non-RFC-compatible character strings are written in MIB can be set using this mode. When 1 is set, only the character strings which are strictly compatible with RFC are written. (Writing operation is executed from the SNMP manager.) LUI is not linked.
	Use case
	Upon user's request (operation with RFC-compatible system)
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 3 0: Compatible in a conventional manner, 1: RFC-compatible, 2 to 3: Not used
	Default value
	0
	Supplement/memo
	RFC: Document of internet-related technical standards NVT-ASCII: Network Virtual Terminal-ASCII

COPIER > OPTION > FNC-SW	
MIB-NVTA	RFC-compatible character string MIB write
Lv.1	Details
	As default, MIB object which NVT-ASCII can be written exists in order to link with LUI entry value. This violates RFC order, so a problem like garbled 2-byte characters may occur in the SNMP monitoring system, such as the 3rd vendor's MPS. Whether non-RFC-compatible character strings are written in MIB can be set using this mode. When 1 is set, only the character strings which are strictly compatible with RFC are written. (Writing operation is executed from the SNMP manager.) LUI is not linked.
	Use case
	Upon user's request (operation with RFC-compatible system)
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 3 0: Compatible in a conventional manner, 1: RFC-compatible, 2 to 3: Not used
	Default value
	0
	Supplement/memo
	RFC: Document of internet-related technical standards NVT-ASCII: Network Virtual Terminal-ASCII
MIB-EXT	ON/OFF of link with Ex-Cont on network
Lv.1	Details
	To set whether to link with External Controller on network (Hewlett-Packard Co.).
	Use case
	When linking with External Controller of Hewlett-Packard Co.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 2 0: OFF, 1: ON, 2: Not used
	Default value
	0

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## ■ DSPLY-SW

COPIER > OPTION > DSPLY-SW	
UI-COPY	Display/hide of copy screen
Lv.2	Details
	To set whether to display or hide the copy function.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1
UI-BOX	Display/hide of Inbox screen
Lv.2	Details
	To set whether to display or hide the Inbox function.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 2 0: No Inbox function (Storing is not available even with PDL to Inbox.) 1: Inbox function is active 2: Inbox function is active (with limitation; Storing is available with PDL to Inbox despite no display on the Control Panel/remote UI)
	Default value
	1
	Related user mode
	Preferences> Display Settings> Store Location Display Settings> Mail Box The setting value is changed to 2 when turning OFF the foregoing user mode, and the value is changed to 1 when turning ON the mode at power-off/on. As the setting value of this service mode is changed, the setting value of the foregoing user mode is also changed.
UI-SEND	Display/hide of send screen
Lv.2	Details
	To set whether to display or hide the SEND function.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1
UI-FAX	Display/hide of FAX screen
Lv.2	Details
	To set whether to display or hide the FAX function.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1
T-LW-LVL	[Not used]
Lv.2	Details
	-

COPIER > OPTION > DSPLY-SW	
MEAP-DSP	Screen switch set from MEAP to standard
Lv.2	Details
	To set to enable/disable switching from MEAP screen to the standard screen (COPY/SEND/Mail Box screen, etc). (Setting to display/hide the arrow mark on MEAP screen) In the case of an error/jam/alarm, the screen is switched to the standard screen to display warning even if disabling this mode.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Enabled, 1: Disabled
	Default value
	0
	Related service mode
	COPIER> OPTION> DSPLY-SW> ANIM-SW
	Supplement/memo
	If disabling the switch with ANIM-SW, the screen will not be switched to the standard screen even in the case of an error/jam/alarm.
ANIM-SW	Screen switch set from MEAP to warning
Lv.2	Details
	To set to enable/disable switching from MEAP screen to the error/jam screen. If disabling this mode, the screen will not be switched to the warning screen in the case of an error/jam/alarm, and a message is appeared on the MEAP screen indicating to contact the service person.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Enabled, 1: Disabled (No display of warning screen)
	Default value
	0
	Related service mode
	COPIER> OPTION> DSPLY-SW> MEAP-DSP
	Supplement/memo
	If just disabling the switch with MEAP-DSP, the screen is switched to the standard screen in the case of an error/jam/alarm. If disabling the switch with ANIM-SW, the screen will not be switched to the standard screen and a warning is appeared on MEAP screen.
UI-PRINT	Display/hide of print job screen
Lv.2	Details
	To set whether to display or hide the print job screen.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1

COPIER > OPTION > DSPLY-SW	
IMGC-ADJ	Dis/hide of img adj item in user mode
Lv.1	Details
	To set whether to display or hide the item relating to image adjustment in user mode. When selecting display setting, detailed image adjustment procedure will be displayed only for the duplicated paper specified with the following settings: Preferences> Paper Settings> Set Paper Type Management.
	Use case
	As needed
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0
	Related user mode
	Preferences> Paper Settings> Set Paper Type Management
UI-RSCAN	Display/hide of remote scan screen
Lv.2	Details
	To set whether to display or hide the remote scan screen on the Control Panel.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1
UI-EPRNT	Display/hide of extended print screen
Lv.2	Details
	To set whether to display or hide the extended print screen (print screen for print server).
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1
UI-WEB	Display/hide of Web browser screen
Lv.2	Details
	To set whether to display or hide the Web browser screen.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1

COPIER > OPTION > DSPLY-SW	
UI-HOLD	Display/hide of hold job screen
Lv.2	Details
	To set whether to display the hold job screen on the Control Panel.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1
OPEMANT	ON/OFF of operator maintenance mode
Lv.2	Details
	To set ON/OFF of operator maintenance mode. When setting to ON, "Operator Maintenance Mode" is displayed on the Settings/Registration screen.
	Use case
	When starting operator maintenance
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
	Related user mode
	Settings/Registration > Operator Maintenance Mode
OPLOG-SW	Dis/hide of error log in operator mntc
Lv.2	Details
	To set whether to display or hide error/jam/alarm-2 log in operator maintenance mode.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0
OP-ALMT	Set warning mssg timing in operator mntc
Lv.2	Details
	To set the timing to display warning message of parts replacement/cleaning counter in operator maintenance mode. With this setting, warning message is displayed once before reaching the specified life of parts or number of sheets for cleaning.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: At 100%, 1: At 90% and 100%
	Default value
	0

COPIER > OPTION > DSPLY-SW	
RMT-CNSL	ON/OFF of MEAP console screen
Lv.1	Details
	Selecting "1: ON" enables to obtain log for Function Composer on console screen.
	Use case
	When obtaining log for Function Composer
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
UI-SBOX	ON/OFF of Advanced Box screen display
Lv.2	Details
	To set ON/OFF of the Advanced Box screen on the Control Panel.
	Use case
	When not displaying the Advanced Box screen on the Control Panel
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	Europe: 0, Other than Europe: 1
	Related user mode
	Preferences> Display Settings> Store Location Display Settings> Advanced Box / Network The setting value is changed to 0 when turning OFF the foregoing user mode, and the value is changed to 1 when turning ON the mode at power-off/on. As the setting value of this service mode is changed, the setting value of the foregoing user mode is also changed.
UI-MEM	ON/OFF of memory media screen display
Lv.2	Details
	To set ON/OFF of the memory media screen display on the Control Panel.
	Use case
	When not displaying the memory media screen on the Control Panel
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
	Related user mode
	Preferences> Display Settings> Store Location Display Settings> Memory Media The setting value is changed to 0 when turning OFF the foregoing user mode, and the value is changed to 1 when turning ON the mode at power-off/on. As the setting value of this service mode is changed, the setting value of the foregoing user mode is also changed.
UI-NAVI	Dis/hide of introduce to useful features
Lv.2	Details
	To set whether to display or hide "Introduction to Useful Features" in the main menu.
	Use case
	Upon user's request
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1

COPIER > OPTION > DSPLY-SW	
UI-MOBP	Display/hide of mobile print
Lv.2	Details
	To set whether to display or hide "Mobile Print" in the main menu.
	Use case
	Upon user's request
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1
UI-CUSTM	ON/OFF of custom menu screen display
Lv.2	Details
	To set ON/OFF of the custom menu screen display on the Control Panel.
	Use case
	When not displaying the custom menu screen on the Control Panel
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	1

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## ■ IMG-FIX

COPIER > OPTION > IMG-FIX	
FIX-CLN	Set fixing cleaning execution interval
Lv.1	Details
	To set the number of sheets as the intervals to execute fixing cleaning. By performing idle rotation of the Fixing Assembly for 5 seconds every time a specified number of sheets are fed, remove soil adhered on the Pressure Roller. Set 1 when an image failure occurs. If it is not alleviated, set 2 or 3. Because idle rotation is executed by interrupting an ongoing job, as the short execution interval is set, productivity decreases.
	Use case
	When an image failure due to the Pressure Roller occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	As the short execution interval is set, productivity decreases.
	Display/adj/set range
	0 to 3 0: OFF, 1: 500 sheets, 2: 300 sheets, 3: 150 sheets
	Default value
	0
FIX-TEMP	Set fixing/productivity: Heavy paper
Lv.1	Details
	To set priority between productivity and fixing by changing temperature at which down sequence is applied to Heavy paper. When 2 is set, fixing has priority over productivity because the machine is likely to go into the down sequence. When 0 is set, productivity has priority over fixing.
	Use case
	When changing priority between fixing and productivity for Heavy paper
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 2 0: Priority on productivity (-5 degC), 1: Normal, 2: Priority on fixing (+5 degC)
	Unit
	5 degC
	Default value
	1
FSPD-S1	Setting of fixing improvement mode
Lv.2	Details
	To set whether to start the machine in fixing improvement mode. When 1 to 4 is set, duration of warm-up is increased for the specified time to increase the temperature of the Fixing Assembly.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 4 0: 0 second, 1: 30 seconds, 2: 60 seconds, 3: 90 seconds, 4: 120 seconds
	Default value
	0

COPIER > OPTION > IMG-FIX	
CBLTINVL	Setting of Fixing Web Solenoid ON times
Lv.1	Details
	To set frequency to turn ON the Fixing Cleaning Web Drive Solenoid. If an image failure occurs due to the soiled Pressure Roller, set 1. If an image failure occurs due to the soiled Separation Claw, set 2. If the life of Fixing Cleaning Web is shorter than the target (500,000 sheets) (in case of much take-up amount of web), set 3.
	Use case
	- When an image failure due to the soiled Pressure Roller/Separation Claw occurs - When the life of Fixing Cleaning Web is too short
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 3 0: Normal, 1: 1.5 times higher than normal, 2: 0.5 times higher than normal, 3: 0.75 times higher than normal
	Default value
	0
TMP-TBL2	Set fixing control temp table: Thin
Lv.1	Details
	To set the control temperature table of the Fixing Roller for 52 to 63g/m <sup>2</sup> size paper.
	Use case
	When alleviating the curl
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-5 to 2 -5 to -1: -5 degC, 0: 0 degC, 1 to 2: +5 degC
	Unit
	5 degC
	Default value
	0
TMP-TBL3	Set fixing control temp table: Heavy
Lv.1	Details
	To set the control temperature table of the Fixing Roller for 91 to 256g/m <sup>2</sup> size paper.
	Use case
	When alleviating the curl
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-5 to 2 -5 to -2: -10 degC, -1: -5 degC, 0 to 2: 0 degC
	Unit
	5 degC
	Default value
	0
TMP-TBL4	Set fixing control temp table: Bond
Lv.1	Details
	To set the control temperature table of the Fixing Roller for bond paper.
	Use case
	When alleviating the curl
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-5 to 2 -5 to 2: 0 degC
	Unit
	5 degC
	Default value
	0
TMP-TBL5	[Not used]

COPIER > OPTION > IMG-FIX	
TMP-TBL6	Set fixing control temp table: envlp
Lv.1	Details
	To set the control temperature table of the Fixing Roller for envelope.
	Use case
	When alleviating the curl
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-5 to 2: 0 degC
	Unit
	5 degC
	Default value
	0
RAG-CONT	Set fix smeared image ctrl mode level
Lv.1	Details
	To set level of the mode (skipping) to control smeared image caused by fixing area.
	Use case
	When a smeared image occurs
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Set RAG-SW to 1 to 3 to enable skipping.
	Display/adj/set range
	0 to 3 0: No skipping, 1: Small skipping, 2: Medium skipping, 3: Large skipping
	Default value
	0
	Related service mode
	COPIER> OPTION> IMG-FIX> RAG-SW
RAG-SW	ON/OFF of fixing burst prevention mode
Lv.1	Details
	To set ON/OFF of fixing burst prevention mode (skipping) to prevent line burst. Select "1: ON" in the case all horizontal lines are burst. Set ON according to paper type in the case the degree of line burst differs depending on media.
	Use case
	When horizontal lines burst
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Set RAG-CONT to 1 to 3 to enable skipping.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
	Related service mode
	COPIER> OPTION> IMG-FIX> RAG-CONT
FIX-DWN	Set prdctvty reduct mode: small size
Lv.2	Details
	To set the speed ratio in the case of reducing productivity when feeding small size paper.
	Use case
	When an image failure (crepe mark) occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-3 to 0 -3: 40%, -2: 60%, -1: 80%, 0: 100%
	Default value
	0



COPIER > OPTION > IMG-FIX		
FIX-RT		Set idle rotation time at last rotation
Lv.2	Details	To set the idle rotation time at last rotation executed after a job is completed.
	Use case	When an image failure (crepe mark) occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 3 0: No idle rotation, 1: 10 seconds, 2: 20 seconds, 3: 30 seconds
	Default value	0
MIX-WAIT		Set of fixing wait mode at mixed paper
Lv.1	Details	To set the fixing wait mode when plain paper and heavy paper are mixed. When 0 is set, fixing mode for heavy paper is also used for plain paper while papers are mixed. When switching from plain paper to heavy paper, the machine does not wait until the fixing temperature rises. When 1 is set, the machine waits because the fixing temperature for plain paper is switched to the one for heavy paper. Fixing is improved, but productivity decreases.
	Use case	When fixing is deteriorated while plain paper and heavy paper are mixed
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When 1 is set, productivity decreases
	Display/adj/set range	0 to 3 0: Fixing temperature is not switched according to paper type, 2: Fixing temperature is switched, 2 to 3: Spare
	Default value	0
P-BETWN		Setting of paper interval: 2-sided mode
Lv.1	Details	To set the paper interval at 2-sided mode. Use this mode when uneven gloss occurs on the Fixing Roller pitch (126 mm) on 1st side of 2-sided print. When 1 is set, 150 mm or less paper interval at 2-sided mode becomes 150 mm or more. Uneven gloss can be alleviated, but productivity decreases.
	Use case	When uneven gloss occurs on 1st side of 2-sided print
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When 1 is set, productivity decreases
	Display/adj/set range	0 to 1 0: Normal, 1: Widening paper interval
	Default value	0

COPIER > OPTION > IMG-FIX		
FIX-TMP2		Set fixing/productivity: Plain paper A3+
Lv.1	Details	To set priority between productivity and fixing by changing temperature at which down sequence is applied to plain paper A3-Extension (13"x19"). When 1 is set, fixing has priority over productivity because the machine is likely to go into the down sequence. When -1 is set, productivity has priority over fixing.
	Use case	When changing priority between fixing and productivity for plain paper A3-Extension (13"x19")
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-1 to 1 -1: Priority on productivity (-3 degC), 0: Normal, 1: Priority on fixing (+3 degC)
	Unit	3 degC
	Default value	0
FIX-TMP3		Set fixing/productivity: Spcl ppr A3+
Lv.1	Details	To set priority between productivity and fixing by changing temperature at which down sequence is applied to special paper A3-Extension (13"x19"). When 1 is set, fixing has priority over productivity because the machine is likely to go into the down sequence. When -1 is set, productivity has priority over fixing.
	Use case	When changing priority between fixing and productivity for special paper A3-Extension (13"x19")
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-1 to 1 -1: Priority on productivity (-3 degC), 0: Normal, 1: Priority on fixing (+3 degC)
	Unit	3 degC
	Default value	0

COPIER > OPTION > IMG-FIX	
FX-IMGLV	Set img qlty/prdctvty lvl:Qlty Prtty
Lv.2	Details
	To set image quality/productivity level when "Quality Priority" is set.. When "Quality Priority" is selected in user mode, productivity may be extremely decreased to prevent occurrence of image with crepe mark. When 0 is set, image quality is slightly decreased compared with its of normal Quality Priority mode, but productivity improves (suitable for text document). When 1 is set, image quality is prioritized so image with crepe mark does not occur but productivity decreases (suitable for photo document). When "Quality Priority" is set in user mode, this item is enabled.
	Use case
	Upon user's request (Alleviation of image with crepe mark)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Be sure to get approval from the user by telling that the productivity decreases to improve image quality.
	Display/adj/set range
	0 to 2 0: Text document mode, 1 to 2: Photo document mode
	Default value
	0
	Related user mode
	Function Settings > Common > Print Settings > Thin/Plain Paper Printing Priority Settings

COPIER > OPTION > IMG-FIX	
FX-WNKL	Setting of paper wrinkle prevention mode
Lv.2	Details
	To set paper wrinkle prevention mode. If the edge temperature of the Fixing Roller is lower than the center temperature, feeding speed at the center of a paper becomes faster than the speed at the edge so paper wrinkle occurs. Normally, when printing to paper larger than A3 or LDR size paper at the start of printing in a high humidity environment, control temperature is increased by performing idle rotation. Paper wrinkle which occurs at this time can be decreased, but first copy time becomes longer. In other cases, idle rotation is not performed. When paper wrinkle occurs with A3/LDR or larger size paper in a normal humidity/high humidity environment, set 2. If paper wrinkle is not alleviated with 2, set 3. (First copy time becomes longer.) When paper wrinkle occurs with B4 or larger size paper in all environments, set 4. If it is not alleviated with 4, set 5 or 6. (As the value is larger, first copy time becomes longer.)
	Use case
	<ul style="list-style-type: none"> <li>When paper wrinkles occur</li> <li>Upon user's request (shorten the first copy time)</li> </ul>
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	When 2 to 6 is set, the first copy time becomes longer.
	Display/adj/set range
	0 to 6 0: OFF 1: When paper is larger than A3/LDR size paper in a high humidity environment, idle rotation is performed for up to 20 seconds. (Normal) 2: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 10 seconds, whereas it is performed for up to 20 seconds when paper size is 304.8×457.2 mm (12"×18")/330.2×482.6 mm (13"×19"). 3: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 20 seconds, whereas it is performed for up to 40 seconds when paper size is 304.8×457.2 mm (12"×18")/330.2×482.6 mm (13"×19"). 4: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 20 seconds. 5: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 40 seconds. 6: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 60 seconds.
	Default value
	1

COPIER > OPTION > IMG-FIX	
FIX-TMP4	Set fixing/productivity: Plain paper
Lv.1	Details
	To set priority between productivity and fixing by changing temperature at which down sequence is applied to plain paper (64 to 90 g/m <sup>2</sup> ). When a positive value is set, fixing has priority over productivity because the machine is likely to go into the down sequence. When a negative value is set, productivity has priority over fixing.
	Use case
	- When fixing failure occurs on plain paper - When productivity is decreased due to down sequence
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-2 to 2
	Unit
	3 deg C
	Default value
	0

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## ■ IMG-DEV

COPIER > OPTION > IMG-DEV	
TSPLY-SW	[Not used]
Lv.2	Details
	-
DV-RT-LG	Set Developing Assembly idle rotn time
Lv.1	Details
	To set the duration of idle rotation of the Developing Assembly by COPIER> FUNCTION> MISC-P> DV-RT. As the value is incremented by 1, the duration is increased by 1 minute. +: Increase -: Decrease
	Use case
	When an image failure is not alleviated by executing idle rotation
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	If the duration is long, deterioration of developer or toner scattering might occur.
	Display/adj/set range
	1 to 20
	Unit
	1 minute
	Default value
	5
	Related service mode
	COPIER> FUNCTION> MISC-P> DV-RT
ADJ-VPPN	Adj developing bias Vpp: Uncoated paper
Lv.1	Details
	To adjust Vpp of the developing AC bias for uncoated paper group. The initial value is 1.5 kV, and as the value is decreased by 1, Vpp is decreased by 0.1 kV (density and fogging increase). Decrease the value when fogging or bias leak occurs, and increase the value when the density is low or white spots occur.
	Use case
	When fogging, bias leak, low density, or white spots occur
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-4 to 2
	Unit
	0.1 kV
	Default value
	0
	Supplement/memo
	Uncoated paper group: uncoated paper/recycled paper/textured paper/label/postcard/cotton
PG-DMAX	Setting of patch image in D-max control
Lv.2	Details
	To set the patch image formed by D-max control. When increasing the target density, accuracy of patch image reading improves by setting 1.
	Use case
	When increasing the target density
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: Solid patch, 1: Shadow patch
	Default value
	0

COPIER > OPTION > IMG-DEV	
DRM-IDL2	Set first idle rotn time in NN Ev
Lv.1	Details
	To set the duration of idle rotation to be performed first time for the day in an NN (normal temperature/normal humidity) environment.
	Use case
	When image density for the first time of the day is low
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 20 (0: OFF)
	Unit
	30 seconds
	Default value
	1 (30 seconds)
	Related service mode
	COPIER> OPTION> IMG-DEV> DRM-IDL, DRM-IDL3
ATM	Set of highland ev vltg reduction mode
Lv.2	Details
	To set the highland environment voltage reduction mode in the case that leak occurs at a high latitude. When 1 is set, high voltage settings for the Primary Charging Assembly, Pre-transfer Charging Assembly and developing bias are decreased so that leak can be prevented.
	Use case
	When leak occurs at high latitude
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1
	0: Normal, 1: Voltage reduction mode
	Default value
	0
LWDTY-SW	ON/OFF of low duty ejection
Lv.1	Details
	To set ON/OFF of low duty ejection control. When 1 is set, developer is ejected at the time of last rotation/during a job.
	Use case
	Upon user's request (Reduction of toner consumption)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Be sure to get approval from the user by telling possibility that the image density may be lowered due to deterioration of developer when setting 0.
	Display/adj/set range
	0 to 1
	0: OFF, 1: ON
	Default value
	1
	Related service mode
	COPIER> OPTION> IMG-DEV> LWDTYADJ

COPIER > OPTION > IMG-DEV	
LWDTYADJ	Set low duty ejection threshold value
Lv.1	Details
	To set offset of image density which becomes the threshold value for the low duty ejection control. The threshold value which becomes a reference differs depending on the environment (temperature and humidity). When a positive value is entered, the interval of low duty ejection control becomes shorter. Lowering of image density can be prevented, but replacement timing of the Waste Toner Container becomes early due to the increase of toner consumption.
	Use case
	When density is lowered at the time of continuous output of low duty image
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-50 to 50
	Unit
	0.1%
	Default value
	0
	Related service mode
	COPIER> OPTION> IMG-DEV> LWDTY-SW
BB-CNT	Set Bk band output intvl: Cleaning Blade
Lv.1	Details
	To set the paper interval to output black band for preventing flip of the Cleaning Blade. When a negative value is entered, the interval to output black band becomes shorter. The possibility that the Cleaning Blade may be flipped is decreased, but replacement timing of the Waste Toner Container becomes early due to the increase of toner consumption.
	Use case
	When flip of the Cleaning Blade occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-15 to 15
	Unit
	100 sheets
	Default value
	0

COPIER > OPTION > IMG-DEV	
PRI-SHUT	Set Pry/Pre-trn Chg Shutter close timing
Lv.1	<p><b>Details</b></p> <p>To set the time from when the Photosensitive Drum stops to when the Primary/Pre-transfer Charging Shutter is closed.</p> <p>With the Primary/Pre-transfer Charging Shutter control, the Primary/Pre-transfer Charging Shutter is closed after up to 255 minutes of the stop of the Photosensitive Drum to prevent image smear due to nitrogen oxide.</p> <p>Decrease the value to close the shutter earlier when image smear occurs first time for the day.</p> <p>Depending on the value, the shutter is closed before the machine shifts to sleep mode, so that the first copy time becomes longer for the time to open the shutter again (approx. 13 seconds).</p> <p>As the value is reduced, the life of the Primary/Pre-transfer Charging Wire Cleaning Pad is shortened because cleaning of the Charging Wire is performed every time the shutter is closed.</p> <p><b>Use case</b></p> <p>When image smear occurs</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value, and then press OK key.</p> <p><b>Caution</b></p> <ul style="list-style-type: none"> <li>- If the shutter is closed before the machine shifts to sleep mode, the first copy time becomes longer for the time to open it again.</li> <li>- As the value is reduced, the life of the Primary/Pre-transfer Charging Wire Cleaning Pad is shortened.</li> </ul> <p><b>Display/adj/set range</b></p> <p>-7 to 0</p> <p><b>Unit</b></p> <p>30 minutes</p> <p><b>Default value</b></p> <p>0 (255 minutes)</p>
TBLTCLSW	Setting of ETB cleaning timing
Lv.1	<p><b>Details</b></p> <p>To set the timing to execute ETB cleaning control.</p> <p>When 1 or 2 is set, it is also executed at the time of the Charging Wire cleaning.</p> <p>As the value is increased, the soiling of the back side of paper is decreased, but the life of the ETB is shortened and productivity is decreased.</p> <p><b>Use case</b></p> <p>When the back side of paper is soiled</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value, and then press OK key.</p> <p><b>Caution</b></p> <p>As the number of times of ETB cleaning is increased, the life of the ETB is shortened and productivity is decreased.</p> <p><b>Display/adj/set range</b></p> <p>0 to 2</p> <p>0: OFF</p> <p>1: At last rotation + At Charging Wire cleaning</p> <p>2: At last rotation + At initial rotation + At Charging Wire cleaning</p> <p><b>Default value</b></p> <p>1</p> <p><b>Related service mode</b></p> <p>COPIER&gt; OPTION&gt; IMG-DEV&gt; TBLTBIS+, TBLTBIS-, TBLTTMS</p>

COPIER > OPTION > IMG-DEV	
TBLTBIS+	Setting of ETB cleaning bias (+)
Lv.1	<p><b>Details</b></p> <p>To set the transfer current value to apply cleaning bias (+) at the time of ETB cleaning.</p> <p>As the value is increased, the soiling of the back side of paper is decreased, but the life of the ETB is shortened.</p> <p>Compared with TBLTCLSW, productivity can be sustained, but the life of the ETB is shortened further.</p> <p><b>Use case</b></p> <p>When the back side of paper is soiled</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value, and then press OK key.</p> <p><b>Caution</b></p> <p>As the greater value is set, the life of the ETB is shortened.</p> <p><b>Display/adj/set range</b></p> <p>-10 to 10</p> <p><b>Unit</b></p> <p>10 micro A</p> <p><b>Default value</b></p> <p>0 (100 micro A)</p> <p><b>Related service mode</b></p> <p>COPIER&gt; OPTION&gt; IMG-DEV&gt; TBLTCLSW, TBLTBIS-, TBLTTMS</p>
TBLTBIS-	Setting of ETB cleaning bias (-)
Lv.1	<p><b>Details</b></p> <p>To set the transfer current value to apply cleaning bias (-) at the time of ETB cleaning.</p> <p><b>Use case</b></p> <p>When the back side of paper is soiled</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value, and then press OK key.</p> <p><b>Caution</b></p> <p>Do not use this at the normal service.</p> <p><b>Display/adj/set range</b></p> <p>0 to 5</p> <p><b>Unit</b></p> <p>10 micro A</p> <p><b>Default value</b></p> <p>0 (-50 micro A)</p> <p><b>Related service mode</b></p> <p>COPIER&gt; OPTION&gt; IMG-DEV&gt; TBLTCLSW, TBLTBIS+, TBLTTMS</p>
TBLTTMS	Set ETB cleaning bias application times
Lv.1	<p><b>Details</b></p> <p>To set the number of times to apply cleaning bias at the time of ETB cleaning.</p> <p>Apply positive (+) and negative (-) cleaning bias alternately.</p> <p>As the value is increased, the soiling of the back side of paper is decreased, but the life of the ETB is shortened and productivity is decreased.</p> <p><b>Use case</b></p> <p>When the back side of paper is soiled</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value, and then press OK key.</p> <p><b>Caution</b></p> <p>As the greater value is set, the life of the ETB is shortened and productivity is decreased.</p> <p><b>Display/adj/set range</b></p> <p>1 to 10</p> <p><b>Unit</b></p> <p>Number of times</p> <p><b>Default value</b></p> <p>2</p> <p><b>Related service mode</b></p> <p>COPIER&gt; OPTION&gt; IMG-DEV&gt; TBLTCLSW, TBLTBIS+, TBLTBIS-</p>

COPIER > OPTION > IMG-DEV		
DRM-IDL3		Set first idle rotn time in HH Ev
Lv.1	Details	To set the idle rotation time to be performed first time for the day in an HH (high temperature and high humidity) environment.
	Use case	When image density for the first time of the day is low
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 20 (0: OFF)
	Unit	30 seconds
	Default value	1 (60 seconds)
	Related service mode	COPIER> OPTION> IMG-DEV> DRM-IDL, DRM-IDL2

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## ■ IMG-LSR

COPIER > OPTION > IMG-LSR		
LAPC-SW		ON/OFF of ini rotn/last rotn APC crct
Lv.2	Details	To set ON/OFF of laser APC correction executed at initial rotation and last rotation.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0
2D-SHADE		ON/OFF of 2D shading
Lv.1	Details	To set ON/OFF of 2D shading.
	Use case	When uneven image occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF 1: Drum Heater, first time for the day, potential control when recovering from sleep, 2D shading ON
	Default value	0
	Related service mode	COPIER> DISPLAY> 2D-SHADE> 2D-STS

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## IMG-RDR

COPIER > OPTION > IMG-RDR	
DF-BLINE	ON/OFF of dust dtct in DADF stream read
Lv.2	Details
	To set ON/OFF of dust detection in DADF stream reading mode (measures for black line).
	Use case
	When black line occurs due to dust on the Platen Roller
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When "1: ON" is set, black line is resolved, but sharpness of image edge is decreased.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
DFDST-L1	DADF mode dust dtct level adj: ppr intvl
Lv.1	Details
	To adjust dust detection level with dust detection correction control that is executed at paper interval in DADF mode. Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, the dust is less detected. Increase the value in the case of black lines. As the value is larger, the small dust is more likely detected.
	Use case
	- When black line occurs due to dust - Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
	Display/adj/set range
	0 to 255 0: OFF
	Default value
	200
	Supplement/memo
	Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.

COPIER > OPTION > IMG-RDR	
DFDST-L2	DADF mode dust dtct level adj: after job
Lv.1	Details
	To adjust dust detection level with dust detection correction control that is executed after the job is completed in DADF mode. Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, the dust is less detected. Increase the value in the case of black lines. As the value is larger, the small dust is more likely detected.
	Use case
	- When black line occurs due to dust - Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
	Display/adj/set range
	0 to 255 0: OFF
	Default value
	200
	Supplement/memo
	Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.
ABC-MODE	Adj sface digital ABC bckgd dens reduct
Lv.1	Details
	To adjust the background density reduction setting level of surface digital ABC (at B&W mode).
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-1: Setting of the direction which the background reduction is less (TBD) (Setting for photo original and complex form original) 0: Default setting 1: Setting of the direction which the background reduction is more (TBD) 2: Setting of the direction which the background reduction is more (TBD) 3: Setting of the direction which the background reduction is more (TBD)
	Default value
	0

COPIER > OPTION > IMG-RDR	
ABC-MD2	Adj back digital ABC bckgd dens reduct
Lv.1	Details
	To adjust the background density reduction setting level of back side digital ABC (Auto Background Control) at B&W mode.
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-1 to 3 -1: Setting of the direction which the background reduction is less (For photo original and complex form original) 0: Default 1 to 3: Setting of the direction which the background reduction is more
	Default value
	0
	Supplement/memo
	Auto Background Control: A control to make the background color of the original close to white with the image processing when reading the image on back side with the Scanner Unit (paper back).
DF2DSTL1	DADF dust dtct lvl adj at ppr intvl:bck
Lv.1	Details
	To adjust dust detection level with dust detection correction control that is executed at paper interval by the Scanner Unit (paper back) in DADF mode. Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, the dust is less detected. Increase the value in the case of black lines. As the value is larger, the small dust is more likely detected.
	Use case
	- When black line occurs due to dust - Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
	Display/adj/set range
	1 to 255
	Default value
	200
	Supplement/memo
	Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.

COPIER > OPTION > IMG-RDR	
DF2DSTL2	Adj DADF dust dtct level at job end:bck
Lv.1	Details
	To adjust dust detection level with dust detection correction control that is executed by the Scanner Unit (paper back) after the job is completed in DADF mode. Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, the dust is less detected. Increase the value in the case of black lines. As the value is larger, the small dust is more likely detected.
	Use case
	- When black line occurs due to dust - Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
	Display/adj/set range
	1 to 255
	Default value
	200
	Supplement/memo
	Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.
IR-FILTR	Set scan unit with infrared cut filter
Lv.1	Details
	Due to the surface texture of an original, reflected light from an original is diffused; thus, green might be detected as reddish brown incorrectly. The Scanner Unit with the Infrared Cut Filter installed is set as a service part to prevent incorrect detection. Set 1 when installing this Scanner Unit.
	Use case
	When green becomes reddish brown
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Not supported, 1: Supported
	Default value
	0

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## IMG-MCON

COPIER > OPTION > IMG-MCON		
PASCAL		
Use/no use of auto gradation adj data		
Lv.1	Details	To set to use/not to use the gradation adjustment data gamma LUT that is generated by auto gradation adjustment (Full/Quick Adjust) control. Selection is available as to whether to use gamma LUT at the time of image formation.
	Use case	When PASCAL-related failure occurs/when identifying the cause of PASCAL-related failure
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Initial LUT is used. (Automatic gradation adjustment is not used.) 1: Auto gradation adjustment is used. 2 to 3: Not used
	Default value	1
DRM-IDL		
Set first idle rotn time in NL Ev		
Lv.1	Details	To set the duration of idle rotation to be performed first time for the day in an NL (normal temperature/low humidity) environment.
	Use case	When image density for the first time of the day is low
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 20 (0: OFF)
	Unit	30 seconds
	Default value	1 (30 seconds)
Related service mode COPIER> OPTION> IMG-DEV> DRM-IDL2, DRM-IDL3		
SHARP		
Setting of sharpness level of image		
Lv.2	Details	To set the setting level (center value) of sharpness of image. As the value is increased, the image tends to be sharp, and as the value is decreased, image tends to be soft.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 5
	Default value	3
DRM-H-SW		
ON/OFF of Drum Heater		
Lv.2	Details	To set ON/OFF control of the Drum Heater at power-off/at sleep.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: ON/OFF depending on the environment condition 1: ON 2: OFF
	Default value	0

COPIER > OPTION > IMG-MCON		
SCR-SLCT		Halftone process in Photo Printout mode
Lv.2	Details	To set halftone process (error diffusion, screen 2 types) in Photo Printout mode when making a copy. Change the setting if the copy image has a problem with the initial setting (Low screen ruling). Select 0 (error diffusion) in the case of moire (suitable for character reproduction). Select 2 (High screen ruling) in the case of rough dots.
	Use case	When moire image or rough dots occurs on copy image
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Error diffusion, 1: Low screen ruling, 2: High screen ruling
	Default value	1
	Related user mode	Function Settings> Copy> Photo Printout mode
TMC-SLCT		Setting of error diffusion coefficient
Lv.2	Details	To set coefficient to be used for error diffusion process. Specify according to the level of granularity and dot stability.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Small granularity/low dot stability 1: Small granularity/low dot stability (color mode), Large granularity/high dot stability (B&W mode) 2: Large granularity/high dot stability
	Default value	2
CAL-SW		Set calibration control execute condtn
Lv.2	Details	To set the condition to execute the calibration control. Two types of calibration (patch detection) are available: one for 1/1 speed (for plain paper), and the other for 1/2 speed (for heavy paper). When 0 is set, only patch detection for 1/1 speed is executed. When 1 is set, patch detection for both 1/1 speed and 1/2 speed is executed, which increases the required time.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	0 to 1 0: only for 1/1 speed, 1: both for 1/1 speed and 1/2 speed
	Default value	0
DH-MODE		[Not used]
Lv.2	Details	-

COPIER > OPTION > IMG-MCON		
VP-ART	Setting of line art processing	
Lv.2	Details	To set outline processing for line art on scalable PDF. In the outline processing, a binary image outline is extracted in the field which is recognized as line art, and is converted into vector data. Specify whether to convert the binary image outline into vector data or to recognize it as one line (as a thin line). For the thin line, the line width can be specified. Change this value when you want to obtain an output of a wide-width line as one line rather than as an outline (when you want to prioritize edit operation as a line rather than image quality).
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 99
	Default value	1
VP-TXT	Setting of character vectorization	
Lv.2	Details	To set vector conversion processing for text on scalable PDF. In the vector conversion processing, a binary image outline is extracted in the field which is recognized as text, and is converted into vector data. In regular vector conversion, function approximation is not used for small text because the image quality is not changed. When the value is changed, function approximation processing is executed for small text, which realizes smooth text although the image quality is changed. Change this value when you want to prioritize smoothness in small text.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 99
	Default value	1
C-PDL-T	Setting of PDL gradation reference	
Lv.2	Details	To set whether gradation or density to be prioritized as the gradation reference for PDL. With priority on gradation (% of halftone dots), gradation is matched with original on the shadow area although the maximum density decreases. With priority on density, density is always matched with original.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Priority on gradation (% of halftone dots), 1: Priority on density
	Default value	0
	Supplement/memo	Abbreviation of CAL_PDL_Target

COPIER > OPTION > IMG-MCON		
C-S-P-D	High dens end edge crct: PDL dens prty	
Lv.2	Details	To set ON/OFF of high density trailing edge correction function at PDL. By selecting CAL (priority on density) in C-PDL-T, high density trailing edge correction function is ON in normal operation; however, set OFF as needed.
	Use case	ON: When reducing jagged line and jagged outline of text OFF: When matching density with original on high density area, or when prioritizing density and gradation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Related service mode	COPIER> OPTION> IMG-MCON> C-PDL-T
	Supplement/memo	Abbreviation of CAL_Shadow_PDL_Density
C-S-C-D	High density end edge crct ON/OFF: copy	
Lv.2	Details	To set ON/OFF of high density trailing edge correction function at copy. With CAL of COPY, high density trailing edge correction function is ON in normal operation; however, set OFF as needed.
	Use case	ON: When reducing jagged line and jagged outline of text OFF: When matching density with original on high density area, or when prioritizing density and gradation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Supplement/memo	Abbreviation of CAL_Shadow_COPY_Density. When adjusting the input signal 255 to low in the case that the density of solid area is too high, jaggy (jagged effect of halftone) may occur to text, etc. By entering the input signal 255 as solid, occurrence of jaggy can be prevented.
C-SM-P-G	[Not used]	
Lv.1	Details	-
C-SM-C-G	[Not used]	
Lv.1	Details	-

COPIER > OPTION > IMG-MCON	
DH-TGT	Setting of D-half control target
Lv.1	Details
	To set the target data of D-half control. When the Reader is installed (copy model), D-half control uses the gradation data before execution of PASCAL control and detection result of D-half control after the execution as control target. If controlled only by the patch image reading detection when Reader-related failure occurs, set to the gradation data manually. When the Reader is not installed (printer mode), only gradation data is available.
	Use case
	When Reader-related failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: Detection result of D-half control right after PASCAL control, 1: Gradation data
	Default value
	0: Copy model, 1: Printer model
WDREDUCT	Setting of white dots reduction mode
Lv.1	Details
	To set the white dots reduction mode. When 1 is set, white dots become less significant by enlarging black dots by thin line correction.
	Use case
	When white dots are significant
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
	Related service mode
	COPIER> OPTION> IMG-MCON> VDADCNT, HDADCNT, LIN-OFST
	Related user mode
	Thin line correction, horizontal line correction, and vertical line correction in user mode
VDADCNT	Horz added dot amnt at white dots reduct
Lv.1	Details
	To adjust the amount of dots added to side at white dots reduction mode. As the greater value is set, the size of white dot gets smaller. When WDREDUCT is 1, this setting is enabled.
	Use case
	When adjusting the level of white dots reduction mode
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 4
	Default value
	1
	Related service mode
	COPIER> OPTION> IMG-MCON> WDREDUCT

COPIER > OPTION > IMG-MCON	
HDADCNT	Vert added dot amnt at white dots reduct
Lv.1	Details
	To adjust the amount of dots added to upside at white dots reduction mode. As the greater value is set, the size of white dot gets smaller. When WDREDUCT is 1, this setting is enabled.
	Use case
	When adjusting the level of white dots reduction mode
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 4
	Default value
	0
	Related service mode
	COPIER> OPTION> IMG-MCON> WDREDUCT
LIN-OFST	Set special paper added dot amnt offset
Lv.1	Details
	To set the offset amount of dots added to vertical/horizontal direction when lines on special paper are thinner than those on plain paper. When printing special paper, compared to plain paper, the amount of dots specified with this item is added. As the value is larger, lines become thicker. When WDREDUCT is 0, this setting is enabled.
	Use case
	When the line width of special paper is thinner than the one of plain paper
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 4
	Default value
	1
	Related service mode
	COPIER> OPTION> IMG-MCON> WDREDUCT
EP-CONT	ON/OFF wht dot remov/set thin line width
Lv.1	Details
	To set ON/OFF of white dots removal and line width of thin line by ON/OFF of laser light modulation and changing the amount of exposure. Normally, white dots are removed, but they may be removed too much, causing a failure (unsmooth gradation, etc.). When -2 is set, white dots are not removed, so the cause whether it is due to image processing or engine can be identified. When widening a thin line, set 1. When narrowing a thin line, set -1.
	Use case
	When a failure (unsmooth gradation, etc.) occurs
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch. 3) Execute "Full Adjust" in user mode.
	Display/adj/set range
	-2 to 1 -2: Narrow the line width, white dots removal OFF -1: Narrow the line width, white dots removal ON 0: Normal line width, white dots removal ON 1: Widen the line width, white dots removal ON
	Unit
	10 micro m
	Default value
	0
	Related user mode
	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation > Full Adjust

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## ■ CLEANING

COPIER > OPTION > CLEANING			
W-CLN-P	Set last rotn Prmry Charge Wir cln intvl		
Lv.2	Details	To set the offset value of the paper interval for automatic cleaning of the Primary Charging Wire. Default is 2000 sheets, and the paper interval can be changed within the range between 1000 and 5000 sheets.	
	Use case	Upon user's request	
	Adj/set/operate method	Enter the setting value, and then press OK key.	
	Display/adj/set range	-1000 to 3000	
	Unit	1 sheet	
	Default value	0 (2000 sheets)	
CLN-SW	ON/OFF of cleaning black band sequence		
Lv.1	Details	To set ON/OFF of black band sequence for cleaning. When printing a low duty image while toner ejection operation at low duty image is set to OFF, amount of toner supply to the Cleaning Blade is decreased extremely. Toner is supplied to the edge of Cleaning Blade if the sequence is executed. The execution of sequence is synchronized with the Primary Charging Wire cleaning timing. When setting CLN-SW to 2 and setting CLN-ADJ to 0, the setting value "7" of environment control for each process speed is executed. When setting CLN-SW to 2 and setting CLN-ADJ to other than 0, operation is accorded with the setting value of CLN-ADJ. When setting CLN-SW to 0, operation is not executed regardless of the CLN-ADJ setting.	
	Use case	When amount of toner supply to the Cleaning Blade is decreased extremely	
	Adj/set/operate method	Enter the setting value, and then press OK key.	
	Display/adj/set range	0 to 2 0: OFF, 1: Based on environment control, 2: ON	
		Default value	1
		Related service mode	COPIER> OPTION> CLEANING> CLN-ADJ

COPIER > OPTION > CLEANING			
CLN-ADJ	Set black band length for cleaning		
Lv.1	Details	To set black band length for cleaning. When setting CLN-SW to 2 and setting CLN-ADJ to 0, the setting value "7" of environment control for each process speed is executed. When setting CLN-SW to 2 and setting CLN-ADJ to other than 0, operation is accorded with the setting value of CLN-ADJ. When setting CLN-SW to 0, operation is not executed regardless of the CLN-ADJ setting. However, with imageRUNNER ADVANCE 8105/8095/8085 (Pro), black band sequence is not executed although the setting value of environment control is "7". Set CLN-ADJ to other than 0 to execute the operation.	
	Use case	When amount of toner supply to the Cleaning Blade is decreased extremely	
	Adj/set/operate method	Enter the setting value, and then press OK key.	
	Display/adj/set range	0 to 4 0: Based on environment control, 1: 1000 mm, 2: 2098 mm, 3: 3548 mm, 4: 5000 mm	
		Default value	0
		Related service mode	COPIER> OPTION> CLEANING> CLN-SW

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## ■ ENV-SET

COPIER > OPTION > ENV-SET	
ENVP-INT	Temp, humid/Fix Roll temp log get cycle
Lv.1	Details
	To set the cycle to obtain log of the temperature and humidity inside the machine or the surface temperature of the Fixing Roller. As the value is incremented by 1, the cycle is increased by 1 minute. Obtained log can be displayed by selecting the following: COPIER > DISPLAY > ENVRNT
	Use case
	At trouble analysis
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 480
	Unit
	1 minute
	Default value
	60
	Related service mode
	COPIER> DISPLAY> ENVRNT
DRY-CISU	
	ON/OFF of condensation prevention mode
Lv.1	Details
	To set ON/OFF of condensation mode. When droplets are appeared on the Scanner Unit due to condensation and image failure or E225 occurs, set "1: ON". By selecting 1, the Scanner Unit (paper front) stops the fan for 15 seconds and the Scanner Unit (paper back) lights LED for 30 seconds from the next startup.
	Use case
	When droplets are appeared on the Scanner Unit due to condensation and image failure or E225 occurs
	Display/adj/set range
	0 to 1 0: OFF (Normal mode), 1: ON (Anti-condensation mode)

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## ■ FEED-SW

COPIER > OPTION > FEED-SW	
TRY-CHG	
	Set of Delivery Tray switch at tray full
Lv.2	Details
	To set the Delivery Tray switching control when the Delivery Tray of the Finisher reaches to the full level. If Tray A/B is selected as a delivery tray, tray is switched to the Tray A when the Tray B reaches to the full level. At this time, after removing papers on the Tray B, paper is delivered to the Priority Tray when 0 is set. When 1 is set, paper is output followed by the previous job.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Deliver to the Priority Tray, 1: Deliver followed by the previous job
	Default value
	0
REG-SPD	
	Speed adj of Rgst Roller: plain paper
Lv.2	Details
	To adjust the Registration Roller speed when 1/1 speed is set for plain paper, etc. Increase the value if the image at the leading edge of paper shrinks in the feeding direction, and decrease the value if it expands. Decrease the value if wavy-line image occurs. If these symptoms are not alleviated after adjustment is made, replace the Registration Roller.
	Display/adj/set range
	-50 to 50
	Unit
	0.10%
	Default value
	0
	Related service mode
	COPIER> OPTION> FEED-SW> REG-SPD2, REG-SPD3
INSRT-SW	
	[Not used]
Lv.1	Details
	-

COPIER > OPTION > FEED-SW	
DK2-TURN	ON/OFF of L-Deck Pckup Rol little rotn
Lv.1	Details
	To set whether to rotate the Left Deck Pickup Roller a little after completion of job or at the time of warm-up rotation. If the Pickup Deck has not been used for a long time, a part of the Separation Roller engaged with the Pickup Roller becomes worn and the roller stops rotation. As a result of that, jam may occur. When 1 is set, the Pickup Roller rotates 75mm after completion of job so that wear of the Separation Roller can be reduced. As the usage is extended or at the operation performed first time for the day in a low temperature environment, the Separation Roller is not rotated in response to rotation of the Pickup Roller. As a result of that, jam may occur. When 2 is set, the Pickup Roller rotates 75mm at warm-up rotation.
	Use case
	When pickup jam occurs with the following conditions - Pickup Deck has not been used for a long time - The usage is extended - At the operation performed first time for the day in a low temperature environment
	Caution
	When ON is set, papers sticking out of the Receptacle may get stuck at the time of opening and closing the deck.
	Display/adj/set range
	0 to 3 0: OFF, 1: ON after a job, 2: ON at warm-up rotation, 3: ON after a job and at warm-up rotation
	Default value
	0
	Related service mode
	COPIER> OPTION> FEED-SW> DK1-TURN, DK3-TURN, DK4-TURN, DK5-TURN

COPIER > OPTION > FEED-SW	
DK3-TURN	ON/OFF of Casstt3 Pckup Rol little rotn
Lv.1	Details
	To set whether to rotate the Cassette 3 Pickup Roller a little after completion of job or at the time of warm-up rotation. If the Pickup Cassette has not been used for a long time, a part of the Separation Roller engaged with the Pickup Roller becomes worn and the roller stops rotation. As a result of that, jam may occur. When 1 is set, the Pickup Roller rotates 75mm after completion of job so that wear of the Separation Roller can be reduced. As the usage is extended or at the operation performed first time for the day in a low temperature environment, the Separation Roller is not rotated in response to rotation of the Pickup Roller. As a result of that, jam may occur. When 2 is set, the Pickup Roller rotates 75mm at warm-up rotation.
	Use case
	When pickup jam occurs with the following conditions - Pickup Cassette has not been used for a long time - The usage is extended - At the operation performed first time for the day in a low temperature environment
	Caution
	When ON is set, papers sticking out of the Receptacle may get stuck at the time of opening and closing the Cassette.
	Display/adj/set range
	0 to 3 0: OFF, 1: ON after a job, 2: ON at warm-up rotation, 3: ON after a job and at warm-up rotation
	Default value
	0
	Related service mode
	COPIER> OPTION> FEED-SW> DK1-TURN, DK2-TURN, DK4-TURN, DK5-TURN

COPIER > OPTION > FEED-SW	
DK4-TURN	ON/OFF of Casstt4 Pckup Rol little rotn
Lv.1	Details
	To set whether to rotate the Cassette 4 Pickup Roller a little after completion of job or at the time of warm-up rotation. If the Pickup Cassette has not been used for a long time, a part of the Separation Roller engaged with the Pickup Roller becomes worn and the roller stops rotation. As a result of that, jam may occur. When 1 is set, the Pickup Roller rotates 75mm after completion of job so that wear of the Separation Roller can be reduced. As the usage is extended or at the operation performed first time for the day in a low temperature environment, the Separation Roller is not rotated in response to rotation of the Pickup Roller. As a result of that, jam may occur. When 2 is set, the Pickup Roller rotates 75mm at warm-up rotation.
	Use case
	When pickup jam occurs with the following conditions - Pickup Cassette has not been used for a long time - The usage is extended - At the operation performed first time for the day in a low temperature environment
	Caution
	When ON is set, papers sticking out of the Receptacle may get stuck at the time of opening and closing the Cassette.
	Display/adj/set range
	0 to 3 0: OFF, 1: ON after a job, 2: ON at warm-up rotation, 3: ON after a job and at warm-up rotation
	Default value
	0
	Related service mode
	COPIER> OPTION> FEED-SW> DK1-TURN, DK2-TURN, DK3-TURN, DK5-TURN

COPIER > OPTION > FEED-SW	
DK1-TURN	ON/OFF of R-Deck Pckup Rol little rotn
Lv.1	Details
	To set whether to rotate the Right Deck Pickup Roller a little after completion of job or at the time of warm-up rotation. If the Pickup Deck has not been used for a long time, a part of the Separation Roller engaged with the Pickup Roller becomes worn and the roller stops rotation. As a result of that, jam may occur. When 1 is set, the Pickup Roller rotates 75mm after completion of job so that wear of the Separation Roller can be reduced. As the usage is extended or at the operation performed first time for the day in a low temperature environment, the Separation Roller is not rotated in response to rotation of the Pickup Roller. As a result of that, jam may occur. When 2 is set, the Pickup Roller rotates 75mm at warm-up rotation.
	Use case
	When pickup jam occurs with the following conditions - Pickup Deck has not been used for a long time - The usage is extended - At the operation performed first time for the day in a low temperature environment
	Caution
	When ON is set, papers sticking out of the Receptacle may get stuck at the time of opening and closing the deck.
	Display/adj/set range
	0 to 3 0: OFF, 1: ON after a job, 2: ON at warm-up rotation, 3: ON after a job and at warm-up rotation
	Default value
	0
	Related service mode
	COPIER> OPTION> FEED-SW> DK2-TURN, DK3-TURN, DK4-TURN, DK5-TURN

COPIER > OPTION > FEED-SW		
DK5-TURN	ON/OFF of OP-Deck Pckup Rol little rotn	
Lv.1	Details	To set whether to rotate the Option Deck Pickup Roller a little after completion of job or at the time of warm-up rotation. If the Pickup Deck has not been used for a long time, a part of the Separation Roller engaged with the Pickup Roller becomes worn and the roller stops rotation. As a result of that, jam may occur. When 1 is set, the Pickup Roller rotates 75mm after completion of job so that wear of the Separation Roller can be reduced. As the usage is extended or at the operation performed first time for the day in a low temperature environment, the Separation Roller is not rotated in response to rotation of the Pickup Roller. As a result of that, jam may occur. When 2 is set, the Pickup Roller rotates 75mm at warm-up rotation.
	Use case	When pickup jam occurs with the following conditions - Pickup Deck has not been used for a long time - The usage is extended - At the operation performed first time for the day in a low temperature environment
	Caution	When ON is set, papers sticking out of the Receptacle may get stuck at the time of opening and closing the deck.
	Display/adj/set range	0 to 3 0: OFF, 1: ON after a job, 2: ON at warm-up rotation, 3: ON after a job and at warm-up rotation
	Default value	0
	Related service mode	COPIER> OPTION> FEED-SW> DK1-TURN, DK2-TURN, DK3-TURN, DK4-TURN
YP-ROT	ON/OFF of image rotation in PDL print	
Lv.2	Details	In PDL print, the image is not rotated at printing even through the image and the paper orientation does not match in case that the user definition size paper is used. (In case of standard size, the image is rotated in line with the paper feed direction.) When "1: ON" is set, the image is rotated in line with the paper feed direction and printed.
	Use case	When the image failure of different image direction occurs in case that the user definition size paper is used in PDL print
	Adj/set/operate method	Enter the setting value and press the OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

COPIER > OPTION > FEED-SW		
DK1-AIR	ON/OFF of PDF Deck Lite air assist	
Lv.1	Details	To set ON/OFF of the POD Deck Lite air assist. In the initial settings, the air assist is OFF for plain paper, and ON for coated paper and heavy paper. When a jam or double feed error frequently occurs with plain paper, etc., set the value to 1. When the transfer failure occurs with coated paper, heavy paper, etc., set the value to 2.
	Use case	- When a jam or double feed error frequently occurs with plain paper - When transfer failure occurs with coated paper and heavy paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 2 0: Initial setting, 1: ON, 2: OFF
	Default value	0
TFL-RTC	Set delvry dest at rcvry after tray full	
Lv.1	Details	To select the delivery destination for a job with multiple pages after recovering the Delivery Tray that reaches the full level. When 0 (default) is set, a job is output from the delivery destination again from which the last job was delivered. When 1 is set, a job is output from the delivery destination which priority is set as high at "Output Tray Settings" in user mode.
	Use case	When changing the delivery tray
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Output from the tray from which the last job was output. 1: Output from the delivery destination which priority is high among the delivery trays.
	Default value	0
	Related user mode	Function Settings> Common> Paper Output Settings> Output Tray Settings

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## NETWORK

COPIER > OPTION > NETWORK	
RAW-DATA	Setting of received data print mode
Lv.2	Details
	To set print mode for the received image data. This item is used to identify the cause whether it's due to image data or image processing in the case of trouble with received image.
	Use case
	When received image trouble occurs
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to set the value back to "0: Normal print operation" after recovering from the trouble.
	Display/adj/set range
	0 to 1 0: Normal print operation, 1: Print with original data without image processing
	Default value
	0
RMT-LANG	Language setting of remote UI
Lv.2	Details
	To set the language on remote UI.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Switch with +/- key, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	ja/en/de/fr/it/es ja: Japanese, en: English, de: German, fr: French, it: Italian, es: Spanish
IFAX-LIM	No. of max print lines at IFAX reception
Lv.2	Details
	To set the maximum number of lines for e-mail text to be printed when receiving IFAX. Setting of this item can prevent endless printing of the attached file data in the case of receiving an error e-mail or failure in interpretation of the context. Selecting 0 prints the header/footer in 1 sheet when receiving e-mail text without attached file.
	Use case
	When preventing endless print in the case of failure in reception
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 999 0: E-mail text not printed, 999: Unlimited
	Default value
	500
SMTPTXPN	Setting of SMTP TX port number
Lv.2	Details
	To set SMTP transmission port number.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 65535
	Default value
	25

COPIER > OPTION > NETWORK	
SMTPRXPN	Setting of SMTP reception port number
Lv.2	Details
	To set SMTP reception port number.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 65535
	Default value
	25
POP3PN	Setting of POP3 reception port number
Lv.2	Details
	To set POP3 reception port number.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 65535
	Default value
	110
FTPTXPN	Specification of SEND port (FTP) number
Lv.1	Details
	To specify address port (FTP) number for SEND.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 65535
	Default value
	21
NW-SPEED	Setting of network data transfer speed
Lv.2	Details
	To set the data transfer speed when the service network is connected. When downloading the firmware through network, use 0 in the normal operation. When fixed to 100Base-TX/10Base-T for any reason, change the setting.
	Use case
	When fixing the communication speed
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 2 0: Auto, 1: 100Base-TX, 2: 10Base-T
	Default value
	0

COPIER > OPTION > NETWORK		
STS-PORT		ON/OFF of TOT sync status comctn port
Lv.2	Details	To set ON/OFF for Inquiry/Response (sync)-mode status communication port with T.O.T. Select "1: ON" in the case of connecting the PC and the machine with the cross cable while Service NAVI is used.
	Use case	When the Service NAVI is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> NETWORK> CMD-PORT
	Supplement/memo	T.O.T: TUIF over TCP. Communication protocol to be used for communication with the built-in application (UI) and the internal application such as COPY/ SEND/ BOX, etc. (Canon's own protocol).
CMD-PORT		ON/OFF TOTasyn command comctn port
Lv.2	Details	To set ON/OFF for asynchronous command communication port with T.O.T. Select "1: ON" in the case of connecting the PC and the machine with the cross cable while Service NAVI is used.
	Use case	When the Service NAVI is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> NETWORK> STS-PORT
	Supplement/memo	T.O.T: TUIF over TCP. Communication protocol to be used for communication with the built-in application (UI) and the internal application such as COPY/ SEND/ BOX, etc. (Canon's own protocol).
NS-CMD5		Limit CRAM-MD5 auth method at SMTP auth
Lv.2	Details	To restrict use of CRAM-MD5 authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.

COPIER > OPTION > NETWORK		
NS-GSAPI		Limit GSSAPI auth method at SMTP auth
Lv.2	Details	To restrict use of GSSAPI authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-NTLM		Limit NTLM auth method at SMTP auth
Lv.2	Details	To restrict use of NTLM authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-PLNWS		Limit plaintext auth at SMTP auth encry
Lv.2	Details	To restrict use of PLAIN/LOGIN authentication, which is plaintext, at the time of SMTP authentication under the environment where the communication packet is encrypted.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.

COPIER > OPTION > NETWORK	
NS-PLN	Limit plaintext auth at SMTPauth noencyr
Lv.2	Details
	To restrict use of PLAIN/LOGIN authentication, which is plaintext, at the time of SMTP authentication under the environment where the communication packet is not encrypted.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value
	0
	Supplement/memo
	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-LGN	Limit LOGIN authentication at SMTP auth
Lv.2	Details
	To restrict use of LOGIN authentication at the time of SMTP authentication.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value
	0
	Supplement/memo
	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
MEAP-PN	HTTP port No.setting of MEAP application
Lv.2	Details
	To set HTTP port number of MEAP application.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Do not specify port 8080 when the Print Server is connected. Otherwise, you cannot browse the device RUI in which MEAP authentication application is running (Port 8080 is reserved for redirection of EFI Controller to the iR side.)
	Display/adj/set range
	0 to 65535
	Default value
	8000

COPIER > OPTION > NETWORK	
SSH-SW	ON/OFF of SSH server function
Lv.2	Details
	To set ON/OFF of SSH server function.
	Use case
	As needed (This mode is used for the Japanese models only and not used with overseas models (outside Japan)).
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
	Supplement/memo
	SSH: Secure Shell. A program for logging into other PC through network, executing command from a remote PC, or moving files to other PC. Data on network is encrypted, so that a series of operation can be performed securely even through internet.
RMT-LGIN	Set to allow remote login to SSH server
Lv.2	Details
	To set whether to allow remote login from the remote host (SSH client: DA) to debug console of the SSH server.
	Use case
	As needed (This mode is used for the Japanese models only and not used with overseas models (outside Japan)).
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	This item is enabled when the setting value of SSH-SW is ON.
	Display/adj/set range
	0 to 1 0: Disabled, 1: Enabled
	Default value
	0
	Related service mode
	COPIER> OPTION> NETWORK> SSH-SW (Level 2)
	Supplement/memo
	DA: Digital Accessory
RE-PKEY	Regeneration setting of SSH server key
Lv.2	Details
	To set whether to regenerate the SSH server pair key at the start of the machine. With the setting to regenerate the key, the SSH server host regenerates the pair key (private key/public key) at power-off/on, output to key file and store in HDD.
	Use case
	As needed (This mode is used for the Japanese models only and not used with overseas models (outside Japan)).
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	- This item is enabled when the setting value of SSH-SW is ON. - Start of the machine might be approx. 3 to 4 minutes longer than the normal operation because regeneration process takes time.
	Display/adj/set range
	0 to 1 0: Not regenerated, 1: Generated
	Default value
	0
	Related service mode
	COPIER > OPTION > NETWORK > SSH-SW (Level 2)

COPIER > OPTION > NETWORK	
U-NAME	Setting of SSH server login user name
Lv.2	Details
	To set the login user name which enables to connect to the SSH server. Only one user (host) is allowed to login.
	Adj/set/operate method
	1) Select the item, and select the entry field. Keyboard is displayed. 2) Enter the character, and then press OK key.
	Caution
	This is active when COPIER> OPTION> NETWORK> SSH-SW is 1 (ON).
	Display/adj/set range
	0 to 8 characters (1-byte alphanumeric characters)
	Default value
	gN3Fp2A
	Related service mode
	COPIER > OPTION > NETWORK > SSH-SW (Level 2)
U-PASWD	Set user password for SSH server connect
Lv.2	Details
	To set user password required for connecting to the SSH server. The entered characters are displayed as asterisks (*).
	Adj/set/operate method
	1) Select the item, and select the entry field. Keyboard is displayed. 2) Enter the character, and then press OK key.
	Caution
	This is active when COPIER> OPTION> NETWORK> SSH-SW is 1 (ON).
	Display/adj/set range
	0 to 8 characters (1-byte alphanumeric characters)
	Default value
	Vs8DwJ (Asterisks (*) are displayed on the screen.)
	Related service mode
	COPIER > OPTION > NETWORK > SSH-SW (Level 2)
DA-PORT	Port setting with DA
Lv.2	Details
	To set the communication port when DA is installed. Select ON when DA is installed.
	Use case
	When DA is installed (This mode is used for the Japanese models only and not used with overseas models (outside Japan)).
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When going through the following: COPIER > OPTION > NETWORK > DA-CNCT, and selecting 1 for DA-CNCT, the following item is also ON: COPIER > OPTION > NETWORK > STS-PORT, CMD-PORT, DA-PORT
	Display/adj/set range
	0 to 1 0: OFF, 1: ON (When installed)
	Default value
	0
	Supplement/memo
	DA: Digital Accessory

COPIER > OPTION > NETWORK	
DA-CNCT	Connection setting of WPGW
Lv.2	Details
	To set WPGW connection.
	Use case
	This mode is used for the Japanese models only. And not used with overseas models (outside Japan).
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Go through the following: COPIER > OPTION > ACC > COIN; and if the setting value for COIN is changed from 0/1/2 to 3 (select DA charge), the value is automatically turns 1.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
	Related service mode
	COPIER> OPTION> ACC> COIN
	Supplement/memo
	WPGW: Workplace Gateway
CHNG-STTS	Set of TOT status connection port number
Lv.2	Details
	To set the port number for status connection with T.O.T.
	Use case
	When the Service NAVI is used
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	1 to 65535
	Default value
	20010
	Related service mode
	COPIER> OPTION> NETWORK> STS-PORT
CHNG-CMD	Set of TOT command connection port No.
Lv.2	Details
	To set the port number for command connection with T.O.T.
	Use case
	When the Service NAVI is used
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	1 to 65535
	Default value
	20000
	Related service mode
	COPIER> OPTION> NETWORK> CMD-PORT
MEAP-SSL	HTTPS port setting of MEAP
Lv.2	Details
	To set the port of HTTPS server in the case of using SSL with HTTP of MEAP.
	Use case
	When specifying the setting of HTTPS port for MEAP
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 65535
	Default value
	8443

COPIER > OPTION > NETWORK	
LPD-PORT	Setting of LPD port number
Lv.2	Details
	To set the LPD port number.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	1 to 65535
	Default value
	515
	Supplement/memo
	LPD port: Network port for TCP/IP communication when making prints through network.
WUEV-SW	Setting of sleep notification execution
Lv.2	Details
	To set whether to notify the sleep mode to the application (imageWARE, etc) on the network when shifting to/recovering from the sleep mode.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1
	0: Notified, 1: Not notified
	Default value
	0
WUEV-INT	Setting of sleep notification interval
Lv.2	Details
	To set the interval of sleep notification.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.
	Display/adj/set range
	60 to 65535
	Unit
	1 second
	Default value
	600
	Related service mode
	COPIER> OPTION> NETWORK> WUEV-SW
WUEV-POT	Port number setting for sleep notice
Lv.2	Details
	To set port number of the PC to notify the sleep mode.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.
	Display/adj/set range
	1 to 65535
	Default value
	11427
	Related service mode
	COPIER> OPTION> NETWORK> WUEV-SW

COPIER > OPTION > NETWORK	
WUEV-RTR	Setting of sleep notification range
Lv.2	Details
	To set the number of available routers to the target for sleep notification.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.
	Display/adj/set range
	0 to 254
	Default value
	3
	Related service mode
	COPIER> OPTION> NETWORK> WUEV-SW
WUEN-LIV	Recovery time setting after sleep notice
Lv.2	Details
	To set the time from the sleep start from network without job assignment until the mode is shifted to the sleep mode.
	Use case
	When setting the startup time after sleep notification
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	10 to 600
	Unit
	1 second
	Default value
	15
DHCP-12	ON/OFF of DHCP-option 12 request
Lv.2	Details
	To set ON/OFF of inquiry on the host name (Option 12) which uses Option 55 of DHCP. Selecting OFF can prevent DHCP packet from including Option 12 or Option 81 under the packet-monitoring network environment.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1
	0: OFF, 1: ON
	Default value
	1
	Supplement/memo
	DHCP: Dynamic Host Configuration Protocol

COPIER > OPTION > NETWORK	
DHCP-81	ON/OFF IPaddress dynamic chng in DHCP-81
Lv.2	Details
	To set ON/OFF for dynamic change of IP address by Option 81 of DHCP. Selecting OFF can prevent DHCP packet from including Option 12 or Option 81 under the packet-monitoring network environment. Selecting ON enables dynamic change of IP address by Option 81 of DHCP in the case that the dynamic DNS setting is ON in user mode.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to set ON for the dynamic DNS setting in user mode to enable dynamic change of IP address.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	1
	Supplement/memo
	DHCP: Dynamic Host Configuration Protocol
IFX-CHIG	Set operation by IFAX recv mail content
Lv.1	Details
	To set the number of characters for the IFAX received mail content, so that the mail is not printed/forwarded when the characters in the text is less than the number of specified characters. This machine can output blank paper because some senders send e-mail text consists of linefeed codes only. In such case, specify 2 (number of characters) so that there will be no output of blank paper. In the case of specifying any number other than 0, header/footer is printed/forwarded in 1 sheet only if the e-mail (body) text is less than the specified value while no TIFF file is attached. As the value is incremented by 1, the number of target characters in e-mail body text is increased by 1 character.
	Use case
	When reducing print of blank paper due to e-mail received by IFAX
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to get approval from the user by telling that there will be no print of e-mail (body) text if the number of characters is less than the specified value.
	Display/adj/set range
	0 to 999 0: E-mail (body) text is not ignored.
	Unit
	1 character
	Default value
	0
	Supplement/memo
	1 Japanese Kanji character is calculated as 2 bytes, and the control codes (such as linefeed code, etc) are included in the number of characters.

COPIER > OPTION > NETWORK	
DNSTRANS	Setting of DNS transfer priority
Lv.1	Details
	To set priority order of the protocol (IPv4/IPv6) to be used for DNS query. In the case of using both IPv6 and IPv4 while the DNS server supports IPv4, it takes time because of timeout when executing DNS query with priority on IPv6. Giving priority on query by IPv4 can shorten the time.
	Use case
	When it takes time to execute DNS query with priority on IPv6 because the DNS server supports IPv4
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: IPv4, 1: IPv6
	Default value
	1
PROXYRES	Setting of proxy response to Windows
Lv.2	Details
	To set whether to provide proxy response or return the device status when an inquiry is received via Windows while the device is in sleep mode.
	Use case
	When executing status response for query from Windows correctly
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: No proxy response, 1: Proxy response
	Default value
	1
WOLTRANS	Setting of sleep recovery protocol
Lv.1	Details
	To set the protocol for recovery from sleep mode according to the value of WOL (Wake On LAN) trans. Reception of a specific network packet is one of the requirements for the device to recover from sleep mode. When the number of network protocols supported by the device increases, the types of network packets which activate recovery from sleep mode vary. However, there is a possibility that the existing network protocol is actually used. Select the type of network packet which activates recovery from sleep mode according to the environment where the device is used.
	Use case
	When selecting protocol for sleep recovery
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	1 to 3 1: WSD and SNMP, 2: WSD and CPCA, 3: CPCA and SNMP
	Default value
	1

COPIER > OPTION > NETWORK	
802XTOUT	Set of IEEE802.1X authentication timeout
Lv.1	Details
	To set timeout value for IEEE802.1X authentication. If the device executes 802.1X authentication, change the wait time for response from the authentication server.
	Use case
	When response from the authentication server is slow/fast
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	10 to 120
	Unit
	second
	Default value
	30
IKERETRY	Setting of IKE retry times
Lv.1	Details
	To set the number of retries in the case of no response from the communication target at the time of IKE packet transmission.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 3
	Default value
	2
	Supplement/memo
	IKE: Internet Key Exchange
SPDALDEL	Initialization of SPD value
Lv.2	Details
	To initialize all the SPD values that are under management. SPD values can be initialized without clearing SRAM.
	Use case
	At the time of SPD value mismatch when IPsec Board is added
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
	Supplement/memo
	SPD: Database that manages SA (Security Association). SPD value is managed when IPsec Board is used. Normally, SRAM needs to be cleared in the case of mismatch in SPD value.
NCONF-SW	ON/OFF of Network Configurator function
Lv.1	Details
	To set ON/OFF of Network Configurator function. If the user does not use the function, select OFF to prevent remote attack through network.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	1
	Supplement/memo
	Network Configurator function is a function to be used for communication with NetSpot Device Installer, etc., and the network setting can be changed from the remote.

COPIER > OPTION > NETWORK	
IKEINTVL	Setting of IKE retry interval
Lv.1	Details
	To set retry interval in the case of no response from the communication target at the time of IKE packet transmission.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	1 to 10
	Unit
	second
	Default value
	5
	Supplement/memo
	IKE: Internet Key Exchange
IPSDEBLV	Setting of IPsec debug level
Lv.2	Details
	For R&D use
SP-LINK	Mode setting at 1W sleep
Lv.1	Details
	Switch to execute 10base-T standby as default to realize the standby power 1W in sleep mode.
	Use case
	When shifting to sleep mode after negotiation (same as conventional machines)
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Shift to sleep mode with 10base-T 1: Shift to sleep mode after negotiation
	Default value
	0
LM-LEVEL	Set of SMB client authentication method
Lv.1	Details
	To set the authentication method (LM, NTLMv1, NTLMv2) that the SMB client uses for authentication. In SMB authentication, authentication is generally made by the authentication method with higher level, and if it fails, the authentication level is lowered. (NLTMv2 => NLTMv1 => LM) It is possible to limit the authentication level by setting 1 or 2 to avoid using the authentication method with lower level.
	Use case
	Upon user's request
	Display/adj/set range
	0 to 2 0: Authentication is made by LM, NTLMv1 and NTLMv2 1: Authentication is made by NTLMv1 and NTLMv2 2: Authentication is made by NTLMv2
	Default value
	0
	Supplement/memo
	Windows NT LAN Manager authentication: A user authentication method for network logon, which was generally used in the OS for Windows NT Series prior to Windows NT 4.0

COPIER > OPTION > NETWORK	
AFS-JOB	Set of FAX server job reception port
Lv.1	Details
	To set the reception port of the fax server to which a fax client sends jobs.
	Use case
	When changing the job reception port of the fax server
	Display/adj/set range
	0 to 65535
	Default value
	20317
	Related service mode
	COPIER> OPTION> NETWORK> AFC-EVNT
AFC-EVNT	Set of FAX client event reception port
Lv.1	Details
	To set the event notification reception port of a fax client.
	Use case
	When changing the event notification reception port of a fax client
	Display/adj/set range
	0 to 65535
	Default value
	29400
	Related service mode
	COPIER> OPTION> NETWORK> AFS-JOB
ILOGMODE	Setting of IP address block mode
Lv.1	Details
	To set all protocols or TCP/UDP/ICMP unicast as the target of IP block. When 0 is set, the machine responds to ARP, ICMP multicast and broadcast which have no direct relation, and consequently the number of logs is increased. When 1 is set, the machine filters TCP, UDP and ICMP unicast only.
	Use case
	Upon user's request
	Adj/set/operate method
	0 to 3 0: All protocols support mode 1: TCP/UDP/ICMP unicast support mode 2, 3: Not used
	Default value
	0
ILOGKEEP	Set of IP address block log hold time
Lv.1	Details
	To set the retention time from the log time of IP block. When access is made again from a same IP address which was blocked before, if it is within the retention time of the previous log, its log is not recorded. If access is frequently made from a same IP address, the log record of the UI might be filled with its logs. If the user considers that a single log for a same IP address is enough, set the longer retention time.
	Use case
	Upon user's request
	Display/adj/set range
	0 to 48 0: 1 minute (special mode) 1 to 48: 1 hour to 48 hours
	Default value
	1

COPIER > OPTION > NETWORK	
IPTBROAD	Set to allow broad/multicast TX
Lv.1	Details
	To set whether to permit transmission of broadcast packets and multicast packets. Transmission of broadcast packets and multicast packets is permitted without specifying an exception address. It is permitted within the device even if it is rejected in the default setting of the IPv4/v6 transmission filter. Set "1: Disabled" when the user does not want to send them.
	Use case
	Upon user's request
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 5 0: Enabled, 1: Disabled, 2 to 5: Not used
	Default value
	0
PFWFTPRT	Set of RST reply at IP filter FTP SEND
Lv.1	Details
	When FTP SEND is executed using an IP filter by which packets from a specific remote PC are rejected, SYN is returned to the port 113 if the PC supports authentication of the FTP port 113. However, since the IP filter blocks the packets, the block logs are increased and the performance is lowered. When 1 is set, RST is returned to the port 113 without blocking packets.
	Use case
	When executing FTP SEND against the OS which supports authentication of the FTP port 113 while the IP filter is enabled
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
PRNIPBLK	ON/OFF of IP address block function
Lv.1	Details
	To set ON/OFF of IP address block function. When 1 is set, "IP Address Range Settings" and "RX/Print Range" screen is displayed on the Control Panel.
	Use case
	When using the IP address block function
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
	Related user mode
	Preferences> Network> TCP/IP Settings> IPv4 Settings/IPv6 Settings> IP Address Range Settings> RX/Print Range



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IPMTU		Setting of MTU size
Lv.1	Details	To set MTU size of network packet. This item is used when performing SEND communication between locations connected with Ethernet in a field environment where MTU black hole problem occurs.
	Use case	When MTU black hole problem occur
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 10 1: 600 byte, 2: 700 byte, ..., 9: 1400 byte, 10: 1500 byte
	Unit	100 byte
	Default value	10
	DDNSINTV	
Lv.1	Details	DNS registration is executed only once at start-up with the current iR, so the registered contents are deleted in an environment where the DNS server settings are deleted at intervals. To set the interval of DDNS periodical update for not deleting the registered contents.
	Use case	When the DNS server settings are deleted at intervals
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 48 0: No periodical update, 1: 1-hour interval, 2: 2-hour interval, ..., 47: 47-hour interval, 48: 48-hour interval
	Unit	1 hour
	Default value	24

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## CUSTOM

COPIER > OPTION > CUSTOM		
TEMP-TBL		Set fixing control temp table: Plain
Lv.1	Details	To set the control temperature table of the Fixing Roller for 64 to 90g/m <sup>2</sup> size paper.
	Use case	When alleviating the curl
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-5 to 2 -5 to -1: -5 degC, 0 to 2: 0 degC
	Default value	0
CCD-TYPE		Setting of CCD Unit type
Lv.2	Details	To set the CCD Unit type installed in the Reader to the backup area in the controller. Controller switches the image processing table according to the setting value.
	Use case	When changing the CCD Unit type
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Initial type, 1: Improved type
	Default value	0
Supplement/memo		If the CCD Unit is changed after factory shipment, the Reader cannot identify the type.
FACT-DEF		Set batch chng of factory setting values
Lv.2	Details	To set the batch change of factory setting values for customization.
	Display/adj/set range	0 to 1
	Default value	0
MAILYEAR		Set auto add to e-mail Subject/File name
Lv.2	Details	To set whether to add date, time and split number automatically to the end of a character string of e-mail Subject/File name.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Following the current setting, 1: Adding
	Default value	0

COPIER > OPTION > CUSTOM	
BOX-BKUP	Set to allow Inbox backup data restore
Lv.1	Details
	To set whether to permit restoration of Inbox backup data. Machine subject to restoration can be selected from either the same model or the next model. When restoration is completed normally, the setting value is returned to 0.
	Use case
	At replacement, permit to restore backup data of other model (some models).
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Permit restoration only from own device to own device (same model only) 1: Permit restoration only from old device to new device (next model only)
	Default value
	0
SCANTYPE	Switch of ADF + Reader
Lv.1	Details
	To switch to a different type ADF + Reader Unit.
	Use case
	At installation
	Display/adj/set range
	0 to 1 0: Reverse Duplex ADF + Reader, 1: 1-Path Duplex ADF + Reader
	Default value
	0
PDLEVCT1	Set event skipping at continuous PDL job
Lv.2	Details
	To set event skipping at continuous PDL job. During continuous operation, processing performance may be decreased due to other events generated by the event in operation. In this case, decrease of processing performance can be prevented by skipping the amount of event. Processing performance: No event skipping < Subject of skipping 1
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: No event skipping, 1: Subject of skipping 1
	Default value
	1
ABK-TOOL	Allow access from address book mntc tool
Lv.1	Details
	To set whether to accept import from the address book maintenance tool.
	Use case
	When executing import from the address book maintenance tool
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Disabled, 1: Enabled
	Default value
	0
	Supplement/memo
	Address book maintenance tool: Tool provided from CMJ.

COPIER > OPTION > CUSTOM	
DEV-SP1	Device special settings 1
Lv.2	Details
	To execute the device special settings 1.
	Use case
	When specific instructions are given from the Quality Support Division
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range
	00000000 to 11111111
	Default value
	00000000
	Related service mode
	COPIER > OPTION > CUSTOM > DEV-SP2 to SP8
DEV-SP2	Device special settings 2
Lv.2	Details
	To execute the device special settings 2.
	Use case
	When specific instructions are given from the Quality Support Division
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range
	00000000 to 11111111
	Default value
	00000000
	Related service mode
	COPIER > OPTION > CUSTOM > DEV-SP1, SP3 to SP8
DEV-SP3	Device special settings 3
Lv.2	Details
	To execute the device special settings 3.
	Use case
	When specific instructions are given from the Quality Support Division
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range
	00000000 to 11111111
	Default value
	00000000
	Related service mode
	COPIER > OPTION > CUSTOM > DEV-SP1, SP2, SP4 to SP8
DEV-SP4	Device special settings 4
Lv.2	Details
	To execute the device special settings 4.
	Use case
	When specific instructions are given from the Quality Support Division
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range
	00000000 to 11111111
	Default value
	00000000
	Related service mode
	COPIER > OPTION > CUSTOM > DEV-SP1 to SP3, SP5 to SP8

COPIER > OPTION > CUSTOM		
DEV-SP5	Device special settings 5	
Lv.2	Details	To execute the device special settings 5.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000
	Related service mode	COPIER > OPTION > CUSTOM > DEV-SP1 to SP4, SP6 to SP8
DEV-SP6	Device special settings 6	
Lv.2	Details	To execute the device special settings 6.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000
	Related service mode	COPIER > OPTION > CUSTOM > DEV-SP1 to SP5, SP7, SP8
DEV-SP7	Device special settings 7	
Lv.2	Details	To execute the device special settings 7.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000
	Related service mode	COPIER > OPTION > CUSTOM > DEV-SP1 to SP6, SP8
DEV-SP8	Device special settings 8	
Lv.2	Details	To execute the device special settings 8.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000
	Related service mode	COPIER > OPTION > CUSTOM > DEV-SP1 to SP7

COPIER > OPTION > CUSTOM		
AC-FREQ	Setting of frequency of AC power	
Lv.2	Details	Although power frequency is judged for power control with the machine, it might be judged incorrectly depending on power circumstance at the installation location. At left side column, the power frequency (50 Hz/60 Hz) which the DC Controller judged at power-on is displayed. In the case that the power frequency is not matched with the one at the installation location, set the AC power frequency at right side column.
	Use case	When the breaker is frequently tripped during operation
	Adj/set/operate method	1) Select the right side column. 2) Enter the setting value, and then press OK key.
	Display/adj/set range	Left side: 0 to 1 0: 50 Hz, 1: 60 Hz Right side: 0 to 2 0: Judged frequency is used, 1: 50 Hz, 2: 60 Hz
	Default value	0

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## USER

COPIER > OPTION > USER	
COPY-LIM	
Setting of upper limit for copy	
Lv.1	Details
	To set the upper limit value for copy.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	1 to 9999
	Default value
	9999
SLEEP	
Setting of auto sleep function	
Lv.1	Details
	To set ON/OFF of auto sleep function.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	1
SIZE-DET	
ON/OFF of original size detect function	
Lv.2	Details
	To set ON/OFF of original size detection function.
	Use case
	Upon user's request (glare of the scan lamp, etc)
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	1
COUNTER1	
Display of software counter 1	
Lv.1	Details
	To display counter type for software counter 1 on the Counter Check screen.
	Use case
	Upon user/dealer's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Display only. No change is available.
	Default value
	The value differs according to the location.
COUNTER2	
Setting of software counter 2	
Lv.1	Details
	To set counter type for software counter 2 on the Counter Check screen.
	Use case
	Upon user/dealer's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 999
	Default value
	The value differs according to the location.

COPIER > OPTION > USER	
COUNTER3	
Setting of software counter 3	
Lv.1	Details
	To set counter type for software counter 3 on the Counter Check screen.
	Use case
	Upon user/dealer's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 999
	Default value
	The value differs according to the location.
COUNTER4	
Setting of software counter 4	
Lv.1	Details
	To set counter type for software counter 4 on the Counter Check screen.
	Use case
	Upon user/dealer's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 999
	Default value
	The value differs according to the location.
COUNTER5	
Setting of software counter 5	
Lv.1	Details
	To set counter type for software counter 5 on the Counter Check screen.
	Use case
	Upon user/dealer's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 999
	Default value
	0
COUNTER6	
Setting of software counter 6	
Lv.1	Details
	To set counter type for software counter 6 on the Counter Check screen.
	Use case
	Upon user/dealer's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 999
	Default value
	0
DATE-DSP	
Setting of data/time display format	
Lv.2	Details
	To set date/time display format according to the country or region. After the display format is set with this mode, the order of date is reflected to the followings: Preferences > Timer/Energy Settings > Date/Time Settings, and report output.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 2 0: YYMM/DD, 1: DD/MYY, 2: MM/DD/YY
	Default value
	The value differs according to the location.
	Related user mode
	Preferences > Timer/Energy Settings > Date/Time Settings

COPIER > OPTION > USER		
MB-CCV		Control card usage limit for Mail Box
Lv.2	Details	To restrict use of control card for Mail Box.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Unlimited, 1: Limited
	Default value	0
CONTROL		Charge setting of PDL job
Lv.1	Details	To set charge count transmission of PDL job to the connecting charging management device (Coin Manager or non-Canon-made control card).
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No charge, 1: Charge
	Default value	0
B4-L-CNT		Count setting of B4 size
Lv.1	Details	To set B4 count with software counter 1 to 8 as to whether B4 is counted as large size or small size. Selecting 1 counts B4 or larger size paper as large size while paper smaller than B4 size as small size.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Small size, 1: Large size
	Default value	0
	Related service mode	COPIER> OPTION> FNC-SW> SC-L-CNT
TRY-STP		Set of Fin Tray output suspension ref
Lv.2	Details	To set the reference which judges to suspend outputting to Finisher Tray.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: At detection of full tray, 1: At detection of height
	Default value	0

COPIER > OPTION > USER		
MF-LG-ST		Dis/hide of long strip mode
Lv.2	Details	To set whether to display or hide the [Long Original] button. When 1 is set, [Long Original] button is displayed in Copy > Options screen and the long strip paper becomes available.
	Use case	Upon user's request (use of long strip original or long strip paper)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related user mode	Copy > Options
	Supplement/memo	Up to 630mm length paper is supported when DADF is used.
CNT-DISP		Display/hide of serial No.
Lv.2	Details	To set whether to display or hide the serial No. on the Counter Check screen.
	Use case	When setting to display/hide serial No. on the Counter Check screen.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Display, 1: Hide
	Default value	0
PH-D-SEL		Set dither matrix at screen processing
Lv.2	Details	To set the screen dither matrix to be used for halftoning processing at the time of copy output, B&W Inbox scan output and B&W SEND output. When moire occurs frequently, set to "1: 141 lines". When the setting is changed, the number of PG lines to be output at PASCAL control is also changed.
	Use case	When moire frequently occurs at the time of copy output, B&W Inbox scan output and B&W SEND output. Especially when moire frequently occurs in the halftone density area of photo and image gradation areas
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: 134 lines, 1: 141 lines
	Default value	1
	Related service mode	COPIER> OPTION> USER> PH-D-SL2

COPIER > OPTION > USER	
COPY-JOB	Setting of copy job reservation
Lv.1	Details
	To set to enable/disable copy job reservation when the Card Reader/Coin Manager is used.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Enabled, 1: Disabled
	Default value
	0
OP-SZ-DT	Orgnl size dtct ON/OFF at copyboard open
Lv.2	Details
	To set ON/OFF of original size detection while the Copyboard is opened. When "0: OFF" is set, enter original size manually from the Control Panel. When "1: ON" is set, original size is detected automatically.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
NW-SCAN	Setting of network scan function usage
Lv.2	Details
	To set to enable/disable use of network scan function.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	- Do not change this mode in Japan. - For PS/PCL machines for overseas (outside Japan), fix the setting value as "1: Enabled". For others, permit the use.
	Display/adj/set range
	0 to 1 0: Disabled, 1: Enabled
HDCR-DSP	Setting of HDD complete delete method
Lv.2	Details
	To set data deletion method of HDD data complete deletion function.
	Use case
	When switching the deletion method in HDD data complete deletion mode
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	1 to 4 1: 1-time deletion with 0 data, 2: 1-time deletion with random data, 3: 3-time deletion with random data, 4: DOD
	Default value
	1
	Supplement/memo
	HDD data complete deletion function: a function to completely delete data in HDD by overwriting with 0 (null) data or random data to the file data when logically deleting file on HDD (deleting management information data).

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JOB-INVL	Job intvl setting at interruption copy
Lv.2	Details
	To set output interval between jobs at the time of interruption copy. Sorting is difficult after interruption copy because of the continuous output of the next job. Paper interval becomes longer when starting pickup for the next job after the last sheet of the previous job is delivered.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 2 0: Continuous output of the interruption copy and the next job 1: Starting pickup for the next job after the interruption copy is delivered all. 2: Starting pickup for the next job after the previous job is delivered all. (For all jobs)
	Default value
	0
TAB-ROT	Set of landscape img rotn at PDL:tab ppr
Lv.1	Details
	To set whether to rotate landscape image by 180 degrees when PDL print is made on tab paper. When "1: Rotated" is set, image is rotated.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Not rotated, 1: Rotated
	Default value
	0
PR-PSESW	Display/hide of output Stop button
Lv.1	Details
	To set whether to display or hide [Stop] button on the Status Monitor screen.
	Use case
	- Upon user's request - When promptly stopping the print job in operation or under reservation
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0

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IDPRN-SW	Charge target job set of dept mngm cntr
Lv.1	Details
	To set the job type that advances the department management counter.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: PRINT category: Inbox Print, Report Print, Send Local Print, PDL Print COPY category: COPY 1: PRINT category: Report Print, Send Local Print, PDL Print COPY category: COPY, Inbox Print
	Default value
	0
PCL-COPY	Set of PCL COPIES command control method
Lv.2	Details
	To set the binder control method of COPIES command with PCL. Select whether to use the control method of Canon-made PCL or use the same control method of non-Canon-made PCL.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 65535 0: Control method of Canon-made PCL (following the value of COPIES command that is specified for each page to control on a page basis) 1: Control method of non-Canon-made PCL (handling the value of COPIES command, which is specified for page 1 at the time of Collate mode, as bind figure while the value of COPIES command for the next page or later is invalid. Same control applies as Canon-made PCL at the time of non-sorted mode) 2 to 65535: For future use
	Default value
	0

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CNT-SW	Set default dis items on charge counter
Lv.1	Details
	To set default display items of the charge counter on the Counter Check screen.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Do not use this mode overseas (outside Japan).
	Display/adj/set range
	0 to 2 For Japan 0: Counter 1 - Total 1: 101 1: Counter 1 - Total 2: 102, Counter 2 - Copy (Total 2): 202, Counter 3 - Total A2: 127 2: Not used For UL 0: Counter 1 - Total 1: 101, Counter 2 - Total (Large): 103, Counter 3 - Copy (Total 1): 201, Counter 4 - Copy (Large): 203 1: Counter 1 - Total 2: 102, Counter 2 - Copy (Total 2): 202 2: Not used
	Default value
	0
TAB-ACC	Auto cassette change set for tab paper
Lv.1	Details
	To set to enable/disable auto cassette change when tab paper runs out.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to instruct the user to thoroughly comply the following: - Use tab paper with the same number of tabs. - Set tab paper. Be sure to comply the above; otherwise, proper print is not available and it can cause soil inside the machine because of toner.
	Display/adj/set range
	0 to 1 0: Auto cassette change disabled, 1: Auto cassette change enabled
	Default value
	1
REMPNL	ON/OFF of remote panel function
Lv.1	Details
	To set ON/OFF of remote panel function. When ON is set, the operation like the Control Panel is enabled from PC.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Do not use this mode overseas (outside Japan).
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0

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BCNT-AST		Set of box print charge target job
Lv.1	Details	To set the job type that advances the count in box print with NE Controller (ASSIST).
	Use case	When switching the job type that is subject to counting of the box print with NE Controller
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: PDL job, 1: Copy job
	Default value	0
PRJOB-CP		Set count TX at RX/report print
Lv.2	Details	To set to enable/disable a page-basis count pulse transmission to the charging management device at the time of reception print or report print.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No transmission, 1: Transmission
	Default value	0
Supplement/memo		Charging management device: Coin Manager, Non-Canon-made control card
DOC-REM		Dis/hide of original removal message
Lv.1	Details	To set whether to display or hide the message to remove original when scanning with DADF without opening/closing DADF after scanning with the Copyboard.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
DPT-ID-7		Password entry set at dept ID reg/auth
Lv.2	Details	To set whether to require a password entry at the time of registration/authentication of department ID. With the setting to require entry, entry of 7-digit password is required as well as entry of department ID.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Department ID only, 1: 7-digit (password) entry
	Default value	0

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RUI-RJT		Connct set at invalid auth from remoteUI
Lv.2	Details	To set to disconnect HTTP port when the machine receives invalid authentication from remote UI 3 times.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Continued connection, 1: Disconnected
	Default value	0
CTM-S06		Set of password delete from export file
Lv.2	Details	To set to delete password for file transmission address from export file. With the setting to delete password, the password of file transmission target is deleted at the time of exporting address book data from remote UI.
	Use case	- Upon user's request - When avoiding information leak
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Retained, 1: Deleted
	Default value	0
FREG-SW		Dis/hide of MEAP counter free rgst area
Lv.2	Details	To set whether to display or hide the free register area of MEAP counter for SEND
	Use case	At trouble analysis
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Do not use this at the normal service. - Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
Default value	0	
Supplement/memo		Individual count-up (counter advance) of MEAP application is available in the free register area of MEAP counter.



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IFAX-SZL	Setting of IFAX send size limit
Lv.2	Details
	To set for restricting data size at the time of IFAX transmission that does not go through the server. With the setting to restrict the data size, there will be #830 error in the case of sending data that exceeds the upper limit value. In the case that the data goes through the server, the size of transmission data is always restricted.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Limited, 1: Not limited (Restriction applies when data goes through the server.)
	Default value
	1
	Related user mode
	Function Settings > Send > E-Mail/I-Fax Settings > Maximum Data Size for Sending
	Supplement/memo
	Specify the upper limit value for transmission data size in user mode.
IFAX-PGD	Set page split TX at IFAX Simple mode TX
Lv.2	Details
	To set to enable/disable split-data transmission on a page basis in the case that the transmission size in IFAX Simple mode exceeds the upper limit value.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	In the case to enable split-data transmission, be sure to get approval from the user by explaining the following: - No guarantee for page order on the reception side - There is a possibility of interruption of other received jobs between pages.
	Display/adj/set range
	0 to 1 0: Disabled, 1: Enabled
	Default value
	0
	Related service mode
	COPIER> OPTION> CLEANING> W-CLN-P
	Related user mode
	Function Settings > Send > E-Mail/I-Fax Settings > Maximum Data Size for Sending
	Supplement/memo
	Specify the upper limit value for transmission data size in user mode.

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MEAPSAFE	Setting of MEAP safe mode
Lv.2	Details
	To set safe mode for MEAP platform. MPSF is displayed on the Control Panel in safe mode. In safe mode, MEAP application is stopped while just the system application, which starts with initial state, is activated. This mode enables obtaining log for cause analysis of MEAP failure.
	Use case
	Perform system recovery processing when MEAP platform fails to be activated due to resource confliction between MEAP applications, service registration or use order.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Normal mode, 1: Safe mode
	Default value
	0
AFN-PSWD	Access limit setting to user mode
Lv.2	Details
	To set to restrict password entry when accessing to the user mode. With the setting to enable this mode, password entry of system administrator is required after pressing Settings/Registration key.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Password is not required, 1: Password is required
	Default value
	0
PTJAM-RC	Auto reprint setting at PDL print jam
Lv.2	Details
	To set to automatically restart printing after jam recovery that occurs with PDL print.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Not automatically reprinted, 1: Automatically reprinted
	Default value
	1
PDL-NCSW	Card mngm setting for PDL print job
Lv.2	Details
	To set to make PDL print job to be subject to card management by the Card Reader. With the setting to enable this mode, PDL print is available only when the card ID of the card inserted to the Card Reader matches the department ID.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: PDL print is available with no card inserted. 1: PDL print is available only when the card ID matches the department ID in the case that the card is inserted.
	Default value
	0

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SLP-SLCT	Usage setting of network applications
Lv.2	Details
	With the setting to use network-related application, the machine can be recovered through network because it does not move to sleep mode 1. For this machine to recover from sleep mode 1 through network, a particular packet needs to be received; however, the existing network-related application does not send this packet. With the setting not to use the network-related application, this machine cannot recover from sleep mode 1 through network when it gets into sleep mode 1.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Do not use this at the normal service.
	Display/adj/set range
	0 to 1 0: Not used (Shift to sleep mode 1 is available.) 1: Used (Shift to sleep mode 1 is not available.)
	Default value
	0
	Supplement/memo
	Network-related application: NetSpot Accountant, imageWARE
PS-MODE	Setting of PS print line drawing
Lv.2	Details
	To set the line drawing processing at PS print. In case that line width differs according to the print position, when 8 is set, PostScript interpreter automatically adjusts the line width.
	Use case
	When right and left ruled lines are different in width
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 65535 8: Auto adjustment of line width 0 to 7, 9 to 65535: Spare
	Default value
	0

COPIER > OPTION > USER	
CNCT-RLZ	Setting of connection serialize function
Lv.2	Details
	Connection serialize is a function to assure job grouping function of imageWARE Output Manager Select Edition V1.0. The setting to enable this mode can avoid job rearrangement because the machine does not receive job data from other connection until it completes job data reception from the current connection.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
	Supplement/memo
	Connection: Connection to be established through network between multiple hosts (PC, etc). Job grouping function: A function of imageWARE Output Manager Select Edition V1.0. This is to prevent job interruption from other PC by group job (sending multiple jobs in 1 session at job transmission).
JA-FUNC	ON/OFF of job archive function
Lv.2	Details
	To set ON/OFF of job archive function.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Changing this mode is not available in service mode, but reference is available (in service mode). This mode is available only with the MEAP program that supports job archive.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
JA-JOB	Setting of job archive target job
Lv.2	Details
	To set the job type subject to job archive. With the job archive function enabled, archive operation is executed when executing the target job.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Changing this mode is not available in service mode, but reference is available (in service mode). This mode is available only with the MEAP program that supports job archive.
	Display/adj/set range
	0: N/A, 3: Limited to FAX/IFAX, 0xFFFFFFFF: All jobs
	Default value
	0
	Related service mode
	COPIER > OPTION > USER > JA-FUNC

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JA-RESTR	Setting of job archive limit items
Lv.2	Details
	To set restriction items for job archive specification. With job archive function enabled, follow the setting to execute operation to restrict specification.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Changing this mode is not available in service mode, but reference is available (in service mode). This mode is available only with the MEAP program that supports job archive.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON 32 specification restrictions with Bit definition Bit0: Function to obtain image file (0: OFF, 1:ON) Bit1: Function to compose form registration (0: OFF, 1: ON) Bit2: Function to edit document (0:OFF, 1: ON)
	Default value
	0
	Related service mode
	COPIER > OPTION > USER > JA-FUNC
LDAP-SW	Retrieval condition set for LDAP server
Lv.1	Details
	To set the condition to search e-mail address, etc. from LDAP server.
	Use case
	When specifying condition to search e-mail address, etc. from LDAP server
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 5 0: Includes the next, 1: Not include the next, 2: Equivalent to the next, 3: Not equivalent to the next, 4: Starts with the next, 5: Finishes with the next
	Default value
	4
	Supplement/memo
	LDAP (Lightweight Directory Access Protocol): Registering LDAP server enables to search e-mail address, etc. from LDAP server and the result can be registered in the Address Book, etc. Registration is available by the following: Set Destination > Register LDAP Server
FROM-OF	Deletion of mail sender's address
Lv.1	Details
	To set whether to delete the sender's address (From) at the time of e-mail transmission.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Retained, 1: Deleted
	Default value
	0

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DOM-ADD	Additional entry of mail destn domain
Lv.2	Details
	To set to automatically add the domain specified in user mode to the sending address (To) entered at the time of e-mail transmission. If specifying "xxx.com" as a domain in user mode in advance, just entering "aaa" enables to display "aaa@xxx.com" when sending e-mail.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Not added, 1: Added
	Default value
	0
SPEAKER	Dis/hide to switch speaker/headphone
Lv.1	Details
	To set whether to display or hide "Voice Guidance from Speaker" on the Voice Mode Setting screen in user mode.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0
	Related user mode
	Settings/Registration> Preferences> Accessibility> Voice Mode Setting> Voice Guidance from Speaker
	Supplement/memo
	"Voice Mode Setting" in user mode is displayed only when the Voice Guidance Kit is installed.
FILE-OF	File send prohibition to entered address
Lv.1	Details
	To set to prohibit address entry at the time of file transmission. File transmission is not available by entering the address because of no display of "File" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range
	0 to 1 0: Enabled, 1: Disabled
	Default value
	0

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MAIL-OF	Mail send prohibition to entered address	
Lv.1	Details	To set to prohibit address entry at the time of e-mail transmission. E-mail transmission is not available by entering the address because of no display of "E-Mail" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
IFAX-OF	IFAX send prohibition to entered address	
Lv.1	Details	To set to prohibit address entry at the time of I-Fax transmission. IFAX transmission is not available by entering the address because of no display of "I-Fax" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
LDAP-DEF	Initial condtn set of LDAP server search	
Lv.1	Details	To set initial condition for search target attribute that is specified at the time of LDAP server Details search.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 6 0: Name, 1: E-mail, 2: FAX, 3: Organization, 4: Organization unit, 5: No registration 1 (any setting), 6: No registration 2 (any setting)
	Default value	0
	Related service mode	COPIER > OPTION > USER > LDAP-SW

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FREE-DSP	Display/hide of charge disable screen	
Lv.2	Details	To set whether to display or hide the Use Charge Management screen for switching between charge and no charge. The hardware switch for switching charge/no charge in the Coin Manager enables the mode in which all the services are available for free (store manager mode) by temporarily releasing the charging system. Even without the hardware switch, the mode can be switched with the software switch when it is set to display the Use Charge Management screen in Settings/Registration.
	Use case	When enabling all the services to be provided for free by temporarily releasing the charging system
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related user mode	Management Settings > Charge Management > Use Charge Management
CLR-TIM	Set of HDD Encry Kit data delete timing	
Lv.2	Details	To set the timing to completely delete the data when HDD Encryption Kit is used. Selecting 0 may reduce the job processing speed because page data that has been already processed is deleted while the other job is in process, causing overload to CPU and HDD access. Selecting 1 improves the job processing speed because the process is executed after a job is completed.
	Use case	Upon request to improve the job processing speed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: During job process, 1: After the job is completed
	Default value	0
HDCR-DSW	Dis/hide of HDD complete delete ON/OFF	
Lv.1	Details	To set whether to display or hide "Hard Disk Data Complete Deletion" in user mode. With this setting, HDD data complete deletion function is available with ON/OFF button on the screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related user mode	Management Settings > Data Management > HDD Data Complete Deletion > Hard Disk Data Complete Deletion

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DK1-ASST	Setting of machine's Deck Air Heater
Lv.1	Details
	To set the condition to turn ON the machine's Deck Air Heater for air floatation. When the media is switched from non-coated paper to coated paper, pickup operation does not start until the Air Heater for air floatation reaches the specified temperature. To shorten the wait time, set to non media-dependent. When the use environment is near the threshold for turning ON/OFF the Air Heater, switching occurs frequently, which increases the wait time. To shorten the wait time, set to Always ON.
	Use case
	When receiving a request to shorten the wait time
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	- When setting non media-dependent, be sure to receive approval from the user in advance after explaining that there is a possibility that transfer performance for non-coated paper may decrease. - When setting Always ON, be sure to receive approval from the user in advance after explaining that there is a possibility that transfer performance may decrease if humidity decreases.
	Display/adj/set range
	0 to 2 0: Media and environment condition-dependent 1: Environment condition-dependent (No media-dependent) 2: Always Air Heater ON (No environment/media-dependent)
	Default value
	0
SNMP-COA	Inside comty name SNMPAccess limit:admin
Lv.2	Details
	To restrict SNMP access by the community name (administrator right) that is kept internally. This machine internally retains the community name (administrator right) other than the SNMP community name that is specified in user mode. Canon-made utility software, such as NetSpot, uses this community name. Because of security concern, select 0/1 in the case to restrict SNMP access with the internal community name.
	Use case
	When restricting SNTP access with the community name (administrator right) that is retained internally
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 2 0: OFF, 1: Read only, 2: Read/Write
	Default value
	2
	Related user mode
	Preferences > Network > SNMP Settings > Community Name 1 Settings

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SNMP-COU	Inside comty name SNMP access limit:user
Lv.2	Details
	To restrict SNMP access by the community name (user right) that is kept internally. This machine internally retains the community name (user right) other than the SNMP community name that is specified in user mode. Canon-made utility software, such as NetSpot, uses this community name. Because of security concern, select 0/1 in the case to restrict SNMP access with the internal community name.
	Use case
	When restricting SNTP access with the community name (user right) that is retained internally
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 2 0: OFF, 1: Read only, 2: Read/Write
	Default value
	2
	Related user mode
	Preferences > Network > SNMP Settings > Community Name 2 Settings
SCALL-SW	Display/hide of repair request button
Lv.1	Details
	To set whether to display or hide the repair-request button on the Control Panel.
	Use case
	When the sales company supports service by the repair-request button
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0
SCALLCMP	Set of repair request complete notice
Lv.1	Details
	With this setting enabled, a notification of repair completion is sent to UGW server to clear the repair-request status that is retained internally.
	Use case
	Service technician uses this mode after completing repair.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1
	Default value
	0

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USBH-DSP	Display/hide of "Use USB Host"
Lv.2	Details
	To set whether to display "Preferences > External Interface > USB Settings > Use USB Host". By selecting "1: Display", whether to use USB host on USB Settings screen can be selected.
	Use case
	When switching to display or hide "Use USB Host" on USB Settings screen
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0
	Related user mode
	Preferences > External Interface > USB Settings > Use USB Host
USBM-DSP	Dis/hide of USB ex-memory device driver
Lv.2	Details
	To set whether to display "Preferences > External Interface > USB Settings > Use MEAP Driver for USB External Device". By selecting "0: Hide", the item is not displayed, and the user administrator cannot change the setting of the MEAP driver for the USB external memory device.
	Use case
	When prohibiting the user administrator to change the setting of "Use MEAP Driver for USB External Device", set 0 after the specified setting is completed.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1
	Related user mode
	Preferences> External Interface> USB Settings> Use MEAP Driver for USB External Device
USBI-DSP	Dis/hide of USB input device driver set
Lv.2	Details
	To set whether to display "Preferences > External Interface > USB Settings > Use MEAP Driver for USB Input Device". By selecting "0: Hide", the item is not displayed, and the user administrator cannot change the setting of the MEAP driver for the USB input device.
	Use case
	When prohibiting the user administrator to change the setting of "Use MEAP Driver for USB Input Device", set 0 after the specified setting is completed.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1
	Related user mode
	Preferences > External Interface > USB Settings > Use MEAP Driver for USB Input Device

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CTCHKDSP	Display/hide of counter print
Lv.1	Details
	To set whether to display or hide "Print List" on the Counter Check screen. Model name, model number information, counter check date and counter information can be output as a total count management report.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	1
DFLT-ADJ	Tgt Auto Adj Gradation initial dis set
Lv.1	Details
	To set the initial display (highlight in blue) of the target Full Adjust/Quick Adjust items on Auto Adjust Gradation screen of user mode. This setting is enabled when EFI Controller is connected or only on the copy model which Adobe PS/PDF is available. When 0 is set, the adjustment item is not displayed. When 1 to 3 is set, the target adjustment item (Copy/Printer/Both) is displayed to select (highlighted in blue).
	Use case
	When switching the initial display at the time of Auto Adjust Gradation
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 3 0: Adjustment item is not displayed. 1: "Copy" in the target adjustment items is selected. 2: "Printer" in the target adjustment items is selected. 3: "Both" in the target adjustment items is selected.
	Default value
	0
	Related user mode
	Settings/Registration> Adjustment/Maintenance> Auto Adjust Gradation
USBR-DSP	Dis/hide of USB infrared device driver
Lv.2	Details
	To set whether to display "Preferences > External Interface > USB Settings > Use MEAP Driver for USB Infrared Device."
	Use case
	When prohibiting the user administrator to change the setting of "Use MEAP Driver for USB Infrared Device," set 0 after the specified setting is completed.
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0
	Related user mode
	Preferences > External Interface > USB Settings > Use MEAP Driver for USB Infrared Device

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POL-SCAN	Dis/hide of Rights Management Server set	
Lv.1	Details	When "1: Display" is set, the Rights Management Server function screen is displayed. While the Rights Management Server function is a standard feature, it is possible to hide if not necessary.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	Customized machine in Japan: 1, Others: 0
PH-D-SL2	Set halftone process in text/photo mode	
Lv.2	Details	When copying or B&W scanning to Inbox in text/photo mode, halftone processing of the image which reproduces gradation of text and photo judgment areas can be specified with this setting. Set to 1 when jaggy occurs or request to use the same halftoning method (text area) as conventional one is raised. Set to 2 when moire occurs frequently or request to use the same halftoning method as conventional B&W MFP method is raised. Even 0 is set, TBIC is used for text judgment area and low screen ruling for photo judgment area at the time of B&W Inbox scan. The setting is disabled when the B&W Inbox scanning density is set to auto.
	Use case	- When jaggy occurs on the edge of text or thin lines at copy output. Especially when jaggy occurs in the text or thin lines (text in halftone dots) of the area where gradation in the halftone density is expressed like photo, graphics, etc. - When moire occurs frequently at the time of copy or B&W Inbox scan Especially when moire frequently occurs in the area where gradation in the halftone density is expressed like photo, graphics, etc. and this symptom is not alleviated with PH-D-SEL or sharpness adjustment - When receiving a request to use the same halftoning method (text area) as the conventional one (model with image area separation method) at copy output - When receiving a request to use the same halftoning method (both text and photo areas) as the conventional B&W MFP method at the time of copy or B&W Inbox output
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Low screen ruling (134 lines) is used for photo judgment area and high screen ruling (141 lines) for text judgment area. 1: Low screen ruling is used for photo judgment area and TBIC for text judgment area. 2: TBIC is used for both photo and text judgment areas.
	Default value	0
Related service mode	COPIER> OPTION> USER> PH-D-SEL	

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W-TN-DSP	Dis/hide of waste toner counter clear	
Lv.1	Details	To set whether to display "Initialize After Waste Toner Replacement" on the Settings/Registration screen. When 1 is set, users can initialize the waste toner counter by themselves.
	Use case	When allowing users to clear the counter of waste toner.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
Related service mode	Settings/Registration> Adjustment/Maintenance> Maintenance> Initialize After Waste Toner Replacement	
SCAN-RSL	Setting of scanned image resolution	
Lv.2	Details	To set the resolution of image which is generated by scan processing.
	Use case	When the scan processing performance with 1200 dpi is low
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: 1200 dpi, 1: 600 dpi
	Default value	0
JA-SBOX	Setting of linking with Advanced Box: SAM	
Lv.2	Details	To set the link with Advanced Box when iW SAM is enabled. When 1 is set, linking with Advanced Box is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-DFAX	Setting of direct fax transmission: SAM	
Lv.2	Details	To set the direct fax transmission when iW SAM is enabled. When 1 is set, the direct fax transmission is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	JA-REP	Setting of TX Report with image: SAM
Lv.2	Details	To set the TX Report with image when iW SAM is enabled. When 1 is set, the TX Report with image is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0

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JA-FREP	Setting of Fax TX Report with image: SAM	
Lv.2	Details	To set the Fax TX Report with image when iW SAM is enabled. When 1 is set, the Fax TX Report with image is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-BOX	Setting of Inbox document operation: SAM	
Lv.2	Details	To set the operation for Inbox document at the time of iW SAM When 1 is set, the Inbox document can be operated.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-FORM	Setting of image composition: SAM	
Lv.2	Details	To set the image composition when iW SAM is enabled. When 1 is set, the image composition is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PREV	Setting of preview page deletion: SAM	
Lv.2	Details	To set whether a page is deleted from the scan preview screen at the time of iW SAM When 1 is set, a page is deleted from the scan preview screen.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PULL	Setting of network scan: SAM	
Lv.2	Details	To set the network scan when iW SAM is enabled. When 1 is set, the network scan is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PDLB	Set of printer driver multi box save: SAM	
Lv.2	Details	To set whether a document can be simultaneously saved to multiple Inboxes from the printer driver at the time of iW SAM. When 1 is set, a document can be saved to multiple Inboxes from the printer driver.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0

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JA-JOBK	Setting of job merge allowance: SAM	
Lv.2	Details	To set whether merging jobs is allowed when iW SAM is enabled. When 1 is set, jobs can be merged.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-JDF	Setting of JDF: SAM	
Lv.2	Details	To set the use of JDF when iW SAM is enabled. When 1 is set, JDF can be used.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-RUI	Setting of Inbox document access: SAM	
Lv.2	Details	To set the Inbox document access from remote UI at the time of iW SAM When 1 is set, accessing to the Inbox document from remote UI is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-WEB	Setting of Inbox document upload: SAM	
Lv.2	Details	To set the Inbox document upload with the Web browser at the time of iW SAM. When 1 is set uploading to the Inbox document with the Web Browser is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
Default value	0	



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EXP-CRYP		Confidential encrypt ON/OFF:add book expprt
Lv.1	Details	To set whether to encrypt the confidential part (password part) in the Address Book when exporting the Address Book and device settings via RUI. When 0 is set, the confidential part in the Address Book is exported without encryption.
	Use case	When there is a need to export password without encryption because of operation and tool
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure not to allow the user to execute export without encryption because of security concern.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
THK1-DSP		Dis/hide Fin prdctvty/stck condtn prrty
Lv.1	Details	To set whether to display or hide "Productivity/stacking condition priority of Finisher (heavy paper 1)" in user mode.
	Use case	When setting productivity/stacking condition priority of Finisher by user
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to receive approval from the user in advance after explaining that there is a possibility that stacking condition may decrease by giving priority on productivity.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related service mode	SORTER> OPTION> BUFF-THK
Related user mode	Adjustment/Maintenance > Adjust Action	
SLEEP1SW		Power supply when shifting to SLEEP1
Lv.1	Details	When shifting to SLEEP1 mode, the power stops to be supplied, so it takes time to activate after a job is received. When 1 is set, the power keeps to be supplied even after shifting to SLEEP1 mode, so the activation of job processing becomes earlier.
	Use case	Upon user's request (when job processing after shifting to SLEEP1 is slow)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

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SCN-RSLG		Set outpt resolution at composition copy
Lv.1	Details	To set the output resolution when the composition function is used at copy in Text/Photo mode. When 0 is set, image quality becomes the same level (1200dpi) as when the composition function is not used, but productivity decreases.
	Use case	Upon user's request (to improve image quality)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to receive approval from the user in advance by explaining that productivity decreases by changing the setting.
	Display/adj/set range	0 to 1 0: 1200 dpi, 1: 600 dpi
	Supplement/memo	Composition function: Page Numbering, Copy Set Numbering, Watermark, Print-Date

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## CST

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U1-NAME	Dis/hide of ppr name in ppr size groupU1
Lv.2	Details
	To set whether to display or hide paper name at paper size group U1 detection.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0
U2-NAME	Dis/hide of ppr name in ppr size groupU2
Lv.2	Details
	To set whether to display or hide paper name at paper size group U2 detection.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0
U3-NAME	Dis/hide of ppr name in ppr size groupU3
Lv.2	Details
	To set whether to display or hide paper name at paper size group U3 detection.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0
U4-NAME	Dis/hide of ppr name in ppr size groupU4
Lv.2	Details
	To set whether to display or hide paper name at paper size group U4 detection.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0

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P-SZ-C1	Setting of Right Deck paper size
Lv.1	Details
	To set the paper size used in the Right Deck.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to match with the hardware setting size.
	Display/adj/set range
	0 to 2 0: A4, 1: B5, 2: LTR
	Default value
	0
P-SZ-C2	Setting of Left Deck paper size
Lv.1	Details
	To set the paper size used in the Left Deck.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to match with the hardware setting size.
	Display/adj/set range
	0 to 2 0: A4, 1: B5, 2: LTR
	Default value
	0
CST3-P1	Setting of Cassette 3 paper size
Lv.1	Details
	To set the paper size used in Cassette 3.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to match with the hardware setting size.
	Display/adj/set range
	0 to 1 0: A5R, 1: STMTR
	Default value
	USA: 1, Countries other than USA: 0
	Related user mode
	Preferences> Paper Settings> Paper Settings> A5R/STMTR Original Selection
CST3-P2	Setting of Cassette 3 paper size
Lv.1	Details
	To set the paper size used in Cassette 3.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Be sure to match with the hardware setting size.
	Display/adj/set range
	0 to 1 0: B5, 1: EXEC
	Default value
	USA: 1, Countries other than USA: 0
	Related user mode
	Preferences> Paper Settings> Paper Settings> B5/EXEC Original Selection

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CST4-P1		Setting of Cassette 4 paper size
Lv.1	Details	To set the paper size used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	USA: 1, Countries other than USA: 0
	Related user mode	Preferences> Paper Settings> Paper Settings> A5R/STMTR Original Selection
	CST4-P2	
Lv.1	Details	To set the paper size used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	USA: 1, Countries other than USA: 0
	Related user mode	Preferences> Paper Settings> Paper Settings> B5/EXEC Original Selection
	CST3-U1	
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 43 0: Special paper is not used, 1 to 22: Not used, 23: K-LGL-R, 24: FLSP, 25: A-FLSP, 26: OFI, 27: E-OFI, 28: B-OFI, 29: Not used, 30: A-LTRR, 31: Not used, 32: G-LTRR, 33: A-LGL, 34: G-LGL, 35 to 36: Not used, 37: M-OFI, 38 to 41: Not used, 42: FA4, 43: FB4 (FLSP-R)
	Default value	0
CST3-U3		Set Cst3 overseas special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 31 0: Special paper is not used, 1 to 21: Not used, 22: K-LGL, 23 to 28: Not used, 29: A-LTR, 30: Not used, 31: G-LTR
	Default value	0

COPIER > OPTION > CST		
CST4-U1		Set Cst4 overseas special ppr category 1
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 43 0: Special paper is not used, 1 to 22: Not used, 23: K-LGL-R, 24: FLSP, 25: A-FLSP, 26: OFI, 27: E-OFI, 28: B-OFI, 29: Not used, 30: A-LTRR, 31: Not used, 32: G-LTRR, 33: A-LGL, 34: G-LGL, 35 to 36: Not used, 37: M-OFI, 38 to 41: Not used, 42: FA4, 43: FB4 (FLSP-R)
	Default value	0
CST4-U3		Set Cst4 overseas special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 31 0: Special paper is not used, 1 to 21: Not used, 22: K-LGL, 23 to 28: Not used, 29: A-LTR, 30: Not used, 31: G-LTR
	Default value	0

T-8-74

## ACC

COPIER > OPTION > ACC	
COIN	Setting of charge management
Lv.1	Details
	To set charging management method.
	Use case
	At installation of Coin Manager
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Following items are automatically specified when changing the value to 3 (from 0 to 2). The change will not be returned even if changing back the value to 0 to 2 (from 3) once the mode has been changed. <ul style="list-style-type: none"> <li>• COPIER &gt; OPTION &gt; USER &gt; CONTROL=1</li> <li>• COPIER &gt; OPTION &gt; FNC-SW &gt; DA-CNCT=1</li> <li>• COPIER &gt; OPTION &gt; DSPLY-SW &gt; UI-BOX, UI-SEND, UI-FAX=0</li> <li>• Function Settings &gt; Send &gt; E-Mail/I-Fax Settings &gt; Communication Settings &gt; SMTP Receive, POP=OFF</li> <li>• Preferences &gt; Network &gt; TCP/IP Settings &gt; DNS Settings &gt; FTP Print Settings &gt; Use FTP Printing=OFF</li> <li>• Preferences &gt; Network &gt; TCP/IP Settings &gt; DNS Settings &gt; IPP Print Settings &gt; Use IPP Printing=ON</li> </ul>
	Display/adj/set range
	0 to 7 0: No charge 1: Charge with Coin Manager 2: Charge with remote counter 3: Charge with DA (only in Japan) 4: Charge with this machine itself 5: Not used 6: External charge mode 6 7: External charge mode 7
	Default value
	0
	Related service mode
	COPIER> OPTION> USER> CONTROL COPIER> OPTION> FNC-SW> DA-CNCT COPIER> OPTION> DSPLY-SW> UI-BOX, UI-SEND, UI-FAX COPIER> OPTION> ACC> PDL-THR
	Related user mode
	Function Settings > Send > E-Mail/I-Fax Settings > Communication Settings Preferences> Network > TCP/IP Settings > DNS Settings > FTP Print Settings Preferences> Network > TCP/IP Settings > DNS Settings > IPP Print Settings
	Supplement/memo
	Control card can be used with "0: No charge". DA: Digital Accessory
DK-P	Setting of Paper Deck paper size
Lv.1	Details
	To set the paper size used in the Paper Deck.
	Display/adj/set range
	0 to 2 0: A4, 1: B5, 2: LTR
	Default value
	0

COPIER > OPTION > ACC	
PD-SIZE	Setting of Side Paper Deck paper size
Lv.1	Details
	To set the paper size used in the Side Paper Deck. Although the setting value 0 to 37 can be set, by setting 1 to 21, the basic paper size can be set from the user mode. In the service mode, set the special paper size.
	Use case
	Upon user's request
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 37
	Default value
	0
CC-SPSW	Support setting of control card I/F
Lv.2	Details
	To set support level for control card (CCIV/CCV) interface.
	Use case
	Upon user's request (when connecting to the external counter management system using the control card interface)
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: No support, 1: Support
	Default value
	0
UNIT-PRC	Setting of Coin Manager currency unit
Lv.2	Details
	To set currency unit to be handled with Coin Manager
	Use case
	At installation of Coin Manager
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 6 0: Japanese yen, 1: Euro, 2: Pound, 3: Swiss Franc, 4: Dollar, 5: No currency unit (no fractional unit), 6: No currency unit (with fractional unit)
	Default value
	0

COPIER > OPTION > ACC	
MIN-PRC	Set of Coin Manager minimum price
Lv.1	Details
	To set the minimum amount to be handled with Coin Manager. Enter 10 when specifying 10 Japanese yen as the minimum amount to be handled with the Coin Manager that supports Japanese yen. In the case to specify 1 to 4 (Euro/Pound/Swiss Franc/Dollar) by going through the following: COPIER> OPTION> ACC > UNIT-PRC, entry is in fractional unit. Entry of 50 indicates 50 cents (\$ 0.50).
	Use case
	At installation of Coin Manager
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	This mode is enabled when selecting 4 for the following: COPIER > OPTION > ACC > COIN.
	Display/adj/set range
	0 to 9999
	Unit
	According to the setting value by the following: COPIER> OPTION> ACC> UNIT-PRC.
	Default value
	10
	Related service mode
	COPIER> OPTION> ACC> COIN, UNIT-PRC
	Supplement/memo
	As for the charging amount, it causes an error if specifying the value that is smaller than the minimum currency unit with Settings/Registration mode.
MAX-PRC	Set of Coin Manager maximum price
Lv.1	Details
	To set the maximum amount to be handled with Coin Manager. Enter 8800 when specifying 8800 Japanese yen as the maximum amount to be handled with the Coin Manager that supports Japanese yen. In the case to specify 1 to 4 (Euro/Pound/Swiss Franc/Dollar) by going through the following: COPIER> OPTION> ACC > UNIT-PRC, entry is in fractional unit. Entry of 50 indicates 50 cents (\$ 0.50).
	Use case
	At installation of Coin Manager
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	This mode is enabled when selecting 4 for the following: COPIER > OPTION > ACC > COIN.
	Display/adj/set range
	0 to 9999
	Unit
	According to the setting value by the following: COPIER> OPTION> ACC> UNIT-PRC.
	Default value
	8800
	Related service mode
	COPIER> OPTION> ACC> COIN, UNIT-PRC
	Supplement/memo
	As for charging amount, it causes an error if specifying the value that is larger than the maximum currency unit with Settings/Registration mode.

COPIER > OPTION > ACC	
MIC-TUN	Manual adj of voice recognize microphone
Lv.1	Details
	To manually adjust the voice receiving level (sensitivity) of the connected voice recognition microphone. Microphone sensitivity is automatically tuned in user mode; however, adjust it manually as needed.
	Use case
	When the sensitivity of microphone is not improved by auto tuning
	Display/adj/set range
	0 to 255
	Default value
	128
	Related user mode
	Preferences > Accessibility > Voice Navigation Settings > Tune Microphone
SRL-SPSW	Setting of Serial I/F Kit support
Lv.1	Details
	To set the support level of the Serial Interface Kit. To keep processing performance of printer engine, select "1: Priority on speed". To correctly stop the output by the upper limit number of sheets, select "2: Priority on upper limit number of sheets".
	Use case
	At installation of Serial Interface Kit
	Caution
	With priority on speed, output cannot be correctly stopped by the upper limit number of sheets. With priority on the upper limit number of sheets, processing performance of the printer engine is decreased depending on pickup location.
	Display/adj/set range
	0 to 2 0: No support, 1: Priority on speed, 2: Priority on upper limit number of sheets
	Default value
	0
PDL-THR	Norm PDL pnt set:External charge mode6/7
Lv.2	Details
	To set normal PDL print job processing at external charge mode 6/7. When 1 is set and external charge mode 6/7 is set with COIN, normal PDL print job is executed without being cancelled.
	Use case
	When setting the normal PDL print processing in external charge mode 6/7
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Cancel, 1: Execute
	Default value
	0
	Related service mode
	COPIER> OPTION> ACC> COIN

COPIER > OPTION > ACC		
CR-TYPE	Setting of Card Reader	
Lv.1	Details	To set the model of the Card Reader. Set 1 in the case of connecting the Card Reader-C1. It operates even 0 is set, but recognition rate decreases.
	Use case	When connecting the Card Reader-C1
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Card Reader-F1, 1: Card Reader-C1
	Default value	0

T-8-75

## INT-FACE

COPIER > OPTION > INT-FACE		
IMG-CONT	Connection setting of print server	
Lv.1	Details	To set connection with print server.
	Use case	At installation
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 4 0: Normal mode (Print server not connected), 1, 2, 3: Not used, 4: Print server connected
	Default value	0
AP-OPT	Output set of appli with print server	
Lv.2	Details	To set whether to permit output from the application (PrintMe) equipped with print server.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Permits the specified account only, 1: Permits, 2: Permits the specified department ID only
	Default value	0
AP-ACCNT	Job dept ID set of appli w/ print server	
Lv.2	Details	To set department ID to the print job from the application (PrintMe) equipped with print server.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 9999999
	Default value	0
AP-CODE	Set output pass code from print server	
Lv.2	Details	To set the pass code for output from print server.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 9999999
	Default value	0
NWCT-TM	Timeout setting of network connection	
Lv.2	Details	To set the time to keep network connection between this machine and the PC application (keep-alive setting). As the value is incremented by 1, the time is increased by 1 minute.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 5
	Unit	1 minute
	Default value	5
	Supplement/memo	Expected PC application: Network print application, E-mail function, cascade copy, MEAP network application, etc.

COPIER > OPTION > INT-FACE		
CNT-TYPE	Connection setting of print server	
Lv.1	Details	To switch print server to be connected. Specify print server with EFI Controller ID.
	Use case	At installation of print server
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 999 445: imagePASS-U1
	Default value	1

T-8-76

## ■ TEMPO

COPIER > OPTION > TEMPO		
F-POT-SW	[Not used]	
Lv.2	Details	-
F-HUM-SW	ON/OFF of humidity manual entry	
Lv.2	Details	To set whether to enable F-HUM-D setting when an error (failure) in the Environment Sensor occurs. When 1 is set, the F-HUM-D setting is enabled. Use the item as a temporary measure until replacing the Environment Sensor.
	Use case	When an error (failure) in the Environment Sensor occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> TEMPO> F-HUM-D
F-HUM-D	Manual entry of humidity	
Lv.2	Details	Enter the humidity at the installation location manually when an error in the Environment Sensor occurs. When F-HUM-SW is 1, this setting is enabled.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	30 to 99
	Unit	1%
	Default value	35
	Related service mode	COPIER>OPTION>TEMPO>F-HUM-SW

T-8-77

## LCNS-TR

COPIER > OPTION > LCNS-TR	
ST-SEND	Installation state dis of SEND function
Lv.2	Details
	To display installation state of SEND function when transfer is disabled.
	Use case
	When checking whether SEND function is installed
	Adj/set/operate method
	1) Select ST-SEND. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SEND.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-SEND	Trns license key dis of SEND function
Lv.2	Details
	To display transfer license key to use SEND function when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-SEND. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SEND.
	Display/adj/set range
	24 digits
ST-ENPDF	Installation state dis of Encryption PDF
Lv.2	Details
	To display installation state of Encryption PDF when transfer is disabled.
	Use case
	When checking whether Encryption PDF is installed
	Adj/set/operate method
	1) Select ST-ENPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-ENPDF.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-ENPDF	Trns license key dis of Encryption PDF
Lv.2	Details
	To display transfer license key to use Encryption PDF when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-ENPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-ENPDF.
	Caution
	This mode is enabled when SEND function is installed.
	Display/adj/set range
	24 digits

COPIER > OPTION > LCNS-TR	
ST-SPDF	Installation state dis of Searchable PDF
Lv.2	Details
	To display installation state of Searchable PDF when transfer is disabled.
	Use case
	When checking whether Searchable PDF is installed
	Adj/set/operate method
	1) Select ST-SPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SPDF.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-SPDF	Trns license key dis of Searchable PDF
Lv.2	Details
	To display transfer license key to use Searchable PDF when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-SPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SPDF.
	Caution
	This mode is enabled when SEND function is installed.
	Display/adj/set range
	24 digits
ST-EXPPDF	Instal state of Encry PDF + Searchbl PDF
Lv.2	Details
	To display installation state of Encryption PDF + Searchable PDF when transfer is disabled.
	Use case
	When checking whether Encryption PDF + Searchable PDF is installed
	Adj/set/operate method
	1) Select ST-EXPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-EXPDF.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-EXPPDF	Trns lcns key of Encry PDF+Searchbl PDF
Lv.2	Details
	To display transfer license key to use Encryption PDF + Searchable PDF when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-EXPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-EXPDF.
	Caution
	This mode is enabled when SEND function is installed for Japan.
	Display/adj/set range
	24 digits



COPIER > OPTION > LCNS-TR		
ST-PDFDR	Install state dis of Direct Print PDF	
Lv.2	Details	To display installation state of Direct Print PDF when transfer is disabled.
	Use case	When checking whether Direct Print PDF is installed
	Adj/set/operate method	1) Select ST-PDFDR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PDFDR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PDFDR	Trns lcns key dis of Direct Print PDF	
Lv.2	Details	To display transfer license key to use Direct Print PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PDFDR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PDFDR.
	Display/adj/set range	24 digits
ST-SCR	Install state dis of Encry Secure Print	
Lv.2	Details	To display installation state of Encrypted Secure Print when transfer is disabled.
	Use case	When checking whether Encrypted Secure Print is installed
	Adj/set/operate method	1) Select ST-SCR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SCR.
	Display/adj/set range	When operation finished normally: OK!
Default value	0	
TR-SCR	Trns license key dis of Encry Secure Pnt	
Lv.2	Details	To display transfer license key to use Encrypted Secure Print when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-SCR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SCR.
	Caution	This mode is enabled when there is "3DES+USH-H" Board.
	Display/adj/set range	24 digits

COPIER > OPTION > LCNS-TR		
ST-HDCLR	Installation state display of Data Erase	
Lv.2	Details	To display installation state of Data Erase (for old model) when transfer is disabled.
	Use case	When checking whether Data Erase (for old model) is installed
	Adj/set/operate method	1) Select ST-HDCLR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-HDCLR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-HDCLR	Transfer license key dis of Data Erase	
Lv.2	Details	To display transfer license key to use Data Erase (for old model) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-HDCLR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-HDCLR.
	Caution	This mode is enabled when there is "3DES+USH-H" Board.
	Display/adj/set range	24 digits
ST-BRDIM	Install state dis: PCL Barcode Printing	
Lv.2	Details	To display installation state of Barcode Printing for PCL when transfer is disabled.
	Use case	When checking whether Barcode Printing for PCL is installed
	Adj/set/operate method	1) Select ST-BRDIM. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-BRDIM.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-BRDIM	Trns lcns key dis: PCL Barcode Printing	
Lv.2	Details	To display transfer license key to use Barcode Printing for PCL when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-BRDIM. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-BRDIM.
	Display/adj/set range	24 digits

COPIER > OPTION > LCNS-TR		
ST-VNC	Install state dis of Remote Oprtr Soft	
Lv.2	Details	To display installation state of Remote Operators Software when transfer is disabled.
	Use case	When checking whether Remote Operators Software is installed
	Adj/set/operate method	1) Select ST-VNC. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-VNC.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-VNC	Trns lcns dis of Remote Operators Soft	
Lv.2	Details	To display transfer license key to use Remote Operators Software when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-VNC. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-VNC.
	Display/adj/set range	24 digits
ST-WEB	Install state dis of Web Access Software	
Lv.2	Details	To display installation state of Web Access Software when transfer is disabled.
	Use case	When checking whether Web Access Software is installed
	Adj/set/operate method	1) Select ST-WEB. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-WEB.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-WEB	Trns license key dis of Web Access Soft	
Lv.2	Details	To display transfer license key to use Web Access Software when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-WEB. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-WEB.
	Display/adj/set range	24 digits

COPIER > OPTION > LCNS-TR		
ST-HRPDF	Install state dis of High Compress PDF	
Lv.2	Details	To display installation state of High Compression PDF when transfer is disabled.
	Use case	When checking whether High Compression PDF is installed
	Adj/set/operate method	1) Select ST-HRPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-HRPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-HRPDF	Trns lcns key dis of High Compress PDF	
Lv.2	Details	To display transfer license key to use High Compression PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-HRPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-HRPDF.
	Display/adj/set range	24 digits
ST-TRSND	Install state dis of Trial SEND function	
Lv.2	Details	To display installation state of Trial SEND function when transfer is disabled.
	Use case	When checking whether Trial SEND function is installed
	Adj/set/operate method	1) Select ST-TRSND. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-TRSND.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-TRSND	Trns lcns key dis of Trial SEND function	
Lv.2	Details	To display transfer license key to use Trial SEND function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-TRSND. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-TRSND.
	Display/adj/set range	24 digits

COPIER > OPTION > LCNS-TR	
ST-WTMRK	Install state dis of Secure Watermark
Lv.2	Details
	To display installation state of Secure Watermark when transfer is disabled.
	Use case
	When checking whether Secure Watermark is installed
	Adj/set/operate method
	1) Select ST-WTMRK. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-WTMRK.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-WTMRK	Trns license key dis of Secure Watermark
Lv.2	Details
	To display transfer license key to use Secure Watermark when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-WTMRK. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-WTMRK.
	Display/adj/set range
	24 digits
ST-TSPDF	Install state dis of Time Stamp PDF: JP
Lv.2	Details
	To display installation state of Time Stamp PDF (JP only) when transfer is disabled.
	Use case
	When checking whether Time Stamp PDF (JP only) is installed
	Adj/set/operate method
	1) Select ST-TSPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-TSPDF.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-TSPDF	Trns lcns key dis of Time Stamp PDF: JP
Lv.2	Details
	To display transfer license key to use Time Stamp PDF (JP only) when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-TSPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-TSPDF.
	Caution
	This mode is enabled when SEND function is installed.
	Display/adj/set range
	24 digits

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ST-USPDF	Install state dis of Dglt User Sign PDF
Lv.2	Details
	To display installation state of Digital User Signature PDF when transfer is disabled.
	Use case
	When checking whether Digital User Signature PDF is installed
	Adj/set/operate method
	1) Select ST-USPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-USPDF.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-USPDF	Trns lcns key dis of Dglt User Sign PDF
Lv.2	Details
	To display transfer license key to use Digital User Signature PDF when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-USPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-USPDF.
	Caution
	This mode is enabled when SEND function is installed.
	Display/adj/set range
	24 digits
ST-DVPDF	Install state dis of Device Sign PDF
Lv.2	Details
	To display installation state of Device Signature PDF when transfer is disabled.
	Use case
	When checking whether Device Signature PDF is installed
	Adj/set/operate method
	1) Select ST-DVPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-DVPDF.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-DVPDF	Trns lcns key dis of Device Sign PDF
Lv.2	Details
	To display transfer license key to use Device Signature PDF when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-DVPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-DVPDF.
	Caution
	This mode is enabled when SEND function is installed.
	Display/adj/set range
	24 digits

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ST-SCPDF	Install state dis of Trace & Smooth PDF
Lv.2	Details
	To display installation state of Trace & Smooth PDF when transfer is disabled.
	Use case
	When checking whether Trace & Smooth PDF is installed
	Adj/set/operate method
	1) Select ST-SCPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SCPDF.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-SCPDF	Trns lcns key dis of Trace & Smooth PDF
Lv.2	Details
	To display transfer license key to use Trace & Smooth PDF when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-SCPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SCPDF.
	Caution
	This mode is enabled when SEND function is installed.
	Display/adj/set range
	24 digits
ST-AMS	Install state dis of Access Management System
Lv.2	Details
	To display installation state of Access Management System when transfer is disabled.
	Use case
	When checking whether Access Management System is installed
	Adj/set/operate method
	1) Select ST-AMS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-AMS.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-AMS	Trns lcns key dis of Access Management System
Lv.2	Details
	To display transfer license key to use Access Management System when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-AMS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-AMS.
	Display/adj/set range
	24 digits

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ST-ERDS	Install state dis: E-RDS 3rd Pty Expnsn
Lv.2	Details
	To display installation state of E-RDS 3rd Party Expansion when transfer is disabled.
	Use case
	When checking whether E-RDS 3rd Party Expansion is installed
	Adj/set/operate method
	1) Select ST-ERDS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-ERDS.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
Supplement/memo	E-RDS 3rd Party Expansion: A function to send charge counter to the third party's charge server.
TR-ERDS	Trns lcns key dis: E-RDS 3rd Pty Expnsn
Lv.2	Details
	To display transfer license key to use E-RDS 3rd Party Expansion when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-ERDS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-ERDS.
	Display/adj/set range
	24 digits
Supplement/memo	E-RDS 3rd Party Expansion: A function to send charge counter to the third party's charge server.
ST-PS	Install state display of PS function
Lv.2	Details
	To display installation state of PS function when transfer is disabled.
	Use case
	When checking whether PS function is installed
	Adj/set/operate method
	1) Select ST-PS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PS.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-PS	Transfer license key dis of PS function
Lv.2	Details
	To display transfer license key to use PS function when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-PS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PS.
	Display/adj/set range
	24 digits

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ST-PCL	Install state display of PCL function
Lv.2	Details
	To display installation state of PCL function when transfer is disabled.
	Use case
	When checking whether PCL function is installed
	Adj/set/operate method
	1) Select ST-PCL. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PCL.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-PCL	Transfer license key dis of PCL function
Lv.2	Details
	To display transfer license key to use PCL function when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-PCL. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PCL.
	Display/adj/set range
	24 digits
ST-PSLI5	Install state dis:PS/LIPS4/LIPS LX: JP
Lv.2	Details
	To display installation state of PS/LIPS4/LIPS LX function (JP only) when transfer is disabled.
	Use case
	When checking whether PS/LIPS4/LIPS LX function (JP only) is installed
	Adj/set/operate method
	1) Select ST-PSLI5. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSLI5.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-PSLI5	Trns lcns key dis:PS/LIPS4/LIPS LX: JP
Lv.2	Details
	To display transfer license key to use PS/LIPS4/LIPS LX function (JP only) when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-PSLI5. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSLI5.
	Display/adj/set range
	24 digits

COPIER > OPTION > LCNS-TR	
ST-LIPS5	Install state dis:LIPS LX/LIPS4 func: JP
Lv.2	Details
	To display installation state of LIPS LX/LIPS4 function (JP only) when transfer is disabled.
	Use case
	When checking whether LIPS LX/LIPS4 function (JP only) is installed
	Adj/set/operate method
	1) Select ST-LIPS5. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-LIPS5.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-LIPS5	Trns lcns key dis:LIPS LX/LIPS4 func: JP
Lv.2	Details
	To display transfer license key to use LIPS LX/LIPS4 function (JP only) when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-LIPS5. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-LIPS5.
	Display/adj/set range
	24 digits
ST-LIPS4	Install state display of LIPS4 func: JP
Lv.2	Details
	To display installation state of LIPS4 function (JP only) when transfer is disabled.
	Use case
	When checking whether LIPS4 function (JP only) is installed
	Adj/set/operate method
	1) Select ST-LIPS4. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-LIPS4.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-LIPS4	Trns license key dis of LIPS4 func: JP
Lv.2	Details
	To display transfer license key to use LIPS4 function (JP only) when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-LIPS4. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-LIPS4.
	Display/adj/set range
	24 digits

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ST-PSPCL	Install state dis of PS/PCL function	
Lv.2	Details	To display installation state of PS/PCL function when transfer is disabled.
	Use case	When checking whether PS/PCL function is installed
	Adj/set/operate method	1) Select ST-PSPCL. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSPCL.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSPCL	Transfer license key dis of PS/PCL func	
Lv.2	Details	To display transfer license key to use PS/PCL function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PSPCL. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSPCL.
	Display/adj/set range	24 digits
ST-PCLUF	Install state dis of PCL/UFR II function	
Lv.2	Details	To display installation state of PCL/UFR II function when transfer is disabled.
	Use case	When checking whether PCL/UFR II function is installed
	Adj/set/operate method	1) Select ST-PCLUF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PCLUF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PCLUF	Trns license key dis of PCL/UFR II func	
Lv.2	Details	To display transfer license key to use PCL/UFR II function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PCLUF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PCLUF.
	Display/adj/set range	24 digits

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ST-PSLIP	Install state dis of PS/LIPS4 func: JP	
Lv.2	Details	To display installation state of PS/LIPS4 function (JP only) when transfer is disabled.
	Use case	When checking whether PS/LIPS4 function (JP only) is installed
	Adj/set/operate method	1) Select ST-PSLIP. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSLIP.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSLIP	Trns license key dis of PS/LIPS4 func:JP	
Lv.2	Details	To display transfer license key to use PS/LIPS4 function (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PSLIP. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSLIP.
	Display/adj/set range	24 digits
ST-PSPCU	Install state dis of PS/PCL/UFR II func	
Lv.2	Details	To display installation state of PS/PCL/UFR II function when transfer is disabled.
	Use case	When checking whether PS/PCL/UFR II function is installed
	Adj/set/operate method	1) Select ST-PSPCU. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSPCU.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSPCU	Trns lcns key dis of PS/PCL/UFR II func	
Lv.2	Details	To display transfer license key to use PS/PCL/UFR II function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PSPCU. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSPCU.
	Display/adj/set range	24 digits

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ST-LXUFR	Install state dis of UFR II function	
Lv.2	Details	To display installation state of UFR II function when transfer is disabled.
	Use case	When checking whether UFR II function is installed
	Adj/set/operate method	1) Select ST-LXUFR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-LXUFR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-LXUFR	Trns license key dis of UFR II function	
Lv.2	Details	To display transfer license key to use UFR II function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-LXUFR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-LXUFR.
	Display/adj/set range	24 digits
ST-HDCR2	Install state dis:HDD Init All Data/Set	
Lv.2	Details	To display installation state of HDD Initialize All Data/Settings when transfer is disabled.
	Use case	When checking whether HDD Initialize All Data/Settings is installed
	Adj/set/operate method	1) Select ST-HDCR2. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-HDCR2.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-HDCR2	Trns lcns key dis:HDD Init All Data/Set	
Lv.2	Details	To display transfer license key to use HDD Initialize All Data/Settings when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-HDCR2. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-HDCR2.
	Display/adj/set range	24 digits

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ST-MOBIL	Install state dis of Mobile Link func:JP	
Lv.2	Details	To display installation state of Mobile Link function (JP only) when transfer is disabled.
	Use case	When checking whether Mobile Link function (JP only) is installed
	Adj/set/operate method	1) Select ST-MOBIL. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-MOBIL.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-MOBIL	Trns lcns key dis of Mobile Link func:JP	
Lv.2	Details	To display transfer license key to use Mobile Link function (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-MOBIL. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-MOBIL.
	Display/adj/set range	24 digits
ST-JBLK	Install state dis of Document Scan Lock	
Lv.2	Details	To display installation state of Document Scan Lock when transfer is disabled.
	Use case	When checking whether Document Scan Lock is installed
	Adj/set/operate method	1) Select ST-JBLK. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-JBLK.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-JBLK	Trns lcns key dis of Document Scan Lock	
Lv.2	Details	To display transfer license key to use Document Scan Lock when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-JBLK. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-JBLK.
	Display/adj/set range	24 digits

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ST-AFAX	Installation state dis of Remote Fax
Lv.2	Details
	To display installation state of Remote Fax when transfer is disabled.
	Use case
	When checking whether Remote Fax is installed
	Adj/set/operate method
	1) Select ST-AFAX. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-AFAX.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-AFAX	Transfer license key dis of Remote Fax
Lv.2	Details
	To display transfer license key to use Remote Fax when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-AFAX. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-AFAX.
	Display/adj/set range
	24 digits
ST-POPPDF	Install state display of PDF w/ Policy
Lv.2	Details
	To display installation state of PDF function with Policy when transfer is disabled.
	Use case
	When checking whether PDF function with Policy is installed
	Adj/set/operate method
	1) Select ST-POPPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-POPPDF.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-POPPDF	Trns lcns key display of PDF w/ Policy
Lv.2	Details
	To display transfer license key to use PDF function with Policy when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-POPPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-POPPDF.
	Display/adj/set range
	24 digits

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ST-REPDF	Install state dis:Reader Extensions PDF
Lv.2	Details
	To display installation state of Reader Extensions PDF when transfer is disabled.
	Use case
	When checking whether Reader Extensions PDF is installed
	Adj/set/operate method
	1) Select ST-REPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-REPDF.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-REPDF	Trns lcns key dis:Reader Extensions PDF
Lv.2	Details
	To display transfer license key to use Reader Extensions PDF when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-REPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-REPDF.
	Display/adj/set range
	24 digits
ST-OOXML	Install state dis of Office Open XML
Lv.2	Details
	To display installation state of Office Open XML when transfer is disabled.
	Use case
	When checking whether Office Open XML is installed
	Adj/set/operate method
	1) Select ST-OOXML. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-OOXML.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-OOXML	Trns lcns key dis of Office Open XML
Lv.2	Details
	To display transfer license key to use Office Open XML when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-OOXML. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-OOXML.
	Display/adj/set range
	24 digits



COPIER > OPTION > LCNS-TR	
ST-XPS	Install state dis of Direct Print XPS
Lv.2	Details
	To display installation state of Direct Print XPS when transfer is disabled.
	Use case
	When checking whether Direct Print XPS is installed
	Adj/set/operate method
	1) Select ST-XPS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-XPS.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-XPS	Trns lcns key dis of Direct Print XPS
Lv.2	Details
	To display transfer license key to use Direct Print XPS when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-XPS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-XPS.
	Display/adj/set range
	24 digits
ST-2600	Instal state dis: IEEE2600.1 scrty func
Lv.2	Details
	To display installation state of the IEEE2600.1 security function when transfer is disabled.
	Use case
	When checking whether the IEEE2600.1 security function is installed
	Adj/set/operate method
	1) Select ST-2600. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-2600.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-2600	Trn lcns key dis: IEEE2600.1 scrty func
Lv.2	Details
	To display transfer license key of the IEEE2600.1 security function when transfer is disabled.
	Use case
	• When replacing HDD • When replacing the device
	Adj/set/operate method
	1) Select ST-2600. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-2600.
	Display/adj/set range
	24 digits

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## ■ ACCPST-D

COPIER > OPTION > ACCPST-D	
ACC1	Set of delivery option connection order
Lv.1	Details
	Setting of connecting order for delivery options to be connected with ARCNET.
	Use case
	• At the time of installation • When replacing DC controller PCB/at RAM clear
	Adj/set/operate method
	1) Check where is ACC 1 option in the connecting order from the host machine. 2) Enter the order (number), and then press OK key. 3) Turn OFF and then ON the main power of the host machine and the options.
	Display/adj/set range
	Type: 8 characters Node ID: 8 digits Order: 2 digits
	Supplement/memo
	Delivery options connected to ARCNET: Document Insertion Unit, Professional Puncher, Paper Folding Unit, Finisher
ACC2	Set of delivery option connection order
Lv.1	Details
	Setting of connecting order for delivery options to be connected with ARCNET.
	Use case
	• At the time of installation • When replacing DC controller PCB/at RAM clear
	Adj/set/operate method
	1) Check where is ACC 2 option in the connecting order from the host machine. 2) Enter the order (number), and then press OK key. 3) Turn OFF and then ON the main power of the host machine and the options.
	Display/adj/set range
	Type: 8 characters Node ID: 8 digits Order: 2 digits
	Supplement/memo
	Delivery options connected to ARCNET: Document Insertion Unit, Professional Puncher, Paper Folding Unit, Finisher
ACC3	Set of delivery option connection order
Lv.1	Details
	Setting of connecting order for delivery options to be connected with ARCNET.
	Use case
	• At the time of installation • When replacing DC controller PCB/at RAM clear
	Adj/set/operate method
	1) Check where is ACC 3 option in the connecting order from the host machine. 2) Enter the order (number), and then press OK key. 3) Turn OFF and then ON the main power of the host machine and the options.
	Display/adj/set range
	Type: 8 characters Node ID: 8 digits Order: 2 digits
	Supplement/memo
	Delivery options connected to ARCNET: Document Insertion Unit, Professional Puncher, Paper Folding Unit, Finisher

COPIER > OPTION > ACCPST-D		
ACC4		Set of delivery option connection order
Lv.1	Details	Setting of connecting order for delivery options to be connected with ARCNET.
	Use case	<ul style="list-style-type: none"> <li>At the time of installation</li> <li>When replacing DC controller PCB/at RAM clear</li> </ul>
	Adj/set/operate method	1) Check where is ACC 4 option in the connecting order from the host machine. 2) Enter the order (number), and then press OK key. 3) Turn OFF and then ON the main power of the host machine and the options.
	Display/adj/set range	Type: 8 characters Node ID: 8 digits Order: 2 digits
	Supplement/memo	Delivery options connected to ARCNET: Document Insertion Unit, Professional Puncher, Paper Folding Unit, Finisher
ACC5		Set of delivery option connection order
Lv.1	Details	Setting of connecting order for delivery options to be connected with ARCNET.
	Use case	<ul style="list-style-type: none"> <li>At the time of installation</li> <li>When replacing DC controller PCB/at RAM clear</li> </ul>
	Adj/set/operate method	1) Check where is ACC 5 option in the connecting order from the host machine. 2) Enter the order (number), and then press OK key. 3) Turn OFF and then ON the main power of the host machine and the options.
	Display/adj/set range	Type: 8 characters Node ID: 8 digits Order: 2 digits
	Supplement/memo	Delivery options connected to ARCNET: Document Insertion Unit, Professional Puncher, Paper Folding Unit, Finisher
ACC6		Set of delivery option connection order
Lv.1	Details	Setting of connecting order for delivery options to be connected with ARCNET.
	Use case	<ul style="list-style-type: none"> <li>At the time of installation</li> <li>When replacing DC controller PCB/at RAM clear</li> </ul>
	Adj/set/operate method	1) Check where is ACC 6 option in the connecting order from the host machine. 2) Enter the order (number), and then press OK key. 3) Turn OFF and then ON the main power of the host machine and the options.
	Display/adj/set range	Type: 8 characters Node ID: 8 digits Order: 2 digits
	Supplement/memo	Delivery options connected to ARCNET: Document Insertion Unit, Professional Puncher, Paper Folding Unit, Finisher

COPIER > OPTION > ACCPST-D		
ACC7		Set of delivery option connection order
Lv.1	Details	Setting of connecting order for delivery options to be connected with ARCNET.
	Use case	<ul style="list-style-type: none"> <li>At the time of installation</li> <li>When replacing DC controller PCB/at RAM clear</li> </ul>
	Adj/set/operate method	1) Check where is ACC 7 option in the connecting order from the host machine. 2) Enter the order (number), and then press OK key. 3) Turn OFF and then ON the main power of the host machine and the options.
	Display/adj/set range	Type: 8 characters Node ID: 8 digits Order: 2 digits
	Supplement/memo	Delivery options connected to ARCNET: Document Insertion Unit, Professional Puncher, Paper Folding Unit, Finisher
ACC8		Set of delivery option connection order
Lv.1	Details	Setting of connecting order for delivery options to be connected with ARCNET.
	Use case	<ul style="list-style-type: none"> <li>At the time of installation</li> <li>When replacing DC controller PCB/at RAM clear</li> </ul>
	Adj/set/operate method	1) Check where is ACC 8 option in the connecting order from the host machine. 2) Enter the order (number), and then press OK key. 3) Turn OFF and then ON the main power of the host machine and the options.
	Display/adj/set range	Type: 8 characters Node ID: 8 digits Order: 2 digits
	Supplement/memo	Delivery options connected to ARCNET: Document Insertion Unit, Professional Puncher, Paper Folding Unit, Finisher

T-8-79



COPIER > TEST > PG		
TYPE		Test print
Lv.1	Details	To execute the test print.
	Use case	At trouble analysis
	Adj/set/operate method	Enter the setting value, and then press Start key. Test print is executed.
	Caution	Be sure to return the value to 0 after the test print output.
	Display/adj/set range	0 to 50 0: Normal print 1: Grid 2: 17 gradations Tbic rank 2 3: 17 gradations 600dpi (134-line screen or 141-line screen) 4: Solid white 5: Halftone (density: 80H, Tbic rank 2, without image correction) 6: Halftone (density: 80H, 134-line screen or 141-line screen, without image correction) 7: Solid black 8: Horizontal line (4 dots, 27 spaces) 9: Horizontal line (6 dots, 50 spaces) 10: Horizontal line (2 dots, 3 spaces) 11: Halftone (density: 60H, Tbic rank 2, without image correction) 12: Halftone (density: 80H, 134-line screen or 141-line screen, without image correction) 13: Halftone (density: 30H, Tbic rank 2, without image correction) 14: Halftone (density: 30H, 134-line screen or 141-line screen, without image correction) 15-50: For development
	Default value	0
TXPH		Setting of test print image mode
Lv.1	Details	To set the image mode at the time of test print output. This mode is enabled for test print only.
	Use case	At trouble analysis
	Display/adj/set range	0 to 6 0: Error diffusion 1: Low screen ruling (approx. 133 to 190 lines) 2: High screen ruling (approx. 200 to 268 lines) 3: Copy screen (approx. 220 lines) 4: REOS screen (no screen structure) 5: Error diffusion (with trailing edge adjustment) 6: High screen ruling (with trailing edge adjustment)

COPIER > TEST > PG		
DENS-K		Adj of Bk color density at test print
Lv.1	Details	To adjust Bk color density when performing test print (TYPE=5). As the greater value is set, the image gets darker.
	Use case	At test print (TYPE=5)
	Display/adj/set range	1 to 25
	Default value	1
PG-PICK		Setting of test print Pickup Cassette
Lv.1	Details	To set the Pickup Cassette for test print output.
	Use case	- At trouble analysis - At test print output
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	1 to 8 1: Cassette 1 (Right Deck), 2: Cassette 2 (Left Deck), 3: Cassette 3 (Option Cassette 2), 4: Cassette 4 (Option Cassette 2), 5: Paper Deck, 6: Multi-purpose Tray, 7 to 8: Not used
2-SIDE		Setting of PG 2-sided mode
Lv.1	Details	To set 1-sided/2-sided print for PG output.
	Use case	At trouble analysis
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	0 to 1 0: 1-sided, 1: 2-sided
	Default value	0
PG-QTY		Setting of PG output quantity
Lv.1	Details	To set the number of sheets for PG output.
	Use case	At trouble analysis
	Display/adj/set range	1 to 999
	Unit	1 sheet
	Default value	1

COPIER > TEST > PG	
FINISH	Accessory processing function test print
Lv.1	Details
	To execute the test print relating to accessory processing function.
	Use case
	When checking operation of accessory processing function
	Adj/set/operate method
	1) Enter the number of sheets for PG-QTY, and then press OK key. 2) Enter the setting value, and then press OK key. 3) Press Start button. The machine outputs a test print.
	Display/adj/set range
	0 to 99 0: N/A 1: Staple (front) *1 2: Staple (2 points) *1 3: Staple (rear) *1 4: Booklet (saddle stitch) *1 5: Z-fold (single sleeve) *1 6: 2-fold *1 7: C-fold *2 8: V-fold *2 9: 4-fold *2 10: Z-fold (out-3-fold) *2 11: Punch (Inner Puncher) *3 12: Multiple-hole punch *4 13: Shift *1 14 to 99: Spare (for future use) *1 Finisher, *2 Multi-folding machine, *3 Inner Puncher, *4 Multiple-hole Puncher
	Default value
	0
	Related service mode
	COPIER> TEST> PG> PG-QTY

T-8-80

## NETWORK

COPIER > TEST > NETWORK	
	PING
	Network connection check
Lv.1	Details
	To check connection between this machine and TCP/IP network.
	Use case
	- When checking network connection at the time of installation - At network connection failure
	Adj/set/operate method
	1) Turn OFF the main power switch. 2) Connect the network cable to this machine, and then turn ON the main power switch. 3) Inform the system administrator at user's site that installation of this machine is complete, and ask for network setting. 4) Ask the system administrator to check the network connection, and check the remote host address of PING transmission target. 5) Select the item and enter the remote host address, and then press OK key and Start key. OK: Connection is normal. Checking procedure is complete. NG: Connection failed. Go to step 6) if the cable connection is OK. In case of cable connection failure, connect again and then go to step 5). 6) Select the item and enter loopback address, and then press OK key and Start key. OK: TCP/IP setting of this machine is normal. Go to step 7) to check NIC. NG: TCP/IP setting of this machine has failure. Go to step 3) to check the setting again. 7) Select the item and enter the local host address, and then press OK key. OK: Network setting of this machine and NIC are normal. Inform the system administrator that the trouble is due to network environment and ask for countermeasure. NG: Connection failure/fault with NIC. Check connection of NIC/replace NIC.
	Display/adj/set range
	0.0.0.0 to 255.255.255.255 At normal state: OK At failure occurrence: NG
	Supplement/memo
	- Remote host address: IP address of PC terminal in network. - Loopback address: 127.0.0.1. Checking TCP/IP of this machine is available because the signal is returned before NIC. - NIC: Network interface board - Local host address: IP address of this machine
	IPv6-ADR
	Setting of PING send address (IPv6)
Lv.1	Details
	To set the IPv6 address to send PING. When PING is sent to this address by COPIER> TEST> NETWORK> PING-IP6, the network connection condition in the IPv6 environment can be checked.
	Caution
	- Enter a consistent character string as an address of IPv6. - Enter an address within 39 characters including hexadecimal numbers (0-9, a-f) and a separator (:).
	Related service mode
	COPIER> TEST> NETWORK> PING-IP6

COPIER > TEST > NETWORK		
PING-IP6		PING transmission to IPv6 address
Lv.1	Details	To send PING to the address specified by IPV6-ADR. The network connection condition in the IPv6 environment can be checked.
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> TEST> NETWORK> IPV6-ADR
IPSECPOL		Polling test of IPsec Encryption Board
Lv.1	Details	To execute polling test of IPsec Encryption Board. To check whether a hardware failure has occurred.
	Use case	When checking whether a hardware failure has occurred to the IPsec Encryption Board
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	At normal state: OK At failure occurrence: NG (0: The board cannot be recognized. 1: An error occurred to the result.)
	Required time	Approx. 3 minutes
IPSECINT		Interrupt test of IPsec Encryption Board
Lv.1	Details	To execute the interrupt test of IPsec Encryption Board. To check whether a hardware failure has occurred.
	Use case	When checking whether a hardware failure has occurred to the IPsec Encryption Board
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	At normal state: OK At failure occurrence: NG (0: The board cannot be recognized. 1: An error occurred to the result.)
	Required time	Approx. 3 minutes

T-8-81




COPIER > COUNTER > TOTAL		
SERVICE1		Service-purposed total counter 1
Lv.1	Details	To count up when the paper is delivered outside the machine. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
SERVICE2		Service-purposed total counter 2
Lv.1	Details	To count up when the paper is delivered outside the machine. Large size: 2, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
COPY		Total copy counter
Lv.1	Details	To count up when the paper is delivered outside the machine. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
PDL-PRT		PDL print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at PDL print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
FAX-PRT		FAX reception print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at FAX reception. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
RMT-PRT		Remote print counter
Lv.1	Details	To count up when the paper is delivered outside the machine and 2-sided print is stacked according to the charge counter at report print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
BOX-PRT		Inbox print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at Inbox print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999

COPIER > COUNTER > TOTAL		
RPT-PRT		Report print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at report print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
2-SIDE		2-sided copy/print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at 2-sided copy/print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
SCAN		Scan counter
Lv.1	Details	To count the number of scan operations according to the charge counter when the scanning operation is complete. Large size: 1, small size: 1
	Adj/set/operate method	When the counter is cleared Select the item, and then press Clear key.
	Display/adj/set range	0 to 99999999

T-8-82

## PICK-UP

COPIER > COUNTER > PICK-UP		
C1		Cassette 1 pickup total counter
Lv.1	Details	Small size: 1
	Unit	Number of sheets
C2		Cassette 2 pickup total counter
Lv.1	Details	Small size: 1
	Unit	Number of sheets
C3		Cassette 3 pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets
C4		Cassette 4 pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets
MF		Multi-purpose Tray pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets
DK		Deck pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets
2-SIDE		2-sided pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets

T-8-83

## FEEDER

COPIER > COUNTER > FEEDER		
FEED		DADF original pickup total counter
Lv.1	Use case	When checking the total counter of original pickup by DADF
	Unit	Number of sheets
L-FEED		DADF large size pickup total counter
Lv.1	Use case	When checking the total counter of large size pickup by DADF
	Unit	Number of sheets
S-FEED		DADF small size pickup total counter
Lv.1	Use case	When checking the total counter of small size pickup by DADF
	Unit	Number of sheets
DFOP-CNT		DADF hinge open/close counter
Lv.1	Use case	When checking the DADF hinge open/close counter
	Unit	Number of times

T-8-84

## ■ JAM

COPIER > COUNTER > JAM		
TOTAL		Host machine total jam counter
Lv.1	Use case	When checking the total jam counter of the host machine
	Unit	Number of times
FEEDER		Feeder total jam counter
Lv.1	Use case	When checking the total jam counter of feeder
	Unit	Number of times
SORTER		Finisher total jam counter
Lv.1	Use case	When checking the total jam counter of finisher
	Unit	Number of times
2-SIDE		Duplex Unit jam counter
Lv.1	Use case	When checking the jam counter of Duplex Unit
	Unit	Number of times
MF		Multi-purpose Tray jam counter
Lv.1	Use case	When checking the jam counter of Multi-purpose Tray
	Unit	Number of times
C1		Right Deck jam counter
Lv.1	Use case	When checking the jam counter of machine's Right Deck
	Unit	Number of times
C2		Left Deck jam counter
Lv.1	Use case	When checking the jam counter of machine's Left Deck
	Unit	Number of times
C3		Cassette 3 pickup jam counter
Lv.1	Use case	When checking the jam counter of machine's Cassette 3
	Unit	Number of times
C4		Cassette 4 pickup jam counter
Lv.1	Use case	When checking the jam counter of machine's Cassette 4
	Unit	Number of times
DK		Pickup decks jam counter
Lv.1	Use case	When checking the jam counter of all pickup decks
	Unit	Number of times

T-8-85

## ■ MISC

COPIER > COUNTER > MISC		
FIX-WEB		Fixing Cleaning Web counter
Lv.1	Details	The number of Fixing Cleaning Web Drive Solenoid (SL9) operations executed after the Fixing Cleaning Web Level Sensor (PS45) is ON. When the counter reaches 2000, E005-0001 occurs.
	Use case	At the time of Fixing Cleaning Web level detection/replacement
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key.
	Caution	Clear the counter value after replacement.
	Unit	Number of times
WST-TNR		Waste toner counter
Lv.1	Details	This item is used to clear the warning when the Waste Toner full warning is displayed.
	Use case	When replacing the Waste Toner Container
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key.
T-SPLY-K		Toner supply counter
Lv.1	Details	Number of toner supply blocks. Counted for every one rotation of Toner Feed Screw.
	Use case	When checking the usage status of toner
	Unit	Number of blocks
ALLPW-ON		Number of DCON PCB power-on times
Lv.1	Details	Number of power-on times (Non-all-night Power Unit). To count up when power is turned ON (Non-all-night Power Unit).
	Use case	When checking the usage status of the product
	Unit	Number of times
HDD-ON		Number of HDD start-up times
Lv.1	Details	To count up at HDD start-up.
	Use case	When checking the usage status of the product
	Unit	Number of times

T-8-86



## JOB

COPIER > COUNTER > JOB		
DVPAPLEN	Average paper length of job	
Lv.1	Details	Average paper length in the period from when the printer engine starts printing operation to when it stops the operation. Since the printer engine considers small jobs that are executed continuously as a large job, the average paper length affects calculation of the life.
	Display/adj/set range	0 to 99999999
	Unit	mm
DVRUNLEN	Average distance of job	
Lv.1	Details	Average running distance in the period from when the printer engine starts printing operation to when it stops the operation. Since the printer engine considers small jobs that are executed continuously as a large job, the average running distance affects calculation of the life.
	Display/adj/set range	0 to 99999999
	Unit	mm

T-8-87

## PRDC-1

COPIER > COUNTER > PRDC-1		
PRM-WIRE	Primary Charging Wire parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	This is commonly used as operator maintenance parts counter.
PRM-GRID	Prmry Charge Ass'y Grid Wire parts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
PO-WIRE	Pre-transfer Charging Wire parts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
PRM-CLN	Primary Charge Wire Clean Pad prts cntr	
Lv.1	Details	Primary Charging Wire Cleaning Pad 1, 2 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > PRDC-1		
PO-CLN	Pre-trn Charge Wire Clean Pad prts cntr	
Lv.1	Details	Pre-transfer Charging Wire Cleaning Pad 1, 2 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
PO-WI-U	Pre-transfer Charge Wire Unit prts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FIX-TH1	Fixing Main Thermistor parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FIX-TH2	Fixing Sub Thermistor parts counter	
Lv.1	Details	Fixing Sub Thermistor 1, 2 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > PRDC-1		
OZ-FIL1	Fixing Ozone Filter parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
Supplement/memo	This is commonly used as operator maintenance parts counter.	
AR-FIL1	Primary Suction Air Filter prts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
Supplement/memo	This is commonly used as operator maintenance parts counter.	

T-8-88

## DRBL-1

COPIER > COUNTER > DRBL-1		
PRM-UNIT		
Primary Charging Assembly parts counter		
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	PO-UNIT	
Pre-transfer Charging Ass'y parts cntr		
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	T-CLN-BD	
ETB Cleaning Blade parts counter		
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	T-CN-BRU	
Transfer Cleaner Brush prts cntr		
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
TR-BLT		
Transfer Belt (ETB) parts counter		
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Related service mode	COPIER> ADJUST> FEED-ADJ> TBLT-ADJ COPIER> FUNCTION> CLEAR> TR-BLT
TR-ROLL		
Transfer Roller parts counter		
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	This is commonly used as operator maintenance parts counter.
PT-DRM		
Photosensitive Drum parts counter		
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	CLN-BLD	
Drum Cleaning Blade parts counter		
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
SP-CLAW	Drum Cleaner Separation Claw prts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
BS-SL-F	Drum Cleaner Side Seal (Front) prts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
BS-SL-R	Drum Cleaner Side Seal (Rear) prts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
DVG-CYL	Developing Cylinder parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
C1-PU-RL	Right Deck Pickup Roller parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C1-SP-RL	Right Deck Separation Roller parts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C1-FD-RL	Right Deck Feed Roller parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C2-PU-RL	Left Deck Pickup Roller parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
C2-SP-RL	Left Deck Separation Roller prts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C2-FD-RL	Left Deck Feed Roller parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C3-PU-RL	Cassette 3 Pickup Roller parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C3-SP-RL	Cassette 3 Separation Roller parts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
C3-FD-RL	Cassette 3 Feed Roller parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C4-PU-RL	Cassette 4 Pickup Roller parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C4-SP-RL	Cassette 4 Separation Roller parts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C4-FD-RL	Cassette 4 Feed Roller parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
M-SP-RL	Multi-purpose Tray Sprtn Roll prts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
M-FD-RL	Multi-purpose Tray Feed Roll prts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FX-UP-RL	Fixing Roller parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FX-LW-RL	Pressure Roller parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
FX-IN-BS	Fixing Roller Insulating Bush parts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FX-WEB	Fixing Cleaning Web parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FX-L-STC	Press Roller Static Eliminator prts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
DLV-UCLW	Delivery Upper Separation Claw prts cntr	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
FX-RTNR	Fixing Roller Thrust Stopper parts cnter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
EXP-SCRP	Pre-exposure Scraper parts counter	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

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## ■ DRBL-2

COPIER > COUNTER > DRBL-2		
DF-PU-RL	Pickup Roller parts counter: DADF	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
DF-FD-RL	Feed Roller parts counter: DADF	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
DF-SP-RL	Separation Roller parts counter: DADF	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.

COPIER > COUNTER > DRBL-2	
LNT-TAP1	Dust Removal Sheet 1 counter: DADF
Lv.1	Details Dust-colleting 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case When checking the consumption level of parts/replacing the parts
	Adj/set/operate method To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution Clear the counter value after replacement.
	Display/adj/set range 0 to 99999999
	Unit Number of sheets
	Default value 0
	Supplement/memo Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
LNT-TAP2	Dust Removal Sheet 2 counter: DADF
Lv.1	Details Dust-colleting type E 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case When checking the consumption level of parts/replacing the parts
	Adj/set/operate method To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution Clear the counter value after replacement.
	Display/adj/set range 0 to 99999999
	Unit Number of sheets
	Default value 0
	Supplement/memo Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
STAMP	Stamp parts counter: DADF
Lv.1	Details To display the estimated life and parts counter of DADF stamp. 1st line: Total counter value from the previous replacement 2nd line: Estimated life to be entered by operator
	Use case At replacement
	Adj/set/operate method To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution Clear the counter value after replacement.
	Display/adj/set range 0 to 99999999
	Unit Number of sheets
	Default value 0

COPIER > COUNTER > DRBL-2	
PD-PU-RL	Pickup Roller parts counter: Deck
Lv.1	Details Pickup Roller (Front/Rear) of Paper Deck/POD Deck Lite/Multi Deck (Upper) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case When checking the consumption level of parts/replacing the parts
	Adj/set/operate method To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution Clear the counter value after replacement.
	Display/adj/set range 0 to 99999999
	Unit Number of sheets
	Default value 0
PD-SP-RL	Separation Roller parts counter: Deck
Lv.1	Details Separation Roller of Paper Deck/POD Deck Lite/Multi Deck (Upper) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case When checking the consumption level of parts/replacing the parts
	Adj/set/operate method To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution Clear the counter value after replacement.
	Display/adj/set range 0 to 99999999
	Unit Number of sheets
	Default value 0
PD-FD-RL	Feed Roller parts counter: Deck
Lv.1	Details Feed Roller of Paper Deck/POD Deck Lite/Multi Deck (Upper) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case When checking the consumption level of parts/replacing the parts
	Adj/set/operate method To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution Clear the counter value after replacement.
	Display/adj/set range 0 to 99999999
	Unit Number of sheets
	Default value 0



COPIER > COUNTER > DRBL-2		
NON-SORT		Non-sort path parts counter: Fin-F1
Lv.1	Details	Delivery static eliminator 1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of times
	Default value	0
	FIN-STPR	
Lv.1	Details	Stapler Unit 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of times
	Default value	0
	SDL-STPL	
Lv.1	Details	Saddle stapler unit 1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of times
	Default value	0

COPIER > COUNTER > DRBL-2		
PUNCH		Punch unit parts counter: Fin-D1/F1
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of times
	Default value	0
	SORT-2	
Lv.1	Details	Process upper unit knuring belt 1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	DL-STC-L	
Lv.1	Details	Fin-D1: Swing Guide Assembly Static Eliminator (Front/Rear) Fin-E1: Delivery Static Eliminator (Left) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > DRBL-2	
DL-STC-R	Static Eliminator prts cntr: Fin-D1/E1
Lv.1	Details
	Fin-D1: Feed Guide Assembly Static Eliminator Fin-E1: Delivery Static Eliminator (Right) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case
	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method
	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
STK-STC	Stck Delv Rol Sttc Elim prts cntr:Fin-D1
Lv.1	Details
	Process delivery static eliminator 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case
	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method
	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
SDL-STC1	Sddle feed upr gude inlet sttc cntr:F-F1
Lv.1	Details
	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case
	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0

COPIER > COUNTER > DRBL-2	
SDL-STC2	Sddle feed upr gude sttc elmtr cntr:F-F1
Lv.1	Details
	Inlet roller static eliminator 1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case
	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
SDL-RL	Saddle sprtn roller parts counter:Fin-F1
Lv.1	Details
	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case
	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
IS-P-RL1	Pickup Roll prts cntr: INS-K1/L1, PF/INS
Lv.1	Details
	INS-H1: Upper Tray Pickup Roller INS-J1, PF/INS: Inserter Pickup Roller 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case
	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method
	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0

COPIER > COUNTER > DRBL-2	
IS-S-RL1	Sprtn Roll prts cntr: INS-K1/L1, PF/INS
Lv.1	<p>Details</p> <p>INS-H1: Upper Tray Separation Roller INS-J1, PF/INS: Inserter Separation Roller 1st line: Total counter value from the previous replacement 2nd line: Estimated life</p> <p>Use case</p> <p>When checking the consumption level of parts/replacing the parts</p> <p>Adj/set/operate method</p> <p>To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.</p> <p>Caution</p> <p>Clear the counter value after replacement.</p> <p>Display/adj/set range</p> <p>0 to 99999999</p> <p>Unit</p> <p>Number of sheets</p> <p>Default value</p> <p>0</p>
IS-F-RL1	Feed Roller prts cntr: INS-K1/L1, PF/INS
Lv.1	<p>Details</p> <p>INS-H1: Upper Tray Feed Roller INS-J1, PF/INS: Inserter Feed Roller 1st line: Total counter value from the previous replacement 2nd line: Estimated life</p> <p>Use case</p> <p>When checking the consumption level of parts/replacing the parts</p> <p>Adj/set/operate method</p> <p>To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.</p> <p>Caution</p> <p>Clear the counter value after replacement.</p> <p>Display/adj/set range</p> <p>0 to 99999999</p> <p>Unit</p> <p>Number of sheets</p> <p>Default value</p> <p>0</p>
IS-TQLM1	Drive Torque Limt cntr:INS-K1/L1,PF/INS
Lv.1	<p>Details</p> <p>INS-H1: Upper Tray Torque Limiter INS-J1, PF/INS: Inserter Drive Torque Limiter 1st line: Total counter value from the previous replacement 2nd line: Estimated life</p> <p>Use case</p> <p>When checking the consumption level of parts/replacing the parts</p> <p>Adj/set/operate method</p> <p>To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.</p> <p>Caution</p> <p>Clear the counter value after replacement.</p> <p>Display/adj/set range</p> <p>0 to 99999999</p> <p>Unit</p> <p>Number of sheets</p> <p>Default value</p> <p>0</p>

COPIER > COUNTER > DRBL-2	
IS-P-RL2	Lowr Tray Pickup Roll prts cntr: INS-K1
Lv.1	<p>Details</p> <p>1st line: Total counter value from the previous replacement 2nd line: Estimated life</p> <p>Use case</p> <p>When checking the consumption level of parts/replacing the parts</p> <p>Adj/set/operate method</p> <p>To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.</p> <p>Caution</p> <p>Clear the counter value after replacement.</p> <p>Display/adj/set range</p> <p>0 to 99999999</p> <p>Unit</p> <p>Number of sheets</p> <p>Default value</p> <p>0</p>
IS-S-RL2	Lower Tray Sprtn Roll parts cntr: INS-K1
Lv.1	<p>Details</p> <p>1st line: Total counter value from the previous replacement 2nd line: Estimated life</p> <p>Use case</p> <p>When checking the consumption level of parts/replacing the parts</p> <p>Adj/set/operate method</p> <p>To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.</p> <p>Caution</p> <p>Clear the counter value after replacement.</p> <p>Display/adj/set range</p> <p>0 to 99999999</p> <p>Unit</p> <p>Number of sheets</p> <p>Default value</p> <p>0</p>
IS-F-RL2	Lower Tray Feed Roller prts cntr: INS-K1
Lv.1	<p>Details</p> <p>1st line: Total counter value from the previous replacement 2nd line: Estimated life</p> <p>Use case</p> <p>When checking the consumption level of parts/replacing the parts</p> <p>Adj/set/operate method</p> <p>To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.</p> <p>Caution</p> <p>Clear the counter value after replacement.</p> <p>Display/adj/set range</p> <p>0 to 99999999</p> <p>Unit</p> <p>Number of sheets</p> <p>Default value</p> <p>0</p>
IS-TQLM2	Lower Tray Torque Limt prts cntr: INS-K1
Lv.1	<p>Details</p> <p>1st line: Total counter value from the previous replacement 2nd line: Estimated life</p> <p>Use case</p> <p>When checking the consumption level of parts/replacing the parts</p> <p>Adj/set/operate method</p> <p>To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.</p> <p>Caution</p> <p>Clear the counter value after replacement.</p> <p>Display/adj/set range</p> <p>0 to 99999999</p> <p>Unit</p> <p>Number of sheets</p> <p>Default value</p> <p>0</p>

COPIER > COUNTER > DRBL-2		
TRM-CUT1		Cutter upper blade parts countr: trimmer
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of volume
	Default value	0
	Supplement/memo	Product name of trimmer: Trimmer-D1
TRM-CUT2		Cutter lower blade parts countr: trimmer
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of volume
	Default value	0
	Supplement/memo	Product name of trimmer: Trimmer-D1
TRM-BLT		Flat belt parts counter:2-knife trimmer
Lv.1	Details	Displaying the parts counter and the estimated life of trimmer flat belt. The 1st line shows the number of sheets transported after the previous replacement. 2nd line shows the estimated life entered by the operator.
	Use case	When replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item and enter the value.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > DRBL-2		
PNCH-RL		Aligner idler roller assy countr:P-Punchr
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-B1
PN-BP-RL		Bypass Roller Kit parts counter:P-Punchr
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-B1
PN-DR-RL		Energy Drive Roller parts countr:P-Punchr
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-B1

COPIER > COUNTER > DRBL-2		
PNCH-BLT		Aligner Belt parts counter: P-Puncher
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-B1
PNCH-SL		BackGage Solenoid parts counter:P-Punchr
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of times
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-B1
BEHL-RL		Stck Tray Ppr Rtrn Roll prts cntr:Fin-D1
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > DRBL-2		
TRM-CUT3		Top trim upr blade prts cntr: 2-knf trim
Lv.1	Details	Front upper blade 1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of 2-knife trimmer: 2-knife trimmer-A1
TRM-CUT4		Top trim low blade prts cntr: 2-knf trim
Lv.1	Details	Lower blade (front) 1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of 2-knife trimmer: 2-knife trimmer-A1
IU-ELM		Static eliminator parts counter: IFU
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > DRBL-2		
DIESET1		Die set 1 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET2		Die set 2 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET3		Die set 3 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET4		Die set 4 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET5		Die set 5 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET6		Die set 6 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET7		Die set 7 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET8		Die set 8 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET9		Die set 9 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET10		Die set 10 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET11		Die set 11 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET12		Die set 12 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET13		Die set 13 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET14		Die set 14 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET15		Die set 15 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET16		Die set 16 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET17		Die set 17 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET18		Die set 18 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1



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DIESET19		Die set 19 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET20		Die set 20 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET21		Die set 21 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET22		Die set 22 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET23		Die set 23 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET24		Die set 24 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET25		Die set 25 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET26		Die set 26 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET27		Die set 27 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET28		Die set 28 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET29		Die set 29 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET30		Die set 30 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET31		Die set 31 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET32		Die set 32 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET33		Die set 33 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET34		Die set 34 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET35		Die set 35 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET36		Die set 36 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET37		Die set 37 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET38		Die set 38 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET39		Die set 39 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET40		Die set 40 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET41		Die set 41 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET42		Die set 42 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET43		Die set 43 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET44		Die set 44 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET45		Die set 45 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET46		Die set 46 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET47		Die set 47 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET48		Die set 48 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET49		Die set 49 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET50		Die set 50 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET51		Die set 51 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET52		Die set 52 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET53		Die set 53 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET54		Die set 54 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET55		Die set 55 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET56		Die set 56 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET57		Die set 57 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET58		Die set 58 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET59		Die set 59 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET60		Die set 60 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET61		Die set 61 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET62		Die set 62 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET63		Die set 63 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1

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DIESET64		Die set 64 parts counter: P-Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
TRM-CUT5		Btm trim upr blade prts cntr: 2-knf trim
Lv.1	Details	Rear upper blade 1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of 2-knife trimmer: 2-knife trimmer-A1
TRM-CUT6		Btm trim low blade prts cntr: 2-knf trim
Lv.1	Details	Lower blade (rear) 1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Product name of 2-knife trimmer: 2-knife trimmer-A1



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FIN-ERT	Stk dlrvy rollr lowr sttc elmnt PC:F-F1
Lv.1	Details
	Stack delivery roller lower static eliminator 1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case
	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
SDL-JRL	Saddle align roller parts cnter:Fin-F1
Lv.1	Details
	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case
	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
SDL-STC3	Saddle mid sttc elmnt parts cnter:Fin-F1
Lv.1	Details
	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case
	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
	Supplement/memo
	Saddle middle static eliminator is the unified parts that consists of the static eliminator and mylar sheet.

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SDL-STC4	Sdle fed guide low sttcEM prts cnter:F-F1
Lv.1	Details
	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case
	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
FIN-FLP1	Upr Path Sw Solend prts cnter:Fin-F1
Lv.1	Details
	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case
	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
FIN-FLP2	Saddle Path Sw Solend prts cnter:Fin-F1
Lv.1	Details
	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case
	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
FIN-FLP3	Buf Path Sw SInd prts cnter:Fin-F1
Lv.1	Details
	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case
	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0

COPIER > COUNTER > DRBL-2		
TRY-SL		Auxlry Tr Lift Slnd prts cntr:Fin-F1
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
STP-BASE		Staple base unit parts counter:Fin-F1
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: estimated life
	Use case	When checking the consumption level of parts or replacing the parts.
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
BEHLTQLM		Tray 1/2 Torque Limt parts cntr: Fin-D1
Lv.1	Details	Process Tray Torque Limiter (Tray 1/2 Paper Retainer) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
SWG-RL		Proc Tray Ppr Rtn Roll prts cntr:Fin-D1
Lv.1	Details	Process Tray Paper Return Roller (Front/Rear) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > DRBL-2		
SWG-DL-1		Swng Ejectn Roll (F/R) prts cntr: Fin-D1
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
SWG-DL-2		Delivery Upr Roll (Ctr) prts cntr:Fin-D1
Lv.1	Details	Swing Guide Delivery Upper Roller (Center) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
SHT-CL		Swng Guide Electmag Clt prts cntr:Fin-D1
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
SHT-TQLM		Shutter Torque Limiter prts cntr: Fin-D1
Lv.1	Details	Stack Wall Lower Assembly Torque Limiter (Shutter) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > DRBL-2		
SWG-TQLM		Process Tray Torq Limt prts cntr: Fin-D1
Lv.1	Details	Process Tray Torque Limiter (Process Tray Paper Retainer) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	SUB-TQLM	
Lv.1	Details	Process Tray Torque Limiter (Sub Guide) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	TRY-TQLM	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	TR2-TQLM	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > DRBL-2		
SWG-RB		Proc Tray Ppr Rtnr Rubr prts cntr:Fin-D1
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	IS-CL2	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	IS-ELM1	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	IS-CL1	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > DRBL-2		
IS-RV-SL	Reverse Solenoid parts counter: INS-K1	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
IS-ELM2	Thru Feed Out Sttc Elim prts cntr:INS-K1	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
PF-ELM2	Thru Feed Out Sttc Elim prts cntr: PFU	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
PF-CL2	Pre-fold Lowr Rol Drv Clt2 prts cntr:PFU	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > DRBL-2		
PF-ELM1	Thru Feed Inlet Sttc Elim prts cntr: PFU	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
PF-CL1	Pre-fold Lowr Rol Drv Clt1 prts cntr:PFU	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
PF-RL-SL	Fold/Separation Solenoid parts cntr: PFU	
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
PF-FL-SL	Thru/Fold Flapper Solend parts cntr: PFU	
Lv.1	Details	Through/Fold Branch Flapper Solenoid 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > DRBL-2	
PF-ST-SL	C-fold Stopper Solenoid parts cntr: PFU
Lv.1	Details
	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case
	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method
	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
PF-TR-SL	C-fold Tray Branch Solend prts cntr: PFU
Lv.1	Details
	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case
	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method
	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
SWG-SL	Swing Solenoid parts counter: Fin-D1
Lv.1	Details
	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case
	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method
	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution
	Clear the counter value after replacement.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0

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## ■ H-DBL-A1

COPIER > COUNTER > H-DBL-A1	
FIN-CMN1	Sht cntr:Common feed path(to 12M):Fin-AF
Lv.1	Details
	Buffer upper cover unit, Buffer roller 1, Buffer roller 2, Buffer roller3, Pre-buffer feed roller, Side registration detection unit, Drive detection unit, Inlet feed roller, Shift unit 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case
	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after cleaning.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
FIN-UP1	Sht cntr:Uppr path delvry(to 12M):Fin-AF
Lv.1	Details
	Upper delivery roller 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case
	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after cleaning.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0
FIN-DWN1	Sht cntr:Lowr path delvry(to 12M):Fin-AF
Lv.1	Details
	Stack delivery roller 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case
	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method
	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution
	Clear the counter value after cleaning.
	Display/adj/set range
	0 to 99999999
	Unit
	Number of sheets
	Default value
	0

COPIER > COUNTER > H-DBL-A1		
FIN-PRC1		Sheet counter:Saddle feed(to 12M):Fin-AF
Lv.1	Details	Process unit, Process upper guide unit 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	FIN-SDL1	
Lv.1	Details	Saddle unit, Conveyer unit 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	IU-SL	
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	IU-BP-RL	
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > H-DBL-A1		
IU-RV-RL		Sht cntr:Reverse path roller(to 12M):IFU
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	PF-FLD	
Lv.1	Details	Fold roller 1 to 3, Fold motor, Folding unit front area static eliminator, Folding unit rear area static eliminator 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	PF-TRY	
Lv.1	Details	Folding unit bottom area static eliminator 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

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## ■ T-CNTR

COPIER > COUNTER > T-CNTR	
BLACK	[Not used]
Lv.1 Details	-

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## ■ SORTER

COPIER > COUNTER > SORTER		
DIESET1		Total punch No. of die set 1: P-Puncher
Lv.1	Details	Total punch number of die set 1 on Professional Puncher.
	Use case	When checking the usage status of each die set
	Unit	Number of times
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET2		Total punch No. of die set 2: P-Puncher
Lv.1	Details	Total punch number of die set 2 on Professional Puncher.
	Use case	When checking the usage status of each die set
	Unit	Number of times
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET3		Total punch No. of die set 3: P-Puncher
Lv.1	Details	Total punch number of die set 3 on Professional Puncher.
	Use case	When checking the usage status of each die set
	Unit	Number of times
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET4		Total punch No. of die set 4: P-Puncher
Lv.1	Details	Total punch number of die set 4 on Professional Puncher.
	Use case	When checking the usage status of each die set
	Unit	Number of times
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET5		Total punch No. of die set 5: P-Puncher
Lv.1	Details	Total punch number of die set 5 on Professional Puncher.
	Use case	When checking the usage status of each die set
	Unit	Number of times
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET6		Total punch No. of die set 6: P-Puncher
Lv.1	Details	Total punch number of die set 6 on Professional Puncher.
	Use case	When checking the usage status of each die set
	Unit	Number of times
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
DIESET7		Total punch No. of die set 7: P-Puncher
Lv.1	Details	Total punch number of die set 7 on Professional Puncher.
	Use case	When checking the usage status of each die set
	Unit	Number of times
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1











COPIER > COUNTER > SORTER		
DIESET64		Total punch No. of die set 64: P-Puncher
Lv.1	Details	Total punch number of die set 64 on Professional Puncher.
	Use case	When checking the usage status of each die set
	Unit	Number of times
	Default value	0
	Supplement/memo	Product name of P-Puncher: Professional Puncher-C1
FIN-DWN		Sheet counter of lower delivery: Fin-AF
Lv.1	Details	Counter to indicate the number of sheet that are delivered to the lower tray of the stacker
	Use case	At the time of checking the usage
	Unit	Number of sheets
	Default value	0
FIN-SDL		Sheet counter of saddle feed: Fin-AF
Lv.1	Details	Counter to indicate the number of sheets that go through the saddle assembly of the finisher
	Use case	At the time of checking the usage
	Unit	Number of sheets
	Default value	0
FIN-UP		Sheet counter of upper delivery: Fin-AF
Lv.1	Details	Counter to indicate the number of sheet that are delivered to the upper tray of the finisher
	Use case	At the time of checking the usage
	Unit	Number of sheets
	Default value	0
FIN-CMN		Sheet counter of common feed path:Fin-AF
Lv.1	Details	Counter to indicate the number of sheets that go through the common feed path of the finisher
	Use case	At the time of checking the usage
	Unit	Number of sheets
	Default value	0
FIN-PRC		Sheet counter of process delivery:Fin-AF
Lv.1	Details	Counter to indicate the number of sheet that are delivered at the middle process of the finisher
	Use case	At the time of checking the usage
	Unit	Number of sheets
	Default value	0

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## ■ H-DBL-A2

COPIER > COUNTER > H-DBL-A2		
FIN-CMN2		Sht cntr of cmmn feed pth(to 24M):Fin-AF
Lv.1	Details	Inlet roller feed motor 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
FIN-PRC2		ST cntr of prcss tray divy(to 24M):Fn-AF
Lv.1	Details	Trailing edge drop motor 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
IU-BPS-M		Sht cntr of bypass feed motr(to 24M):IFU
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > H-DBL-A2		
IU-DRW-M		Sheet cuntr of lead-in motor(to 24M):IFU
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
IU-PRV-M		ST cntr; pre-revers feed mtr(to 24M):IFU
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
IU-RV-M		Sheet cuntr of reverse motor(to 24M):IFU
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
IU-EJT-M		ST cntr of revers dlrvy motr(to 24M):IFU
Lv.1	Details	1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

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## ■ H-DBL-A3

COPIER > COUNTER > H-DBL-A3		
FIN-CMN3		ST cntr of cmmn path feed(to 36M):Fin-AF
Lv.1	Details	Buffer motor, Pre-buffer feed motor, Side registration shift motor, Delivery motor 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
FIN-PRC3		STcntr of prcss tray dlrvy(to 36M):Fn-AF
Lv.1	Details	Process delivery motor 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
IS-ENT		Prt cntr:Thrh pth inlt feed area:Insrtr
Lv.1	Details	Through feed driven roll, Through feed roller (inlet) 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > H-DBL-A3		
IS-FD1		Prt cntr of upper bin feed area :Insertr
Lv.1	Details	Separation feed guide (upper) 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
PF-ENT		Parts cntr: Thrgh pth inlt feed area:PFU
Lv.1	Details	Through feed driven roll, Through feed roller(inlet) 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
PF-CNT		Prt cntr:Thrgh path center feed area:PFU
Lv.1	Details	Through feed driven roll, Through feed roller(center) 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > H-DBL-A3		
IS-FD2		Prt cntr of lower bin feed area :Insertr
Lv.1	Details	Separation feed guide (lower) 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
PF-EXT		Parts cntr: Thrgh pth exit feed area:PFU
Lv.1	Details	Drawer connector(housing), Drawer connector(socket) 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
IS-EXT		Prt cntr:Thrgh pth exit feed area:Insrtr
Lv.1	Details	Through feed driven roll, Through feed roller(exit) 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > H-DBL-A3		
IS-CNT		PT cnt:Thrh pth centr feed area:Insrtr
Lv.1	Details	Through feed driven roll, Through feed roller(center) 1st line: total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts or replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item and press the Clear key. To change the estimated life: Select the item, enter the value and press OK key.
	Caution	Clear the counter value after cleaning.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

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## ■ LF

COPIER > COUNTER > LF		
K-DRM-LF		Display of Drum Unit (Bk) life
Lv.1	Details	To display how much the Drum Unit (Bk) is close to the end of life in % (percentage).
	Use case	When checking the life of Drum Unit
	Display/adj/set range	0 to 100
	Unit	%
	Default value	0
	Related service mode	COPIER> FUNCTION> INSTALL> DRM-INIT

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## FEEDER

 DISPLAY

FEEDER > DISPLAY		
FEESIZE		Dis of original size detected by DADF
Lv.1	Details	To display the original size detected by DADF.
	Adj/set/operate method	N/A (Display only)
TRY-WIDE		Distance of Original Width Detect Slider
Lv.1	Details	To display the distance between the Original Width Detection Sliders.
	Use case	At original size detection error
	Adj/set/operate method	Check whether the value matching the slide position is displayed when the Original Width Slider is moved to the specified size width position.
	Display/adj/set range	0 to approx. 2970
	Unit	0.1 mm
SPSN-LMN		Dis of Post-sprtn Sensr emission voltage
Lv.1	Details	To display the light-emitting voltage value for the Post-separation Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Appropriate target value	Approx. 113
SPSN-RCV		Dis of Post-sprtn Sensr recv voltage
Lv.1	Details	To display the light-receiving voltage value for the Post-separation Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	Remove and insert the paper at the sensor position, and check the value at presence/absence of the paper.
	Display/adj/set range	0 to 1023
	Appropriate target value	At the presence of paper: 123 or lower, At the absence of paper: 179 or higher
RDSN-LMN		Dis of Lead Sensor emission voltage
Lv.1	Details	To display the light-emitting voltage value for the Lead Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Appropriate target value	Approx. 113

FEEDER > DISPLAY		
RDSN-RCV		Display of Lead Sensor reception voltage
Lv.1	Details	To display the light-receiving voltage value for the Lead Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	Remove and insert the paper at the sensor position, and check the value at presence/absence of the paper.
	Display/adj/set range	0 to 1023
	Appropriate target value	At the presence of paper: 123 or lower, At the absence of paper: 179 or higher
DRSN-LMN		Dis of Delivery Sensor emit voltg
Lv.1	Details	To display the light-emitting voltage value for the Delivery Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Appropriate target value	Approx. 113
DRSN-RCV		Dis of Delivery Sensor recv voltg
Lv.1	Details	To display the light-receiving voltage value for the Delivery Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	Remove and insert the paper at the sensor position, and check the value at presence/absence of the paper.
	Display/adj/set range	0 to 1023
	Appropriate target value	At the presence of paper: 123 or lower, At the absence of paper: 179 or higher
RGSN-LMN		Dis of Rgst Sensor emission voltage
Lv.1	Details	To display the light-emitting voltage value for the Registration Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Appropriate target value	25 to 179
RGSN-RCV		Display of Rgst Sensor reception voltage
Lv.1	Details	To display the light-receiving voltage value for the Registration Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	Remove and insert the paper at the sensor position, and check the value at presence/absence of the paper.
	Display/adj/set range	0 to 1023
	Appropriate target value	128 or higher (at the absence of paper)

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FEEDER > ADJUST		
DOCST	Adj of DADF img lead edge margin: front	
Lv.1	Details	To adjust the margin at the leading edge of the image for DADF scanning. Execute when the output image after DADF installation is dislocated. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the margin at the leading edge of the image is decreased by 0.1mm. (The image moves in the direction of the leading edge of the sheet.)
	Use case	- When installing DADF - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	0
LA-SPEED	Fine adj of DADF image magnifictn: front	
Lv.1	Details	To adjust the image magnification in vertical scanning direction for DADF scanning. As the value is incremented by 1, the image is reduced by 0.1% in vertical scanning direction. (The feeding speed increases, and the image is reduced.)
	Use case	- When installing DADF - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-30 to 30
	Unit	0.10%
	Default value	0
DOCST2	Adj of DADF img lead edge margin: back	
Lv.1	Details	To adjust the margin at the leading edge of the image for DADF scanning. Execute when the output image after DADF installation is dislocated. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the margin at the leading edge of the image is decreased by 0.1mm. (The image moves in the direction of the leading edge of the sheet.)
	Use case	- When installing DADF - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	0

FEEDER > ADJUST		
LA-SPD2	Fine adj of DADF image magnifictn: back	
Lv.1	Details	To adjust the image magnification in vertical scanning direction for DADF scanning. As the value is incremented by 1, the image is reduced by 0.1% in vertical scanning direction. (The feeding speed increases, and the image is reduced.)
	Use case	- When installing DADF - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-20 to 20
	Unit	0.10%
	Default value	0
ADJMCSN1	Zoom adj in 2-sided horz scan way: front	
Lv.1	Details	To make a fine adjustment of the front side image magnification in horizontal scanning direction at the time of DADF duplex scanning. As the value is incremented by 1, the image is reduced by 0.1% in horizontal scanning direction.
	Use case	When a displacement occurs to the front/back side image magnification at the time of duplex scanning
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-10 to 10
	Unit	0.10%
	Default value	0
ADJMCSN2	Zoom adj in 2-sided horz scan way: back	
Lv.1	Details	To make a fine adjustment of the back side image magnification in horizontal scanning direction at the time of DADF duplex scanning. As the value is incremented by 1, the image is reduced by 0.1% in horizontal scanning direction.
	Use case	When a displacement occurs to the front/back side image magnification at the time of duplex scanning
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-10 to 10
	Unit	0.10%
	Default value	0
ADJSSCN1	Zoom adj in 2-sided vert scan way: front	
Lv.1	Details	To make a fine adjustment of the front side image magnification in vertical scanning direction at the time of DADF duplex scanning. As the value is incremented by 1, the image is reduced by 0.1% in vertical scanning direction.
	Use case	When a displacement occurs to the front/back side image magnification at the time of duplex scanning
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-10 to 10
	Unit	0.10%
	Default value	0

FEEDER > ADJUST		
ADJSSCN2		Zoom adj in 2-sided vert scan way: back
Lv.1	Details	To make a fine adjustment of the back side image magnification in vertical scanning direction at the time of DADF duplex scanning. As the value is incremented by 1, the image is reduced by 0.1% in vertical scanning direction.
	Use case	When a displacement occurs to the front/back side image magnification at the time of duplex scanning
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-10 to 10
	Unit	0.10%
	Default value	0

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**FUNCTION**

FEEDER > FUNCTION		
SENS-INT		Initialization of DADF Sensors
Lv.1	Details	To initialize DADF Sensors.
	Use case	When replacing Reader Controller PCB / Post-separation Sensor 1 (SR2) / Post-separation Sensor 2 (SR3) / Post-separation Sensor 3 (PCB2) / Registration Sensor (PCB3) / Lead Sensor 1 (PCB4) / Lead Sensor 2 (SR5)
	Adj/set/operate method	Select the item, and then press OK key.
MTR-CHK		Specifying DADF Operation Motor
Lv.1	Details	To specify the DADF Motor to operate. The motor is activated by MTR-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 9 0: Pickup Motor (M1), 1: Feed Motor (M2), 2: Registration Motor (M3), 3: Read Motor (M4), 4: Delivery Motor (M5), 5: Disengagement Motor 1 (M6), 6: Disengagement Motor 2 (M7), 7: Tray Lifter Motor (M8), 8: Glass Shift Motor (M9), 9: Pickup Roller Unit Lifter Motor (M10)
	Related service mode	FEEDER> FUNCTION> MTR-ON
TRY-A4		Adj of DADF Tray width detect ref 1: A4
Lv.1	Details	To automatically adjust the paper width detection reference point 1 for the DADF Tray. (A4)
	Use case	- When replacing the Original Width Volume (VR) - When replacing the Reader Controller PCB/clearing RAM data
TRY-A5R		Adj of DADF Tray width detect ref 2: A5R
Lv.1	Details	To automatically adjust the paper width detection reference point 2 for the DADF Tray. (A5R)
	Use case	- When replacing the Original Width Volume (VR) - When replacing the Reader Controller PCB/clearing RAM data
TRY-LTR		Adj of DADF Tray width detect ref 1: LTR
Lv.1	Details	To automatically adjust the paper width detection reference point 1 for the DADF Tray. (LTR)
	Use case	- When replacing the Original Width Volume (VR) - When replacing the Reader Controller PCB/clearing RAM data
TRY-LTRR		Adj of DADF Tray width detect ref2: LTRR
Lv.1	Details	To automatically adjust the paper width detection reference point 2 for the DADF Tray. (LTRR)
	Use case	- When replacing the Original Width Volume (VR) - When replacing the Reader Controller PCB/clearing RAM data

FEEDER > FUNCTION	
FEED-CHK	Specifying DADF individual feed mode
Lv.1	Details
	To specify the feed mode for DADF. Feed operation is activated by FEED-ON.
	Use case
	At operation check
	Adj/set/operate method
	Enter the value, and then press OK key.
	Display/adj/set range
	0 to 3 0: 1-sided pickup/delivery operation 1: 2-sided pickup/delivery operation 2: 1-sided pickup/delivery operation (with stamp) 3: 2-sided pickup/delivery operation (with stamp)
	Related service mode
	FEEDER> FUNCTION> FEED-ON
FAN-CHK	Specifying DADF Operation Fan
Lv.1	Details
	To specify the DADF Fan to operate. The fan is activated by FAN-ON.
	Use case
	At operation check
	Adj/set/operate method
	Enter the value, and then press OK key.
	Display/adj/set range
	0 to 1 0: Motor Driver Cooling Fan (FM1) 1: Read Motor Cooling Fan (FM2)
	Related service mode
	FEEDER> FUNCTION>FAN-ON
FAN-ON	Operation check of DADF Fan
Lv.1	Details
	To start operation check for the fan specified by FAN-CHK.
	Use case
	At operation check
	Adj/set/operate method
	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Caution
	Be sure to press the OK key again after execution. The operation automatically stops after approximately 5 seconds, but is not completed unless the OK key is pressed (STOP is not displayed).
	Required time
	Approx. 5 seconds
	Related service mode
	FEEDER> FUNCTION> FAN-CHK
SL-CHK	Specifying DADF Operation Solenoid
Lv.1	Details
	To specify the DADF solenoid to operate. The solenoid is activated by SL-ON.
	Use case
	At operation check
	Adj/set/operate method
	Enter the value, and then press OK key.
	Display/adj/set range
	0 to 1 0: Disengagement Solenoid (SL1) 1: Stamp Solenoid (SL2)
	Related service mode
	FEEDER> FUNCTION> SL-ON

FEEDER > FUNCTION	
SL-ON	Operation check of DADF Solenoid
Lv.1	Details
	To start operation check for the solenoid specified by SL-CHK.
	Use case
	At operation check
	Adj/set/operate method
	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Caution
	Be sure to press the OK key again after execution. The operation automatically stops after approximately 5 seconds, but is not completed unless the OK key is pressed (STOP is not displayed).
	Required time
	Approx. 5 seconds
	Related service mode
	FEEDER> FUNCTION> SL-CHK
MTR-ON	Operation check of Motor
Lv.1	Details
	To start operation check for the motor specified by MTR-CHK.
	Use case
	At operation check
	Adj/set/operate method
	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Caution
	Be sure to press the OK key again after execution. The operation automatically stops after approximately 5 seconds, but is not completed unless the OK key is pressed (STOP is not displayed).
	Required time
	Approx. 5 seconds
	Related service mode
	FEEDER> FUNCTION> MTR-CHK
ROLL-CLN	Rotation of DADF Rollers
Lv.1	Details
	To rotate for cleaning the DADF Rollers. Clean the roller by putting the lint-free paper moistened with alcohol while it is rotating.
	Use case
	At roller cleaning
	Adj/set/operate method
	1) Select the item, and then press OK key. 2) Clean the rotating rollers with lint-free paper moistened with alcohol. 3) Press OK key. The rollers stop.
FEED-ON	Operation check of DADF individual feed
Lv.1	Details
	To start operation check for the feed mode specified by FEED-CHK.
	Use case
	At operation check
	Adj/set/operate method
	Select the item, and then press OK key.
	Related service mode
	FEEDER> FUNCTION> FEED-CHK

T-8-99


**OPTION**

FEEDER > OPTION		
SIZE-SW		ON/OFF of mixed paper detection:AB, Inch
Lv.1	Details	To set ON/OFF of mixed paper detection: AB configuration and Inch configuration
	Use case	When enabling to mix AB and Inch configuration sizes original
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF (Mixed paper is not detected), 1: ON (Mixed paper is detected)

T-8-100

## SORTER

 ADJUST

SORTER > ADJUST		
PNCH-Y		Adjust punch hole side regist position
Lv.1	Details	To adjust the punch hole in side registration direction. As the value is incremented by 1, the punch hole moves by 0.45 mm. +: Toward rear -: Toward front
	Use case	When the punch hole is misaligned in the side registration direction
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-5 to 5
	Unit	0.45 mm
	Default value	0
PF-A3Z1		Adj of A3 Z-fold position (1st): PFU
Lv.1	Details	To adjust the 1st fold position of A3 paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
PF-A3Z2		Adj of A3 Z-fold position (2nd): PFU
Lv.1	Details	To adjust the 2nd fold position of A3 paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
PF-B4Z1		Adj of B4 Z-fold position (1st): PFU
Lv.1	Details	To adjust the 1st fold position of B4 paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0

SORTER > ADJUST		
PF-B4Z2		Adj of B4 Z-fold position (2nd): PFU
Lv.1	Details	To adjust the 2nd fold position of B4 paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
PF-A4RZ1		Adj of A4R Z-fold position (1st): PFU
Lv.1	Details	To adjust the 1st fold position of A4R paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
PF-A4RZ2		Adj of A4R Z-fold position (2nd): PFU
Lv.1	Details	To adjust the 2nd fold position of A4R paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
PF-LDRZ1		Adj of LDR Z-fold position (1st): PFU
Lv.1	Details	To adjust the 1st fold position of LDR paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0

SORTER > ADJUST		
PF-LDRZ2		Adj of LDR Z-fold position (2nd): PFU
Lv.1	Details	To adjust the 2nd fold position of LDR paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
	PF-LGLZ1	
Lv.1	Details	To adjust the 1st fold position of LGL paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
	PF-LGLZ2	
Lv.1	Details	To adjust the 2nd fold position of LGL paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
	PFLTRRZ1	
Lv.1	Details	To adjust the 1st fold position of LTRR paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0

SORTER > ADJUST		
PFLTRRZ2		Adj of LTRR Z-fold position (2nd): PFU
Lv.1	Details	To adjust the 2nd fold position of LTRR paper Z-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
	PF-A4RC1	
Lv.1	Details	To adjust the 1st fold position of A4R paper C-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-30 to 75
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
	PF-A4RC2	
Lv.1	Details	To adjust the 2nd fold position of A4R paper C-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-75 to 45
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
	PFLTRRC1	
Lv.1	Details	To adjust the 1st fold position of LTRR paper C-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-30 to 75
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0

SORTER > ADJUST	
PFLTRRC2	Adj of LTRR C-fold position (2nd): PFU
Lv.1	Details
	To adjust the 2nd fold position of LTRR paper C-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case
	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-75 to 45
	Unit
	0.5 mm
	Appropriate target value
	0
	Default value
	0
PF-A4R31	Adj of A4R out-3-fold position(1st): PFU
Lv.1	Details
	To adjust the 1st fold position of A4R paper out-3-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case
	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-65 to 65
	Unit
	0.5 mm
	Appropriate target value
	0
	Default value
	0
PF-A4R32	Adj of A4R out-3-fold position(2nd): PFU
Lv.1	Details
	To adjust the 2nd fold position of A4R paper out-3-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case
	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-65 to 65
	Unit
	0.5 mm
	Appropriate target value
	0
	Default value
	0
PFLTRR31	Adj of LTRR out-3-fold pstn (1st): PFU
Lv.1	Details
	To adjust the 1st fold position of LTRR paper out-3-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case
	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-65 to 65
	Unit
	0.5 mm
	Appropriate target value
	0
	Default value
	0

SORTER > ADJUST	
PFLTRR32	Adj of LTRR out-3-fold pstn (2nd): PFU
Lv.1	Details
	To adjust the 2nd fold position of LTRR paper out-3-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case
	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-65 to 65
	Unit
	0.5 mm
	Appropriate target value
	0
	Default value
	0
PF-A4R41	Adj of A4R 4-fold position (1st): PFU
Lv.1	Details
	To adjust the 1st fold position of A4R paper 4-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case
	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-75 to 30
	Unit
	0.5 mm
	Appropriate target value
	0
	Default value
	0
PF-A4R42	Adj of A4R 4-fold position (2nd): PFU
Lv.1	Details
	To adjust the 2nd fold position of A4R paper 4-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case
	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-65 to 65
	Unit
	0.5 mm
	Appropriate target value
	0
	Default value
	0
PFLTRR41	Adj of LTRR 4-fold position (1st): PFU
Lv.1	Details
	To adjust the 1st fold position of LTRR paper 4-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case
	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-75 to 30
	Unit
	0.5 mm
	Appropriate target value
	0
	Default value
	0

SORTER > ADJUST		
PFLTRR42		Adj of LTRR 4-fold position (2nd): PFU
Lv.1	Details	To adjust the 2nd fold position of LTRR paper 4-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-65 to 65
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
PF-A4R21		Adj of A4R 2-fold position (1st): PFU
Lv.1	Details	To adjust the 1st fold position of A4R paper 2-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-75 to 30
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
PFLTRR21		Adj of LTRR 2-fold position (1st): PFU
Lv.1	Details	To adjust the 1st fold position of LTRR paper 2-fold position on Paper Folding Unit. As the value is incremented by 1, the fold position moves by 0.5mm.
	Use case	When the fold position adjustment in user mode is inadequate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-75 to 30
	Unit	0.5 mm
	Appropriate target value	0
	Default value	0
PRCS-ALG		Adjust Process Tray Align Plate width
Lv.1	Details	To adjust the width of Alignment Plate on Finisher Process Tray Assembly. As the value is incremented by 1, the width of Alignment Plate is increased by 0.1mm. +: Increase (widen) -: Decrease (narrow)
	Use case	When the paper displacement occurs on paper stack
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm

SORTER > ADJUST		
STP-F1		Front 1-staple position (R size)
Lv.1	Details	To adjust the A4R/LGL/LTRR paper front 1-staple position on Finisher. As the value is incremented by 1, the staple position moves by 0.1mm. +: Toward front -: Toward rear
	Use case	When the A4R/LGL/LTRR paper front staple position is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
STP-F2		Front 1-staple position(half size)
Lv.1	Details	To adjust the A3/B4/A4/B5/LDR/LTR/EXEC/8K/16K paper front 1-staple position on Finisher. As the value is incremented by 1, the staple position moves by 0.1mm. +: Toward front -: Toward rear
	Use case	When the A3/B4/A4/B5/LDR/LTR/EXEC/8K/16K paper front staple position is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
STP-R1		Rear 1-staple position (R size)
Lv.1	Details	To adjust the A4R/LGL/LTRR paper rear 1-staple position on Finisher. As the value is incremented by 1, the staple position moves by 0.1mm. +: Toward front -: Toward rear
	Use case	When the A4R/LGL/LTRR paper rear staple position is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm



SORTER > ADJUST	
STP-R2	Rear 1-staple position (half size)
Lv.1	<p><b>Details</b></p> <p>To adjust the A3/B4/A4/B5/LDR/LTR/EXEC/8K/16K paper rear 1-staple position on Finisher. As the value is incremented by 1, the staple position moves by 0.1mm. +: Toward front -: Toward rear</p> <p><b>Use case</b></p> <p>When the A3/B4/A4/B5/LDR/LTR/EXEC/8K/16K paper rear staple position is displaced</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>-50 to 50</p> <p><b>Unit</b></p> <p>0.1 mm</p>
STP-2P	Adj front/rear 2-staple position
Lv.1	<p><b>Details</b></p> <p>To adjust the front/rear 2-staple position on Finisher. As the value is incremented by 1, the staple position moves by 0.1mm. +: Toward front -: Toward rear</p> <p><b>Use case</b></p> <p>When the front/rear 2-staple position is displaced</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>-50 to 50</p> <p><b>Unit</b></p> <p>0.1 mm</p>
BFF-SFT	Paper displace amount on buffer
Lv.1	<p><b>Details</b></p> <p>To adjust the paper displacement amount on Finisher Buffer Assembly. As the value is incremented by 1, the paper position moves by 0.1mm.</p> <p><b>Use case</b></p> <p>When the paper displacement occurs on the 1st to 3rd sheets of the 2nd sets (B5/A4/LTR) and later</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>-50 to 50</p> <p><b>Unit</b></p> <p>0.1 mm</p>
PNCH-X	Punch hole position in feed way
Lv.1	<p><b>Details</b></p> <p>To adjust the punch hole position on Finisher in feed direction. As the value is incremented by 1, the punch hole moves by 0.1mm. +: Toward delivery direction -: Toward inlet direction</p> <p><b>Use case</b></p> <p>When the punch hole is displaced in feed direction</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>-20 to 20</p> <p><b>Unit</b></p> <p>0.1 mm</p> <p><b>Appropriate target value</b></p> <p>0</p>

SORTER > ADJUST	
TRM-RG1	Skew adjust (small size)
Lv.1	<p><b>Details</b></p> <p>To adjust the skew of A4 size or smaller paper stack on Finisher Trimmer. As the value is incremented by 1, the paper stack stop position moves by 0.1mm. +: Toward delivery direction -: Toward inlet direction</p> <p><b>Use case</b></p> <p>When the skew occurs on A4 or smaller paper stack</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>-50 to 50</p> <p><b>Unit</b></p> <p>0.1 mm</p> <p><b>Appropriate target value</b></p> <p>0</p>
TRM-RG2	Skew adjust (large size)
Lv.1	<p><b>Details</b></p> <p>To adjust the skew of paper stack larger than A4 size on Finisher Trimmer. As the value is incremented by 1, the paper stack stop position moves by 0.1mm. +: Toward delivery direction -: Toward inlet direction</p> <p><b>Use case</b></p> <p>When the skew occurs on paper stack larger than A4 size</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>-50 to 50</p> <p><b>Unit</b></p> <p>0.1 mm</p> <p><b>Appropriate target value</b></p> <p>0</p>
TRM-CUT1	Trimming position adjust (small size)
Lv.1	<p><b>Details</b></p> <p>To adjust the trimming position of A4 size or smaller paper stack on Finisher Trimmer. As the value is incremented by 1, the paper stack stop position moves by 0.1mm. +: Toward delivery direction -: Toward inlet direction</p> <p><b>Use case</b></p> <p>When the trimming position is displaced on A4 or smaller paper stack</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>-50 to 50</p> <p><b>Unit</b></p> <p>0.1 mm</p> <p><b>Appropriate target value</b></p> <p>0</p>

SORTER > ADJUST		
TRM-CUT2		Trimming position adjust (large size)
Lv.1	Details	To adjust the trimming position of the paper stack larger than A4 size on Finisher Trimmer. As the value is incremented by 1, the paper stack stop position moves by 0.1mm. +: Toward delivery direction -: Toward inlet direction
	Use case	When the trimming position is displaced on the paper stack larger than A4 size
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Appropriate target value	0
BFF-SFT2		Paper displace amount on buffer
Lv.1	Details	To adjust the paper displacement amount on Finisher Buffer Assembly. As the value is incremented by 1, the paper position moves by 0.1mm.
	Use case	When the paper displacement occurs on the 2nd to 3rd sheets of the 2nd sets (B5/A4/LTR) and later
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	0
SDL-STP		Adj of Saddle Stitcher staple position
Lv.1	Details	To adjust the staple position of Saddle Stitcher. As the value is incremented by 1, the staple position moves by mm.
	Use case	When the staple position of the Saddle Stitcher is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-20 to 20
	Unit	mm
	Default value	0
SDL-FLD		Adj of Saddle Stitcher fold position
Lv.1	Details	To adjust the fold position of Saddle Stitcher. As the value is incremented by 1, the fold position moves by mm.
	Use case	When the fold position of the Saddle Stitcher is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-20 to 20
	Unit	mm
	Default value	0

SORTER > ADJUST		
SDL-ALG		Adj of Saddle Stitcher alignment width
Lv.1	Details	To adjust the alignment width of Saddle Stitcher. As the value is incremented by 1, the alignment width is increased by mm.
	Use case	When the misalignment occurs within a paper stack on the Saddle Stitcher
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-20 to 20
	Unit	mm
	Default value	0
SDL-RLPT		Adj Sddl Sttch Diseng Roll diseng amount
Lv.1	Details	To adjust the disengagement amount of Saddle Stitcher Disengagement Roller. As the value is incremented by 1, the disengagement amount is increased by mm.
	Use case	When the feed failure (with thin paper, etc.) occurs on the Saddle Stitcher
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-20 to 20
	Unit	mm
	Default value	0
SDL-RLFD		Adj Sddl Sttch Diseng Roller feed amount
Lv.1	Details	To adjust the feed amount of Saddle Stitcher Disengagement Roller. As the value is incremented by 1, the feed amount is increased by mm.
	Use case	When the feed failure (with thin paper, etc.) occurs on the Saddle Stitcher
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-20 to 20
	Unit	mm
	Default value	0
SDL-RLHD		Adj Sddl Sttch Diseng Roll fold position
Lv.1	Details	To adjust the fold position of Saddle Stitcher Disengagement Roller. As the value is incremented by 1, the fold position moves by mm.
	Use case	When the feed failure (with thin paper, etc.) occurs on the Saddle Stitcher
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-20 to 20
	Unit	mm
	Default value	0

SORTER > ADJUST		
BFR-UPA4		Adj Swng Roll rise tmg for A4:Fin-D1/E1
Lv.1	Details	To adjust the Swing Roller rise timing when A4 size paper is waited in the buffer path. As the value is incremented by 1, the rise timing becomes early by 1 msec. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment occurs in A4 size buffer paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 50
	Unit	1 msec
BFR-UPB5		Adj Swng Roll rise tmg for B5:Fin-D1/E1
Lv.1	Details	To adjust the Swing Roller rise timing when B5 size paper is waited in the buffer path. As the value is incremented by 1, the rise timing becomes early by 1 msec. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment occurs in B5 size buffer paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 50
	Unit	1 msec
BFR-UPLT		Adj Swng Roll rise tmg for LTR:Fin-D1/E1
Lv.1	Details	To adjust the Swing Roller rise timing when LTR size paper is waited in the buffer path. As the value is incremented by 1, the rise timing becomes early by 1 msec. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment occurs in LTR size buffer paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 50
	Unit	1 msec

SORTER > ADJUST		
RTR-DWA4		Adj Ppr Rtn Roll fall tmg (A4):Fin-D1/E1
Lv.1	Details	To adjust the Paper Return Roller fall timing when A4 size paper is waited in the buffer path. As the value is incremented by 1, the fall timing becomes early by 1msec. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment occurs in A4 size buffer paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-21 to 41
	Unit	1 msec
RTR-DWB5		Adj Ppr Rtn Roll fall tmg (B5):Fin-D1/E1
Lv.1	Details	To adjust the Paper Return Roller fall timing when B5 size paper is waited in the buffer path. As the value is incremented by 1, the fall timing becomes early by 1msec. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment occurs in B5 size buffer paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-21 to 41
	Unit	1 msec
RTR-DWLT		Adj Ppr Rtn Roll fall tmg(LTR):Fin-D1/E1
Lv.1	Details	To adjust the Paper Return Roller fall timing when LTR size paper is waited in the buffer path. As the value is incremented by 1, the fall timing becomes early by 1msec. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment occurs in LTR size buffer paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-21 to 41
	Unit	1 msec

SORTER > ADJUST	
BF-SB-A4	Adj switchback position for A4:Fin-D1/E1
Lv.1	<p><b>Details</b></p> <p>To adjust the paper switchback position when A4 size paper is waited in the buffer path. As the value is incremented by 1, the switchback amount is increased by 1mm. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.</p> <p><b>Use case</b></p> <p>When misalignment occurs in A4 size buffer paper</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>0 to 50</p> <p><b>Unit</b></p> <p>1 mm</p>
BF-SB-B5	Adj switchback position for B5:Fin-D1/E1
Lv.1	<p><b>Details</b></p> <p>To adjust the paper switchback position when B5 size paper is waited in the buffer path. As the value is incremented by 1, the switchback amount is increased by 1mm. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.</p> <p><b>Use case</b></p> <p>When misalignment occurs in B5 size buffer paper</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>0 to 50</p> <p><b>Unit</b></p> <p>1 mm</p>
BF-SB-LT	Adj swback position for LTR: Fin-D1/E1
Lv.1	<p><b>Details</b></p> <p>To adjust the paper switchback position when LTR size paper is waited in the buffer path. As the value is incremented by 1, the switchback amount is increased by 1mm. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.</p> <p><b>Use case</b></p> <p>When misalignment occurs in LTR size buffer paper</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>0 to 50</p> <p><b>Unit</b></p> <p>1 mm</p>

SORTER > ADJUST	
RTR-UPA4	Adj Ppr Rtn Roll rise angl(A4):Fin-D1/E1
Lv.1	<p><b>Details</b></p> <p>To adjust the Paper Return Roller rise angle when processing is performed to A4 size paper. As the value is incremented by 1, the roller rise angle is increased by 1 degree. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.</p> <p><b>Use case</b></p> <p>When misalignment occurs in A4 size buffer paper</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>1 to 44</p> <p><b>Unit</b></p> <p>1 deg</p> <p><b>Appropriate target value</b></p> <p>1</p>
RTR-UPB5	Adj Ppr Rtn Roll rise angl(B5):Fin-D1/E1
Lv.1	<p><b>Details</b></p> <p>To adjust the Paper Return Roller rise angle when processing is performed to B5 size paper. As the value is incremented by 1, the roller rise angle is increased by 1 degree. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.</p> <p><b>Use case</b></p> <p>When misalignment occurs in B5 size buffer paper</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>1 to 44</p> <p><b>Unit</b></p> <p>1 deg</p> <p><b>Appropriate target value</b></p> <p>1</p>
RTR-UPLT	Adj Ppr Rtn Rol rise angl(LTR):Fin-D1/E1
Lv.1	<p><b>Details</b></p> <p>To adjust the Paper Return Roller rise angle when processing is performed to LTR size paper. As the value is incremented by 1, the roller rise angle is increased by 1 degree. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.</p> <p><b>Use case</b></p> <p>When misalignment occurs in LTR size buffer paper</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>1 to 44</p> <p><b>Unit</b></p> <p>1 deg</p> <p><b>Appropriate target value</b></p> <p>1</p>

SORTER > ADJUST		
PUNCH-SB		Adj Punch Unit ppr swback amnt:Fin-D1/E1
Lv.1	Details	To adjust the paper switchback amount in the high accuracy punch mode of Finisher. As the value is incremented by 1, the switchback amount is increased by 1mm.
	Use case	When the punch accuracy deteriorates in the paper feed direction
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	2 to 4
	Unit	1 mm
	Appropriate target value	2
ST-ALG1		[Not used]
Lv.1	Details	-
ST-ALG2		[Not used]
Lv.1	Details	-
PRT-DWN		Ad stack retaining port time:Fin-D1
Lv.1	Details	To adjust the time the Stack Retainer in the Processing Tray moves down.
	Use case	When misalignment in feed direction occurs with papers in the Processing Tray
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 60
	Unit	1 msec
	Appropriate target value	30

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**FUNCTION**

SORTER > FUNCTION		
FN-SENS1		Adjust punched paper size sensor output
Lv.1	Details	To automatically adjust the output of A3/LDR/B4/A4R/B5R Sensors on the Finisher Punch Unit in order.
	Use case	- When installing/replacing the Punch Unit - When replacing the Punch Waste Sensor - When replacing the Finisher Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
	FN-SENS2	
Lv.1	Details	To automatically adjust the output of Punch Waste Sensor on the Finisher Punch Unit.
	Use case	- When installing/replacing the Punch Unit - When replacing the Punch Waste Sensor - When replacing the Finisher Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
CLEAR		[Not used]
Lv.1	Details	-
FIN-BK-R		Controller PCB backup data read
Lv.1	Details	To read the backup data from Finisher Controller PCB and save to the hard disk.
	Use case	When replacing the Finisher Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Required time	Approx. 5 minutes
	Related service mode	SORTER> FUNCTION> FIN-BK-W
	FLD-BK-W	
Lv.1	Details	Backup data saved on the hard disk is written to the paper folding unit controller PCB.
	Use case	At the replacement of paper folding unit controller PCB.
	Adj/set/operate method	Select the item and press OK key.
	Display/adj/set range	In processing: ACTIVE, at normal termination: OK, at abnormal termination: NG
	Required time	Approx. 5 min
	Related service mode	SORTER > FUNCTION > FLD-BK-R
PIU-BK-R		Backup data read of CON PCB: IFU
Lv.1	Details	Backup data is read from the I/F unit controller PCB and saved on the hard disk of the controller.
	Use case	At the replacement of I/F unit controller PCB.
	Adj/set/operate method	Select the item and press OK key.
	Display/adj/set range	In processing: ACTIVE, at normal termination: OK, at abnormal termination: NG
	Required time	Approx. 5 min
	Related service mode	SORTER > FUNCTION > PIU-BK-W

SORTER > FUNCTION		
INS-BK-R	Backup data read of CON PCB: M-inserter	
Lv.1	Details	Backup data is read from the multi inserter controller PCB and saved on the hard disk of the controller.
	Use case	At the replacement of multi inserter controller PCB.
	Adj/set/operate method	Select the item and press OK key.
	Display/adj/set range	In processing: ACTIVE, at normal termination: OK, at abnormal termination: NG
	Required time	Approx. 5 min
	Related service mode	SORTER > FUNCTION > INS-BK-W
FIN-BK-W	Controller PCB backup data write	
Lv.1	Details	To write the backup data saved on the hard disk to Finisher Controller PCB.
	Use case	When replacing the Finisher Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Required time	Approx. 5 minutes
	Related service mode	SORTER> FUNCTION> FIN-BK-R
FLD-BK-R	Backup data read of CON PCB: PFU	
Lv.1	Details	Backup data is read from paper folding unit controller PCB and saved on the hard disk.
	Use case	At the replacement of paper folding unit controller PCB.
	Adj/set/operate method	Select the item and press OK key.
	Display/adj/set range	In processing: ACTIVE, at normal termination: OK, at abnormal termination: NG
	Required time	Approx. 5 min
	Related service mode	SORTER > FUNCTION > FLD-BK-W
INS-BK-W	Backup data write of CON PCB: M-inserter	
Lv.1	Details	Backup data saved on the hard disk is written to the multi inserter controller PCB.
	Use case	At the replacement of multi inserter controller PCB.
	Adj/set/operate method	Select the item and press OK key.
	Display/adj/set range	In processing: ACTIVE, at normal termination: OK, at abnormal termination: NG
	Required time	Approx. 5 min
	Related service mode	SORTER > FUNCTION > INS-BK-R
PIU-BK-W	Backup data write of CON PCB: IFU	
Lv.1	Details	Backup data saved on the hard disk is written to the I/F unit controller PCB.
	Use case	At the replacement of I/F unit controller PCB.
	Adj/set/operate method	Select the item and press OK key.
	Display/adj/set range	In processing: ACTIVE, at normal termination: OK, at abnormal termination: NG
	Required time	Approx. 5 min
	Related service mode	SORTER> FUNCTION> PIU-BK-R

SORTER > FUNCTION		
VR1-A4R	Adj Uptr Tray width volume (A4R):Inserter	
Lv.1	Details	To adjust the paper minimum width (A4R) of Inserter Upper Tray automatically. The item can be also set with DIP switch of the Inserter (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the size mismatch jam is incorrectly detected at the pickup from Inserter Upper Tray
	Adj/set/operate method	1) Set the A4R paper on the Inserter Upper Tray and align it with the width of Slide Guide. 2) Select the item, and then press OK key.
VR1-A4	Adj Uptr Tray width volume (A4): Inserter	
Lv.1	Details	To adjust the paper maximum width (A4) of Inserter Upper Tray automatically. The item can be also set with DIP switch of the Inserter (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the size mismatch jam is incorrectly detected at the pickup from Inserter Upper Tray
	Adj/set/operate method	1) Set the A4 paper on the Inserter Upper Tray and align it with the width of Slide Guide. 2) Select the item, and then press OK key.
VR1-LTRR	Adj Uptr Tray width vol (LTRR): Inserter	
Lv.1	Details	To adjust the paper minimum width (LTRR) of Inserter Upper Tray automatically. The item can be also set with DIP switch of the Inserter (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the size mismatch jam is incorrectly detected at the pickup from Inserter Upper Tray
	Adj/set/operate method	1) Set the LTRR paper on the Inserter Upper Tray and align it with the width of Slide Guide. 2) Select the item, and then press OK key.
VR1-LTR	Adj Uptr Tray width vol (LTR): Inserter	
Lv.1	Details	To adjust the paper maximum width (LTR) of Inserter Upper Tray automatically. The item can be also set with DIP switch of the Inserter (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the size mismatch jam is incorrectly detected at the pickup from Inserter Upper Tray
	Adj/set/operate method	1) Set the LTR paper on the Inserter Upper Tray and align it with the width of Slide Guide. 2) Select the item, and then press OK key.

SORTER > FUNCTION		
VR2-A4R		Adj Lower Tray width vol (A4R): Inserter
Lv.1	Details	To adjust the paper minimum width (A4R) of Inserter Lower Tray automatically. The item can be also set with DIP switch of the Inserter (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the size mismatch jam is incorrectly detected at the pickup from Inserter Lower Tray
	Adj/set/operate method	1) Set the A4R paper on the Inserter Lower Tray and align it with the width of Slide Guide. 2) Select the item, and then press OK key.
VR2-A4		Adj Lower Tray width vol (A4): Inserter
Lv.1	Details	To adjust the paper maximum width (A4) of Inserter Lower Tray automatically. The item can be also set with DIP switch of the Inserter (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the size mismatch jam is incorrectly detected at the pickup from Inserter Lower Tray
	Adj/set/operate method	1) Set the A4 paper on the Inserter Lower Tray and align it with the width of Slide Guide. 2) Select the item, and then press OK key.
VR2-LTRR		Adj Lower Tray width vol (LTRR):Inserter
Lv.1	Details	To adjust the paper minimum width (LTRR) of Inserter Lower Tray automatically. The item can be also set with DIP switch of the Inserter (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the size mismatch jam is incorrectly detected at the pickup from Inserter Lower Tray
	Adj/set/operate method	1) Set the LTRR paper on the Inserter Lower Tray and align it with the width of Slide Guide. 2) Select the item, and then press OK key.
VR2-LTR		Adj Lower Tray width vol (LTR): Inserter
Lv.1	Details	To adjust the paper maximum width (LTR) of Inserter Lower Tray automatically. The item can be also set with DIP switch of the Inserter (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the size mismatch jam is incorrectly detected at the pickup from Inserter Lower Tray
	Adj/set/operate method	1) Set the LTR paper on the Inserter Lower Tray and align it with the width of Slide Guide. 2) Select the item, and then press OK key.

SORTER > FUNCTION		
FIN-CON		Controller PCB RAM clear
Lv.1	Details	To execute the RAM clear of Finisher Controller PCB to delete all the adjustment contents and counter information.
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. - The RAM data is cleared after the main power switch is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
PF-CON		Controller PCB RAM clear: PFU
Lv.1	Details	To execute the RAM clear of Inserter/Folder Controller PCB on Paper Folding Unit to delete all the adjustment contents and counter information.
	Adj/set/operate method	Select the item, and then press OK key.
PF-SENS1		Adj Slowdown Timing Sensor output: PFU
Lv.1	Details	To adjust the output of Slowdown Timing Sensor on Paper Folding Unit automatically.
	Use case	- When replacing the Slowdown Timing Sensor - When replacing the Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
PF-SENS2		Adj Release Timing Sensor output: PFU
Lv.1	Details	To adjust the output of Release Timing Sensor on Paper Folding Unit automatically.
	Use case	- When replacing the Release Timing Sensor - When replacing the Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
PF-SENS3		Adj Fold Position Sensor output: PFU
Lv.1	Details	To adjust the output of Fold Position Sensor on Paper Folding Unit automatically.
	Use case	- When replacing the Fold Position Sensor - When replacing the Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
PF-SENS4		Adj Upper Stopper Path Sensor output:PFU
Lv.1	Details	To adjust the output of Upper Stopper Path Sensor on Paper Folding Unit automatically.
	Use case	- When replacing the Upper Stopper Path Sensor - When replacing the Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
TRM-SENS		Adjust of Trimmer Dust Sensor output
Lv.1	Details	To adjust the output of Saddle Dust Sensor on Saddle Unit automatically.
	Use case	- When installing the Trimmer - When replacing the Trimmer Dust Sensor - When replacing the Saddle Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.

SORTER > FUNCTION		
IS-CON		DC Controller PCB RAM clear: Inserter
Lv.1	Details	To execute the RAM clear of Inserter DC Controller PCB to delete all the adjustment contents and counter information.
	Adj/set/operate method	Select the item, and then press OK key.

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 OPTION

SORTER > OPTION		
BLNK-SW		Set Saddle Finisher fold position margin
Lv.1	Details	To set the margin width of fold position on Saddle Finisher.
	Use case	When changing the margin width of fold position
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Normal, 1: Wider, 2: Entire image (no margin)
	Default value	2
MD-SPRTN		Restricted operation at Finisher error
Lv.1	Details	To set whether to stop the machine when an error occurs at Finisher.
	Use case	When preferring to run the machine at Finisher error occurrence
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When "1" is set, staple operation or alignment operation is not executed. Set "0" normally.
	Display/adj/set range	0 to 1 0: Normal, 1: Restricted operation
Default value	0	
CNTR-OUT		Set of center positn delivery at stacker
Lv.2	Details	To set whether to use the center position delivery when the stacker is used. When 1 is set, shift delivery is not executed but the center position delivery is excited.
	Use case	Upon user's request (when they do not want to execute shift delivery.)
	Caution	This can be enabled when the stacker is connected.
	Display/adj/set range	0 to 1 0: Not execute, 1: execute
	Default value	0



SORTER > OPTION	
SDL-PRS	Press operatn in saddle stitcher: Fin-AF
Lv.1	Details
	To set the press operation in saddle stitcher When wrinkle occurs, press operation is not executed. If stack is bulky in saddle-stitching result with 21 sheets or more, time to stop the press operation is extended.
	Use case
	<ul style="list-style-type: none"> <li>When troubles (wrinkle etc) at press operation occur. Especially, in the location of high-humid environment or thin paper is used.</li> <li>In case of saddle-stitching with 21 sheets or more, if stack is bulky due to the failure of folding accuracy.</li> </ul>
	Adj/set/operate method
	1) Enter the setting value and press OK. 2) Turn OFF/ON the main power switch.
	Caution
	If wrinkle occurs at press operation, do not execute the press operation.
	Display/adj/set range
	0 to 3 0: With press operation (one way only) 1: Without press operation 2: With press operation (both way) 3: Extend the time to stop the press operation in stack with 21 sheets or more (one way only)
	Default value
	0
BUFF-SW	ON/OFF of finisher buffer operatn: Fin-AF
Lv.1	Details
	To set ON/OFF of buffer operation in the Finisher. When misalignment occurs, set 1 to 4. When 1 is set, buffer operation is not performed for all jobs. Alignment performance is improved, but productivity decreases. When 2 is set, buffer operation is not performed only for non-binding jobs. Since buffer operation is performed for binding jobs, productivity improves, but alignment performance decreases. When 3 is set, buffer operation is not performed only for binding jobs. When 4 is set, it is not performed only for binding jobs with coated papers. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case
	When the misalignment of paper stack occurs (either lowest 3 sheets in side-stitching are displaced or center 3 sheets in saddle-stitching are displaced.)
	Adj/set/operate method
	Enter the setting value and press OK.
	Caution
	When the buffer operation is set to OFF, productivity is decreased.
	Display/adj/set range
	0 to 4 0: ON, 1: OFF, 2: OFF for non-binding job only, 3: OFF for binding job only, 4: OFF for binding job with coated paper only
	Default value
	0

SORTER > OPTION	
TRY-EJCT	Delivery control for thin paper: Fin-AF
Lv.1	Details
	To set the delivery control (delivery speed) for thin paper. When this is specified, all the jobs are delivered in the thin paper delivery speed regardless of media. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case
	When the stack failure of thin paper occurs.
	Adj/set/operate method
	1) Enter the setting value and press OK. 2) Turn OFF/ON the main power switch.
	Caution
	Priority is given to this setting over the upward curl mode setting in CURL-SW.
	Display/adj/set range
	0 to 1 0: Normal, 1: Delivery control for thin paper
	Default value
	0
	Related service mode
	SORTER > OPTION > CURL-SW
	Supplement/memo
	Same setting can also be specified on the service-purposed DIP switch on the finisher. Same setting value is applied to the finisher side and the host machine side.
PN-SKEW	Position accuracy of punch hole: Fin-AF
Lv.1	Details
	Set of punch hole position accuracy due to skew: Fin-AF To set the accuracy of punch hole when the punch hole is displaced due to paper skew.
	Use case
	If the punch hole is displaced by 2mm (approx) or more and also skew appears on the paper fed to the finisher.
	Adj/set/operate method
	Enter the setting value and press OK key.
	Caution
	As the greater value is set, skew is corrected more accurately; however, productivity is decreased.
	Display/adj/set range
	0 to 2 0: Normal mode, 1: skew tolerance increase mode, 2: skew tolerance decrease mode
	Default value
	0

SORTER > OPTION	
CURL-SW	Set of curl mode
Lv.1	<p><b>Details</b></p> <p>To set the delivery speed according to the curl direction (upward/downward curl). To improve the stack failure due to paper curl. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.</p> <p><b>Use case</b></p> <p>When stack failure occurs due to paper curl.</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value and press OK. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>0 to 2 0: Normal operation 1: Upward curl mode setting (accelerate the delivery speed at upper delivery/lower delivery) 2: Downward curl mode setting (decelerate the delivery speed at lower delivery)</p> <p><b>Default value</b></p> <p>0</p> <p><b>Related service mode</b></p> <p>SORTER &gt; OPTION &gt; TRY-EJCT</p> <p><b>Supplement/memo</b></p> <p>Same setting can be specified at the service-specific DIP switch on the finisher. Same setting value is applied to the finisher side and the host machine side.</p>
TRY-OVER	Set of fold ppr stack limit: Fin-D1
Lv.1	<p><b>Details</b></p> <p>To set the limit of stack capacity for half fold paper and Z-fold paper. When clearing the limit of stack capacity, paper can be stacked beyond the maximum stack capacity. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.</p> <p><b>Use case</b></p> <p>When stacking the paper beyond the maximum stack capacity of the Tray.</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>0 to 1 0: Normal operation, 1: Clearing limit of stack capacity</p> <p><b>Default value</b></p> <p>0</p>
TRM-LMT	Fore-edge minimum trim amount: trimmer
Lv.1	<p><b>Details</b></p> <p>According to the number of paper stack and the grammage, whether to set the limit of fore-edge minimum trimming amount of the booklet trimmer.</p> <p><b>Use case</b></p> <p>When the fore-edge trimming amount is set to small on the thick paper stack and if trimming failure occurs.</p> <p><b>Adj/set/operate method</b></p> <p>Enter the setting value and press OK key.</p> <p><b>Caution</b></p> <p>Actual trimming amount may be larger than the setting value.</p> <p><b>Display/adj/set range</b></p> <p>0 to 1 0: Fixed (normal), 1: limited</p> <p><b>Default value</b></p> <p>0</p>

SORTER > OPTION	
PUCH-SW	High-prdctvty/accurcy punch mod:Fin-D1
Lv.1	<p><b>Details</b></p> <p>To switch the high-productivity punch mode or high-accuracy punch mode of Finisher.</p> <p><b>Use case</b></p> <p>When switching the high-productivity punch mode or high-accuracy punch mode</p> <p><b>Adj/set/operate method</b></p> <p>Select the item, and then press OK key.</p> <p><b>Display/adj/set range</b></p> <p>0 to 1</p> <p><b>Default value</b></p> <p>0</p>
TRY-PATH	Tray switch set in non/staple mix:Fin-D1
Lv.1	<p><b>Details</b></p> <p>When the tray A is specified as a delivery source in staple/non-staple mixed, non-stapled paper is delivered from the upper path and stapled paper is delivered from the lower path so that the tray A moves up and down frequently and it decreases the productivity. When "1" is set, even through the tray A is specified as a delivery source, a part of non-stapled paper is delivered from the lower path to the tray B. This setting reduces the number to switch the tray while non-stapled paper may be output to 2 trays separately.</p> <p><b>Use case</b></p> <p>When the tray is switched frequently in staple/non-staple mixed mode and the productivity is reduced</p> <p><b>Adj/set/operate method</b></p> <p>Select the item and press OK key.</p> <p><b>Caution</b></p> <p>Explain to users that the delivery source for non-stapled paper will be changed and specify this setting after they agree with it.</p> <p><b>Display/adj/set range</b></p> <p>0 to 2 0: Tray switch reduction mode OFF, 1: ON, 2: Not use</p> <p><b>Default value</b></p> <p>0</p>
ALG-IMPR	Set Finisher alignment mode: Fin-D1
Lv.1	<p><b>Details</b></p> <p>To set the special mode for improving the alignment condition.</p> <p><b>Use case</b></p> <p>When using the special mode for improving the alignment condition</p> <p><b>Adj/set/operate method</b></p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p><b>Display/adj/set range</b></p> <p>0 to 20</p> <p><b>Appropriate target value</b></p> <p>0</p> <p><b>Default value</b></p> <p>0</p>

SORTER > OPTION	
BUFF-SW2	Set Finisher buffer operation: Fin-D1
Lv.1	Details
	To set ON/OFF of buffer operation in the Finisher. When misalignment occurs, set 1 to 4. When 1 is set, buffer operation is not performed for all jobs. Alignment performance is improved, but productivity decreases. When 2 is set, buffer operation is not performed only for non-binding jobs. Since buffer operation is performed for binding jobs, productivity improves, but alignment performance decreases. When 3 is set, buffer operation is not performed only for binding jobs. When 4 is set, it is not performed only for binding jobs with coated papers.
	Use case
	When misalignment occurs in the buffer paper delivered from the lower path
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When the buffer operation is set to OFF, productivity decreases.
	Display/adj/set range
	0 to 4 0: ON, 1: OFF, 2: OFF for non-binding job only, 3: OFF for binding job only, 4: OFF for binding job with coated paper only
	Default value
	0
1SHT-SRT	Set of 1-sheet Offset&Collate: Fin-D1
Lv.1	Details
	To set ON/OFF of Offset&Collate for 1-sheet document. When 1 is set, Offset&Collate for 1-sheet document is enabled, but the paper is not appropriately stacked.
	Use case
	When preferring to execute 1-sheet Offset&Collate
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
SD-LMTLS	Sddl delivery limitless oprtn: Fin-D1
Lv.1	Details
	To set ON/OFF of the Finisher Saddle Assembly limitless delivery operation. When 1 is set, "stack over" does not occur and saddle operation can be performed continuously, but the stacking condition decreases.
	Use case
	When preferring to perform saddle operation continuously
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When limitless operation is set to ON, the saddle stacking condition decreases.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0

SORTER > OPTION	
SD-STCNB	Sddl delivery stack quantity: Fin-D1
Lv.1	Details
	To increase the number of sets to be stacked to the Saddle Finisher. When 1 is set, the number of sets to be stacked to the Saddle Finisher is increased.
	Use case
	When preferring to increase the number of sets to be stacked to the Saddle Finisher
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	0 to 1 0: Common to small/large sizes 17 to 20 sheets booklet: 5 sets, 11 to 16 sheets booklet: 10 sets, 6 to 10 sheets booklet: 15 sets, 1 to 5 sheets booklet: 25 sets 1: <Small size> 17 to 20 sheets booklet: 20 sets, 11 to 16 sheets booklet: 30 sets, 6 to 10 sheets booklet: 40 sets, 1 to 5 sheets booklet: 50 sets <Large size> 17 to 20 sheets booklet: 10 sets, 11 to 16 sheets booklet: 20 sets, 6 to 10 sheets booklet: 30 sets, 1 to 5 sheets booklet: 40 sets
	Default value
	0
BUFF-THK	Set buffer oprtn for heavy paper: Fin-D1
Lv.1	Details
	To set ON/OFF of buffer operation for heavy paper (181 to 220g/m2). When 1 is set, productivity of sort and staple mode of Finisher is improved, but the stacking condition decreases.
	Use case
	When improving productivity of sort and staple mode for heavy paper (181 to 220g/m2)
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When improving productivity, the stacking condition may decrease.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
PRCS-SP1	Set stacking speed at Hvy sort: Fin-D1
Lv.1	Details
	When stacking heavy paper (181g/m2 or more) on the Finisher Process Tray, the speed is normally decreased. When 1 is set, the stacking speed at sort mode does not decrease and productivity is improved, but the stacking condition may decrease.
	Use case
	When improving productivity of sort mode for heavy paper (181g/m2 or more)
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When improving productivity, the stacking condition may decrease.
	Display/adj/set range
	0 to 1 0: Speed is decreased, 1: Speed is not decreased
	Default value
	0

SORTER > OPTION		
PRCS-SP2		Set stack SPD at Hvy sort/staple: Fin-D1
Lv.1	Details	When stacking heavy paper (181g/m <sup>2</sup> or more) on the Finisher Process Tray, the speed is normally decreased. When 1 is set, the stacking speed at sort and staple mode does not decrease and productivity is improved, but the stacking condition may decrease.
	Use case	When improving productivity of sort and staple mode for heavy paper (181g/m <sup>2</sup> or more)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When improving productivity, the stacking condition may decrease.
	Display/adj/set range	0 to 1 0: Speed is decreased, 1: Speed is not decreased
	Default value	0
BUFF-MX1		Buffer oprtn at mixed weight sort:Fin-D1
Lv.1	Details	To set ON/OFF of buffer operation when mixing papers which weights are different. When 1 is set, productivity of sort mode of Finisher is improved, but the stacking condition decreases.
	Use case	When improving productivity of sort mode in the case of mixing papers which weights are different
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When improving productivity, the stacking condition may decrease.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
BUFF-MX2		Buffer at mix weight sort/staple:Fin-D1
Lv.1	Details	To set ON/OFF of buffer operation when mixing papers which weights are different. When 1 is set, productivity of sort and staple mode of Finisher is improved, but the stacking condition decreases.
	Use case	When improving productivity of sort and staple mode in the case of mixing papers which weights are different
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When improving productivity, the stacking condition may decrease.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

SORTER > OPTION		
PRCS-MX1		Set stck SPD at mix ppr type sort:Fin-D1
Lv.1	Details	The speed is decreased when stacking papers on the Finisher Process Tray in the case of mixing papers which the paper types (paper weight or paper material) differ. When 1 is set, the stacking speed at sort mode does not decrease and productivity is improved, but the stacking condition may decrease.
	Use case	When improving productivity of sort mode in the case of mixing papers which the paper types differ
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When improving productivity, the stacking condition may decrease.
	Display/adj/set range	0 to 1 0: Speed is decreased, 1: Speed is not decreased
	Default value	0
	PRCS-MX2	
Lv.1	Details	The speed is decreased when stacking papers on the Finisher Process Tray in the case of mixing papers which the paper types (paper weight or paper material) differ. When 1 is set, the stacking speed at sort and staple mode does not decrease and productivity is improved, but the stacking condition may decrease.
	Use case	When improving productivity of sort and staple mode in the case of mixing papers which paper types differ
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When improving productivity, the stacking condition may decrease.
	Display/adj/set range	0 to 1 0: Speed is decreased, 1: Speed is not decreased
	Default value	0
BUF-THK1		Set No. of buffer for hvy ppr 1: Fin-D1
Lv.1	Details	To set the number of heavy paper 1 (91 to 180g/m <sup>2</sup> ) for buffer. When 1 is set, productivity of staple mode of Finisher is improved.
	Use case	When prioritizing productivity of staple mode of Finisher using heavy paper 1
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: 2 sheets, 1: 3 sheets
	Default value	0
	Related service mode	SORTER> OPTION> PRD-PRTY

SORTER > OPTION		
PRD-PRTY	Prdctvty prty btch at sort/staple:Fin-D	
Lv.1	Details	To simultaneously set productivity priority for BUFF-THK, PRCS-SP2, BUFF-MX2, PRCS-MX2, and BUF-THK1. When 1 is set, productivity of sort and staple mode of Finisher's corresponding items is improved.
	Use case	When prioritizing productivity of sort and staple mode of Finisher
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal, 1: Priority on productivity
	Default value	0
	Related service mode	SORTER> OPTION> BUFF-THK, PRCS-SP2, BUFF-MX2, PRCS-MX2, BUF-THK1
FIN-SP1	Finisher special settings 1	
Lv.2	Details	Execute the Finisher special settings 1.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	<ul style="list-style-type: none"> <li>Do not use this at the normal service.</li> <li>Take necessary action in accordance with the instructions from the Quality Support Division.</li> </ul>
	Display/adj/set range	00000000 to 11111111
	Unit	bit
	Default value	00000000
FIN-SP2	Finisher special settings 2	
Lv.2	Details	Execute the Finisher special settings 2.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	<ul style="list-style-type: none"> <li>Do not use this at the normal service.</li> <li>Take necessary action in accordance with the instructions from the Quality Support Division.</li> </ul>
	Display/adj/set range	00000000 to 11111111
	Unit	bit
	Default value	00000000
SLD-BCK	Setting of bleed-thru prev mode: Fin-D1	
Lv.1	Details	When the back of the coated paper as the cover is soiled, set 1/2.
	Use case	When the back of paper is soiled while coated paper is used as cover
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

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## BOARD

## OPTION

BOARD > OPTION	
MENU-1	Hide/dis of printer setting menu level 1
Lv.2	Details To set whether to display or hide the level 1 of printer setting menu.
	Use case Upon user's request
	Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range 0 to 1 0: Hide, 1: Display
	Default value 0
MENU-2	Hide/dis of printer setting menu level 2
Lv.2	Details To set whether to display or hide the level 2 of printer setting menu.
	Use case Upon user's request
	Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range 0 to 1 0: Hide, 1: Display
	Default value 0
MENU-3	Hide/dis of printer setting menu level 3
Lv.2	Details To set whether to display or hide the level 3 of printer setting menu.
	Use case Upon user's request
	Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range 0 to 1 0: Hide, 1: Display
	Default value 0
MENU-4	Hide/dis of printer setting menu level 4
Lv.2	Details To set whether to display or hide the level 4 of printer setting menu.
	Use case Upon user's request
	Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range 0 to 1 0: Hide, 1: Display
	Default value 0
FONTDL	ON/OFF of font setting screen display
Lv.1	Details To set whether to display the service-purposed setting screen of fonts which are listed using PS Kanji Font Downloader.
	Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range 0 to 1 0: Hide, 1: Display
	Default value 0

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# 9

## Installation

- Checking before Installation
- Table of Options Combination
- Checking the Contents
- Unpacking
- Installation
- When Relocating the Machine
- Printer Cover -B1
- Reader Heater Unit
- Cassette Heater Unit
- Paper Deck Heater Unit-A1
- Utility Tray-A1/A2
- Card Reader-C1/Copy Card Reader-F1
- Voice Guidance Kit-F1/F2
- Installation Procedure for Expansion Bus-F1/F2, IPsec Board-B2 and Wireless LAN Board-B1
- Additional Memory Type B (512MB)
- Combination of HDD Options

## Checking before Installation

Following shows requirements for the installation site.

Therefore, it is desirable to see the installation site in advance before bringing in the machine to the user's site.

### Checking Power Supply

1) There must be a properly grounded source of power that can be used exclusively by the following machines:

EUR: 200V/10A

USA: 120V/16A

### Checking the Installation Environment

1) The environment of the installation site must be in the range as shown below. Avoid installation near the faucet, water boiler, humidifier or refrigerator.

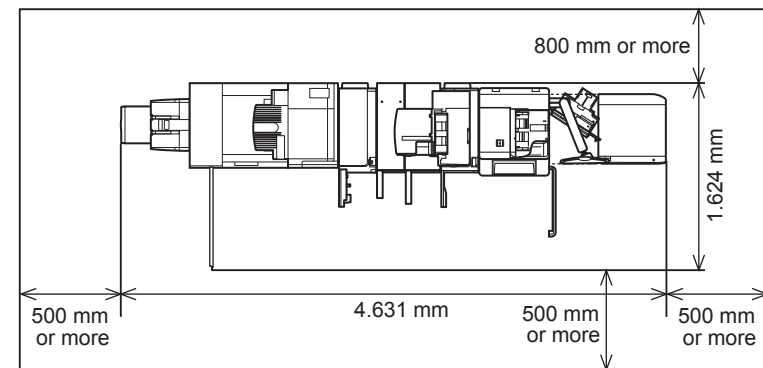
Guaranteed range for operation/image Temperature: 10.0 to 30.0 deg C, Humidity: 20 to 80%

2) The machine must not be installed near a source of fire or in an area subject to dust or ammonium gas. If the area is exposed to direct rays of the sun, provide curtains to the window.

3) Be sure to provide adequate ventilation of the room to keep the work environment comfortable. Room odor can be bothering when running the machine for a long time in a poorly-ventilated room although the ozone amount generated while running this equipment does not harm human health.

### Checking Installation Space

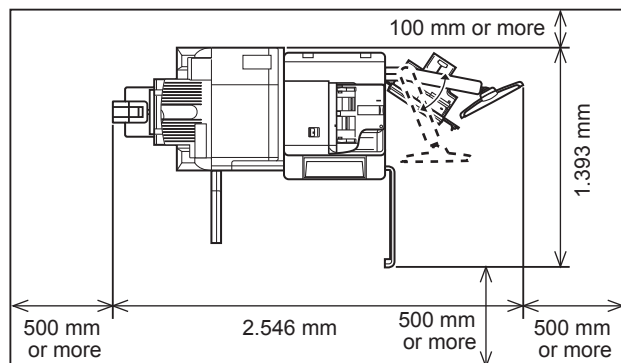
- 1) The foot of this equipment should be in contact with the floor. This equipment should be kept on the level.
  - 2) The machine must be away from the wall by 100mm or more to secure a sufficient space to operate the machine.
- The optional Booklet Trimmer, Booklet Finisher-F1 PRO, Paper Folding Unit, Professional Puncher Integration Unit, Professional Puncher, Document Insertion Unit, Duplex Color Image Reader Unit, and POD Deck Lite are attached.



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- The optional Booklet Finisher-F1 PRO and Duplex Color Image Reader Unit are attached.



F-9-2

**NOTE: Securing Space for Servicing**

The space required behind the machine differs according to whether any of the following options is installed or not.

Be sure to make necessary space in accordance with the conditions.

- Paper Folding Unit-H1
- Document Insertion Unit-K1
- Professional Puncher-C1
- Booklet Trimmer-D1

**<Space required behind the machine>**

- When any of the foregoing options is installed: 800mm or more
- When any of the foregoing options is not installed: 100mm or more

- To install the host machine, install it in a well-ventilated place. Especially when there are multiple host machines, be sure to locate the machine where the machine is free from direct exhaust of other machines. Be sure to keep the machine away from the air-inlet duct which is used for ventilation of the room.

## Points to Note at Installation Work

Take note of the following points when installing the host machine.

- Moving the host machine from a cool place to a warm place can generate condensation, causing moisture beads on the metal surface. Using the host machine while the machine is condensed can cause image failure. Therefore, when moving the machine from a cool place to a warm place to install, unpack the host machine and leave it for 2 hours or more before the installation work so that the machine becomes used to the room temperature.
- Be sure to work with a group of 4 or more people to install the host machine.

## Table of Options Combination

### NOTE:

Following table shows the combination of options to be installed at the right side of the host machine.

Refer to the table below to install the options described in the table. Be sure to check the combination before the installation work.

	Utility Tray	Voice Guidance Kit	Card Reader
Utility Tray	-	No	Yes
Voice Guidance Kit	No	-	Yes
Card Reader	Yes	Yes	-

T-9-1

Yes: installation is available, No: installation is not available

## Order to Install the Host machine and the Options

### NOTE:

In the case of installing the host machine and the other options at the same time, follow the order as described below to install the options first so that the installation operability is improved.



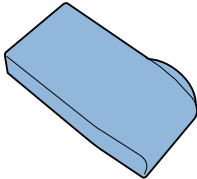
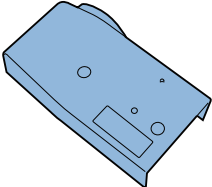
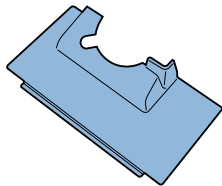
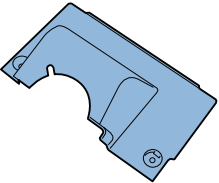
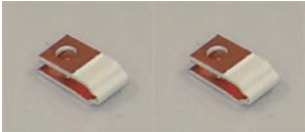


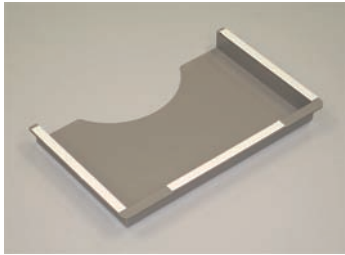
1. Checking before Installation
2. Unpacking
3. Installation of the Upright Control Panel
4. Installation of the Reader Unit or the Printer Cover
5. Installation of the Developing Assembly
6. Installation of the Pickup Assembly
7. Installing the Fixing Assembly
8. Installation of Toner Container
9. Installing the Exhaust Filter
10. Installing the Terminal Connector
11. Setting the Environment Heater Switch
12. Turning ON the Main Power
13. Installation of the Host machine
14. Other Installation Work
15. Setting the Deck and Paper Cassette
16. Auto Adjust Gradation
17. Image Position Adjustment

## Checking the Contents


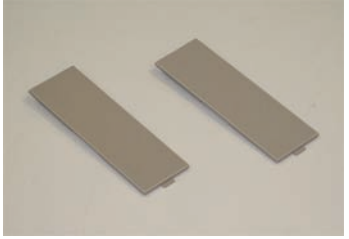

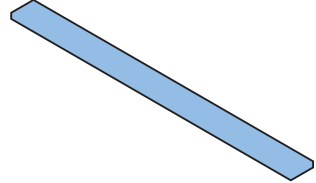
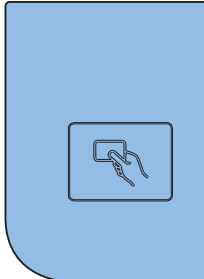

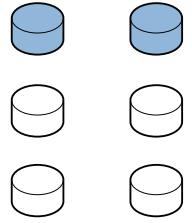
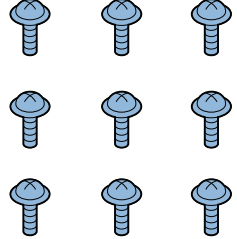
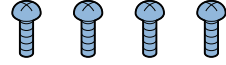

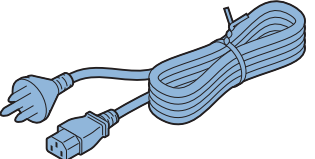
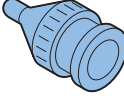
### <Parts to Be Used to Install the Host Machine>

**NOTE:**

- The Touch Pen is attached with the Control Panel.
- Use the correct power code to match the location/area of installation. Make sure not to leave unused power code at the site.
- The Rubber Caps [18] and the screws (Binding; M4x6) [21] are used both at installation of the host machine and at installation of the Reader Unit/Printer Cover.

<input type="checkbox"/> [1] Developing Assembly X 1 	<input type="checkbox"/> [2] Exhaust Filter X 1 	<input type="checkbox"/> [3] Base Cover (Front) X 1 	<input type="checkbox"/> [4] Base Cover (Rear) X 1 	<input type="checkbox"/> [5] Joint Cover L X 1 
<input type="checkbox"/> [6] Joint Cover R X 1 	<input type="checkbox"/> [7] Cable Clamp X 2 	<input type="checkbox"/> [8] Connection Seal (Front) X 1 	<input type="checkbox"/> [9] Connection Seal (Middle) X 1 	<input type="checkbox"/> [10] Service Book Holder X 1 

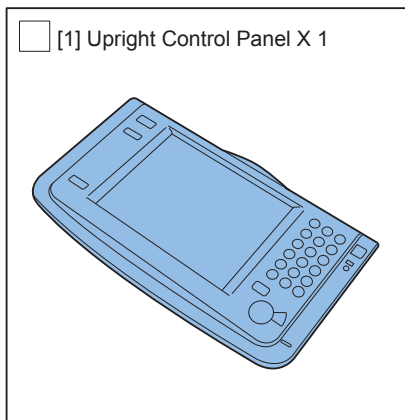
F-9-3

<input type="checkbox"/> [11] Size Plate R X 2 	<input type="checkbox"/> [13] Finisher Connector Cover X 2 	<input type="checkbox"/> [14] Cleaning Tool X 1 	<input type="checkbox"/> [15] Hook-and-Loop Fastener X1 EUR only 	<input type="checkbox"/> [16] Case Sheet (EU) X1 EUR only 
<input type="checkbox"/> [12] Size Plate L X 2 	<input type="checkbox"/> [18] Rubber Cap X 6 Use 2 of them 		<input type="checkbox"/> [19] Screw (RS Tightening; M4x10) X 9 	<input type="checkbox"/> [20] Screw (P Tightening; M3x8) X 4  <input type="checkbox"/> [21] Screw (Binding; M4x6) X 3 Use 1 of them 
<input type="checkbox"/> *[17] Power Code X 1 230V region only The connector has a different shape depending on locations. 				<input type="checkbox"/> [22] Terminal connector X 1 

\*: Use the correct power code to match the location/area of installation.  
 Make sure not to leave unused power code at the site.




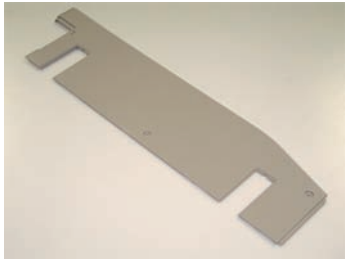

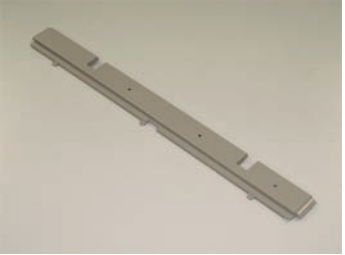
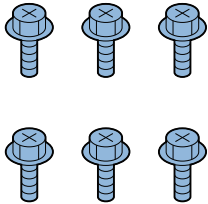

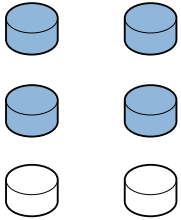
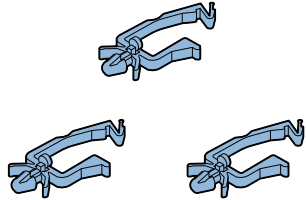
F-9-4

Upper area of the host machine (for the models with the Upright Control Panel)



F-9-5

<Parts to Be Used to Install the Reader Unit or the Printer Cover>

<input type="checkbox"/> [1] Reader Fixation Plate L X 1 	<input type="checkbox"/> [2] Reader Fixation Plate R X 1 	<input type="checkbox"/> [3] Left Rear Cover X 1 	<input type="checkbox"/> [4] Left Upper Cover X 1 	<input type="checkbox"/> [5] Right Upper Cover X 1 
<input type="checkbox"/> [6] Upper Rear Cover X 1 	<input type="checkbox"/> [7] Screw (RS Tightening; M4x10) X 6 	<input type="checkbox"/> [8] Screw (Binding; M4x6) X 3 Use 2 of them 	<input type="checkbox"/> [9] Rubber Cap X 6 Use 4 of them 	<input type="checkbox"/> [10] Wire Saddle X 3 

## &lt;CD/GUIDES&gt;

CD/GUIDES	North America	EUR	ASIA / AUS
e-Manual	1	3 (UK, FRA/SPA, ITA/GER)	1
Quick Reference	1		1
Users Guide	-	1	
Maintenance Guide	1		1
How to Use The Manuals	1	5 (UK, FRA, SPA, ITA, GER)	1
Registration for Purchase in USA	1		
Drum Unit Warranty	1		
Installation Check List	1		
UFR II User Software CD	1	1	1
iW Enterprise Manag, Console	1		
iW Access Management System	1		
iW Management Console CD	-	1	1
Frequently Asked Questions	1		1
Getting Started	1		1

T-9-2

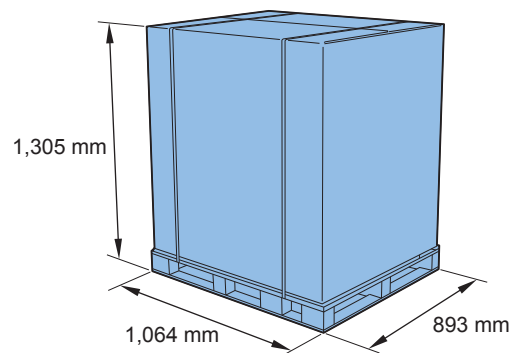
## Unpacking

### ⚠ CAUTION:

- The host machine weighs about 242kg. For safety, be sure to work carefully to move and install the machine.
- Be sure to work with a group of 4 or more people to install the host machine.

### NOTE:

- The dimension of the host machine and the transport container is as shown in the figure.
- Be sure to secure a space to unpack, and then start the installation work.



F-9-7



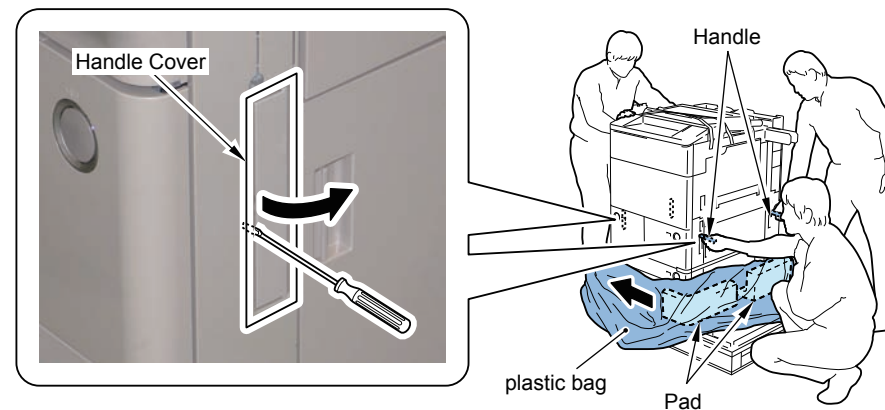
- 1) Pull the plastic bag all the way down.
- 2) Open 4 Handle Covers.
  - 1 Claw each



- 3) Hold the handles at the right side of the host machine and lift the host machine to remove the pad. Put the plastic bag aside in the direction of the arrow.

### CAUTION:

Be sure not to lift the host machine too much. Otherwise, it will lose the balance.



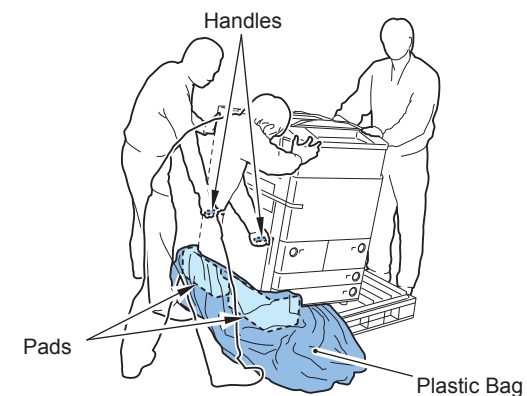
F-9-8



- 4) Hold the handles at the left side of the host machine and lift the host machine to remove the pad and the plastic bag.

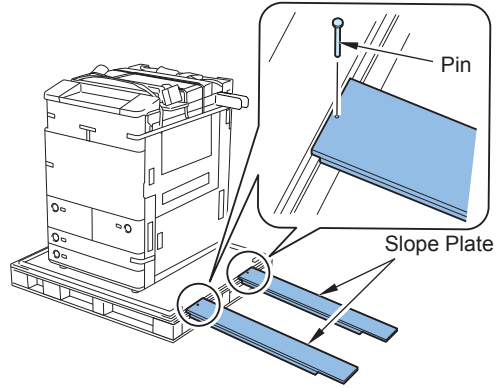
### CAUTION:

Be sure not to lift the host machine too much. Otherwise, it will lose the balance.



F-9-9

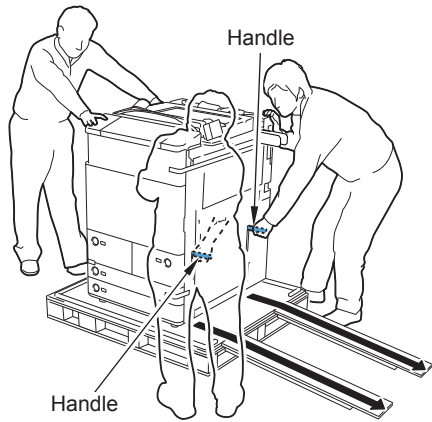
- 5) Take out the 2 Slope Plates stored at the right side of the Pallet and remove the 2 pins which are secured at the back of the Slope Plate with tape.
- 6) Turn around the 2 Slope Plates to install as shown in the figure, and then fit the pin-holes of the pallet with the pin-holes of the Slope Plates to put the 2 pins into the holes.



F-9-10

- 7) Hold the handles at the right side of the host machine, and then, while supporting the corner of the host machine, fit the casters to the center of the Slope Plate to slowly bring the machine down.

**CAUTION:**  
Be careful not to make the casters off from the Slope Plate.



F-9-11

- 8) Remove tapes on the exterior surface of the host machine.

**NOTE:**  
Do not remove 2 tapes for tags and a tape for the Filter Cover at this step. These tapes will be removed later on.



F-9-12

- 9) Close 4 Handle Covers.



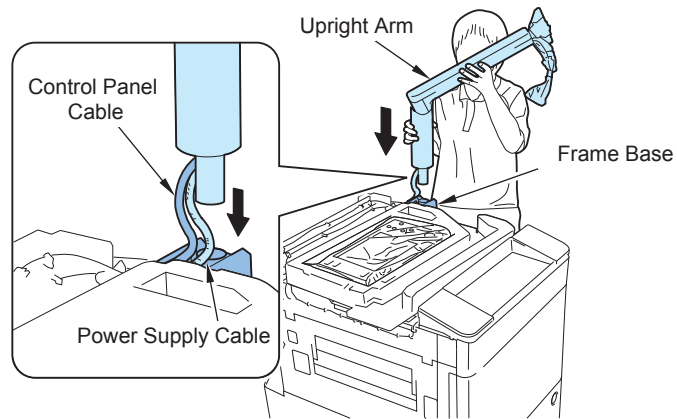
## Installation

### Installation of the Upright Control Panel

- 1) Put the Upright Arm straight into the round hole of the Frame Base.

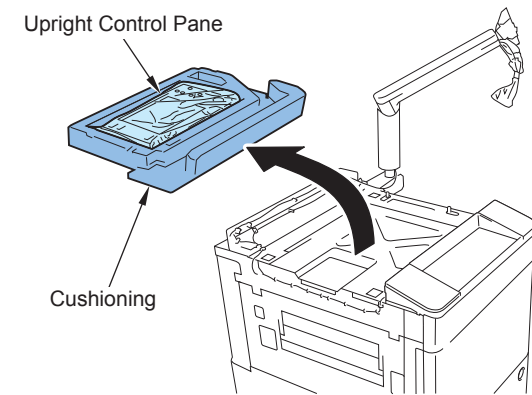
**CAUTION:**

Be sure to place the cables as indicated in the figure below.  
Be careful not to get the cables caught.



F-9-13

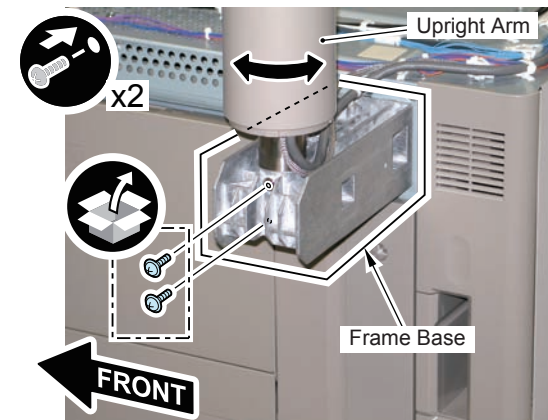
- 2) Bring down the Upright Control Panel together with the cushioning materials from the host machine.



F-9-14

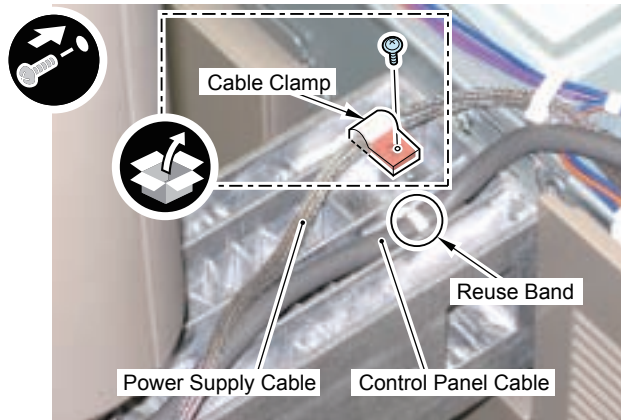
- 3) Align the hole on the Upright Arm and the hole on the Frame Base, and secure the Upright Arm in place.

- 2 screws (TP; M4x8)



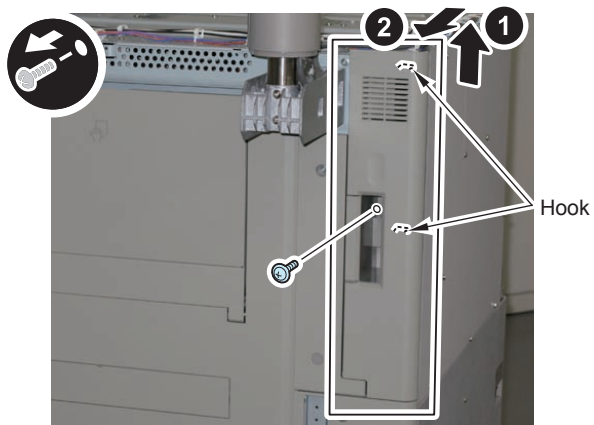
F-9-15

- 
- 4) Fix the Control Panel Cable with the Reuse Band.
- 5) Fix the Power Supply Cable with the Cable Clamp.
- 1 screw (TP; M4x8)



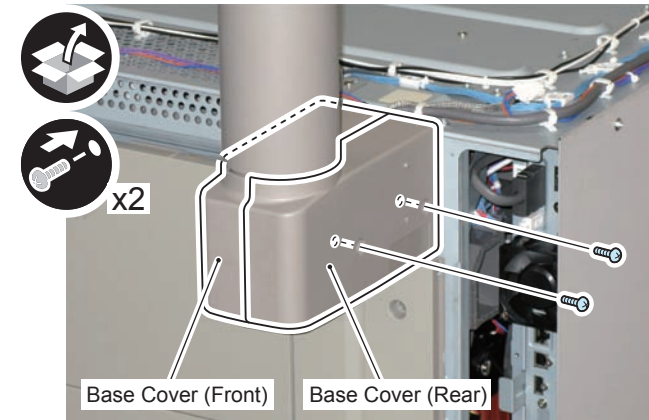
F-9-16

- 
- 6) Remove the Side Cover.
- 1 Screw
  - 2 Hooks



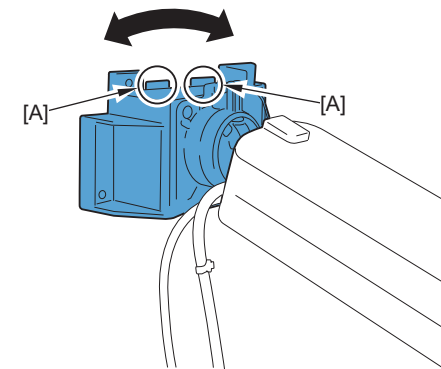
F-9-17

- 
- 7) Install the Base Cover (Front) and the Base Cover (Rear).
- 2 Screws (P Tightening; M3 x 8)



F-9-18

- 
- 8) Install the Side Cover.
- 9) Turn the Panel Base to make the [A] part with protrusion come to the upper side.

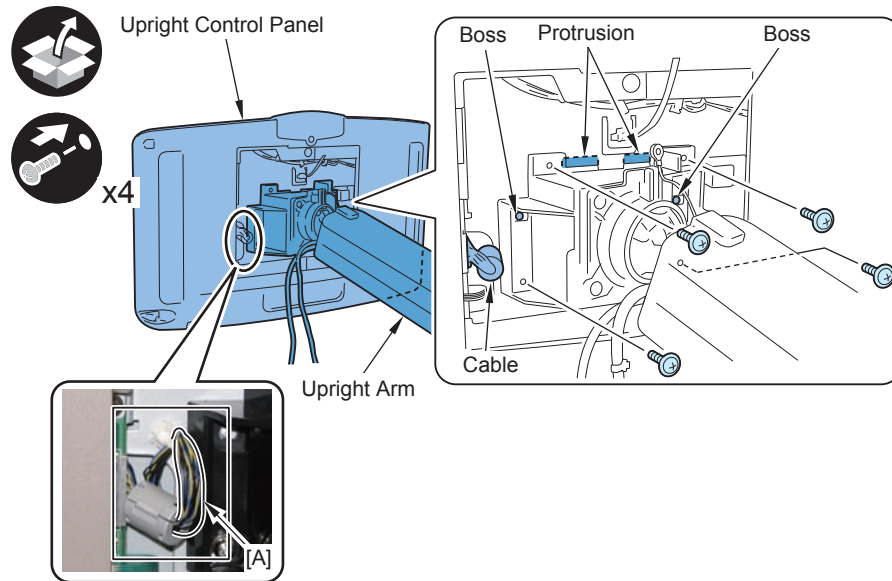


F-9-19

- 10) Install the Upright Control Panel to the Upright Arm.
- 2 Protrusions
  - 2 Bosses
  - 4 Screws (TP; M4 x 8)

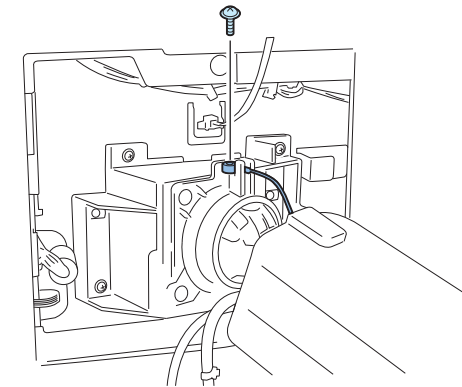
**CAUTION:**

- Be careful not to trap the Harness [A] with the Panel Base.
- Be sure to tighten the upper screw first.



F-9-20

- 11) Install the wire.
- 1 Screw (TP; M4 x 8)

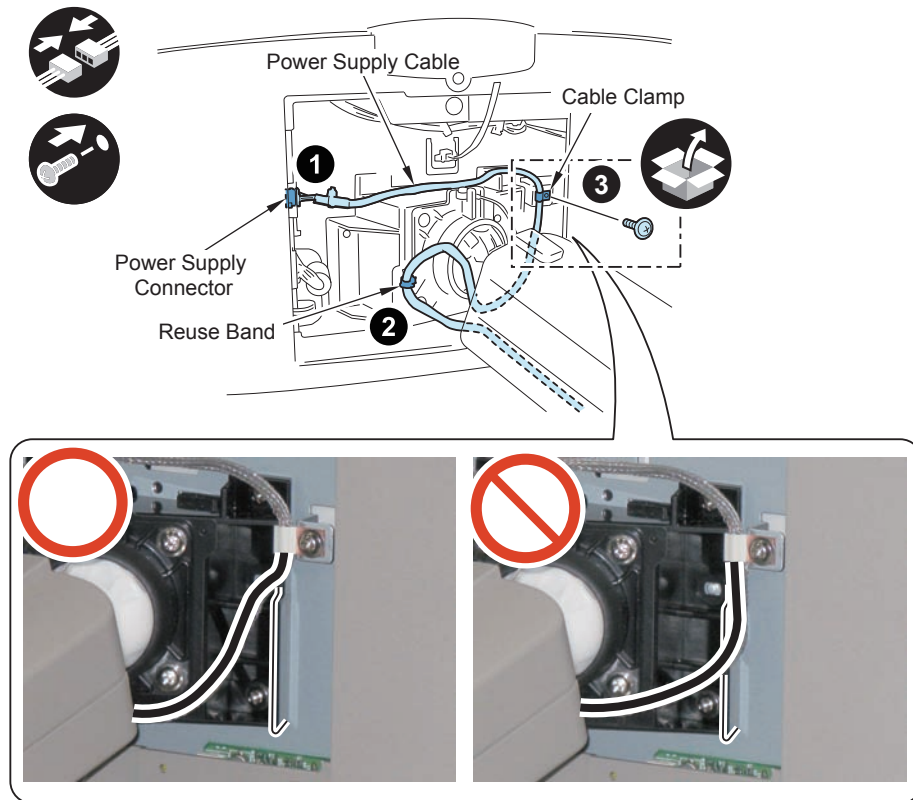


F-9-21

- 
- 12) Route the Power Supply Cable as shown in the figure and connect the Power Supply Connector.
- 13) Fix the Power Supply Cable with the Reuse Band and the Cable Clamp.
- 1 Screw (TP; M4 x 8)

## CAUTION:

- Be sure not to route the Power Supply Cable in clockwise direction.
- Route the Power Supply Cable at the bottom of the Cable Clamp to place inside the black guide.

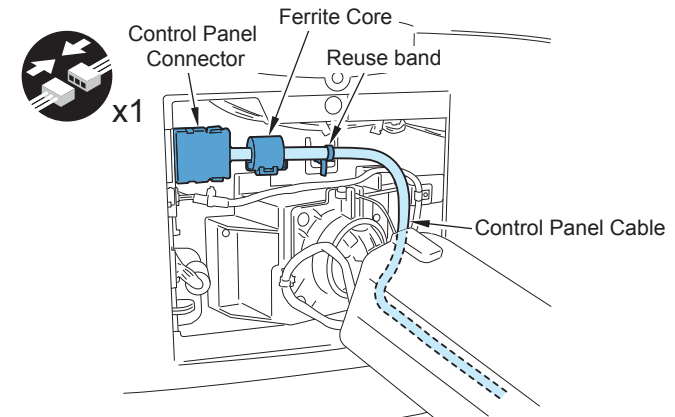


F-9-22

- 
- 14) Route the Control Panel Cable as shown in the figure and connect the Control Panel Connector.
- 15) Secure the cable with the Reuse Band and cut the extra part.

## CAUTION:

Be sure not to route the Control Panel Cable in clockwise direction.

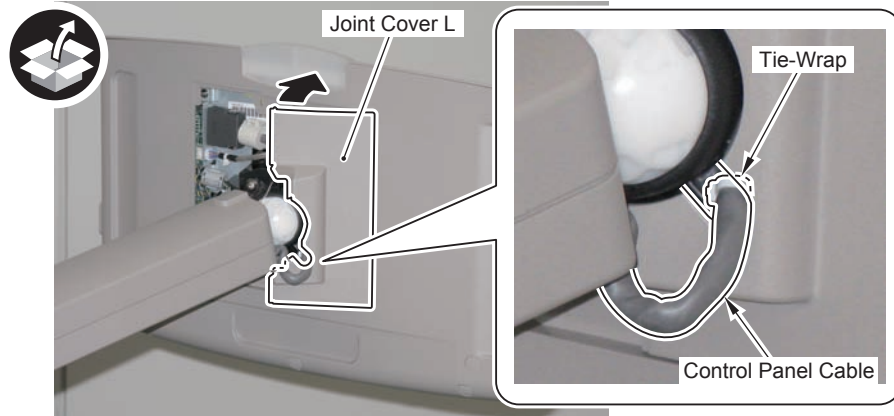


F-9-23

- 16) Install the Joint Cover L.

**CAUTION:**

Place the tie-wrap along with the groove of the Joint Cover L. At this time, be sure that the tie-wrap comes inside the groove.

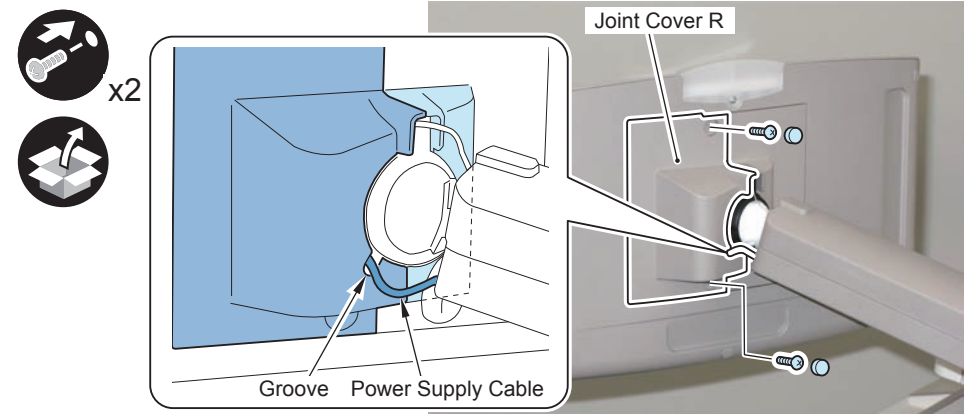


F-9-24

- 17) Install the Joint Cover R.
- 2 screws (P tightening: M3x8)
  - 2 rubber caps

**CAUTION:**

Be sure to put the Power Cable through groove on the Joint Cover R.



F-9-25

- 18) When installing the Reader or the Printer Cover at the same time, install it after installing the Control Panel.
- For Copier Model: Refer to "Installation Procedure" included in the Reader Unit.
  - For Printer Model: Refer to "Printer Cover B1" in this document.

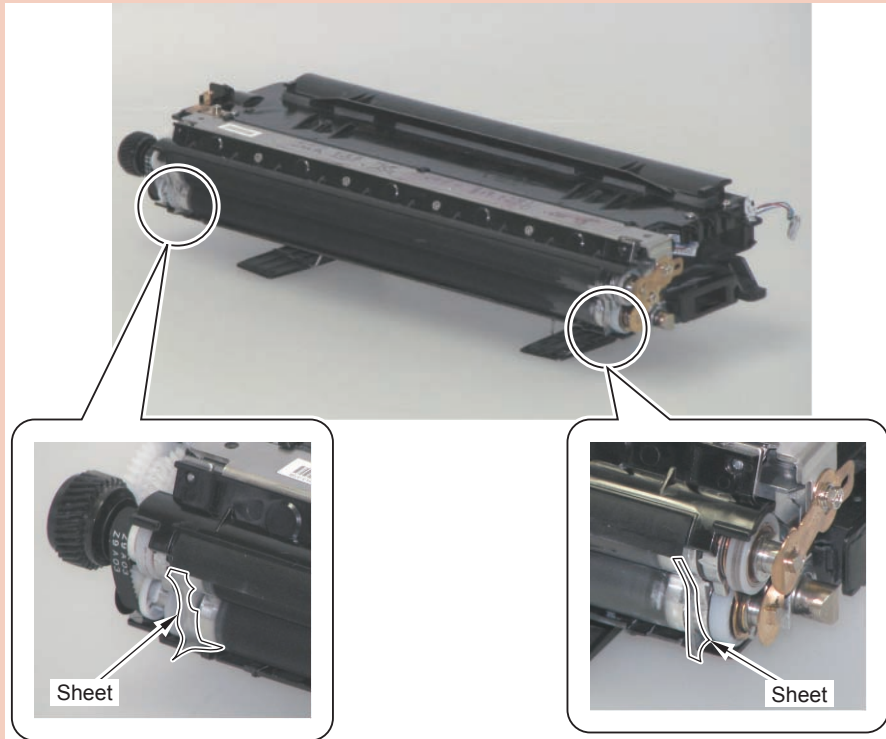
## Installing the Developing Assembly



1) Unpack the Developing Assembly.

CAUTION: Points to Caution when Installing the Developing Assembly

Be sure not to remove the Toner Blocking Sheet by mistake.



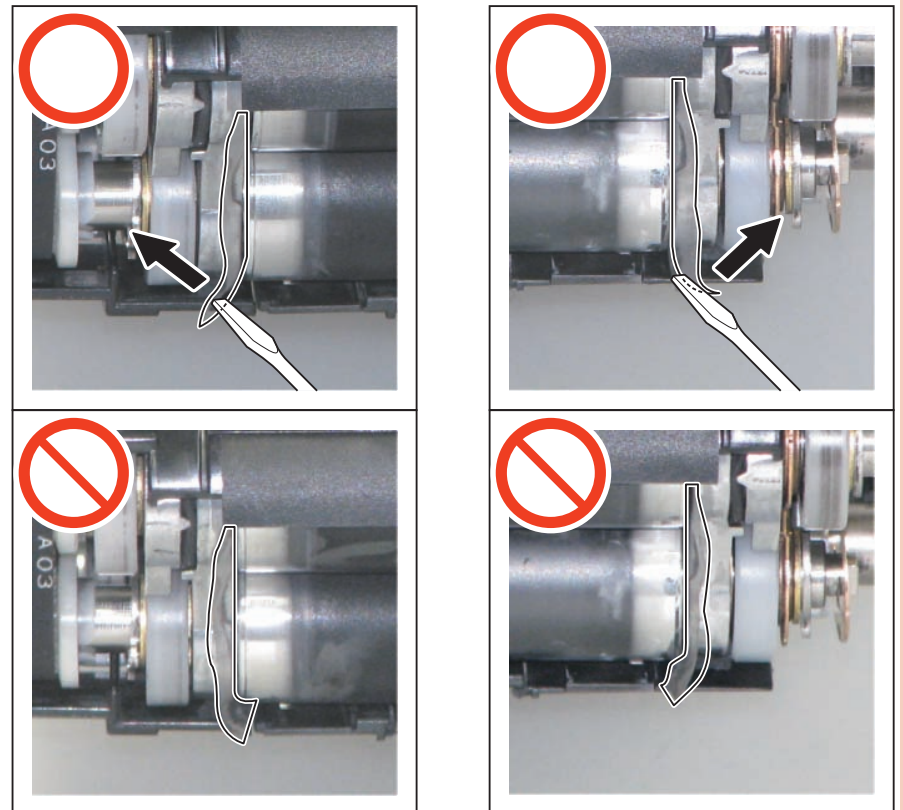
F-9-26

CAUTION: Checking and Adjusting the Direction of the Toner Blocking Sheet

Be sure to check the direction of the Toner Blocking Sheet before installing the Developing Assembly to the host machine.

If the Toner Blocking Sheet turns inward, image error due to toner scattering will occur, so adjust it to turn outward with a flat-blade screwdriver.

Be careful not to damage the Developing Assembly when adjusting the sheet.

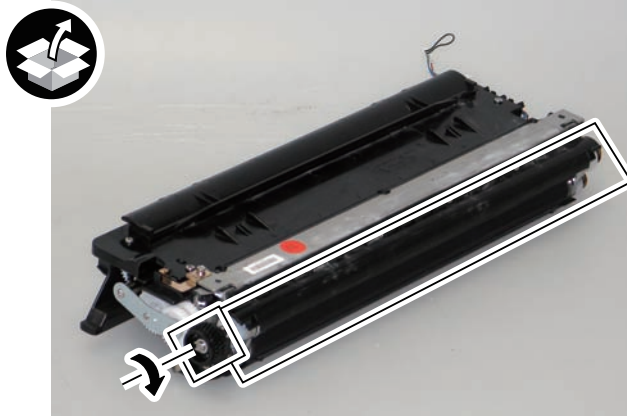


F-9-27

2) Check if there are any scratches on the cylinder while rotating the gear manually in the direction of the arrow.

**CAUTION:**

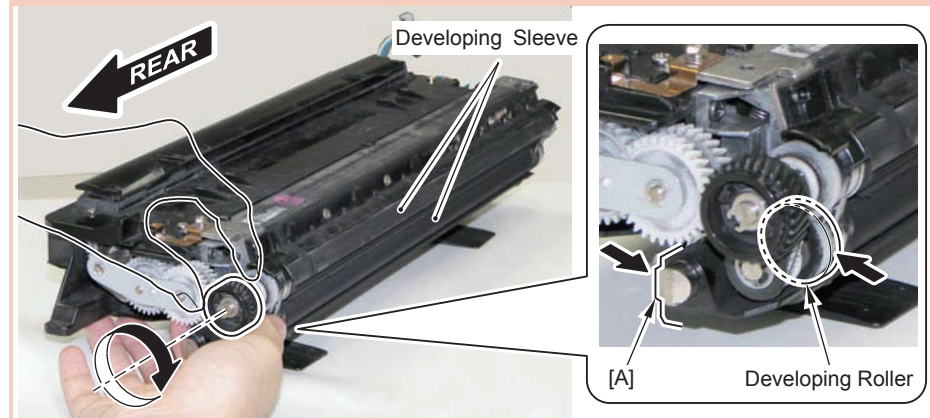
- Do not damage and touch the cylinder.
- Do not turn the gear inversely.



F-9-28

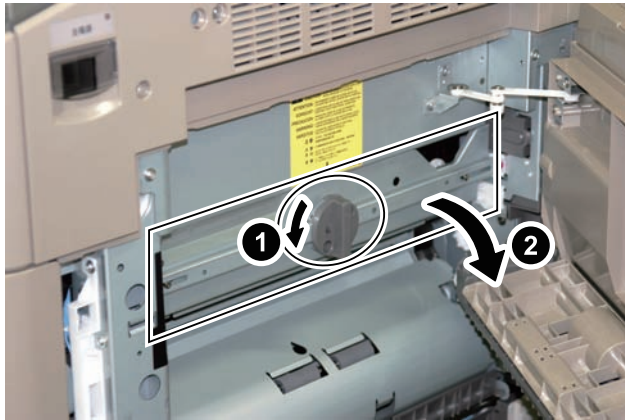
**CAUTION:** How to Check Scratches or Foreign Particles on the Developing Sleeve  
While engaging the Developing Lower Sleeve with the inside of the Developing Assembly by pushing the Developing Roller at lower side, rotate the gear a full turn or more clockwise by viewing it from front side and check whether there are any scratches or foreign particles in the Developing Sleeve.

- When pushing the Developing Roller, be sure to hold the Developing Roller at lower side and [A] part of the Developing Assembly.
- Be sure to rotate the gear clockwise, and be careful not to rotate it counterclockwise.
- If rotating the gear without pushing the Developing Roller, toner will be accumulated between the Developing Lower Sleeve and the seal (Toner clusters) If pushing the Developing Assembly against the drum in this condition, the Developing Lower Sleeve does not move to the appropriate position because of the toner clusters. As a result, the gap between the Developing Upper Sleeve and the drum (SD gap) will be widened. It causes low density at rear or deterioration of developer because it becomes hard to deposit toner onto the drum.



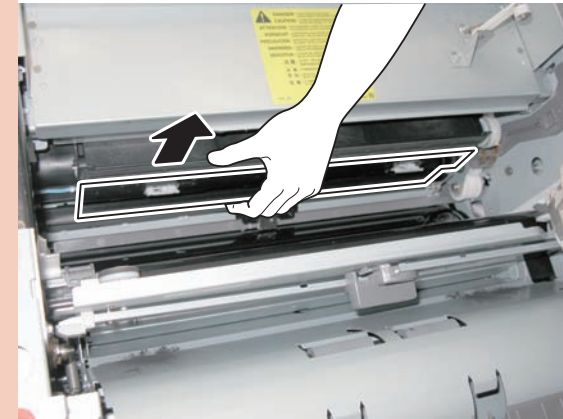
F-9-29

- 
- 3) Open the Right Cover.
- 4) Turn the Lock Lever, and open the Developing Assembly Pressure Cover.



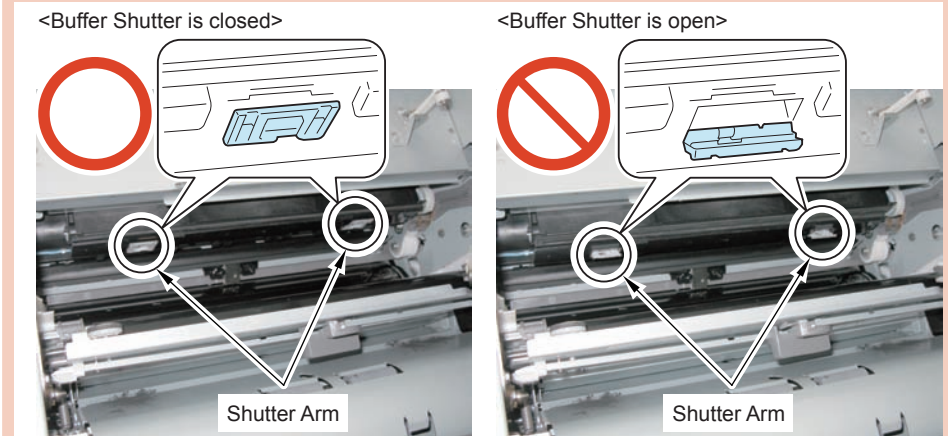
F-9-30

**CAUTION:**  
 Before installing the Developing Assembly, be sure to check that the Buffer Shutter is not opened.  
 If forcedly inserting the Developing Assembly while the Buffer Shutter is open, the Buffer Shutter may get damage. When the Buffer Shutter is open, be sure to close it by pulling it toward the front.



F-9-31

Whether the Developing Assembly is installed properly can be checked with the Shutter Arm.

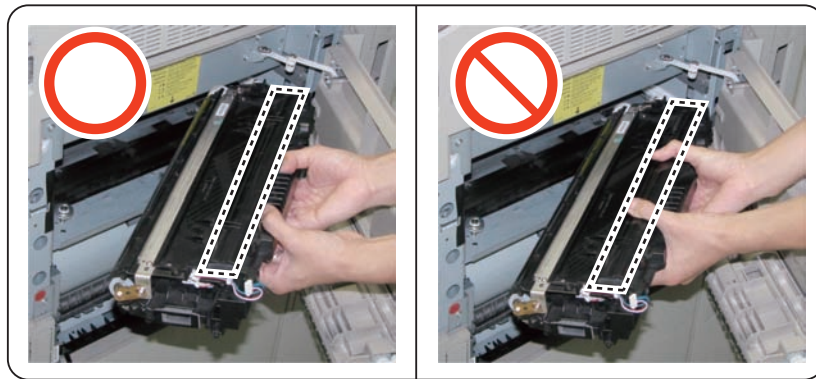


F-9-32



**CAUTION: How to Hold the Developing Assembly**

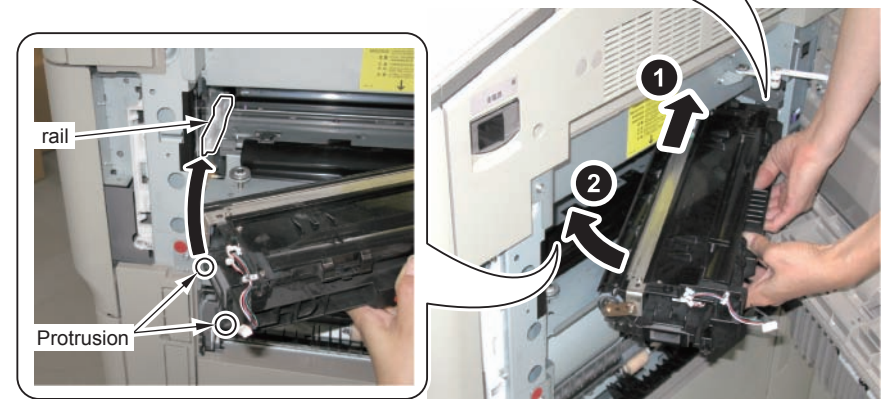
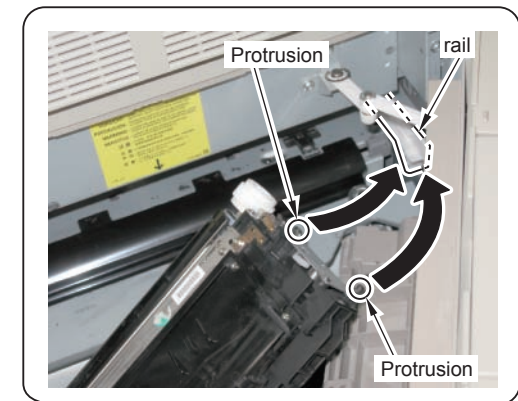
- When holding the Developing Assembly, be sure to hold the handle of the Developing Assembly as shown in the figure.
- Do not touch the shutter area of the Developing Assembly. The shutter area is slippery, so it may cause a fall of the assembly.



F-9-33

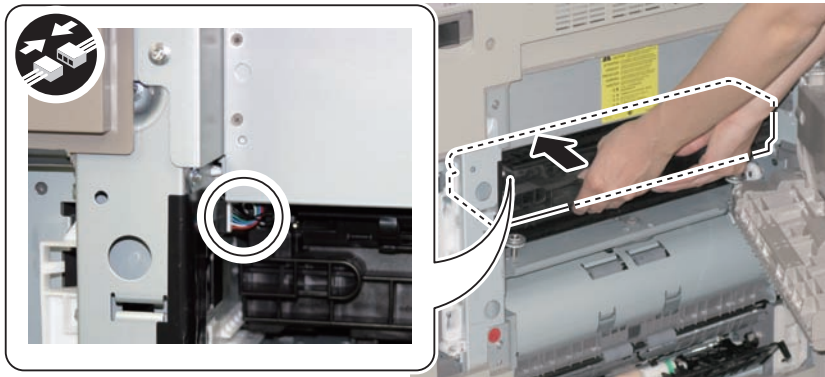


- 5) Hold the Developing Assembly as shown in the figure, and align the protrusions at both sides of the assembly with the rails on the host machine.



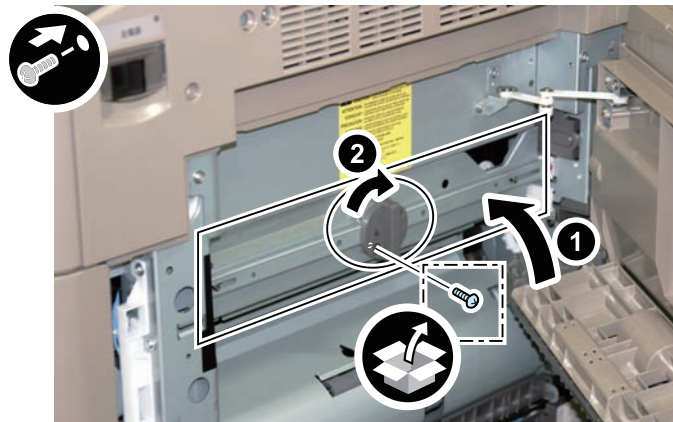
F-9-34

- 6) Along the rails, insert the Developing Assembly horizontally.
- 1 Connector



F-9-35

- 7) Close the Developing Assembly Pressure Cover and return the Lock Lever to the original position.
- 8) Secure with the Screw (Binding; M4x6).

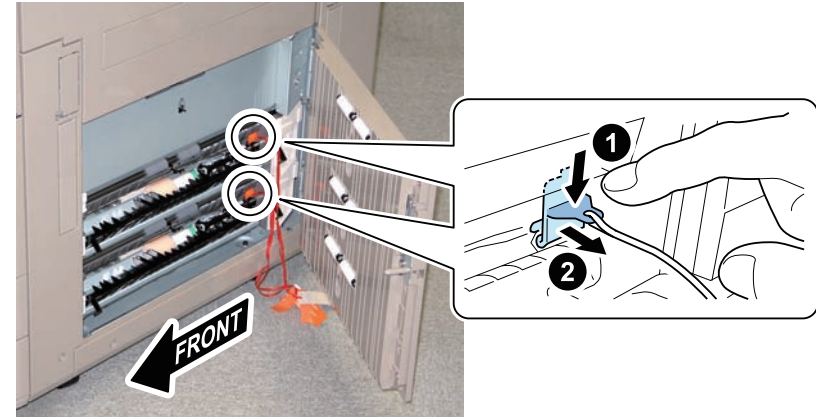


F-9-36

- 9) Close the Right Cover.

## Installing the Pickup Assembly

- 1) Remove tapes securing tags from the Vertical Path Cover.
- 2) Open the Vertical Path Cover and remove 2 Pressure Release Spacers at pickup slot for each cassette.



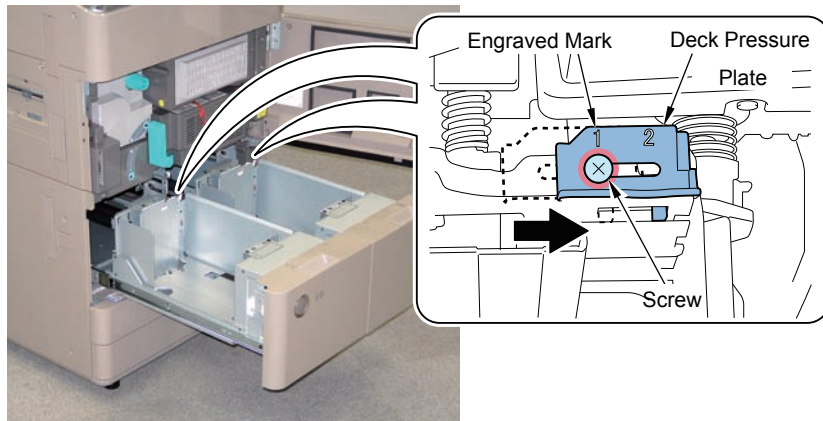
F-9-37

- 3) Close the Vertical Path Cover.
- 4) Open the Front Cover.
- 5) Press the Release Button to open the Left and Right Decks, and remove the tape.

### NOTE:

Be sure to release the Release button slowly because it may not come out if releasing it abruptly.

- 6) Loosen the screw and slide the Deck Pressure Plate in the direction of the arrow. Check that the screw position is at the engraved mark [1], and then tighten the screw.

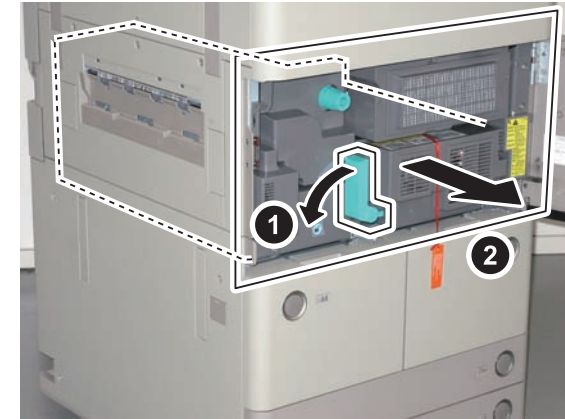


F-9-38

- 7) Close the Left and Right Decks.

## Installing the Fixing Assembly

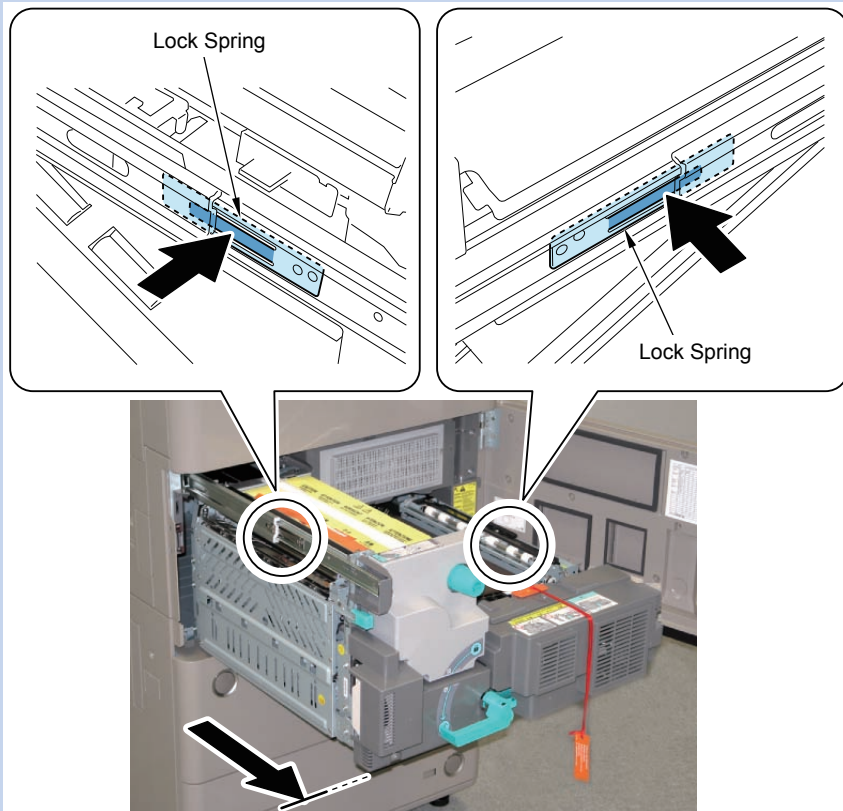
- 1) Remove the tapes securing the tag.  
2) Turn the Fixing Feed Unit Release Lever in the direction of the arrow and pull the Fixing Feed Unit all the way out.



F-9-39

**NOTE:**

In the case that the Fixing Nip Pressure Release Screw is hard to be removed, release the lock by pressing the Lock Springs at both rails, and pull out the Fixing Feed Unit further until it stops.

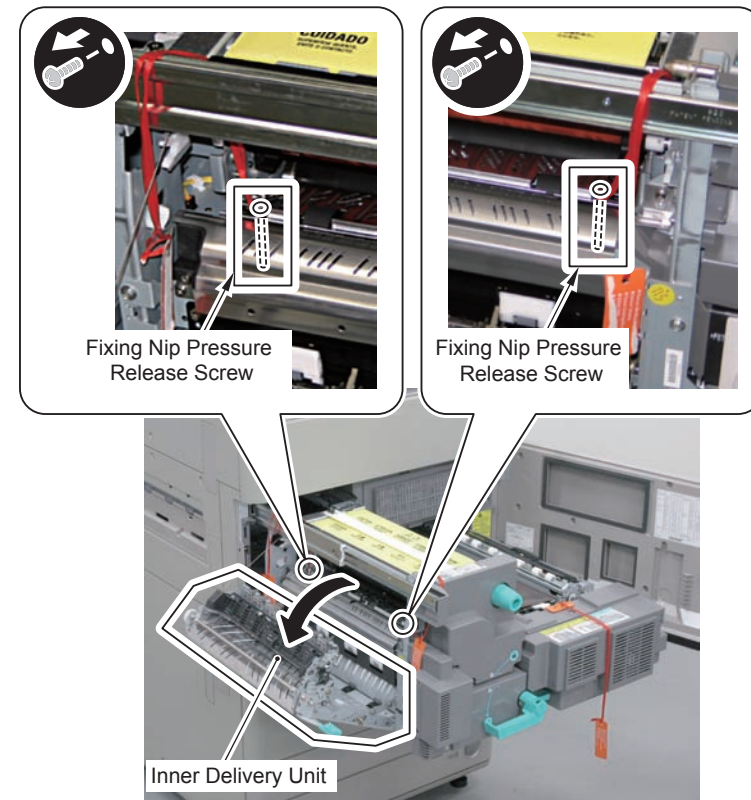


F-9-40



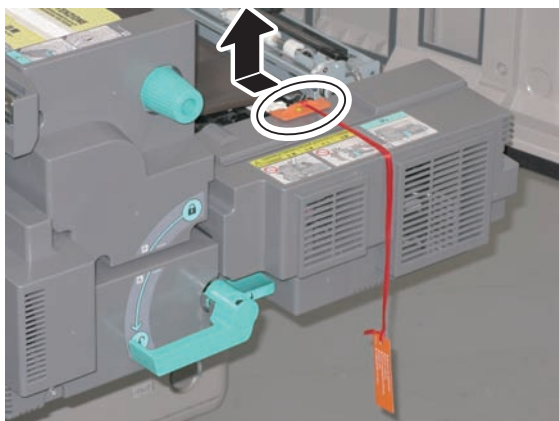
3) Remove the tape securing a tag on the Fixing Upper Cover.

4) Open the Inner Delivery Unit, and remove the 2 Fixing Nip Pressure Release Screws.



F-9-41

- 5) Close the Inner Delivery Unit.
- 6) Remove the ETB Spacer.



F-9-42

- 7) Return the Fixing Feed Unit and lock the Fixing Feed Unit Release Lever.

**NOTE:**

In the case of pulling out the Fixing Feed Unit further, be sure to return the Fixing Feed Unit while releasing the Lock Spring.

- 8) Close the Front Cover.

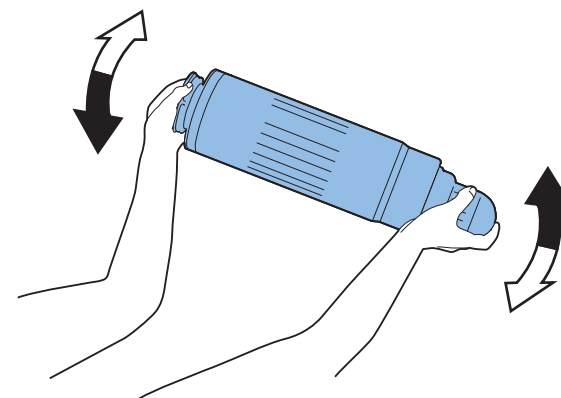
## Installing the Toner Container

- 1) Open the Toner Exchange Cover, and turn the Lock Lever in the direction of the arrow to release.



F-9-43

- 2) Unpack the Toner Container and shake it approx. 10 times horizontally.



F-9-44

- 3) Remove the cap of the Toner Container.
- 4) Set the Toner Container to the Main Body, and turn the Lock Lever in the direction of the arrow to secure the Toner Container in place.

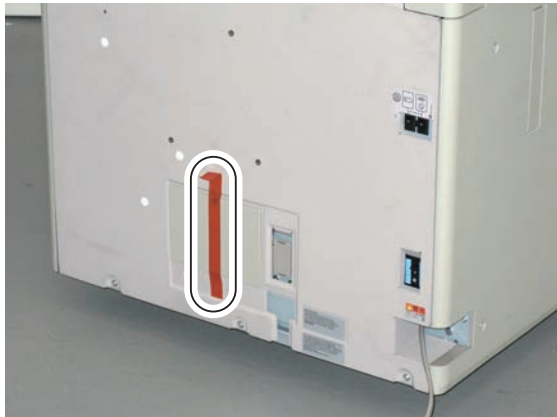


F-9-45

- 5) Close the Toner Exchange Cover.

## ● Installing the Exhaust Filter

- 1) Remove the tape, and remove the Filter Cover.



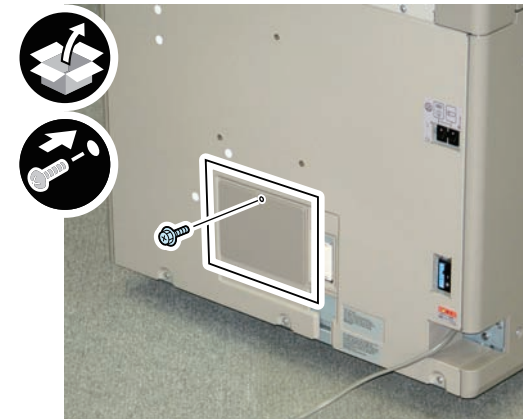
F-9-46

- 2) Hold the Exhaust Filter as shown in the figure, and install it to the Main Body.



F-9-47

- 3) Install the Filter Cover.
  - 1 Screw (RS Tightening; M4x10)



F-9-48

## Installing the Terminal Connector



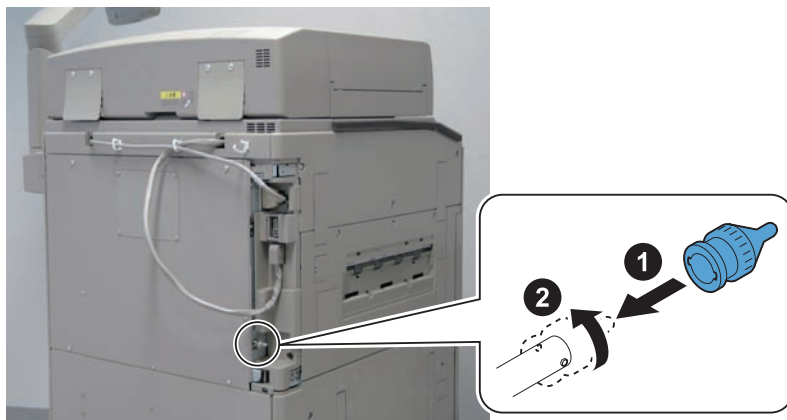
- 1) Insert the Terminal Connector into the terminal of the Host machine and turn it in the direction of the arrow to install it.

### NOTE:

- In the case of installing Staple Finisher-F1 PRO or Booklet Finisher-F1 PRO simultaneously, it is not necessary to connect the Terminal Connector to the machine.
- When connecting the Terminal Connector to the Finisher side, refer to “Staple Finisher-F1 PRO/Booklet Finisher-F1 PRO Installation Procedure”.

### CAUTION:

Be sure to turn the knob of the ARCNET cable all the way to connect otherwise it can cause unstable electrical contact.



F-9-49

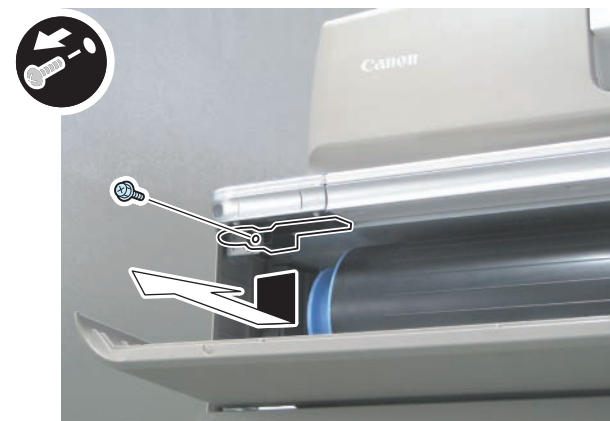
## Installing the USB Device Port (only with the products designed for Europe)

### CAUTION:

Use the Card Reader prepared by each sales company.

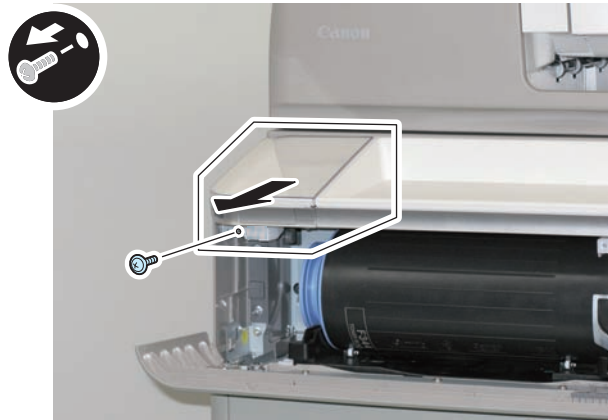


- 1) Open the Toner Exchange Cover.
  - 2) Remove the Bottle Regulation Rail.
- 1 Screw



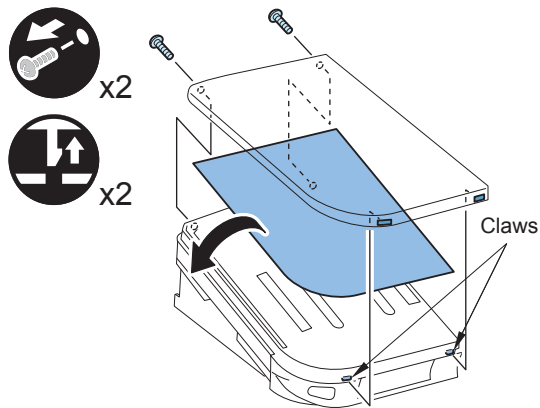
F-9-50

- 
- 3) Remove the Upper Left Cover in the arrow direction.
- 1 Screw



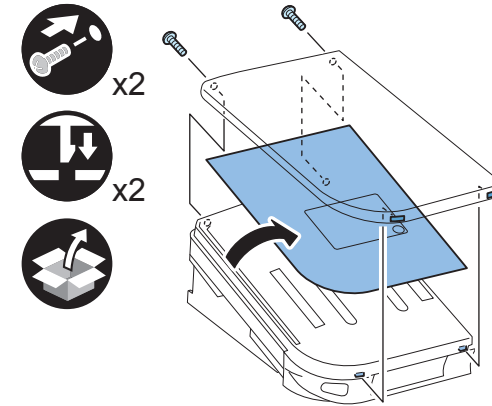
F-9-51

- 
- 4) Remove the Clear Cover and Device Port Sheet.
- 2 Screws (Removed screws will be used in step 4))
  - 2 Claws



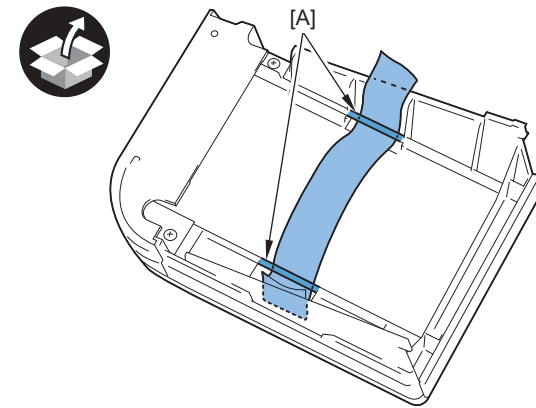
F-9-52

- 
- 5) Replace the Device Port Sheet with the Case Sheet, and install the Clear Cover.
- 2 Claws
  - 2 Screws (Use the screws removed in step 3))



F-9-53

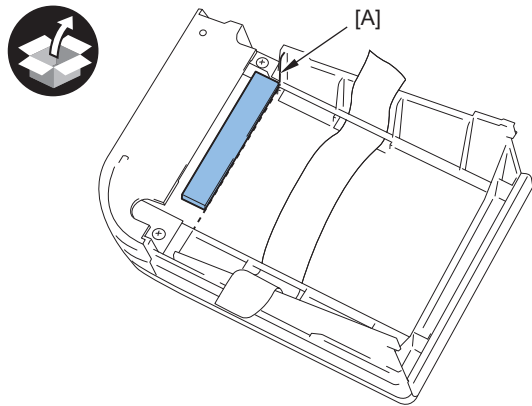
- 
- 6) Turn over the cover removed in step 2 and put the Hook-and-Loop Fastener through [A] part.



F-9-54

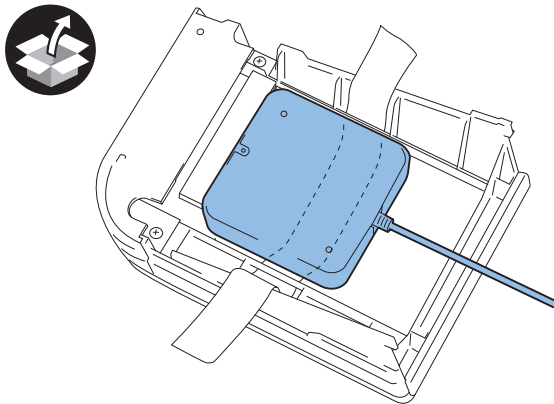


- 7) Affix one side strip along the rib line of section [A].



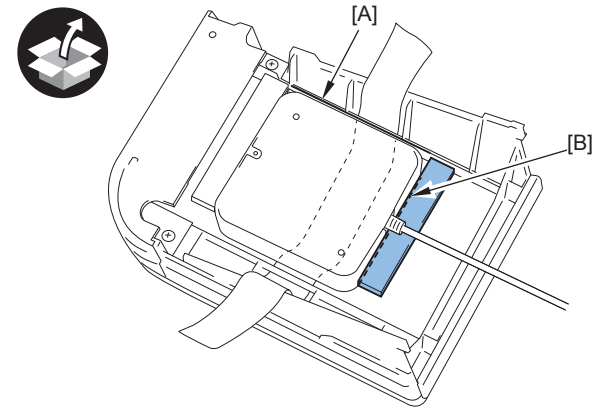
F-9-55

- 8) Place the card reader on the hook-and-loop fastener.



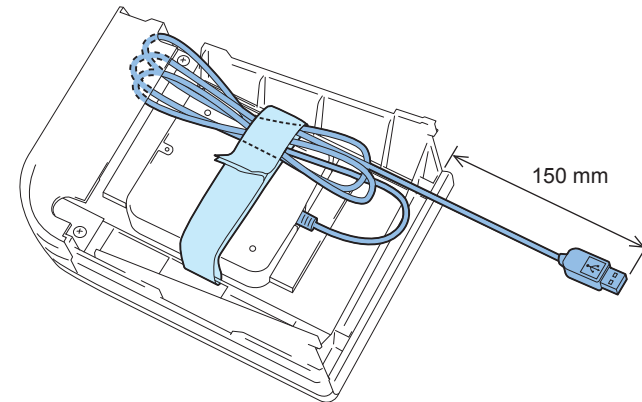
F-9-56

- 9) Push the card reader against the "side strip" and section [A], and affix one "side strip" to section [B] of the card reader.



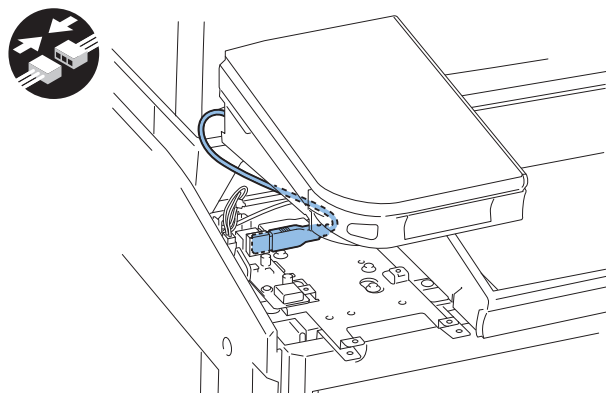
F-9-57

- 10) Fix the card reader and harness cable with the hook-and-loop fastener.



F-9-58

- 11) Plug the USB cable into the connector.



F-9-59

- 12) Return the Upper Left Cover.

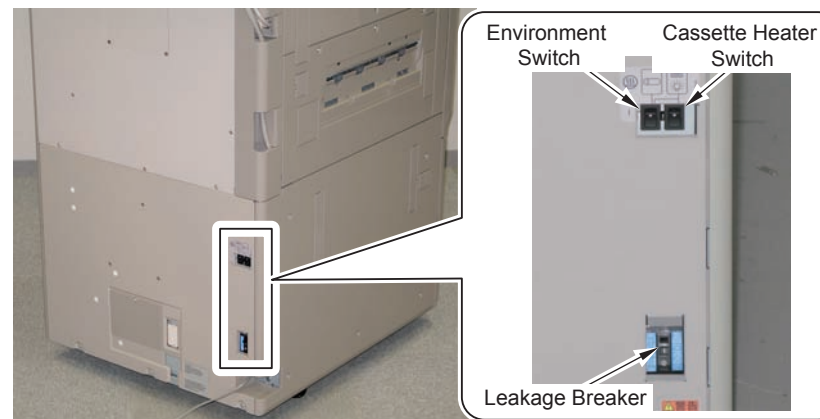
**CAUTION:**

Be careful not to trap the USB Cable.

- 13) Return the Bottle Regulation Rail.  
14) Close the Toner Exchange Cover.

## Setting the Environment Heater Switch

- 
- 1) Check that the Leakage Breaker is ON.
  - 2) Turn ON the Environment Heater Switch and the Cassette Heater Switch in accordance with the installation environment.
- Set the environment switches in accordance with the installation environment.  
In the case of high humidity environment, turn ON the Environment Switch. (The Drum Heater is turned ON regardless of the main switch status).



F-9-60

## Turning ON the Main Power



<In the Case of Copier Model>

- 1) Connect the power plug of the host machine to the power outlet.
- 2) Remove the protection sheet on the control panel.
- 3) Open the switch cover and turn ON the main power switch.
- 4) Check that the following service mode value is set to "1".  
COPIER > OPTION > CUSTOM > SCANTYPE
- 5) Exit the Service Mode.

### NOTE:

Be sure to perform the following procedure for operation check of the Stamp Unit.  
To enable the Stamp Unit, it is required to install the FAX Board.

- 6) Change the operation panel screen to "Scan and Send", and press "Other Function".
- 7) Press "Finished Stamp" in the second page of the "Other Function" screen.
- 8) Set to the feeder and conduct transmission test to check that the originals are stamped.



<In the Case of Printer Model>

- 1) Connect the power plug of the host machine to the power outlet.
- 2) Remove the protection sheet on the control panel.
- 3) Open the switch cover and turn ON the main power switch.
- 4) A message is displayed prompting to check that the Reader Unit Cable is connected properly.
- 5) Select the following service mode and enter "0" to the setting value.  
COPIER > OPTION > FNC-SW > W/SCNR
- 6) Exit the Service Mode.
- 7) Turn OFF and then ON the main power switch.

## Turning OFF the Main Power



- 1) Open the Switch Cover and turn OFF the main power switch.
- 2) Check that the control panel display and the main power lamp are OFF, and then disconnect the power plug.

## Toner Stirring



- 1) Check that "Check the developer" is displayed in the following service mode.  
COPIER > FUNCTION > INSTALL > TONER-S
- 2) Press "OK" after checking the installation of the Developing Assembly and the Developing Assembly Pressure Plate.
- 3) Toner supply is executed. (For approx. 12 minutes. Countdown is shown on the screen)

### NOTE:

While stirring toner, "Installation of the Host Machine", "Other Installation Work", "Setting the Deck" and "Setting the Paper Cassette" can be executed.

## Installation of the Host Machine

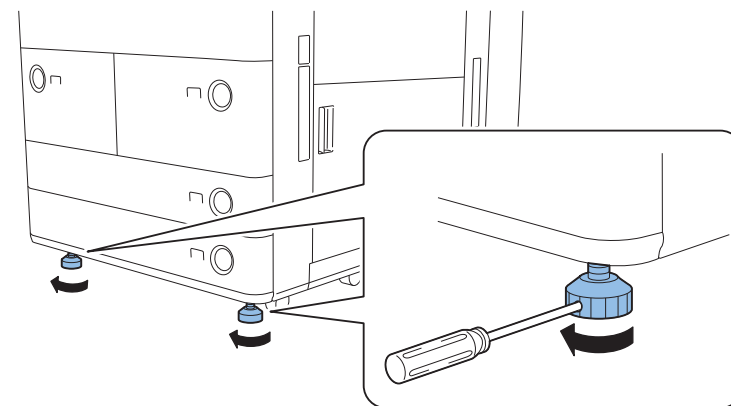


- 1) Confirm the position to install the Host Machine and turn the 2 adjusters with your hand until they closely contact the floor.

### NOTE:

If you failed to turn the adjusters with your hand, use a screwdriver so that they can be turned by your hand.

- 2) Use a screwdriver to turn the adjusters in the direction of the arrow to make them secured.



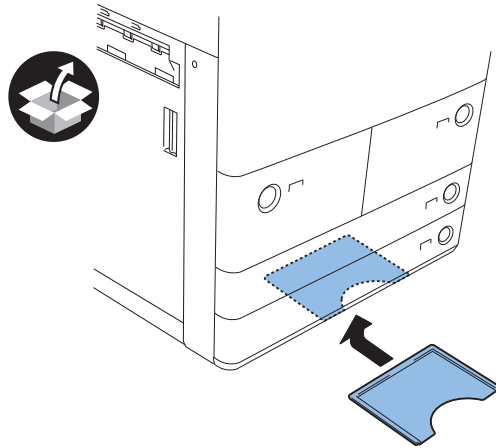
F-9-61

## Other Installation Work

### <Service Book Holder>



Remove the double-sided tape on back side of the Service Book Holder, and affix the holder on the Base Plate of the host machine.



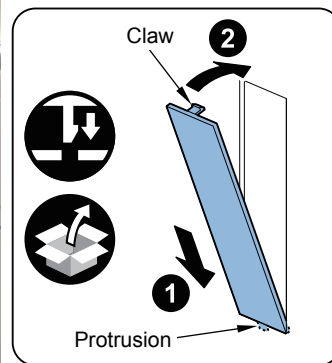
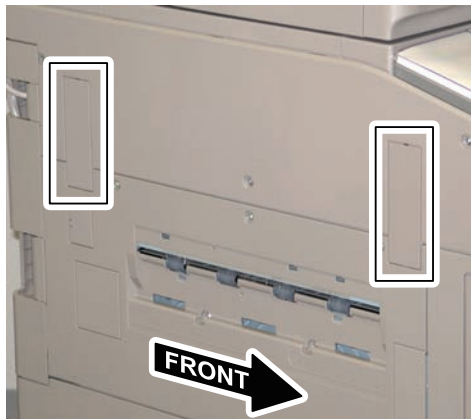
F-9-62

### <Finisher Connector Cover>



Install the 2 Finisher Connector Covers to the left side of the host machine.

- 1 Protrusion each
- 1 Claw each

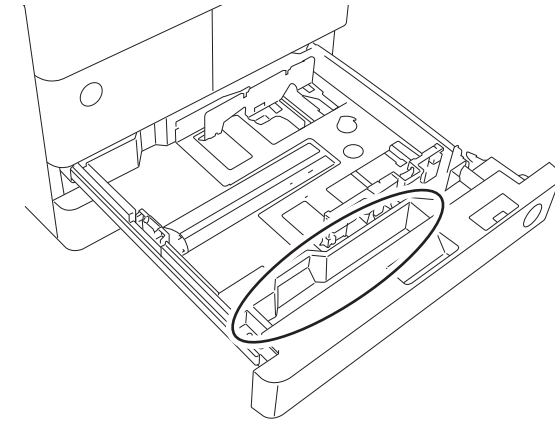


F-9-63

### <Cleaning Tool>



Store in an empty space at front side of the Cassette 3 to use for maintenance.



F-9-64

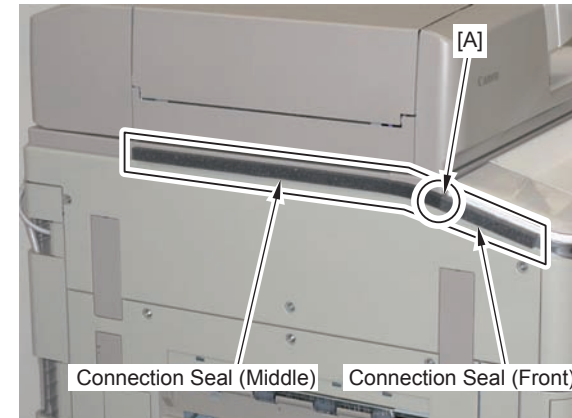
### <Connection Seal>



Affix the Connection Seal (Front) and the Connection Seal (Middle) to the position on the left side of the Main Body as shown in the figure.

#### CAUTION:

Be sure that there is no gap between [A] the Connection Seal (Front) and the Connection Seal (Middle).



F-9-65

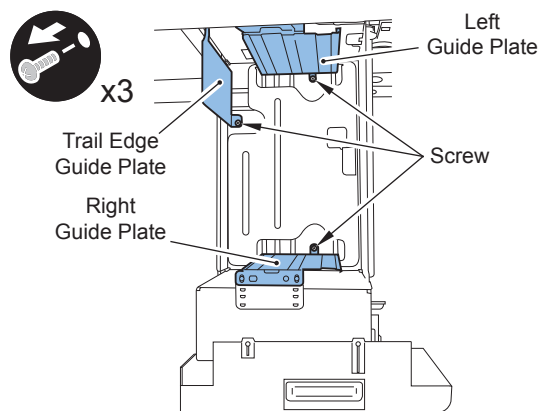
## Setting the Deck



- 1) Push the Deck Release Button to pull out the Left and the Right Decks to the front.
- 2) Remove the 3 screws fixing the Trailing Edge Guide Plate, Left Guide Plate, and Right Guide Plate in place, and fix each of the guide plates at user's desired size.

**NOTE:**

Setting at the time of shipment: A4 size



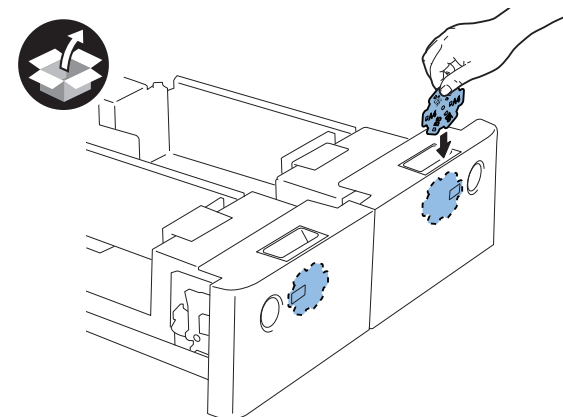
F-9-66



- 3) Put the specified size of papers in the Left/Right Deck.



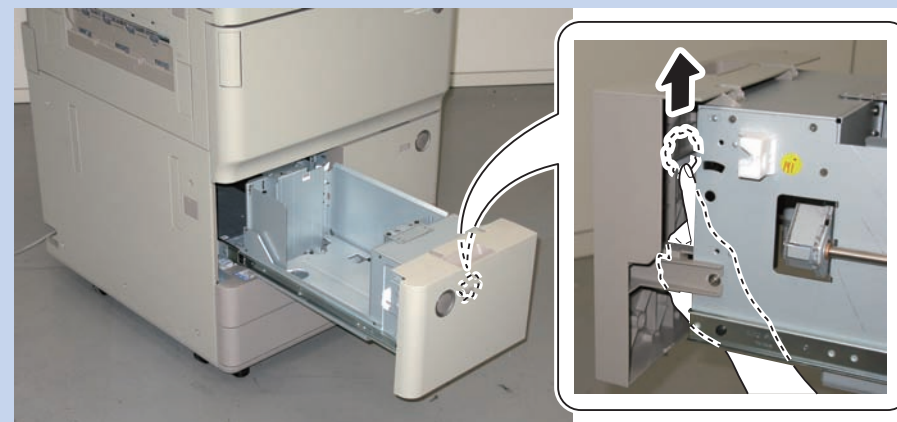
- 4) Following the paper size, put the Size Plate L in the Right and Left Deck through the clearance at the handle area.



F-9-67

**NOTE:**

When taking out the size plate, access it from back side of the Deck Cover and push it out upward.



F-9-68



5) Push the Left/Right Deck in.

6) When the size is switched, register paper size for the Front Deck in service mode.

Right Deck: COPIER > OPTION > CST > P-SZ-C1

Left Deck: COPIER > OPTION > CST > P-SZ-C2

A4=0, B5=1, LTR=2

7) Exit from the service mode.

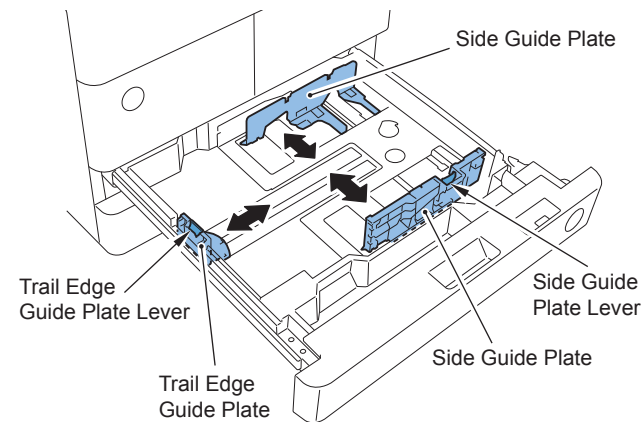
## Setting the Paper Cassette



1) Push the Cassette Release Button to pull out the Cassette to the front.

2) Hold the Lever of the Side Guide Plate to set the Side Guide Plate to the specified size.

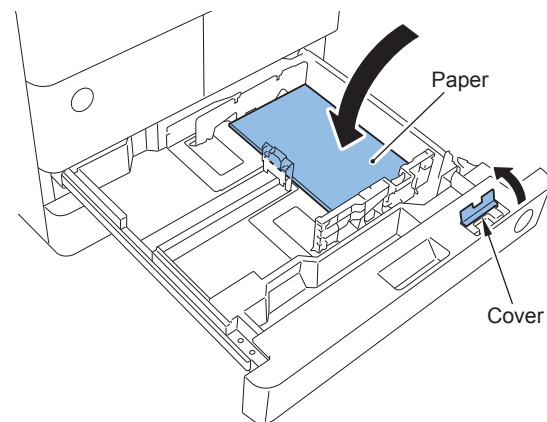
3) Hold the Lever of the Trail Edge Guide Plate to set the Trail Edge Guide Plate to the specified size.



F-9-69

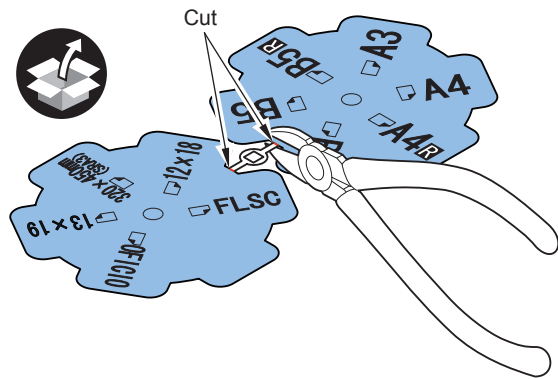


4) Set paper and open the cover at the insertion area of the Size Plate.



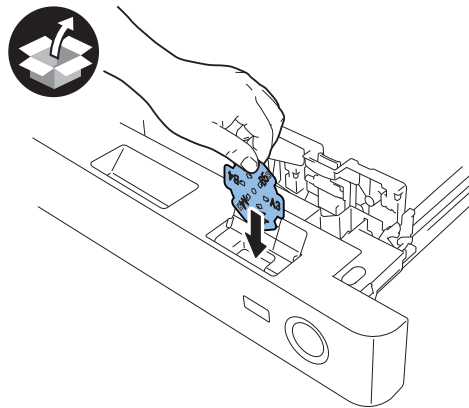
F-9-70

- 5) Cut the 2 points of the Size Plate R with nippers.



F-9-71

- 6) Following the paper size, set the Size Plate R (unused size plates should be put together).



F-9-72

- 7) Close the cover at the insertion area of the Size Plate and push in the Cassette.  
8) Set another cassette as well.

**NOTE:**  
Paper size is set to be automatically recognized.

## Auto Adjust Gradation

<In the Case of Copier Model>

- 
- 1) Clean the Copyboard Glass surface of the host machine.
  - 2) Set A3, A4, 11x17, or LTR size papers in a cassette. (Refer to the cassette settings.)
  - 3) Select [Settings/Registration] > [Adjustment /Maintenance] > [Adjust Image Quality] > [Auto Adjust Gradation] > [Full Adjustment].
  - 4) Select the source of paper for test print, and press [OK].
  - 5) From this point on, follow the instruction on UI.

<In the Case of Printer Model>

- 
- 1) Set A3, A4, 11x17, or LTR size papers in a cassette. (Refer to the cassette settings.)
  - 2) Select [Settings/Registration] > [Adjustment /Maintenance] > [Adjust Image Quality] > [Auto Adjust Gradation], and execute the item.

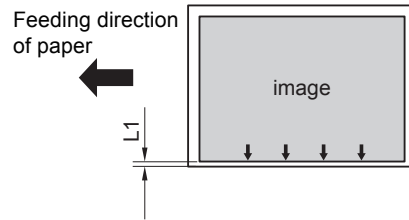
## Image Position Adjustment

### Left Edge Margin Adjustment (1st side)

Adjustment of Cassette/Deck

Print from each cassette/deck, and check that the left edge margin of the image (L1) is within 2.5 +/- 1.5mm.

If it is not within the range, execute adjustment by following the procedure below.



F-9-73



1) Adjust the image position in service mode.

- Right Deck: COPIER > ADJUST > FEED-ADJ > ADJ-C1
- Left Deck: COPIER > ADJUST > FEED-ADJ > ADJ-C2
- Cassette 3: COPIER > ADJUST > FEED-ADJ > ADJ-C3
- Cassette 4: COPIER > ADJUST > FEED-ADJ > ADJ-C4

**NOTE:**

<Setting Range>

-20 to 20 (0.1mm per unit)

As the value is incremented by 1, the left edge margin is increased by 0.1mm.

2) When the setting value was changed in step 1), write down the new numerical value in the service label.

3) Exit from the service mode.

4) Print from the cassette/deck, and check that the left edge margin of the image is within 2.5 +/- 1.5mm.

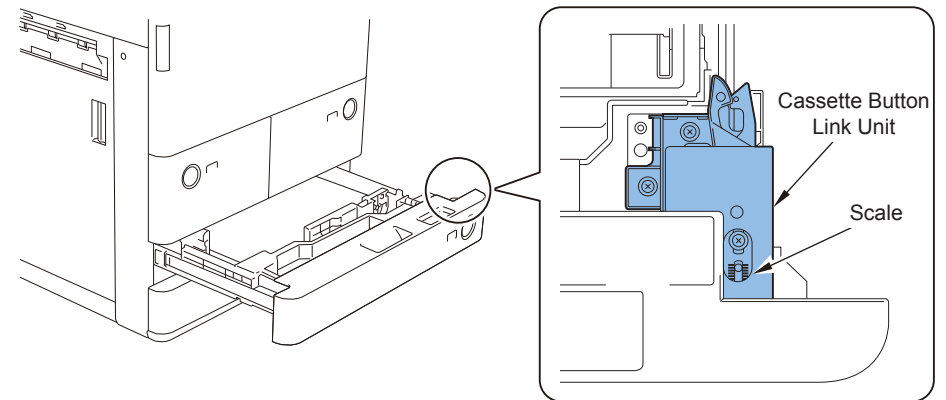
**NOTE:**

If the adjustment cannot be made with the setting value of -20 to 20 (adjustment amount: -2.0 to 2.0mm), execute step 5) and later steps.



5) Pull out the Cassette.

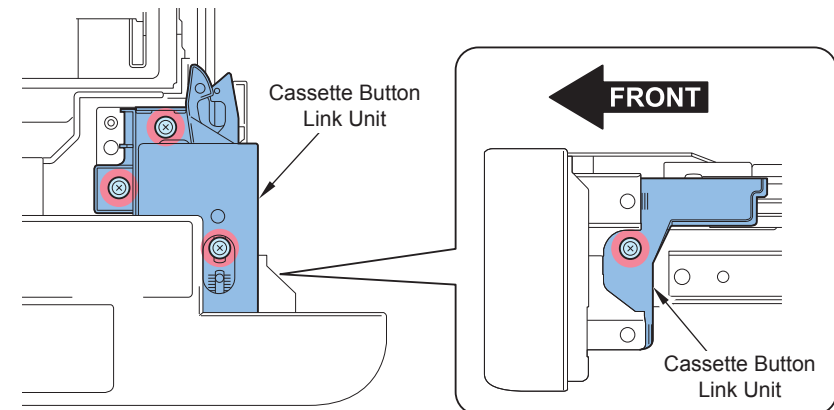
6) Check the Cassette position by the scale of the Cassette Button Link Unit.



F-9-74



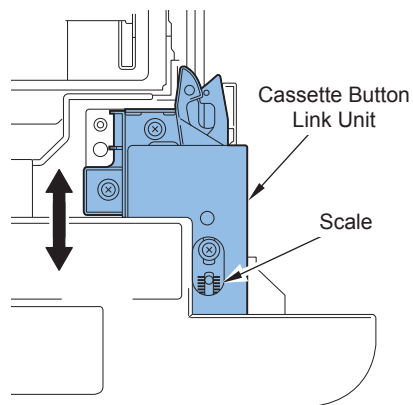
7) Loosen the 4 screws of the Cassette Button Link Unit.



F-9-75



- 8) According to the scale in which the position was checked in step 6), adjust the position of the Cassette Button Link Button.
- In the case of larger margin at the rear side, move the Cassette Button Link Unit to the rear side.
  - In the case of larger margin at the front side, move the Cassette Button Link Unit to the front side.



F-9-76

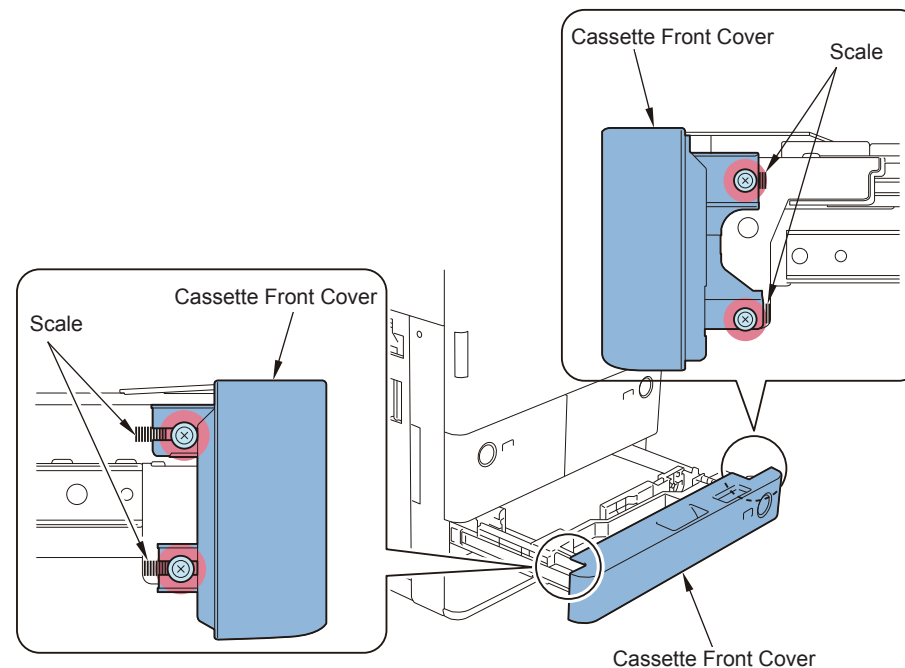
- 9) Tighten the 4 screws (which have been loosened in step 7)).

□

**NOTE:**

If you concern alignment of the Cassette Front Cover, adjust the left and right sides of the cover as necessary.

- 10) Loosen the 4 screws and adjust the position of the Cassette Front Cover by referring to the scale.
- 11) When moving the Cassette Button Link Unit, adjust the left side of the Cassette Front Cover by shifting it with the same shifting amount of the unit.



F-9-77

- 12) Once the position of the Cassette Front Cover is confirmed, tighten the 4 screws (which have been loosened in step 10)).
- 13) Print from the cassette/deck, and check that the left edge margin of the image is within 2.5 +/- 1.5mm.

**NOTE:**

When a mechanical adjustment was made, be sure to execute the service mode in step 1) again.

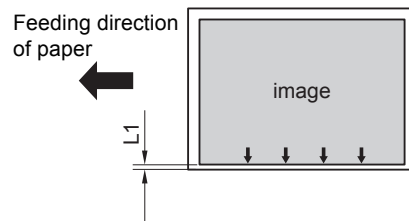
## Left Edge Margin Adjustment (2nd side)

### NOTE:

By executing the margin adjustment (2nd side) for the Cassette 3, the adjustment is applied to all source of paper.

Execute duplex printing from the Cassette 3, and check that the left edge margin is within 2.5 +/- 1.5mm.

If it is not within the range, execute adjustment by following the procedure below.



F-9-78



1) Adjust the image position in service mode.

- COPIER > ADJUST > FEED-ADJ > ADJ-REFE

As the value is incremented by 1, the left edge margin is increased by 0.1mm.

2) Execute duplex printing from the Cassette 3, and check that the left edge margin is within 2.5 +/- 1.5mm.

3) When the setting value was changed in step 1), write down the new numerical value in the service label.

4) Exit from the service mode.

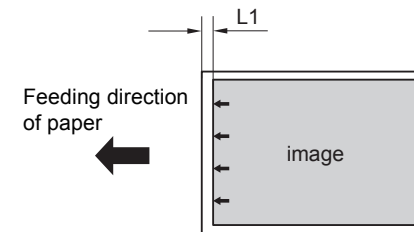
## Leading Edge Margin Adjustment (1st side)

### NOTE:

By executing the leading edge margin adjustment for the Cassette 3, the adjustment is applied to all source of paper.

Execute printing from the Cassette 3, and check that the leading edge margin is within L1 2.5 +/- 0.5mm.

If it is not within the range, execute adjustment by following the procedure below.



F-9-79



1) Adjust the image position in service mode.

- COPIER > ADJUST > FEED-ADJ > REGIST

As the value is incremented by 1, the leading edge margin is decreased by 0.1mm.

2) Execute duplex printing from the Cassette 3, and check that the leading edge margin is within 2.5 +/- 0.5mm.

3) When the setting value was changed in step 1), write down the new numerical value in the service label.

4) Exit from the service mode.

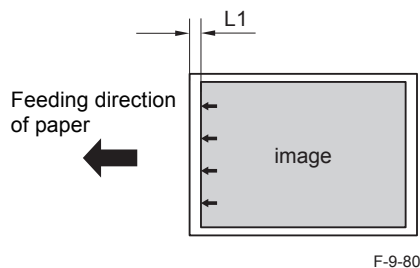
## Leading Edge Margin Adjustment (2nd side)

### NOTE:

By executing the leading edge margin adjustment for the Cassette 3, the adjustment is applied to all source of paper.

Execute duplex printing from the Cassette 3, and check that the leading edge margin on the 2nd side is within  $L1=2.5 \pm 0.5\text{mm}$ .

If it is not within the range, execute adjustment by following the procedure below.



F-9-80



1) Adjust the image position in service mode.

- COPIER > ADJUST > FEED-ADJ > REG-DUP1

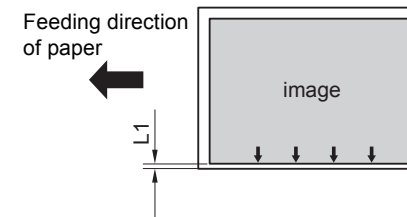
As the value is incremented by 1, the leading edge margin is decreased by 0.1mm.

- 2) Execute duplex printing from the Cassette 3, and check that the leading edge margin is within  $2.5 \pm 0.5\text{mm}$ .
- 3) When the setting value was changed in step 1), write down the new numerical value in the service label.
- 4) Exit from the service mode.

## Adjusting margin of Multi-purpose Pickup Tray

Print from the Multi-purpose Tray Pickup, and check that the left edge margin of the image is within  $2.5 \pm 1.5\text{mm}$ .

If it is not within the range, execute adjustment by following the procedure below.



F-9-81



1) Adjust the image position in service mode.

- COPIER > ADJUST > FEED-ADJ > ADJ-MF

### NOTE:

<Setting Range>

-20 to 20 (0.1mm per unit)

As the value is incremented by 1, the left edge margin is increased by 0.1mm.

- 2) When the setting value was changed in step 1), write down the new numerical value in the service label.
- 3) Exit from the service mode.
- 4) Print from the Multi-purpose Tray Pickup, and check that the left edge margin of the image is within  $2.5 \pm 1.5\text{mm}$ .

### NOTE:

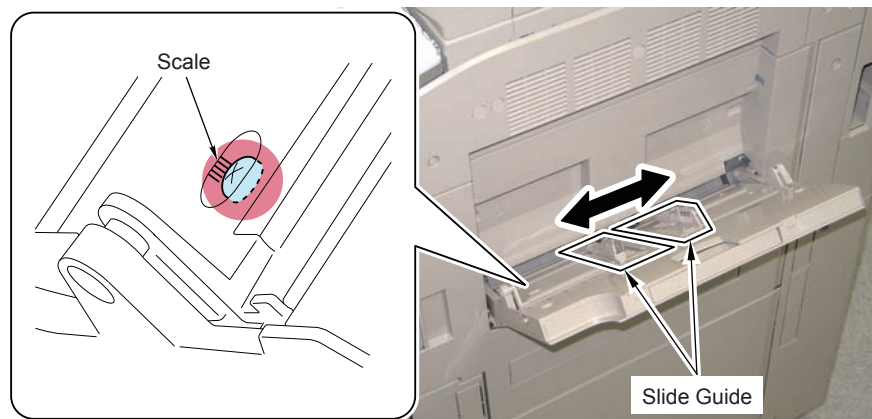
If the adjustment cannot be made with the setting value of -20 to 20 (adjustment amount: -2.0 to 2.0mm), execute step 5) and later steps.



5) Open the MP Pickup Tray.

6) Loosen the screw and adjust the position of the Slide Guide by referring to the scale.

- In the case of larger margin at the rear side, move the Slide Guide to the front side.
- In the case of larger margin at the front side, move the Slide Guide to the rear side.



F-9-82



7) Tighten the screw loosened in step 6).

8) Print from the Multi-purpose Tray Pickup, and check that the left edge margin of the image is within 2.5 +/- 1.5mm.

**NOTE:**

When a mechanical adjustment was made, be sure to execute the service mode in step 1) again.

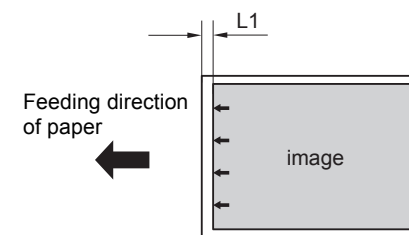
## Leading Edge Margin Adjustment (Multi-purpose Tray Pickup)

**NOTE:**

By executing the leading edge margin adjustment for the Multi-purpose Tray Pickup, the adjustment is applied to all source of paper.

Execute duplex printing from the Multi-purpose Tray Pickup, and check that the leading edge margin is within L12.5 +/- 0.5mm.

If it is not within the range, execute adjustment by following the procedure below.



F-9-83



1) Adjust the image position in service mode.

- COPIER > ADJUST > FEED-ADJ > RG-MF

As the value is incremented by 1, the leading edge margin is decreased by 0.1mm.

2) Execute duplex printing from the Cassette 3, and check that the leading edge margin is within 2.5 +/- 0.5mm.

3) When the setting value was changed in step 1), write down the new numerical value in the service label.

4) Exit from the service mode.

## Checking the Network Connection

### Overview

If the user's network environment is TCP/IP, use the Ping function to check that the network setting is properly performed.

If the user's network environment is IPX/SPX or Apple Talk, there is no need to check the network environment.

### Checking the Network Connection

#### CAUTION:

Be sure to use the network cable with Category 5e or higher. In addition, a sealed type (STP cable) is recommended.

Using the non-shield type can affect the peripheral electrical equipment through the network cable.



- 1) Turn OFF the main power switch.
- 2) Connect the network cable to the Host Machine and turn ON the main power switch.
- 3) Inform the system administrator at the installation site that installation of the Host Machine is complete, and then, ask for the network setting.

#### NOTE:

Network setting cannot be executed unless logging in as an administrator.  
Factory default password is as follows.

- System administration division ID: 7654321
- System administration password: 7654321

#### CAUTION:

To perform the network setting, the following Additional Functions items must be set "ON".

- [Additional Functions] > [Configuration] > [Network] > [Change network settings/ check connection]
- [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Use IPv4]

- 4) Turn OFF and then ON the main power.

### Operation Procedure Using Ping

#### CAUTION:

To execute Ping command with the Windows Vista-installed PC, set OFF the firewall, or execute Ping command from the Windows Vista-installed PC to the Host Machine.



- 1) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP setting] > [IPv4 setting] > [PING command]
- 2) Enter the IP address with the numeric keypad on the Control Panel and press "Execute" key. "Response from the host" is displayed if Ping command is succeeded while "no response from the host" is displayed if failed.

### Checking by the Remote Host Address

Using the remote host address to execute Ping can check whether connection to the network is enabled or not.

Remote host address: IP address of PC terminal connected/running on TCP/IP network environment that connects to this equipment.



- 1) Inform the system administrator about checking of the network connection using Ping.
- 2) Confirm the remote host address with the system administrator.
- 3) Enter the remote host address to Ping.
  - The network is properly connected if the message say "Response from the host".
  - The network is not properly connected if the message say "No response from the host", therefore, execute the following troubleshooting.

## Network Troubleshooting

### Checking Connection of the Network Cable



To check whether the network cable is properly connected to the Ethernet Port.

### Operation Procedure Using Ping



- 1) Ask the network administrator at the user's site to write down the IP address of the PC that is connected to the network.
- 2) [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Ping Command]; and enter the IP address of the PC with the numeric keypad and press Execute key.
  - The network is properly connected if the message say "Response from the host".
  - If the message say "No response from the host", check the following.

#### NOTE:

The IP address of the PC can be checked by the following procedure:  
Select the following on a Windows PC: Start > Program > Accessory > Command Prompt; and enter "ipconfig" and press Enter key to display information of the IP address.

## Checking the Network Setting of the Host Machine

Check if the IP address specified in the Host Machine is correct.



- 1) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [IP address setting]; and write down the address in the IP address field.
- 2) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Ping Command]; and enter the IP address.
  - The IP address specified in the Host Machine is correct if the message say "Response from the host".
  - If the message say "No response from the host", check the following.

#### NOTE:

When setting the address by manually input, set the Subnet Mask by following the instruction of the administrator.

## Checking Network Function on the Main Controller

Perform checking by the loopback address.

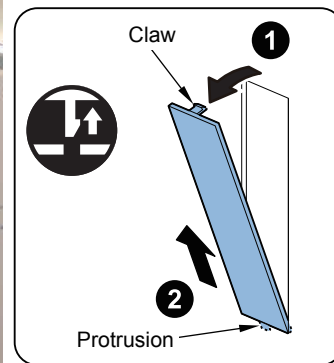
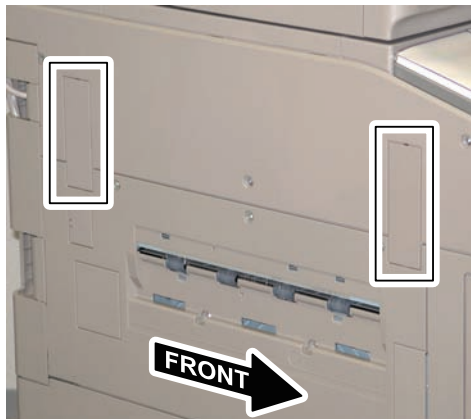


- 1) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Ping Command]; and enter the IP address, "127.0.0.1" with the numeric keypad and enter Execute key.
  - The network function of the Main Controller is working properly if the message say "Response from the host".
  - If the message say "No response from the host", the network function of the Main Controller is faulty.
- 2) Replace with a Main Controller that works properly, and then check connection.

## When Relocating the Machine

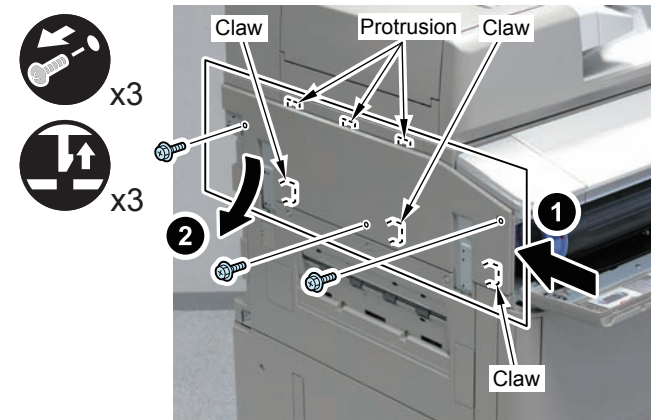
When moving the host machine to another place after installation, execute the operation shown below.

- 1) Move the Scanner Unit to the position where it is going to be secured.
  - Service Mode (Level 2) > COPIER > FUNCTION > MISC-R > RD-SHPOS
- 2) Turn OFF the main power switch.
- 3) Check that the control panel display and the main power lamp are OFF, and then disconnect the power plug.
- 4) Lift the host machine off the floor by turning the 2 adjusters with a screwdriver.
- 5) Remove the 2 Finisher Connector Covers from the left side of the host machine.
  - 1 Claw each
  - 1 Protrusion each



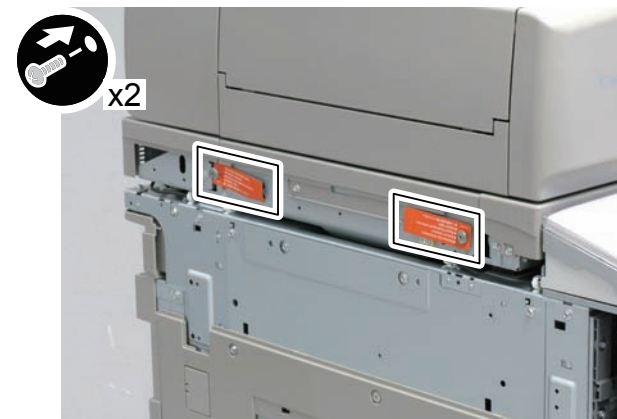
F-9-84

- 6) Remove the Left Upper Cover.
  - 3 Screws
  - 3 Projections
  - 3 Claws



F-9-85

- 7) Secure the Scanner Unit with the Scanner System Fixation Screws that have been kept in a safe place since installation.

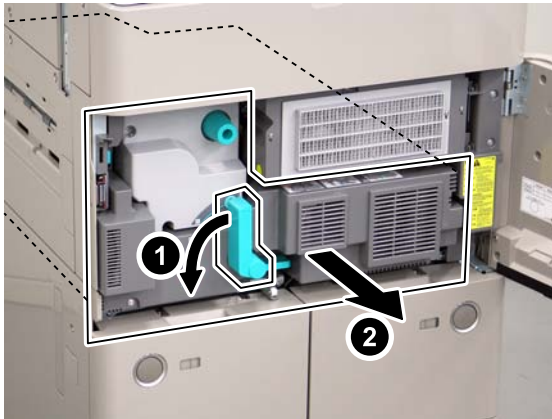


F-9-86

8) After moving the host machine, be sure that there is no toner scattering on the Registration Assembly and the Pre-transfer Charging Assembly. If there is any toner scattering, wipe off the toner.

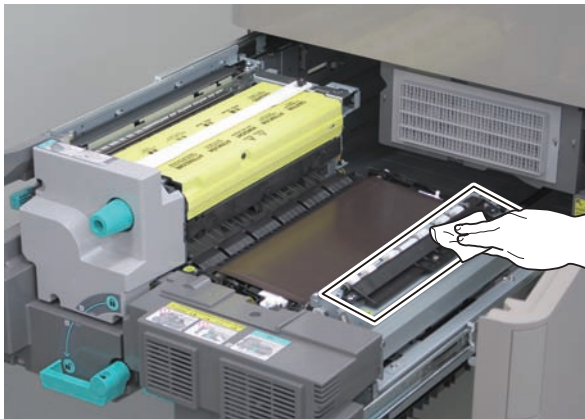
<Registration Assembly Cleaning Procedure>

- 1) Open the Front Cover.
- 2) Turn the Fixing Feed Unit Pressure Release Lever in the direction of the arrow to pull out the Fixing Feed Unit.



F-9-87

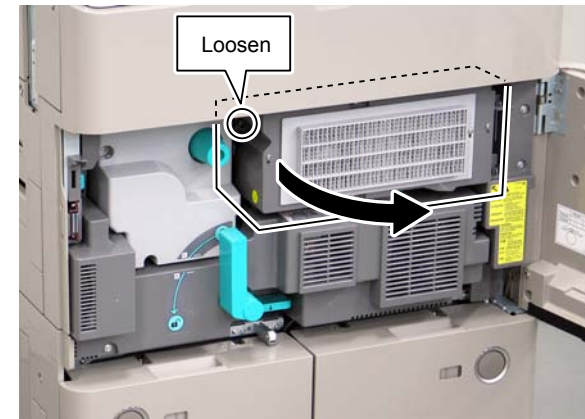
3) Wipe the top surface of the Registration Assembly with lint-free paper.



F-9-88

<Pre-transfer Charging Assembly Cleaning Procedure>

- 1) Open the Front Cover.
- 2) Open the Inner Cover.
  - 1 Screw (to loosen)



F-9-89

CAUTION:

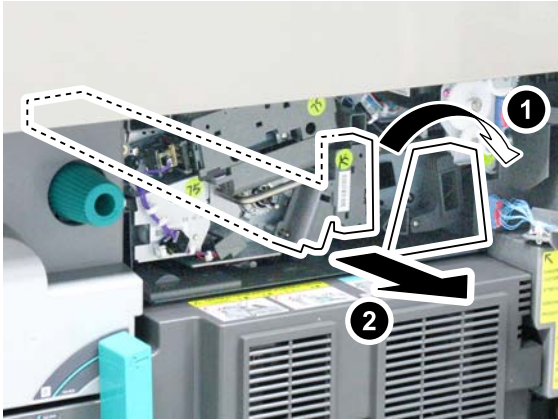
When removing the Primary Charging Assembly and the Pre-transfer Charging Assembly, go through the following procedure while the Charging Shutter is open.

- At sleep mode, press the Power Switch on the Control Panel, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.
- In the case that the condition of the Charging Shutter (open/close) is unknown while the power of the host machine is OFF, turn ON the power, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.

If the above operations are not performed, it may be possible to remove the assembly while the Charging Shutter is closed, which may damage the drum or the shutter.

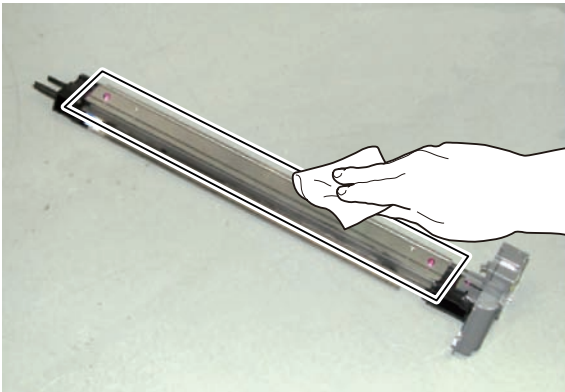


3) Turn the Lock Lever in the direction of the arrow to pull out the Pre-transfer Charging Assembly.



F-9-90

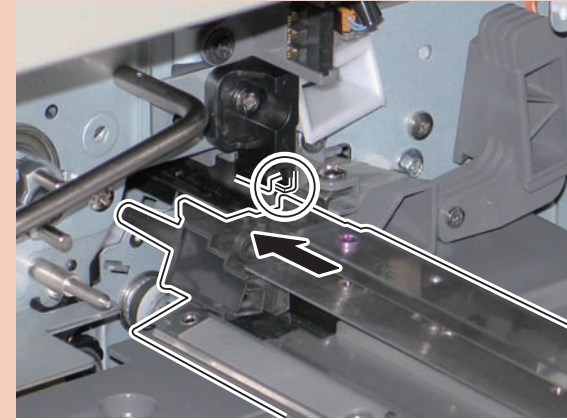
4) Wipe the top surface of the Pre-transfer Charging Assembly with lint-free paper.



F-9-91

CAUTION: Points to Caution at Installation

Be sure to fit the Transfer Charging Assembly to the groove on the host machine and install it horizontally.



F-9-92

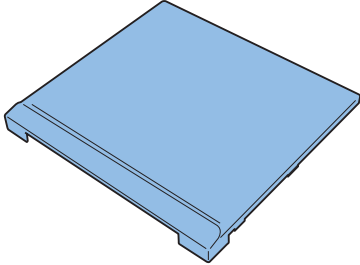

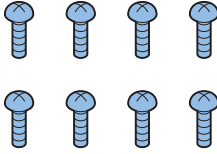
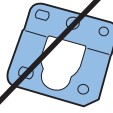
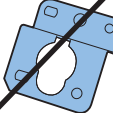
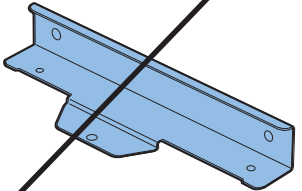
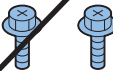
# Printer Cover -B1

## Points to Note at Installation

Be sure to install this equipment after installing the Upright Control Panel.

## Checking the Contents

The parts with a diagonal line in the contents list will not be used.

<input type="checkbox"/> [1] Printer Cover X1 	<input type="checkbox"/> [2] Screw(TP ; M4X8) X 1 	<input type="checkbox"/> [3] Screw (P Tightening ; M4X10) X 8  Use 4 for them. 	<input type="checkbox"/> *1 [4] Reader Fixing Plate L X 1 	<input type="checkbox"/> *1 [5] Reader Fixing Plate R X 1 
<input type="checkbox"/> *1 [6] Reader Mount X 1 	<input type="checkbox"/> *1 [7] Screw (RS Tightening ; M4X8) X 2 			

## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

- 1) Turn OFF the main power switch of the host machine.
- 2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

## Installation Procedure

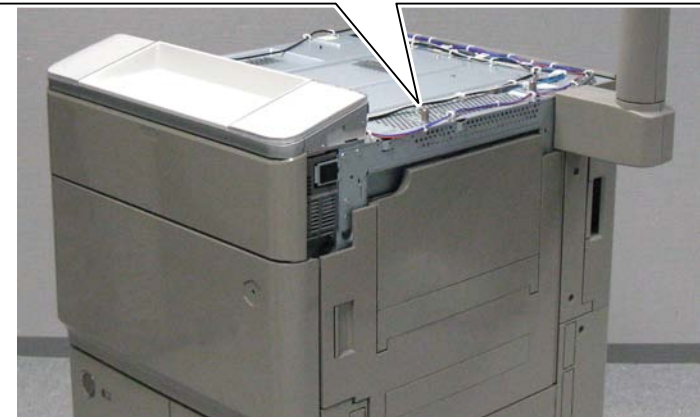
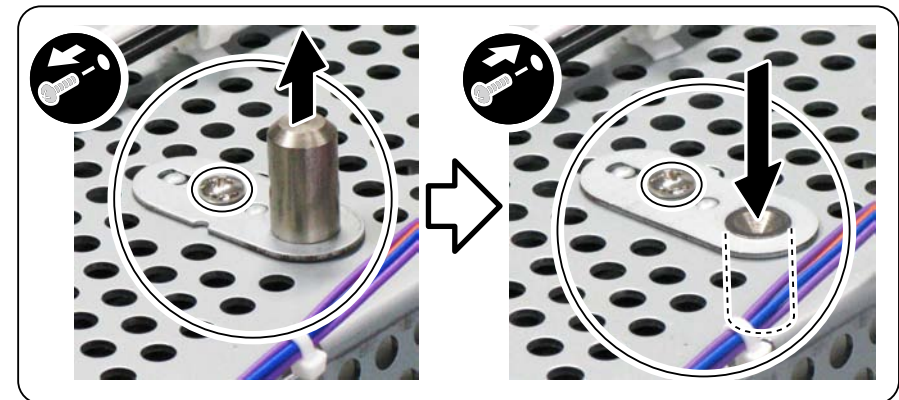
### NOTE:

Installation procedures for imageRUNNER ADVANCE 8105/8095/8085 Series and iR ADVANCE 6075/6065/6055 Series are the same.  
Subsequent illustrations and pictures are the case of imageRUNNER ADVANCE 8105/8095/8085 Series.



1) Remove the Reader Positioning Shaft, and secure it in the hole as shown in the figure.

- 1 Screw

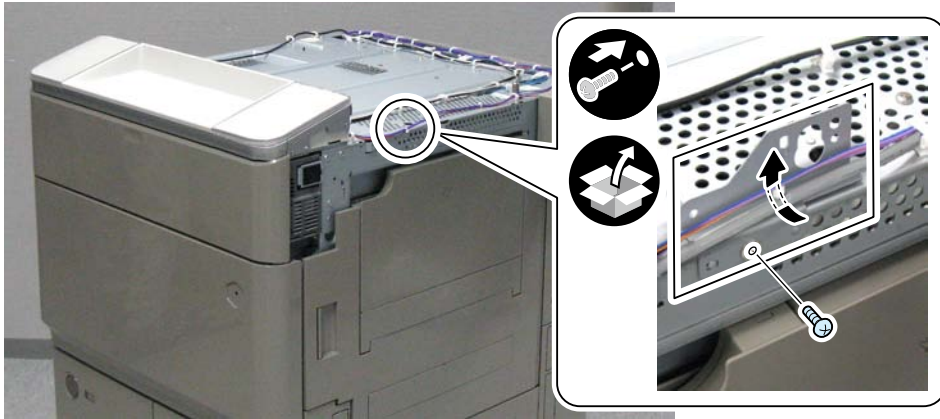


F-9-94

- 2) Install the Reader Fixation Plate R (come with the host machine) to the installation position of front side.

Flat Control Panel model only: Install the Reader Fixation Plate R to make the Control Panel Cable and the Power Supply Cable over the plate.

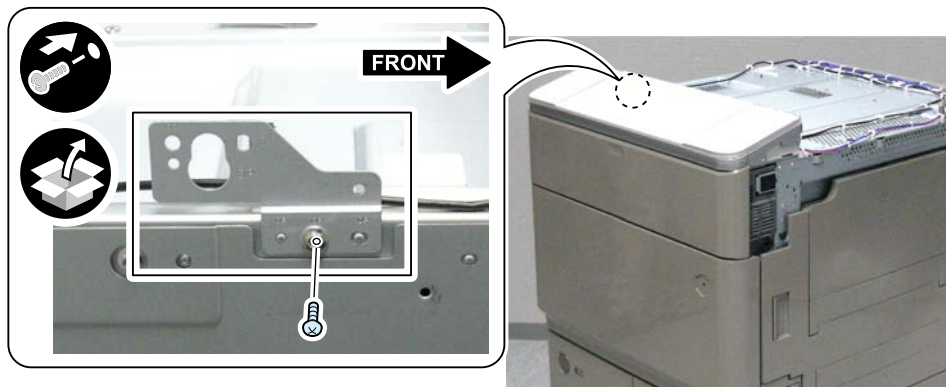
- 2 Bosses
- 1 Screw (RS tight: M4x8) (come with the host machine)



F-9-95

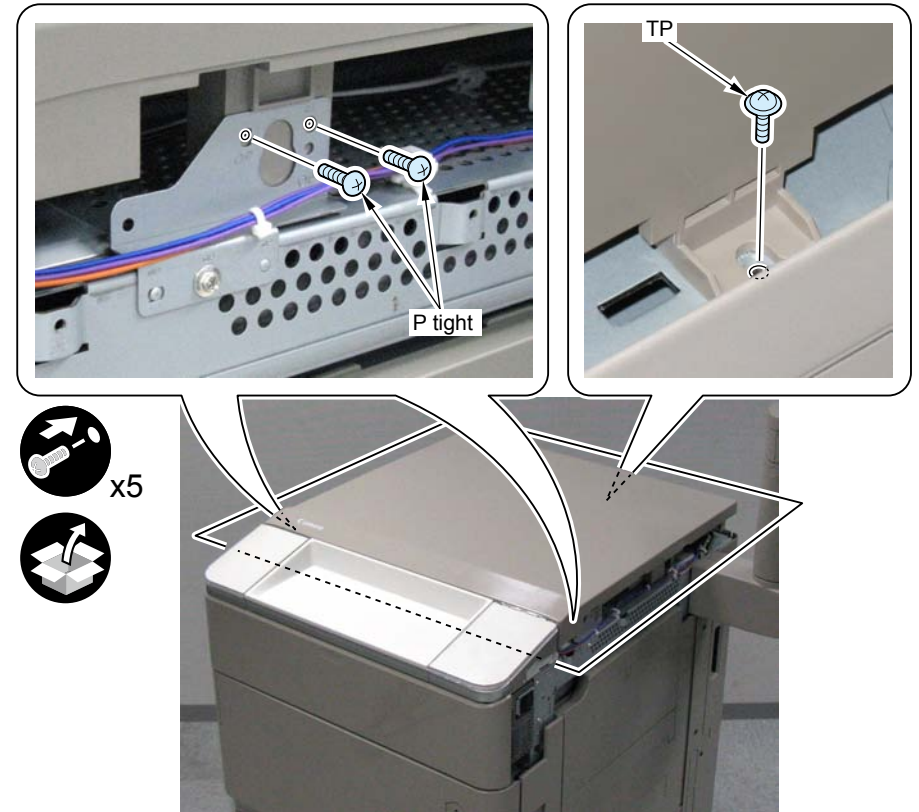
- 3) Install the Reader Fixation Plate L (come with the host machine) to the installation position of front side.

- 2 Bosses
- 1 Screw (RS tight: M4x8) (come with the host machine)



F-9-96

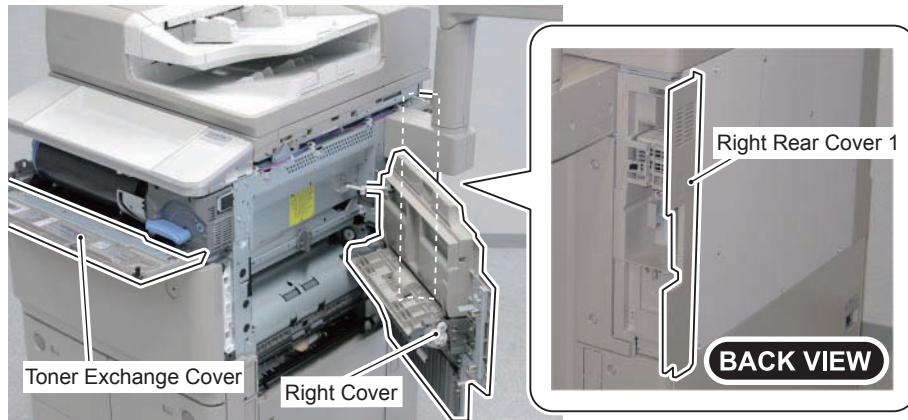
- 4) Install the Printer Cover.
  - 4 Screws (P tight: M4x10)
  - 1 Screw (TP: M4x8)



F-9-97

□ 5) Open the covers.

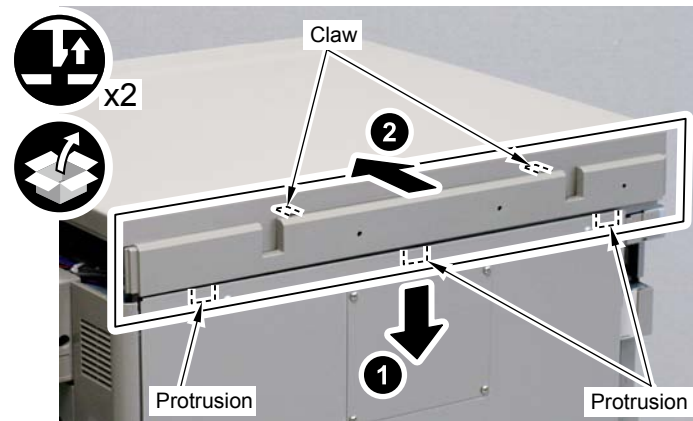
- Front Cover
- Right Door
- Box Cover



F-9-98

□ 6) Install the Rear Cover (come with the host machine).

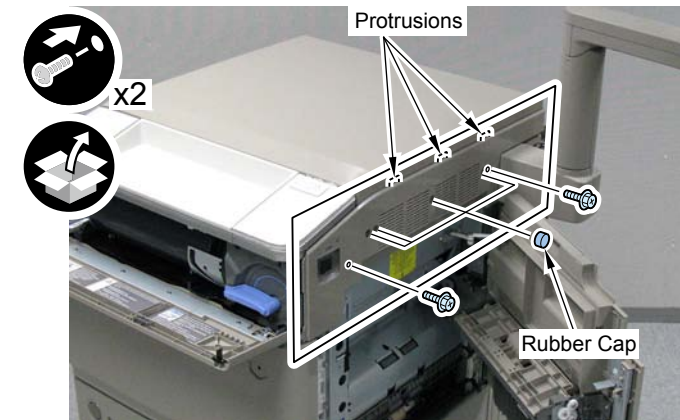
- 3 Protrusion
- 2 Claws



F-9-99

□ 7) Install the Right Upper Cover (come with the host machine).

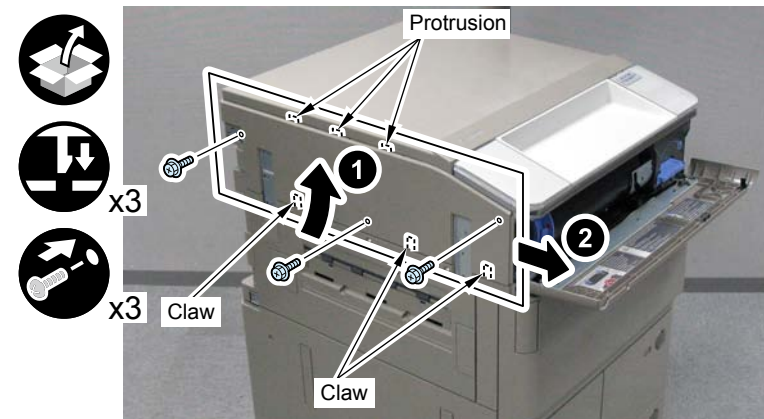
- 3 Protrusions
- 3 Screws (RS tight: M4x10) (come with the host machine)
- 4 Rubber Caps (come with the host machine)



F-9-100

□ 8) Install the Left Upper Cover (come with the host machine) in the direction of the arrow.

- 4 Protrusions
- 3 Claws
- 3 Screws (RS tight: M4x10) (come with the host machine)



F-9-101



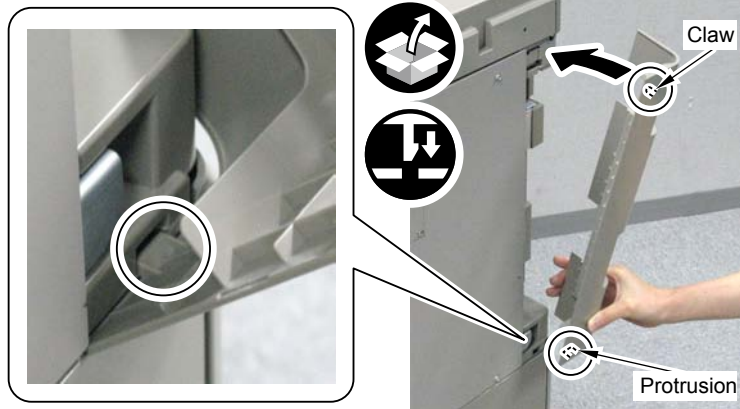
9) Close the covers.

- Front Cover
- Right Door
- Box Cover



10) Install the Left Rear Cover (come with the host machine).

- 1 Protrusion
- 1 Claw



F-9-102

## Operation Check

- 1) Connect the power plug of the host machine to the outlet.
- 2) Turn ON the main power switch.
- 3) A message is displayed prompting to check that the Reader Unit Cable is connected properly.
- 4) Select "0" for the following service mode.
  - COPIER > OPTION > FNC-SW > W/SCNR
- 5) Get out from service mode.
- 6) Turn OFF and then ON the main power switch..

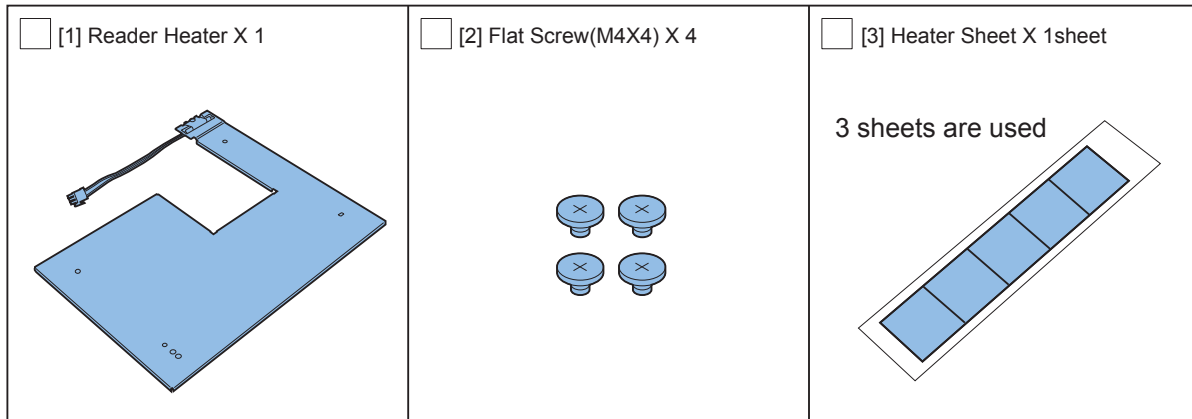
## Auto Adjust Gradation

- 1) Set A3, A4, 11x17, or LTR size papers in a cassette. (Refer to the cassette settings.)
- 2) Select [Settings/Registration] > [Adjustment /Maintenance] > [Adjust Image Quality] > [Auto Adjust Gradation], and execute the item.

## Reader Heater Unit

### Checking the Contents (ASIA only)

#### Reader Heater Unit-G1



F-9-103

### Checking the Parts to be Installed (Europe only)

#### Reader Heater Unit

Prepare the following parts because each part of the Cassette Heater Unit is assigned as service part.

NO.	Parts name	Parts Number.	Q'ty
[1]	Reader Heater (200V)	FK2-7164-000	1 pc
[2]	Flat Screw (M4 x4)	XA9-1956-000	4 pc
[3]	Heater Sheet	FC8-6060-000	1 sheet

T-9-3

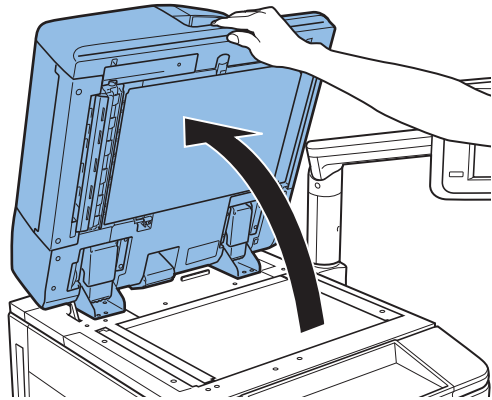
### Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

- 1) Turn OFF the main power switch of the host machine.
- 2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

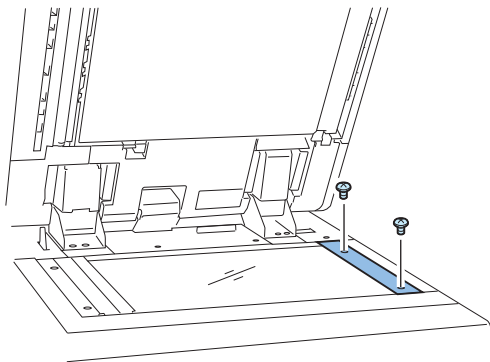
# Installation Procedure

- 1) Open the DADF.



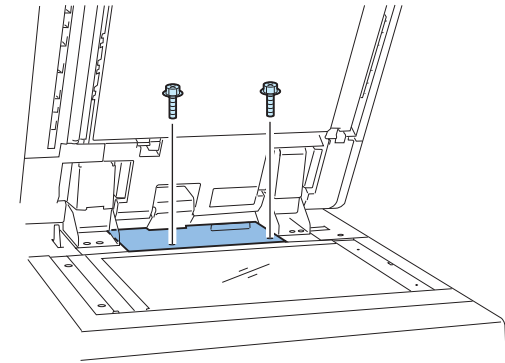
F-9-104

- 2) Remove the right retainer cover.
- 2 screws



F-9-105

- 3) Remove the DF cable cover.
- 2 screws



F-9-106

### CAUTION:

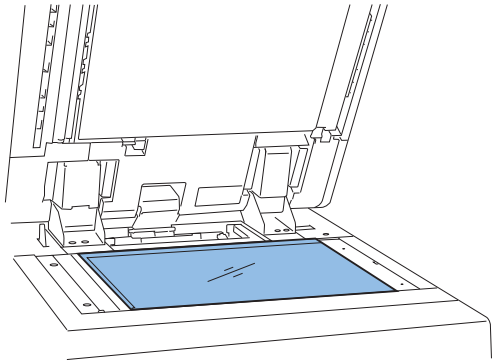
When removing the copyboard glass, be sure not to get your fingers touched with the glass surface or the backside of the white plate. In case the glass is soiled, clean it with lint-free paper.



F-9-107

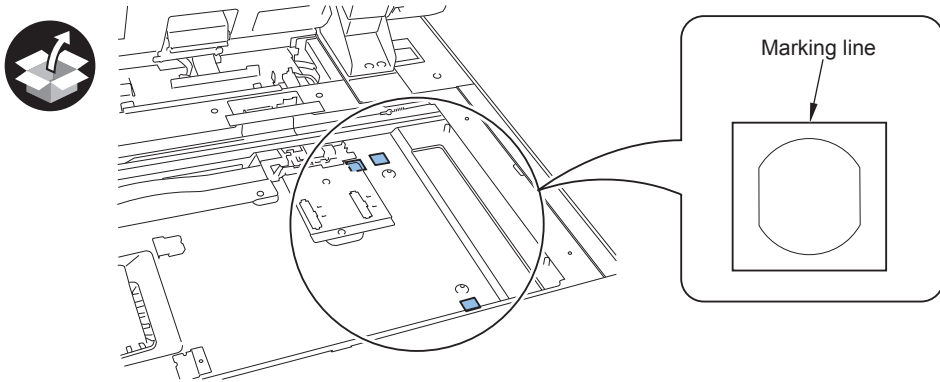


- 4) Remove the copy board glass



F-9-108

- 5) Align the 5 heater sheets in the marking line and put them on.

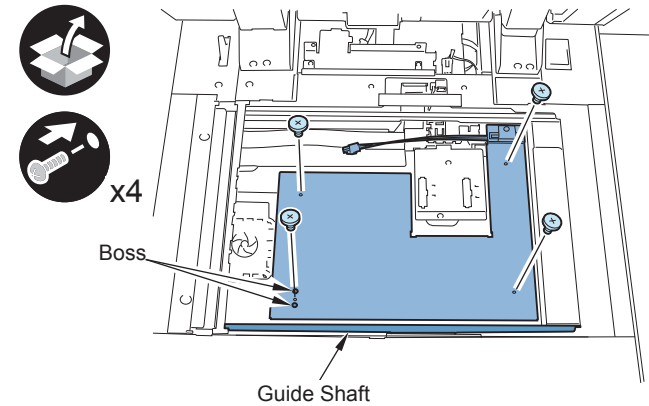


F-9-109

- 6) Install the reader heater.
- 4 screws (flat-head ;M4X4)
  - 2 bosses

**CAUTION:**

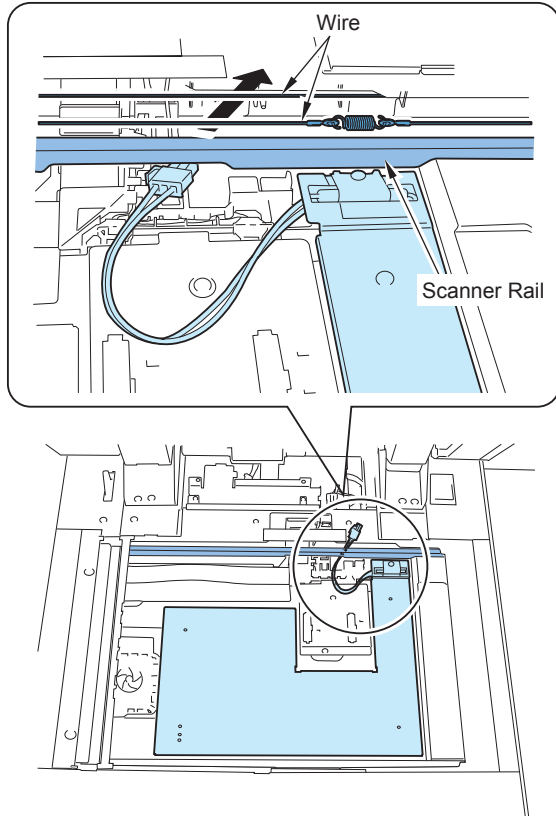
Do not scratch surface of the wire and the Scanner Rail.



F-9-110

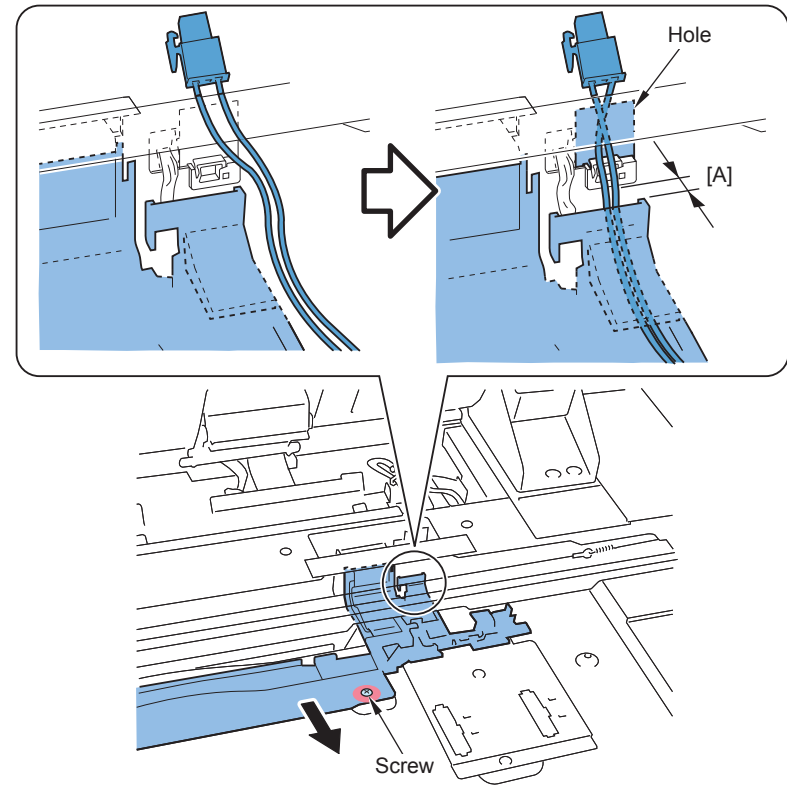
- 7) Pass the connector under the wire and the Scanner Rail.

**CAUTION:**  
Do not scratch surface of the wire and the Scanner Rail.



F-9-111

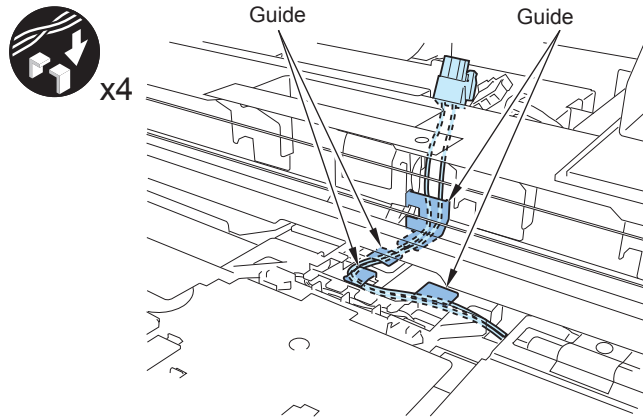
- 8) To make a space [A] to put the harness through, loosen the screw.



F-9-112

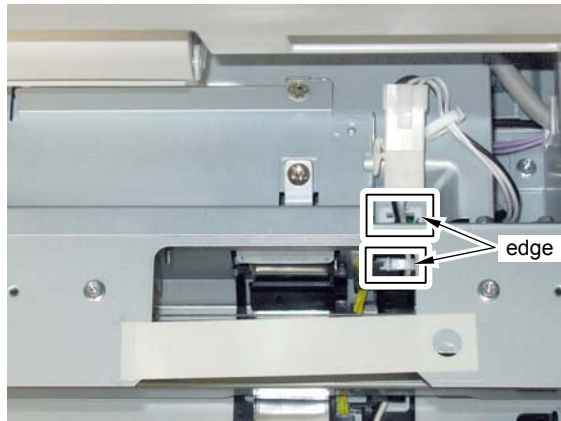
- 9) Put the harness along the claws of FFC guide in the 4 places.

**NOTE:**  
Make sure to keep the harness tightly put.



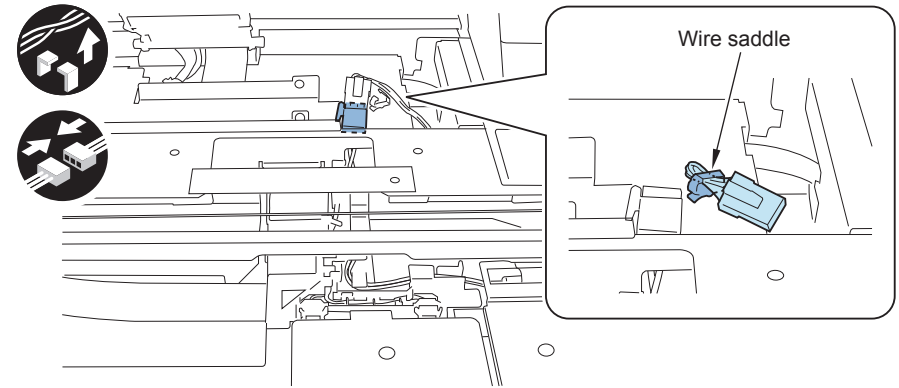
F-9-113

- 10) Open the 2 Edge Saddles, put the connector through a hole of the plate, and then secure in place using the 2 Edge Saddles.



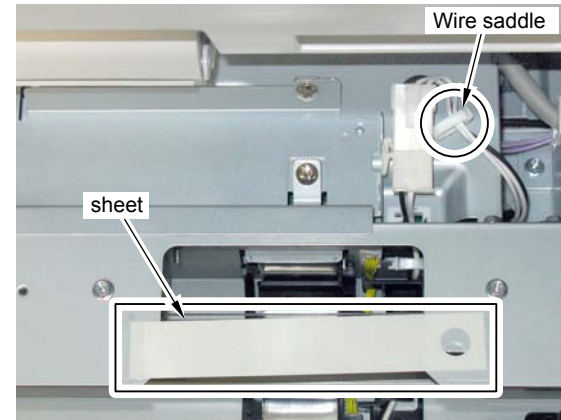
F-9-114

- 11) Release the wire saddle and connect the connector.



F-9-115

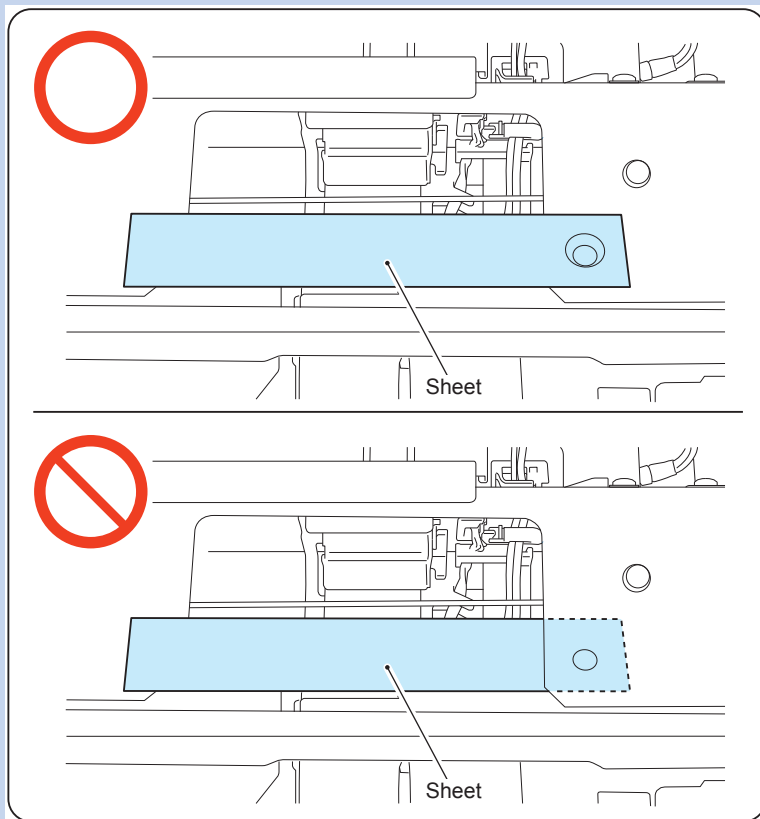
- 12) Secure the harness in place using the Wire Saddle.



F-9-116

**NOTE:**

Be sure to check that the sheet is on the plate.



F-9-117



13) Aligning with the boss, tighten the screw that has been loosened in step 8).

14) Install the removed cover.

- Copy board glass
- DF cable cover
- Right retainer cover

15) Close the DADF.

16) Turn ON the environment switch

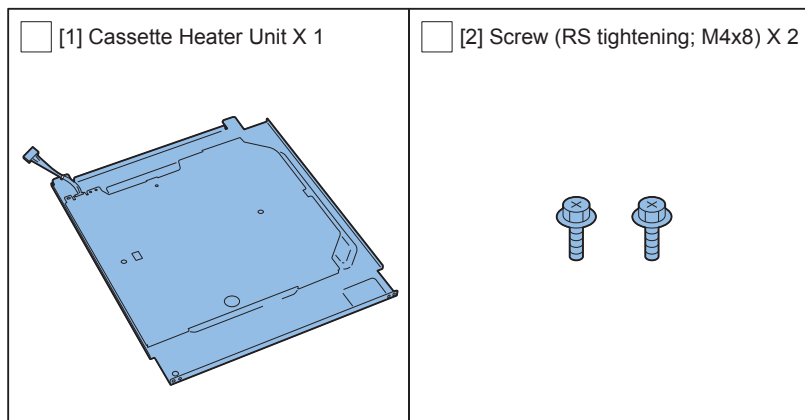
17) Insert the power plug to the outlet.

18) Turn the main power switch ON.

## Cassette Heater Unit

### Checking the Contents (Asia only)

#### Cassette Heater Unit-38



F-9-118

### Checking the Parts to be Installed (Europe only)

Prepare the following parts because each part of the Cassette Heater Unit is assigned as service part.

No.	Parts Name	Parts Number	Q'ty
[1]	Cassette Heater Unit	FM3-4855-000	1 pc
[2]	Screw (RS tightening; M4x8)	XB6-6400-805	2 pc

T-9-4

### Check Items when Turning OFF the Main Power

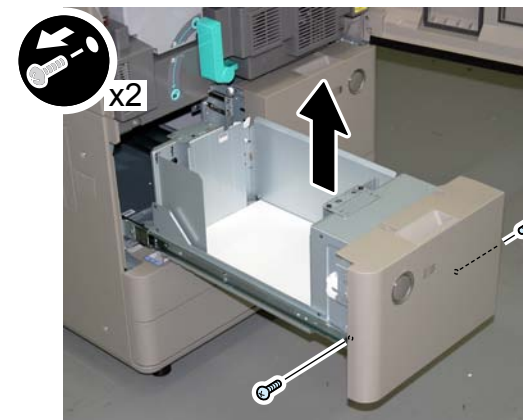
Check that the main power switch is OFF.

- 1) Turn OFF the main power switch of the host machine.
- 2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

### Installation Procedure



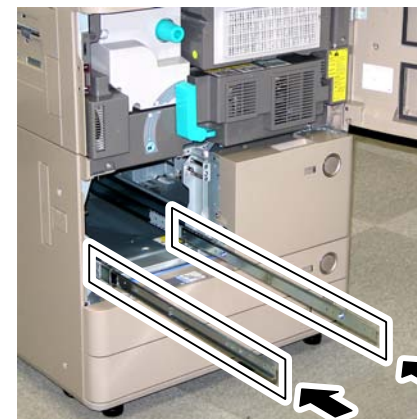
- 1) Open the Front Cover.
- 2) Pull out the Left Deck to remove.
  - 2 Screws



F-9-119



- 3) Put the 2 Rails in.

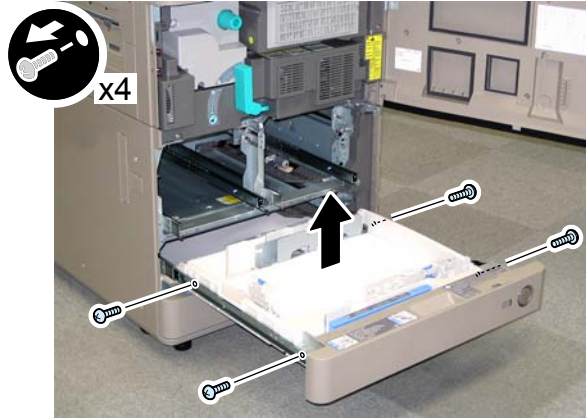


F-9-120



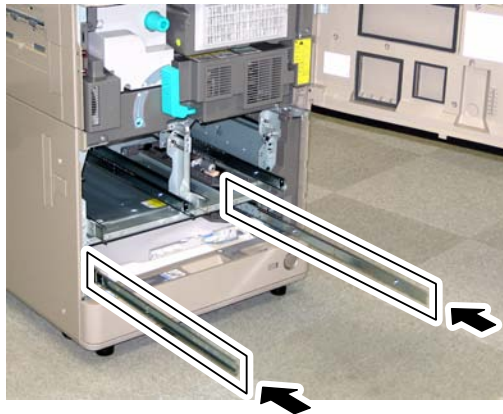
- 4) Pull out the Right Deck to remove the Left Deck in the same way.
- 5) Put the 2 Rails in.

- 6) Pull out Cassette 3 to remove.
- 4 Screws



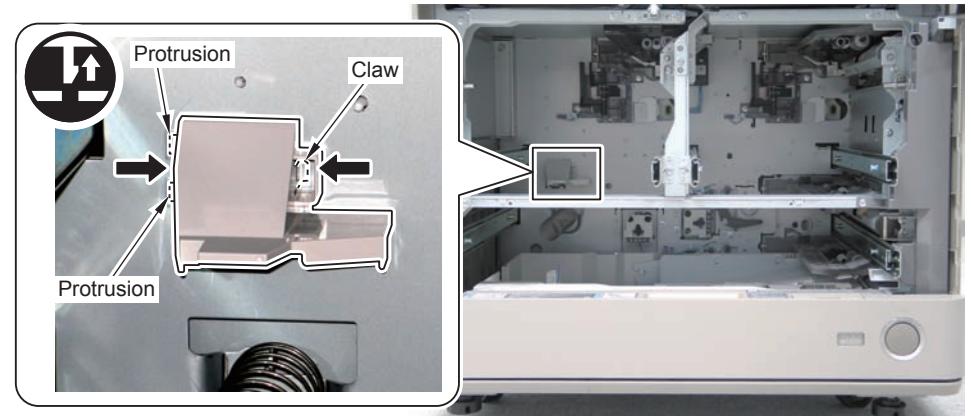
F-9-121

- 7) Put the 2 Rails in.



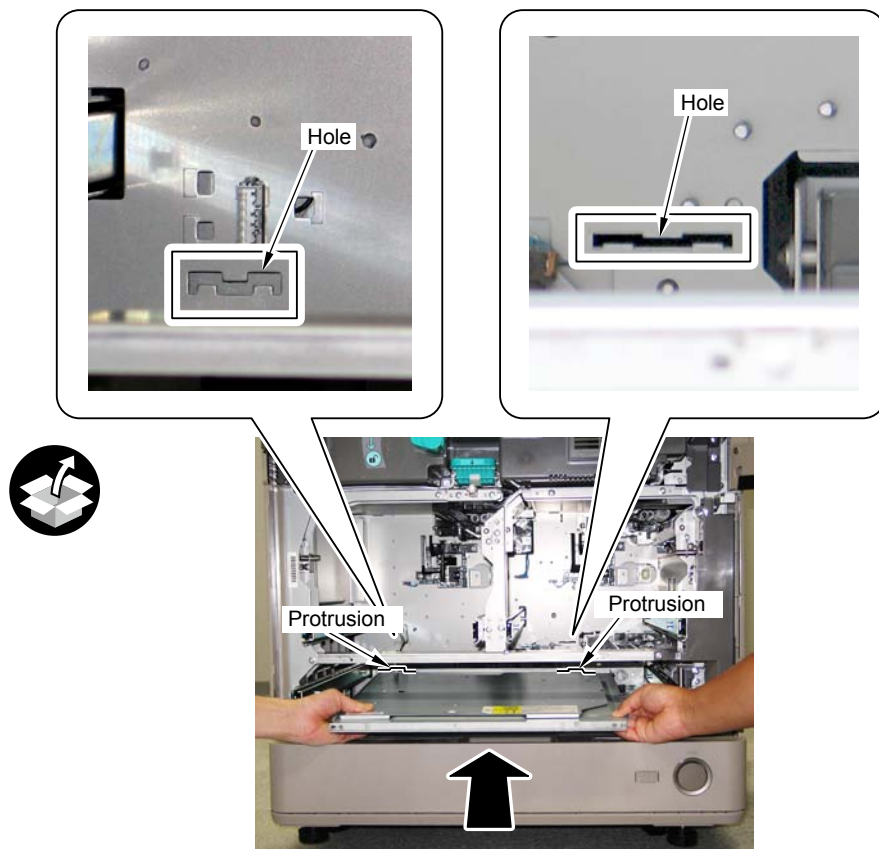
F-9-122

- 8) Remove the Connector Cover.
- 1 Claw
- 2 Protrusions



F-9-123

- 9) Fit the Protrusions of the Cassette Heater Unit into the Holes of the Host Machine.

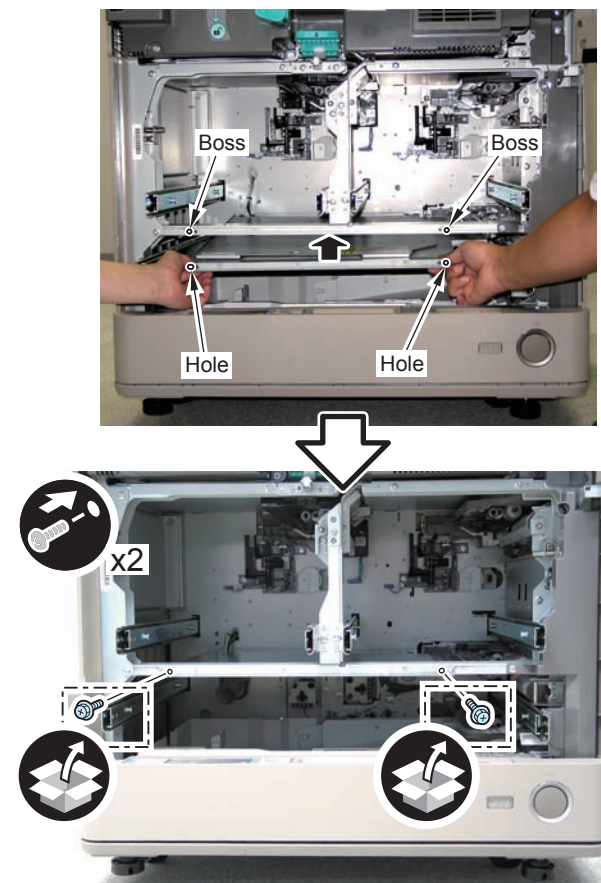


F-9-124

- 10) Fit the 2 bosses of the host machine into the holes of the Cassette Heater Unit to install the Cassette Heater Unit.  
• 2 Screws (RS tightening; M4x8)

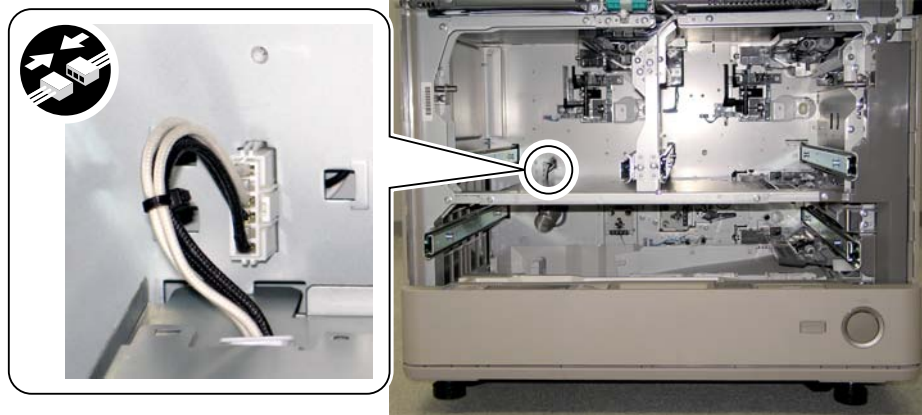
**CAUTION:**

The unit may be fallen down if misaligned from the bosses, so be sure to hold the lower part by hand until the screws are tightened.



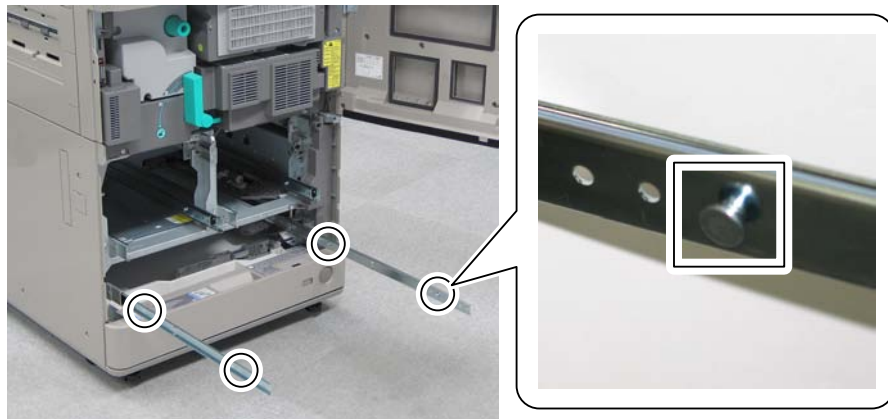
F-9-125

- 11) Install the connector.



F-9-126

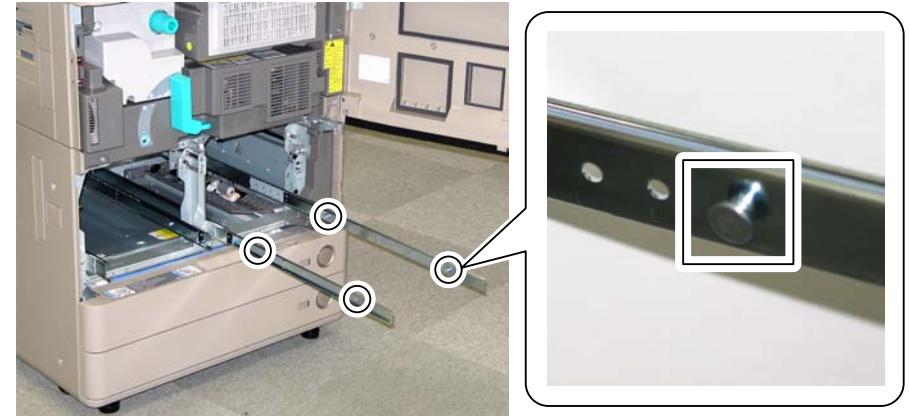
- 12) Install the Connector Cover.  
 13) Pull out the Rails at the installation area of Cassette 3.  
 14) Fit the 4 pins on the Rails with the grooves of Cassette 3 to place Cassette 3 over the Rails.



F-9-127

- 15) After having installed Cassette 3 with 4 screws,close Cassette 3.

- 16) Pull out the Rails at the installation area of the Right Deck.  
 17) Fit the 4 pins on the Rails with the grooves of the Right Deck to place the Right Deck over the Rails.



F-9-128

- 18) After having installed Right Deck with 2 screws,close the Right Deck.  
 19) Install the Left Deck o the Right Deck in the same way.  
 20) Close the Front Cover.  
 21) Turn on the cassette heater switch.  
 22) Connect the power plug of the host machine to the power outlet.  
 23) Open the switch cover and turn ON the main power switch.

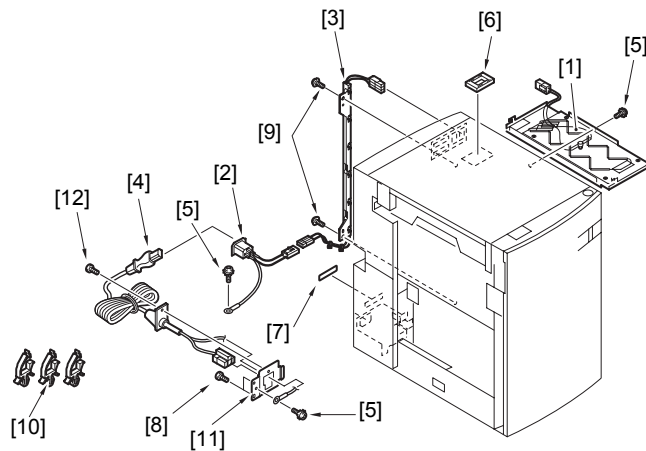


## Paper Deck Heater Unit-A1

### Checking the Contents

**NOTE:**

Every components of the paper deck heater unit (paper deck heater unit-A1) are supplied as service parts, so have the following parts on hand.



F-9-129

No.	Parts Name	Parts Number	Q'ty
[1]	Heater Unit	FG6-9651-000	1pc.
[2]	AC Input Connector	FK3-0631-000	1pc.
[3]	Relay Harness Unit	FG6-2957-000	1pc.
[4]	AC Cable	FG6-1117-000	1pc.
[5]	Screw with Toothed Washer	XB2-7400-607	3pcs.
[6]	Cable Protection Bushing	WT2-5098-000	1pc.
[7]	Power Supply Label	FS6-8725-000	1pc.
[8]	Screw (Binding; M4x4)	XB1-2400-409	2pcs.
[9]	Screw (RS-tight; M4x8)	XA9-0732-000	2pcs.
[10]	Wire Saddle	WT2-5018-000	3pcs.
[11]	Cord Mount	FC7-5473-000	1pc.
[12]	Screw with Flat Spring	XB2-8401-007	1pc.

T-9-5

### Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

- 1) Turn OFF the main power switch of the host machine.
- 2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

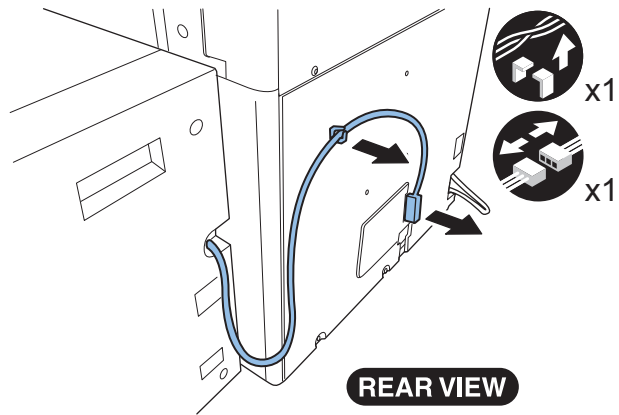
**CAUTION:**

When installing the heater to the paper deck, take the following precautions.

- a. The AC power plug of the host machine must have been removed from the outlet.
- b. Install the heater after installing the host machine and paper deck.
- c. Use correct screws (length and diameters) at correct positions.

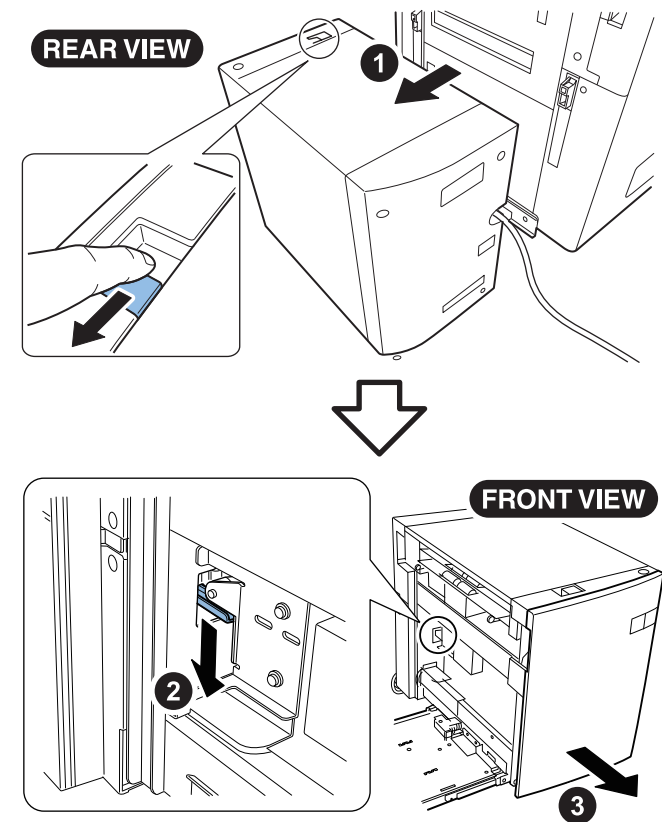
## Installation Procedure (Paper Deck Unit-C1)

- 1) Disconnect the connector of the paper deck from the host machine.



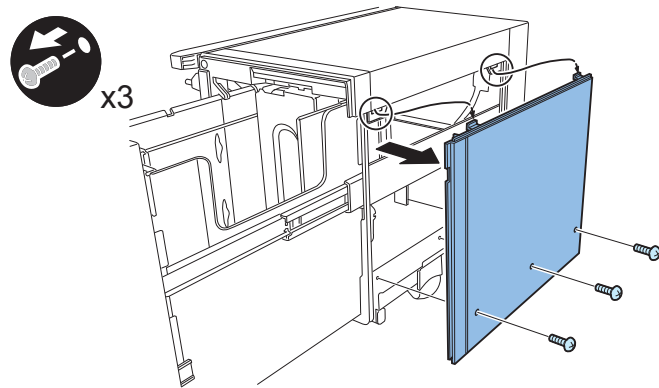
F-9-130

- 2) Release the paper deck from the host machine, and then press down the latch plate of the paper deck housing with your finger to open the housing.



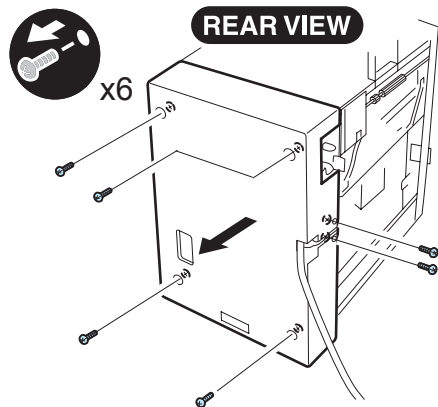
F-9-131

- 
- 3) Detach the right cover of the paper deck.
- 3 screws



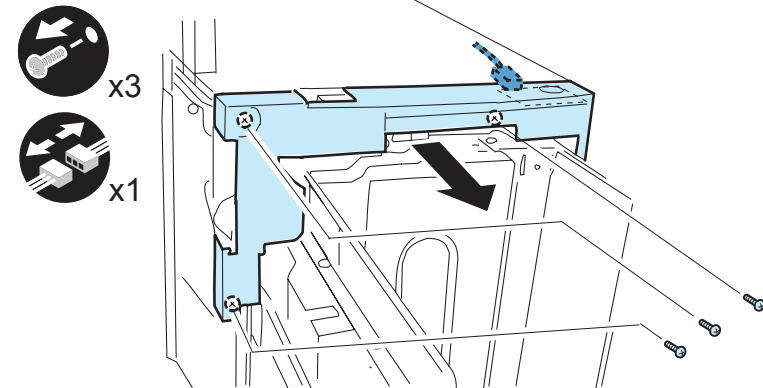
F-9-132

- 
- 4) Detach the rear cover of the paper deck.
- 6 screws (M3x8: 2pcs, M4x8: 4pcs)



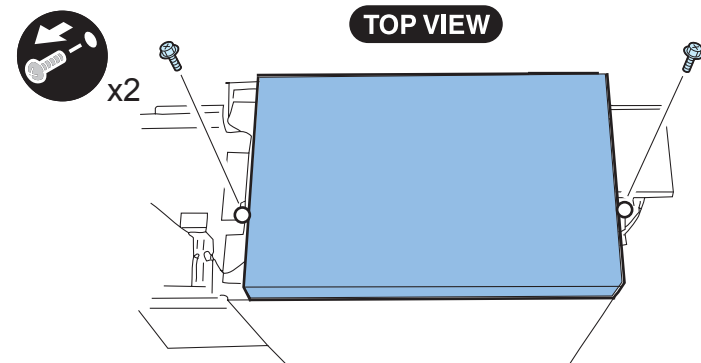
F-9-133

- 
- 5) Detach the front-upper cover.
- 3 screws
  - 1 connector



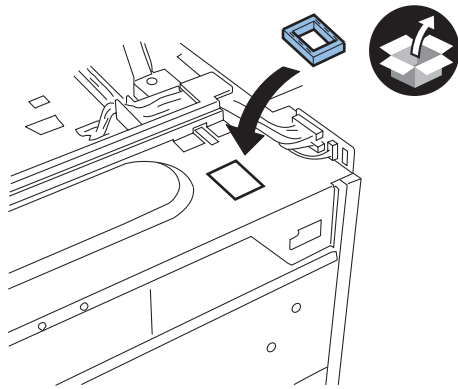
F-9-134

- 
- 6) Detach the top cover.
- 2 screws



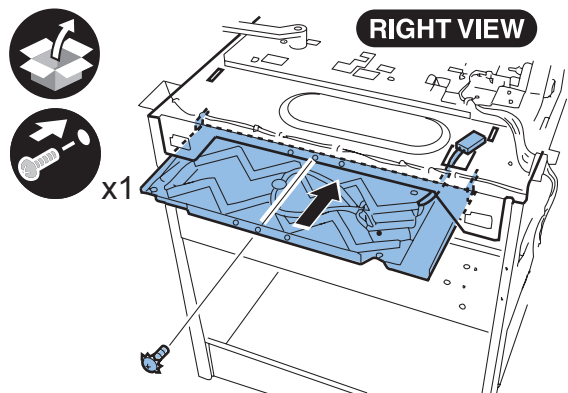
F-9-135

- 7) Attach the supplied cable protection bushing into the hole on the top panel of the paper deck.



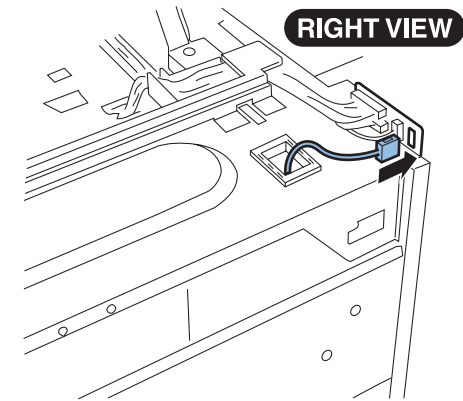
F-9-136

- 8) Place the heater unit under the top panel of the paper deck, and then take the connector out from the hole on the top plate.
- 9) Insert 2 hooks of the heater unit into the holes on the top plate of the paper deck, and then secure the heater unit to the main body of the paper deck.
- 1 screw with toothed washer



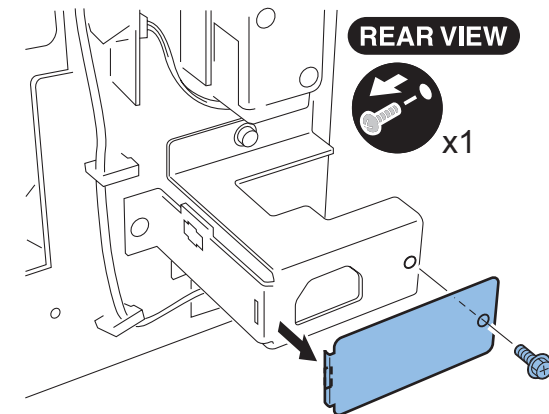
F-9-137

- 10) Attach the heater connector to the panel mount.



F-9-138

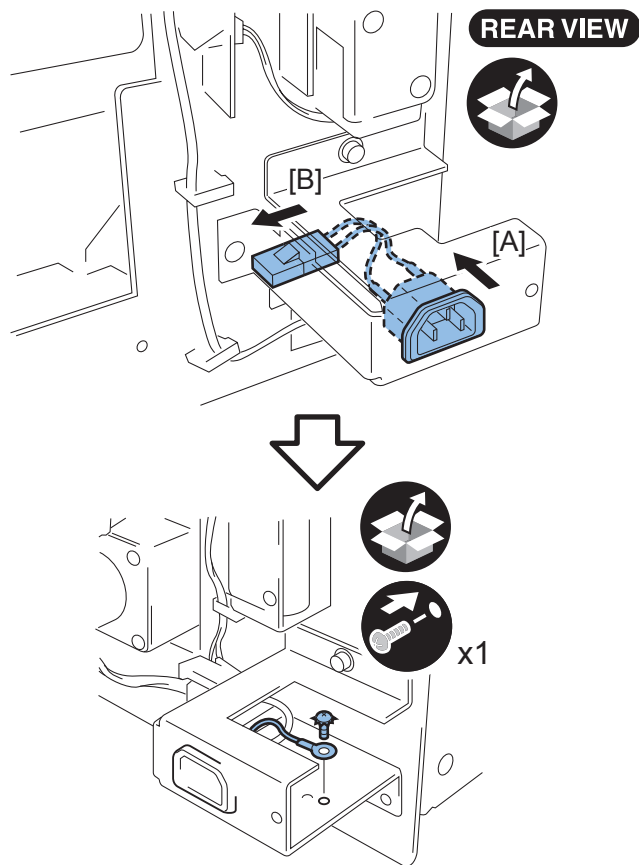
- 11) Remove the blindfold plate from the power core mount of the paper deck.
- 1 screw



F-9-139

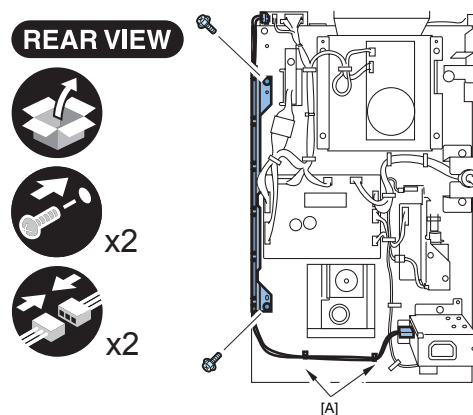
**NOTE:**  
Removed blindfold plate and screw are no longer reused.

- 12) Install the supplied AC input connector in 2 steps ([A] > [B]).  
Secure the ground cable.
- 1 screw with toothed washer



F-9-140

- 13) Install the relay harness unit to the rear side panel of the paper deck.
- 2 screws (RS-tight; M4x8)



F-9-141

- 14) Insert the bind locks of the cable ties in the holes (at [A] shown below) in the rear side panel to secure the relay harness.
- 15) Connect the connector at both ends of the relay harness unit to the heater connector and AC power connector respectively.

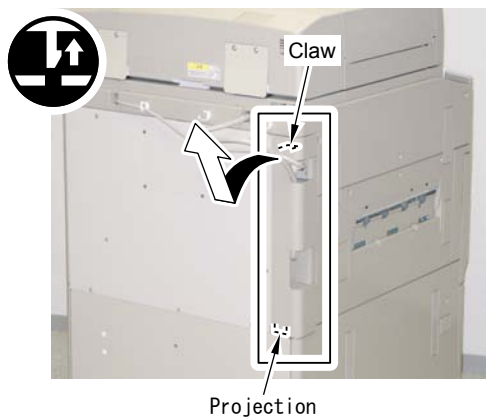
- 16) Reattach the exterior covers of the paper deck in the following sequence;
- [1] Top cover (take care not to have the cables caught)
    - 2 screws (RS-tight; M4x8)
  - [2] Front-upper cover (insert the connector)
    - 3 screws (RS-tight; M4x8)
  - [3] Rear cover
    - 4 screws (RS-tight; M4x8)
    - 2 screws (Binding; M3x8)
  - [4] Right cover
    - 3 screws (RS-tight; M4x8)

- 17) Remove the Harness.
- 2 wire saddles



F-9-142

- 18) Remove the Left Rear Cover.
- 1 claw
- 1 protrusion



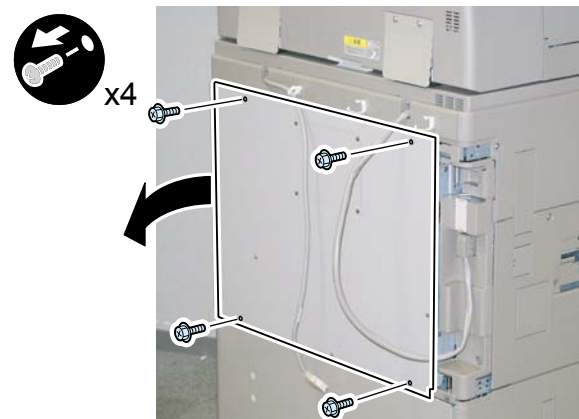
F-9-143

- 19) Disconnect the Reader Communication Cable.



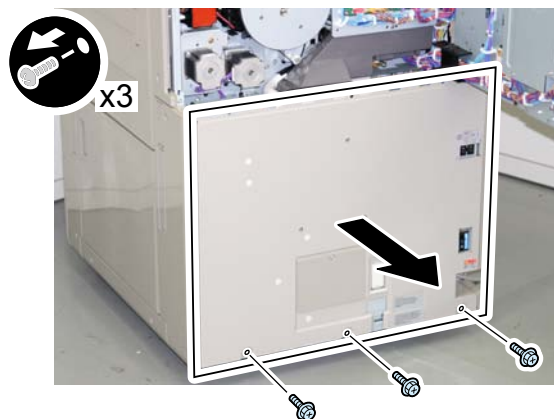
F-9-144

- 20) Open the Controller Box in the direction of the arrow.
- 4 screws



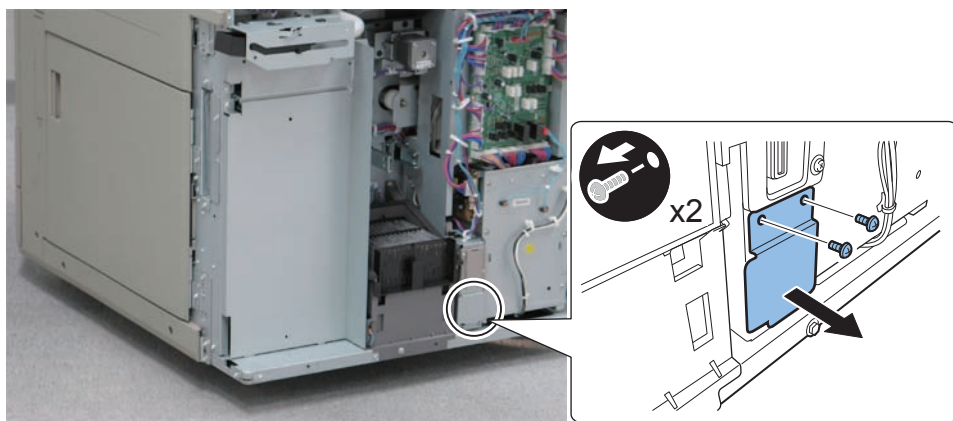
F-9-145

- 21) Remove the Rear Lower Cover in the direction of the arrow.
- 3 screws



F-9-146

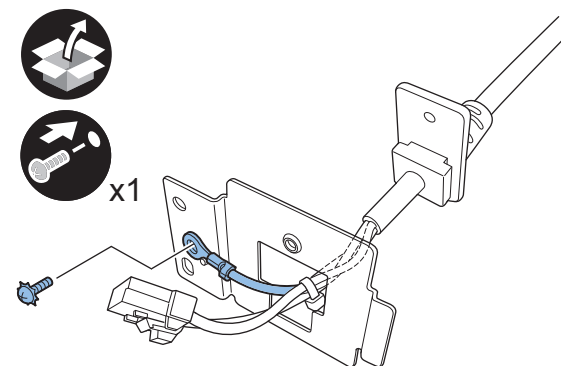
- 22) Remove the blindfold plate.
- 2 screws



F-9-147

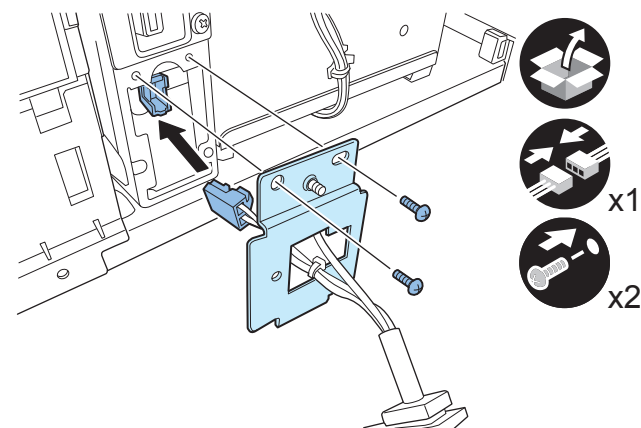
**NOTE:**  
Removed blindfold plate and screw are no longer reused.

- 23) Insert the AC cord into the hole of the cord mount, and then secure the ground cable to the cord mount.
- 1 screw with toothed washer



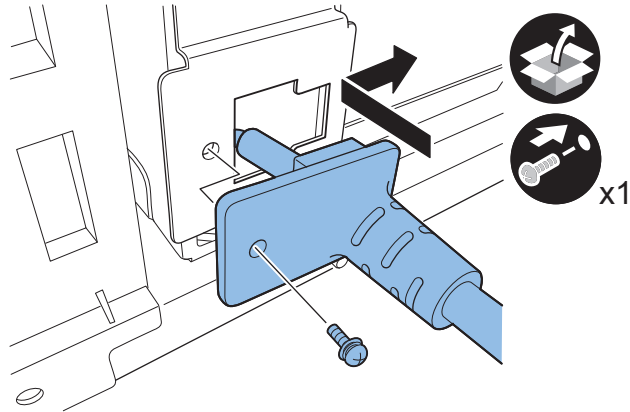
F-9-148

- 24) Attach the cord mount on the host machine.
- 1 connector
  - 2 screws (Binding; M4x4)



F-9-149

- 25) Secure the AC cord to the cord mount.
- 1 screw with flat spring

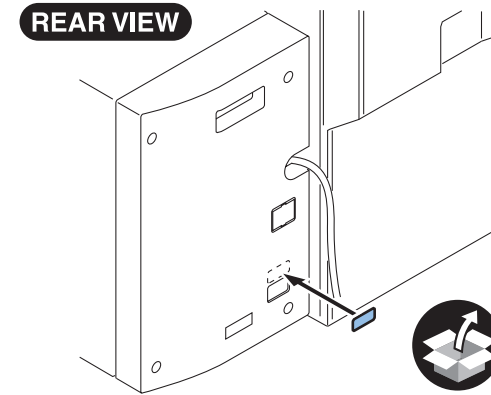


F-9-150

- 26) Reattach the exterior covers of the host machine in the following sequence;
- [1] Rear Lower Cover
    - 3 screws (RS-tight; M4x10)
  - [2] Close the Controller Box.
    - 4 screws (RS-tight; M4x10)
  - [3] Connect the Reader Communication Cable.
    - 1 claw
    - 1 protrusion
  - [4] Fix the Harness.
    - 2 wire saddles

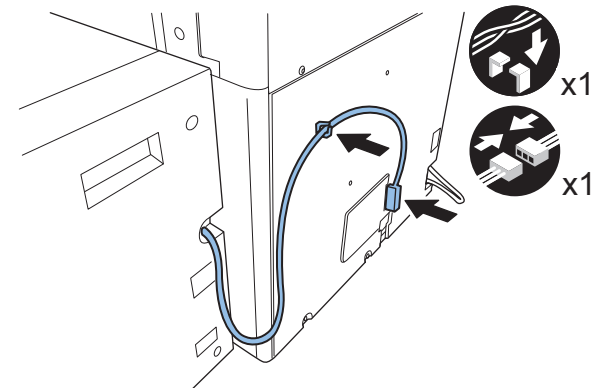
- 27) Close the deck compartment.
- Manually slide the paper deck to the left place in aside of the host machine.

- 28) Stick the power supply label on the rear panel of the paper deck.



F-9-151

- 29) Fix the paper deck cable in the wire saddle and joint the connector to the host machine.

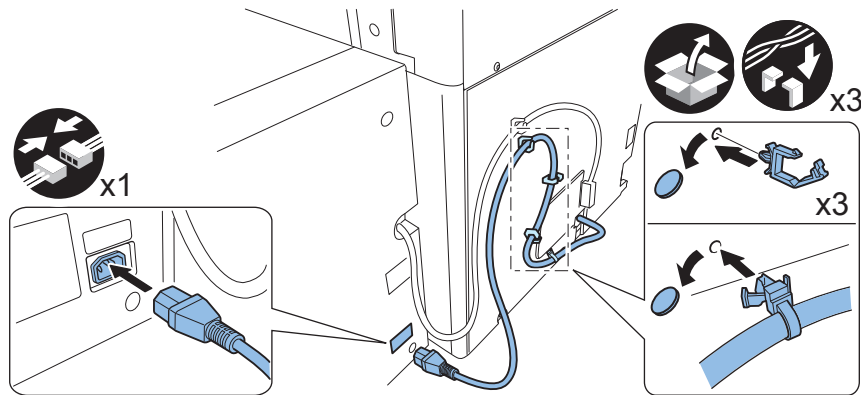


F-9-152



- 30) Peel off the 4 blindfold seal at the rear side of the host machine, then fit the reuse band of the AC cable and 3 wire saddles as shown.

Wire the AC cable as shown in the figure and joint the AC connector to the power cord mount of the heater.

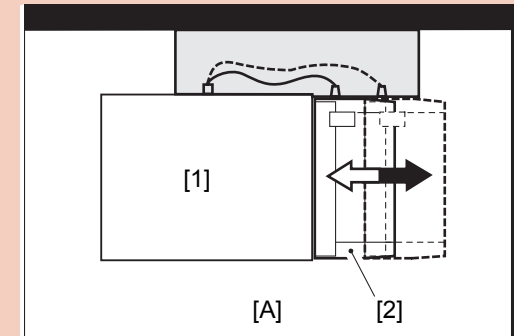


F-9-153

**CAUTION:**

To ensure smooth connection of the heater power connectors, explain to the user that any obstacle that can prevent the paper deck from opening should not be placed in the hatched area.

[1]: Host machine [2]: Paper deck [A]: Front

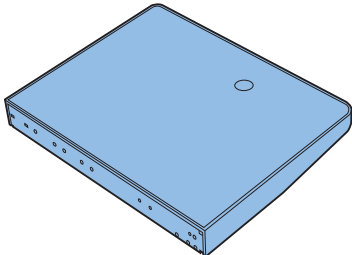
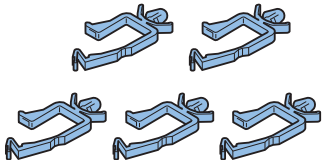
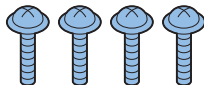

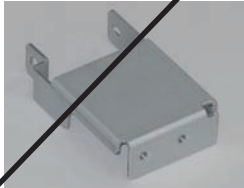
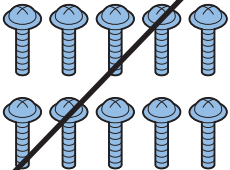


F-9-154

# Utility Tray-A1/A2

## Checking the Contents

The parts with a diagonal line in the contents list will not be used.

<input type="checkbox"/> [1] Utility Tray Unit X 1 	<input type="checkbox"/> [2] Wire Saddle X 5 Use when installing the USB Keyboard 	<input type="checkbox"/> [3] Screw (TP ; M4x14) X 4 Use 3 of them 	<input type="checkbox"/> [4] Screw (TP ; M4x10) X 2 	<input type="checkbox"/> [5] Keyboard Table Plate X 1 Included in A2 only 
<input type="checkbox"/> [6] Screw (TP; M4x8) X 10 Included in A2 only 				

F-9-155

## Installation Procedure

### CAUTION:

Refer to "Combination of options" when installing this equipment before operation.

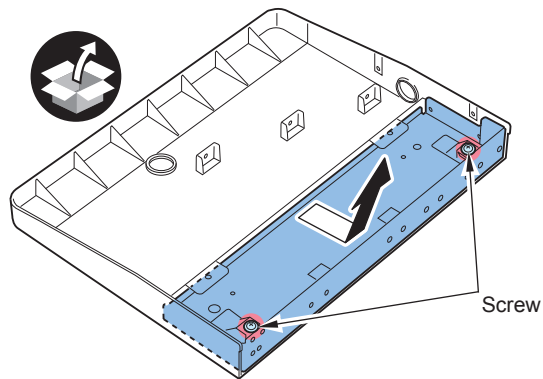


1) Remove packing tapes.



2) Loosen the 2 screws of the Utility Tray Unit, and remove the Utility Tray Mounting Plate.

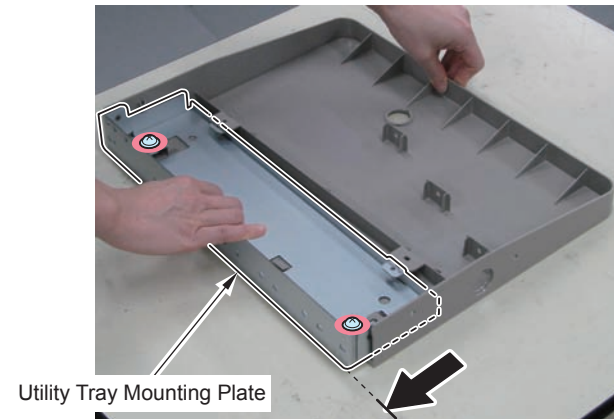
<In Case of Utility Tray-A1>



F-9-156

<In Case of Utility Tray-A2>

- Loosen the 2 screws, and move the Utility Tray Mounting Plate in the direction of the arrow until it stops.

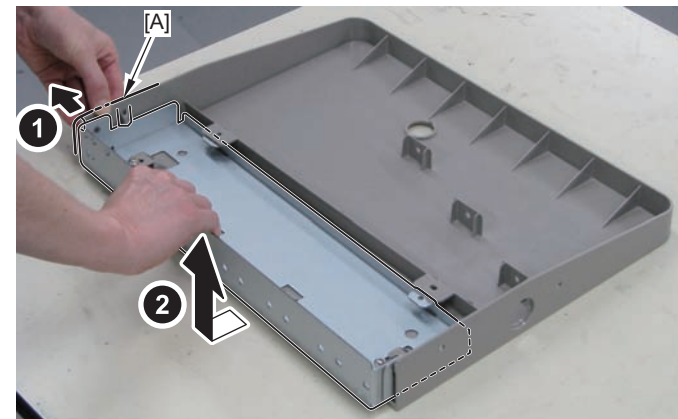


F-9-157

### CAUTION:

Be sure not to pull the [A] part of the Utility Tray too much.

- While pulling the [A] part of the Utility Tray, remove the Utility Tray Mounting Plate.



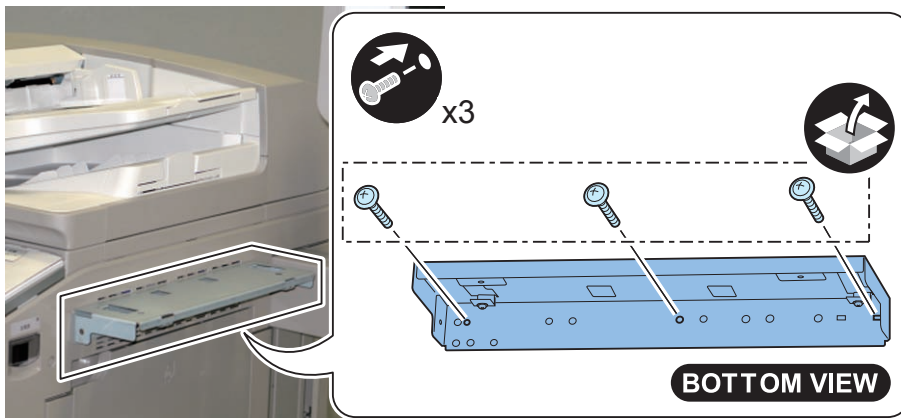
F-9-158

- 
- 3) Remove the 3 Rubber Caps from the Right Upper Cover. (The removed Rubber Caps will not be used.)



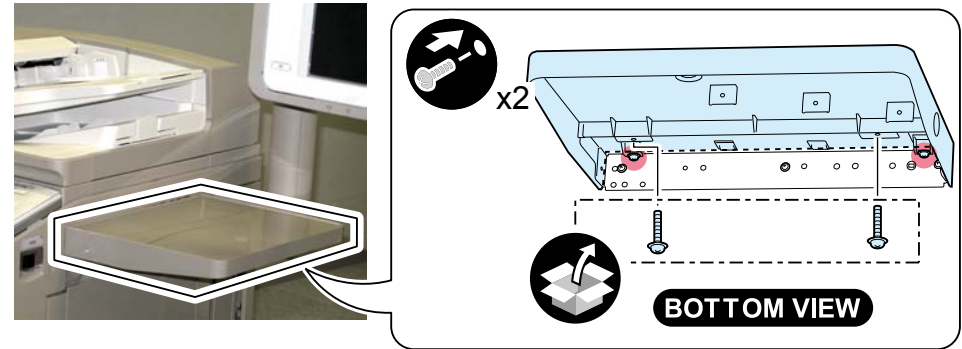
F-9-159

- 
- 4) Install the Mounting Plate.
- 3 Screws (TP; M4x14)



F-9-160

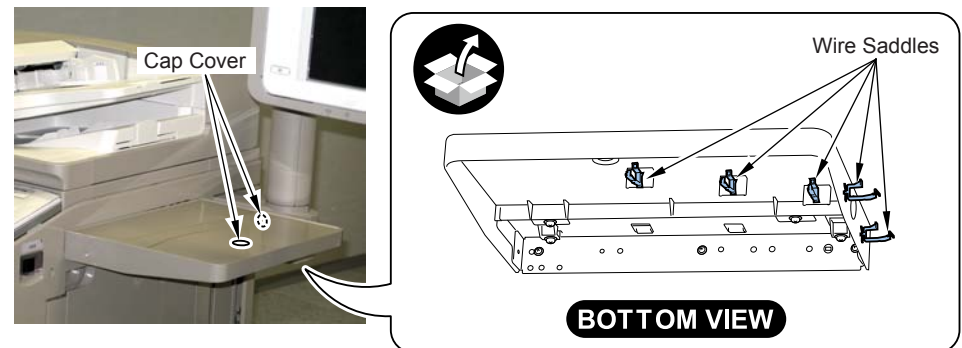
- 
- 5) Install the Utility Tray.
- 2 Screws (TP; M4x10)
  - 2 Screws (TP; The screws loosened in step 2.)



F-9-161

## When Installing the USB Keyboard

- 
- 1) Remove the 2 Cap Covers, and install the 5 Wire Saddles.



F-9-162

## Card Reader-C1/Copy Card Reader-F1

### Points to Note at Installation

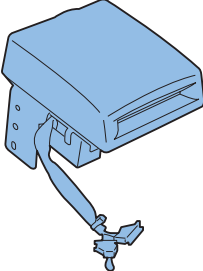


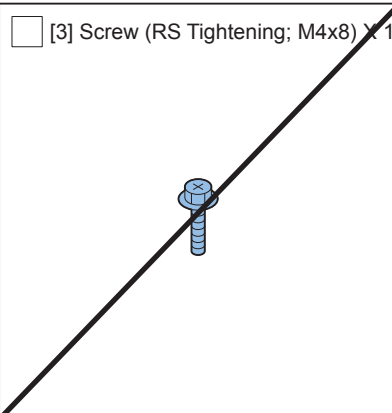
**CAUTION:**

To install this equipment, the Copy Card Reader Attachment-A2 is required.

### Checking the Contents

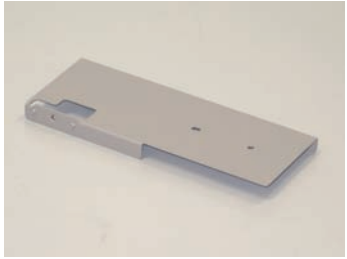
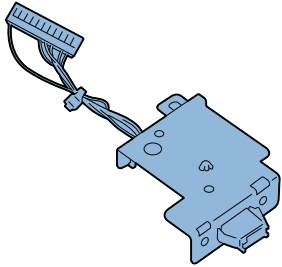


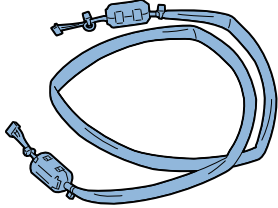
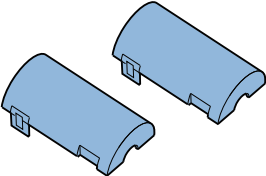
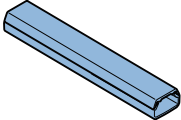





#### Contents of Card Reader-C1

The parts with a diagonal line in the contents list will not be used.

<input type="checkbox"/> [1] Card Reader X 1 	<input type="checkbox"/> [2] Toothed Washer X 1 	<input type="checkbox"/> [3] Screw (RS Tightening; M4x8) X 1  
--	--	--

F-9-163

■ Contents of Copy Card Reader Attachment-A2

<input type="checkbox"/> [1] Card Reader Mounting Plate X 1 	<input type="checkbox"/> [2] Card Reader X 1 	<input type="checkbox"/> [3] Connector Cover1 X 1 	<input type="checkbox"/> [4] Connector Cover2 X 1 	<input type="checkbox"/> [5] Card Reader External Relay Harness X 1 
<input type="checkbox"/> [6] Connector Case X 2 	<input type="checkbox"/> [7] Cord Guide X 1 	<input type="checkbox"/> [8] PCB Spacer X 1 	<input type="checkbox"/> [9] Screw (TP; M4x12) X 1 	<input type="checkbox"/> [10] Screw (RS tight; M4x8) X 1 
<input type="checkbox"/> [11] Screw (Bindeing; M4x20) X 1 	<input type="checkbox"/> [12] Screw (TP; M3x6) X 1 			

See the following table for the parts to be used.

No	Name	Q'ty	Part to be used
[1]	Card Reader Mounting Plate	1pc	Yes
[2]	Card Reader	1pc	Yes
[3]	Connector Cover1	1pc	Yes
[4]	Connector Cover2	1pc	No
[5]	Card Reader External Relay Harness	1pc	Yes
[6]	Connector Case	2pcs	Yes
[7]	Cord Guide	1pc	Yes
[8]	PCB Spacer	1pc	Yes
[9]	Screw (TP; M4x12)	1pc	Yes
[10]	Screw (RS tight; M4x8)	1pc	Yes
[11]	Screw (Bindeing; M4x20)	1pc	No
[12]	Screw (TP; M3x6)	1pc	Yes

T-9-6

## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

- 1) Turn OFF the main power switch of the host machine.
- 2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

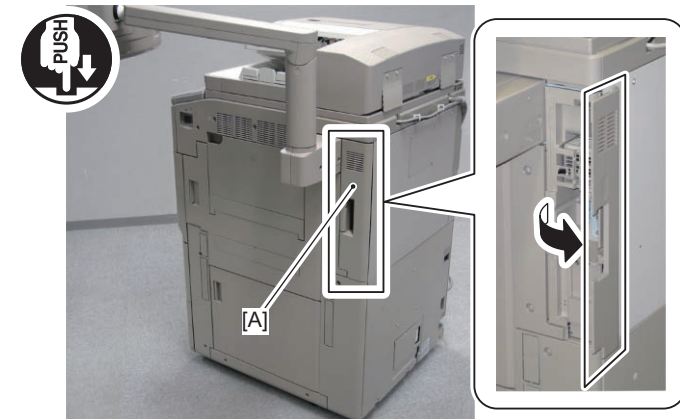
## Installation Procedure

### CAUTION:

- Refer to "Combination of options" when installing this equipment before operation.
- After installing the Card Reader, enter the card number to be used in the following service mode of this equipment: COPIER > FUNCTION > INSTALL > CARD. Otherwise, the card will not be recognized even inserting it.

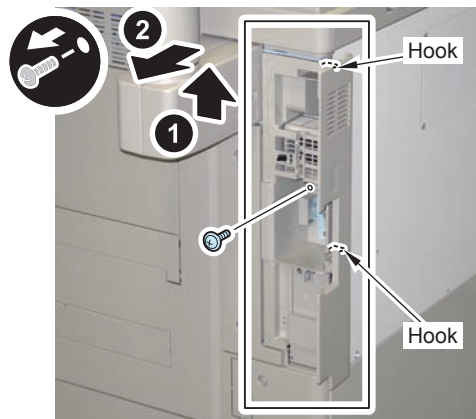


- 1) Press [A] part, and open the Right Rear Cover 1.



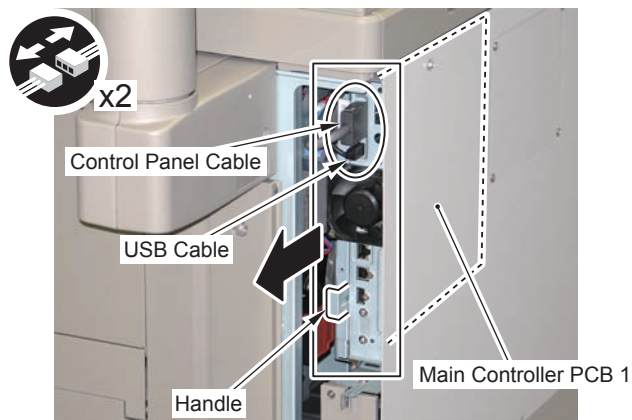
F-9-165

- 
- 2) Remove the Side Cover.
- 1 Screw (The removed screw will be used in step 13.)
  - 2 Hooks



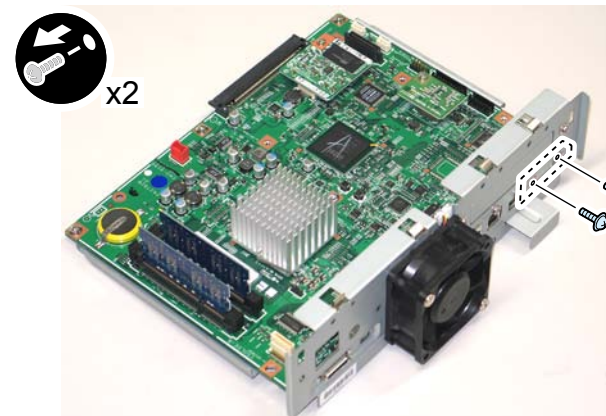
F-9-166

- 
- 3) Disconnect the USB Cable and the Control Panel Cable.
- 4) Hold the handle and remove the Main Controller PCB 1 while holding the cables.



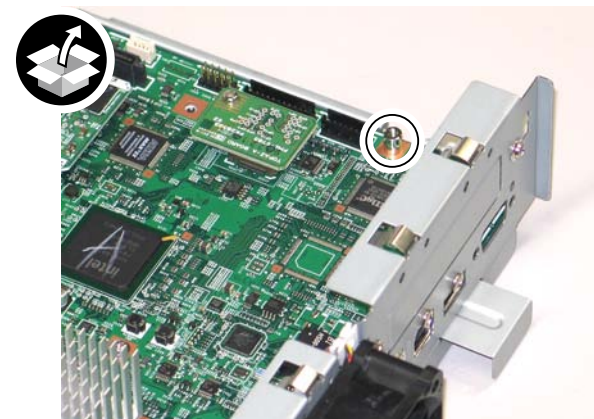
F-9-167

- 
- 5) Remove the Face Cover. (The removed Face Cover will not be used.)
- 2 Screws (The removed screws will be used in step 7.)



F-9-168

- 
- 6) Install the PCB Spacer.



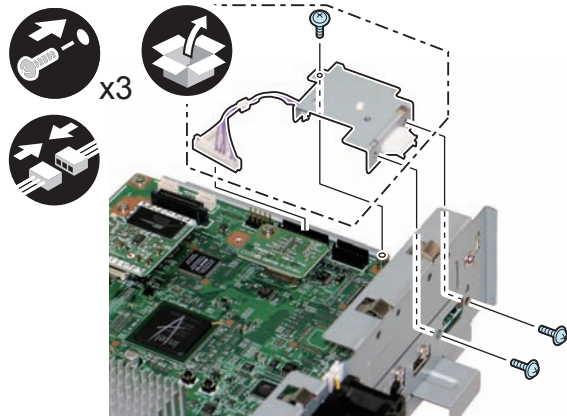
F-9-169





7) Install the Card Reader Reply Unit.

- 2 Screws (Use the screws removed in step 5.)
- 1 Screw (TP; M3x6)
- 1 Connector



F-9-170



8) Insert the Main Controller PCB 1 until it stops.

**CAUTION:**

Install the Main Controller PCB 1 while paying attention not to trap cables.

9) Connect the USB Cable and the Control Panel Cable.



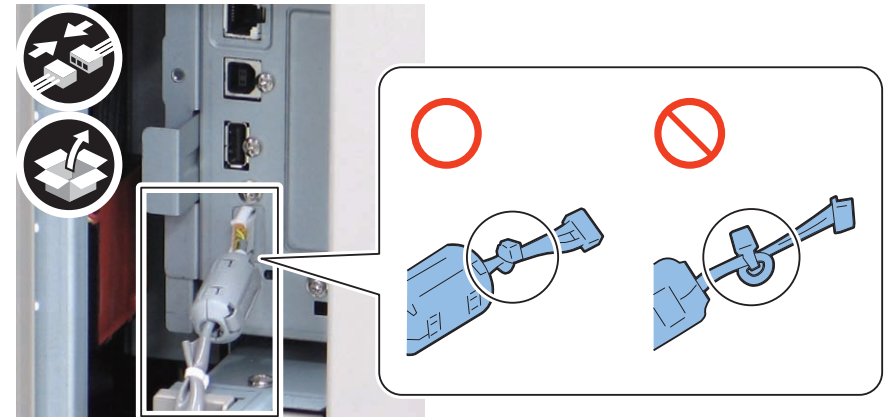
10) Remove the screw. (The removed screw will be used in step 12).



F-9-171



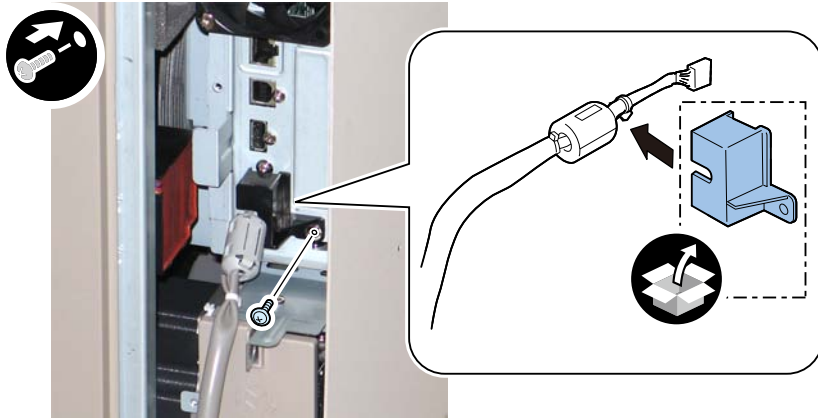
11) Connect the Card Reader External Relay Harness.



F-9-172

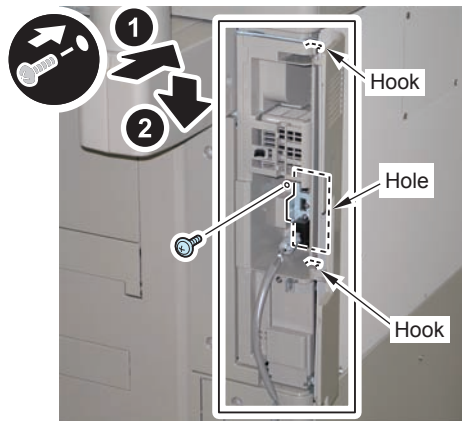
- 
- 12) Install the Connector Cover to the Card Reader External Relay Harness.
  - 1 Screw (Use the screws removed in step 10.)

**CAUTION:**  
When installing the Connector Cover, be sure to place the tie-wrap on the Card Reader External Relay Harness on the inside of the Connector Cover.



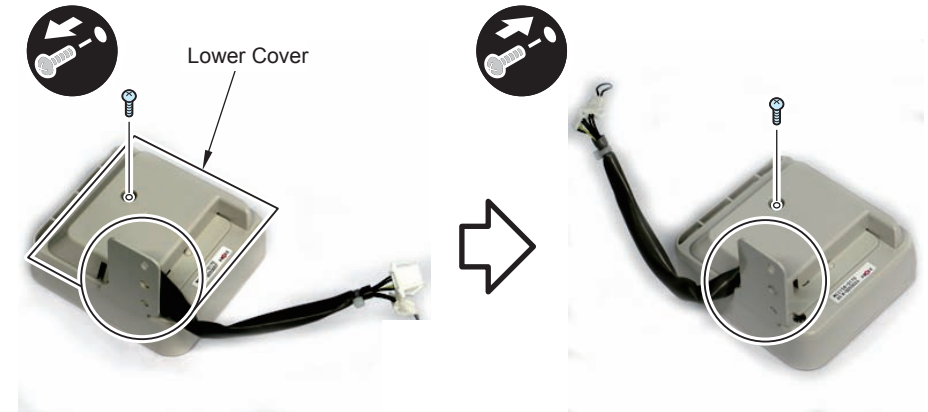
F-9-173

- 
- 13) Install the Side Cover by putting the Card Reader External Relay Harness through a hole of the cover.
  - 2 Hooks
  - 1 Screw (Use the screw removed in step 2.)



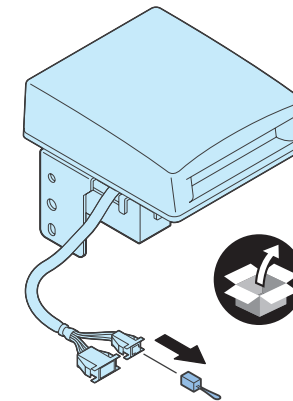
F-9-174

- 
- 14) Close the Right Rear Cover 1.
- 
- 15) Remove the Lower Cover of the Card Reader Unit, and change the position of the cable. (Copy Card Reader-F1 only)
  - 1 Screw
- 16) Install the Lower Cover of the Card Reader Unit.



F-9-175

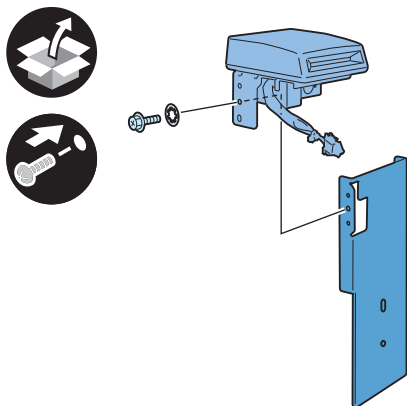
- 
- 17) Disconnect the Short Connector on the Card Reader. (The removed Short Connector will not be used.)



F-9-176

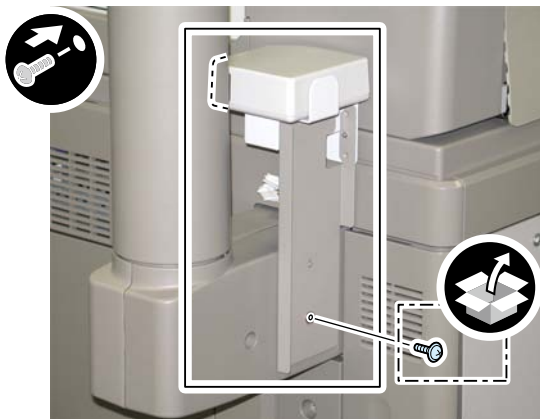
18) Install the Card Reader.

- 18-1) Install the Card Reader to the Card Reader Mounting Plate.
- 1 Toothed Washer
  - 1 Screw (RS Tightening; M4x8)



F-9-177

- 18-2) Install the Card Reader Unit assembled in step 18-1).
- 1 Screw (TP; M4x12)



F-9-178

19) Put the connector of the Card Reader Unit through the hole on the Card Reader Mounting Plate.

- 20) Connect the connectors of the Card Reader Unit and the Card Reader External Relay Harness.

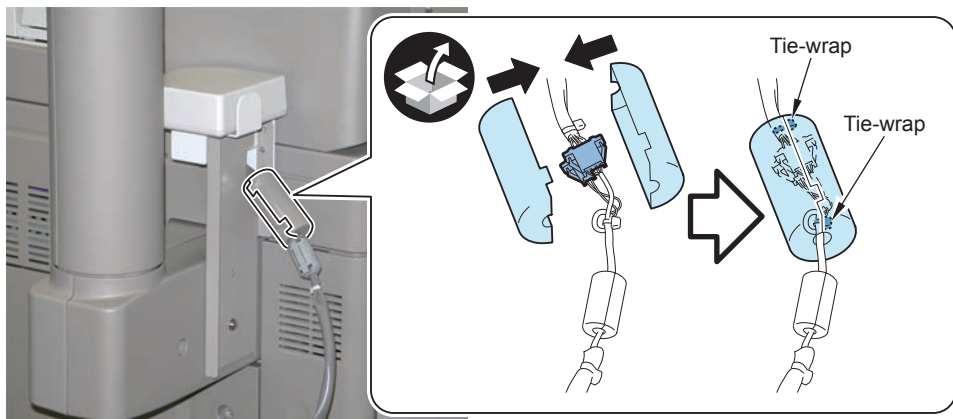


F-9-179

- 21) Install the Connector Case.

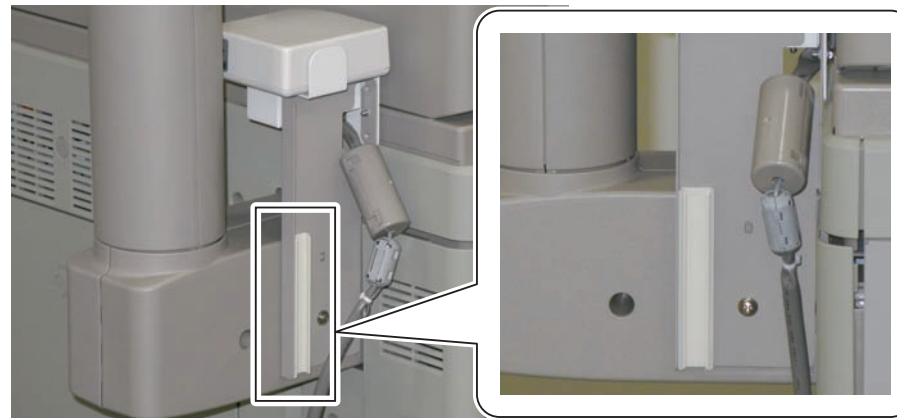
**CAUTION:**

When installing the Connector Cases, be sure to place the tie-wrap on the Card Reader External Relay Harness on the inside of the Connector Cases.



F-9-180

- 22) Secure the Card Reader External Relay Harness to the Cord Guide.
- 22-1) Remove the cover of Cord Guide, and affix it to the area indicated in the figure.



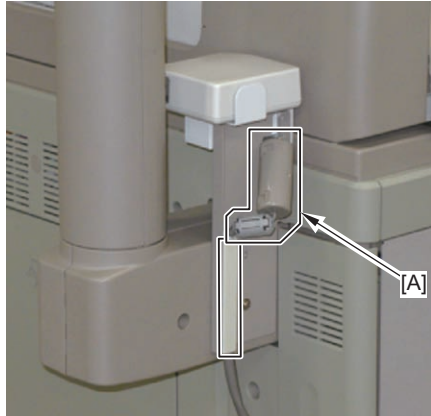
F-9-181



22-2) Put the Card Reader External Relay Harness through the Cord Guide, and install the cover of the guide.

**NOTE:**

- When installing it, be sure [A] part does not interfere when opening/closing the Right Rear Cover 1.



F-9-182



23) Connect the power plug of the host machine to the power outlet.

24) Open the switch cover and turn ON the main power switch.

## Setting After Installation



- 1) Enter service mode, and set the model of the Card Reader.
  - Service Mode > COPIER > OPTION > ACC > CR-TYPE
  - In the case of Card Reader-C1, select "1".
  - In the case of Copy Card Reader-F1, check that "0" is selected.

**NOTE:**

The number of card (number of department) can be changed if a request arises from a user. Make this setting before the step 3).

- Specify the number of cards to be used in service mode (Level 2) > COPIER > OPTION > FNC-SW > CARD-RNG.
- To enable the number of sheets, turn OFF/ON the main power switch.
- After that, go through the procedure from step 2).



- 2) Enter the card number to be used (1 to 2001).
  - Service Mode > COPIER > FUNCTION > INSTALL > CARD

**NOTE:**

1000 cards from the inputted number can be used.

- 3) To enable the number of sheets, turn OFF/ON the main power switch.
- 4) Insert the registered card, and check that it is in standby.

**NOTE:**

After setting, if a request arises from a user and changing the number of card (number of department), make a following setting. In that case, the current counter information by department will be reset.

- Execute in service mode > COPIER > FUNCTION > CLEAR > CARD.
- Specify the number of cards to be used in service mode (Level 2) > COPIER > OPTION > FNC-SW > CARD-RNG.
- To enable the number of sheets, turn OFF/ON the main power switch.
- After that, go through the procedure from step 2).

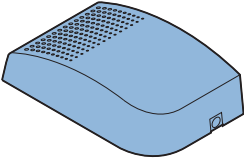
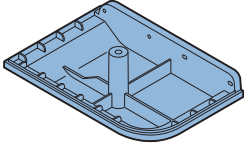
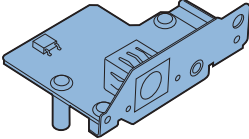
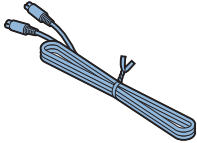
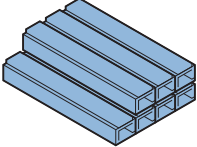
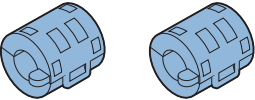


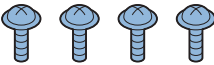




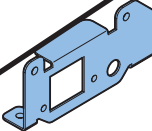
# Voice Guidance Kit-F1/F2

## Points to Note at Installation

To use the equipment, the Reader Unit is required.

## Checking the Contents

The parts with a diagonal line in the contents list will not be used.

<input type="checkbox"/> [1] Speaker Unit (Upper) X 1 	<input type="checkbox"/> [2] Speaker Unit (Lower) X 1 	<input type="checkbox"/> [3] Voice Guidance Board Unit X 1 	<input type="checkbox"/> [4] Speaker Cable X 1 	<input type="checkbox"/> [5] Cord Guide X 7 Use 4 of them 
<input type="checkbox"/> [6] Ring Core X 2 	<input type="checkbox"/> [8] Screw (Binding; M4x6) X 1 	<input type="checkbox"/> [7] Screw (Binding; M4x20) X 2 	<input type="checkbox"/> [9] Screw (TP; M3x6) X 4 	<input type="checkbox"/> [10] Screw (Binding; M4x16) X 2 
<input type="checkbox"/> [11] Screw (Binding; M3x16) X 1 	<input type="checkbox"/> [12] Cable Face Seal X 1 Included with F2 only 	<input type="checkbox"/> [13] Card Spacer X 1 Included with F2 only 	<input type="checkbox"/> [14] Support Plate X 1 Included with F2 only 	(Diagonal line)

<CD/Guides>

- User's Guide
- Voice Guidance Kit User's Guide
- Voice Guidance Manual CD
- FCC/IC-A DOCUMENT

F-9-183

## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

- 1) Turn OFF the main power switch of the host machine.
- 2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

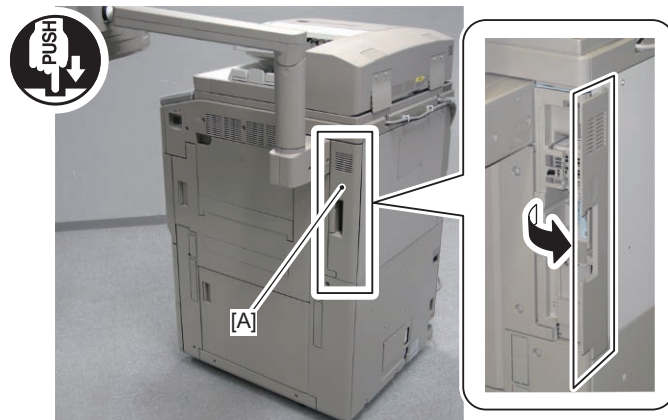
## Installation Procedure

### CAUTION:

Refer to "Combination of options" when installing this equipment before operation.



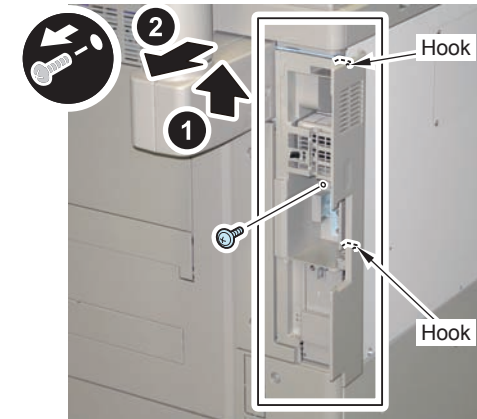
- 1) Press [A] part, and open the Right Rear Cover 1.



F-9-184



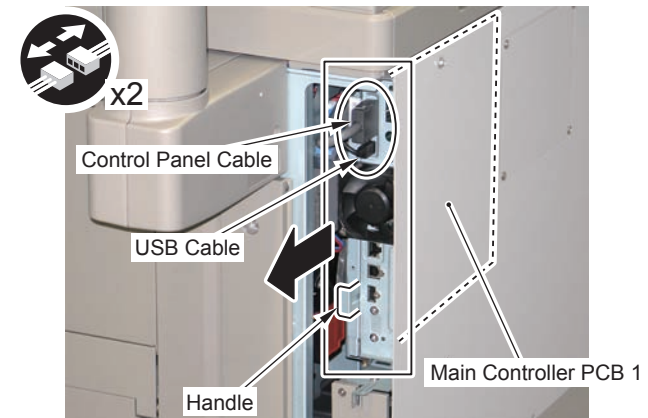
- 2) Remove the Side Cover.
  - 1 Screw (The removed screw will be used in step 11.)
  - 2 Hooks



F-9-185



- 3) Disconnect the USB Cable and the Control Panel Cable.
- 4) Hold the handle and remove the Main Controller PCB 1 while holding the cables.



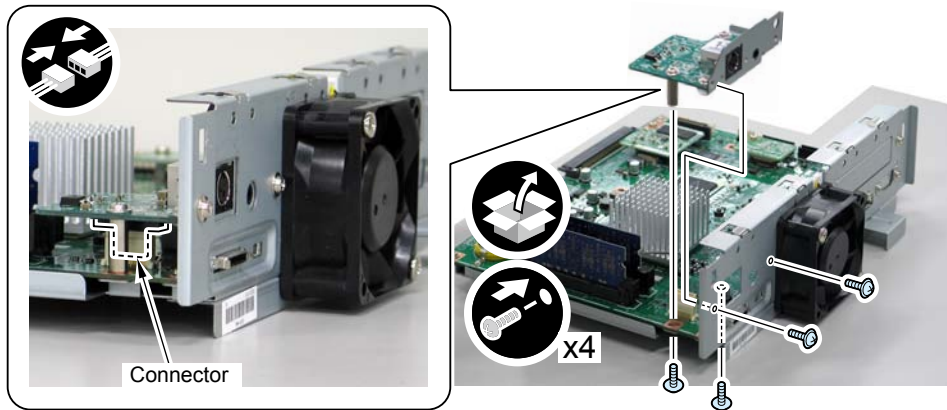
F-9-186



- 5) Install the Voice Guidance Board Unit to the Main Controller PCB 1.
- 1 Connector
  - 4 Screws (TP; M3x6)

**NOTE:**

Check that the connector is connected properly.



F-9-187



- 6) Insert the Main Controller PCB 1 until it stops.

**CAUTION:**

Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.

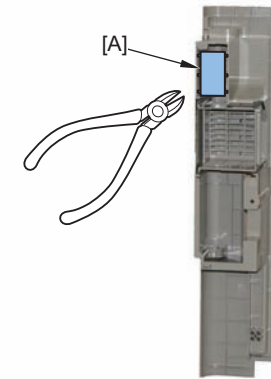
- 7) Connect the USB Cable and the Control Panel Cable.



- 8) Cut off [A] part of the Side Cover with nippers.

**CAUTION:**

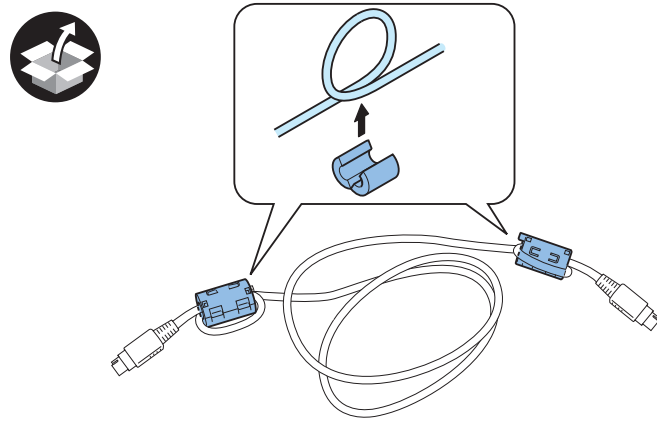
When cutting off the part, be sure not to make burrs.



F-9-188



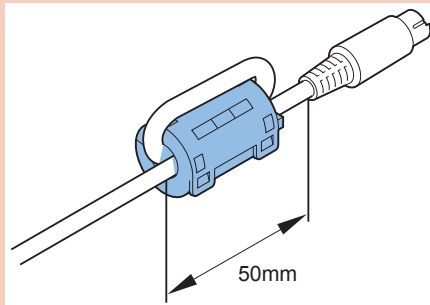
- 9) Attach the 2 Ring Cores to both ends of the Speaker Cable.



F-9-189

**CAUTION:**

Be sure to attach the Ring Cores within 50mm from the end of the Speaker Cable.



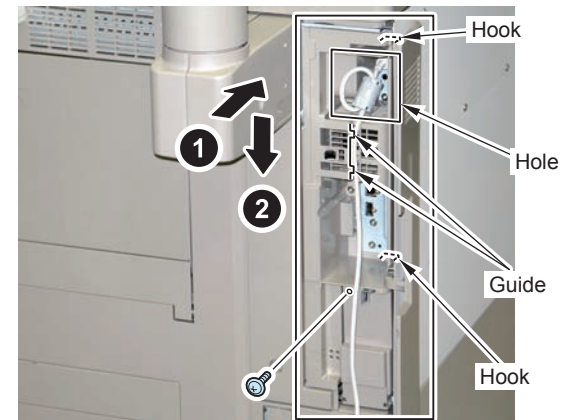
F-9-190

- 10) Connect the Speaker Cable to the Voice Guidance Board Unit.



F-9-191

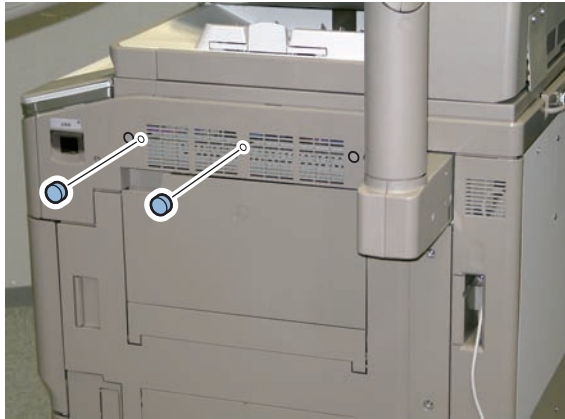
- 11) Install the Side Cover by putting the Speaker Cable through a hole of the cover.  
 • 2 Hooks  
 • 1 Screw (Use the screw removed in step 2.)  
 12) Put the Speaker Cable through the guide.



F-9-192

13) Close the Right Rear Cover 1.

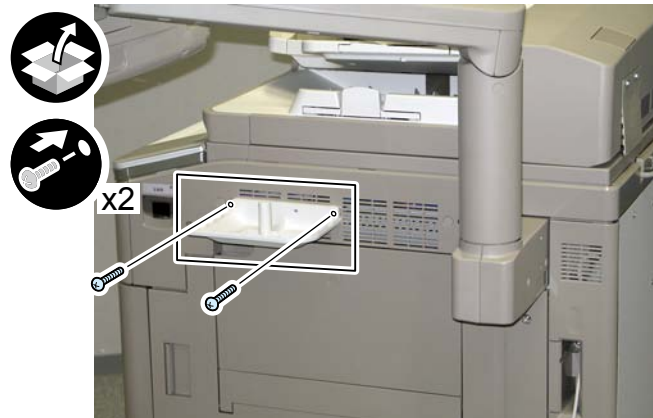
14) Remove the 2 Rubber Caps from the Right Upper Cover. (The removed Rubber Caps will not be used.)



F-9-193

15) Install the Speaker Unit (Lower).

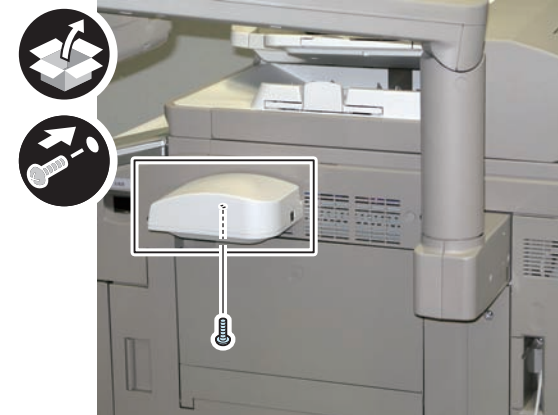
- 2 Screws (Binding; M4x20)



F-9-194

16) Install the Speaker Unit (Upper).

- 1 Screw (Binding; M4x6)

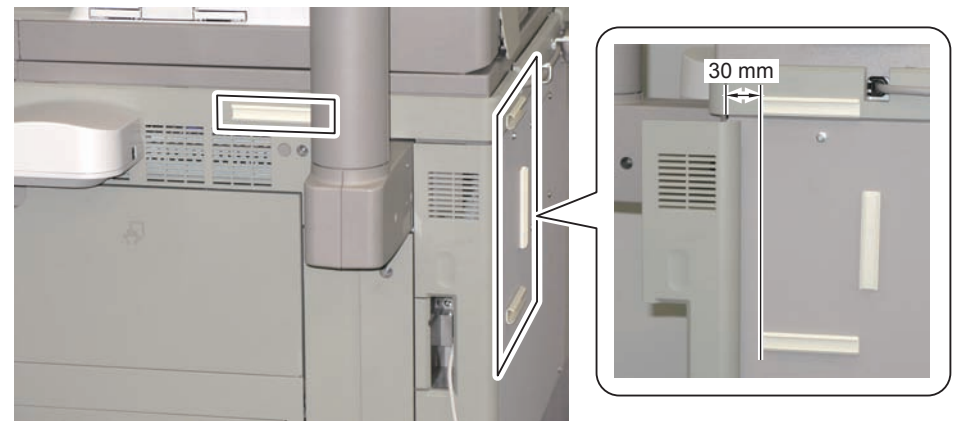


F-9-195

17) Remove the covers of 4 Cord Guides, and affix them to the area indicated in the figure.

**NOTE:**

When affixing it, be sure to keep 30mm or more distance from the end of the Rear Upper Cover to prevent interfering with opening/closing the Right Rear Cover 1.



F-9-196

- 18) Insert the Speaker Cable to the Speaker Unit (Upper).

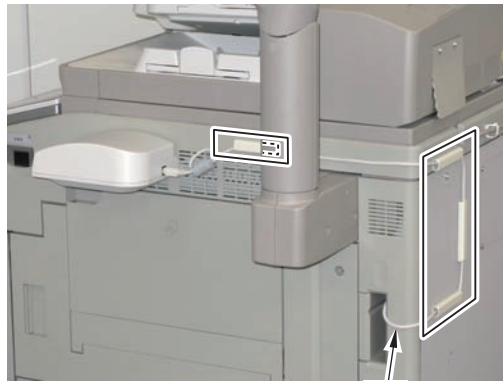


F-9-197

- 19) Put the Speaker Cable through the Cord Guide, and install the cover of the guide.

**CAUTION:**

Be sure to slack off [A] part for not interfering to open/close the Right Rear Cover 1.



F-9-198

- 20) Connect the power plug of the host machine to the power outlet.
- 21) Open the switch cover and turn ON the main power switch.

## Checking after Installation

- 1) Select Settings/Registration > Preferences > Accessibility > Voice Navigation Settings > Use Voice Navigation, and check that the setting is ON.
- 2) Select Settings/Registration > Preferences > Accessibility > Voice Navigation Settings > Voice Guide from Speakers, and check that the setting is ON.

## Operation Check

### <When Starting to Use>

- 1) Press reset key 3 secs or more.
- 2) Press [Main Menu] in Control Panel.
- 3) If the display in panel screen is boxed with red frame, "Voice Guidance Kit" is available.  
If "Voice Guidance Kit" doesn't properly operate, check the below.
- Enter Service Mode > COPIER > DISPLAY > VERSION, and check whether languages to be used for TTS-JA/TTS-EN/TTS-IT/TTS-FR/TTS-ES/TTS-DE are properly installed.

### <When Stopping to Use>

- 1) Press the Reset Key for 3 secs or more.

## Installation Procedure for Expansion Bus-F1/F2, IPsec Board-B2 and Wireless LAN Board-B1

### Points to Note at Installation

**CAUTION:**

To install the IPsec Board-B2 and the Wireless LAN Board-B1, the Expansion Bus-F1/F2 is required.

Procedures after “Removing the Main Controller PCB 1” will falls into 3 Types according to the installation combination.

Reference Pages in the Manual According to Product Combination:

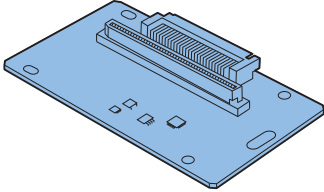
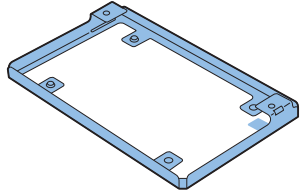
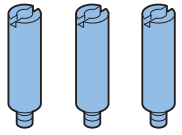
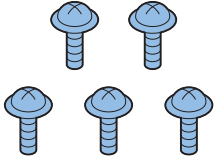
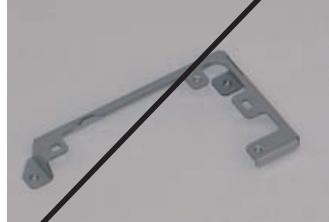
Title	Reference for procedure	Expansion Bus-F1/F2	IPsec Board-B2	Wireless LAN Board-B1	Reference Pages in the Manual
Type-1	Refer to “Installing the Expansion Bus-F1/F2 and the IPsec Board-B2 Simultaneously”.	X	X		p. 9-91
Type-2	Refer to “Installing the Expansion Bus-F1/F2, the Wireless LAN Board-B1 and the IPsec Board-B2 Simultaneously”.	X		X	p. 9-92
Type-3	Refer to “Installing the Expansion Bus-F1/F2, the Wireless LAN Board-B1 and the IPsec Board-B2 Simultaneously”	X	X	X	p. 9-92

T-9-7

# Checking the Contents

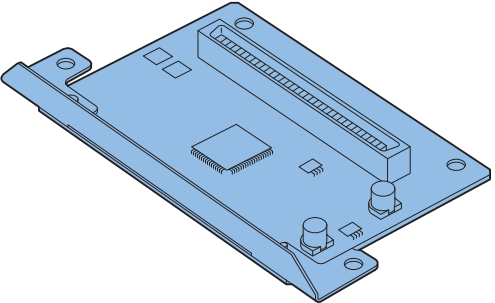

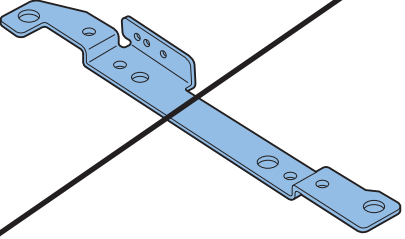
The parts with a diagonal line in the contents list will not be used.

## Expansion Bus-F1/F2

<input type="checkbox"/> [1] PCI Bus Expansion PCB X 1 	<input type="checkbox"/> [2] Riser Support Plate X 1 	<input type="checkbox"/> [3] PCB Spacer X 3 	<input type="checkbox"/> [4] Screw (TP; M3x6) X 5 	<input type="checkbox"/> [5] PCI Riser Support Plate X 1 <p>Included with F2 only</p> 
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F-9-199

## IPSec Board-B2

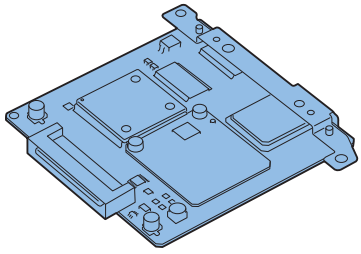
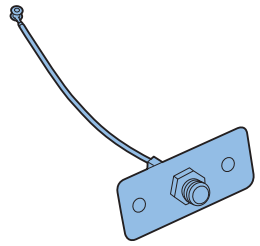
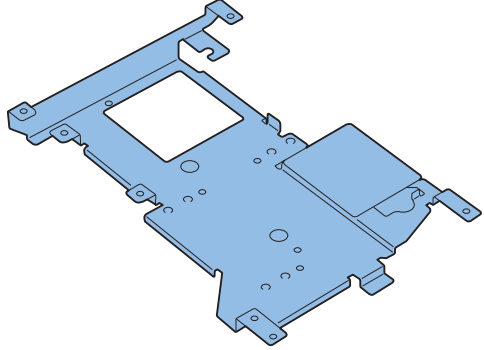
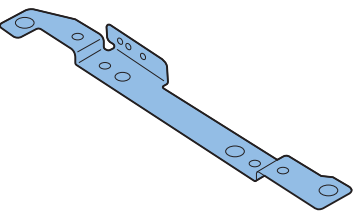
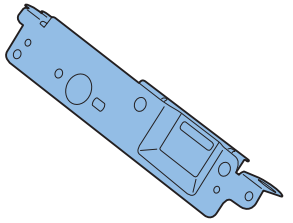
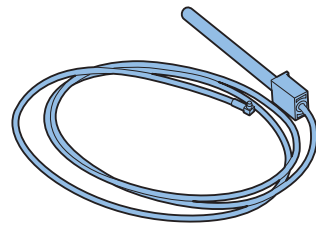
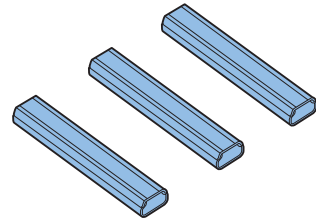

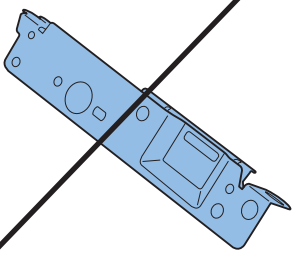
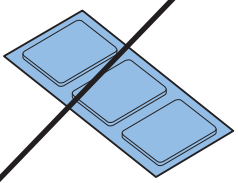
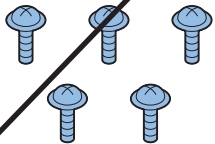
<input type="checkbox"/> [1] IPsec PCB x 1 	<input type="checkbox"/> [2] Screw(TP; M3x6) x 2 	<input type="checkbox"/> [3] Wireless LAN Auxiliary Plate x1 
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F-9-200

<CD/Guides>

- FCC/IC Instruction Sheet (USA only)

Wireless LAN Board-B1

<input type="checkbox"/> [1] Wireless LAN Board x 1 	<input type="checkbox"/> [2] Bulk Head Unit x 1 	<input type="checkbox"/> [3] Expansion Support Plate x 1 	
<input type="checkbox"/> [4] Wireless LAN Auxiliary Plate x 1 	<input type="checkbox"/> [5] Wireless LAN Support Plate x 1 	<input type="checkbox"/> [6] MFP Antenna x 1 	<input type="checkbox"/> [7] Cord Guide(L90) x 3 
<input type="checkbox"/> [8] Wireless LAN Indication Label x 1 	<input type="checkbox"/> [9] Wireless LAN Support Plate x 1 	<input type="checkbox"/> [10] Antenna Tape x 1Sheet 	<input type="checkbox"/> [11] Screw(TP; M3x6) x 5 

F-9-201

<CD/Guides>

- User's Manual
- Wireless LAN User's Manual CD
- FCC/IC Instruction Sheet (USA only)

## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

- 1) Turn OFF the main power switch of the host machine.
- 2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

## Installation Procedure

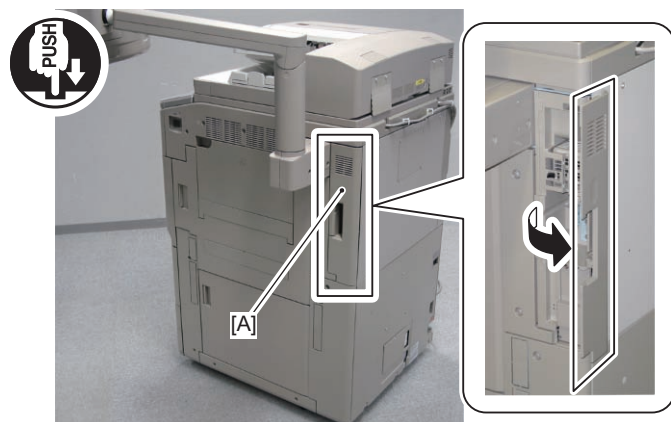
### NOTE:

Although model with the Upright Control Panel is used for illustration in this procedure, the same procedure is applied to model with the Flat Control Panel.

### ■ Removing the Main Controller PCB 1



1) Press [A] part, and open the Right Rear Cover 1.

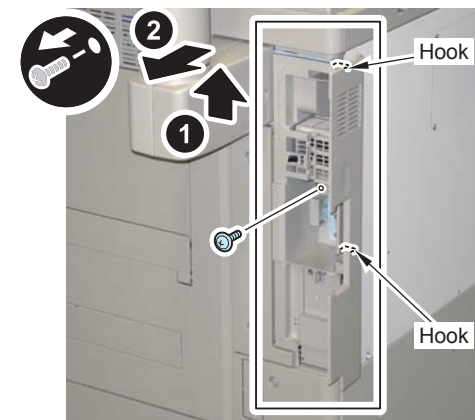


F-9-202



2) Remove the Side Cover.

- 1 Screw (The removed screw will be used in step 7.)
- 2 hooks

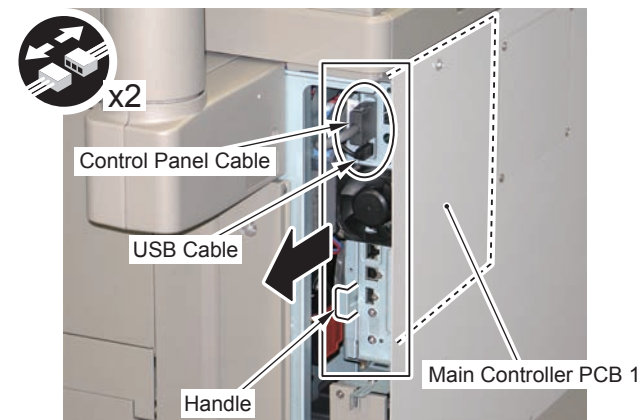


F-9-203



3) Disconnect the USB Cable and the Control Panel Cable.

4) Hold the handle and remove the Main Controller PCB 1 while holding the cables.

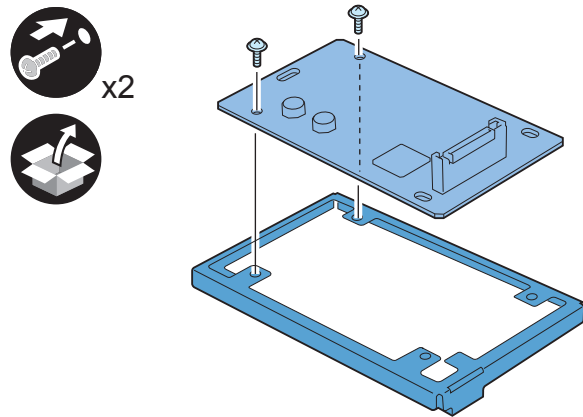


F-9-204



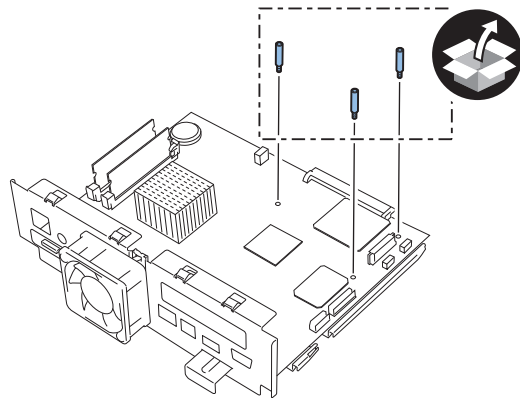
## ■ Installing the Expansion Bus-F1/F2 and the IPsec Board-B2 Simultaneously

- 
- 1) Install the Expansion PCB to the Riser Support Plate.
- 2 Screws (TP; M3x6) (Included in the Expansion Bus Kit)



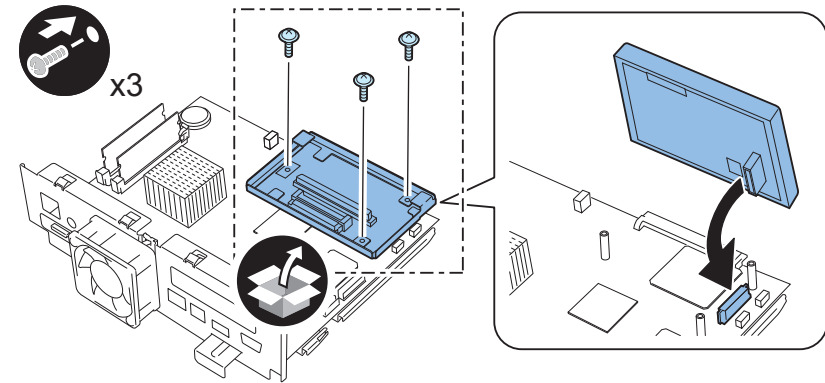
F-9-205

- 
- 2) Install the 3 PCB Spacers.



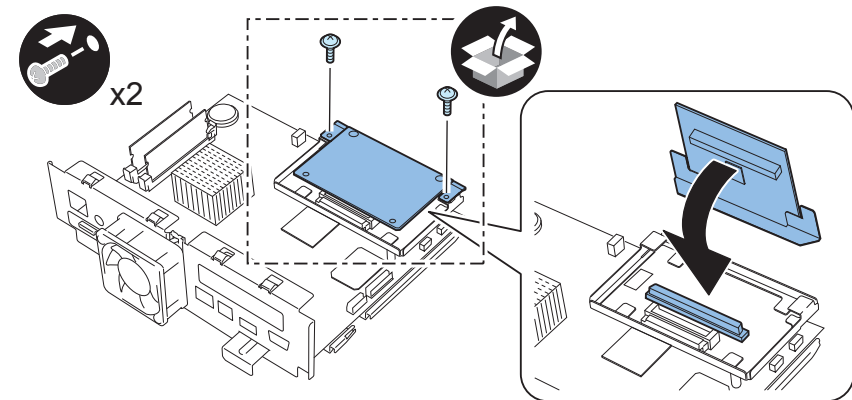
F-9-206

- 
- 3) Insert the Expansion PCB into the connector on the Main Controller PCB 1 to install it.
- 3 Screws (TP; M3x6) (Included in the Expansion Kit)



F-9-207

- 
- 4) Insert the IPsec PCB into the connector on the Expansion PCB to install it.
- 2 Screws (TP; M3x6) (Included in the IPsec Board)



F-9-208

**CAUTION:**

When installing the Main Controller PCB 1, be careful not to trap cables.

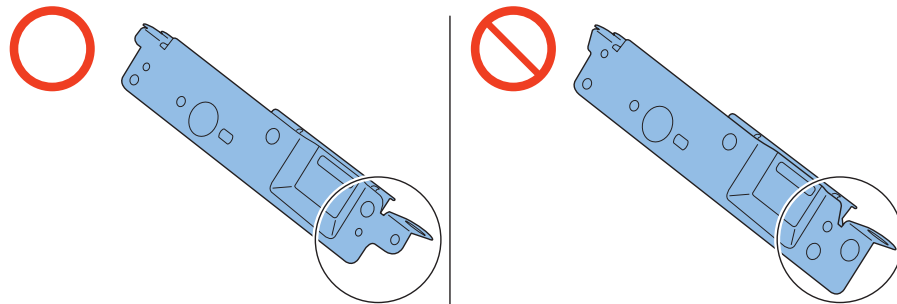


- 5) Insert the Main Controller PCB 1 until it stops.
- 6) Connect the USB Cable and the Control Panel Cable.
- 7) Install the Side Cover.

## ■ Installing the Expansion Bus-F1/F2, the Wireless LAN Board-B1 and the IPsec Board-B2 Simultaneously

**CAUTION: Point to Caution at Installation**

Be careful to install the correct Wireless LAN Support Plate.



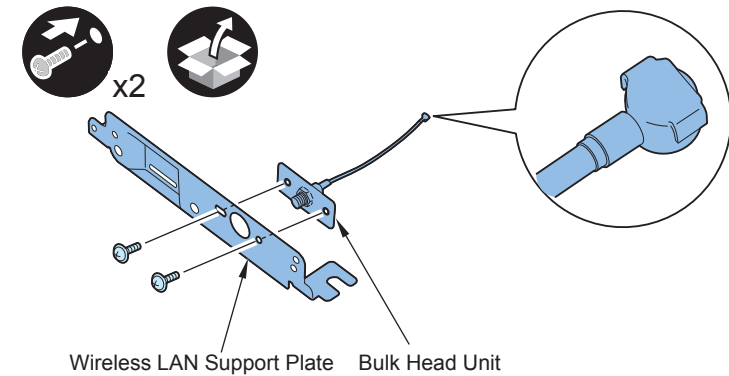
F-9-209

**CAUTION: Point to Caution at Installation**

When installing the Bulkhead Unit, be sure to place the flat side of the terminal at upper side.



- 1) Install the Bulkhead Unit to the Wireless LAN Support Plate.
  - 2 Screws (TP; M3x6) (Included in the Wireless LAN Board)



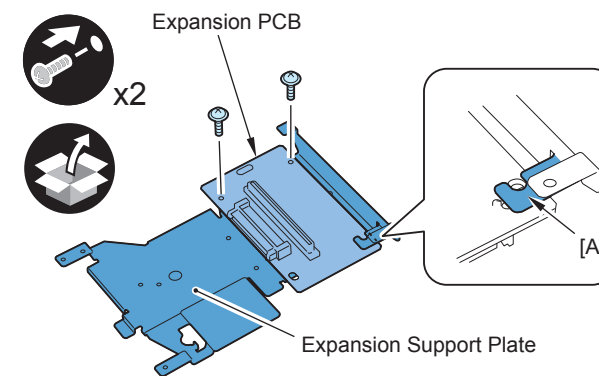
F-9-210



- 2) Install the Expansion PCB (included in the Expansion Bus Kit) to the Expansion Support Plate.
  - 2 Screws (TP; M3x6) (Included in the Expansion Bus Kit)

**CAUTION: Point to Caution at Installation**

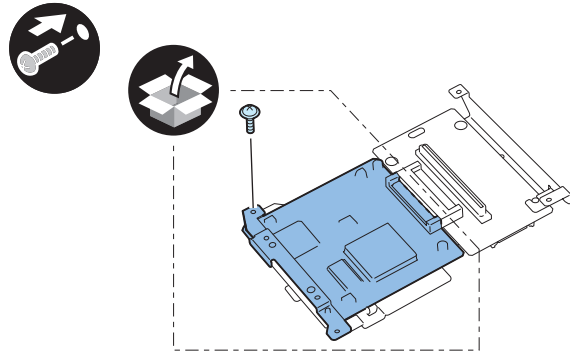
When installing the Expansion PCB, be sure to place it under [A] part of the Expansion Support Plate.



F-9-211

- 3) Insert the Wireless LAN Board into the connector on the Expansion PCB, and install it to the Expansion Support Plate.

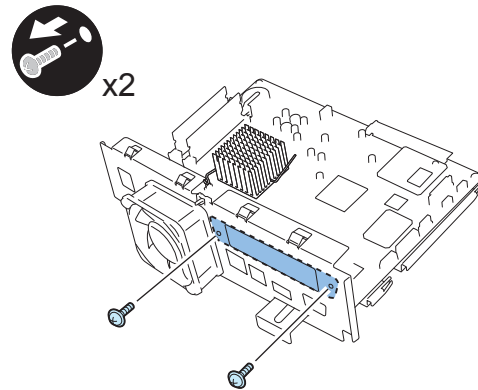
- 1 Screw (TP; M3x6) (Included in the Wireless LAN Board)



F-9-212

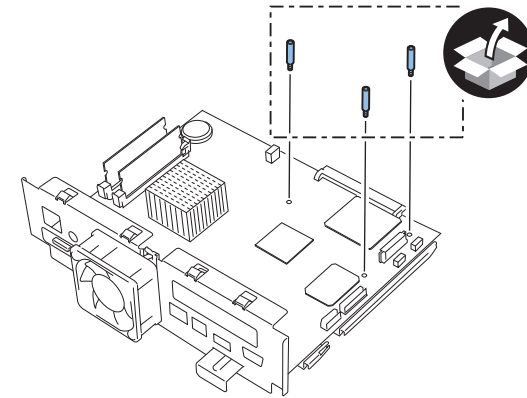
- 4) Remove the Face Plate from the Main Controller PCB 1. (The removed Face Plate will not be used.)

- 2 Screws (The removed screws will be used in step 7.)



F-9-213

- 5) Install the 3 PCB Spacers (included in the Expansion Bus Kit).



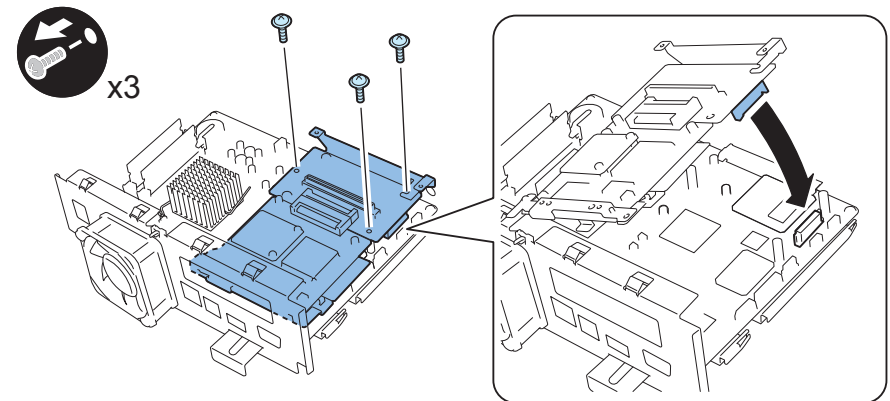
F-9-214

- 6) Install the Expansion Support Plate assembled in step 3) to the Main Controller PCB 1.

- 3 Screws (TP; M3x6) (Included in the Expansion Bus Kit)

**CAUTION:**

When installing the Expansion Support Plate, be careful not to trap the Fan Cable.



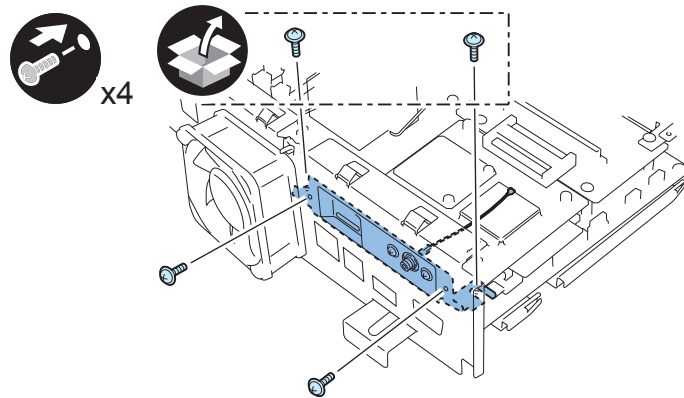
F-9-215

□  
7) Install the Wireless LAN Support Plate assembled in step 1) to the Main Controller PCB 1.

- 2 Screws (Use the screws removed in step 4.)
- 2 Screws (TP; M3x6) (Included in the Wireless LAN Board)

**CAUTION:**

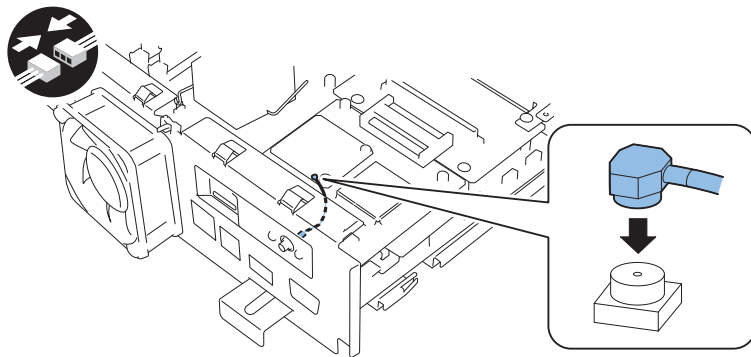
When securing the Wireless LAN Support Plate in place using the screws, be careful not to trap the Fan Cable.



F-9-216

□  
8) Insert the terminal of the Bulkhead Unit to the position shown in the figure.

**NOTE:**  
Check that the terminal is installed properly.



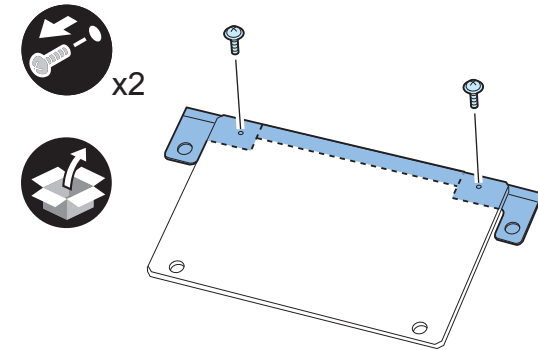
F-9-217

**NOTE:**

When installing the IPsec Board, go through the steps 9) through 11). When not installing it, go on to the step 12).

□  
9) Remove the plate of the IPsec PCB. (The removed plate will not be used.)

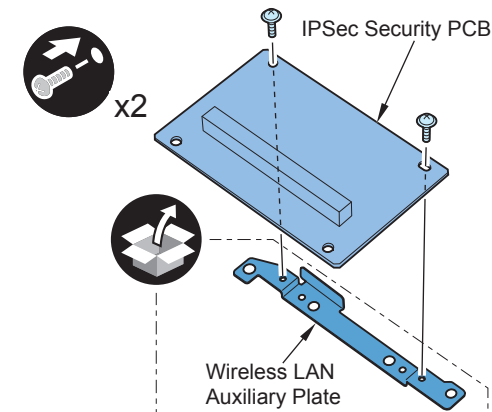
- 2 Screws (The removed screws will be used in step 10.)



F-9-218

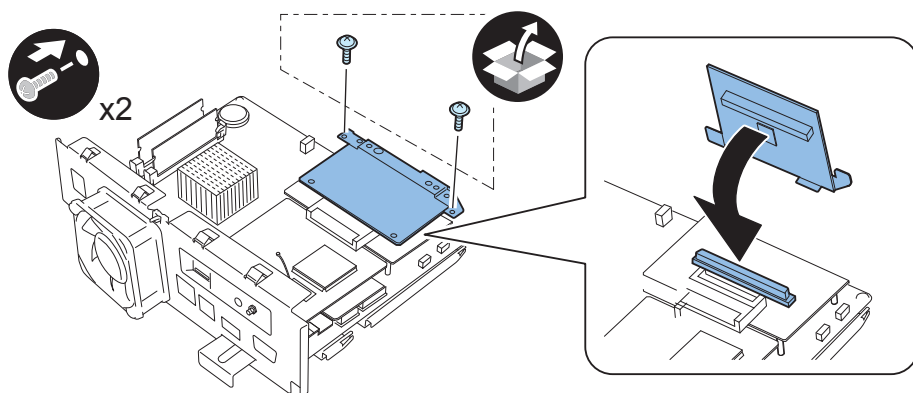
□  
10) Install the IPsec PCB removed in step 9) to the Wireless LAN Auxiliary Plate (included in the Wireless LAN Board).

- 2 Screws (Use the screws removed in step 9.)



F-9-219

- 11) Insert the IPsec PCB into the connector on the Expansion PCB to install it.  
• 2 Screws (TP; M3x6) (Included in the IPsec Board)

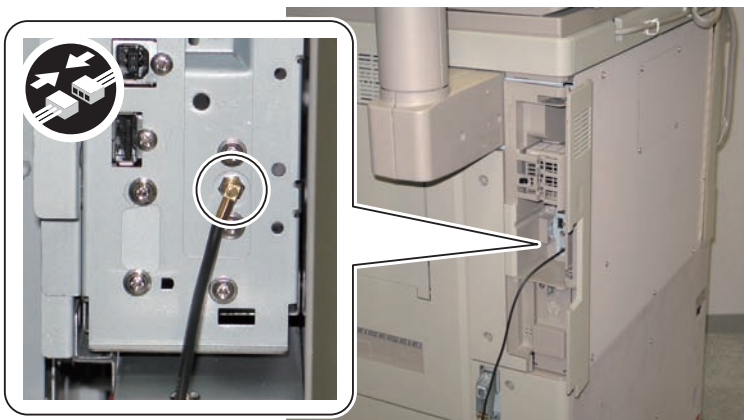


F-9-220

**CAUTION:**

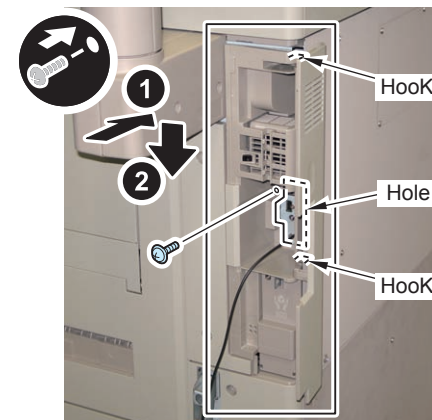
Install the Main Controller PCB 1 while paying attention not to trap cables.

- 12) Insert the Main Controller PCB 1 until it stops.  
13) Connect the USB Cable and the Control Panel Cable.  
14) Insert the terminal of the Antenna for MFP into the terminal of the Main Controller PCB 1.



F-9-221

- 15) Install the Side Cover by putting the Antenna for MFP through a hole of the cover.



F-9-222

- 16) Close the Right Rear Cover 1.

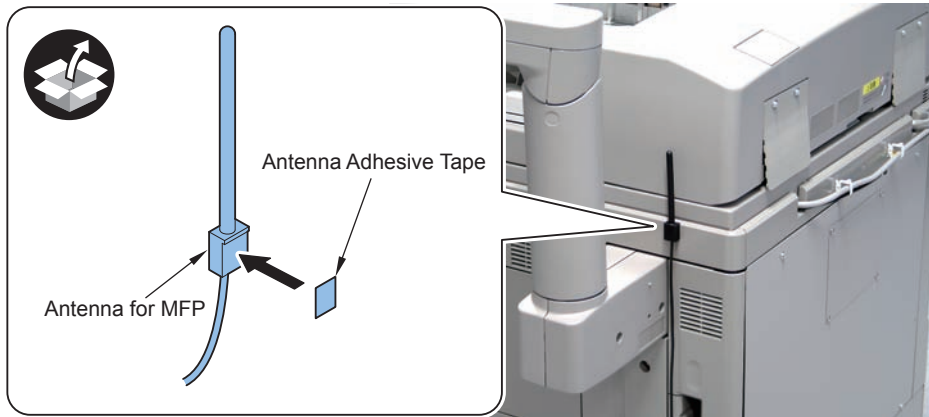
- 17) Affix the Antenna Adhesive Tape to the Antenna for MFP and affix the antenna to the host machine.

**CAUTION: Point to Caution at Installation**

When opening/closing the Right Rear Cover, be careful not to trap cables.

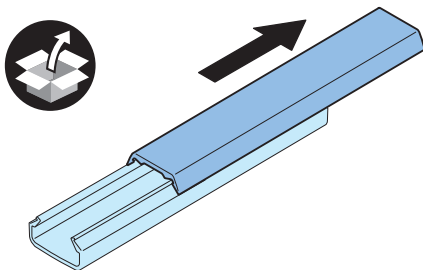
**NOTE:**

Keep the remaining tapes for later use as needed.



F-9-223

- 18) Remove the covers of 3 Cord Guides.



F-9-224



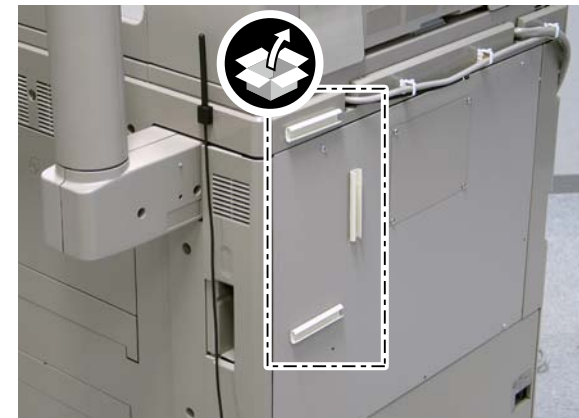
**CAUTION: Point to Caution at Installation**

Be sure to affix the Cord Guide to the area 30mm from the Right Rear Cover 1.



F-9-225

- 19) Remove the release paper, and affix 3 Cord Guides.



F-9-226

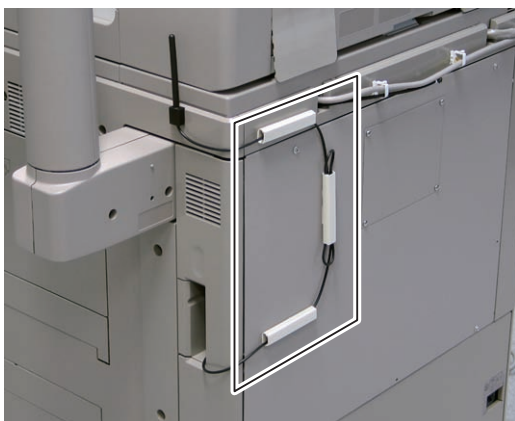
**NOTE:**

Be sure to secure the extra slack of the Antenna Cable for MFP at the position shown in the figure.



F-9-227

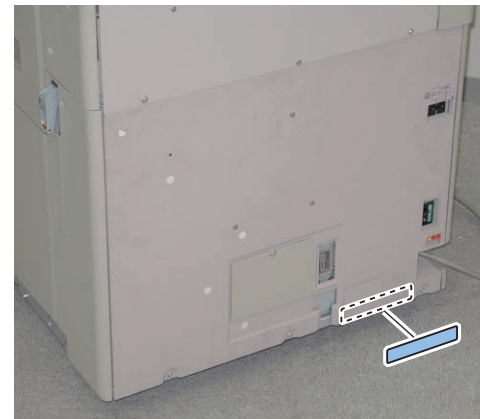
- 20) Put the Antenna Cable for MFP through the Cord Guides, and install the Cord Guide Covers.



F-9-228



- 21) Affix the Wireless LAN Label.



F-9-229

## Checking after Installation

In the Case that the IPsec Board is Installed:



- 1) Connect the power plug to the outlet.
- 2) Turn ON the main power switch.
- 3) Select [Settings/Registration] > [Preferences] > [Network] > [Confirm Network Connection Set. Changes], and set the item "ON".
- 4) Select [Settings/Registration] > [Preferences] > [Network] > [TCP/IP Settings].
- 5) Check that "IPsec Settings" is displayed.

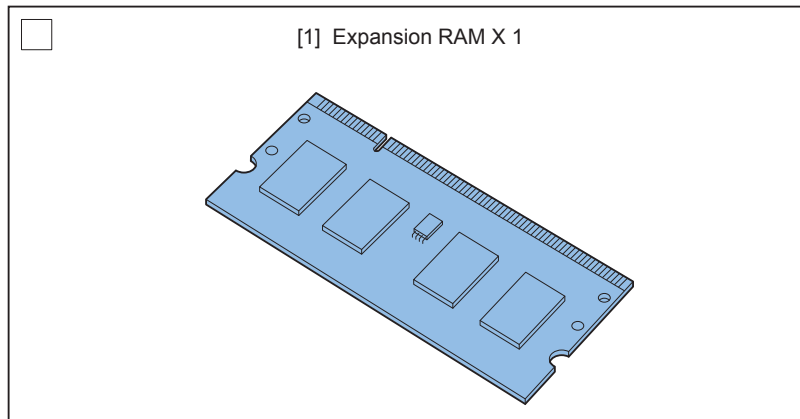


In the Case that the Wireless LAN Board is Installed:

- 1) Connect the power plug to the outlet.
- 2) Turn ON the main power switch.
- 3) Select [Settings/Registration] > [Preferences] > [External Interface].
- 4) Check that "Extension Card Settings" is displayed.

## Additional Memory Type B (512MB)

### Checking the Contents



F-9-230

< CD/Guides >

- China RoHS Notice sheet

### Checking before Installation



- 1) Check the memory capacity.
  - Service Mode > COPIER > DISPLAY > ACC-STS > RAM
- 2) Get out from service mode.

### Check Items when Turning OFF the Main Power

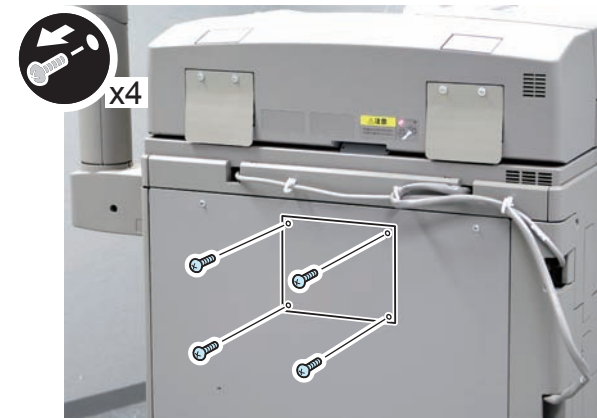
Check that the main power switch is OFF.

- 1) Turn OFF the main power switch of the host machine.
- 2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

### Installation Procedure



- 1) Remove the Rear Small Cover.
  - 4 Screws



F-9-231

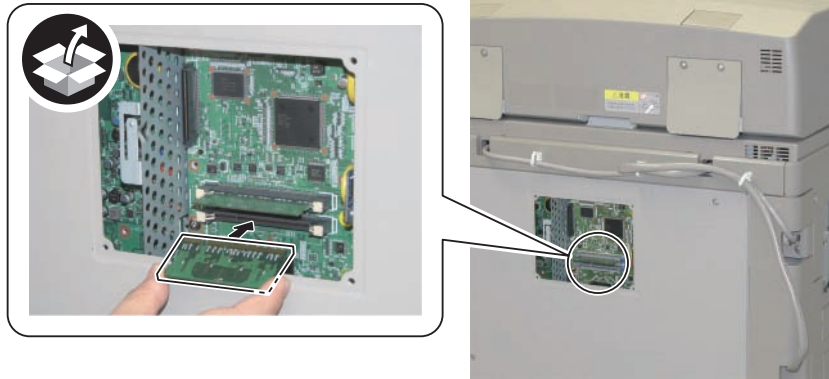




- 2) Install the Expansion RAM.

**NOTE:**

Be sure to insert it until it stops.



F-9-232



- 3) Return the Rear Small Cover to its original position.
- 4) Connect the power plug of the host machine to the power outlet.
- 5) Open the switch cover and turn ON the main power switch.

## Checking after Installation



- 1) Check that the memory capacity is increased.
  - Service Mode > COPIER > DISPLAY > ACC-STS > RAM
- 2) Get out from service mode.

## Description on the parts included in the package

The parts with a diagonal line in the contents list will not be used.

## Combination of HDD Options

When installing the HDD options (5 products indicated below), refer to the pages indicated in the following table.

- 2.5inch/80GB HDD-C1
- 2.5inch/250GB HDD-D1
- Removable HDD Kit-AD1
- HDD Mirroring Kit-E1
- HDD Data Encryption & Mirroring Kit-C2

### CAUTION:

When using the mirroring function, be sure to install 2 HDDs of the same capacity.

Reference Pages in the Manual According to Product Combination:

Title	Combination of Product	Reference Pages	Remarks
TYPE-1	Option HDD (250GB)	p. 9-101 to p. 9-110	
TYPE-2 *	Removable HDD Kit	p. 9-111 to p. 9-121	
TYPE-3	Option HDD (250GB) + Removable HDD Kit	p. 9-123 to p. 9-140	
TYPE-4 *	Option HDD (80GB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit	p. 9-141 to p. 9-162	TYPE-4 to 7 correspond to "CASE-5" described in "HDD Data Encryption & Mirroring Kit-C Series Installation Procedure" included in HDD Data Encryption & Mirroring Kit-C2.
TYPE-5	2 Option HDDs (250GB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit	p. 9-163 to p. 9-184	
TYPE-6 *	HDD Data Encryption & Mirroring Kit	p. 9-185 to p. 9-201	
TYPE-7	Option HDD (250GB) + HDD Data Encryption & Mirroring Kit	p. 9-202 to p. 9-222	
TYPE-8 *	Option HDD (80GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit	p. 9-223 to p. 9-250	
TYPE-9	2 Option HDDs (250GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit	p. 9-252 to p. 9-276	TYPE-8 to 11 correspond to "CASE-6" described in "HDD Data Encryption & Mirroring Kit-C Series Installation Procedure" included in HDD Data Encryption & Mirroring Kit-C2.
TYPE-10 *	Removable HDD Kit + HDD Data Encryption & Mirroring Kit	p. 9-278 to p. 9-300	
TYPE-11	Option HDD (250GB) + Removable HDD Kit + HDD Data Encryption & Mirroring Kit	p. 9-302 to p. 9-325	

\* Use the HDD installed to the machine as standard.

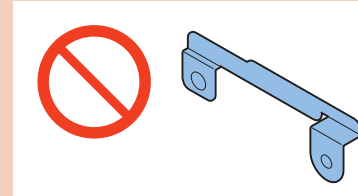
T-9-8

# [TYPE-1] Option HDD (250GB)

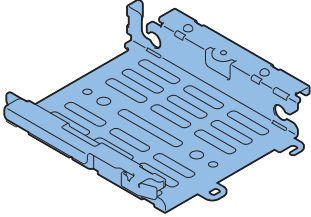
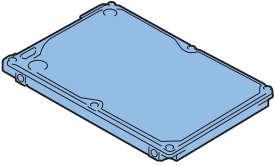
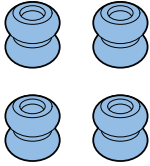
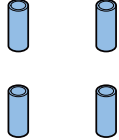
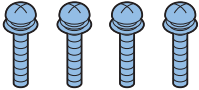


## Checking the Contents

**CAUTION:**

If a Grounding Plate is included in the package of the Option HDD, do not use the HDD Grounding Plate. It may cause reduction in the transfer speed of the HDD.



F-9-233

<input type="checkbox"/> [1] HDD Support Plate x 1 	<input type="checkbox"/> [2] HDD x 1 	<input type="checkbox"/> [3] Anti-vibration Damper x 4 	<input type="checkbox"/> [4] Spacer x 4 	<input type="checkbox"/> [5] Screw (W SEMS; M3x14) x 4 
<input type="checkbox"/> [6] Screw (TP; M3x6) x 2 	<input type="checkbox"/> [7] Gasket x 1 			

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- < CD/Guides >
- FCC/IC Sheet

## Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.

Backup or export work must not be performed by the service person because of security considerations.

In this Installation Procedure, a series of backup or export procedures are described for reference.

### List of Data to be Deleted

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Send Function Favorite Settings	Yes
Data stored in Mail Boxes or the Advanced Box	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box	Yes

T-9-9

\*1; Can only be backed up using the Remote UI.

\*2; Depending on the MEAP application.

\*3; Only the following data saved in Mail Box/Advanced Box are backed up.

- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image
- Advanced Box URI Transmission Settings

\*4; You may not be able to back up, depending on the type of the password.

\*5; Only the stored Favorite Settings can be backed up.

## List of Data to be Backed Up

Data to be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings (Forwarding Settings, Address List, Favorite Settings)	
Printer Settings	
Paper Information	
Favorite Settings for Web browser	See the "e-Manual > Web Access". (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box	See the "e-Manual > Remote UI" to "Setting the Backup Location for Stored Data".
Image forms stored in the Superimpose Image	
SSO-H (Single Sign-On H) user authentication information	See the "e-Manual > MEAP".
Quick Menu Information	See the "e-Manual > Quick Menu".
User Information of the Advanced Box	See the "e-Manual > Security".

T-9-10

## CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the "e-Manual > MEAP".

 Making a Backup of the Data (Reference only)

The data items that have been backed up may be restored when this product has been installed. These data items are property of the user, and the restoration work must be performed by the system administrator.

The method of restoration is described in the Users Guide. See Table (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

## 1. Procedure to make a backup of Address Book

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Address List].
- 4) Click [Export].
- 5) Select the save format for Address list, and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file. Be sure to set a distinctive name to an export file so that you can recognize it when importing it.

## NOTE:

Exporting the device settings will export all contents of the address list. In other words, there is no need for a backup unless it needs to be done individually.

## 2. Device Settings Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Device Settings (Forwarding Settings, Address List, Favorite Settings)].
- 4) Click [Export], and then click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 3. Settings/Registration Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Settings/Registration].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 4. Printer Settings Export Procedure

**NOTE:**

The following items to be exported are the same as the ones which are distributed by device information distribution.

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Printer Settings].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 5. Paper Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Paper Information].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 6. Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

**CAUTION: MEAP Backup Function Using the SST**

Data that has been backed up using MEAP back of the SST before the use of this product is started must not be written back to the host machine after the use of this product is started. Similarly, even if the data that has been backed up after the use of this product is started is written back to the host machine before the use of this product is started, the machine does not operate. It is necessary to make sure that the implementation conditions for this product are compatible before and after making a backup of data, and the MEAP backup function does not permit making a backup of data in the course of installing the kit.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide.

### 7. Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

- 1) Select the URL given below and access SMS.  
http://[IP address of the device]:8000/sms/  
The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

**CAUTION:**

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

- 2) Click [MEAP Application Management].
- 3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
- 4) Click the application of which license has been installed.
- 5) Click [License Control], and then click [Disable]. Click [Yes] in a confirmation window for disabling the license.

- 6) Click [Download] under "Download/delete Disabled License File" item. Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
- 7) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
- 8) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

#### 8. User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

- 1) Access the URL given below.

http://[IP address of the device]:8000/sso/

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

##### CAUTION:

The default password is MeapSmsLogin. If the user has changed the password, ask him/her to change the password again after the use of this product is started.

- 2) Login with the user name and password registered as an administrator in SSO-H.  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [User Control].
- 4) Put a checkmark to Select All, and then click [Export].
- 5) Leave the file format and character code as defaults and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file and click [Save].

#### 9. Backup of User inbox and Advanced Box document data

##### CAUTION: Backup of "Advanced Box"

When setting a SMB server as a backup destination, Advanced Box data saved in a large capacity HDD cannot be backed up. The Advanced Box data backed up from the large capacity HDD cannot be restored to the standard HDD. Depending on the system version of the machine, both backup and restoration might not be performed.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

- Backup to SMB server  
Select SMB as a backup destination and specify an address, a user name, a password, and a path to the SMB server to which saved data is backed up.
- Backup to USB HDD  
Select USB HDD as a backup destination and specify a path to the USB HDD folder to which saved data is backed up.

##### CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

##### CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

##### CAUTION:

- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

#### [Backup method of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
- 2) Select 'All' or 'Changes' for the backup method.
- 3) Click [Execute].

#### CAUTION:

- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- If you select to encrypt the backup data, the backup process may take longer.

#### [Restoring the backup data of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
- 2) Click [Display Backup Data].
- 3) Select the backup data to restore from the list and then click [Execute].

#### CAUTION:

- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

#### 10. Quick Menu Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [Quick Menu] > [Export].
- 3) If the file needs to be encrypted, enter the password after check [Encrypt file]. (The number of characters for the password must be more than 4 but less than 16.)
- 4) Click [Export].
- 5) Following the instructions on the window, specify the location to save the file.

#### 11. User Information of the Advanced Box Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [User Access Control for Advanced Box]. The dialog box to enter the user name of administrator and password appears, enter the system administrator ID and password, and then click [Log In].  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [Export], and click [Start Export].
- 4) Following the instructions on the window, specify the location to save the file.



## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

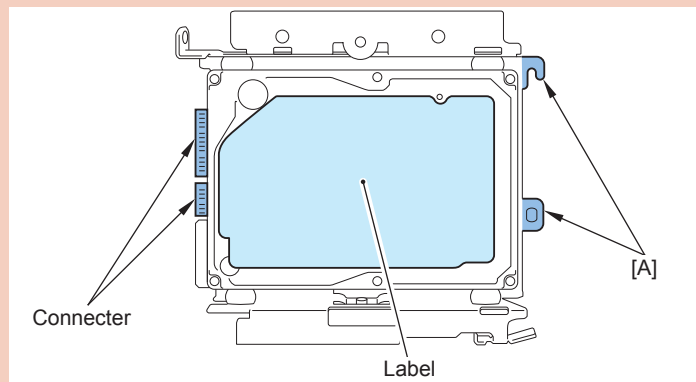
- 1) Turn OFF the main power switch.
- 2) Check that the Control Panel Display and the Main Power Lamp are turned OFF, and then disconnect the power plug.

## Assembling the Option HDD

### CAUTION:

When assembling the Option HDD, be sure to pay attention to the direction.

- Be sure that the label face of the Option HDD is up.
- Be sure that the [A] part of the HDD Support Plate is on the other side of the connector.



F-9-235

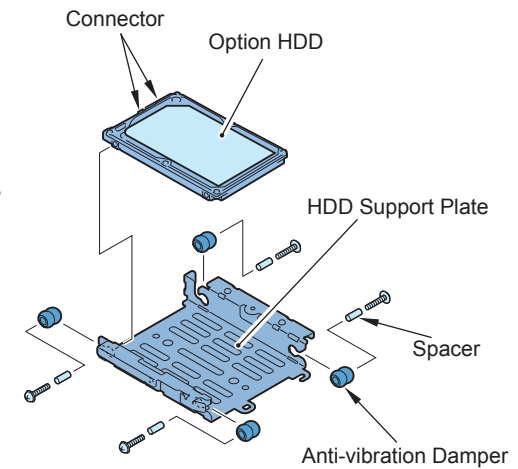


1) Assemble the Option HDD (250GB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 Option HDD
- 4 Screws (W Sems; M3x14)



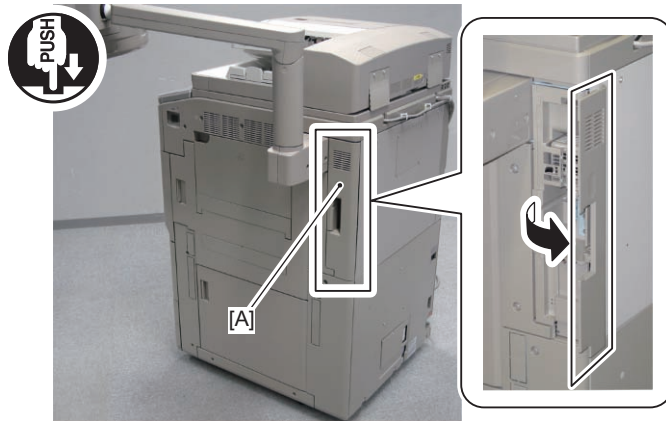
x4



F-9-236

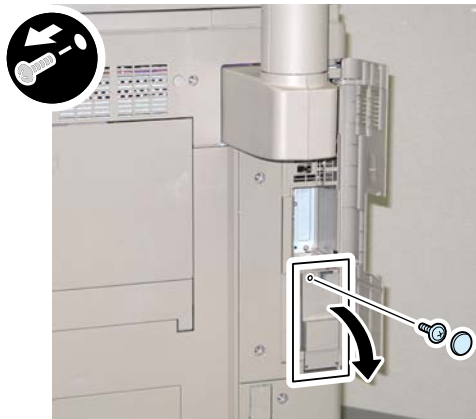
## Procedure to Replace with the HDD

- 1) Push [A] part, and open the Right Rear Cover 1.



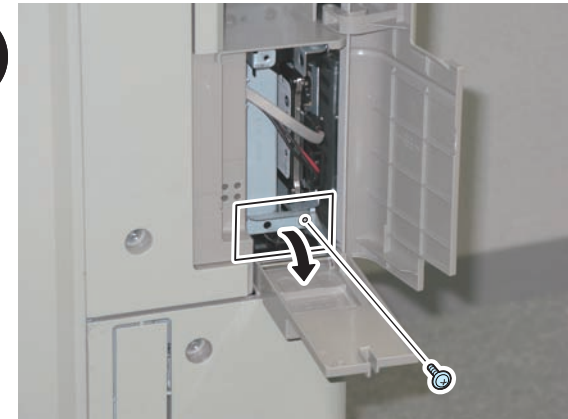
F-9-237

- 2) Open the HDD Cap.  
• 1 Rubber cap  
• 1 Screw



F-9-238

- 3) Turn the HDD Fixed Plate toward the front.  
• 1 Screw



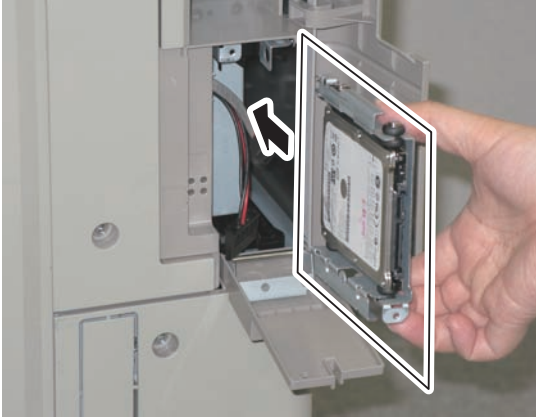
F-9-239

- 4) Remove the HDD. (The removed HDD will not be used.)  
• 2 Connectors



F-9-240

- 5) Insert the assembled Option HDD.



F-9-241

- 6) Connect 2 connectors to the Option HDD.



x2



F-9-242

- 7) Return the HDD Fixed Plate to its original position.
- 1 Screw
- 8) Close the HDD Cap.
- 1 Screw
  - 1 Rubber cap
- 9) Close the Right Rear Cover 1.
- 10) Connect the power plug to the outlet.

## Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product. It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product. Details follow.

### 1. Requirements

#### 1) PC

Service support tool in the version that supports this host machine must be installed.

#### 2) Cross Ethernet Cable

### 2. Preparing for the Installation of the System Software of Host machine

- 1) If both PC and the machine are on, turn them off.
- 2) Connect the PC and the machine using an Ethernet cable.
- 3) Turn on the PC.
- 4) Start up the machine in download mode (safe mode).

### 3. Selecting the System Software

- 1) Set the CD containing the latest system software in the PC on which the SST is used.
- 2) Start up the SST.
- 3) Click 'Register Firmware'.
- 4) Select the drive in which the System Software CD has been set, and click 'SEARCH'.
- 5) Click 'REGISTER'.
- 6) Click OK.

### 4. Downloading the System Software

- 1) Click 'CONNECT'.
- 2) From the list of machine series, select the appropriate model.
- 3) Select 'Single', and click start.
- 4) Execute HDD format.
- 5) After 5 sec from when the power of the host machine is turned OFF, restart the host machine in download mode of safe mode.
- 6) When "download mode" is displayed on the control panel, click simple mode start.
- 7) Click start to execute download.
- 8) Follow the instruction on the screen and when download is complete, click OK.
- 9) Exit SST.
- 10) Check the versions of MN-CONT and LANG etc in service mode (COPIER > Display > VERSION).

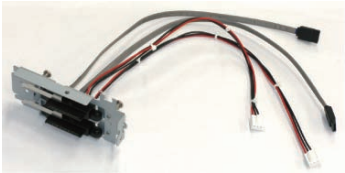
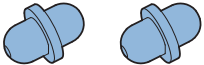
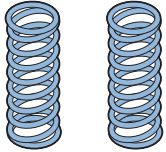
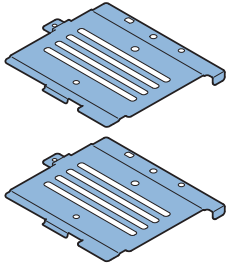
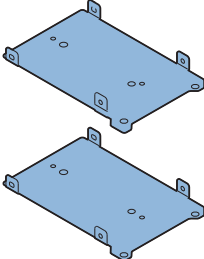
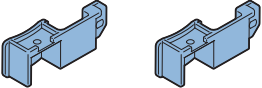
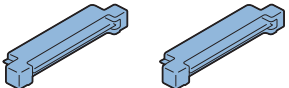
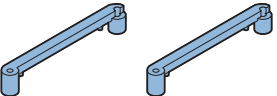
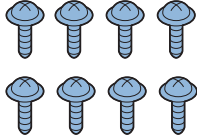
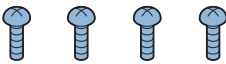
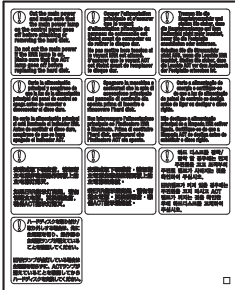
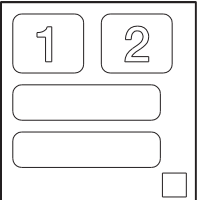
## Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

# [TYPE-2] Removable HDD Kit

## Checking the Contents

<input type="checkbox"/> [1] HDD Drawer Unit X 1 	<input type="checkbox"/> [2] HDD Lock Pin X 2 	<input type="checkbox"/> [3] HDD Lock Pin X 2 	<input type="checkbox"/> [4] HDD Cover X 2 Use 1 of them. 	<input type="checkbox"/> [5] HDD Connector Plate X 2 Use 1 of them. 
<input type="checkbox"/> [6] HDD Connector Plate X 2 Use 1 of them. 	<input type="checkbox"/> [7] Conversion Connector X 2 Use 1 of them. 	<input type="checkbox"/> [8] Connector Fixation Block X 2 Use 1 of them. 	<input type="checkbox"/> [9] Screw (TP Round End; M3x6) X 8 Use 6 of them. 	<input type="checkbox"/> [10] Screw (P Tightening; M3x8) X 4 Use 2 of them. 
<input type="checkbox"/> [11] HDD Caution Label X 1 	<input type="checkbox"/> [12] R-HDD Label X 1 			

## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

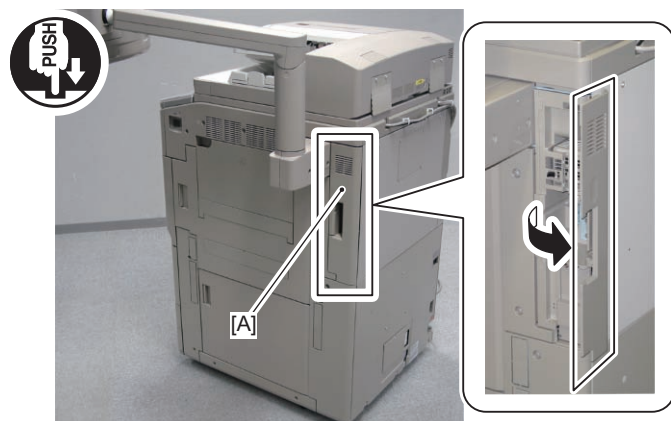
- 1) Turn OFF the main power switch.
- 2) Check that the Control Panel Display and the Main Power Lamp are turned OFF, and then disconnect the power plug.

## Installation Procedure

### Removing the HDD and HDD Case Unit

□

- 1) Push [A] part, and open the Right Rear Cover 1.

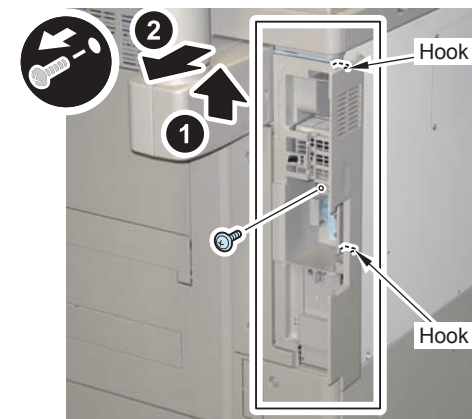


F-9-244

□

- 2) Remove the Side Cover.

- 1 Screw
- 2 hooks



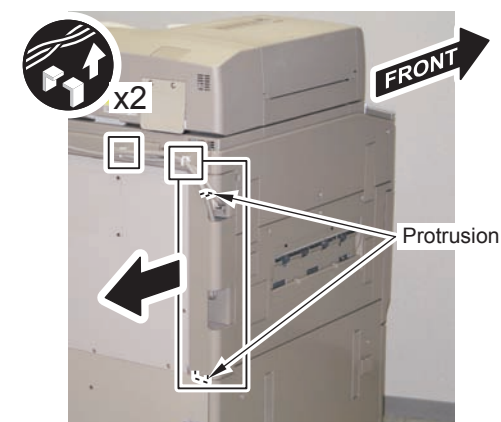
F-9-245

□

- 3) Free the Reader Communication Cable and the Reader Power Supply Cable from the 2 Wire Saddles.

- 4) Remove the Left Rear Cover.

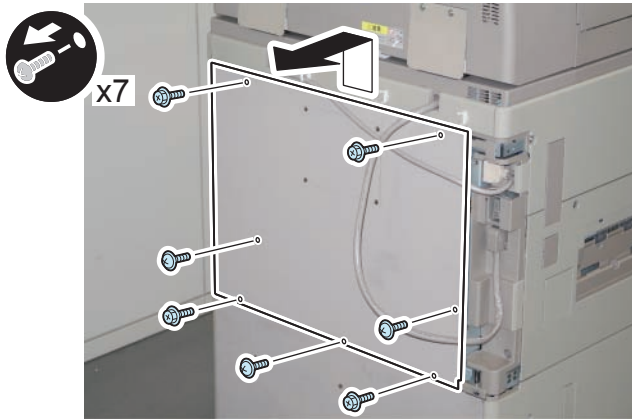
- 2 Protrusions



F-9-246

□ 5) Remove the Rear Upper Cover.

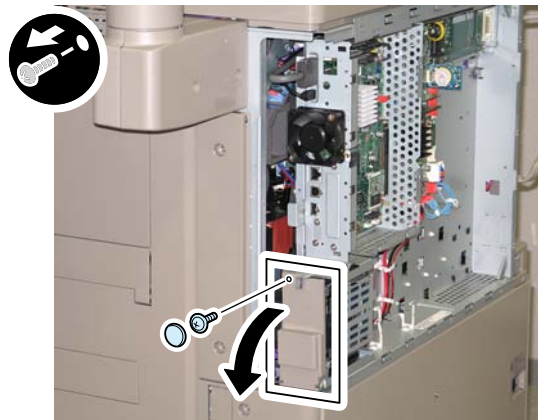
- 4 Screws (RS Tightening)
- 3 Screws (TP)



F-9-247

□ 6) Open the HDD Cap.

- 1 Rubber Cap
- 1 Screw (The removed screw will not be used.)

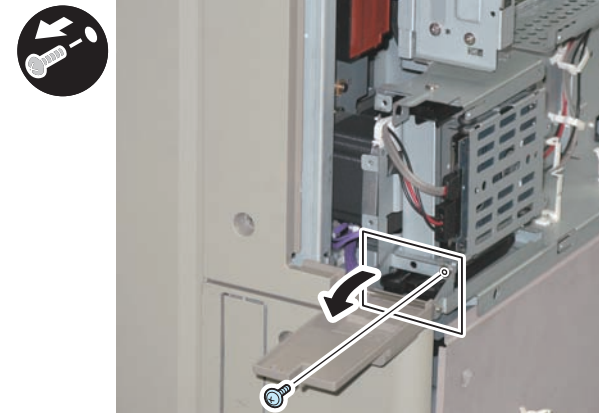


F-9-248

□ 7) Return the rubber cap to the HDD cap.

□ 8) Turn the HDD Fixed Plate toward the front.

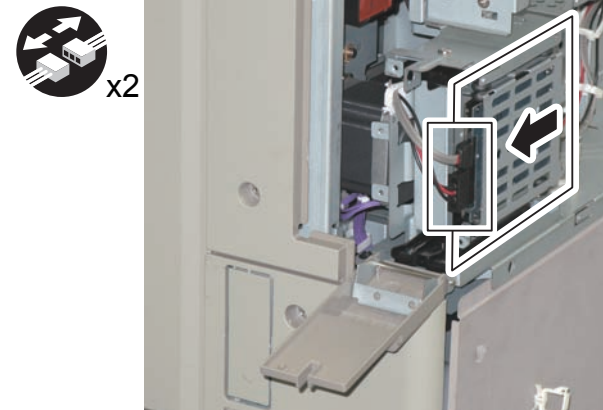
- 1 Screw (The removed screw will not be used.)



F-9-249

□ 9) Remove the HDD.

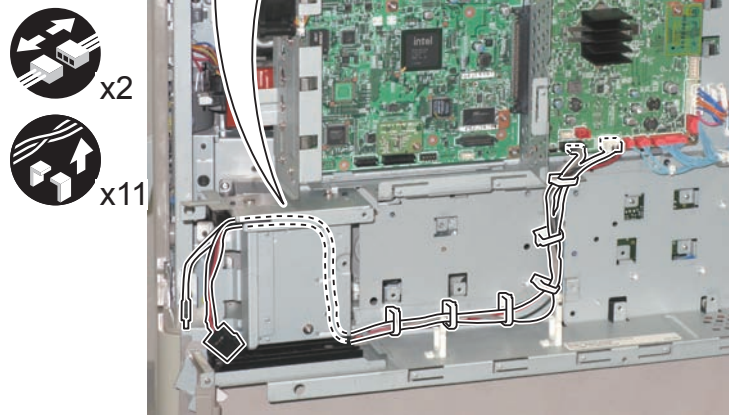
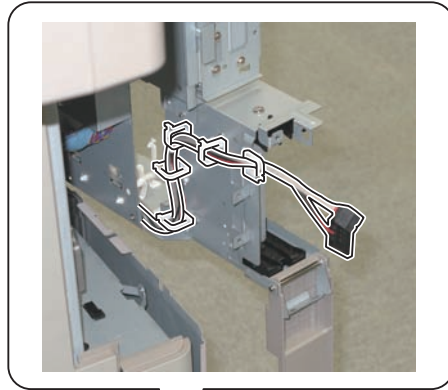
- 2 Connectors



F-9-250

- 10) Open the Controller Box, and disconnect the Signal Cable and the Power Supply Cable on the host machine. (Disconnected cables will not be used.)

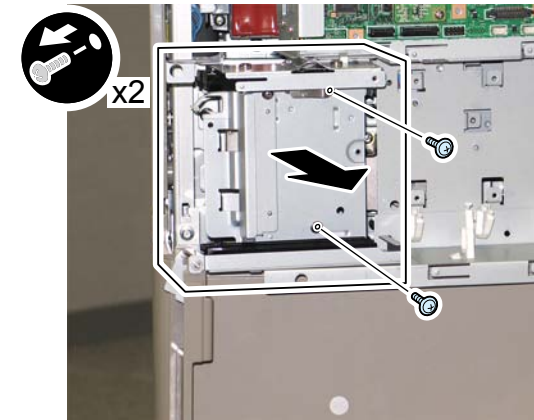
- 2 Connectors
- 9 Wire Saddles
- 2 Edge Saddles



F-9-251

- 11) Remove the HDD Case Unit.

- 2 Screws (The removed screws will be used in "Installing the HDD Case Unit" step 1).)



F-9-252



## Disassembling and Assembling of the HDD Removed from the Host Machine



1) Disassemble the removed HDD.

- 4 Screws (W Sems)
- 1 Screw (TP)
- 1 HDD Grounding Plate

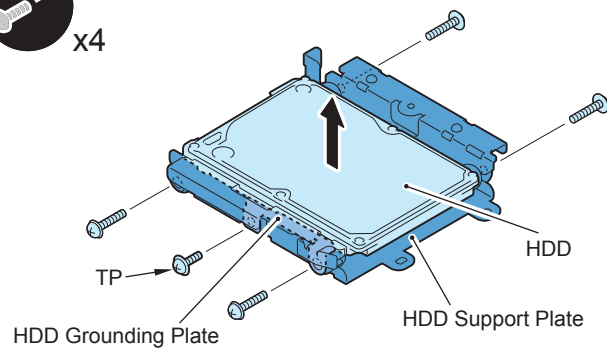
### NOTE:

If the removed HDD has the screw (TP) and the HDD Grounding Plate, remove them. The removed screw (TP) and the HDD Grounding Plate will not be used.

- 1 HDD Support Plate



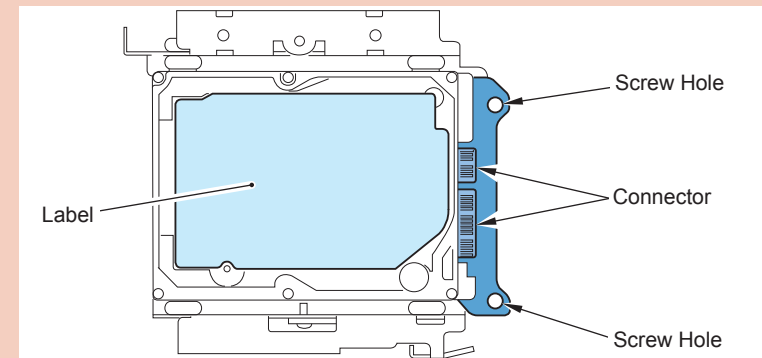
x4



F-9-253

### CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



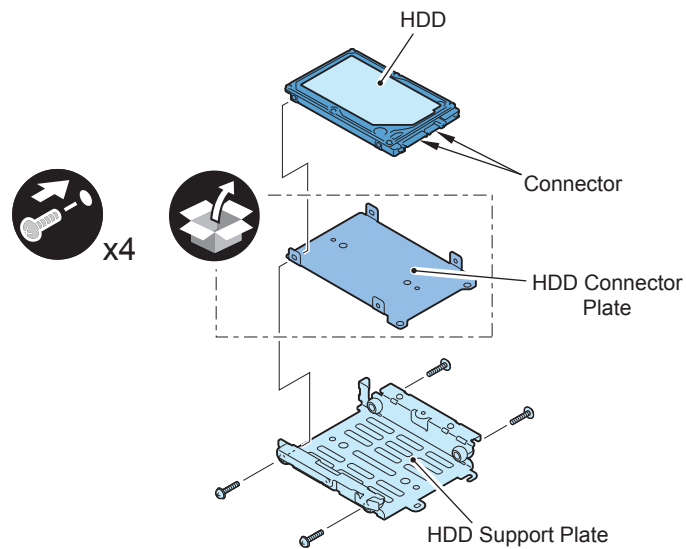
F-9-254

**NOTE:**  
Use the parts disassembled in step 1) and parts included in the Removable HDD Kit.



2) Assemble the HDD disassembled in step 1).

- 1 HDD Support Plate
- 1 HDD Connector Plate (Included in the Removable HDD Kit)
- 1 HDD
- 4 Screws (W Sems)



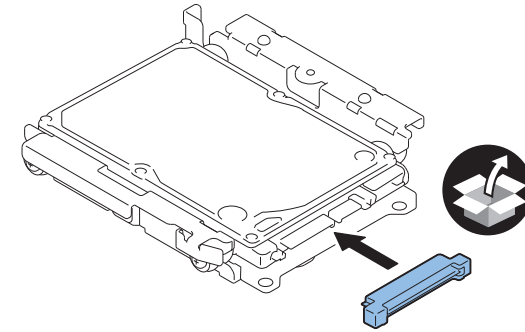
F-9-255



3) Install the Conversion Connector.

**CAUTION:**

Be sure that there is no gap between the HDD Connector and the Conversion Connector.

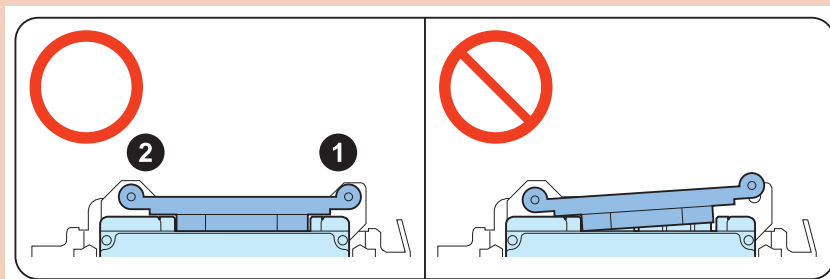


F-9-256

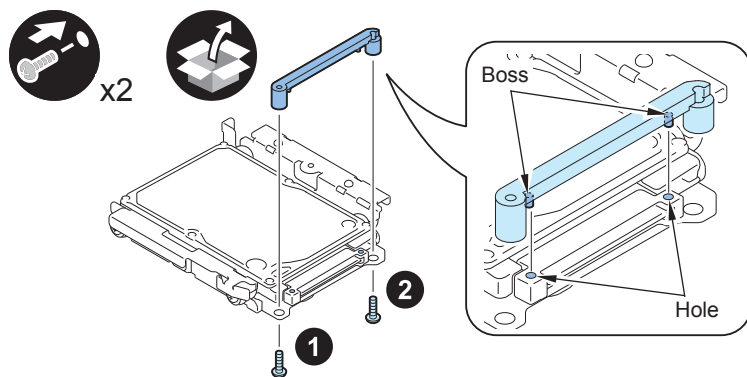
- 
- 4) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.
- 2 Screws (P Tightening; M3x8)

## CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-257

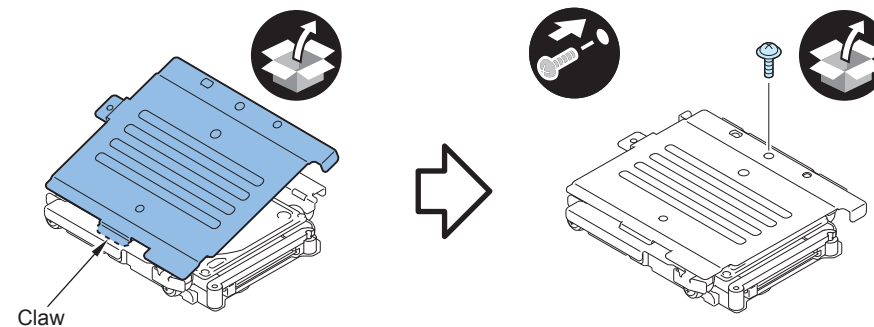


F-9-258

- 
- 5) Install the HDD Cover.
- 1 Claw
  - 1 Screw (TP Round End; M3x6)

## CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

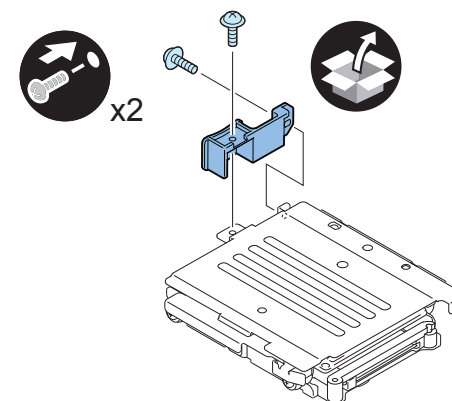


F-9-259

- 
- 6) Install the HDD Handle.
- 2 Screws (TP Round End; M3x6)

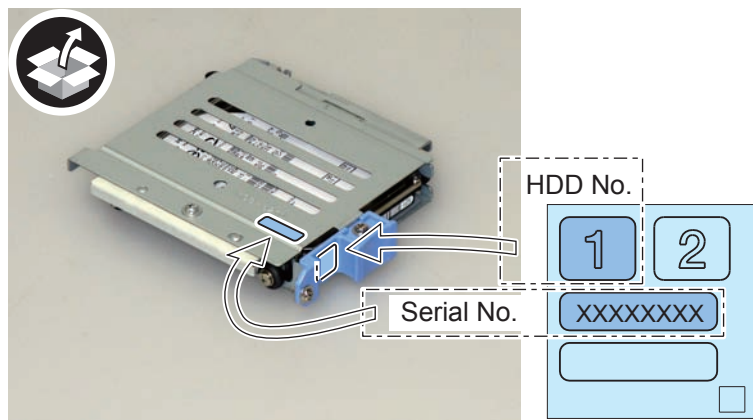
## CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-260

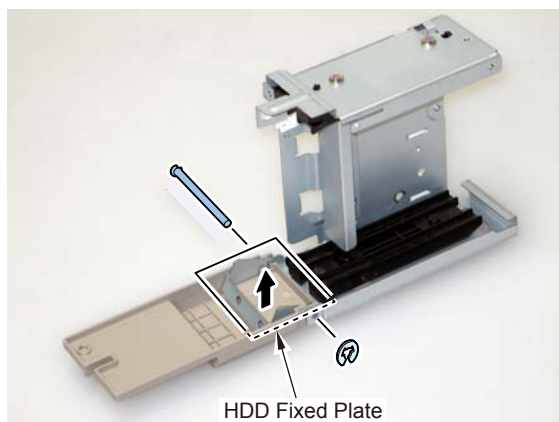
- 7) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.
- 8) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



F-9-261

## ■ Changing Configuration inside of HDD Case Unit

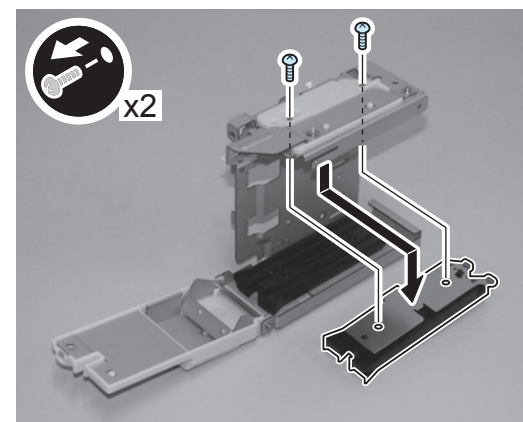
- 1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)



F-9-262

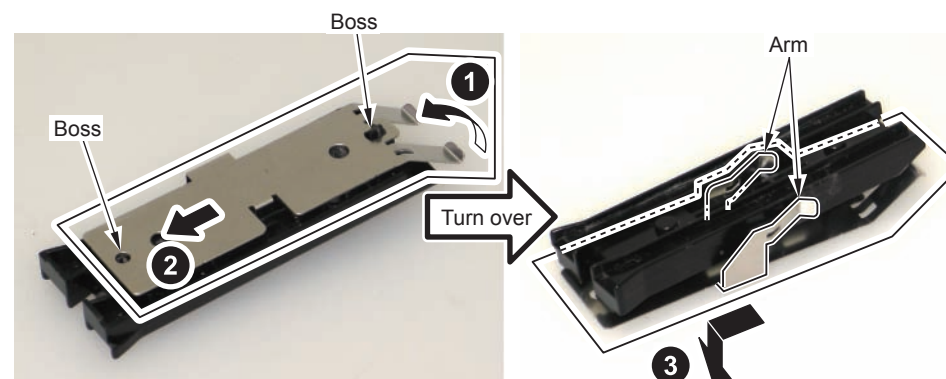
- 2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

- 3) Remove the Upper Rail from the HDD Case Unit.
- 2 Screws (The removed screws will be used in step 6).)



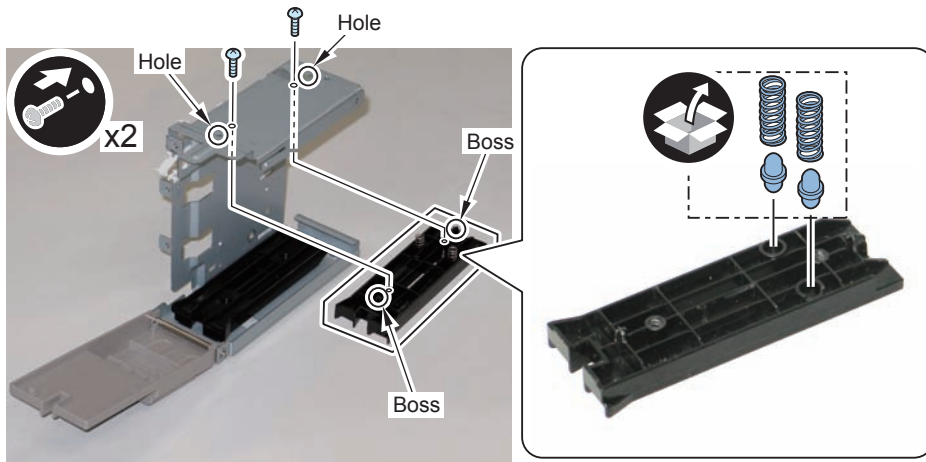
F-9-263

- 4) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)
- 2 Bosses
  - 2 Arms



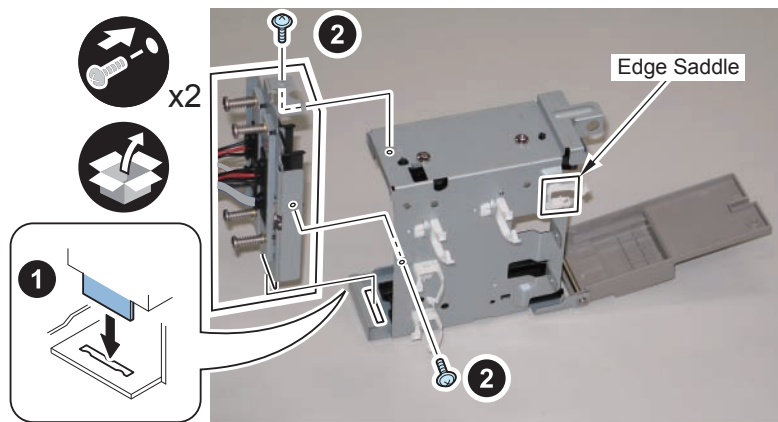
F-9-264

- 
- 5) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.
- 6) Return the rail to its original position.
- 2 Bosses
  - 2 Screws (Use the screws removed in step 3).)



F-9-265

- 
- 7) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.
- 2 Screws (TP Round End; M3x6)
- 8) Close the Edge Saddle.



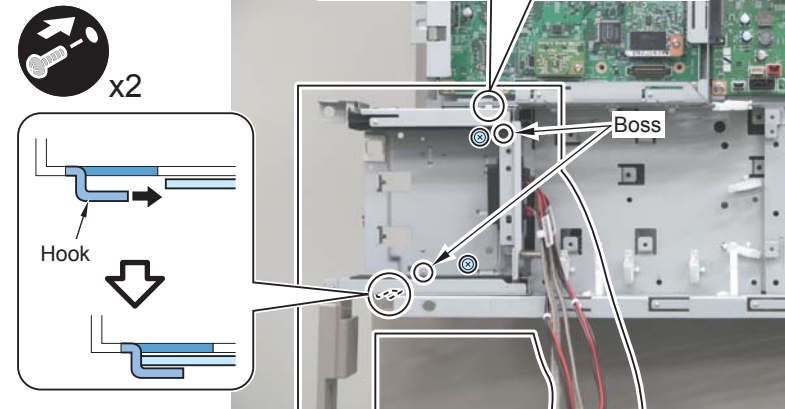
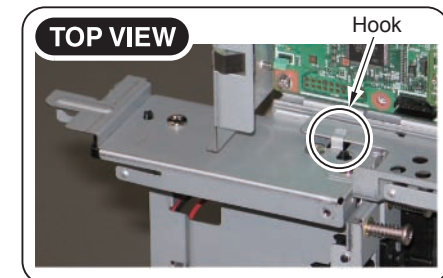
F-9-266

## ■ Installing the HDD Case Unit

- 
- 1) Install the HDD Case Unit.
- 2 Hooks
  - 2 Bosses
  - 2 Screws (Use the screws removed in "Removing the HDD and HDD Case Unit" step 11).)

### NOTE:

Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.



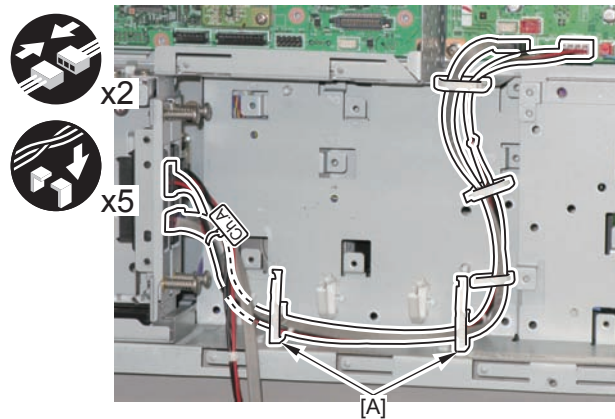
F-9-267

□  
2) Connect the CH A Cable (FK2-7832) to the Main Controller PCB 2.

- 2 Connectors
- 1 Edge Saddle
- 4 Wire Saddles

**NOTE:**

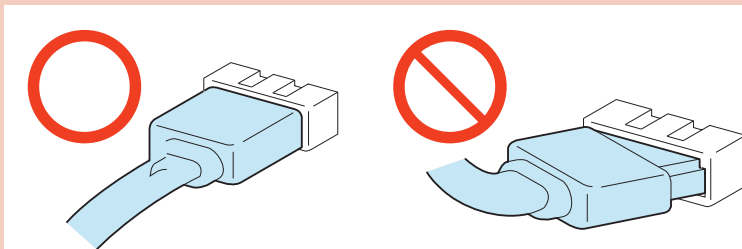
Be sure not to close the 2 Wire Saddles [A] in this step.



F-9-268

**CAUTION:**

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.

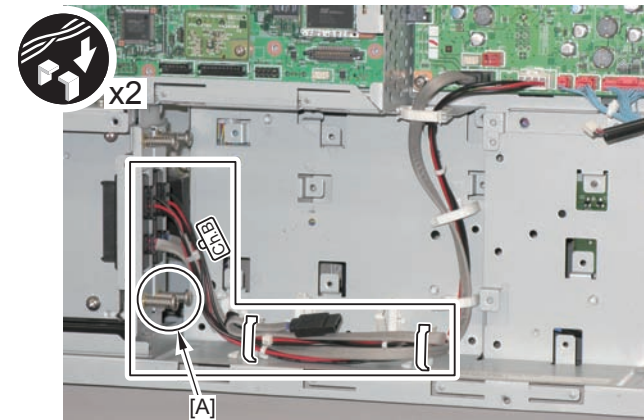


F-9-269

□  
3) Fold extra length of the CH B Cable (FK2-7837), and secure it with the 2 Wire Saddles.

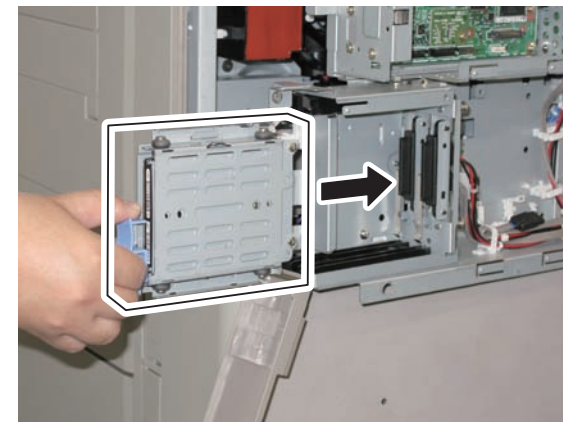
**CAUTION:**

- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-270

□  
4) Insert the assembled Removable HDD.



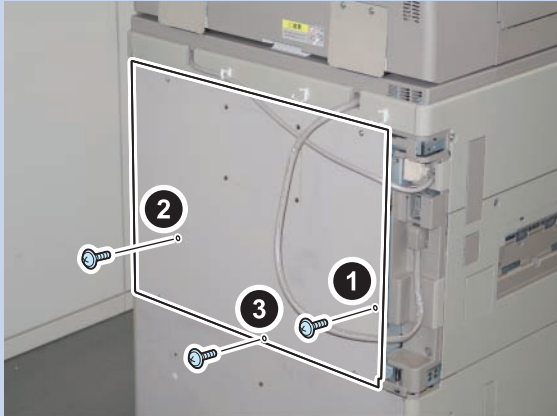
F-9-271

5) Close the Controller Box.

6) Install the Rear Upper Cover.

**NOTE:**

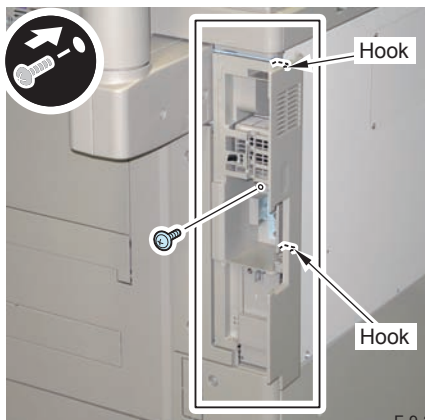
Be sure to install the 3 TP screws show in the figure below.



F-9-272

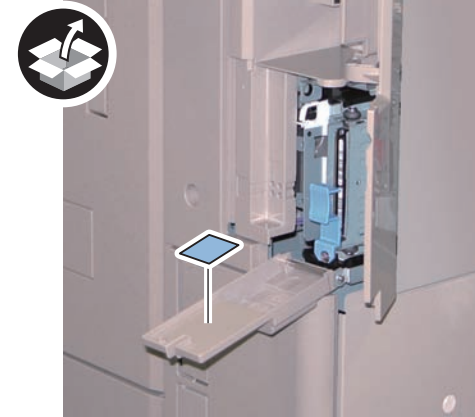
7) Install the Side Cover.

- 2 hooks
- 1 Screw



F-9-273

8) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-274

9) Close the HDD Cap, and install the key prepared by the user for locking.

**NOTE:**

Be sure to use the locking key which size is the one indicated below or smaller.

- Size (width x depth x height) : 67mmx14mmx64mm



F-9-275

10) Close the Right Rear Cover 1.

11) Return the Left Rear Cover to its original position, and secure the Reader Communication Cable and the Reader Power Supply Cable in place using the Wire Saddles.

12) Connect the power plug to the outlet.

13) Turn ON the main power switch.



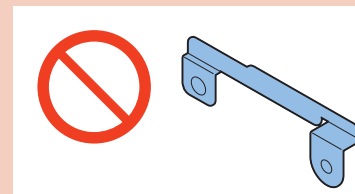


## [TYPE-3] Option HDD (250GB) + Removable HDD Kit

### Checking the Contents

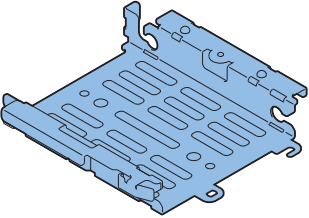
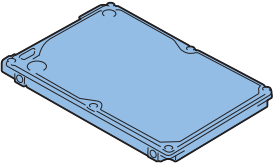
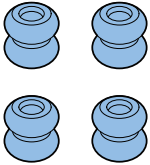
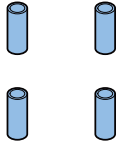
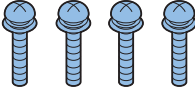


#### CAUTION:

If a Grounding Plate is included in the package of the Option HDD, do not use the HDD Grounding Plate. It may cause reduction in the transfer speed of the HDD.



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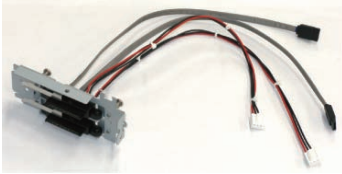
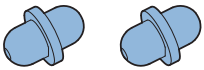
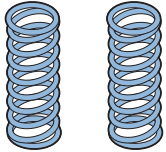
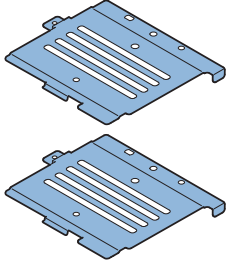
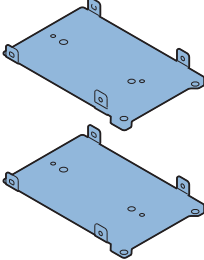
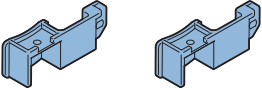
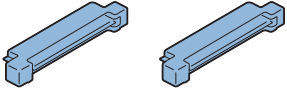
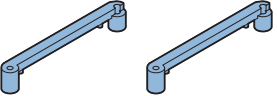
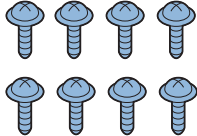
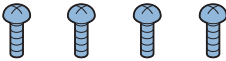
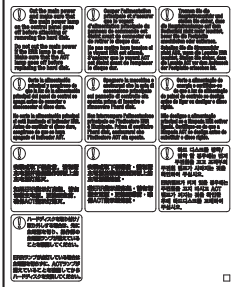
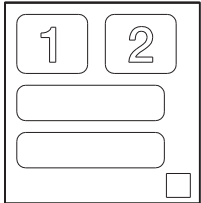
### Option HDD (250GB)

<input type="checkbox"/> [1] HDD Support Plate x 1 	<input type="checkbox"/> [2] HDD x 1 	<input type="checkbox"/> [3] Anti-vibration Damper x 4 	<input type="checkbox"/> [4] Spacer x 4 	<input type="checkbox"/> [5] Screw (W SEMS; M3x14) x 4 
<input type="checkbox"/> [6] Screw (TP; M3x6) x 2 	<input type="checkbox"/> [7] Gasket x 1 			

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- < CD/Guides >
- FCC/IC Sheet

Removable HDD Kit

<input type="checkbox"/> [1] HDD Drawer Unit X 1 	<input type="checkbox"/> [2] HDD Lock Pin X 2 	<input type="checkbox"/> [3] HDD Lock Pin X 2 	<input type="checkbox"/> [4] HDD Cover X 2 Use 1 of them. 	<input type="checkbox"/> [5] HDD Connector Plate X 2 Use 1 of them. 
<input type="checkbox"/> [6] HDD Connector Plate X 2 Use 1 of them. 	<input type="checkbox"/> [7] Conversion Connector X 2 Use 1 of them. 	<input type="checkbox"/> [8] Connector Fixation Block X 2 Use 1 of them. 	<input type="checkbox"/> [9] Screw (TP Round End; M3x6) X 8 Use 6 of them. 	<input type="checkbox"/> [10] Screw (P Tightening; M3x8) X 4 Use 2 of them. 
<input type="checkbox"/> [11] HDD Caution Label X 1 	<input type="checkbox"/> [12] R-HDD Label X 1 			

## Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.

Backup or export work must not be performed by the service person because of security considerations.

In this Installation Procedure, a series of backup or export procedures are described for reference.

### List of Data to be Deleted

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Send Function Favorite Settings	Yes
Data stored in Mail Boxes or the Advanced Box	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box	Yes

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\*1; Can only be backed up using the Remote UI.

\*2; Depending on the MEAP application.

\*3; Only the following data saved in Mail Box/Advanced Box are backed up.

- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image
- Advanced Box URI Transmission Settings

\*4; You may not be able to back up, depending on the type of the password.

\*5; Only the stored Favorite Settings can be backed up.

## List of Data to be Backed Up

Data to be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings (Forwarding Settings, Address List, Favorite Settings)	
Printer Settings	
Paper Information	
Favorite Settings for Web browser	See the "e-Manual > Web Access". (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box	See the "e-Manual > Remote UI" to "Setting the Backup Location for Stored Data".
Image forms stored in the Superimpose Image	
SSO-H (Single Sign-On H) user authentication information	See the "e-Manual > MEAP".
Quick Menu Information	See the "e-Manual > Quick Menu".
User Information of the Advanced Box	See the "e-Manual > Security".

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## CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the "e-Manual > MEAP".

 Making a Backup of the Data (Reference only)

The data items that have been backed up may be restored when this product has been installed. These data items are property of the user, and the restoration work must be performed by the system administrator.

The method of restoration is described in the Users Guide. See Table (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

## 1. Procedure to make a backup of Address Book

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Address List].
- 4) Click [Export].
- 5) Select the save format for Address list, and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file. Be sure to set a distinctive name to an export file so that you can recognize it when importing it.

## NOTE:

Exporting the device settings will export all contents of the address list. In other words, there is no need for a backup unless it needs to be done individually.

## 2. Device Settings Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Device Settings (Forwarding Settings, Address List, Favorite Settings)].
- 4) Click [Export], and then click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 3. Settings/Registration Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Settings/Registration].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 4. Printer Settings Export Procedure

#### NOTE:

The following items to be exported are the same as the ones which are distributed by device information distribution.

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Printer Settings].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 5. Paper Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Paper Information].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 6. Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

#### CAUTION: MEAP Backup Function Using the SST

Data that has been backed up using MEAP back of the SST before the use of this product is started must not be written back to the host machine after the use of this product is started. Similarly, even if the data that has been backed up after the use of this product is started is written back to the host machine before the use of this product is started, the machine does not operate. It is necessary to make sure that the implementation conditions for this product are compatible before and after making a backup of data, and the MEAP backup function does not permit making a backup of data in the course of installing the kit.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide.

### 7. Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

- 1) Select the URL given below and access SMS.  
http://[IP address of the device]:8000/sms/  
The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

#### CAUTION:

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

- 2) Click [MEAP Application Management].
- 3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
- 4) Click the application of which license has been installed.
- 5) Click [License Control], and then click [Disable]. Click [Yes] in a confirmation window for disabling the license.

- 6) Click [Download] under "Download/delete Disabled License File" item. Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
- 7) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
- 8) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

### 8. User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

- 1) Access the URL given below.

http://[IP address of the device]:8000/sso/

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

#### CAUTION:

The default password is MeapSmsLogin. If the user has changed the password, ask him/her to change the password again after the use of this product is started.

- 2) Login with the user name and password registered as an administrator in SSO-H.  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [User Control].
- 4) Put a checkmark to Select All, and then click [Export].
- 5) Leave the file format and character code as defaults and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file and click [Save].

### 9. Backup of User inbox and Advanced Box document data

#### CAUTION: Backup of "Advanced Box"

When setting a SMB server as a backup destination, Advanced Box data saved in a large capacity HDD cannot be backed up. The Advanced Box data backed up from the large capacity HDD cannot be restored to the standard HDD. Depending on the system version of the machine, both backup and restoration might not be performed.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

- Backup to SMB server  
Select SMB as a backup destination and specify an address, a user name, a password, and a path to the SMB server to which saved data is backed up.
- Backup to USB HDD  
Select USB HDD as a backup destination and specify a path to the USB HDD folder to which saved data is backed up.

#### CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

#### CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

#### CAUTION:

- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

#### [Backup method of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
- 2) Select 'All' or 'Changes' for the backup method.
- 3) Click [Execute].

#### CAUTION:

- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- If you select to encrypt the backup data, the backup process may take longer.

#### [Restoring the backup data of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
- 2) Click [Display Backup Data].
- 3) Select the backup data to restore from the list and then click [Execute].

#### CAUTION:

- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

#### 10. Quick Menu Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [Quick Menu] > [Export].
- 3) If the file needs to be encrypted, enter the password after check [Encrypt file]. (The number of characters for the password must be more than 4 but less than 16.)
- 4) Click [Export].
- 5) Following the instructions on the window, specify the location to save the file.

#### 11. User Information of the Advanced Box Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [User Access Control for Advanced Box]. The dialog box to enter the user name of administrator and password appears, enter the system administrator ID and password, and then click [Log In].  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [Export], and click [Start Export].
- 4) Following the instructions on the window, specify the location to save the file.

## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

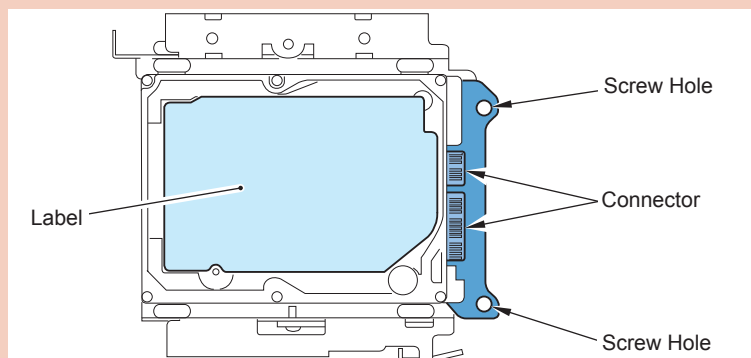
- 1) Turn OFF the main power switch.
- 2) Check that the Control Panel Display and the Main Power Lamp are turned OFF, and then disconnect the power plug.

## Installation Procedure

### Assembling the Option HDD

CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



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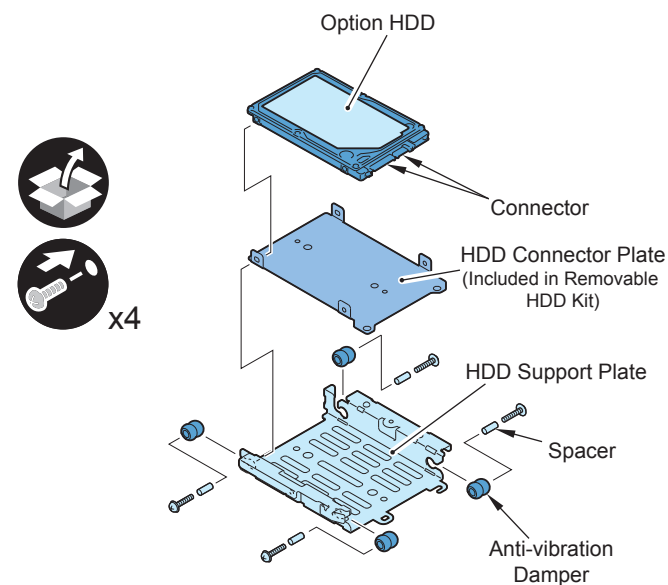
NOTE:

Use the parts included in the package of the Option HDD and the Removable HDD Kit.



1) Assemble the Option HDD (250GB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 HDD Connector Plate (Included in the Removable HDD Kit)
- 1 Option HDD
- 4 Screws (W Sems; M3x14)



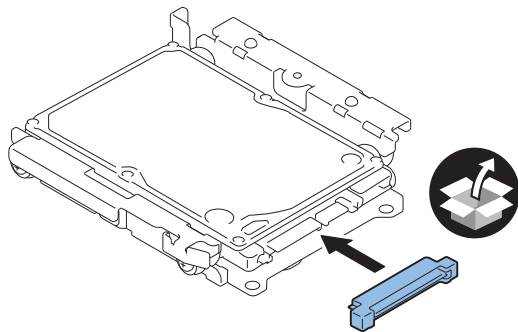
F-9-280



- 2) Install the Conversion Connector.

**CAUTION:**

Be sure that there is no gap between the HDD Connector and the Conversion Connector.

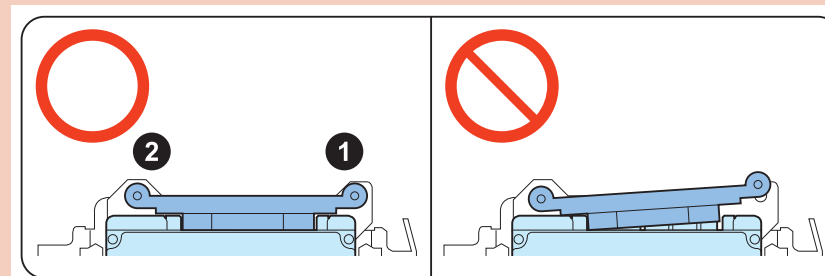


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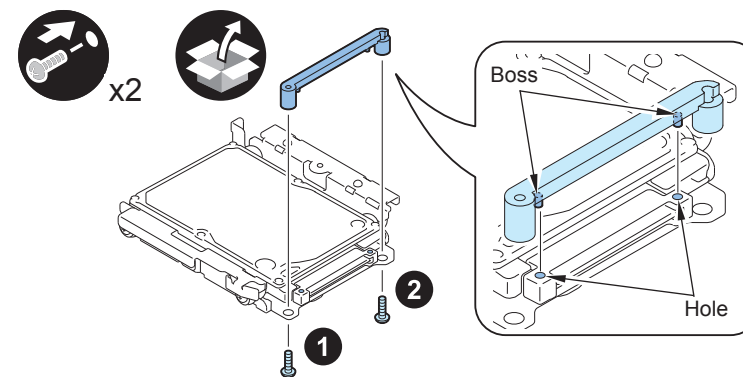
- 3) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.
- 2 Screws (P Tightening; M3x8)

**CAUTION:**

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



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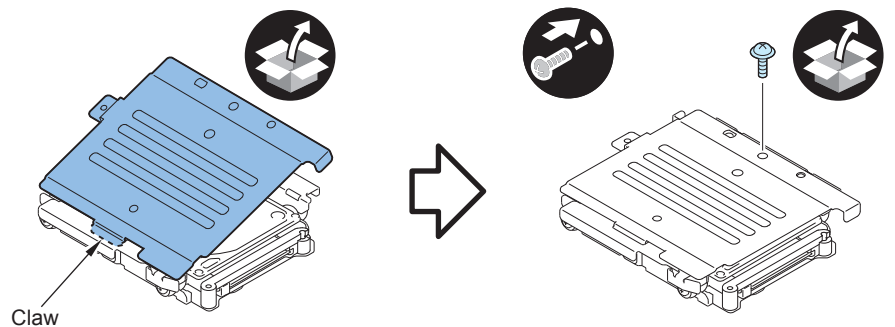
F-9-283

□  
4) Install the HDD Cover.

- 1 Claw
- 1 Screw (TP Round End; M3x6)

**CAUTION:**

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



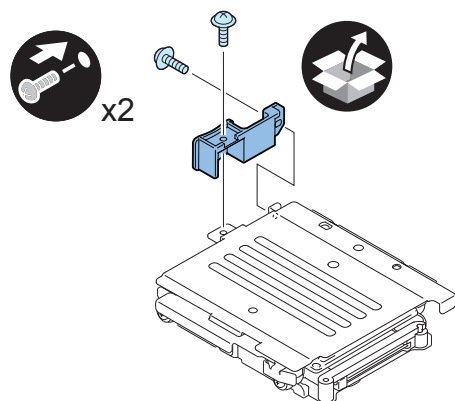
F-9-284

□  
5) Install the HDD Handle.

- 2 Screws (TP Round End; M3x6)

**CAUTION:**

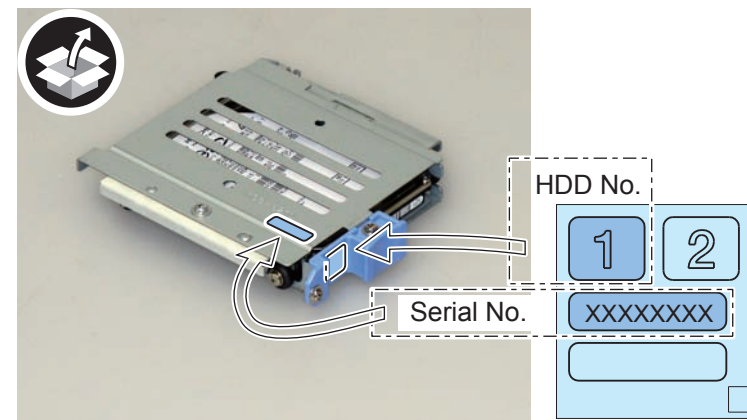
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



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□  
6) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.

- 7) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.

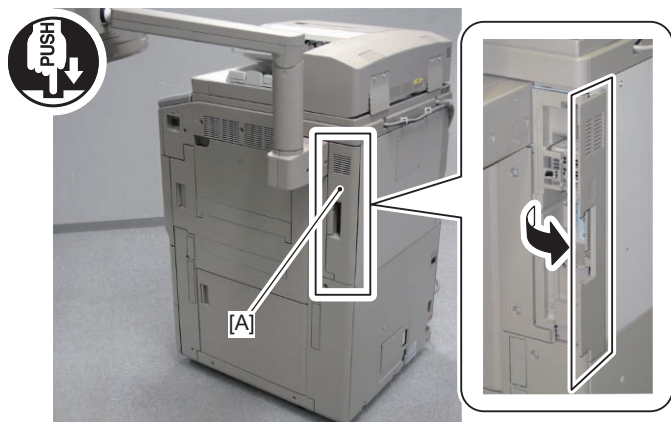


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## Removing the HDD and HDD Case Unit



1) Push [A] part, and open the Right Rear Cover 1.

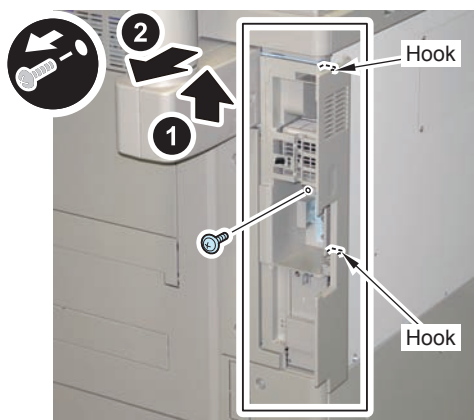


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2) Remove the Side Cover.

- 1 Screw
- 2 hooks



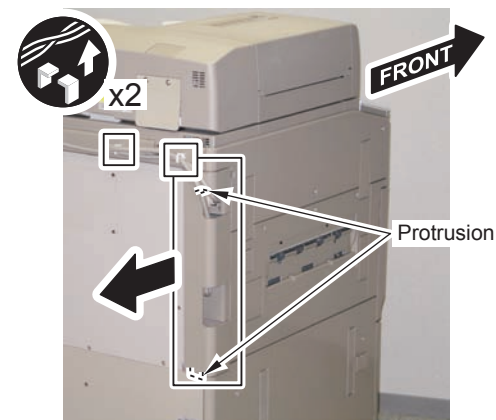
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3) Free the Reader Communication Cable and the Reader Power Supply Cable from the 2 Wire Saddles.

4) Remove the Left Rear Cover.

- 2 Protrusions

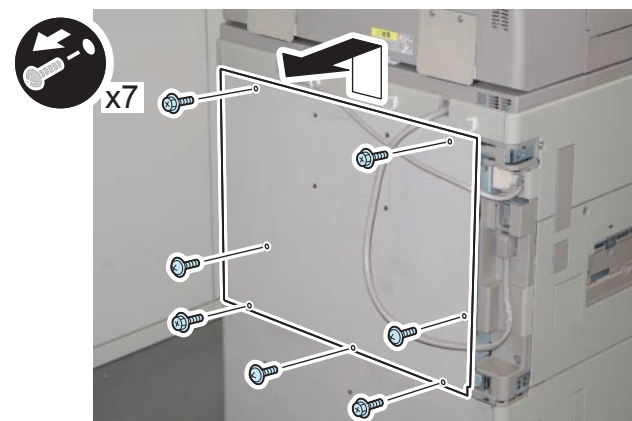


F-9-289



5) Remove the Rear Upper Cover.

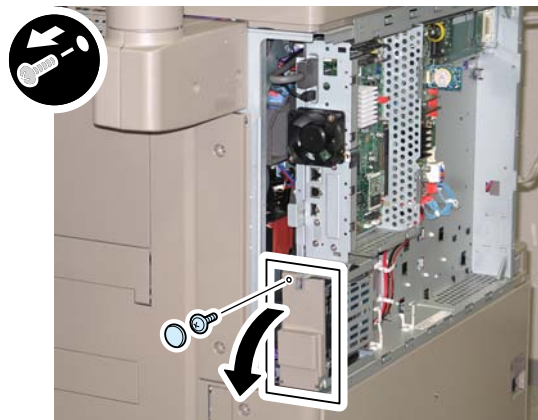
- 4 Screws (RS Tightening)
- 3 Screws (TP)



F-9-290

6) Open the HDD Cap.

- 1 Rubber cap
- 1 Screw (The removed screw will not be used.)

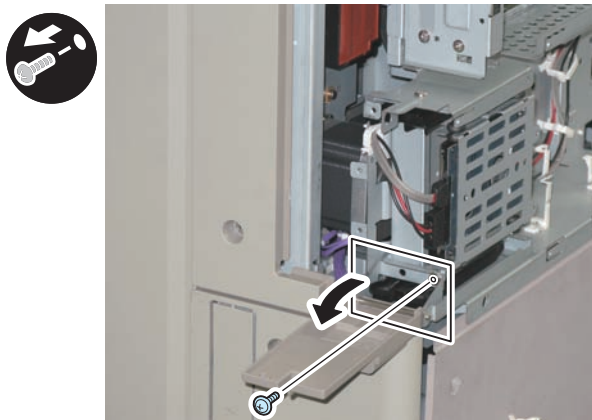


F-9-291

7) Return the rubber cap to the HDD cap.

8) Turn the HDD Fixed Plate toward the front.

- 1 Screw (The removed screw will not be used.)



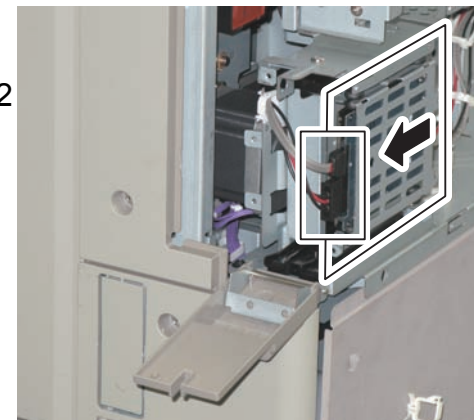
F-9-292

9) Remove the HDD. (The removed HDD will not be used.)

- 2 Connectors



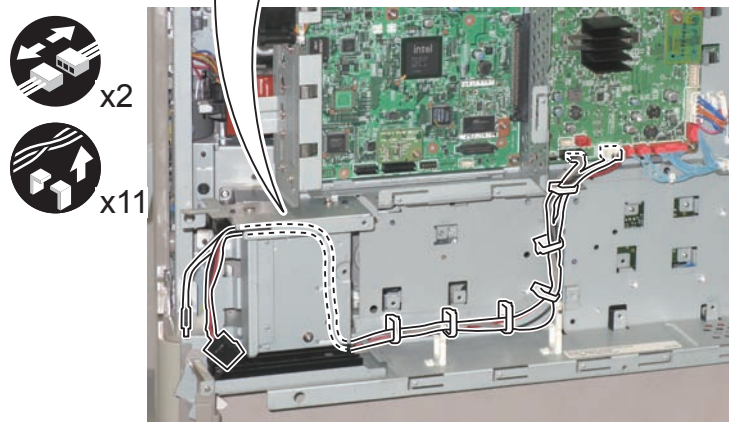
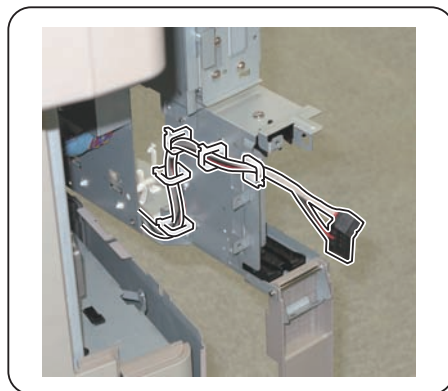
x2



F-9-293

- 10) Open the Controller Box, and disconnect the Signal Cable and the Power Supply Cable on the host machine. (Disconnected cables will not be used.)

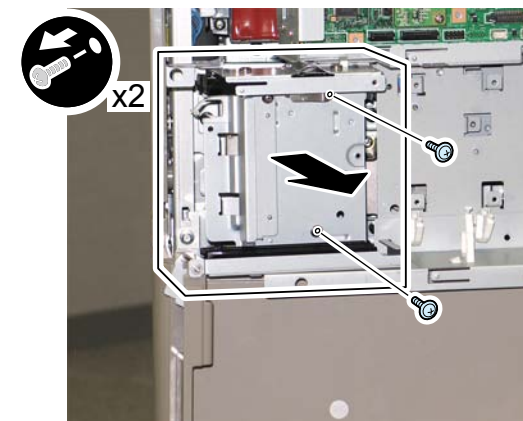
- 2 Connectors
- 9 Wire Saddles
- 2 Edge Saddles



F-9-294

- 11) Remove the HDD Case Unit.

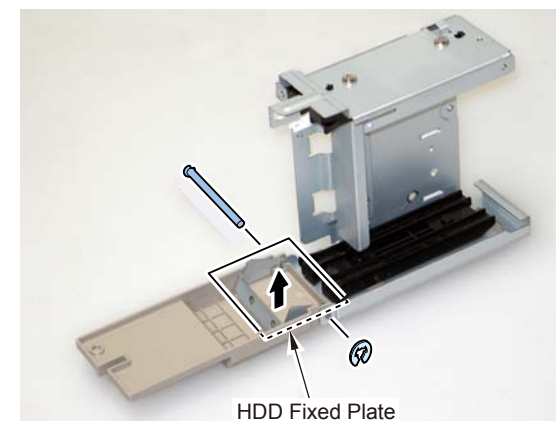
- 2 Screws (The removed screws will be used in "Installing the HDD Case Unit" step 1.)



F-9-295

## ■ Changing Configuration inside of HDD Case Unit

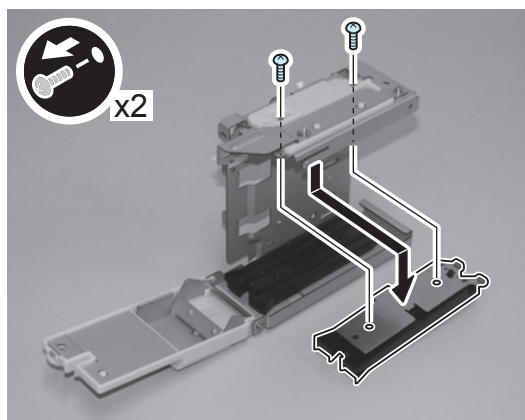
- 1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)



F-9-296

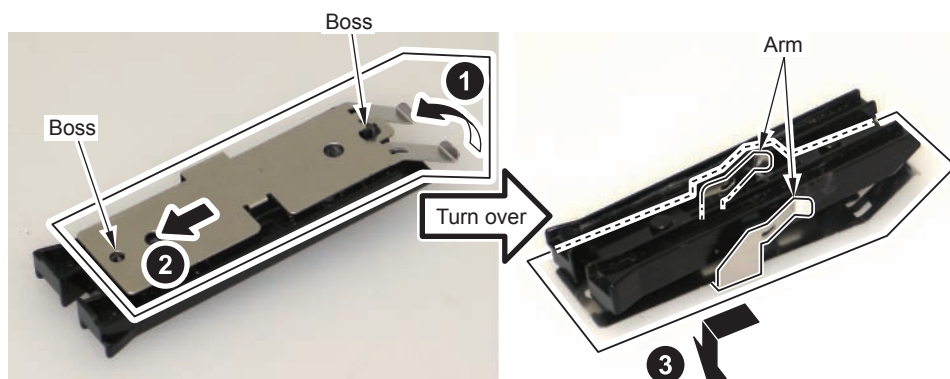
- 2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

- 
- 3) Remove the Upper Rail from the HDD Case Unit.
- 2 Screws (The removed screws will be used in step 6.)



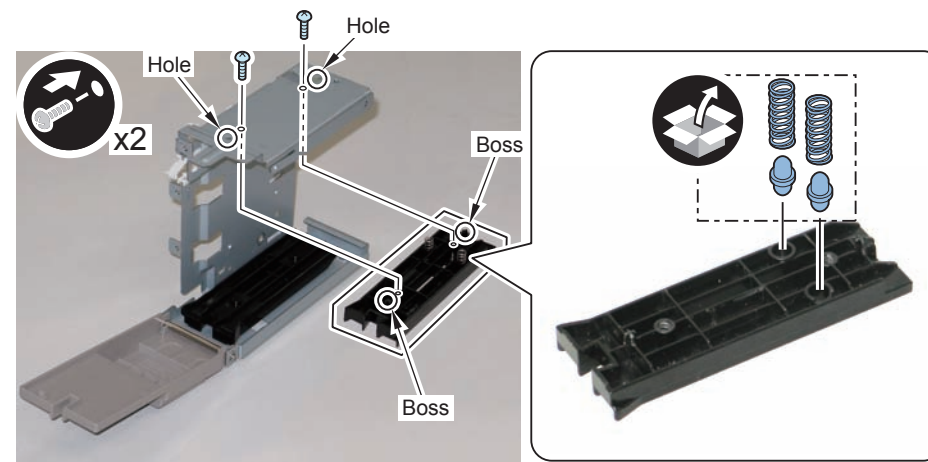
F-9-297

- 
- 4) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)
- 2 Bosses
  - 2 Arms



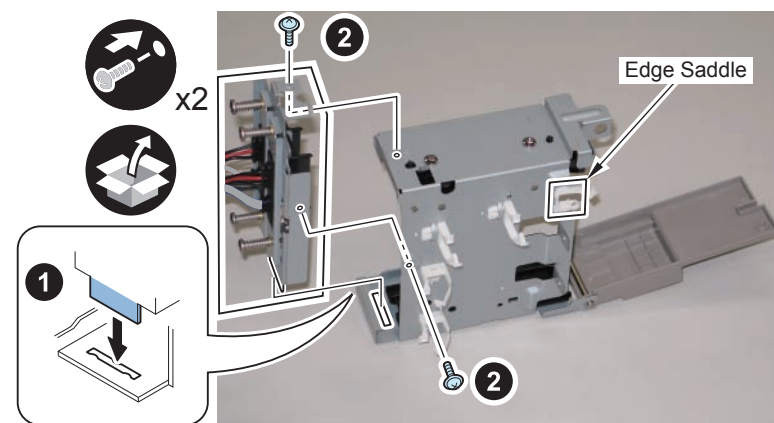
F-9-298

- 
- 5) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.
- 6) Return the rail to its original position.
- 2 Bosses
  - 2 Screws (Use the screws removed in step 3.)



F-9-299

- 
- 7) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.
- 2 Screws (TP Round End; M3x6)
- 8) Close the Edge Saddle.



F-9-300

## Installing the HDD Case Unit

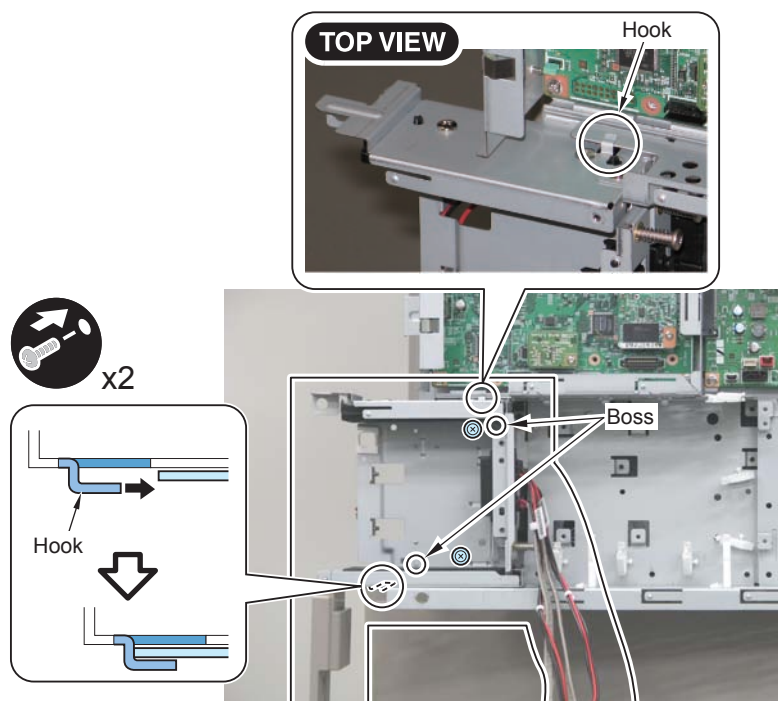


1) Install the HDD Case Unit.

- 2 Hooks
- 2 Bosses
- 2 Screws (Use the screws removed in "Removing the HDD and HDD Case Unit" step 11).)

### NOTE:

Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.



F-9-301

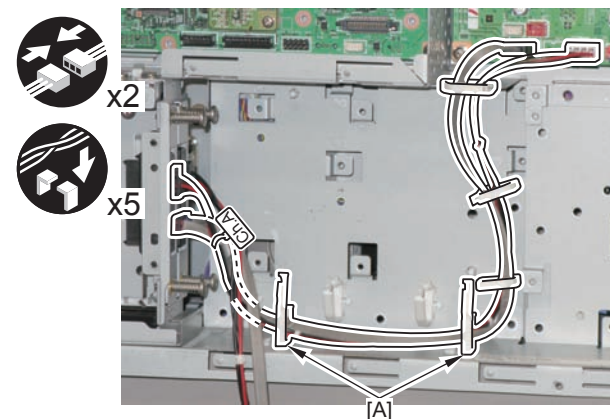


2) Connect the CH A Cable (FK2-7832) to the Main Controller PCB 2.

- 2 Connectors
- 1 Edge Saddle
- 4 Wire Saddles

### NOTE:

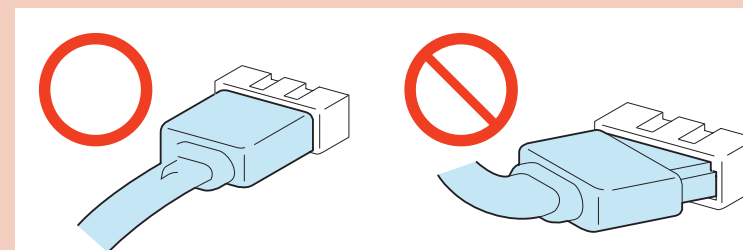
Be sure not to close the 2 Wire Saddles [A] in this step.



F-9-302

### CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.

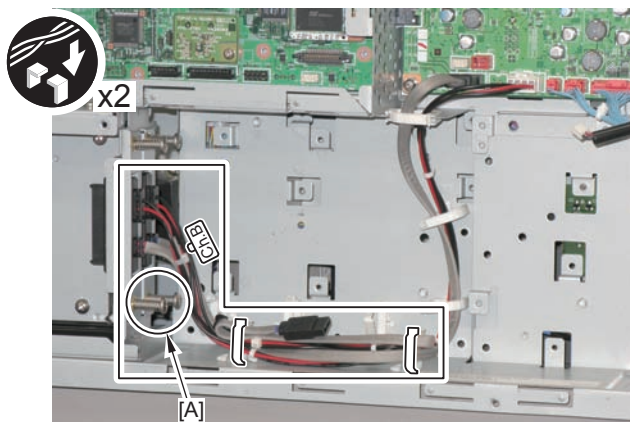


F-9-303

- 3) Fold extra length of the CH B Cable (FK2-7837), and secure it with the 2 Wire Saddles.

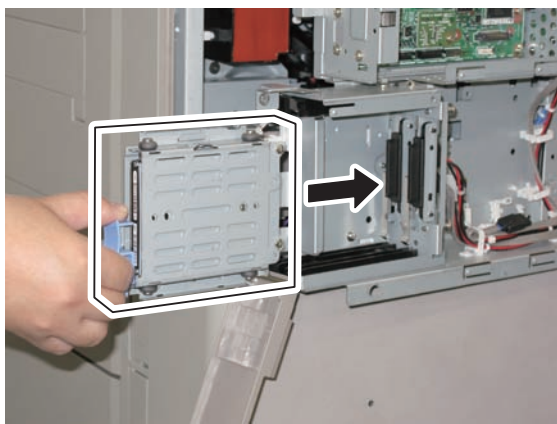
## CAUTION:

- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-304

- 4) Insert the assembled Removable HDD.



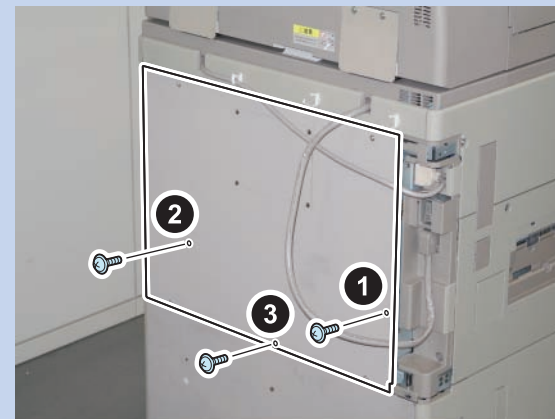
F-9-305

- 5) Close the Controller Box.

- 6) Install the Rear Upper Cover.

## NOTE:

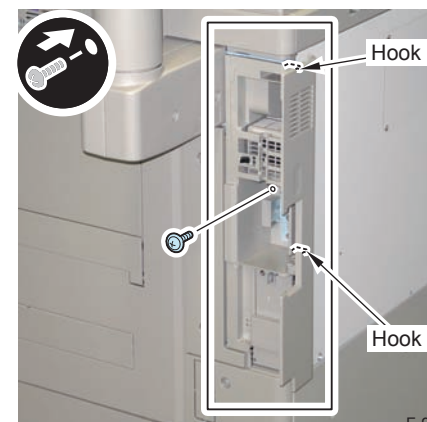
Be sure to install the 3 TP screws show in the figure below.



F-9-306

- 7) Install the Side Cover.

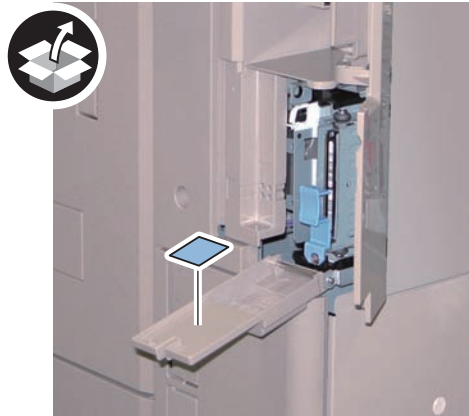
- 2 hooks
- 1 Screw



F-9-307



- 8) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-308

- 9) Close the HDD Cap, and install the key prepared by the user for locking.

**NOTE:**

Be sure to use the locking key which size is the one indicated below or smaller.

- Size (width x depth x height) : 67mmx14mmx64mm



F-9-309

- 10) Close the Right Rear Cover 1.
- 11) Return the Left Rear Cover to its original position, and secure the Reader Communication Cable and the Reader Power Supply Cable in place using the Wire Saddles.
- 12) Connect the power plug to the outlet.

## Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product. It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product. Details follow.

### 1. Requirements

#### 1) PC

Service support tool in the version that supports this host machine must be installed.

#### 2) Cross Ethernet Cable

### 2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.

2) Connect the PC and the machine using an Ethernet cable.

3) Turn on the PC.

4) Start up the machine in download mode (safe mode).

### 3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.

2) Start up the SST.

3) Click 'Register Firmware'.

4) Select the drive in which the System Software CD has been set, and click 'SEARCH'.

5) Click 'REGISTER'.

6) Click OK.

### 4. Downloading the System Software

1) Click 'CONNECT'.

2) From the list of machine series, select the appropriate model.

3) Select 'Single', and click start.

4) Execute HDD format.

5) After 5 sec from when the power of the host machine is turned OFF, restart the host machine in download mode of safe mode.

6) When "download mode" is displayed on the control panel, click simple mode start.

7) Click start to execute download.

8) Follow the instruction on the screen and when download is complete, click OK.

9) Exit SST.

10) Check the versions of MN-CONT and LANG etc in service mode (COPIER > Display > VERSION).

## Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

## [TYPE-4] Option HDD (80GB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

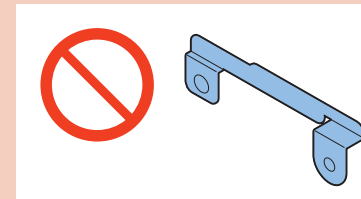
### Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn. If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

### Checking the Contents

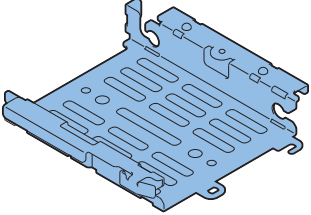
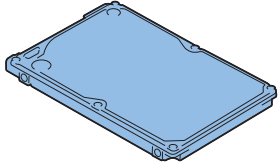
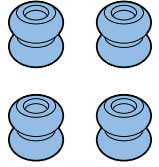
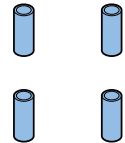
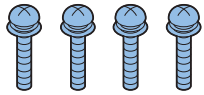

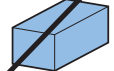
**CAUTION:**

If a Grounding Plate is included in the package of the Option HDD, do not use the HDD Grounding Plate. It may cause reduction in the transfer speed of the HDD.



F-9-310

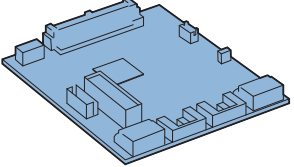
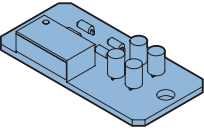



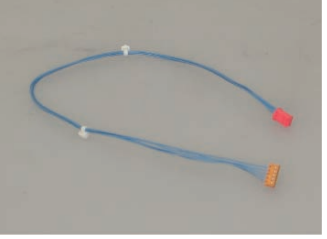

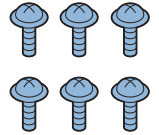
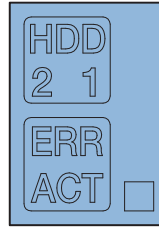
Option HDD (80GB)

<input type="checkbox"/> [1] HDD Support Plate x 1 	<input type="checkbox"/> [2] HDD x 1 	<input type="checkbox"/> [3] Anti-vibration Damper x 4 	<input type="checkbox"/> [4] Spacer x 4 	<input type="checkbox"/> [5] Screw (W SEMS; M3x14) x 4 
<input type="checkbox"/> [6] Screw (TP; M3x6) x 2 <p>Use 1 of them.</p> 	<input type="checkbox"/> [7] Gasket x 1 			

- < CD/Guides >
- FCC/IC Sheet

F-9-311

## HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

<input type="checkbox"/> [1] Mirroring Board or Encryption Board X 1 	<input type="checkbox"/> [2] LED Board X 1 	<input type="checkbox"/> [3] Power Supply Cable (570mm; FK2-7831) X 2 	<input type="checkbox"/> [4] Signal Cable (550mm; FK2-7826) X 1 	<input type="checkbox"/> [5] Signal Cable (550mm; FK2-7827) X 1 
<input type="checkbox"/> [6] STS Cable (340mm(Light Blue); FM3-9152) X 1 	<input type="checkbox"/> [7] LED Cable (310mm; FM3-9158) X 1 	<input type="checkbox"/> [8] Screw (TP; M3x6) X 6 	<input type="checkbox"/> [9] LED Label X 1 	

F-9-312

< CD/Guides of HDD Mirroring Kit >

- HDD Mirroring Kit User Documentation
- FCC/IC Sheet

< CD/Guides of HDD Data Encryption & Mirroring Kit >

- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

## Points to Note when HDD Data Encryption & Mirroring Kit has been Installed

### Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.

Backup or export work must not be performed by the service person because of security considerations.

In this Installation Procedure, a series of backup or export procedures are described for reference.

#### List of Data to be Deleted

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Send Function Favorite Settings	Yes
Data stored in Mail Boxes or the Advanced Box	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box	Yes

T-9-13

\*1; Can only be backed up using the Remote UI.

\*2; Depending on the MEAP application.

\*3; Only the following data saved in Mail Box/Advanced Box are backed up.

- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image
- Advanced Box URI Transmission Settings

\*4; You may not be able to back up, depending on the type of the password.

\*5; Only the stored Favorite Settings can be backed up.

## List of Data to be Backed Up

Data to be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings (Forwarding Settings, Address List, Favorite Settings)	
Printer Settings	
Paper Information	
Favorite Settings for Web browser	See the "e-Manual > Web Access". (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box	See the "e-Manual > Remote UI" to "Setting the Backup Location for Stored Data".
Image forms stored in the Superimpose Image	
SSO-H (Single Sign-On H) user authentication information	See the "e-Manual > MEAP".
Quick Menu Information	See the "e-Manual > Quick Menu".
User Information of the Advanced Box	See the "e-Manual > Security".

T-9-14

## CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the "e-Manual > MEAP".

## ■ Making a Backup of the Data (Reference only)

The data items that have been backed up may be restored when this product has been installed. These data items are property of the user, and the restoration work must be performed by the system administrator.

The method of restoration is described in the Users Guide. See Table (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

## 1. Procedure to make a backup of Address Book

1) Access the URL given below, and then access Remote UI.

[http://\[IP address of the device\]/](http://[IP address of the device]/)

If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].

2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].

3) Click [Address List].

4) Click [Export].

5) Select the save format for Address list, and click [Start Export].

6) Following the instructions on the window, specify the location to save the file. Be sure to set a distinctive name to an export file so that you can recognize it when importing it.

## NOTE:

Exporting the device settings will export all contents of the address list. In other words, there is no need for a backup unless it needs to be done individually.

## 2. Device Settings Export Procedure

1) Access the URL given below, and then access Remote UI.

[http://\[IP address of the device\]/](http://[IP address of the device]/)

If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].

2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].

3) Click [Device Settings (Forwarding Settings, Address List, Favorite Settings)].

4) Click [Export], and then click [Start Export].

5) Following the instructions on the window, specify the location to save the file.

### 3. Settings/Registration Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Settings/Registration].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 4. Printer Settings Export Procedure

**NOTE:**

The following items to be exported are the same as the ones which are distributed by device information distribution.

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Printer Settings].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 5. Paper Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Paper Information].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 6. Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

**CAUTION: MEAP Backup Function Using the SST**

Data that has been backed up using MEAP back of the SST before the use of this product is started must not be written back to the host machine after the use of this product is started. Similarly, even if the data that has been backed up after the use of this product is started is written back to the host machine before the use of this product is started, the machine does not operate. It is necessary to make sure that the implementation conditions for this product are compatible before and after making a backup of data, and the MEAP backup function does not permit making a backup of data in the course of installing the kit.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide.

### 7. Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

- 1) Select the URL given below and access SMS.  
http://[IP address of the device]:8000/sms/  
The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

**CAUTION:**

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

- 2) Click [MEAP Application Management].
- 3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
- 4) Click the application of which license has been installed.
- 5) Click [License Control], and then click [Disable]. Click [Yes] in a confirmation window for disabling the license.



- 6) Click [Download] under "Download/delete Disabled License File" item. Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
- 7) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
- 8) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

#### 8. User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

- 1) Access the URL given below.

http://[IP address of the device]:8000/sso/

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

##### CAUTION:

The default password is MeapSmsLogin. If the user has changed the password, ask him/her to change the password again after the use of this product is started.

- 2) Login with the user name and password registered as an administrator in SSO-H.  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [User Control].
- 4) Put a checkmark to Select All, and then click [Export].
- 5) Leave the file format and character code as defaults and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file and click [Save].

#### 9. Backup of User inbox and Advanced Box document data

##### CAUTION: Backup of "Advanced Box"

When setting a SMB server as a backup destination, Advanced Box data saved in a large capacity HDD cannot be backed up. The Advanced Box data backed up from the large capacity HDD cannot be restored to the standard HDD. Depending on the system version of the machine, both backup and restoration might not be performed.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

- Backup to SMB server  
Select SMB as a backup destination and specify an address, a user name, a password, and a path to the SMB server to which saved data is backed up.
- Backup to USB HDD  
Select USB HDD as a backup destination and specify a path to the USB HDD folder to which saved data is backed up.

##### CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

##### CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

##### CAUTION:

- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

#### [Backup method of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
- 2) Select 'All' or 'Changes' for the backup method.
- 3) Click [Execute].

#### CAUTION:

- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- If you select to encrypt the backup data, the backup process may take longer.

#### [Restoring the backup data of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
- 2) Click [Display Backup Data].
- 3) Select the backup data to restore from the list and then click [Execute].

#### CAUTION:

- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

#### 10. Quick Menu Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [Quick Menu] > [Export].
- 3) If the file needs to be encrypted, enter the password after check [Encrypt file]. (The number of characters for the password must be more than 4 but less than 16.)
- 4) Click [Export].
- 5) Following the instructions on the window, specify the location to save the file.

#### 11. User Information of the Advanced Box Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [User Access Control for Advanced Box]. The dialog box to enter the user name of administrator and password appears, enter the system administrator ID and password, and then click [Log In].  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [Export], and click [Start Export].
- 4) Following the instructions on the window, specify the location to save the file.

## Check Items when Turning OFF the Main Power

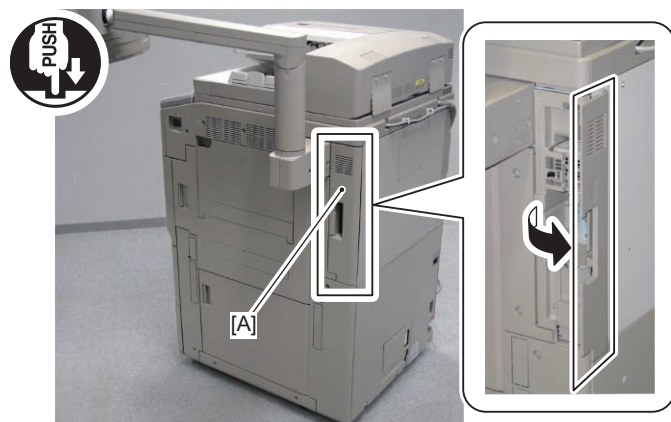
Check that the main power switch is OFF.

- 1) Turn OFF the main power switch.
- 2) Check that the Control Panel Display and the Main Power Lamp are turned OFF, and then disconnect the power plug.

## Installation Procedure

### Removing the Covers

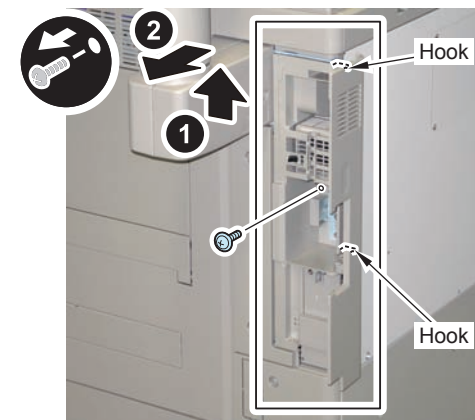
- 1) Push [A] part, and open the Right Rear Cover 1.



F-9-313

- 2) Remove the Side Cover.

- 1 Screw
- 2 hooks

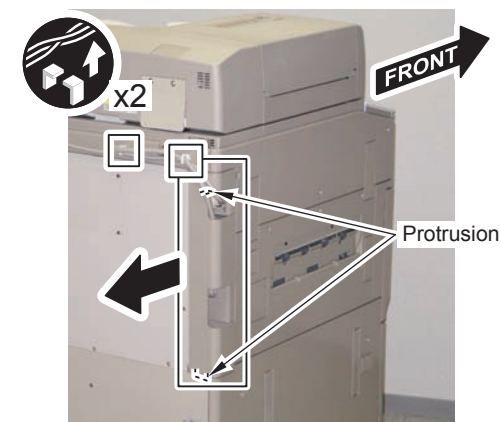


F-9-314

- 3) Free the Reader Communication Cable and the Reader Power Supply Cable from the 2 Wire Saddles.

- 4) Remove the Left Rear Cover.

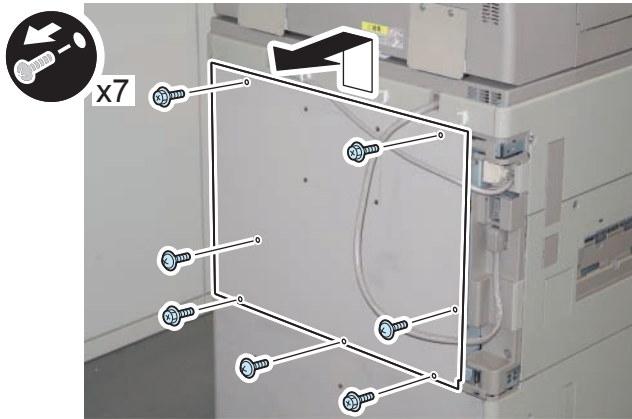
- 2 Protrusions



F-9-315

□ 5) Remove the Rear Upper Cover.

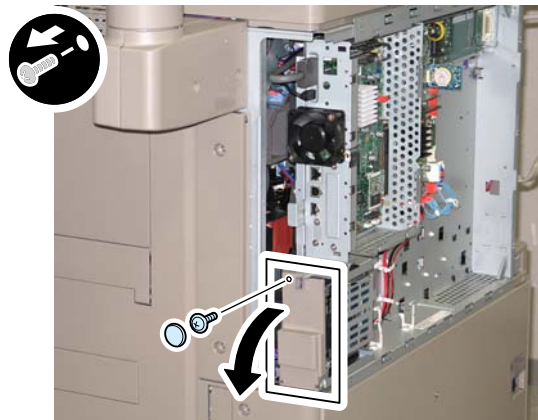
- 4 Screws (RS Tightening)
- 3 Screws (TP)



F-9-316

□ 6) Open the HDD Cap.

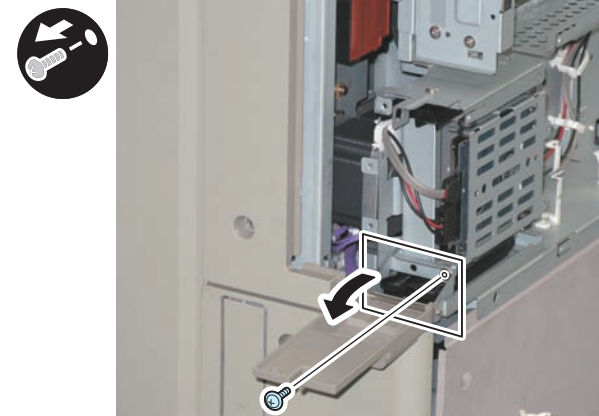
- 1 Rubber cap
- 1 Screw



F-9-317

□ 7) Turn the HDD Fixed Plate toward the front.

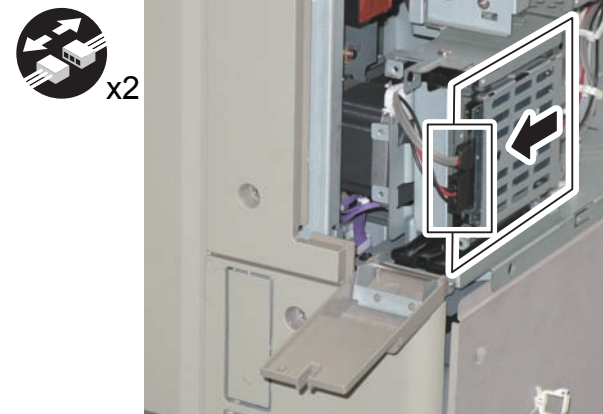
- 1 Screw (The removed screw will be used in "Installing the Mirroring Board or Encryption Board" step 13.)



F-9-318

□ 8) Remove the HDD.

- 2 Connectors

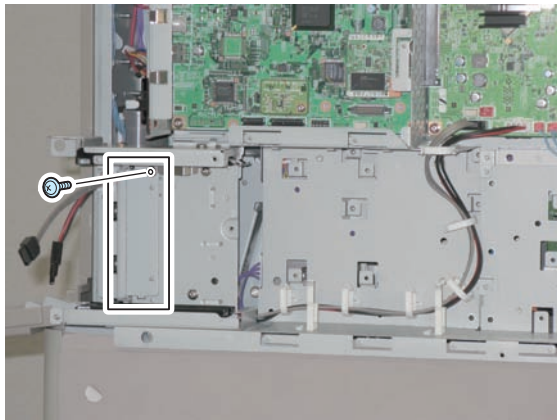


F-9-319



9) Remove the Face Plate. (The removed Face Plate and screw will not be used.)

- 1 Screw



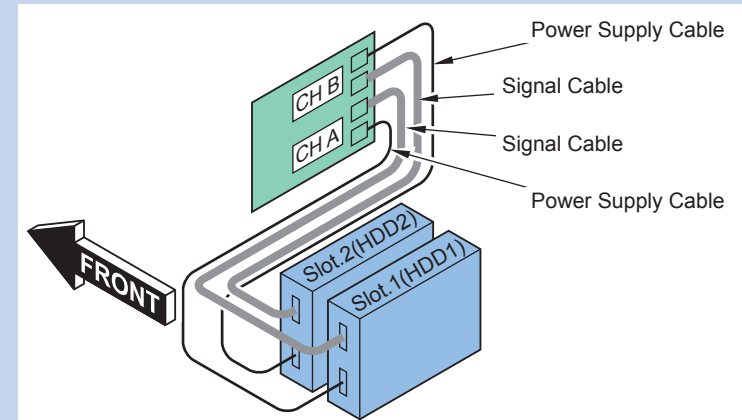
F-9-320

## ■ Installing the Mirroring Board or Encryption Board

### NOTE:

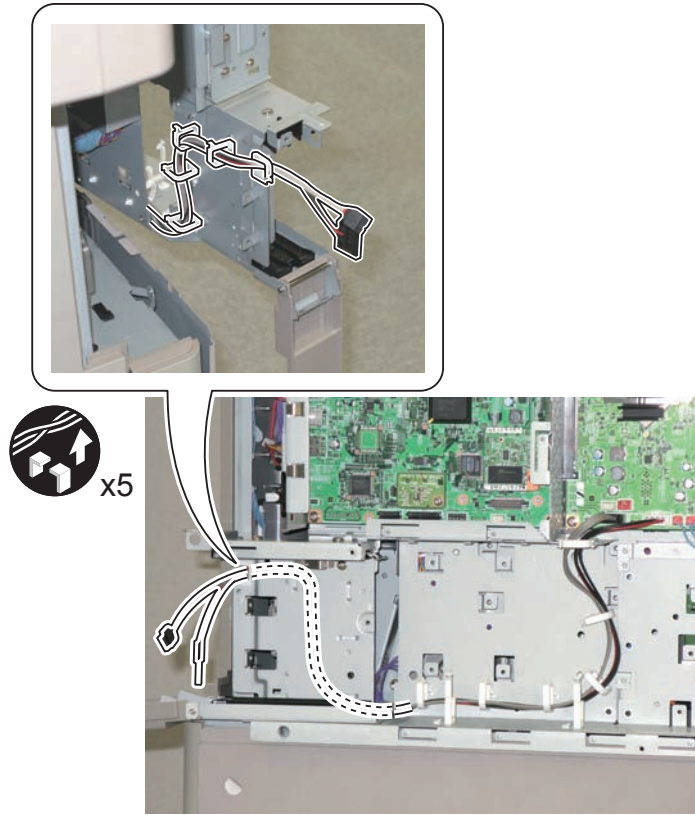
The following shows combination of the HDD and the Mirroring Board or Encryption Board.

- Connect "CH A" to Slot.1 (The original HDD)
- Connect "CH B" to Slot.2 (The new HDD)



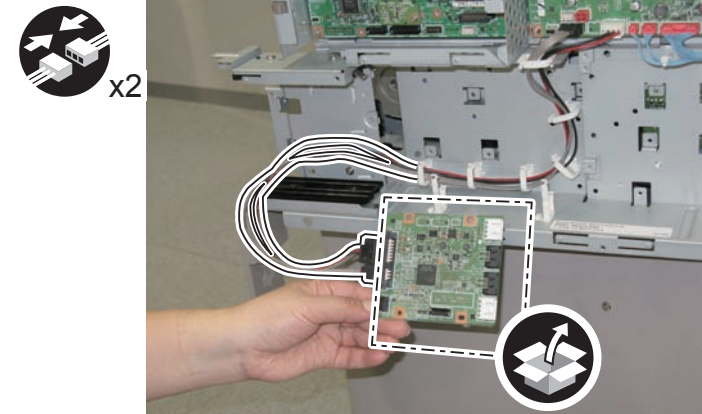
F-9-321

- 
- 1) Open the Controller Box, and free the Signal Cable and the Power Supply Cable of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.



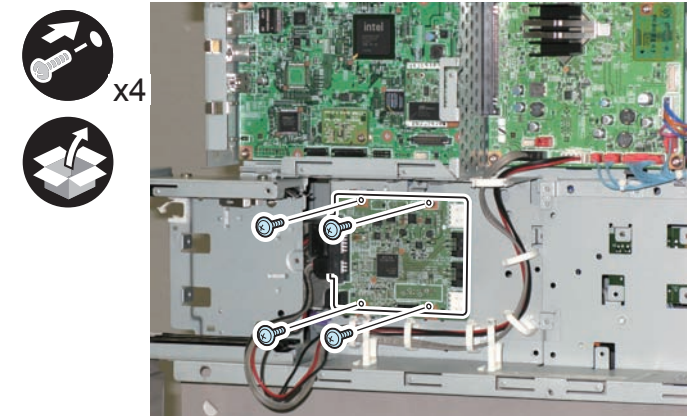
F-9-322

- 
- 2) Pull out the cables to the front, and connect the Signal Cable and the Power Supply Cable to the Mirroring Board or Encryption Board.



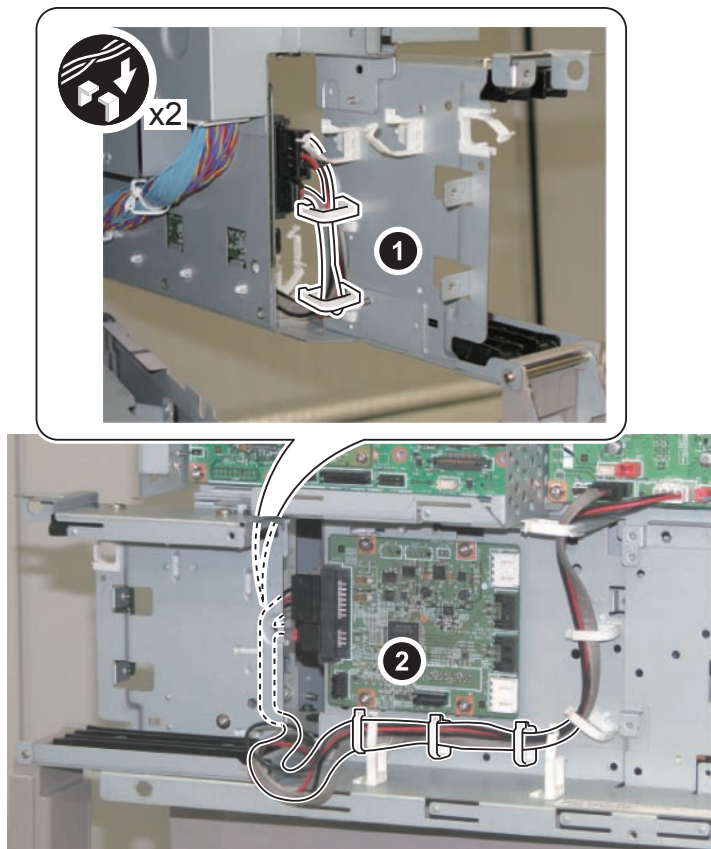
F-9-323

- 
- 3) Install the Mirroring Board or Encryption Board.
- 4 Screws (TP; M3x6)



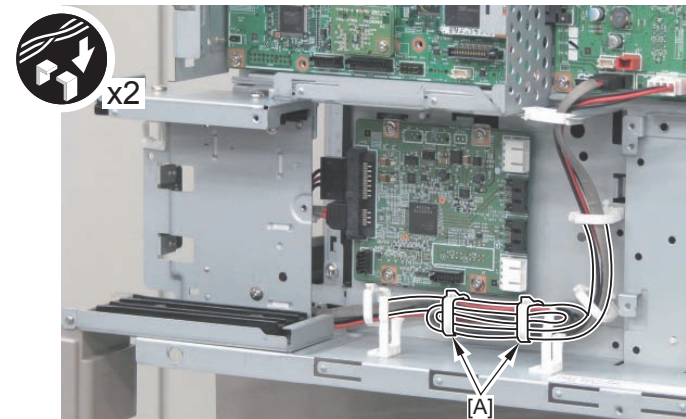
F-9-324

- 
- 4) Secure the Signal Cable and the Power Supply Cable in place using the 2 Wire Saddles at the back of the HDD Case Unit.
- 5) Free the cables from the 3 Wire Saddles at the front.



F-9-325

- 
- 6) Fold extra length of the cable and secure it with the 2 Wire Saddles [A].

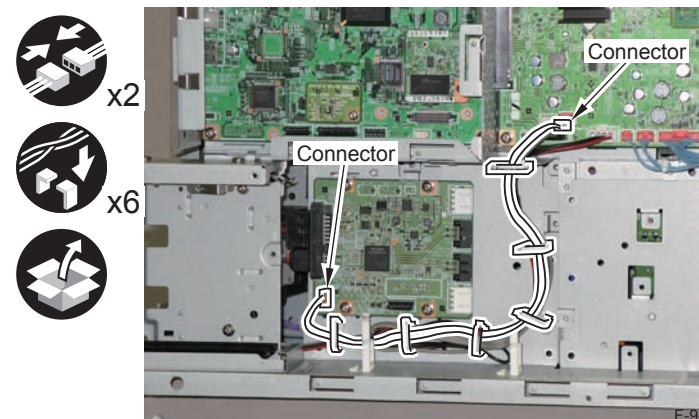


F-9-326

- 
- 7) Connect the STS Cable (340mm (Light Blue); FM3-9152) to the Main Controller PCB 2 and the Mirroring Board or Encryption Board.
- 2 Connectors
  - 1 Edge Saddle
  - 5 Wire Saddles

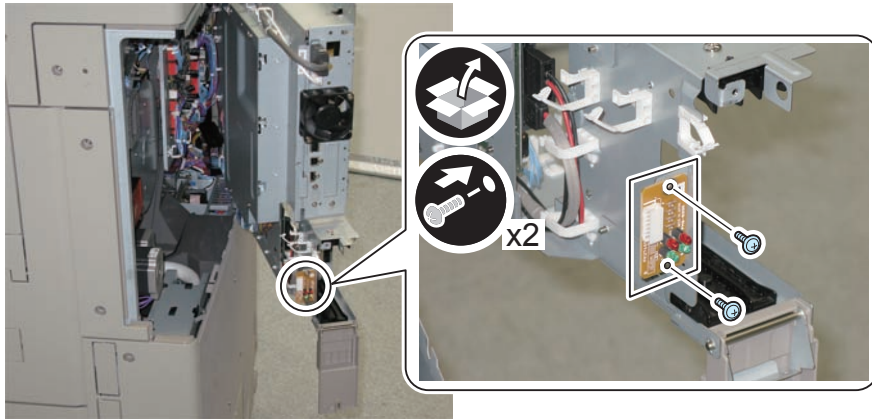
**CAUTION:**

Check that the STS Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-327

- 8) Install the LED Board to the side surface of the HDD Case Unit.
- 2 Screws (TP; M3x6)

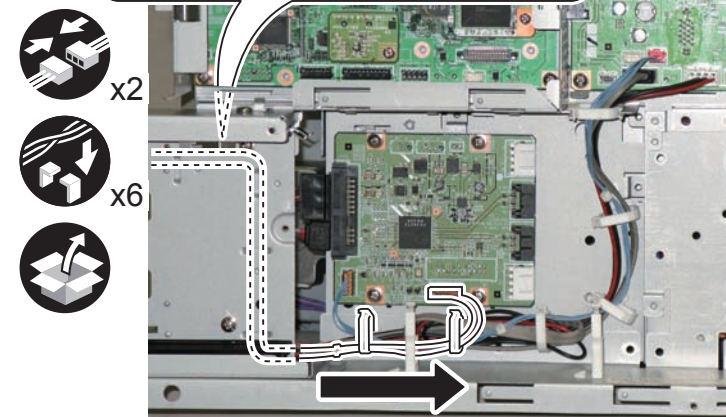
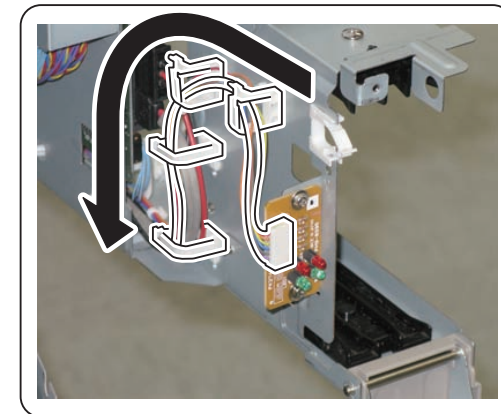


F-9-328

- 9) Connect the LED Cable (310mm; FM3-9158) to the LED Board and the Mirroring Board or Encryption Board.
- 2 Connectors
  - 6 Wire Saddles

**CAUTION:**

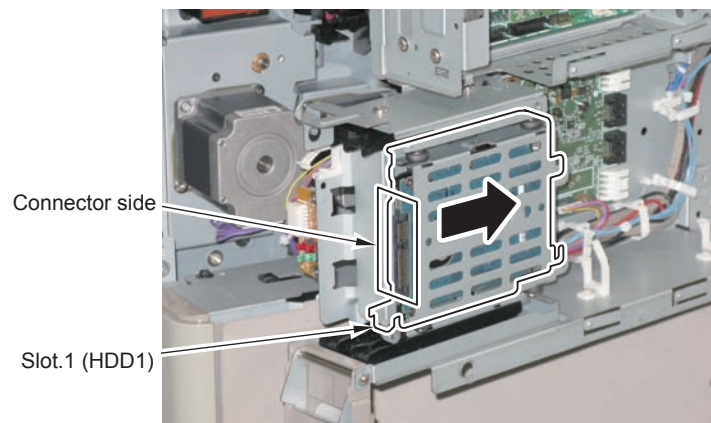
- Secure the LED Cable in the direction of the arrow.
- Check that the LED Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-329



- 10) Insert the removed HDD into the Slot.1.

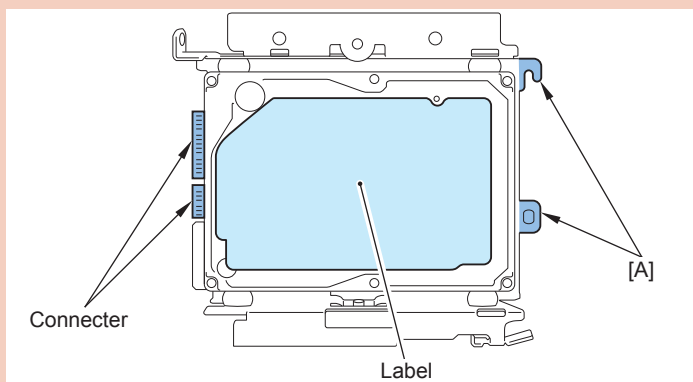


F-9-330

**CAUTION:**

When assembling the Option HDD, be sure to pay attention to the direction.

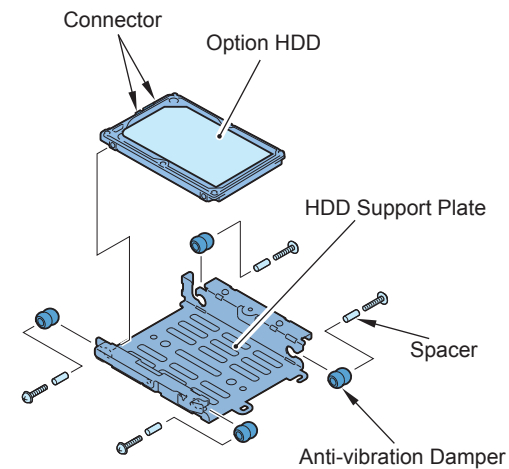
- Be sure that the label face of the Option HDD is up.
- Be sure that the [A] part of the HDD Support Plate is on the other side of the connector.



F-9-331

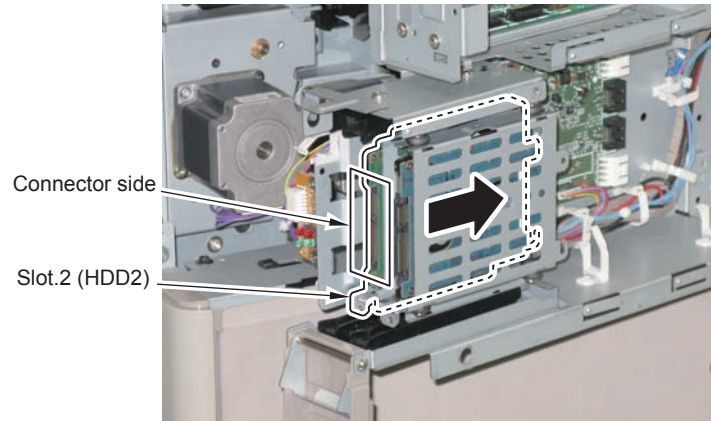
- 11) Assemble the Option HDD (80GB). (for the second HDD)

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 Option HDD
- 4 Screws (W Sems; M3x14)



F-9-332

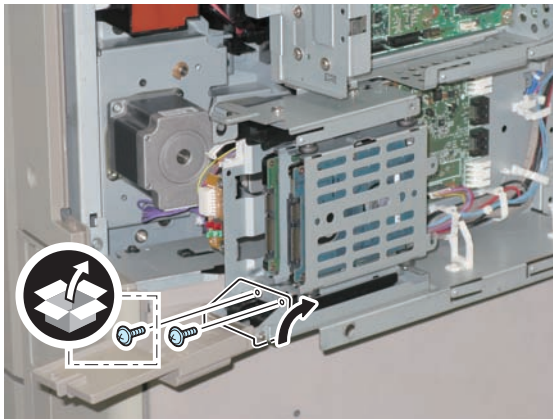
- 12) Insert the assembled Option HDD into the Slot.2.



F-9-333

- 13) Secure the HDD Fixed Plate.

- 1 screw (Use the screws removed in "Removing the Covers" step 7.)
- 1 Screw (TP; M3x6) (Use the contents included in the Option HDD.)



F-9-334

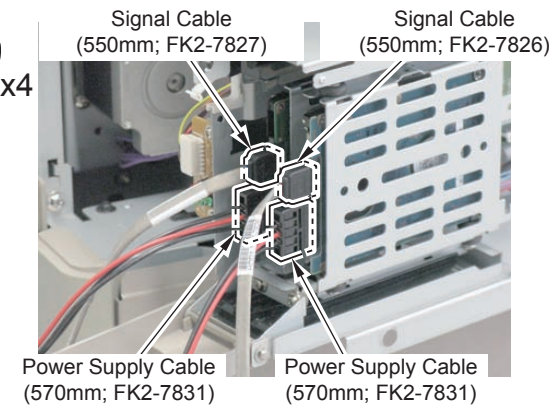
- 14) Connect the Signal Cable and the Power Supply Cable (included in the package) to the HDD.

14-1) Connect the Signal Cable (550mm; FK2-7827) and the Power Supply Cable (570mm; FK2-7831) to Slot.2.

14-2) Connect the Signal Cable (550mm; FK2-7826) and the Power Supply Cable (570mm; FK2-7831) to Slot.1.

**NOTE:**

When connecting the Signal Cables, the side labeled "HDD1" or "HDD2" should be connected to the HDD.



F-9-335

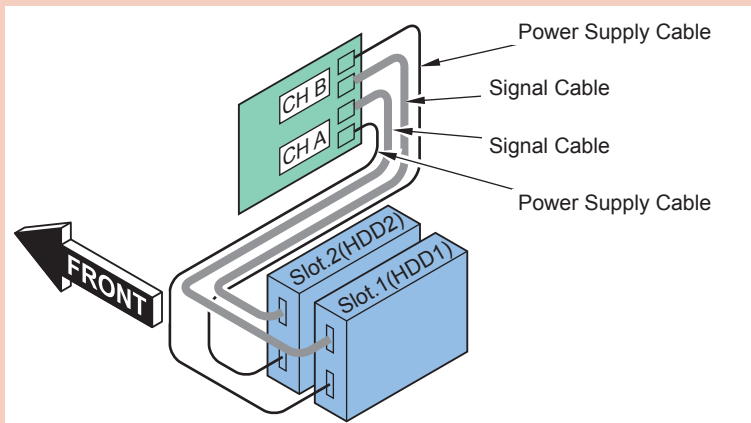


15) Put the Signal Cables and the Power Supply Cables through [A] part.

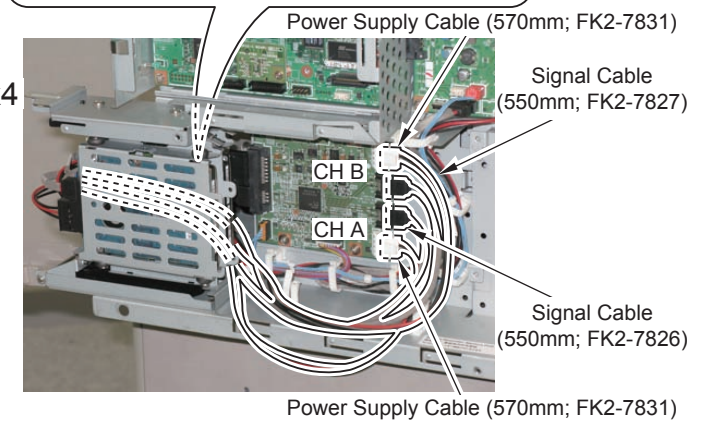
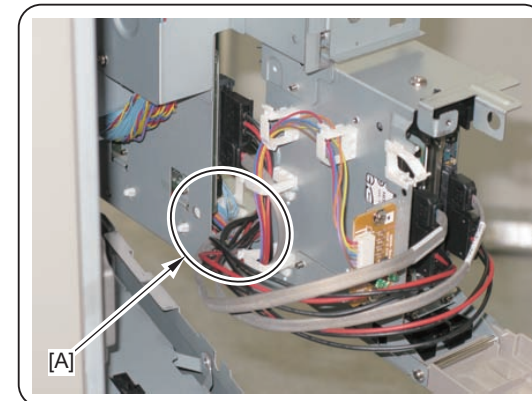
16) Connect the 4 connectors of the Signal Cables and the Power Supply Cables to the Mirroring Board or Encryption Board.

**CAUTION:**

- When connecting the Signal Cables, the side labeled “ch.A” or “ch.B” should be connected to CH A or CH B on the board.
- When connecting the Power Supply Cables, the cable on the Slot.1 side should be connected to CH A, and the other cable on the Slot.2 side should be connected to CH B.



F-9-336



F-9-337

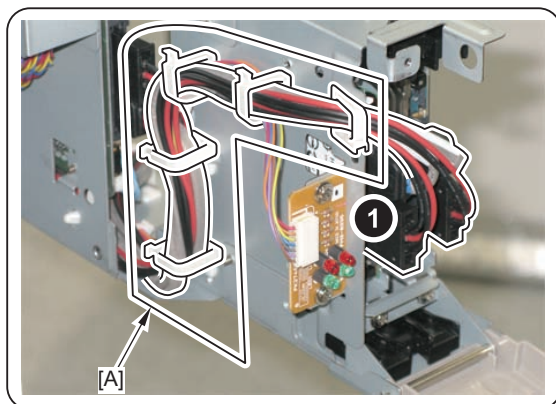


17) Secure the Signal Cable and the Power Supply Cable.

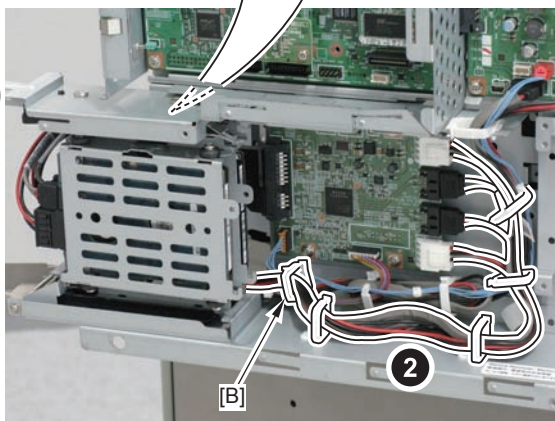
- 1 Edger Saddle
- 9 Wire Saddles

**CAUTION:**

- Secure the cables so that there is no extra slack of the cables at [A] part.
- Be sure that the Wire Saddle [B] is properly securing the cables.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



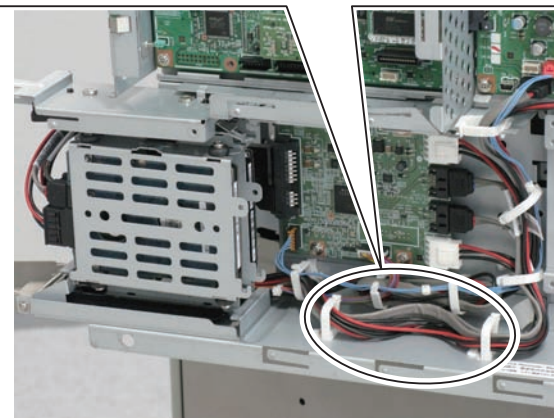
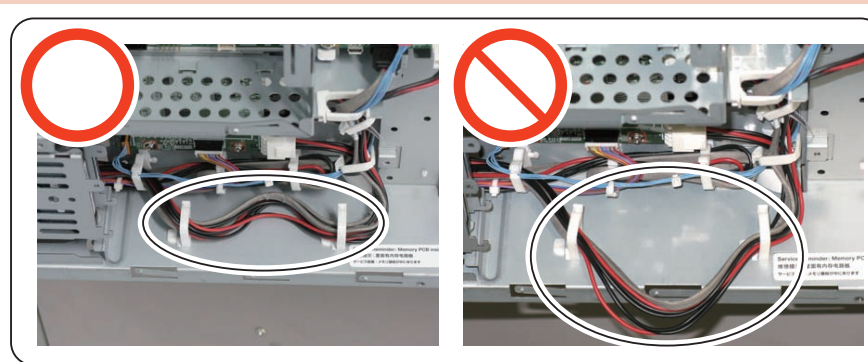
x10



F-9-338

**CAUTION:**

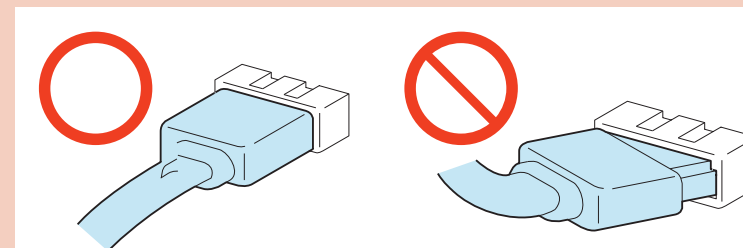
If there is extra slack of the cables, be sure to tuck them to the host machine side.



F-9-339

**CAUTION:**

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



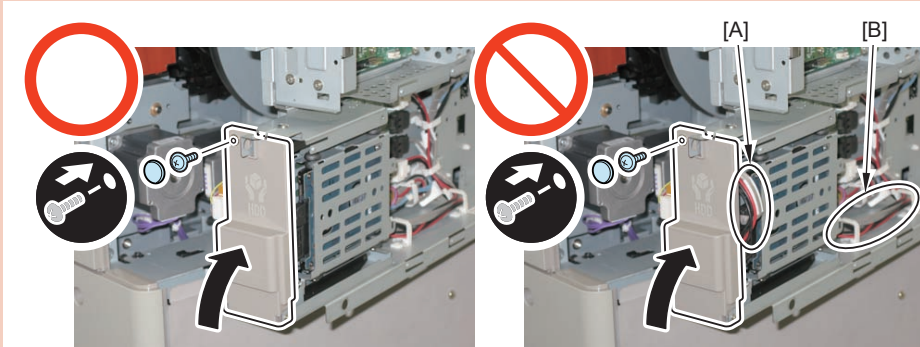
F-9-340

□  
18) Close the HDD Cap.

- 1 Screw
- 1 Rubber cap

**CAUTION:**

- Be sure that the cables do not protrude from the [A] part of the HDD Cap.
- If the cables protrude from the [A] part, allow extra slack of the cables at the [B] part and tuck them to the host machine side.

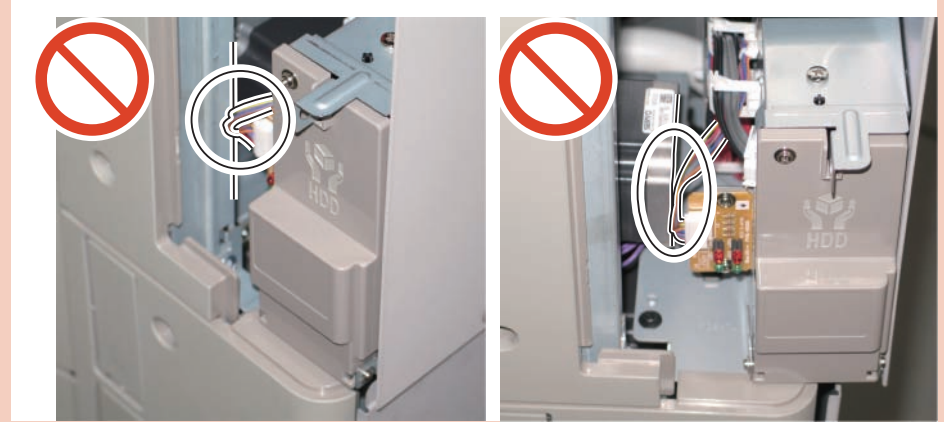


F-9-341

□  
19) Close the Controller Box.

**CAUTION:**

When closing the Controller Box, check that the LED Cable is not trapped or does not contact with it.

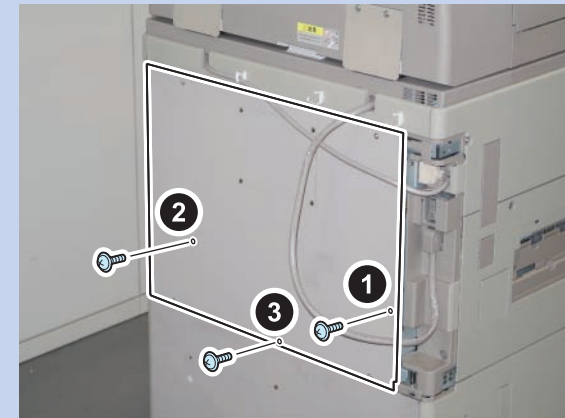


F-9-342

□  
20) Install the Rear Upper Cover.

**NOTE:**

Be sure to install the 3 TP screws show in the figure below.

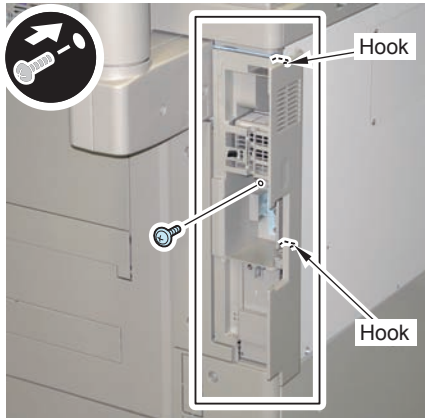


F-9-343



21) Install the Side Cover.

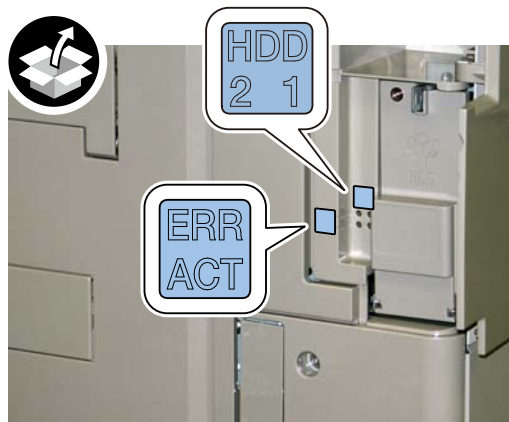
- 2 hooks
- 1 Screw



F-9-344



22) Affix the LED Label.



F-9-345



23) Close the Right Rear Cover 1.

24) Return the Left Rear Cover to its original position, and secure the Reader Communication Cable and the Reader Power Supply Cable in place using the Wire Saddles.

25) Connect the power plug to the outlet.

26) Turn ON the main power switch. (Only when installing HDD Mirroring Kit)

## After Installing HDD Data Encryption & Mirroring Kit

### ■ Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product. It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product. Details follow.

#### 1. Requirements

##### 1) PC

Service support tool in the version that supports this host machine must be installed.

##### 2) Cross Ethernet Cable

#### 2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.

2) Connect the PC and the machine using an Ethernet cable.

3) Turn on the PC.

4) Start up the machine in download mode (safe mode).

#### 3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.

2) Start up the SST.

3) Click 'Register Firmware'.

4) Select the drive in which the System Software CD has been set, and click 'SEARCH'.

5) Click 'REGISTER'.

6) Click OK.

#### 4. Downloading the System Software

1) Click 'CONNECT'.

2) From the list of machine series, select the appropriate model.

3) Select 'Single', and click start.

4) Execute HDD format.

5) After 5 sec from when the power of the host machine is turned OFF, restart the host machine in download mode of safe mode.

6) When "download mode" is displayed on the control panel, click simple mode start.

7) Click start to execute download.

8) Follow the instruction on the screen and when download is complete, click OK.

9) Exit SST.

10) Check the versions of MN-CONT and LANG etc in service mode (COPIER > Display > VERSION).

### ■ Checking the Security Version

1) Press the Counter key (123 key) on the control panel.

2) Press the [Check Device Configuration] key appearing on the control panel.

3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.

When several Encryption Boards are installed, multiple version information is displayed.

#### CAUTION:

The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

### ■ Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the host machine to make sure that an appropriate level of security is being maintained. The mark appears when the machine is equipped with an Encryption Board and the board is operating correctly. The Users Guide provides the following description in connection with the security mark:

< Confirming the Security Mark >

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark (🔒) is displayed on the lower left corner of a panel screen.

## Setting for Mirroring

- 1) Specify the setting for mirroring.
  - Service Mode > COPIER > OPTION > FNC-SW > W/RAID; select "1" for W/RAID.
- 2) Turn OFF/ON the main power switch to enable the setting value.
- 3) Check that the UI screen is started normally.
- 4) Open the HDD Cover, and check that the LED is flashing.
  - The green LED of HDD1 (Slot1) is flashing.
  - The green and red LEDs of HDD2 (Slot2) are flashing.

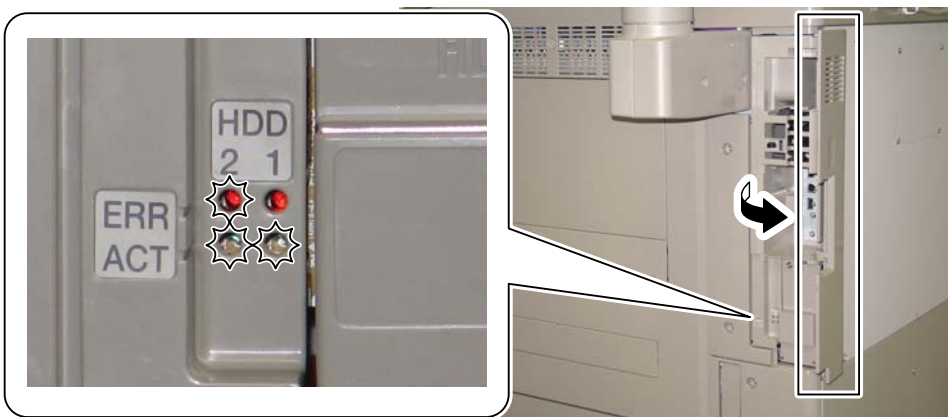
### CAUTION:

Re-building process starts after setting W/RAID to "1".

When the error indicating the message of "Need to replace Hard Disk (Contact with Service Technician)" on the UI occurs, re-execute the re-building process as follows;

- 1) Check the lighted Red LED is for the HDD2.
- 2) Set Service mode > COPIER > OPTION > FNC-SW > W/RAID to "0".
- 3) Turn OFF/ON the main power switch of the host machine to enable the setting value.
- 4) Set Service mode > COPIER > OPTION > FNC-SW > W/RAID to "1".
- 5) Turn OFF/ON the main power switch of the host machine to enable the setting value.

The abovementioned procedure is limited only for the re-building process at the initial installation. The error occurred at re-building process during operation is not targeted.



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## After Installing HDD Data Encryption & Mirroring Kit

### Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:

At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <Servicing work when a failure occurs>.

#### Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for 'Canon MFP Security Chip' as the version information of the security chip by referring to the description of Checking the Security Version.

#### Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

### Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.



## [TYPE-5] 2 Option HDDs (250GB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

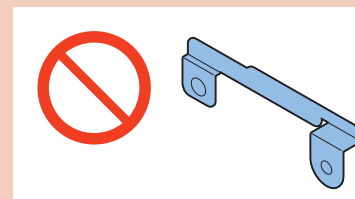
### Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn. If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

### Checking the Contents

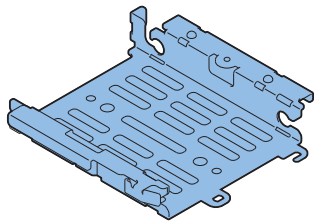
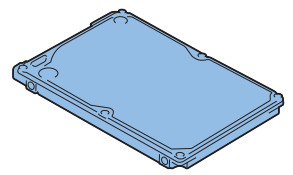
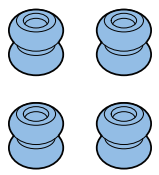
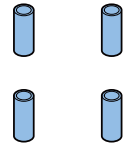
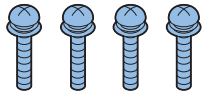

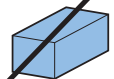
**CAUTION:**

If a Grounding Plate is included in the package of the Option HDD, do not use the HDD Grounding Plate. It may cause reduction in the transfer speed of the HDD.



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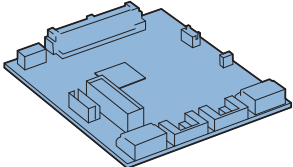
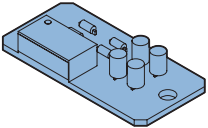
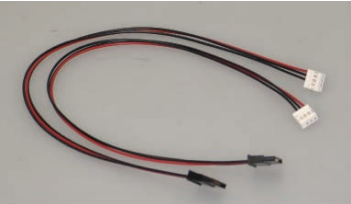


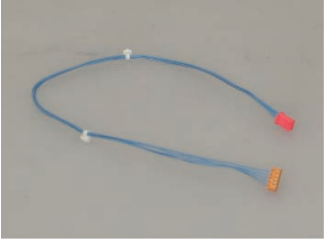

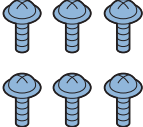
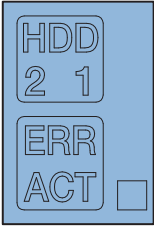
Option HDD (250GB)

<input type="checkbox"/> [1] HDD Support Plate x 1 	<input type="checkbox"/> [2] HDD x 1 	<input type="checkbox"/> [3] Anti-vibration Damper x 4 	<input type="checkbox"/> [4] Spacer x 4 	<input type="checkbox"/> [5] Screw (W SEMS; M3x14) x 4 
<input type="checkbox"/> [6] Screw (TP; M3x6) x 2 <p>Use 1 of them.</p> 	<input type="checkbox"/> [7] Gasket x 1 			

- < CD/Guides >
- FCC/IC Sheet

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## HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

<input type="checkbox"/> [1] Mirroring Board or Encryption Board X 1 	<input type="checkbox"/> [2] LED Board X 1 	<input type="checkbox"/> [3] Power Supply Cable (570mm; FK2-7831) X 2 	<input type="checkbox"/> [4] Signal Cable (550mm; FK2-7826) X 1 	<input type="checkbox"/> [5] Signal Cable (550mm; FK2-7827) X 1 
<input type="checkbox"/> [6] STS Cable (340mm(Light Blue); FM3-9152) X 1 	<input type="checkbox"/> [7] LED Cable (310mm; FM3-9158) X 1 	<input type="checkbox"/> [8] Screw (TP; M3x6) X 6 	<input type="checkbox"/> [9] LED Label X 1 	

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< CD/Guides of HDD Mirroring Kit >

- HDD Mirroring Kit User Documentation
- FCC/IC Sheet

< CD/Guides of HDD Data Encryption & Mirroring Kit >

- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

## Points to Note when HDD Data Encryption & Mirroring Kit has been Installed

### Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.

Backup or export work must not be performed by the service person because of security considerations.

In this Installation Procedure, a series of backup or export procedures are described for reference.

#### List of Data to be Deleted

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Send Function Favorite Settings	Yes
Data stored in Mail Boxes or the Advanced Box	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box	Yes

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\*1; Can only be backed up using the Remote UI.

\*2; Depending on the MEAP application.

\*3; Only the following data saved in Mail Box/Advanced Box are backed up.

- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image
- Advanced Box URI Transmission Settings

\*4; You may not be able to back up, depending on the type of the password.

\*5; Only the stored Favorite Settings can be backed up.

## List of Data to be Backed Up

Data to be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings (Forwarding Settings, Address List, Favorite Settings)	
Printer Settings	
Paper Information	
Favorite Settings for Web browser	See the "e-Manual > Web Access". (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box	See the "e-Manual > Remote UI" to "Setting the Backup Location for Stored Data".
Image forms stored in the Superimpose Image	
SSO-H (Single Sign-On H) user authentication information	See the "e-Manual > MEAP".
Quick Menu Information	See the "e-Manual > Quick Menu".
User Information of the Advanced Box	See the "e-Manual > Security".

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## CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the "e-Manual > MEAP".

## ■ Making a Backup of the Data (Reference only)

The data items that have been backed up may be restored when this product has been installed. These data items are property of the user, and the restoration work must be performed by the system administrator.

The method of restoration is described in the Users Guide. See Table (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

## 1. Procedure to make a backup of Address Book

1) Access the URL given below, and then access Remote UI.

[http://\[IP address of the device\]/](http://[IP address of the device]/)

If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].

2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].

3) Click [Address List].

4) Click [Export].

5) Select the save format for Address list, and click [Start Export].

6) Following the instructions on the window, specify the location to save the file. Be sure to set a distinctive name to an export file so that you can recognize it when importing it.

## NOTE:

Exporting the device settings will export all contents of the address list. In other words, there is no need for a backup unless it needs to be done individually.

## 2. Device Settings Export Procedure

1) Access the URL given below, and then access Remote UI.

[http://\[IP address of the device\]/](http://[IP address of the device]/)

If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].

2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].

3) Click [Device Settings (Forwarding Settings, Address List, Favorite Settings)].

4) Click [Export], and then click [Start Export].

5) Following the instructions on the window, specify the location to save the file.

### 3. Settings/Registration Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Settings/Registration].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 4. Printer Settings Export Procedure

#### NOTE:

The following items to be exported are the same as the ones which are distributed by device information distribution.

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Printer Settings].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 5. Paper Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Paper Information].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 6. Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

#### CAUTION: MEAP Backup Function Using the SST

Data that has been backed up using MEAP back of the SST before the use of this product is started must not be written back to the host machine after the use of this product is started. Similarly, even if the data that has been backed up after the use of this product is started is written back to the host machine before the use of this product is started, the machine does not operate. It is necessary to make sure that the implementation conditions for this product are compatible before and after making a backup of data, and the MEAP backup function does not permit making a backup of data in the course of installing the kit.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide.

### 7. Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

- 1) Select the URL given below and access SMS.  
http://[IP address of the device]:8000/sms/  
The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

#### CAUTION:

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

- 2) Click [MEAP Application Management].
- 3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
- 4) Click the application of which license has been installed.
- 5) Click [License Control], and then click [Disable]. Click [Yes] in a confirmation window for disabling the license.

- 6) Click [Download] under "Download/delete Disabled License File" item. Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
- 7) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
- 8) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

#### 8. User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

- 1) Access the URL given below.

http://[IP address of the device]:8000/sso/

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

##### CAUTION:

The default password is MeapSmsLogin. If the user has changed the password, ask him/her to change the password again after the use of this product is started.

- 2) Login with the user name and password registered as an administrator in SSO-H.  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [User Control].
- 4) Put a checkmark to Select All, and then click [Export].
- 5) Leave the file format and character code as defaults and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file and click [Save].

#### 9. Backup of User inbox and Advanced Box document data

##### CAUTION: Backup of "Advanced Box"

When setting a SMB server as a backup destination, Advanced Box data saved in a large capacity HDD cannot be backed up. The Advanced Box data backed up from the large capacity HDD cannot be restored to the standard HDD. Depending on the system version of the machine, both backup and restoration might not be performed.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

- Backup to SMB server  
Select SMB as a backup destination and specify an address, a user name, a password, and a path to the SMB server to which saved data is backed up.
- Backup to USB HDD  
Select USB HDD as a backup destination and specify a path to the USB HDD folder to which saved data is backed up.

##### CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

##### CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

##### CAUTION:

- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

#### [Backup method of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
- 2) Select 'All' or 'Changes' for the backup method.
- 3) Click [Execute].

#### CAUTION:

- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- If you select to encrypt the backup data, the backup process may take longer.

#### [Restoring the backup data of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
- 2) Click [Display Backup Data].
- 3) Select the backup data to restore from the list and then click [Execute].

#### CAUTION:

- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

#### 10. Quick Menu Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [Quick Menu] > [Export].
- 3) If the file needs to be encrypted, enter the password after check [Encrypt file]. (The number of characters for the password must be more than 4 but less than 16.)
- 4) Click [Export].
- 5) Following the instructions on the window, specify the location to save the file.

#### 11. User Information of the Advanced Box Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [User Access Control for Advanced Box]. The dialog box to enter the user name of administrator and password appears, enter the system administrator ID and password, and then click [Log In].  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [Export], and click [Start Export].
- 4) Following the instructions on the window, specify the location to save the file.



## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

- 1) Turn OFF the main power switch.
- 2) Check that the Control Panel Display and the Main Power Lamp are turned OFF, and then disconnect the power plug.

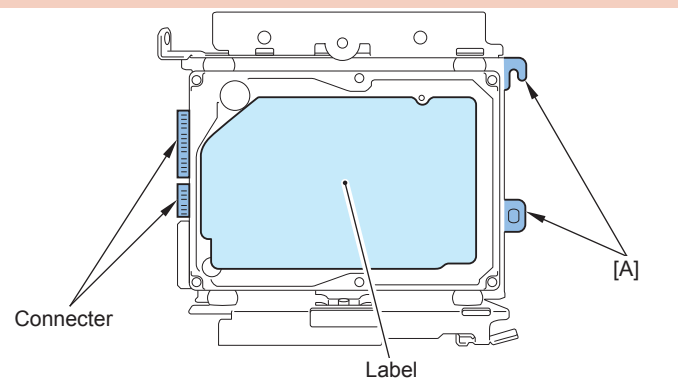
## Installation Procedure

### Assembling the Option HDD

#### CAUTION:

When assembling the Option HDD, be sure to pay attention to the direction.

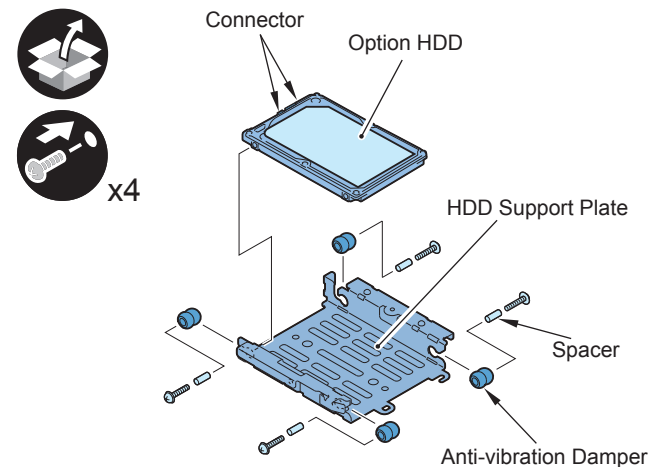
- Be sure that the label face of the Option HDD is up.
- Be sure that the [A] part of the HDD Support Plate is on the other side of the connector.



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- 1) Assemble the Option HDD (250GB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 Option HDD
- 4 Screws (W Sems; M3x14)



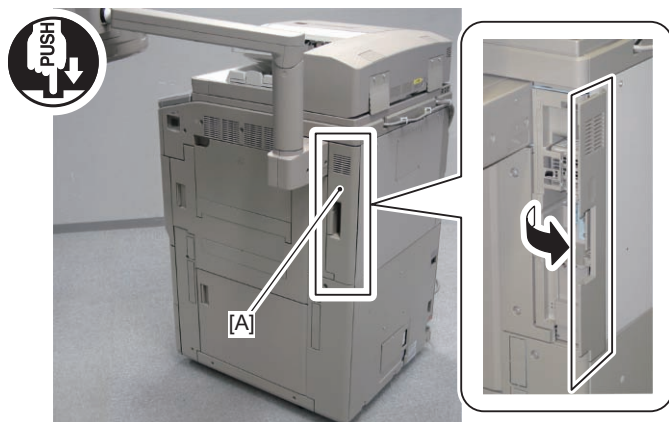
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- 2) Assemble the other Option HDD (250GB) in the same way.

## Removing the Covers



1) Push [A] part, and open the Right Rear Cover 1.

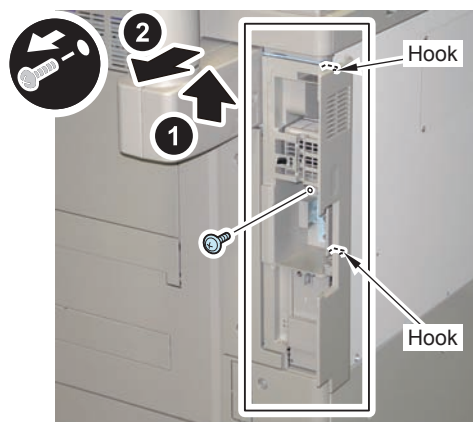


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2) Remove the Side Cover.

- 1 Screw
- 2 hooks



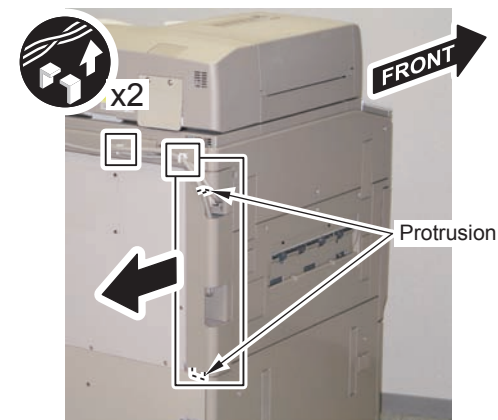
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3) Free the Reader Communication Cable and the Reader Power Supply Cable from the 2 Wire Saddles.

4) Remove the Left Rear Cover.

- 2 Protrusions

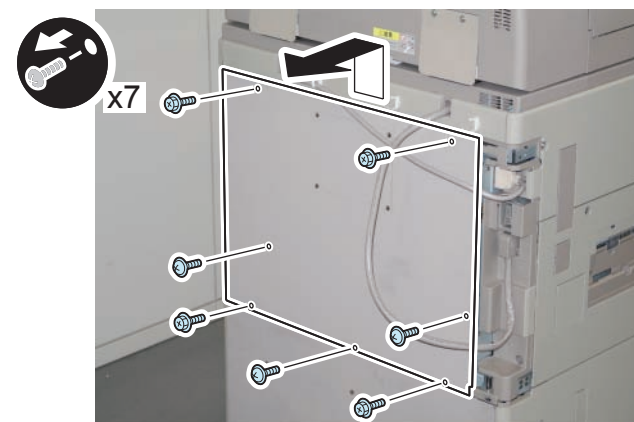


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5) Remove the Rear Upper Cover.

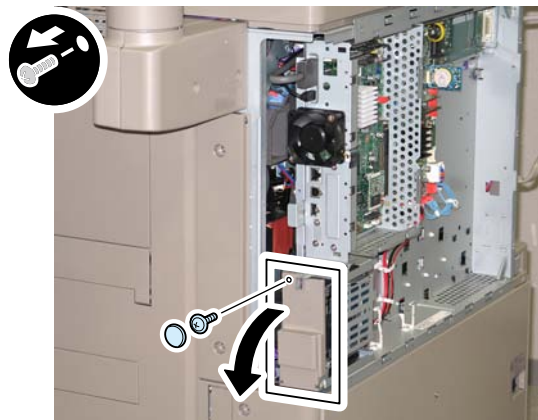
- 4 Screws (RS Tightening)
- 3 Screws (TP)



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□  
6) Open the HDD Cap.

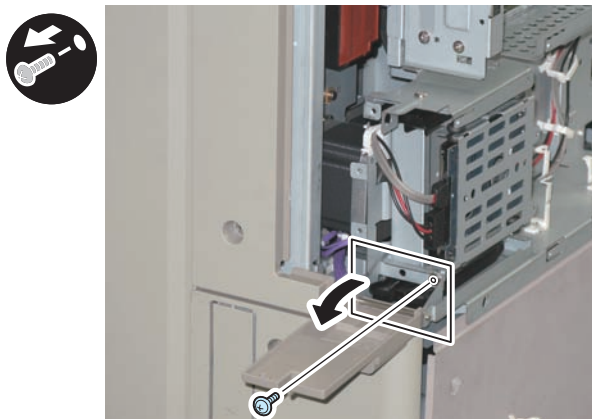
- 1 Rubber cap
- 1 Screw



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□  
7) Turn the HDD Fixed Plate toward the front.

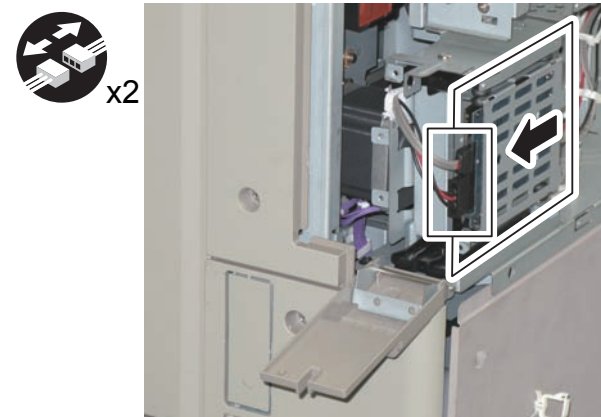
- 1 Screw (The removed screw will be used in "Installing the Mirroring Board or Encryption Board" step 11.)



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□  
8) Remove the HDD. (The removed HDD will not be used.)

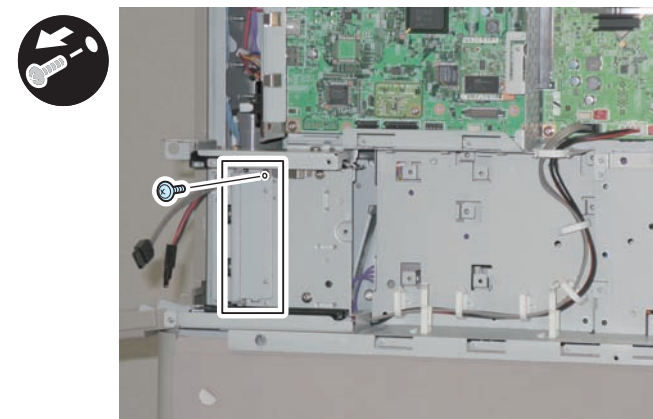
- 2 Connectors



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□  
9) Remove the Face Plate. (The removed Face Plate and screw will not be used.)

- 1 Screw



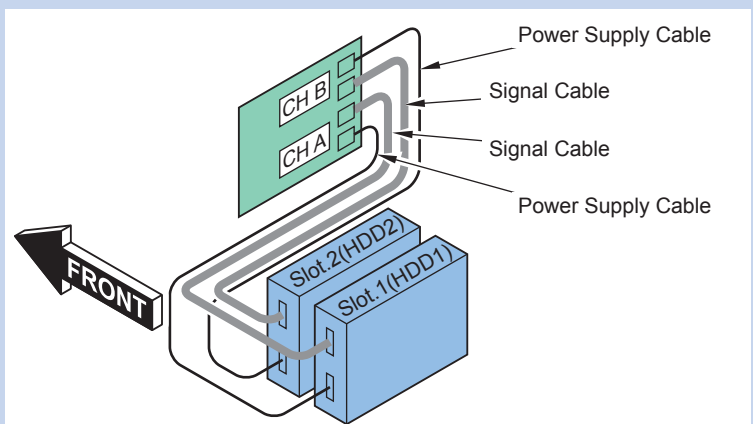
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## ■ Installing the Mirroring Board or Encryption Board

### NOTE:

The following shows combination of the HDD and the Mirroring Board or Encryption Board.

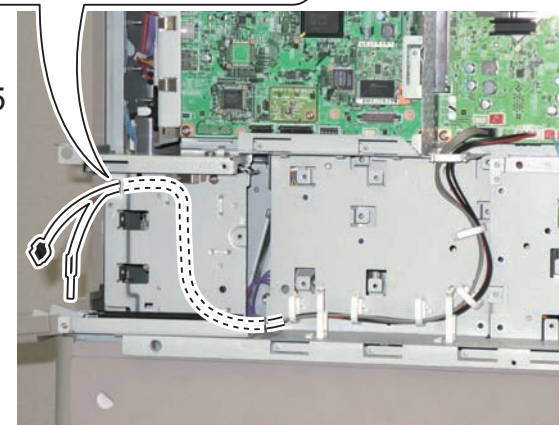
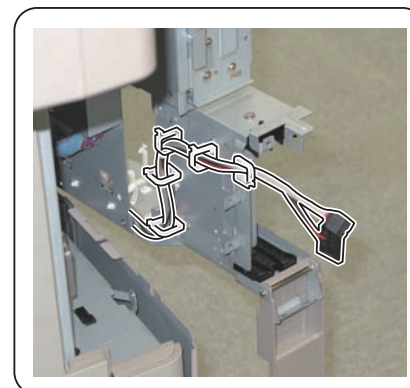
- Connect "CH A" to Slot.1 (The new HDD)
- Connect "CH B" to Slot.2 (The new HDD)



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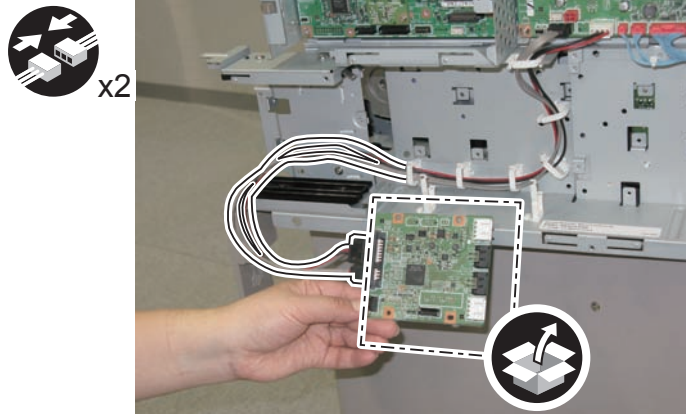


- 1) Open the Controller Box, and free the Signal Cable and the Power Supply Cable of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.



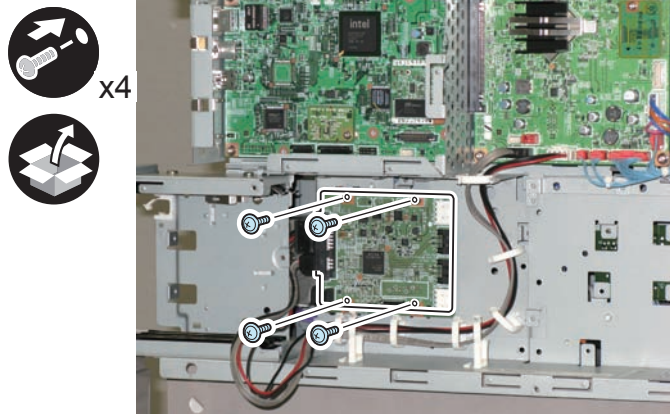
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- 2) Pull out the cables to the front, and connect the Signal Cable and the Power Supply Cable to the Mirroring Board or Encryption Board.



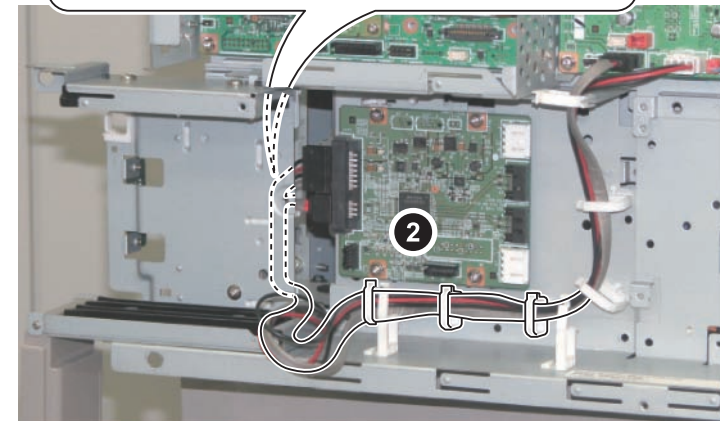
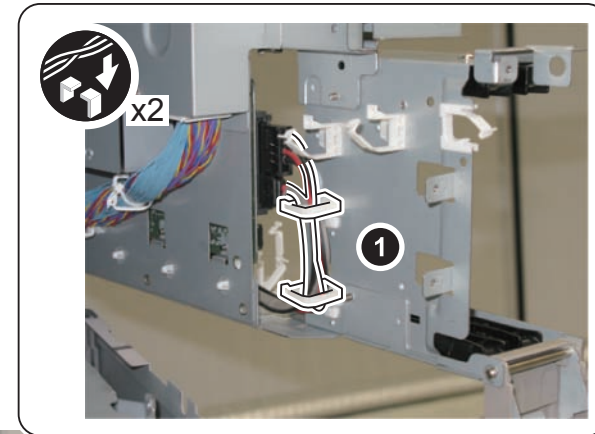
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- 3) Install the Mirroring Board or Encryption Board.  
• 4 Screws (TP; M3x6)



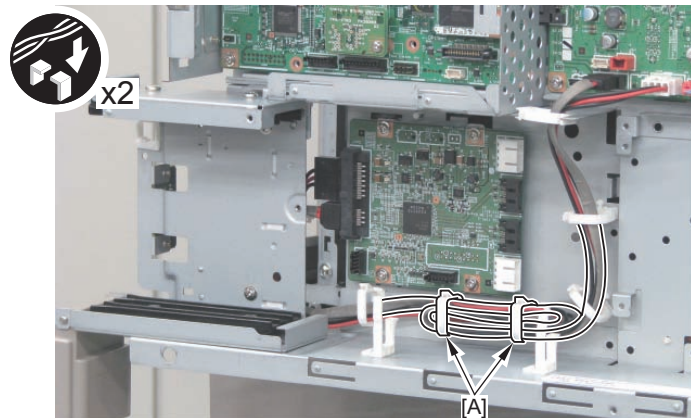
F-9-363

- 4) Secure the Signal Cable and the Power Supply Cable in place using the 2 Wire Saddles at the back of the HDD Case Unit.  
5) Free the cables from the 3 Wire Saddles at the front.



F-9-364

- 6) Fold extra length of the cable and secure it with the 2 Wire Saddles [A].



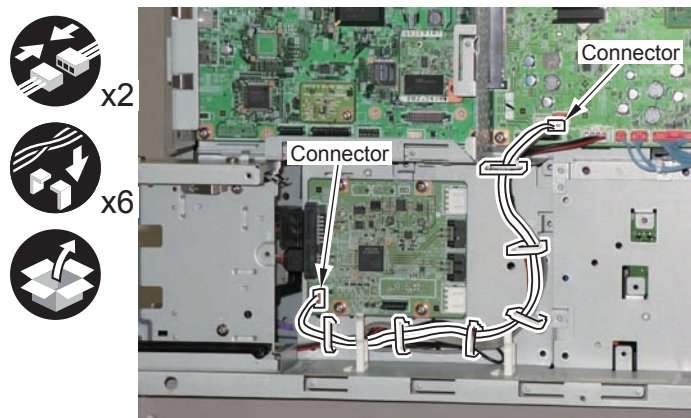
F-9-365

- 7) Connect the STS Cable (340mm (Light Blue); FM3-9152) to the Main Controller PCB 2 and the Mirroring Board or Encryption Board.

- 2 Connectors
- 1 Edge Saddle
- 5 Wire Saddles

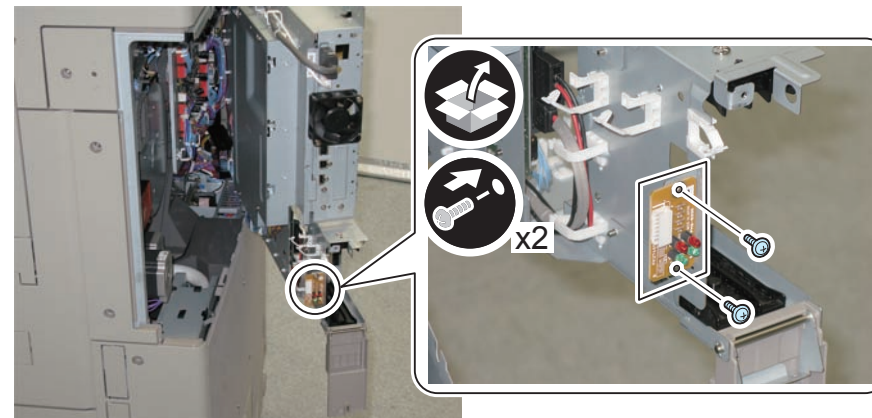
**CAUTION:**

Check that the STS Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-366

- 8) Install the LED Board to the side surface of the HDD Case Unit.
- 2 Screws (TP; M3x6)



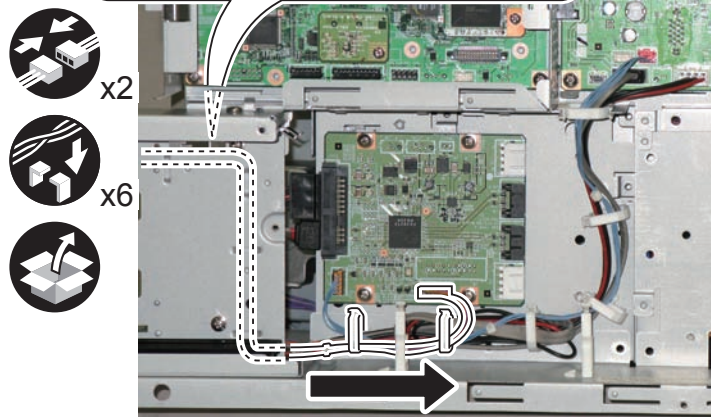
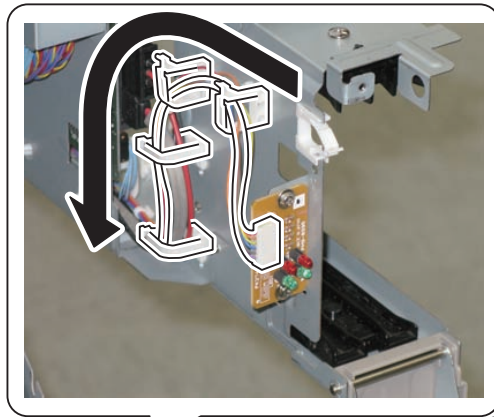
F-9-367

□ 9) Connect the LED Cable (310mm; FM3-9158) to the LED Board and the Mirroring Board or Encryption Board.

- 2 Connectors
- 6 Wire Saddles

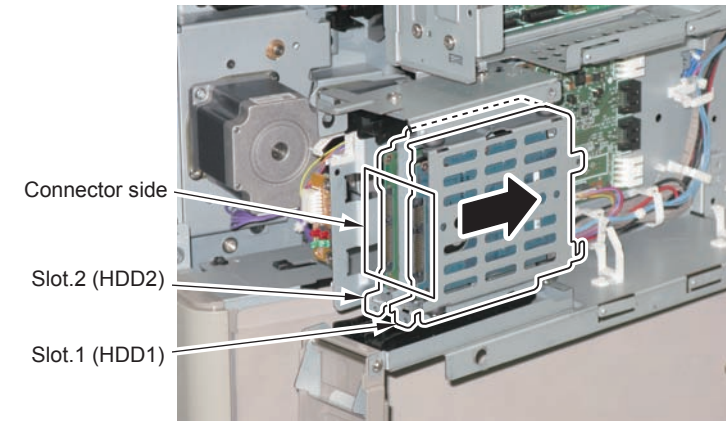
**CAUTION:**

- Secure the LED Cable in the direction of the arrow.
- Check that the LED Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-368

□ 10) Insert the assembled 2 Option HDDs.



F-9-369

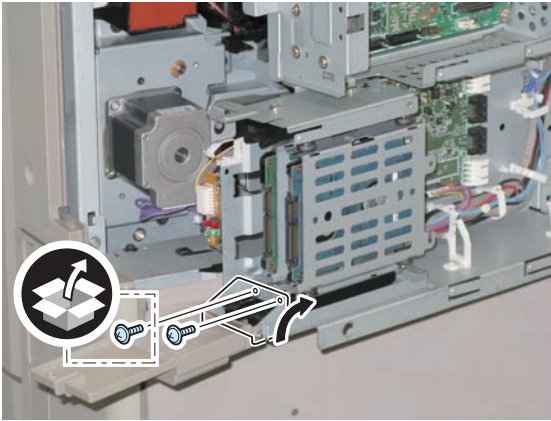


11) Secure the HDD Fixed Plate.

- 1 screw (Use the screws removed in "Removing the Covers" step 7.)
- 1 Screw (TP; M3x6) (Use the contents included in the Option HDD.)



x2



F-9-370



12) Connect the Signal Cable and the Power Supply Cable (included in the package) to the HDD.

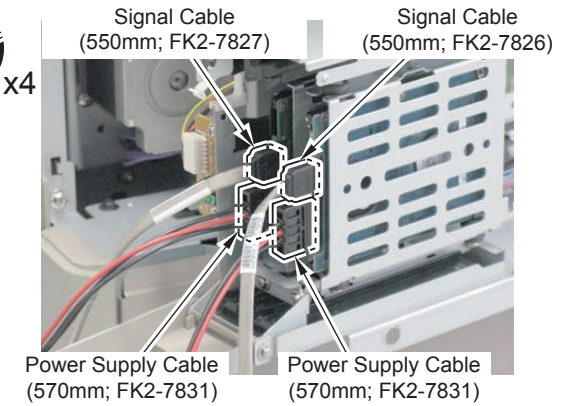
- 12-1) Connect the Signal Cable (550mm; FK2-7827) and the Power Supply Cable (570mm; FK2-7831) to Slot.2.
- 12-2) Connect the Signal Cable (550mm; FK2-7826) and the Power Supply Cable (570mm; FK2-7831) to Slot.1.

**NOTE:**

When connecting the Signal Cables, the side labeled "HDD1" or "HDD2" should be connected to the HDD.



x4



F-9-371



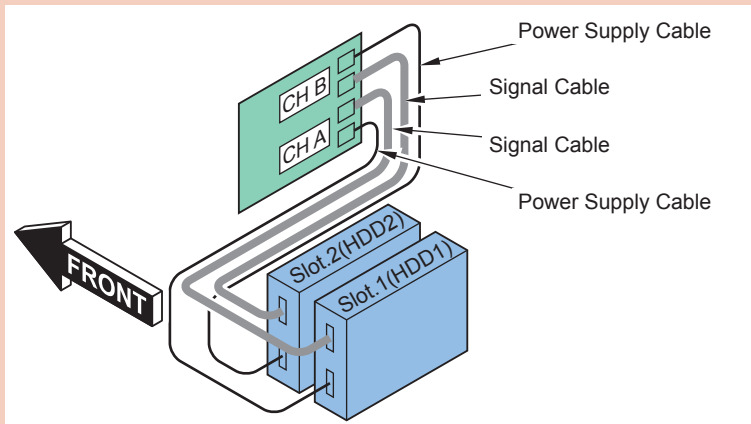


13) Put the Signal Cables and the Power Supply Cables through [A] part.

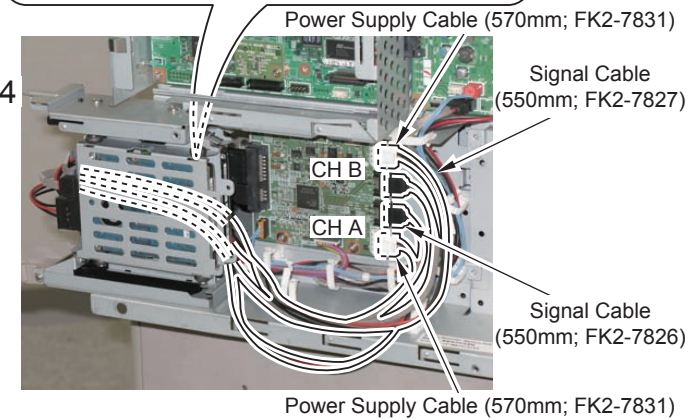
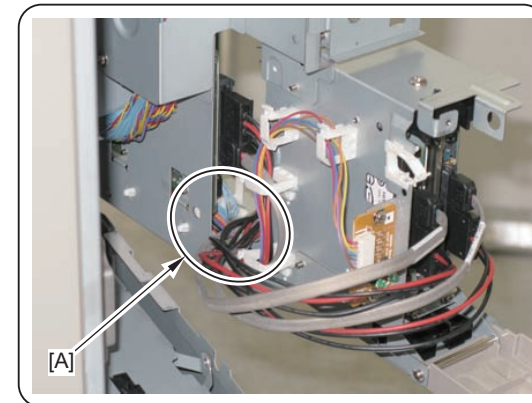
14) Connect the 4 connectors of the Signal Cables and the Power Supply Cables to the Mirroring Board or Encryption Board.

**CAUTION:**

- When connecting the Signal Cables, the side labeled “ch.A” or “ch.B” should be connected to CH A or CH B on the board.
- When connecting the Power Supply Cables, the cable on the Slot.1 side should be connected to CH A, and the other cable on the Slot.2 side should be connected to CH B.



F-9-372



F-9-373

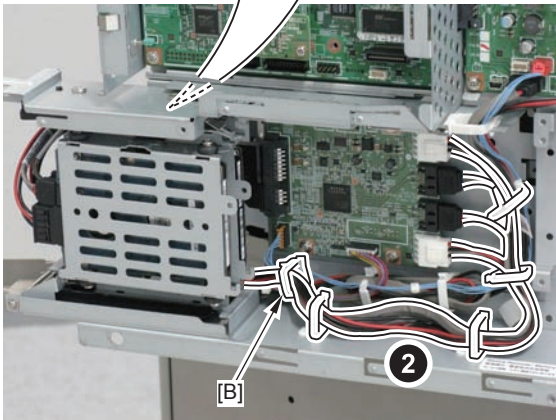
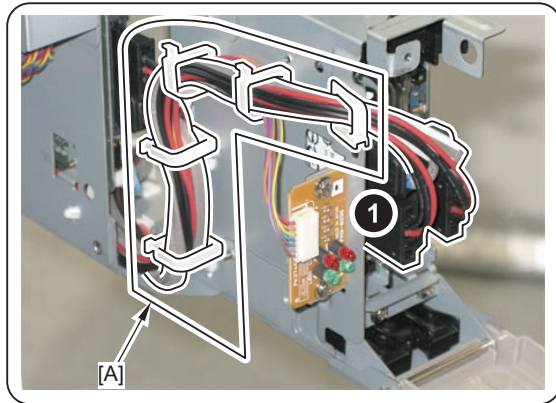


15) Secure the Signal Cable and the Power Supply Cable.

- 1 Edger Saddle
- 9 Wire Saddles

**CAUTION:**

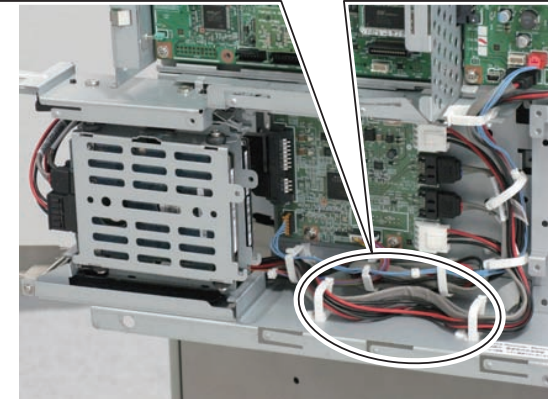
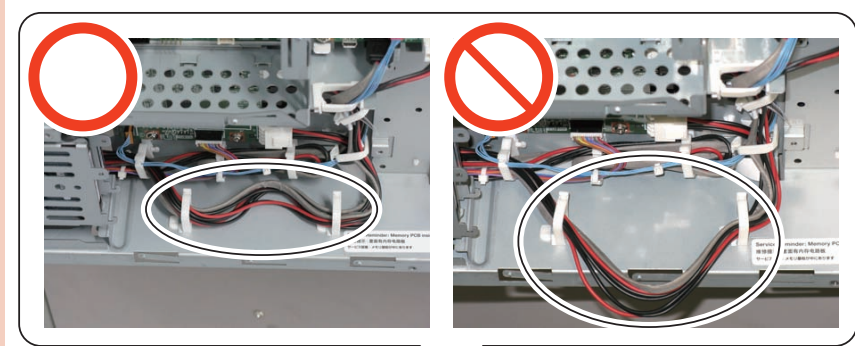
- Secure the cables so that there is no extra slack of the cables at [A] part.
- Be sure that the Wire Saddle [B] is properly securing the cables.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-374

**CAUTION:**

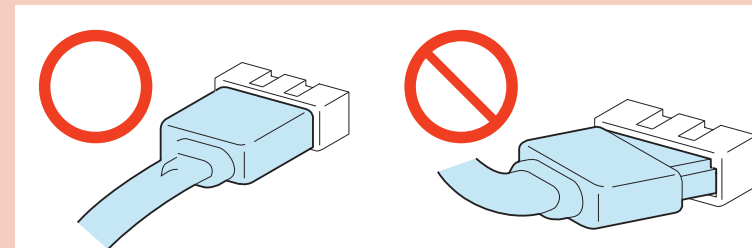
If there is extra slack of the cables, be sure to tuck them to the host machine side.



F-9-375

**CAUTION:**

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



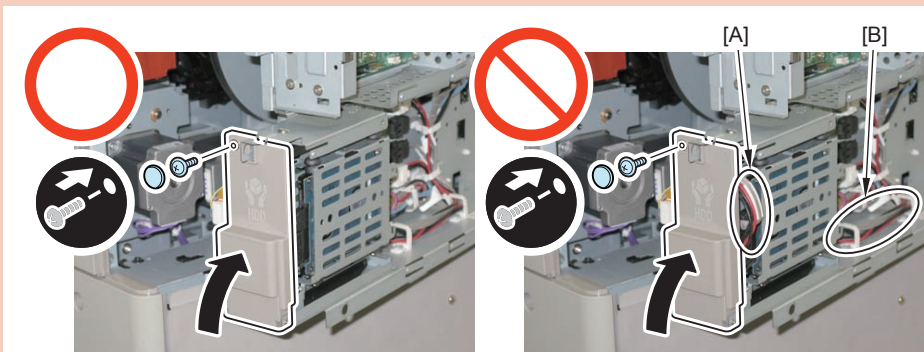
F-9-376

□  
16) Close the HDD Cap.

- 1 Screw
- 1 Rubber cap

**CAUTION:**

- Be sure that the cables do not protrude from the [A] part of the HDD Cap.
- If the cables protrude from the [A] part, allow extra slack of the cables at the [B] part and tuck them to the host machine side.

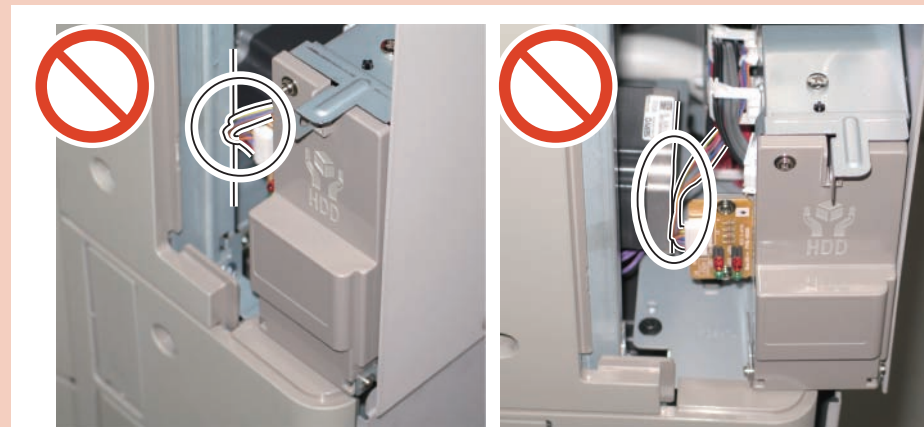


F-9-377

□  
17) Close the Controller Box.

**CAUTION:**

When closing the Controller Box, check that the LED Cable is not trapped or does not contact with it.

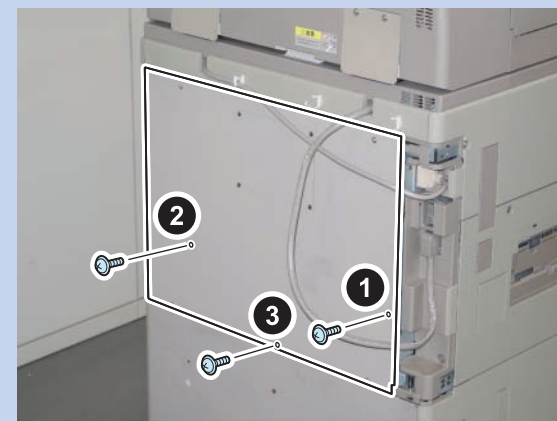


F-9-378

□  
18) Install the Rear Upper Cover.

**NOTE:**

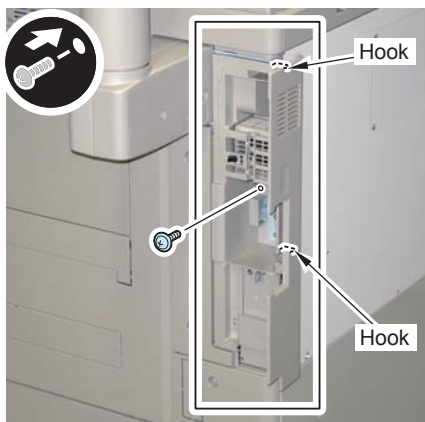
Be sure to install the 3 TP screws show in the figure below.



F-9-379

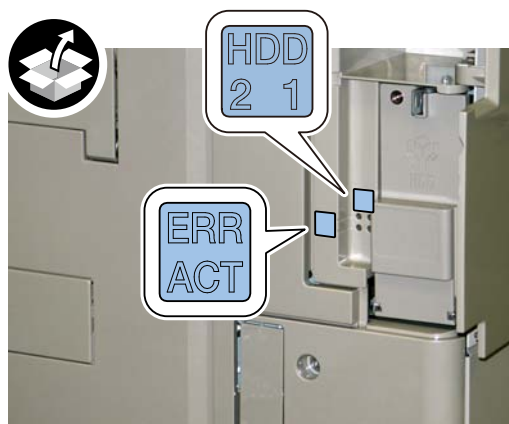
19) Install the Side Cover.

- 2 hooks
- 1 Screw



F-9-380

20) Affix the LED Label.



F-9-381

21) Close the Right Rear Cover 1.

22) Return the Left Rear Cover to its original position, and secure the Reader Communication Cable and the Reader Power Supply Cable in place using the Wire Saddles.

23) Connect the power plug to the outlet.

## Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product. It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product. Details follow.

### 1. Requirements

#### 1) PC

Service support tool in the version that supports this host machine must be installed.

#### 2) Cross Ethernet Cable

### 2. Preparing for the Installation of the System Software of Host machine

- 1) If both PC and the machine are on, turn them off.
- 2) Connect the PC and the machine using an Ethernet cable.
- 3) Turn on the PC.
- 4) Start up the machine in download mode (safe mode).

### 3. Selecting the System Software

- 1) Set the CD containing the latest system software in the PC on which the SST is used.
- 2) Start up the SST.
- 3) Click 'Register Firmware'.
- 4) Select the drive in which the System Software CD has been set, and click 'SEARCH'.
- 5) Click 'REGISTER'.
- 6) Click OK.

### 4. Downloading the System Software

- 1) Click 'CONNECT'.
- 2) From the list of machine series, select the appropriate model.
- 3) Select 'Single', and click start.
- 4) Execute HDD format.
- 5) After 5 sec from when the power of the host machine is turned OFF, restart the host machine in download mode of safe mode.
- 6) When "download mode" is displayed on the control panel, click simple mode start.
- 7) Click start to execute download.
- 8) Follow the instruction on the screen and when download is complete, click OK.
- 9) Exit SST.
- 10) Check the versions of MN-CONT and LANG etc in service mode (COPIER > Display > VERSION).

## After Installing HDD Data Encryption & Mirroring Kit

### Checking the Security Version

- 1) Press the Counter key (123 key) on the control panel.
- 2) Press the [Check Device Configuration] key appearing on the control panel.
- 3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.  
When several Encryption Boards are installed, multiple version information is displayed.

#### CAUTION:

The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

### Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the host machine to make sure that an appropriate level of security is being maintained. The mark appears when the machine is equipped with an Encryption Board and the board is operating correctly. The Users Guide provides the following description in connection with the security mark:

#### < Confirming the Security Mark >

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark (🔒) is displayed on the lower left corner of a panel screen.

## Setting for Mirroring

- 1) Specify the setting for mirroring.
  - Service Mode > COPIER > OPTION > FNC-SW > W/RAID; select "1" for W/RAID.
- 2) Turn OFF/ON the main power switch to enable the setting value.
- 3) Check that the UI screen is started normally.
- 4) Open the HDD Cover, and check that the LED is flashing.
  - The green LED of HDD1 (Slot1) is flashing.
  - The green and red LEDs of HDD2 (Slot2) are flashing.

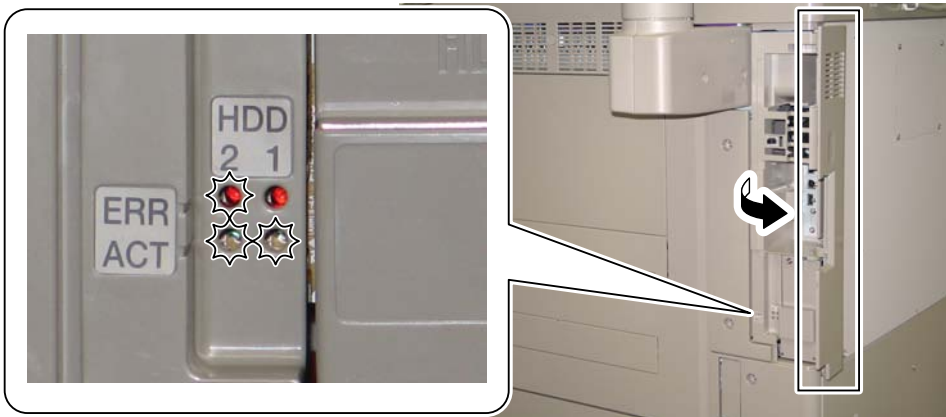
### CAUTION:

Re-building process starts after setting W/RAID to "1".

When the error indicating the message of "Need to replace Hard Disk (Contact with Service Technician)" on the UI occurs, re-execute the re-building process as follows;

- 1) Check the lighted Red LED is for the HDD2.
- 2) Set Service mode > COPIER > OPTION > FNC-SW > W/RAID to "0".
- 3) Turn OFF/ON the main power switch of the host machine to enable the setting value.
- 4) Set Service mode > COPIER > OPTION > FNC-SW > W/RAID to "1".
- 5) Turn OFF/ON the main power switch of the host machine to enable the setting value.

The abovementioned procedure is limited only for the re-building process at the initial installation. The error occurred at re-building process during operation is not targeted.



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## Reporting to the System Administrator at the End of the Work (only when HDD Data Encryption & Mirroring Kit has been installed)

When you have completed all installation work, report to the system administrator for the following:

At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <Servicing work when a failure occurs>.

### Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for 'Canon MFP Security Chip' as the version information of the security chip by referring to the description of Checking the Security Version.

### Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

## Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

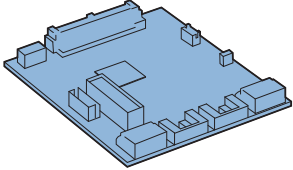
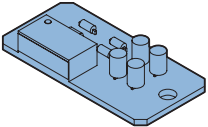



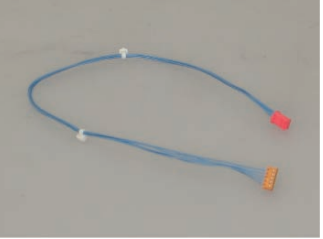

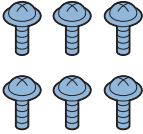
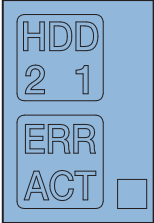
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

## [TYPE-6] HDD Data Encryption & Mirroring Kit

### Points to Note when HDD Data Encryption & Mirroring Kit has been Installed

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn. If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

### Checking the Contents

<input type="checkbox"/> [1] Encryption Board X 1 	<input type="checkbox"/> [2] LED Board X 1 	<input type="checkbox"/> [3] Power Supply Cable (570mm; FK2-7831) X 2 	<input type="checkbox"/> [4] Signal Cable (550mm; FK2-7826) X 1 	<input type="checkbox"/> [5] Signal Cable (550mm; FK2-7827) X 1 
<input type="checkbox"/> [6] STS Cable (340mm(Light Blue); FM3-9152) X 1 	<input type="checkbox"/> [7] LED Cable (310mm; FM3-9158) X 1 	<input type="checkbox"/> [8] Screw (TP; M3x6) X 6 	<input type="checkbox"/> [9] LED Label X 1 	

F-9-383

< CD/Guides >

- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

## Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.

Backup or export work must not be performed by the service person because of security considerations.

In this Installation Procedure, a series of backup or export procedures are described for reference.

### List of Data to be Deleted

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Send Function Favorite Settings	Yes
Data stored in Mail Boxes or the Advanced Box	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box	Yes

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\*1; Can only be backed up using the Remote UI.

\*2; Depending on the MEAP application.

\*3; Only the following data saved in Mail Box/Advanced Box are backed up.

- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image
- Advanced Box URI Transmission Settings

\*4; You may not be able to back up, depending on the type of the password.

\*5; Only the stored Favorite Settings can be backed up.



## List of Data to be Backed Up

Data to be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings (Forwarding Settings, Address List, Favorite Settings)	
Printer Settings	
Paper Information	
Favorite Settings for Web browser	See the "e-Manual > Web Access". (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box	See the "e-Manual > Remote UI" to "Setting the Backup Location for Stored Data".
Image forms stored in the Superimpose Image	
SSO-H (Single Sign-On H) user authentication information	See the "e-Manual > MEAP".
Quick Menu Information	See the "e-Manual > Quick Menu".
User Information of the Advanced Box	See the "e-Manual > Security".

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## CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the "e-Manual > MEAP".

 Making a Backup of the Data (Reference only)

The data items that have been backed up may be restored when this product has been installed. These data items are property of the user, and the restoration work must be performed by the system administrator.

The method of restoration is described in the Users Guide. See Table (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

## 1. Procedure to make a backup of Address Book

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Address List].
- 4) Click [Export].
- 5) Select the save format for Address list, and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file. Be sure to set a distinctive name to an export file so that you can recognize it when importing it.

## NOTE:

Exporting the device settings will export all contents of the address list. In other words, there is no need for a backup unless it needs to be done individually.

## 2. Device Settings Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Device Settings (Forwarding Settings, Address List, Favorite Settings)].
- 4) Click [Export], and then click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 3. Settings/Registration Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Settings/Registration].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 4. Printer Settings Export Procedure

#### NOTE:

The following items to be exported are the same as the ones which are distributed by device information distribution.

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Printer Settings].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 5. Paper Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Paper Information].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 6. Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

#### CAUTION: MEAP Backup Function Using the SST

Data that has been backed up using MEAP back of the SST before the use of this product is started must not be written back to the host machine after the use of this product is started. Similarly, even if the data that has been backed up after the use of this product is started is written back to the host machine before the use of this product is started, the machine does not operate. It is necessary to make sure that the implementation conditions for this product are compatible before and after making a backup of data, and the MEAP backup function does not permit making a backup of data in the course of installing the kit.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide.

### 7. Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

- 1) Select the URL given below and access SMS.  
http://[IP address of the device]:8000/sms/  
The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

#### CAUTION:

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

- 2) Click [MEAP Application Management].
- 3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
- 4) Click the application of which license has been installed.
- 5) Click [License Control], and then click [Disable]. Click [Yes] in a confirmation window for disabling the license.

- 6) Click [Download] under "Download/delete Disabled License File" item. Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
- 7) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
- 8) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

#### 8. User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

- 1) Access the URL given below.  
[http://\[IP address of the device\]:8000/sso/](http://[IP address of the device]:8000/sso/)  
 The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

##### CAUTION:

The default password is MeapSmsLogin. If the user has changed the password, ask him/her to change the password again after the use of this product is started.

- 2) Login with the user name and password registered as an administrator in SSO-H.  
 The default administrator user name and password are as follows:  
 User Name: Administrator  
 Password: password
- 3) Click [User Control].
- 4) Put a checkmark to Select All, and then click [Export].
- 5) Leave the file format and character code as defaults and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file and click [Save].

#### 9. Backup of User inbox and Advanced Box document data

##### CAUTION: Backup of "Advanced Box"

When setting a SMB server as a backup destination, Advanced Box data saved in a large capacity HDD cannot be backed up. The Advanced Box data backed up from the large capacity HDD cannot be restored to the standard HDD. Depending on the system version of the machine, both backup and restoration might not be performed.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

- Backup to SMB server  
 Select SMB as a backup destination and specify an address, a user name, a password, and a path to the SMB server to which saved data is backed up.
- Backup to USB HDD  
 Select USB HDD as a backup destination and specify a path to the USB HDD folder to which saved data is backed up.

##### CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

##### CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

##### CAUTION:

- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

#### [Backup method of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
- 2) Select 'All' or 'Changes' for the backup method.
- 3) Click [Execute].

#### CAUTION:

- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- If you select to encrypt the backup data, the backup process may take longer.

#### [Restoring the backup data of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
- 2) Click [Display Backup Data].
- 3) Select the backup data to restore from the list and then click [Execute].

#### CAUTION:

- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

#### 10. Quick Menu Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [Quick Menu] > [Export].
- 3) If the file needs to be encrypted, enter the password after check [Encrypt file]. (The number of characters for the password must be more than 4 but less than 16.)
- 4) Click [Export].
- 5) Following the instructions on the window, specify the location to save the file.

#### 11. User Information of the Advanced Box Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [User Access Control for Advanced Box]. The dialog box to enter the user name of administrator and password appears, enter the system administrator ID and password, and then click [Log In].  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [Export], and click [Start Export].
- 4) Following the instructions on the window, specify the location to save the file.

## Check Items when Turning OFF the Main Power

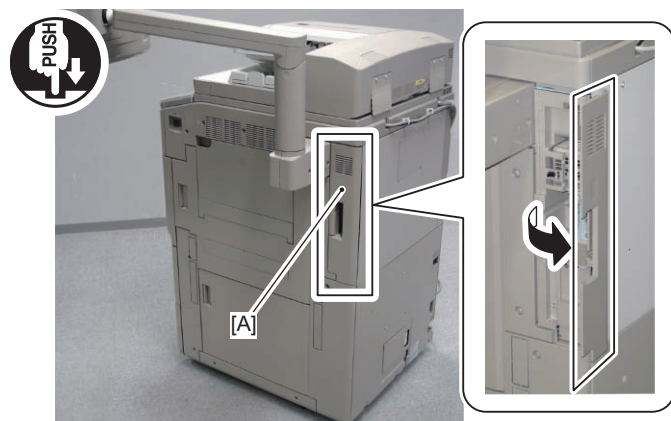
Check that the main power switch is OFF.

- 1) Turn OFF the main power switch.
- 2) Check that the Control Panel Display and the Main Power Lamp are turned OFF, and then disconnect the power plug.

## Installation Procedure

### Removing the Covers

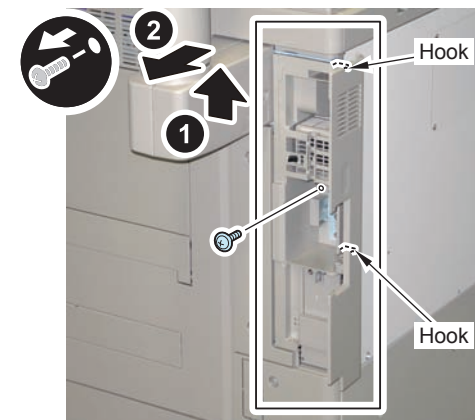
- 1) Push [A] part, and open the Right Rear Cover 1.



F-9-384

- 2) Remove the Side Cover.

- 1 Screw
- 2 hooks

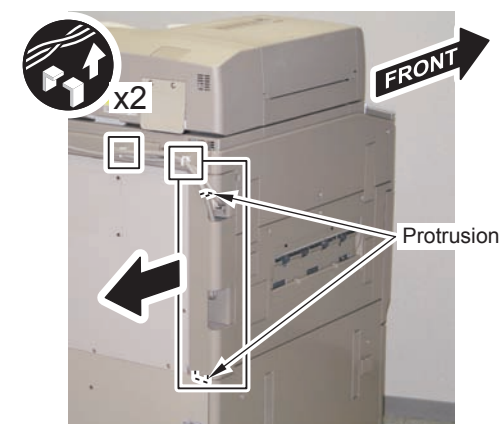


F-9-385

- 3) Free the Reader Communication Cable and the Reader Power Supply Cable from the 2 Wire Saddles.

- 4) Remove the Left Rear Cover.

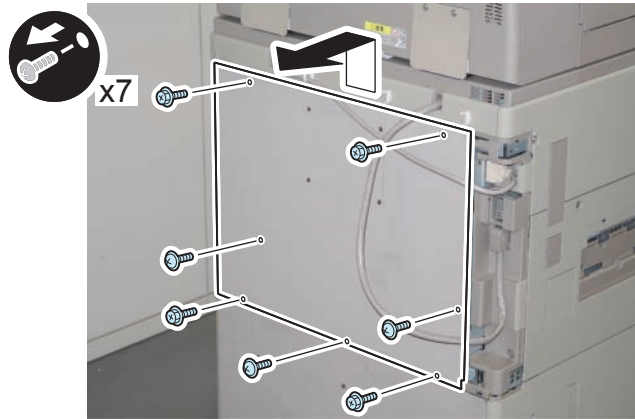
- 2 Protrusions



F-9-386

□ 5) Remove the Rear Upper Cover.

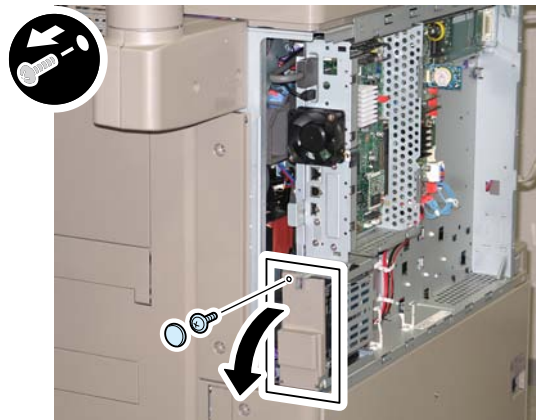
- 4 Screws (RS Tightening)
- 3 Screws (TP)



F-9-387

□ 6) Open the HDD Cap.

- 1 Rubber cap
- 1 Screw



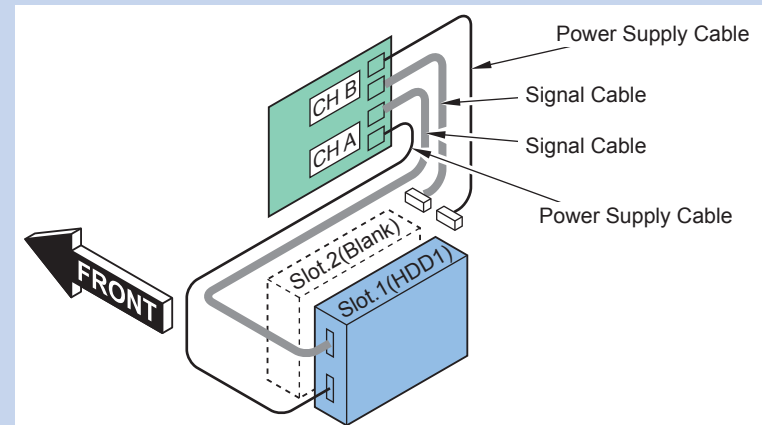
F-9-388

## Installing the Encryption Board

### NOTE:

The following shows combination of the HDD and the Encryption Board.

- Connect "CH A" to Slot.1 (The original HDD)
- No HDD to Slot.2

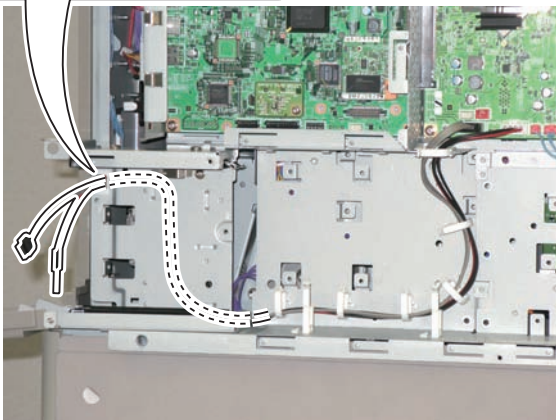
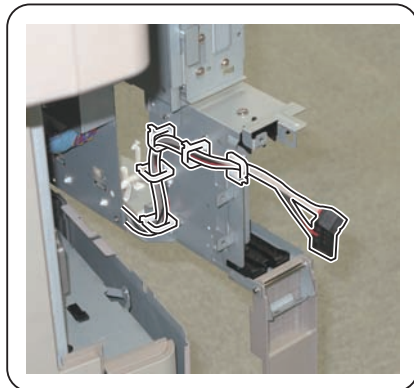


F-9-389

## NOTE:

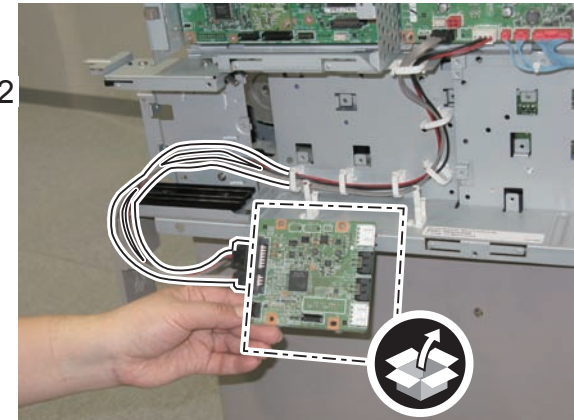
The HDD has been removed in the figures of the following steps 1) to 9), but it is not necessary to remove the HDD to perform this procedure.

- 1) Open the Controller Box, and free the Signal Cable and the Power Supply Cable of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.



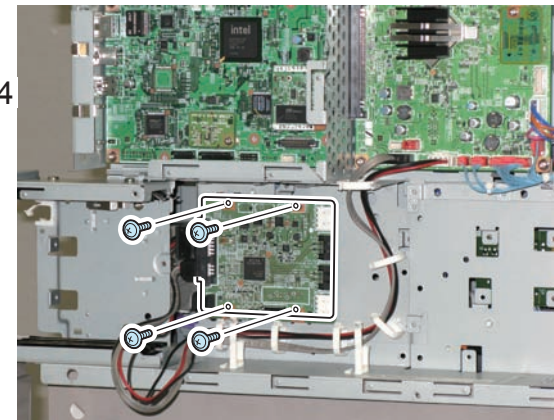
F-9-390

- 2) Pull out the cables to the front, and connect the Signal Cable and the Power Supply Cable to the Encryption Board.



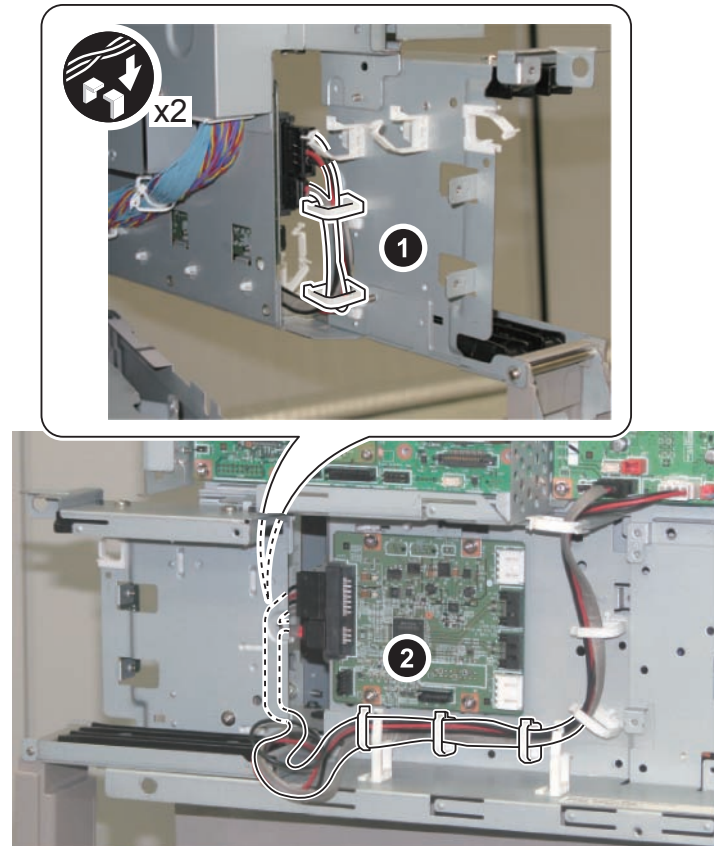
F-9-391

- 3) Install the Encryption Board.  
• 4 Screws (TP; M3x6)



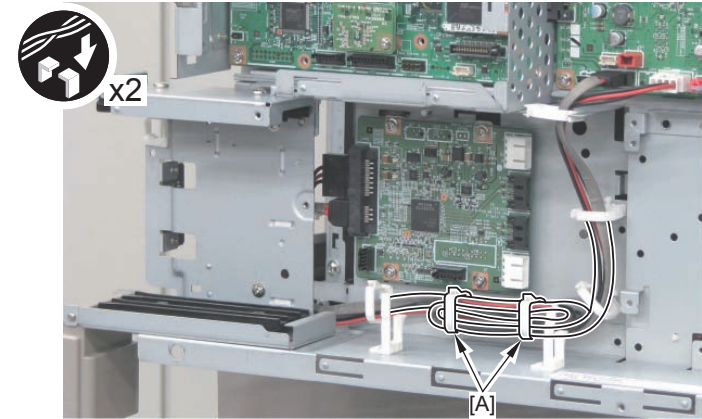
F-9-392

- 
- 4) Secure the Signal Cable and the Power Supply Cable in place using the 2 Wire Saddles at the back of the HDD Case Unit.
- 5) Free the cables from the 3 Wire Saddles at the front.



F-9-393

- 
- 6) Fold extra length of the cable and secure it with the 2 Wire Saddles [A].

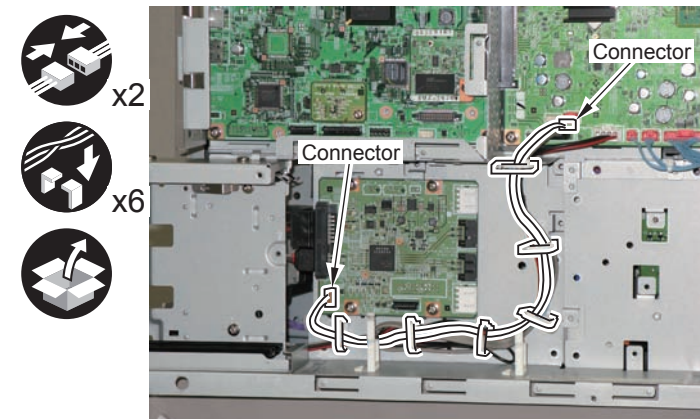


F-9-394

- 
- 7) Connect the STS Cable (340mm (Light Blue); FM3-9152) to the Main Controller PCB 2 and the Encryption Board.
- 2 Connectors
  - 1 Edge Saddle
  - 5 Wire Saddles

**CAUTION:**

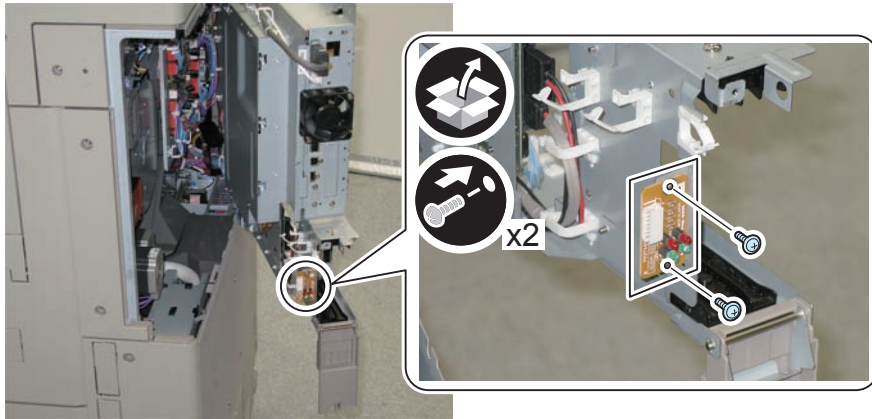
Check that the STS Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-395



- 
- 8) Install the LED Board to the side surface of the HDD Case Unit.
- 2 Screws (TP; M3x6)

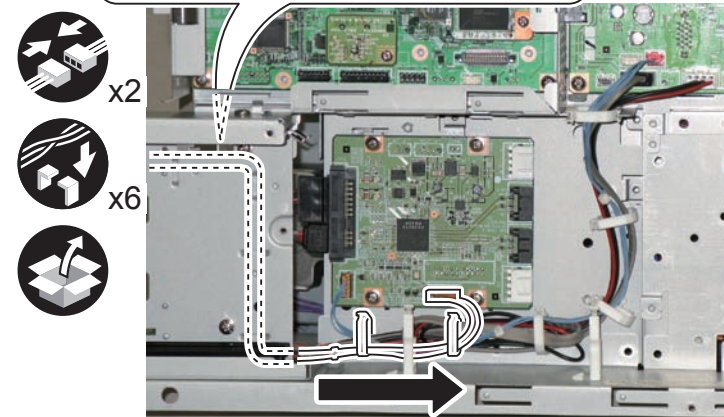
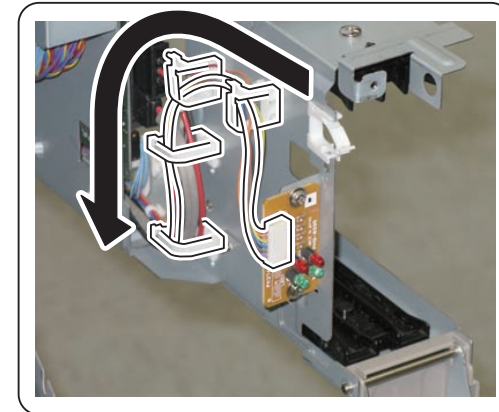


F-9-396

- 
- 9) Connect the LED Cable (310mm; FM3-9158) to the LED Board and the Encryption Board.
- 2 Connectors
  - 6 Wire Saddles

**CAUTION:**

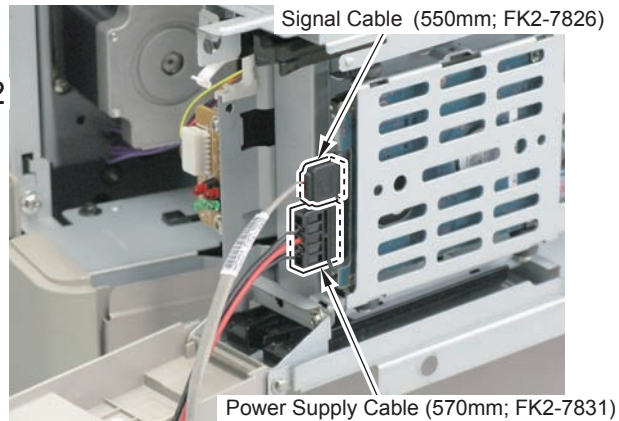
- Secure the LED Cable in the direction of the arrow.
- Check that the LED Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-397

- 10) Connect the Signal Cable (550mm; FK2-7826) and the Power Supply Cable (570mm; FK2-7831) to Slot.1.

**NOTE:**  
When connecting the Signal Cables, the side labeled "HDD1" should be connected to the HDD.

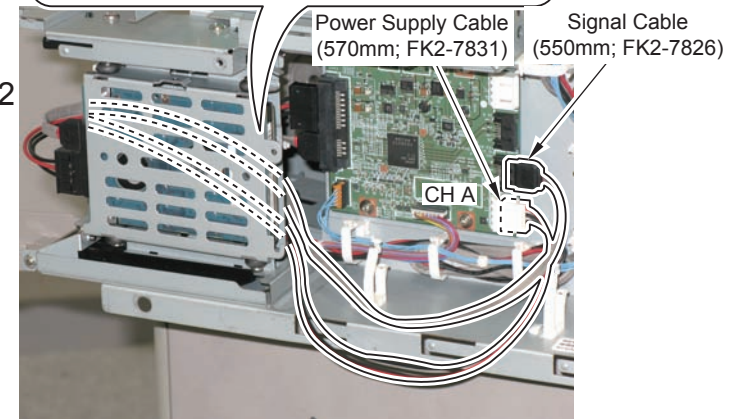
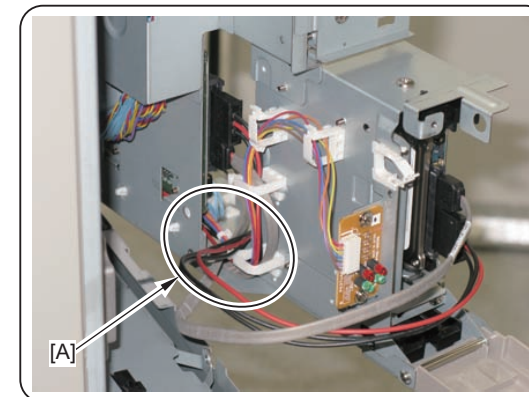


F-9-398

- 11) Put the Signal Cable and the Power Supply Cable through [A] part.  
□ 12) Connect the 2 connectors of the Signal Cables and the Power Supply Cables to the Encryption Board.

**CAUTION:**

When connecting the Signal Cables, the side labeled "ch.A" should be connected to CH A on the board.



F-9-399

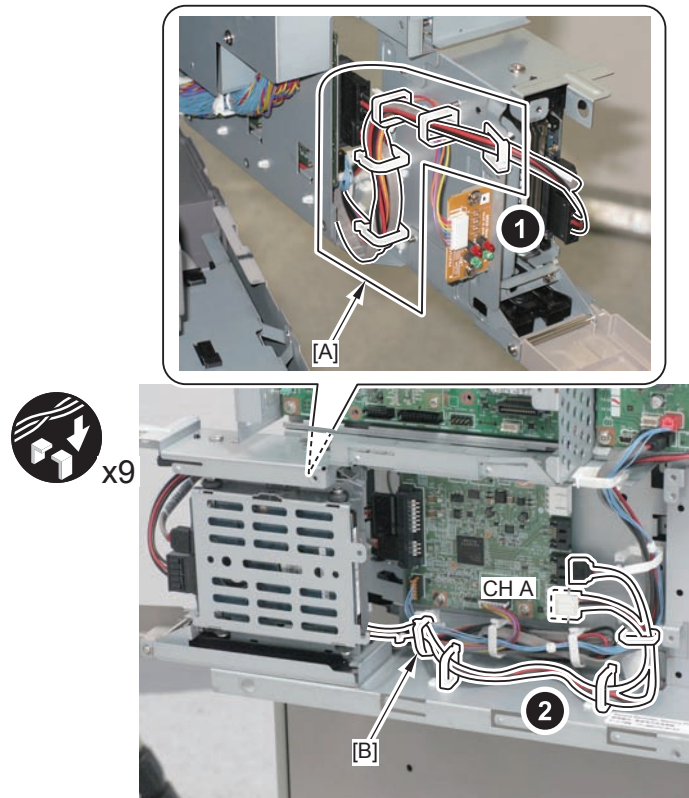
□  
13) Secure the Signal Cable and the Power Supply Cable.

□  
13-1) Secure the Signal Cable and the Power Supply Cable connected to CH A.

- 1 Edger Saddle
- 8 Wire Saddles

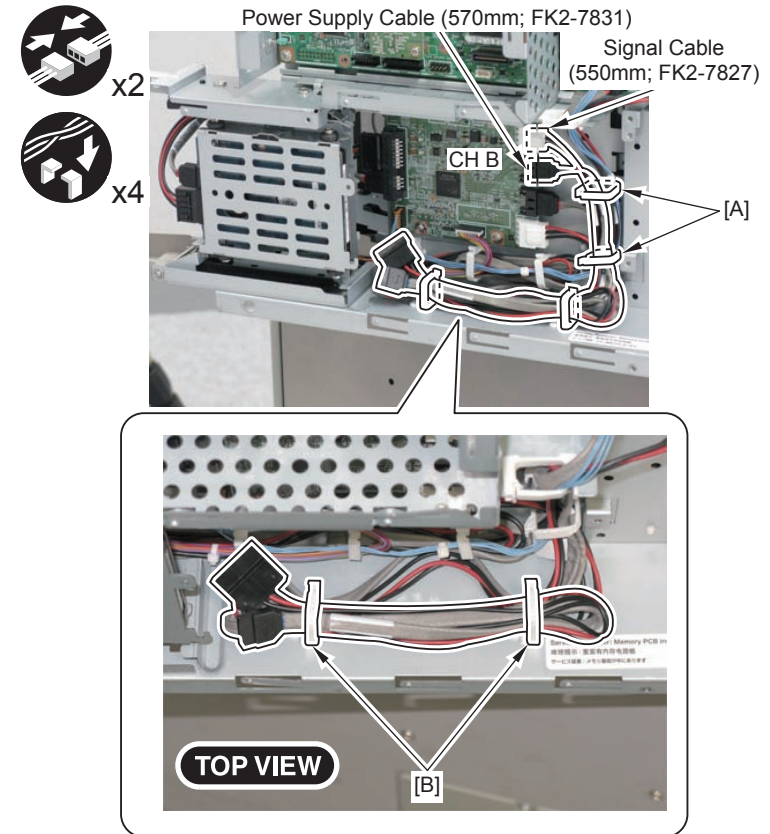
**CAUTION:**

- Secure the cables so that there is no extra slack of the cables at [A] part.
- Be sure that the Wire Saddle [B] is properly securing the cables.



F-9-400

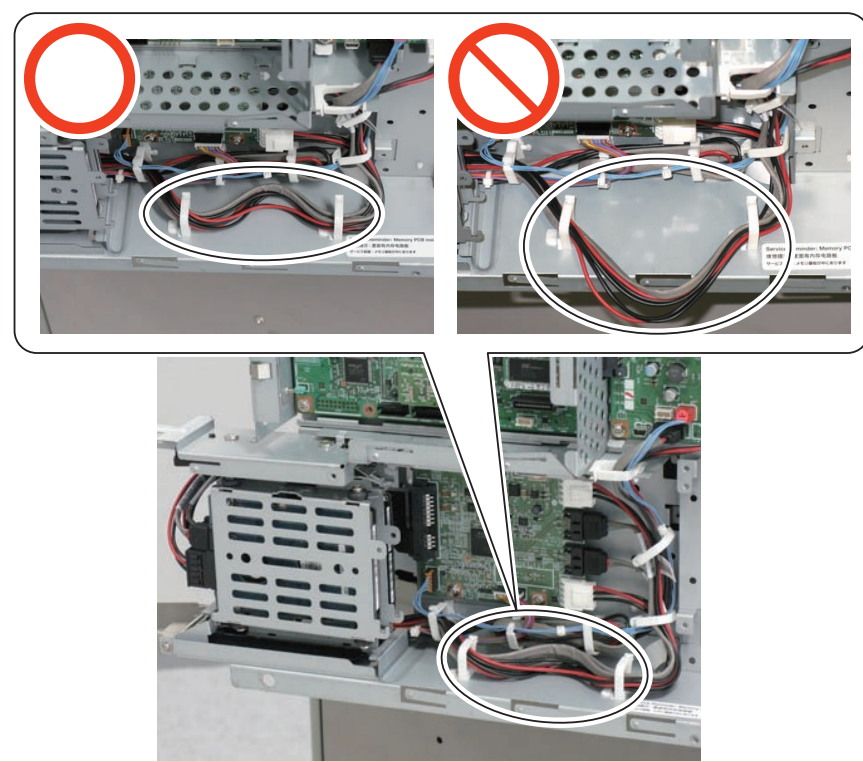
□  
13-2) Connect the Signal Cable (550mm; FK2-7827) and the Power Supply Cable (570mm; FK2-7831) to CH B, and secure them in place using the 2 Wire Saddles [A].  
13-3) Fold extra length of the cables and secure them in place using the 2 Wire Saddles [B].



F-9-401

**CAUTION:**

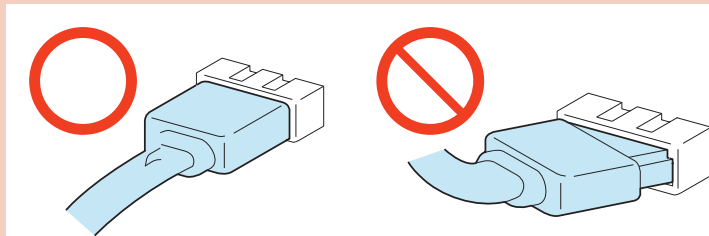
If there is extra slack of the cables, be sure to tuck them to the host machine side.



F-9-402

**CAUTION:**

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



F-9-403

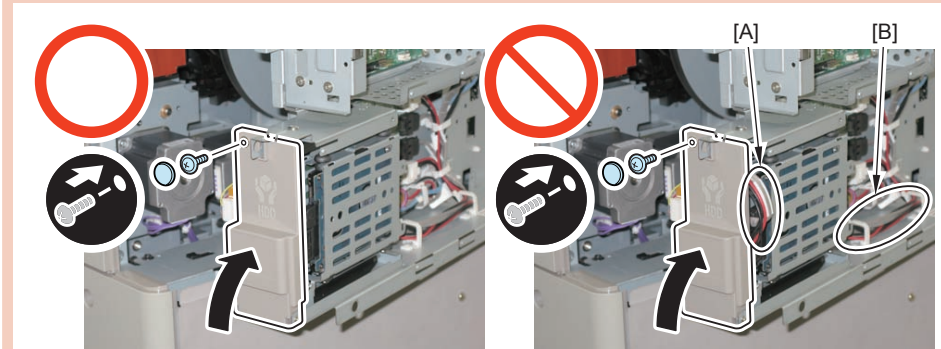


14) Close the HDD Cap.

- 1 Screw
- 1 Rubber cap

**CAUTION:**

- Be sure that the cables do not protrude from the [A] part of the HDD Cap.
- If the cables protrude from the [A] part, allow extra slack of the cables at the [B] part and tuck them to the host machine side.

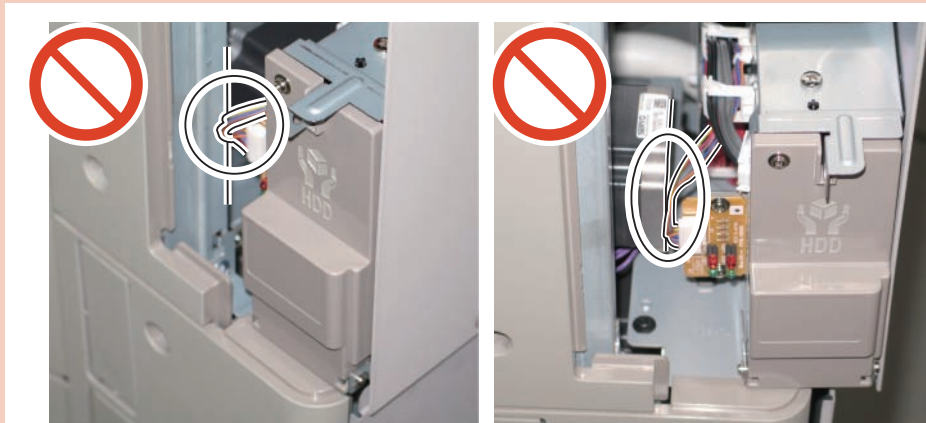


F-9-404

- 15) Close the Controller Box.

**CAUTION:**

When closing the Controller Box, check that the LED Cable is not trapped or does not contact with it.

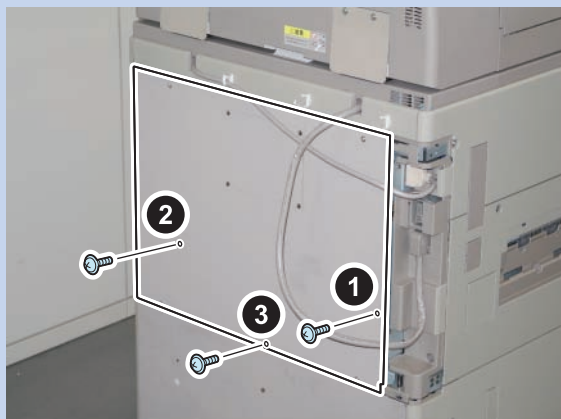


F-9-405

- 16) Install the Rear Upper Cover.

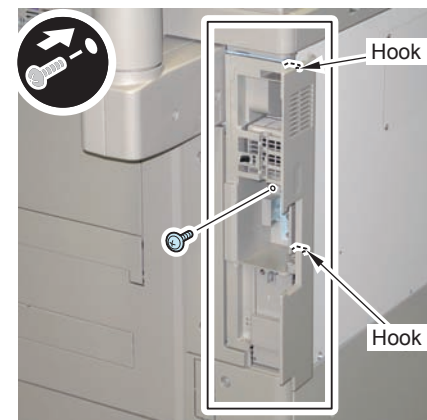
**NOTE:**

Be sure to install the 3 TP screws show in the figure below.



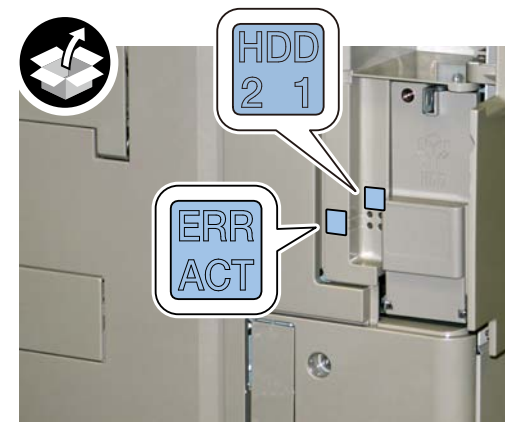
F-9-406

- 17) Install the Side Cover.
- 2 hooks
  - 1 Screw



F-9-407

- 18) Affix the LED Label.



F-9-408

- 19) Close the Right Rear Cover 1.
- 20) Return the Left Rear Cover to its original position, and secure the Reader Communication Cable and the Reader Power Supply Cable in place using the Wire Saddles.
- 21) Connect the power plug to the outlet.

## Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product. It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product. Details follow.

### 1. Requirements

- 1) PC  
Service support tool in the version that supports this host machine must be installed.
- 2) Cross Ethernet Cable

### 2. Preparing for the Installation of the System Software of Host machine

- 1) If both PC and the machine are on, turn them off.
- 2) Connect the PC and the machine using an Ethernet cable.
- 3) Turn on the PC.
- 4) Start up the machine in download mode (safe mode).

### 3. Selecting the System Software

- 1) Set the CD containing the latest system software in the PC on which the SST is used.
- 2) Start up the SST.
- 3) Click 'Register Firmware'.
- 4) Select the drive in which the System Software CD has been set, and click 'SEARCH'.
- 5) Click 'REGISTER'.
- 6) Click OK.

### 4. Downloading the System Software

- 1) Click 'CONNECT'.
- 2) From the list of machine series, select the appropriate model.
- 3) Select 'Single', and click start.
- 4) Execute HDD format.
- 5) After 5 sec from when the power of the host machine is turned OFF, restart the host machine in download mode of safe mode.
- 6) When "download mode" is displayed on the control panel, click simple mode start.
- 7) Click start to execute download.
- 8) Follow the instruction on the screen and when download is complete, click OK.
- 9) Exit SST.
- 10) Check the versions of MN-CONT and LANG etc in service mode (COPIER > Display > VERSION).

## Checking the Security Version

- 1) Press the Counter key (123 key) on the control panel.
- 2) Press the [Check Device Configuration] key appearing on the control panel.
- 3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.  
When several Encryption Boards are installed, multiple version information is displayed.

### CAUTION:

The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

## Checking the Security Mark

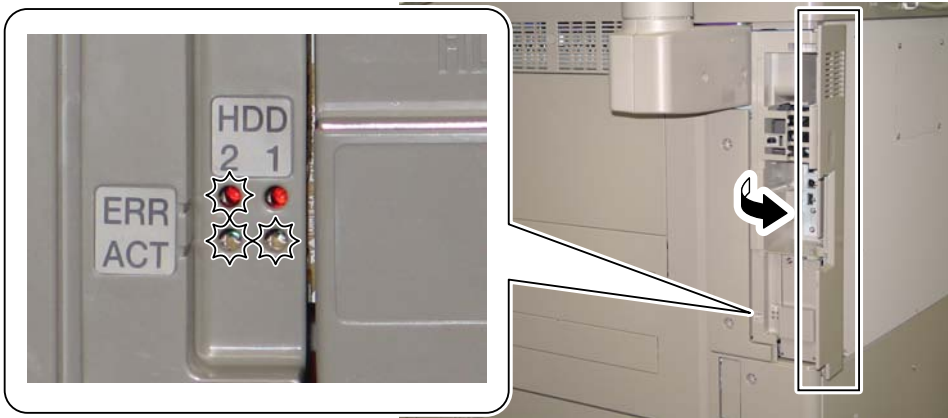
The user may check the security mark, appearing on the control panel when using the host machine to make sure that an appropriate level of security is being maintained. The mark appears when the machine is equipped with an Encryption Board and the board is operating correctly. The Users Guide provides the following description in connection with the security mark:

< Confirming the Security Mark >

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark (🔒) is displayed on the lower left corner of a panel screen.

## Checking after Installation

- 1) Open the HDD Cover, and check that the LED is flashing.
  - The green LED of HDD1 (Slot1) is flashing.



F-9-409

## Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:

At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <Servicing work when a failure occurs>.

### Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for 'Canon MFP Security Chip' as the version information of the security chip by referring to the description of Checking the Security Version.

### Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

## Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

## [TYPE-7] Option HDD (250GB) + HDD Data Encryption & Mirroring Kit

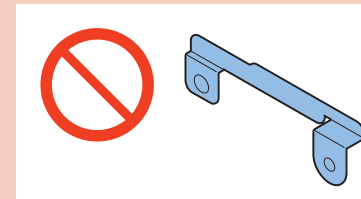
### Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn. If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

### Checking the Contents

**CAUTION:**

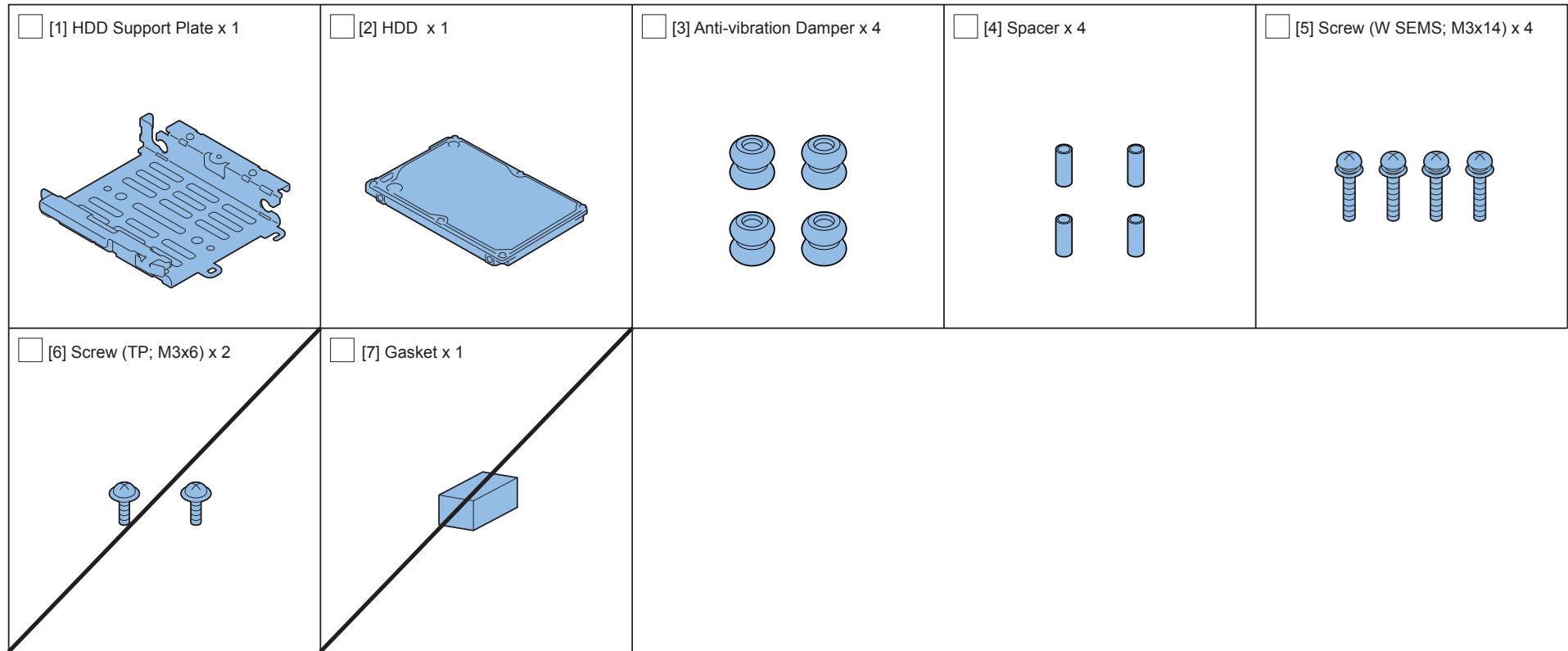
If a Grounding Plate is included in the package of the Option HDD, do not use the HDD Grounding Plate. It may cause reduction in the transfer speed of the HDD.



F-9-410



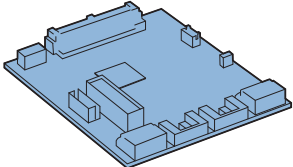
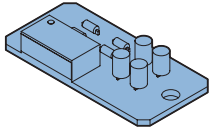
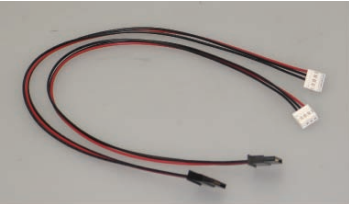


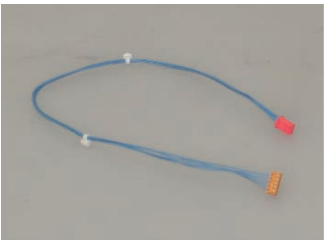

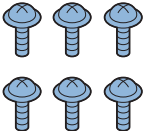
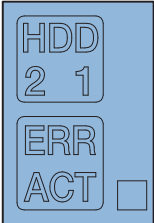
Option HDD (250GB)



- < CD/Guides >
- FCC/IC Sheet

F-9-411

## HDD Data Encryption & Mirroring Kit

<input type="checkbox"/> [1] Encryption Board X 1 	<input type="checkbox"/> [2] LED Board X 1 	<input type="checkbox"/> [3] Power Supply Cable (570mm; FK2-7831) X 2 	<input type="checkbox"/> [4] Signal Cable (550mm; FK2-7826) X 1 	<input type="checkbox"/> [5] Signal Cable (550mm; FK2-7827) X 1 
<input type="checkbox"/> [6] STS Cable (340mm(Light Blue); FM3-9152) X 1 	<input type="checkbox"/> [7] LED Cable (310mm; FM3-9158) X 1 	<input type="checkbox"/> [8] Screw (TP; M3x6) X 6 	<input type="checkbox"/> [9] LED Label X 1 	

F-9-412

&lt; CD/Guides &gt;

- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

## Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.

Backup or export work must not be performed by the service person because of security considerations.

In this Installation Procedure, a series of backup or export procedures are described for reference.

### List of Data to be Deleted

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Send Function Favorite Settings	Yes
Data stored in Mail Boxes or the Advanced Box	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box	Yes

T-9-19

\*1; Can only be backed up using the Remote UI.

\*2; Depending on the MEAP application.

\*3; Only the following data saved in Mail Box/Advanced Box are backed up.

- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image
- Advanced Box URI Transmission Settings

\*4; You may not be able to back up, depending on the type of the password.

\*5; Only the stored Favorite Settings can be backed up.

## List of Data to be Backed Up

Data to be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings (Forwarding Settings, Address List, Favorite Settings)	
Printer Settings	
Paper Information	
Favorite Settings for Web browser	See the "e-Manual > Web Access". (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box	See the "e-Manual > Remote UI" to "Setting the Backup Location for Stored Data".
Image forms stored in the Superimpose Image	
SSO-H (Single Sign-On H) user authentication information	See the "e-Manual > MEAP".
Quick Menu Information	See the "e-Manual > Quick Menu".
User Information of the Advanced Box	See the "e-Manual > Security".

T-9-20

## CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the "e-Manual > MEAP".

 Making a Backup of the Data (Reference only)

The data items that have been backed up may be restored when this product has been installed. These data items are property of the user, and the restoration work must be performed by the system administrator.

The method of restoration is described in the Users Guide. See Table (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

## 1. Procedure to make a backup of Address Book

- Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- Click [Address List].
- Click [Export].
- Select the save format for Address list, and click [Start Export].
- Following the instructions on the window, specify the location to save the file. Be sure to set a distinctive name to an export file so that you can recognize it when importing it.

## NOTE:

Exporting the device settings will export all contents of the address list. In other words, there is no need for a backup unless it needs to be done individually.

## 2. Device Settings Export Procedure

- Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- Click [Device Settings (Forwarding Settings, Address List, Favorite Settings)].
- Click [Export], and then click [Start Export].
- Following the instructions on the window, specify the location to save the file.

### 3. Settings/Registration Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Settings/Registration].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 4. Printer Settings Export Procedure

**NOTE:**

The following items to be exported are the same as the ones which are distributed by device information distribution.

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Printer Settings].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 5. Paper Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Paper Information].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 6. Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

**CAUTION: MEAP Backup Function Using the SST**

Data that has been backed up using MEAP back of the SST before the use of this product is started must not be written back to the host machine after the use of this product is started. Similarly, even if the data that has been backed up after the use of this product is started is written back to the host machine before the use of this product is started, the machine does not operate. It is necessary to make sure that the implementation conditions for this product are compatible before and after making a backup of data, and the MEAP backup function does not permit making a backup of data in the course of installing the kit.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide.

### 7. Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

- 1) Select the URL given below and access SMS.  
http://[IP address of the device]:8000/sms/  
The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

**CAUTION:**

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

- 2) Click [MEAP Application Management].
- 3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
- 4) Click the application of which license has been installed.
- 5) Click [License Control], and then click [Disable]. Click [Yes] in a confirmation window for disabling the license.

- 6) Click [Download] under "Download/delete Disabled License File" item. Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
- 7) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
- 8) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

#### 8. User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

- 1) Access the URL given below.

`http://[IP address of the device]:8000/sso/`

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

##### CAUTION:

The default password is MeapSmsLogin. If the user has changed the password, ask him/her to change the password again after the use of this product is started.

- 2) Login with the user name and password registered as an administrator in SSO-H.  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [User Control].
- 4) Put a checkmark to Select All, and then click [Export].
- 5) Leave the file format and character code as defaults and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file and click [Save].

#### 9. Backup of User inbox and Advanced Box document data

##### CAUTION: Backup of "Advanced Box"

When setting a SMB server as a backup destination, Advanced Box data saved in a large capacity HDD cannot be backed up. The Advanced Box data backed up from the large capacity HDD cannot be restored to the standard HDD. Depending on the system version of the machine, both backup and restoration might not be performed.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

- Backup to SMB server  
Select SMB as a backup destination and specify an address, a user name, a password, and a path to the SMB server to which saved data is backed up.
- Backup to USB HDD  
Select USB HDD as a backup destination and specify a path to the USB HDD folder to which saved data is backed up.

##### CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

##### CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

##### CAUTION:

- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

#### [Backup method of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
- 2) Select 'All' or 'Changes' for the backup method.
- 3) Click [Execute].

#### CAUTION:

- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- If you select to encrypt the backup data, the backup process may take longer.

#### [Restoring the backup data of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
- 2) Click [Display Backup Data].
- 3) Select the backup data to restore from the list and then click [Execute].

#### CAUTION:

- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

#### 10. Quick Menu Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [Quick Menu] > [Export].
- 3) If the file needs to be encrypted, enter the password after check [Encrypt file]. (The number of characters for the password must be more than 4 but less than 16.)
- 4) Click [Export].
- 5) Following the instructions on the window, specify the location to save the file.

#### 11. User Information of the Advanced Box Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [User Access Control for Advanced Box]. The dialog box to enter the user name of administrator and password appears, enter the system administrator ID and password, and then click [Log In].  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [Export], and click [Start Export].
- 4) Following the instructions on the window, specify the location to save the file.

## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

- 1) Turn OFF the main power switch.
- 2) Check that the Control Panel Display and the Main Power Lamp are turned OFF, and then disconnect the power plug.

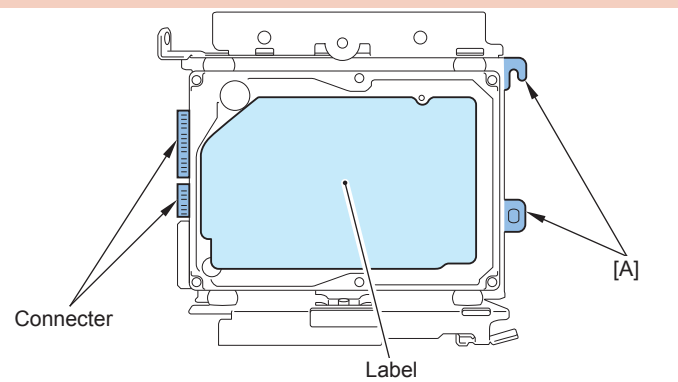
## Installation Procedure

### Assembling the Option HDD

#### CAUTION:

When assembling the Option HDD, be sure to pay attention to the direction.

- Be sure that the label face of the Option HDD is up.
- Be sure that the [A] part of the HDD Support Plate is on the other side of the connector.



F-9-413

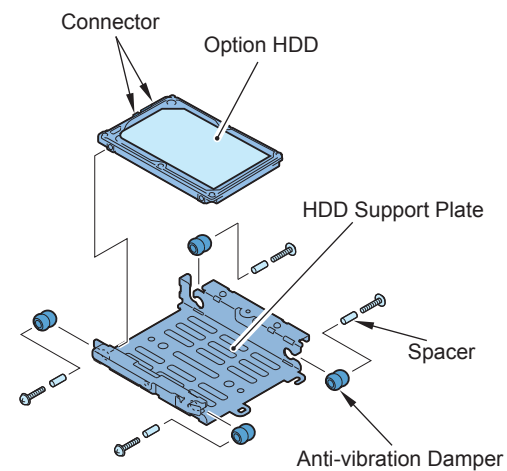


1) Assemble the Option HDD (250GB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 Option HDD
- 4 Screws (W Sems; M3x14)



x4



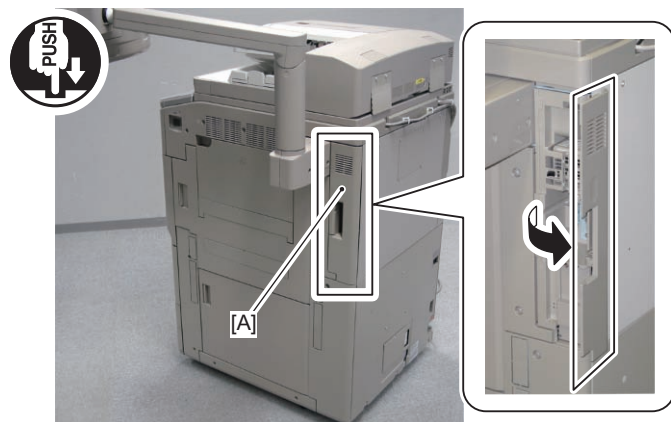
F-9-414



## Removing the Covers



1) Push [A] part, and open the Right Rear Cover 1.

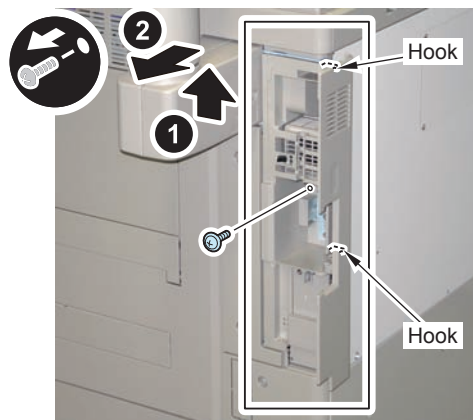


F-9-415



2) Remove the Side Cover.

- 1 Screw
- 2 hooks



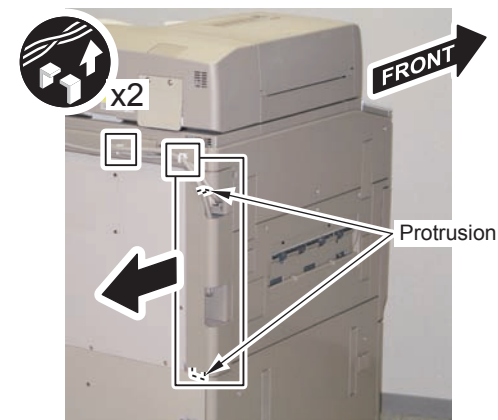
F-9-416



3) Free the Reader Communication Cable and the Reader Power Supply Cable from the 2 Wire Saddles.

4) Remove the Left Rear Cover.

- 2 Protrusions

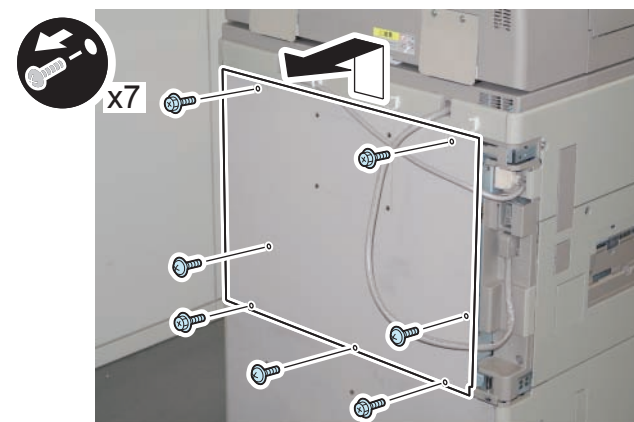


F-9-417



5) Remove the Rear Upper Cover.

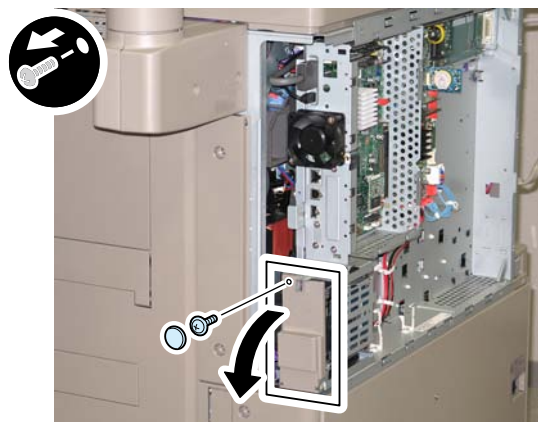
- 4 Screws (RS Tightening)
- 3 Screws (TP)



F-9-418

□ 6) Open the HDD Cap.

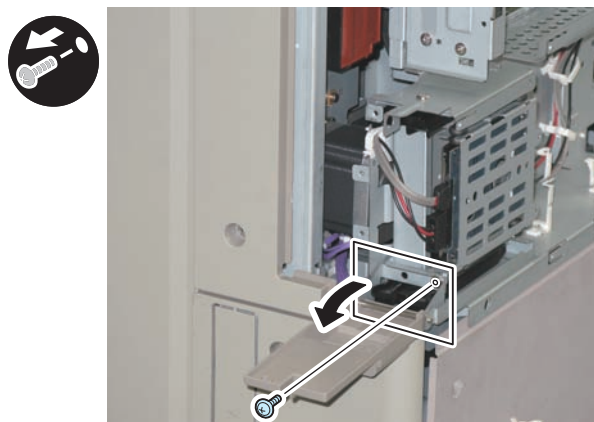
- 1 Rubber cap
- 1 Screw



F-9-419

□ 7) Turn the HDD Fixed Plate toward the front.

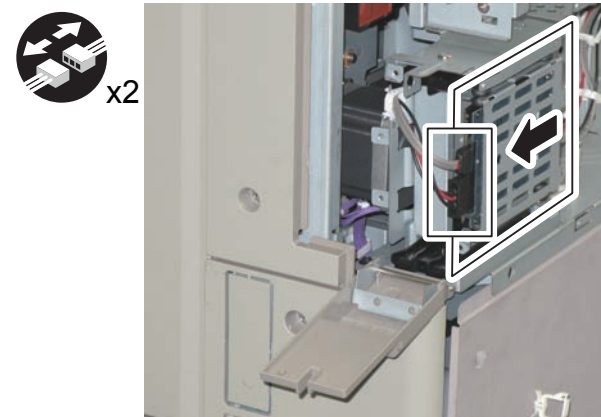
- 1 Screw (The removed screw will be used in "Installing the Encryption Board" step 11.)



F-9-420

□ 8) Remove the HDD. (The removed HDD will not be used.)

- 2 Connectors



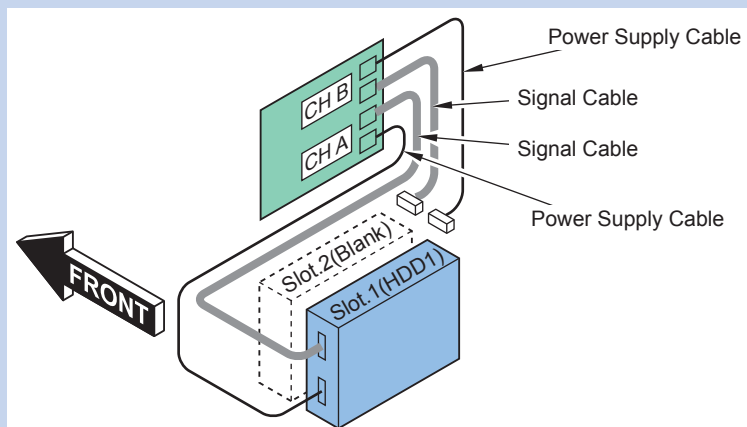
F-9-421

## Installing the Encryption Board

### NOTE:

The following shows combination of the HDD and the Encryption Board.

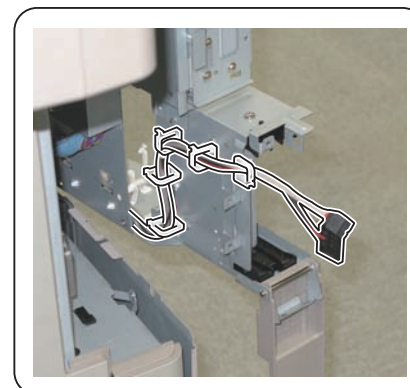
- Connect "CH A" to Slot.1 (The new HDD)
- No HDD to Slot.2



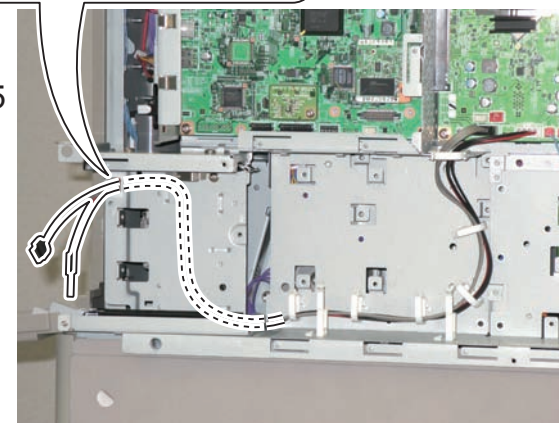
F-9-422



- 1) Open the Controller Box, and free the Signal Cable and the Power Supply Cable of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.

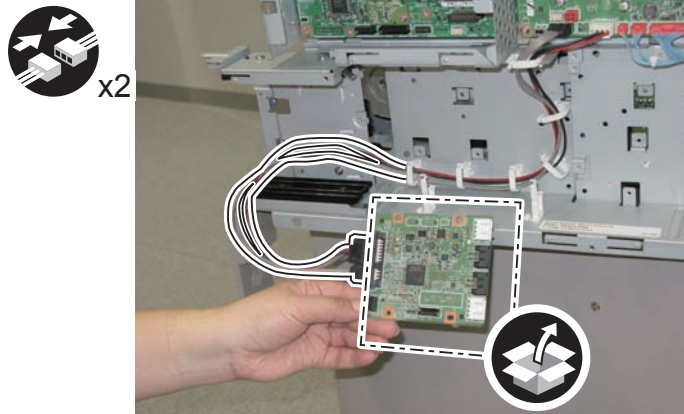


x5



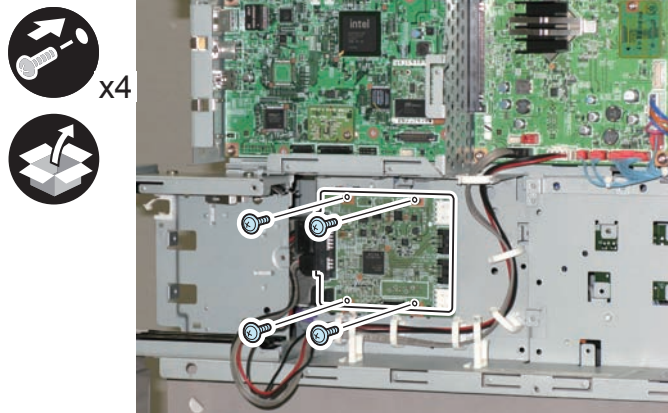
F-9-423

- 2) Pull out the cables to the front, and connect the Signal Cable and the Power Supply Cable to the Encryption Board.



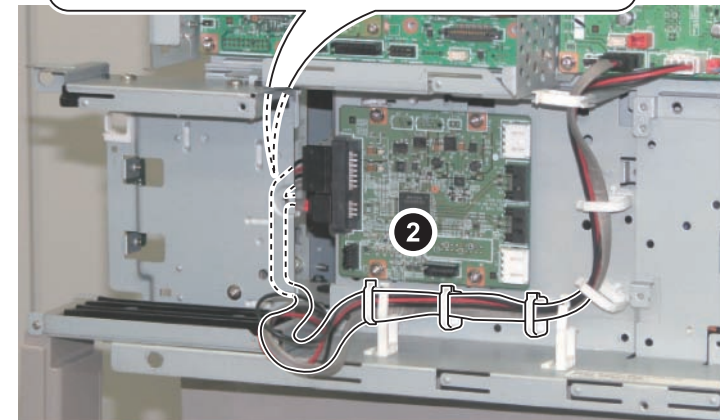
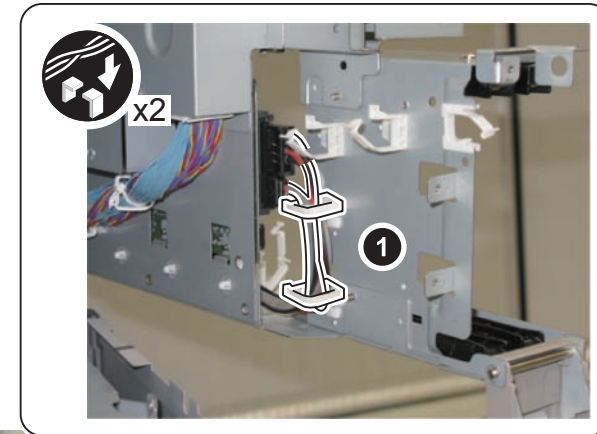
F-9-424

- 3) Install the Encryption Board.  
• 4 Screws (TP; M3x6)



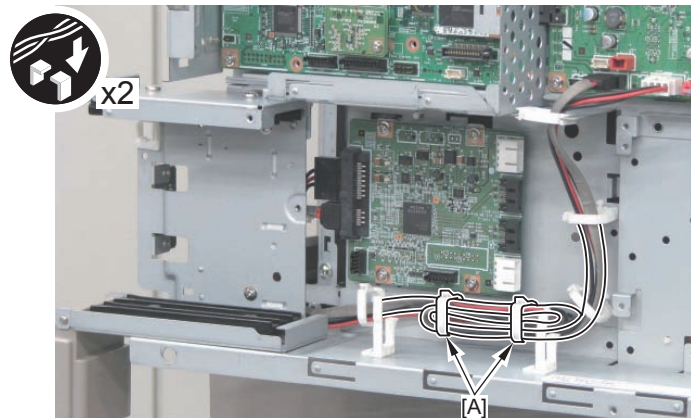
F-9-425

- 4) Secure the Signal Cable and the Power Supply Cable in place using the 2 Wire Saddles at the back of the HDD Case Unit.  
5) Free the cables from the 3 Wire Saddles at the front.



F-9-426

- 6) Fold extra length of the cable and secure it with the 2 Wire Saddles [A].



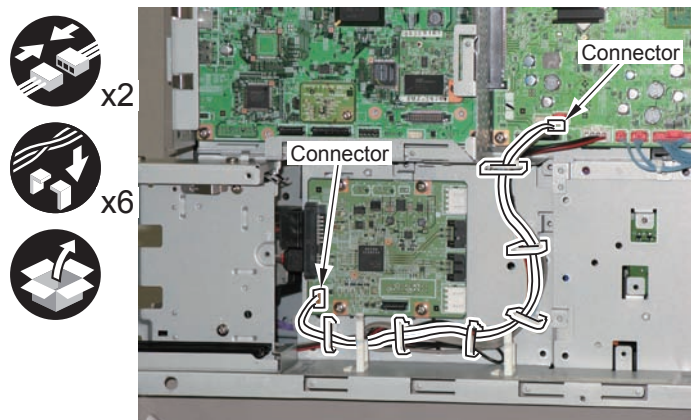
F-9-427

- 7) Connect the STS Cable (340mm (Light Blue); FM3-9152) to the Main Controller PCB 2 and the Encryption Board.

- 2 Connectors
- 1 Edge Saddle
- 5 Wire Saddles

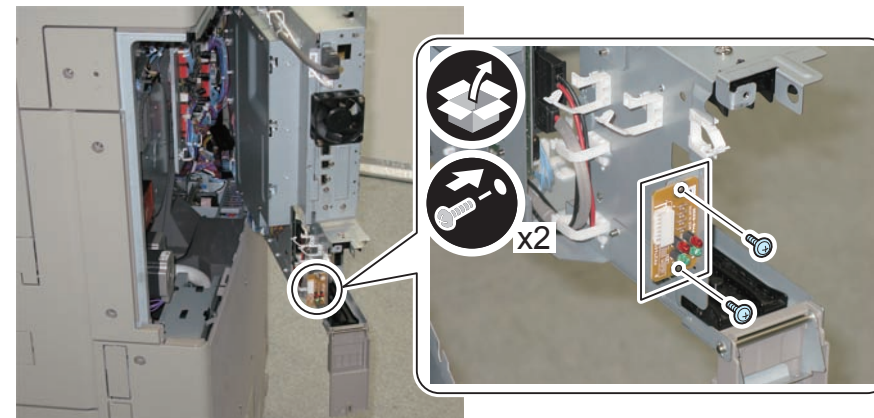
**CAUTION:**

Check that the STS Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-428

- 8) Install the LED Board to the side surface of the HDD Case Unit.
- 2 Screws (TP; M3x6)



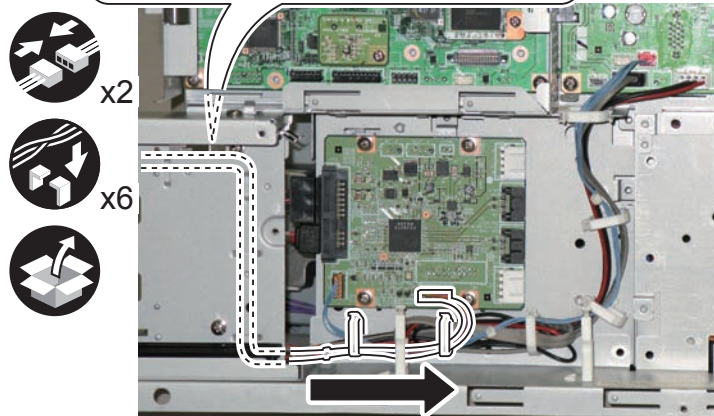
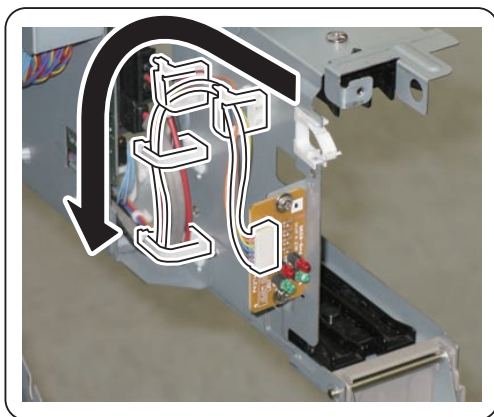
F-9-429

□ 9) Connect the LED Cable (310mm; FM3-9158) to the LED Board and the Encryption Board.

- 2 Connectors
- 6 Wire Saddles

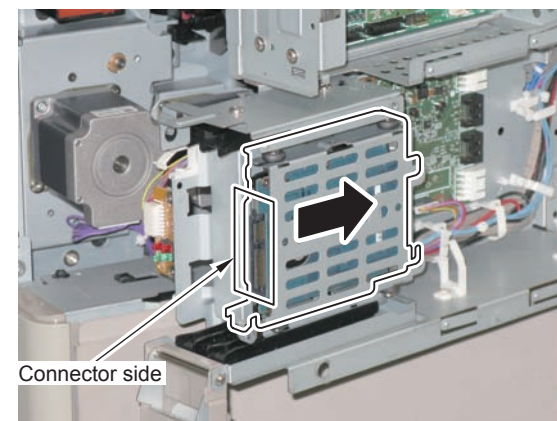
**CAUTION:**

- Secure the LED Cable in the direction of the arrow.
- Check that the LED Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-430

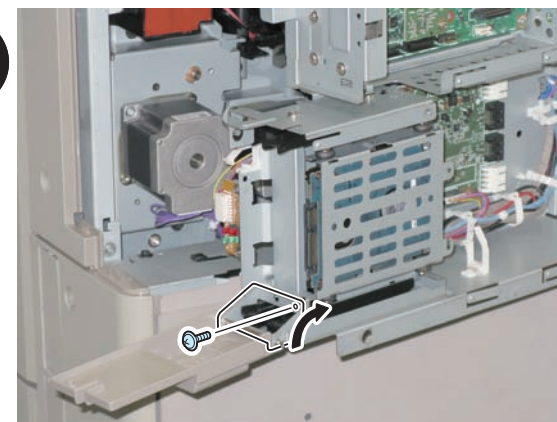
□ 10) Insert the assembled HDD.



F-9-431

□ 11) Secure the HDD Fixed Plate.

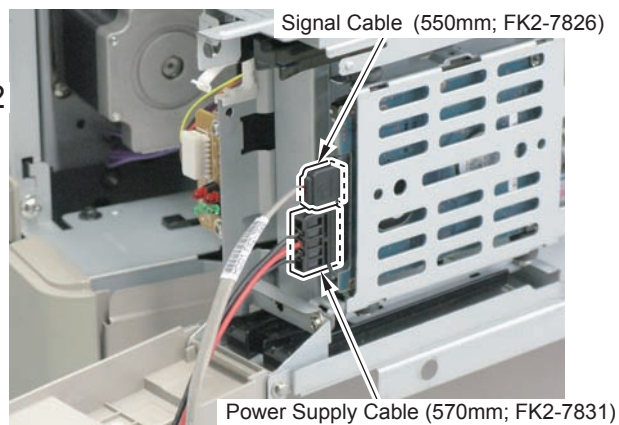
- 1 screw (Use the screws removed in "Removing the Covers" step 7.)



F-9-432

- 12) Connect the Signal Cable (550mm; FK2-7826) and the Power Supply Cable (570mm; FK2-7831) to Slot.1.

**NOTE:**  
When connecting the Signal Cables, the side labeled "HDD1" should be connected to the HDD.

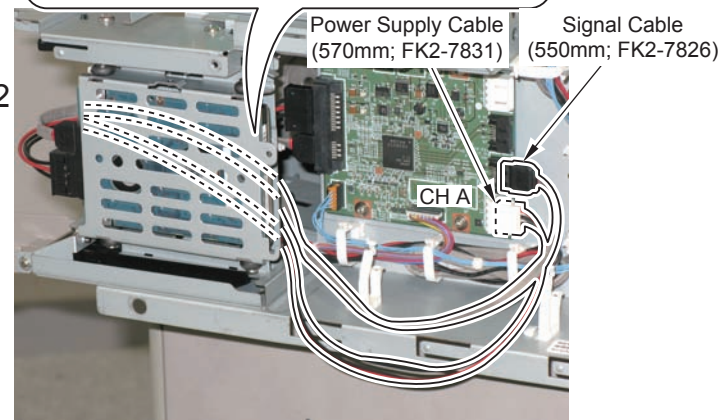
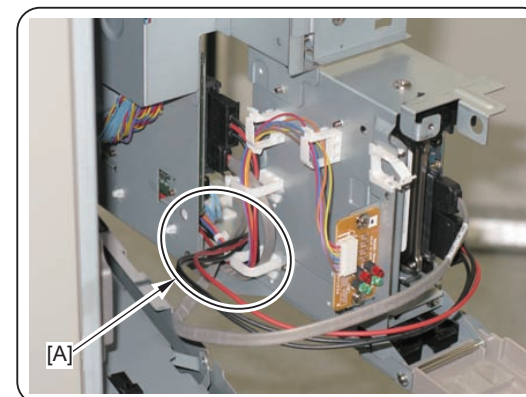


F-9-433

- 13) Put the Signal Cable and the Power Supply Cable through [A] part.
- 14) Connect the 2 connectors of the Signal Cables and the Power Supply Cables to the Encryption Board.

**CAUTION:**

When connecting the Signal Cables, the side labeled "ch.A" should be connected to CH A on the board.



F-9-434

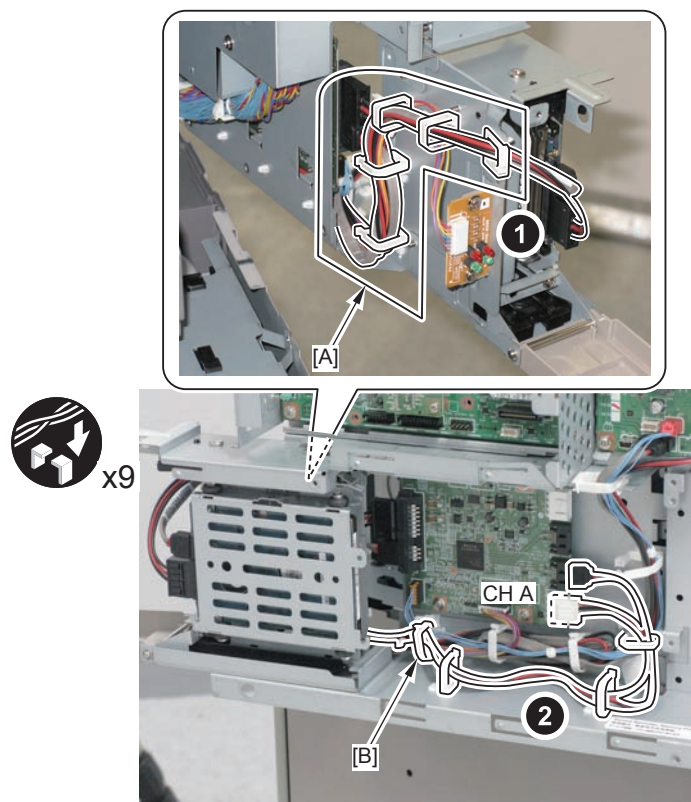
□  
15) Secure the Signal Cable and the Power Supply Cable.

□  
15-1) Secure the Signal Cable and the Power Supply Cable connected to CH A.

- 1 Edger Saddle
- 8 Wire Saddles

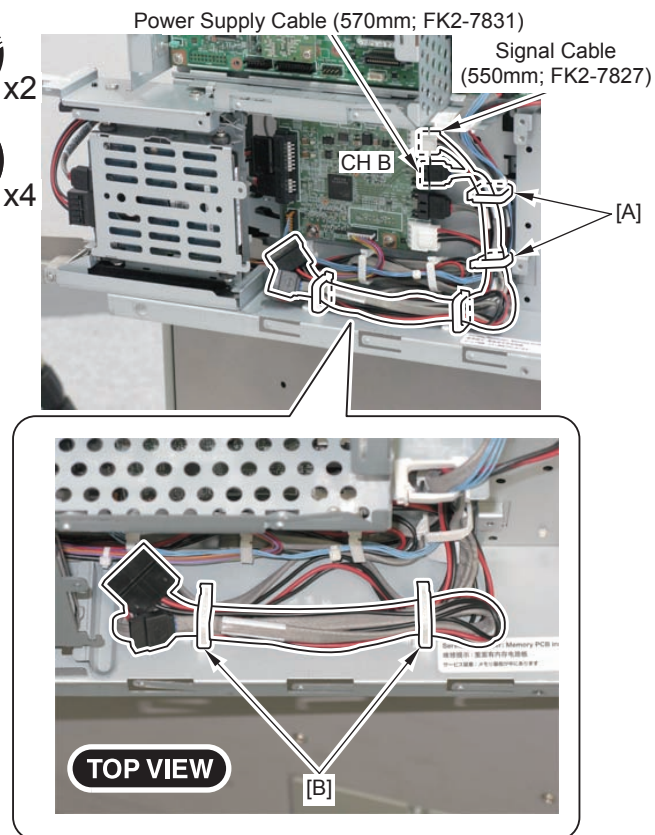
**CAUTION:**

- Secure the cables so that there is no extra slack of the cables at [A] part.
- Be sure that the Wire Saddle [B] is properly securing the cables.



F-9-435

□  
15-2) Connect the Signal Cable (550mm; FK2-7827) and the Power Supply Cable (570mm; FK2-7831) to CH B, and secure them in place using the 2 Wire Saddles [A].  
15-3) Fold extra length of the cables and secure them in place using the 2 Wire Saddles [B].

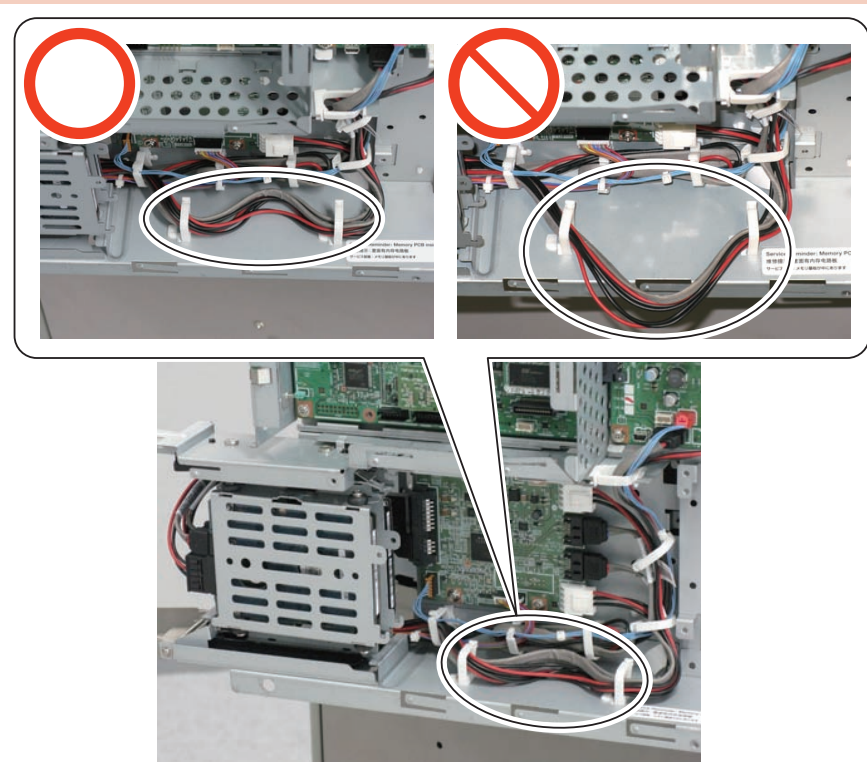


F-9-436



**CAUTION:**

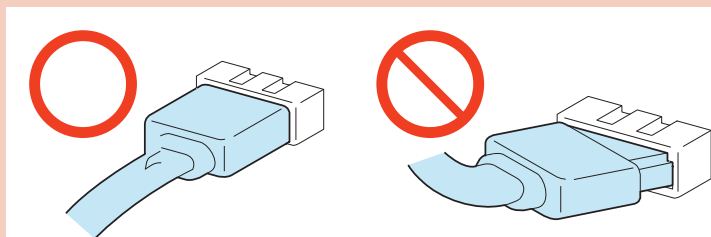
If there is extra slack of the cables, be sure to tuck them to the host machine side.



F-9-437

**CAUTION:**

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



F-9-438

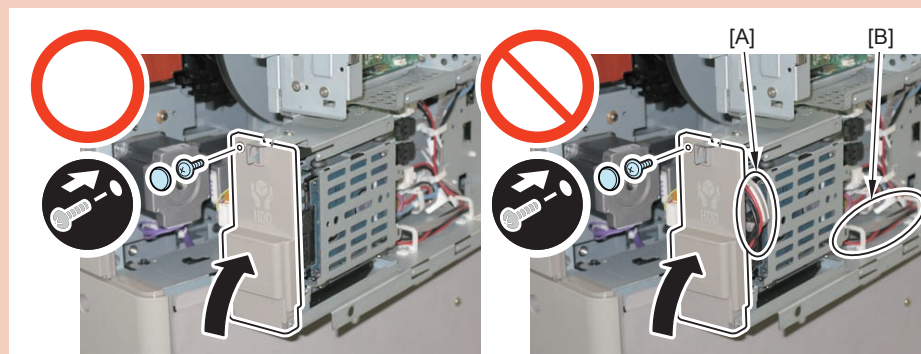


16) Close the HDD Cap.

- 1 Screw
- 1 Rubber cap

**CAUTION:**

- Be sure that the cables do not protrude from the [A] part of the HDD Cap.
- If the cables protrude from the [A] part, allow extra slack of the cables at the [B] part and tuck them to the host machine side.

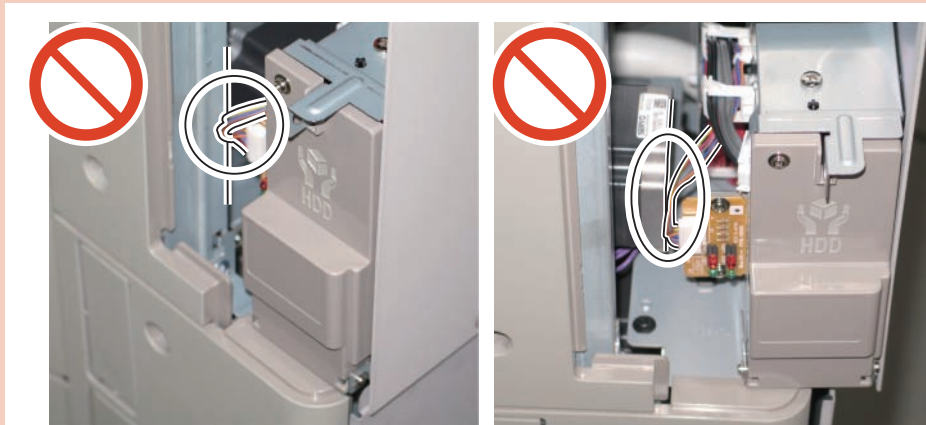


F-9-439

- 17) Close the Controller Box.

**CAUTION:**

When closing the Controller Box, check that the LED Cable is not trapped or does not contact with it.

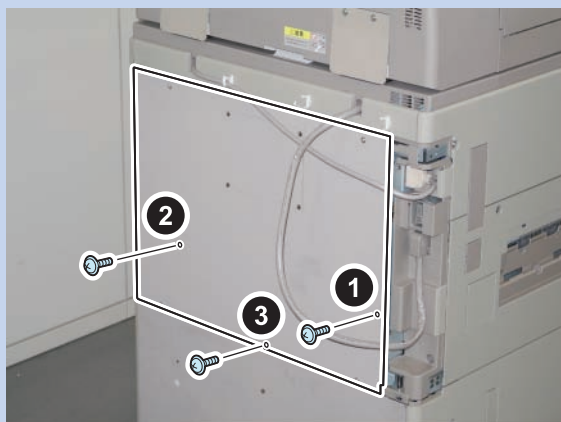


F-9-440

- 18) Install the Rear Upper Cover.

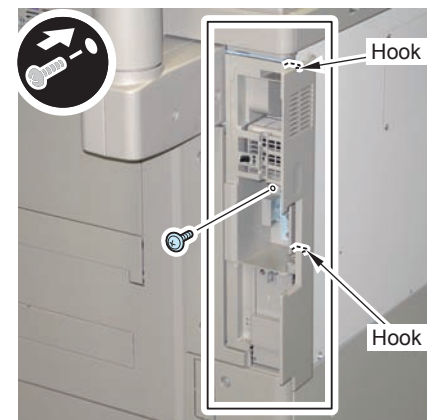
**NOTE:**

Be sure to install the 3 TP screws show in the figure below.



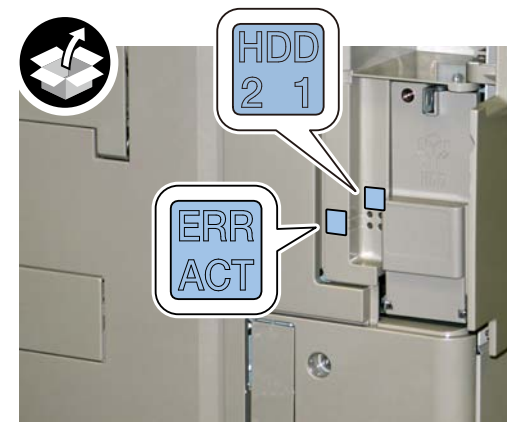
F-9-441

- 19) Install the Side Cover.
- 2 hooks
  - 1 Screw



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- 20) Affix the LED Label.



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- 21) Close the Right Rear Cover 1.
- 22) Return the Left Rear Cover to its original position, and secure the Reader Communication Cable and the Reader Power Supply Cable in place using the Wire Saddles.
- 23) Connect the power plug to the outlet.

## Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product. It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product. Details follow.

### 1. Requirements

#### 1) PC

Service support tool in the version that supports this host machine must be installed.

#### 2) Cross Ethernet Cable

### 2. Preparing for the Installation of the System Software of Host machine

- 1) If both PC and the machine are on, turn them off.
- 2) Connect the PC and the machine using an Ethernet cable.
- 3) Turn on the PC.
- 4) Start up the machine in download mode (safe mode).

### 3. Selecting the System Software

- 1) Set the CD containing the latest system software in the PC on which the SST is used.
- 2) Start up the SST.
- 3) Click 'Register Firmware'.
- 4) Select the drive in which the System Software CD has been set, and click 'SEARCH'.
- 5) Click 'REGISTER'.
- 6) Click OK.

### 4. Downloading the System Software

- 1) Click 'CONNECT'.
- 2) From the list of machine series, select the appropriate model.
- 3) Select 'Single', and click start.
- 4) Execute HDD format.
- 5) After 5 sec from when the power of the host machine is turned OFF, restart the host machine in download mode of safe mode.
- 6) When "download mode" is displayed on the control panel, click simple mode start.
- 7) Click start to execute download.
- 8) Follow the instruction on the screen and when download is complete, click OK.
- 9) Exit SST.
- 10) Check the versions of MN-CONT and LANG etc in service mode (COPIER > Display > VERSION).

## Checking the Security Version

- 1) Press the Counter key (123 key) on the control panel.
- 2) Press the [Check Device Configuration] key appearing on the control panel.
- 3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.  
When several Encryption Boards are installed, multiple version information is displayed.

### CAUTION:

The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

## Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the host machine to make sure that an appropriate level of security is being maintained. The mark appears when the machine is equipped with an Encryption Board and the board is operating correctly. The Users Guide provides the following description in connection with the security mark:

< Confirming the Security Mark >

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark (🔒) is displayed on the lower left corner of a panel screen.

## Checking after Installation

1) Open the HDD Cover, and check that the LED is flashing.

- The green LED of HDD1 (Slot1) is flashing.



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## Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:

At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <Servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for 'Canon MFP Security Chip' as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

## Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

## [TYPE-8] Option HDD (80GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

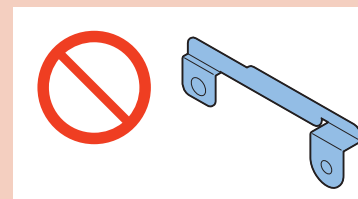
### Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn. If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

### Checking the Contents

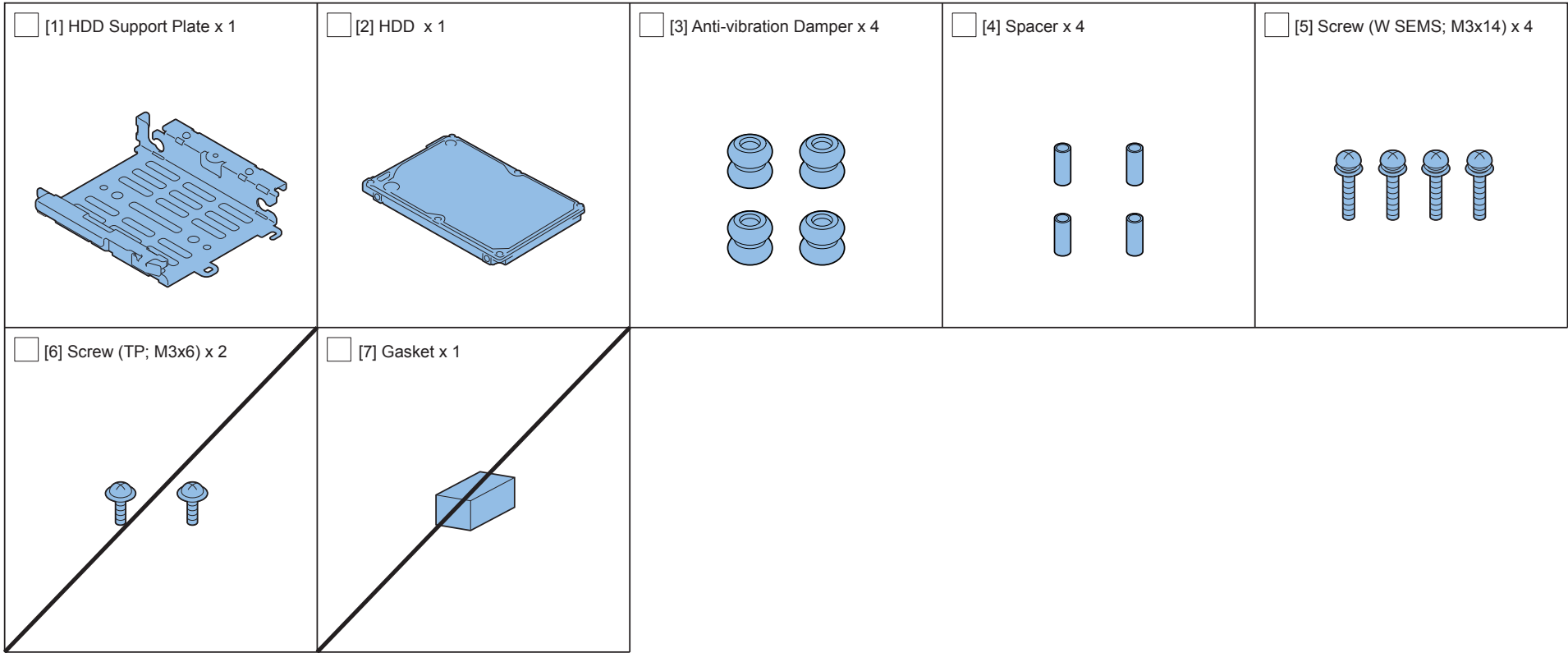
**CAUTION:**

If a Grounding Plate is included in the package of the Option HDD, do not use the HDD Grounding Plate. It may cause reduction in the transfer speed of the HDD.



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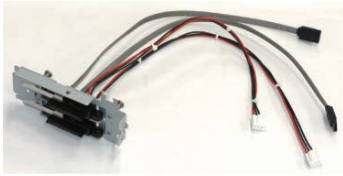
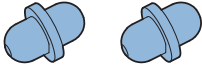
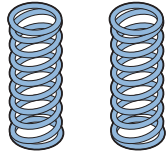
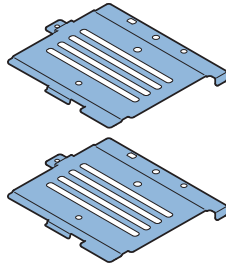
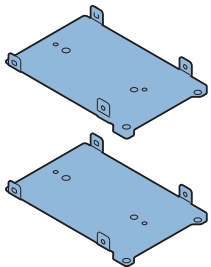
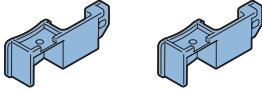
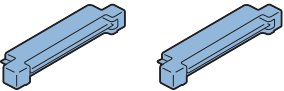
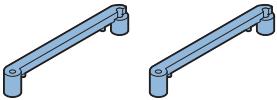
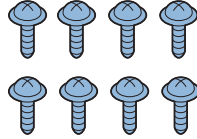
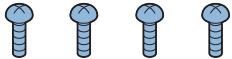
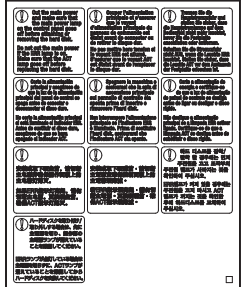
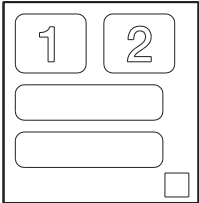
Option HDD (80GB)



- < CD/Guides >
- FCC/IC Sheet

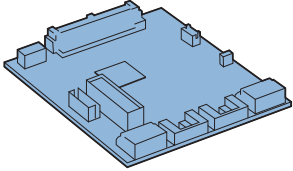
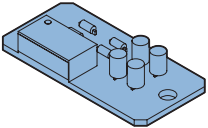
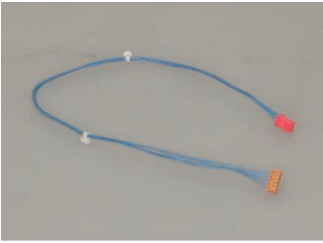

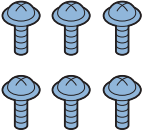
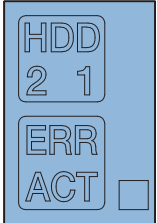
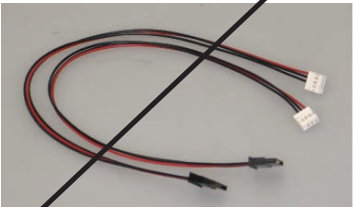


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Removable HDD Kit

<p><input type="checkbox"/> [1] HDD Drawer Unit X 1</p> 	<p><input type="checkbox"/> [2] HDD Lock Pin X 2</p> 	<p><input type="checkbox"/> [3] HDD Lock Pin X 2</p> 	<p><input type="checkbox"/> [4] HDD Cover X 2</p> 	<p><input type="checkbox"/> [5] HDD Connector Plate X 2</p> 
<p><input type="checkbox"/> [6] HDD Connector Plate X 2</p> 	<p><input type="checkbox"/> [7] Conversion Connector X 2</p> 	<p><input type="checkbox"/> [8] Connector Fixation Block X 2</p> 	<p><input type="checkbox"/> [9] Screw (TP Round End; M3x6) X 8</p> 	<p><input type="checkbox"/> [10] Screw (P Tightening; M3x8) X 4</p> 
<p><input type="checkbox"/> [11] HDD Caution Label X 1</p> 	<p><input type="checkbox"/> [12] R-HDD Label X 1</p> 			

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## HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

<input type="checkbox"/> [1] Mirroring Board or Encryption Board X 1 	<input type="checkbox"/> [2] LED Board X 1 	<input type="checkbox"/> [3] STS Cable (340mm(Light Blue); FM3-9152) X 1 	<input type="checkbox"/> [4] LED Cable (310mm; FM3-9158) X 1 	<input type="checkbox"/> [5] Screw (TP; M3x6) X 6 
<input type="checkbox"/> [6] LED Label X 1 	<input type="checkbox"/> [7] Power Supply Cable (570mm; FK2-7831) X 2 	<input type="checkbox"/> [8] Signal Cable (550mm; FK2-7826) X 1 	<input type="checkbox"/> [9] Signal Cable (550mm; FK2-7827) X 1 	

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< CD/Guides of HDD Mirroring Kit >

- HDD Mirroring Kit User Documentation
- FCC/IC Sheet

< CD/Guides of HDD Data Encryption & Mirroring Kit >

- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure



## Points to Note when HDD Data Encryption & Mirroring Kit has been Installed

### Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.

Backup or export work must not be performed by the service person because of security considerations.

In this Installation Procedure, a series of backup or export procedures are described for reference.

#### List of Data to be Deleted

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Send Function Favorite Settings	Yes
Data stored in Mail Boxes or the Advanced Box	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box	Yes

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\*1; Can only be backed up using the Remote UI.

\*2; Depending on the MEAP application.

\*3; Only the following data saved in Mail Box/Advanced Box are backed up.

- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image
- Advanced Box URI Transmission Settings

\*4; You may not be able to back up, depending on the type of the password.

\*5; Only the stored Favorite Settings can be backed up.

## List of Data to be Backed Up

Data to be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings (Forwarding Settings, Address List, Favorite Settings)	
Printer Settings	
Paper Information	
Favorite Settings for Web browser	See the "e-Manual > Web Access". (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box	See the "e-Manual > Remote UI" to "Setting the Backup Location for Stored Data".
Image forms stored in the Superimpose Image	
SSO-H (Single Sign-On H) user authentication information	See the "e-Manual > MEAP".
Quick Menu Information	See the "e-Manual > Quick Menu".
User Information of the Advanced Box	See the "e-Manual > Security".

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## CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the "e-Manual > MEAP".

## ■ Making a Backup of the Data (Reference only)

The data items that have been backed up may be restored when this product has been installed. These data items are property of the user, and the restoration work must be performed by the system administrator.

The method of restoration is described in the Users Guide. See Table (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

## 1. Procedure to make a backup of Address Book

- 1) Access the URL given below, and then access Remote UI.

[http://\[IP address of the device\]/](http://[IP address of the device]/)

If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].

- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Address List].
- 4) Click [Export].
- 5) Select the save format for Address list, and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file. Be sure to set a distinctive name to an export file so that you can recognize it when importing it.

## NOTE:

Exporting the device settings will export all contents of the address list. In other words, there is no need for a backup unless it needs to be done individually.

## 2. Device Settings Export Procedure

- 1) Access the URL given below, and then access Remote UI.

[http://\[IP address of the device\]/](http://[IP address of the device]/)

If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].

- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Device Settings (Forwarding Settings, Address List, Favorite Settings)].
- 4) Click [Export], and then click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 3. Settings/Registration Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Settings/Registration].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 4. Printer Settings Export Procedure

**NOTE:**

The following items to be exported are the same as the ones which are distributed by device information distribution.

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Printer Settings].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 5. Paper Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Paper Information].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 6. Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

**CAUTION: MEAP Backup Function Using the SST**

Data that has been backed up using MEAP back of the SST before the use of this product is started must not be written back to the host machine after the use of this product is started. Similarly, even if the data that has been backed up after the use of this product is started is written back to the host machine before the use of this product is started, the machine does not operate. It is necessary to make sure that the implementation conditions for this product are compatible before and after making a backup of data, and the MEAP backup function does not permit making a backup of data in the course of installing the kit.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide.

### 7. Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

- 1) Select the URL given below and access SMS.  
http://[IP address of the device]:8000/sms/  
The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

**CAUTION:**

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

- 2) Click [MEAP Application Management].
- 3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
- 4) Click the application of which license has been installed.
- 5) Click [License Control], and then click [Disable]. Click [Yes] in a confirmation window for disabling the license.

- 6) Click [Download] under "Download/delete Disabled License File" item. Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
- 7) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
- 8) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

#### 8. User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

- 1) Access the URL given below.

http://[IP address of the device]:8000/sso/

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

##### CAUTION:

The default password is MeapSmsLogin. If the user has changed the password, ask him/her to change the password again after the use of this product is started.

- 2) Login with the user name and password registered as an administrator in SSO-H.  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [User Control].
- 4) Put a checkmark to Select All, and then click [Export].
- 5) Leave the file format and character code as defaults and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file and click [Save].

#### 9. Backup of User inbox and Advanced Box document data

##### CAUTION: Backup of "Advanced Box"

When setting a SMB server as a backup destination, Advanced Box data saved in a large capacity HDD cannot be backed up. The Advanced Box data backed up from the large capacity HDD cannot be restored to the standard HDD. Depending on the system version of the machine, both backup and restoration might not be performed.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

- Backup to SMB server  
Select SMB as a backup destination and specify an address, a user name, a password, and a path to the SMB server to which saved data is backed up.
- Backup to USB HDD  
Select USB HDD as a backup destination and specify a path to the USB HDD folder to which saved data is backed up.

##### CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

##### CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

##### CAUTION:

- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

#### [Backup method of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
- 2) Select 'All' or 'Changes' for the backup method.
- 3) Click [Execute].

#### CAUTION:

- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- If you select to encrypt the backup data, the backup process may take longer.

#### [Restoring the backup data of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
- 2) Click [Display Backup Data].
- 3) Select the backup data to restore from the list and then click [Execute].

#### CAUTION:

- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

#### 10. Quick Menu Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [Quick Menu] > [Export].
- 3) If the file needs to be encrypted, enter the password after check [Encrypt file]. (The number of characters for the password must be more than 4 but less than 16.)
- 4) Click [Export].
- 5) Following the instructions on the window, specify the location to save the file.

#### 11. User Information of the Advanced Box Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [User Access Control for Advanced Box]. The dialog box to enter the user name of administrator and password appears, enter the system administrator ID and password, and then click [Log In].  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [Export], and click [Start Export].
- 4) Following the instructions on the window, specify the location to save the file.

## Check Items when Turning OFF the Main Power

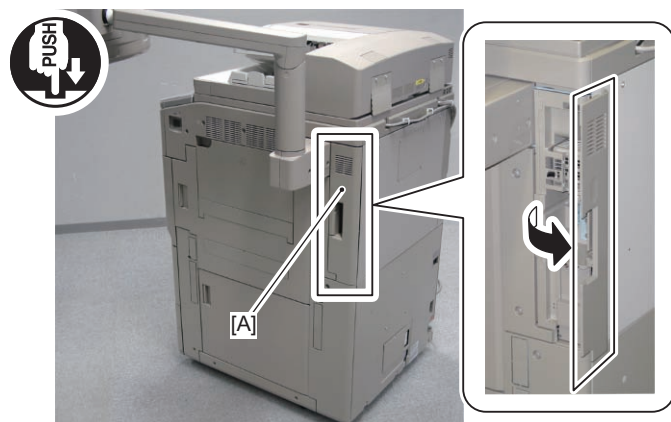
Check that the main power switch is OFF.

- 1) Turn OFF the main power switch.
- 2) Check that the Control Panel Display and the Main Power Lamp are turned OFF, and then disconnect the power plug.

## Installation Procedure

### Removing the HDD and HDD Case Unit

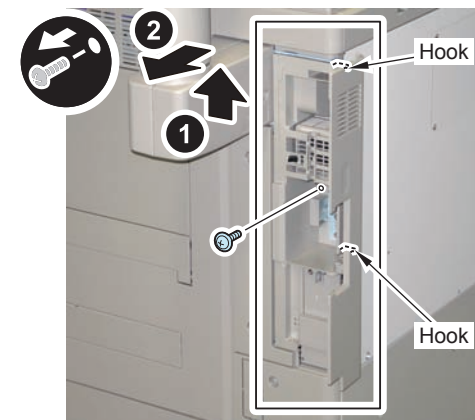
- 1) Push [A] part, and open the Right Rear Cover 1.



F-9-449

- 2) Remove the Side Cover.

- 1 Screw
- 2 hooks

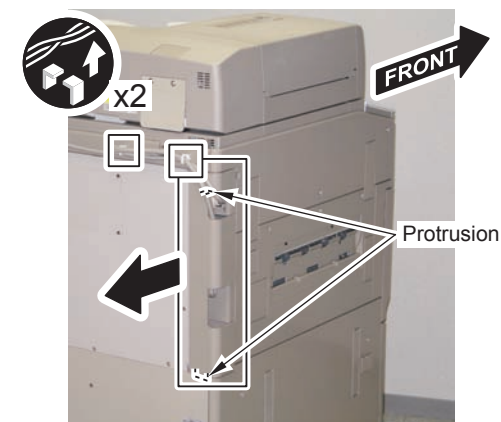


F-9-450

- 3) Free the Reader Communication Cable and the Reader Power Supply Cable from the 2 Wire Saddles.

- 4) Remove the Left Rear Cover.

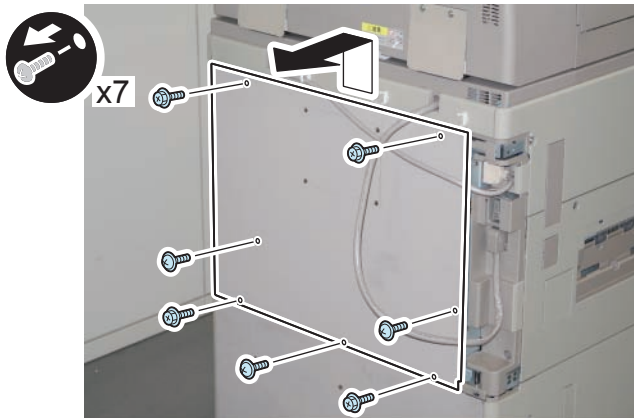
- 2 Protrusions



F-9-451

□  
5) Remove the Rear Upper Cover.

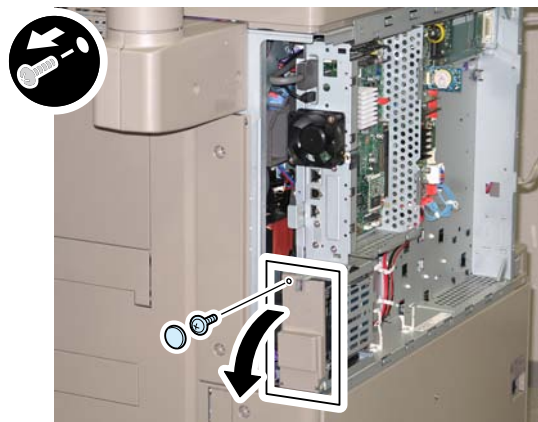
- 4 Screws (RS Tightening)
- 3 Screws (TP)



F-9-452

□  
6) Open the HDD Cap.

- 1 Rubber cap
- 1 Screw (The removed screw will not be used.)

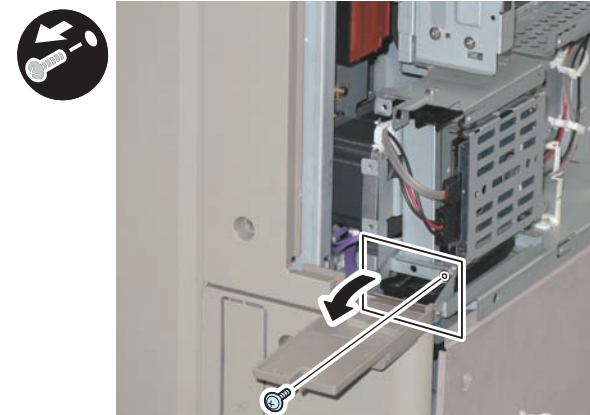


F-9-453

□  
7) Return the rubber cap to the HDD cap.

□  
8) Turn the HDD Fixed Plate toward the front.

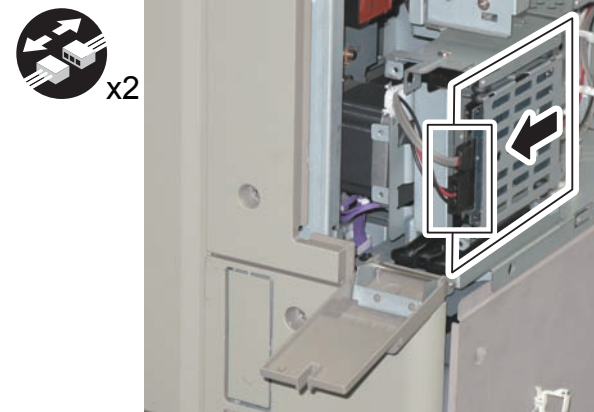
- 1 Screw (The removed screw will not be used.)



F-9-454

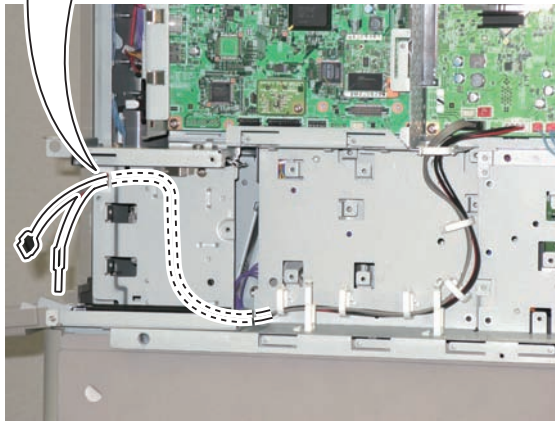
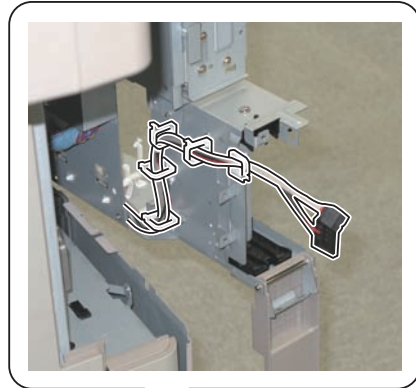
□  
9) Remove the HDD.

- 2 Connectors



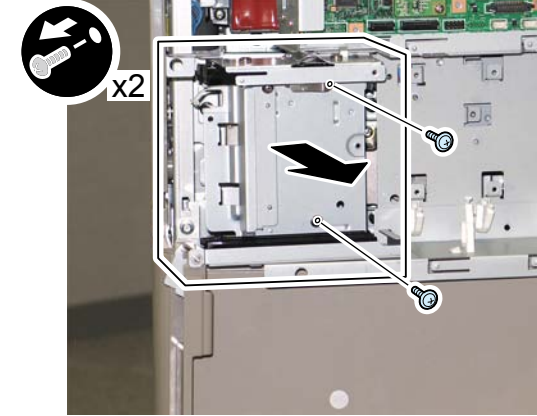
F-9-455

- 10) Open the Controller Box, and free the Signal Cable and the Power Supply Cable of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.



F-9-456

- 11) Remove the HDD Case Unit.
- 2 Screws (The removed screws will be used in "Installing the Mirroring Board or Encryption Board and HDD Case Unit" step 3.)



F-9-457



## Disassembling and Assembling of the HDD Removed from the Host Machine (the First HDD)



1) Disassemble the removed HDD.

- 4 Screws (W Sems)
- 1 Screw (TP)
- 1 HDD Grounding Plate

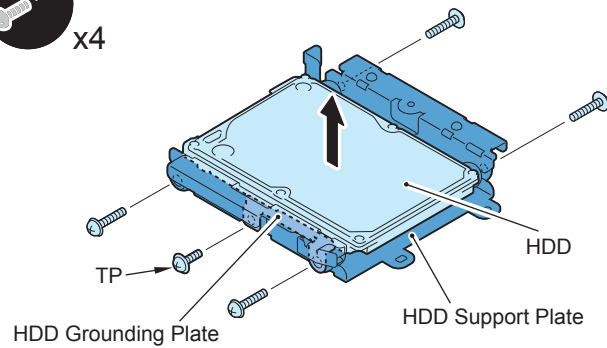
### NOTE:

If the removed HDD has the screw (TP) and the HDD Grounding Plate, remove them. The removed screw (TP) and the HDD Grounding Plate will not be used.

- 1 HDD Support Plate



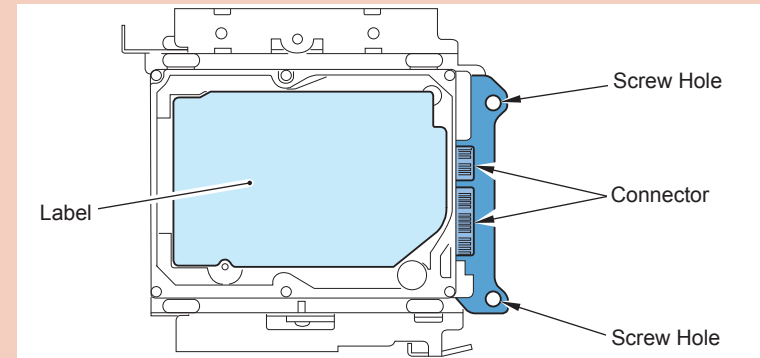
x4



F-9-458

### CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.

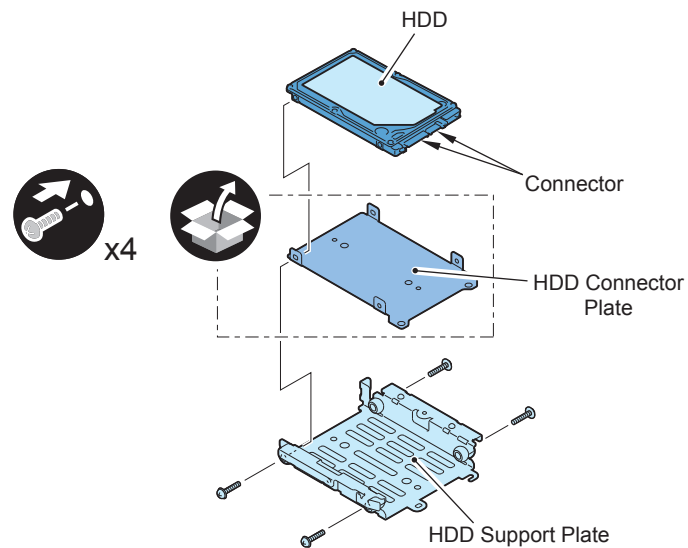


F-9-459

**NOTE:**  
Use the parts disassembled in step 1) and parts included in the Removable HDD Kit.

□  
2) Assemble the HDD disassembled in step 1).

- 1 HDD Support Plate
- 1 HDD Connector Plate (Included in the Removable HDD Kit)
- 1 HDD
- 4 Screws (W Sems)

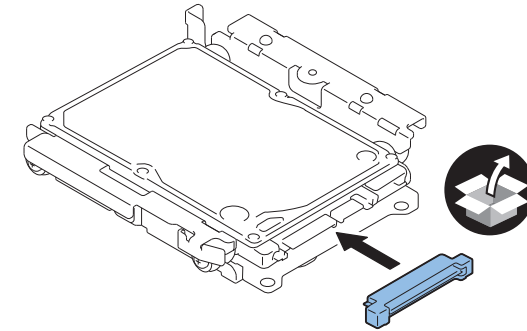


F-9-460

□  
3) Install the Conversion Connector.

**CAUTION:**

Be sure that there is no gap between the HDD Connector and the Conversion Connector.

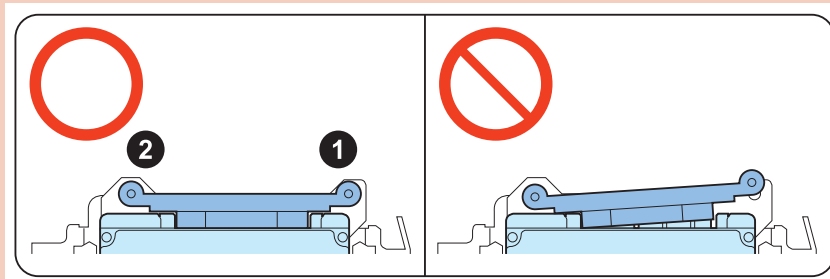


F-9-461

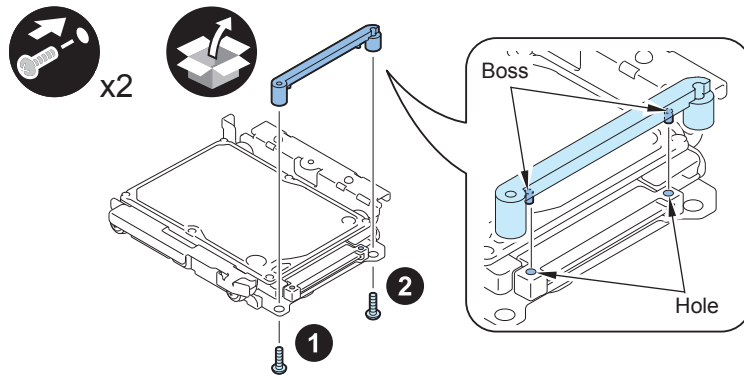
- 
- 4) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.
- 2 Screws (P Tightening; M3x8)

## CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-462

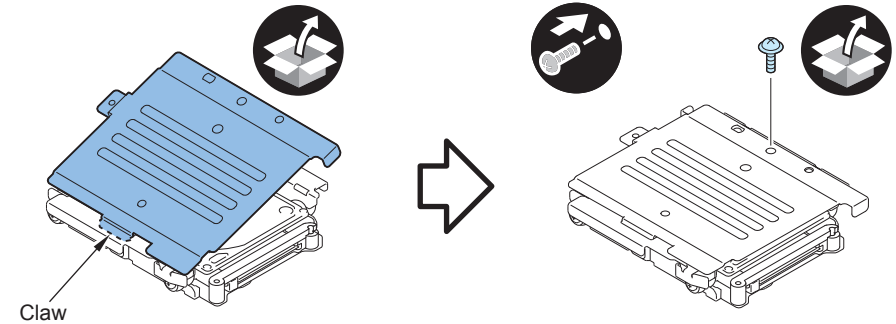


F-9-463

- 
- 5) Install the HDD Cover.
- 1 Claw
  - 1 Screw (TP Round End; M3x6)

## CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

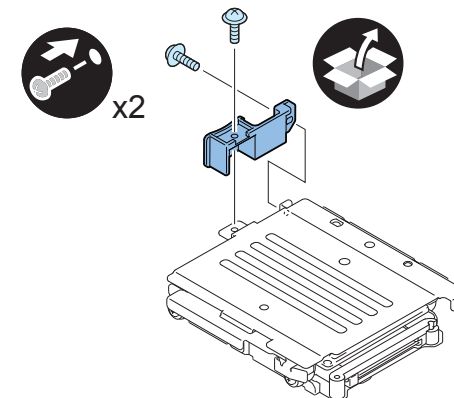


F-9-464

- 
- 6) Install the HDD Handle.
- 2 Screws (TP Round End; M3x6)

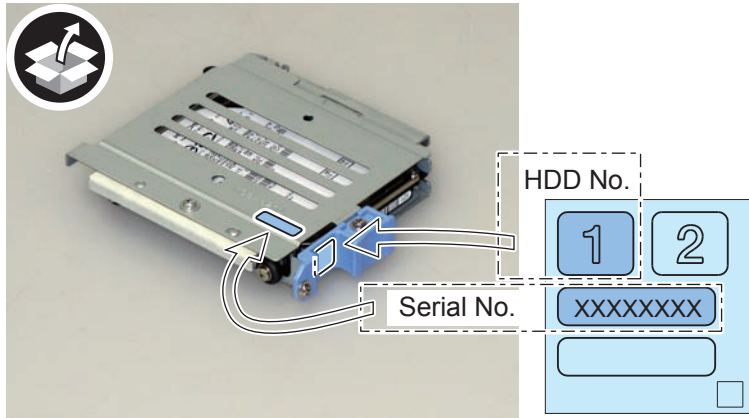
## CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-465

- 
- 7) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.
- 8) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.

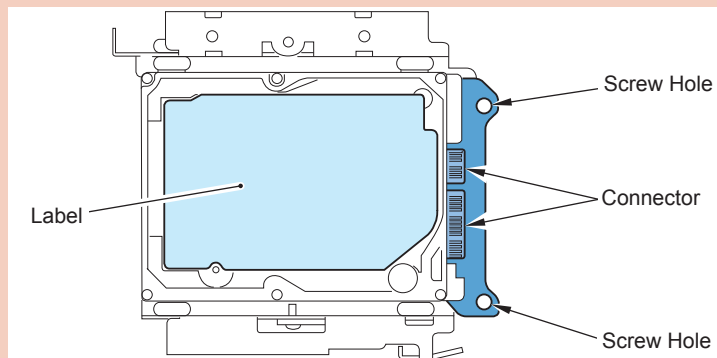


F-9-466

## ■ Assembling the Option HDD (the Second HDD)

### CAUTION: Points to Caution at Installation

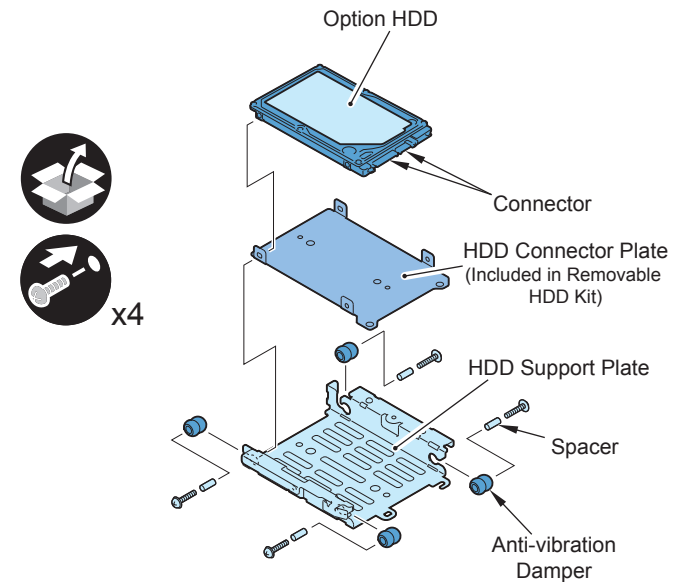
Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



F-9-467

**NOTE:**  
Use the parts included in the package of the Option HDD and the Removable HDD Kit.

- 
- 1) Assemble the Option HDD (250GB).
- 1 HDD Support Plate
  - 4 Anti-vibration Dampers
  - 4 Spacers
  - 1 HDD Connector Plate (Included in the Removable HDD Kit)
  - 1 Option HDD
  - 4 Screws (W Sems; M3x14)

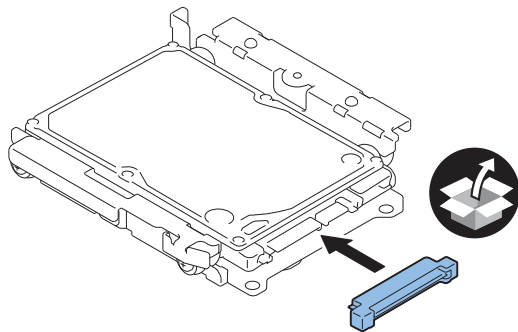


F-9-468

- 2) Install the Conversion Connector.

**CAUTION:**

Be sure that there is no gap between the HDD Connector and the Conversion Connector.

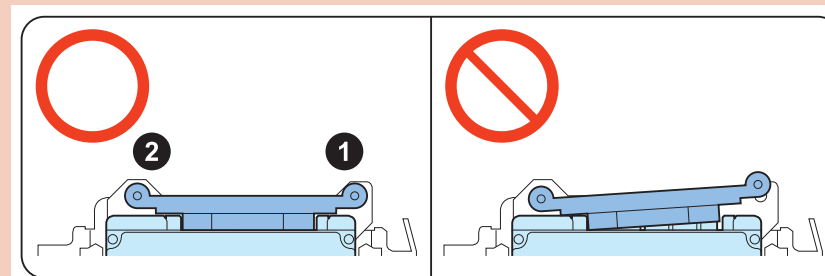


F-9-469

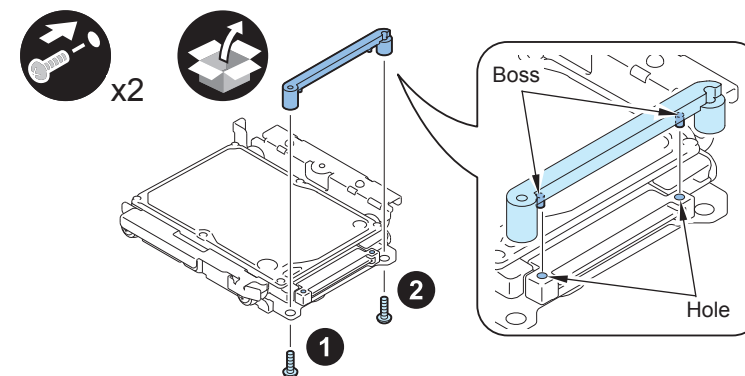
- 3) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.
- 2 Screws (P Tightening; M3x8)

**CAUTION:**

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-470



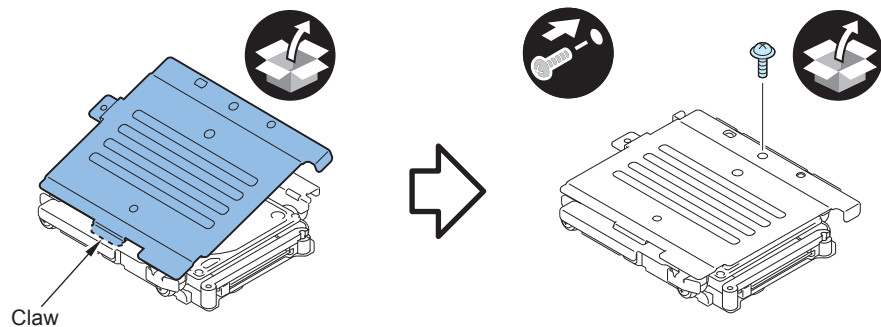
F-9-471

□  
4) Install the HDD Cover.

- 1 Claw
- 1 Screw (TP Round End; M3x6)

**CAUTION:**

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



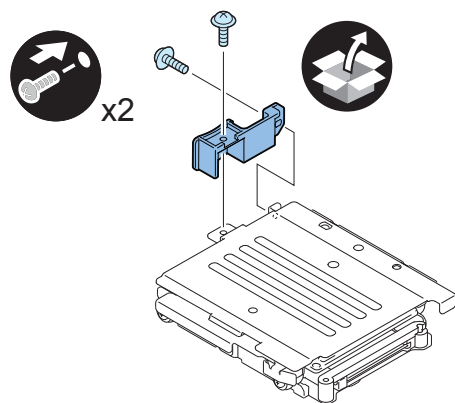
F-9-472

□  
5) Install the HDD Handle.

- 2 Screws (TP Round End; M3x6)

**CAUTION:**

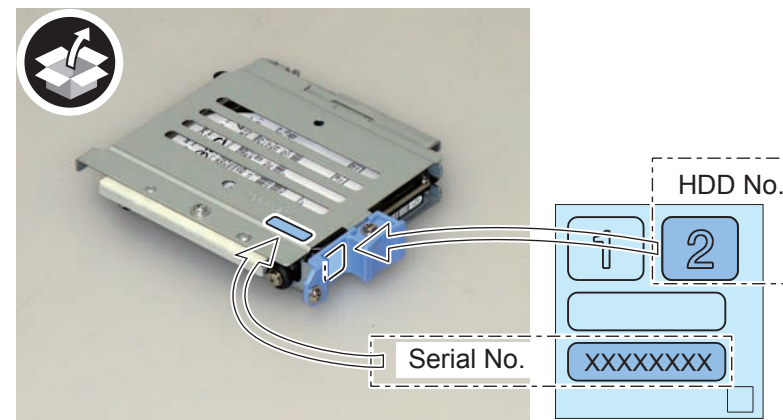
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-473

□  
6) Affix the HDD No.2 of the R-HDD Label to the handle of the Removable HDD.

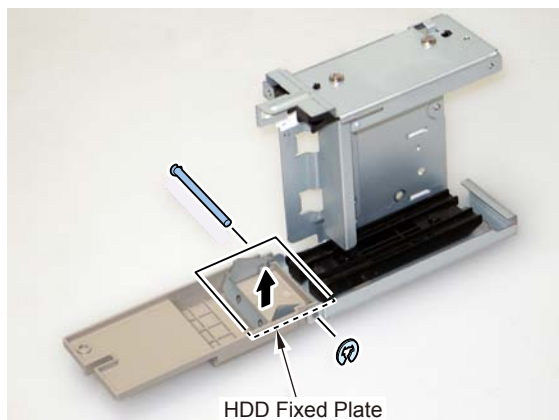
- 7) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



F-9-474

## Changing Configuration inside of HDD Case Unit

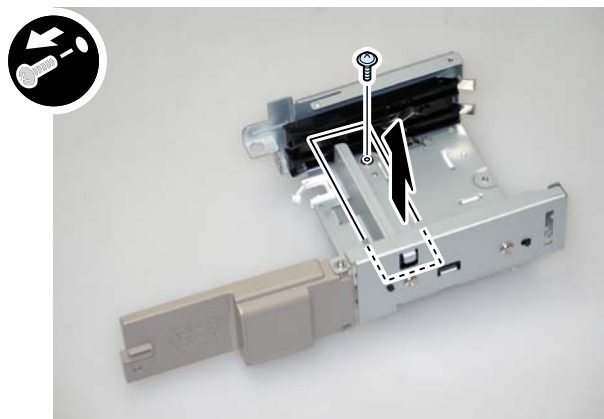
- 1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)



F-9-475

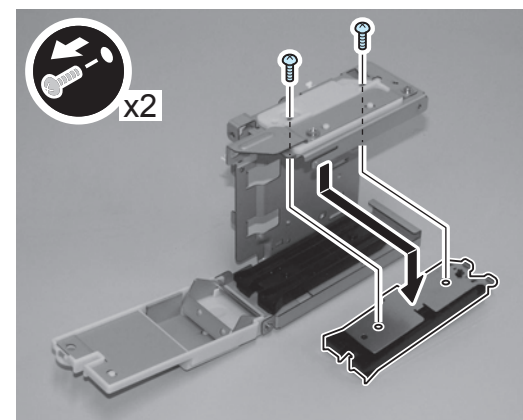
- 2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

- 3) Remove the Face Plate. (The removed Face Plate will not be used.)
- 1 Screw



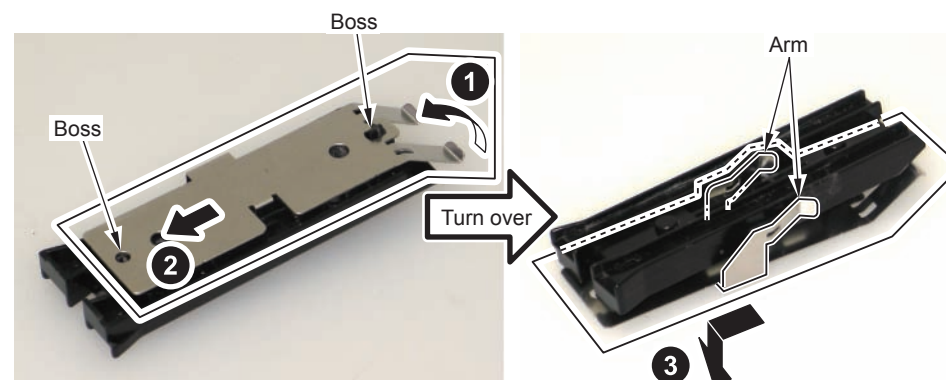
F-9-476

- 4) Remove the Upper Rail from the HDD Case Unit.
- 2 Screws (The removed screws will be used in step 7.)



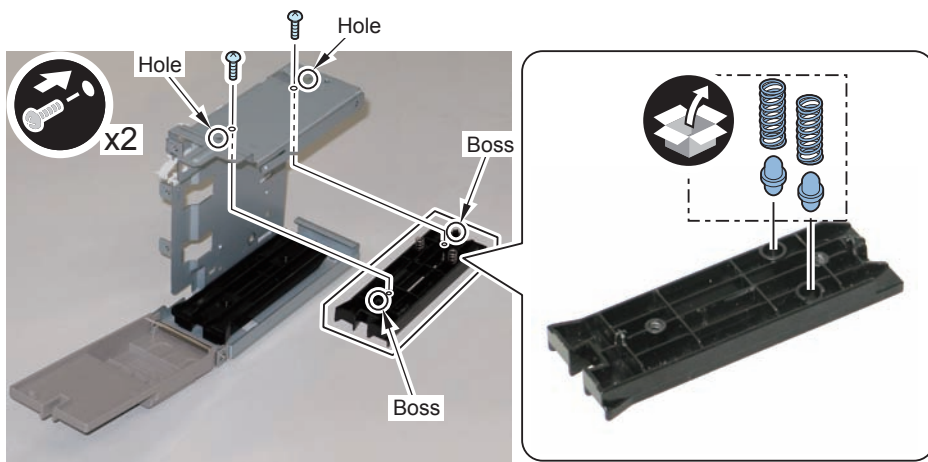
F-9-477

- 5) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)
- 2 Bosses
  - 2 Arms



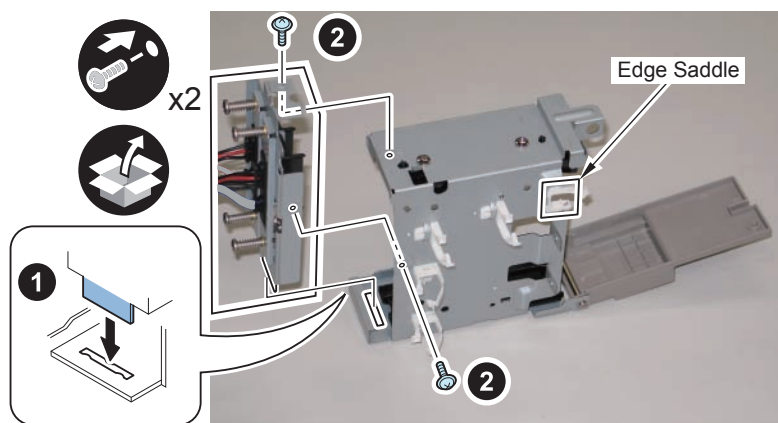
F-9-478

- 
- 6) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.
- 7) Return the rail to its original position.
- 2 Bosses
  - 2 Screws (Use the screws removed in step 4.)



F-9-479

- 
- 8) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.
- 2 Screws (TP Round End; M3x6)
- 9) Close the Edge Saddle.



F-9-480

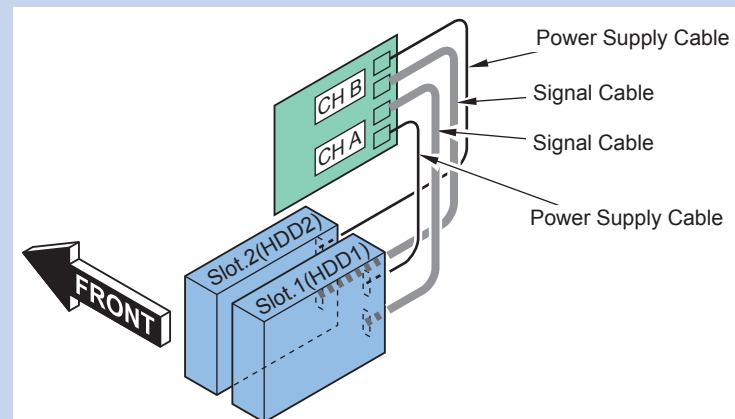
## ■ Installing the Mirroring Board or Encryption Board and HDD

### Case Unit

#### NOTE:

The following shows combination of the HDD and the Mirroring Board or Encryption Board.

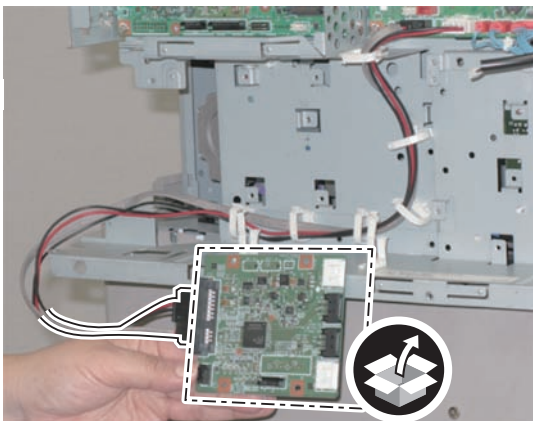
- Connect "CH A" to Slot.1 (The original HDD)
- Connect "CH B" to Slot.2 (The new HDD)



F-9-481

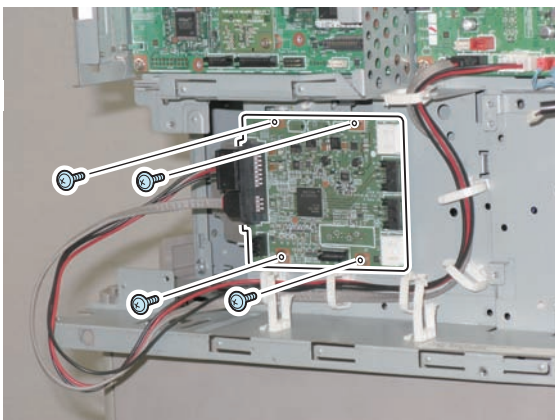


- 1) Connect the Signal Cable and the Power Cable of the host machine to the Mirroring Board or Encryption Board.



F-9-482

- 2) Install the Mirroring Board or Encryption Board.
- 4 Screws (TP; M3x6)



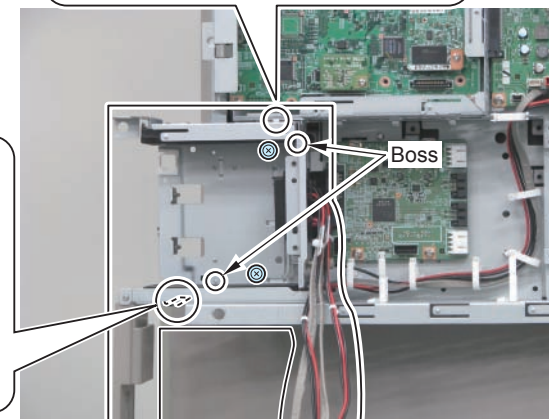
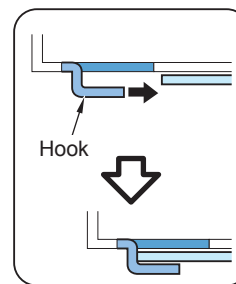
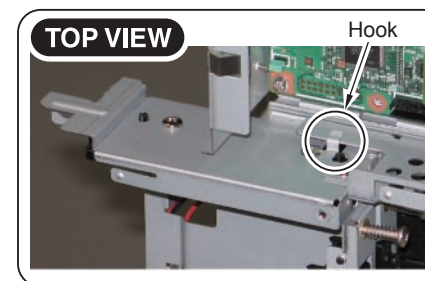
F-9-483

- 3) Install the HDD Case Unit.

- 2 Hooks
- 2 Bosses
- 2 Screws (Use the screws removed in "Removing the HDD and HDD Case Unit" step 11).)

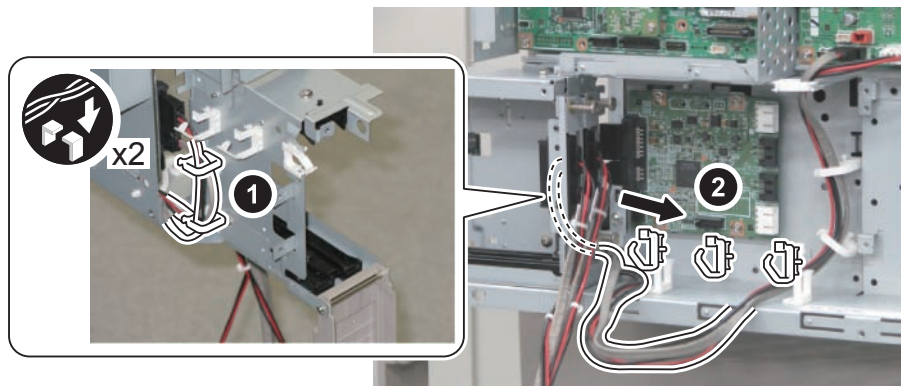
**NOTE:**

Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.



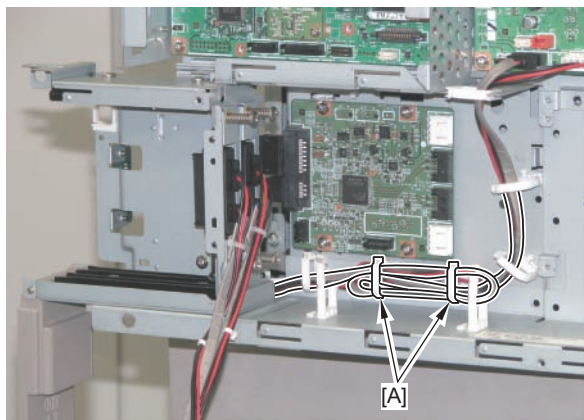
F-9-484

- 
- 4) Secure the Signal Cable and the Power Supply Cable in place using the 2 Wire Saddles at the back of the HDD Case Unit.
- 5) Free the cables from the 3 Wire Saddles at the front, and pull out the extra lengths of the cables to the front.



F-9-485

- 
- 6) Fold extra length of the Cable and secure it in place using the 2 Wire Saddles [A].

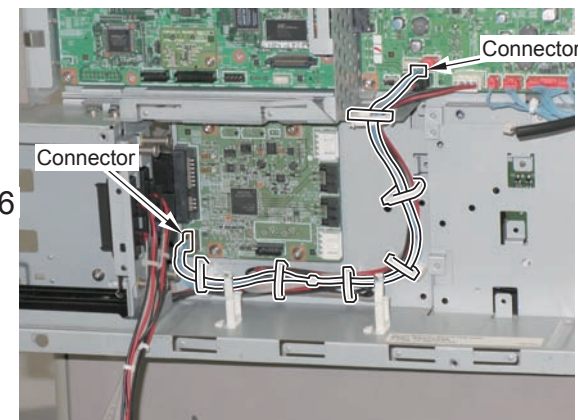


F-9-486

- 
- 7) Connect the STS Cable (340mm (Light Blue); FM3-9152) to the Main Controller PCB 2 and the Mirroring Board or Encryption Board.
- 2 Connectors
  - 1 Edge Saddle
  - 5 Wire Saddles

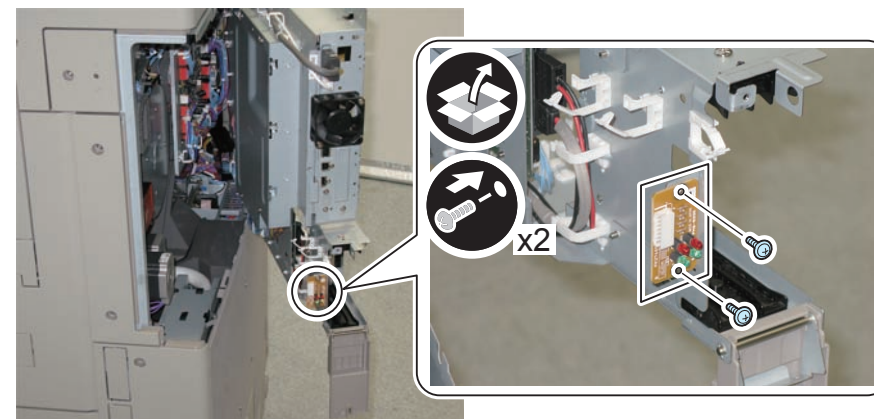
**CAUTION:**

Check that the STS Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-487

- 
- 8) Install the LED Board to the side surface of the HDD Case Unit.
- 2 Screws (TP; M3x6)



F-9-488

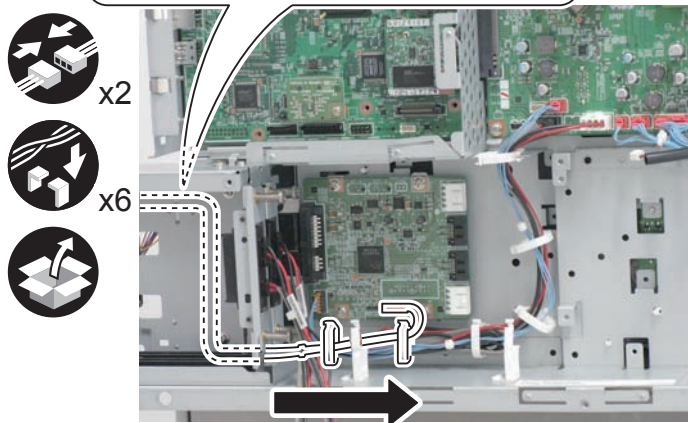
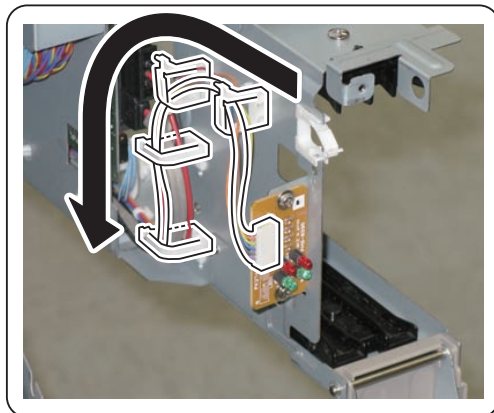
- 
- 9) Connect the LED Cable (310mm; FM3-9158) to the LED Board and the Mirroring Board or

## Encryption Board.

- 2 Connectors
- 6 Wire Saddles

## CAUTION:

- Secure the LED Cable in the direction of the arrow.
- Check that the LED Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.

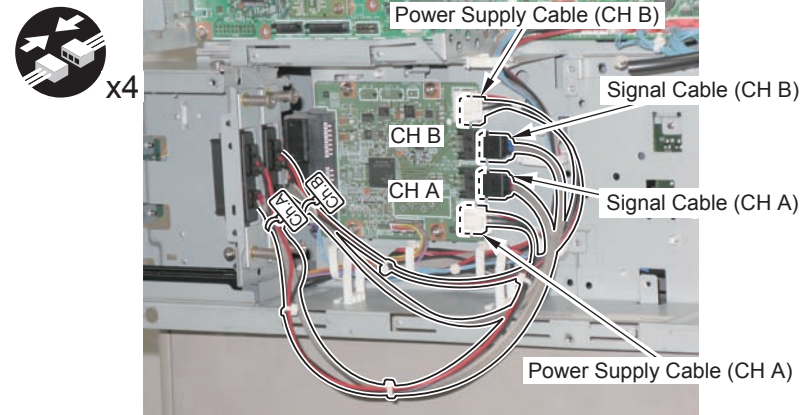


F-9-489



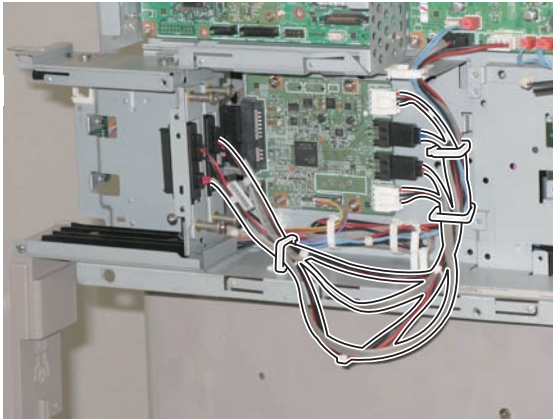
10) Connect the 4 Connectors of the Signal Cables and the Power Supply Cables to the Mirroring Board or Encryption Board.

- Power Supply Cable (CH B; FK2-7837)
- Signal Cable (CH B; FK2-7837)
- Signal Cable (CH A; FK2-7832)
- Power Supply Cable (CH A; FK2-7832)



F-9-490

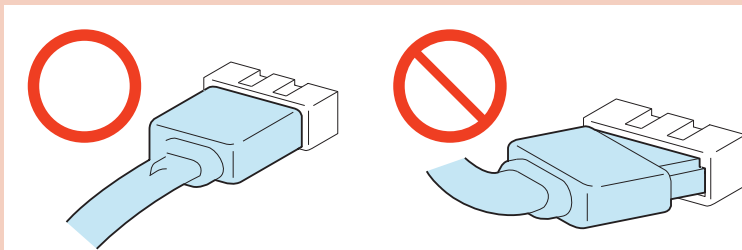
- 11) Secure the Signal Cable and the Power Supply Cable in place using the 3 Wire Saddles.



F-9-491

## CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.

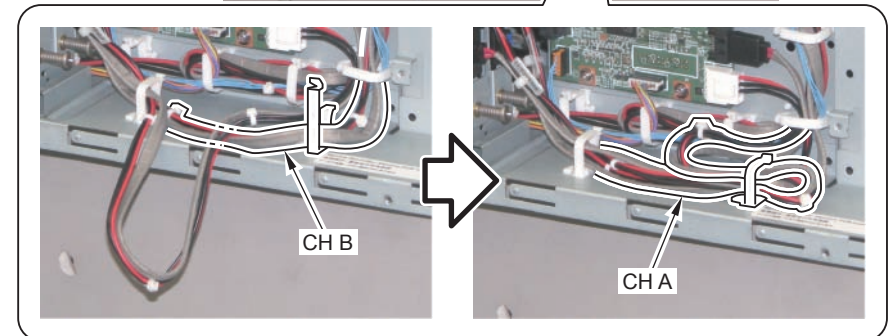
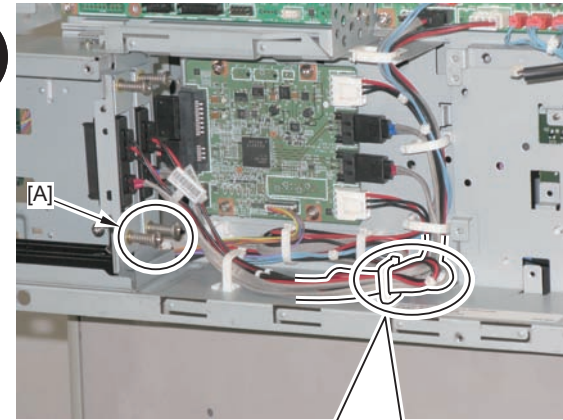


F-9-492

- 12) Put the CH B cable through the Wire Saddle.  
□ 13) Fold the extra length of the CH A cable, and secure it with the Wire Saddle.

## CAUTION:

- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.

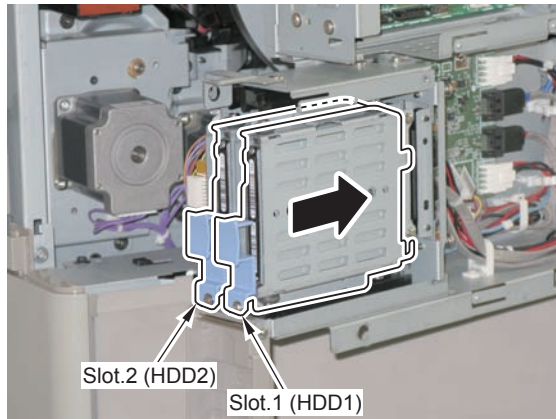


F-9-493

- 14) Insert the assembled Removable HDD.

**CAUTION:**

Be sure to insert the HDD No.1 to the Slot.1, and the HDD No.2 to the Slot.2.

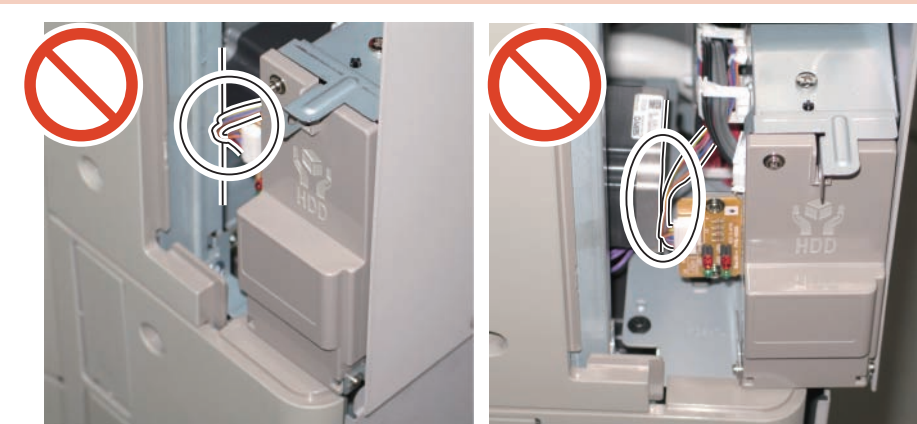


F-9-494

- 15) Close the Controller Box.

**CAUTION:**

When closing the Controller Box, check that the LED Cable is not trapped or does not contact with it.

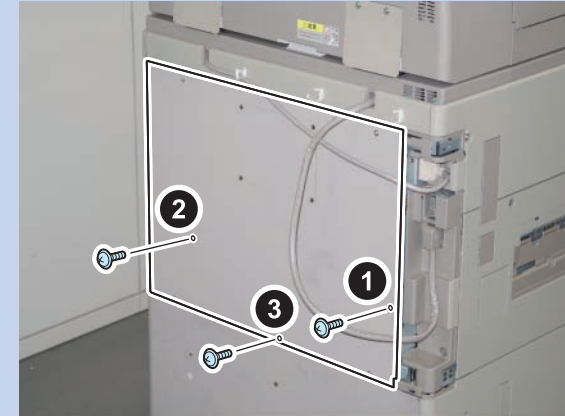


F-9-495

- 16) Install the Rear Upper Cover.

**NOTE:**

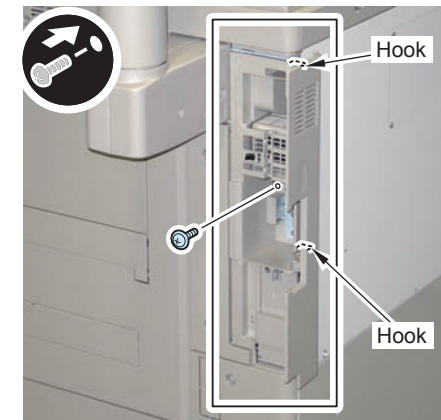
Be sure to install the 3 TP screws show in the figure below.



F-9-496

- 17) Install the Side Cover.

- 2 hooks
- 1 Screw

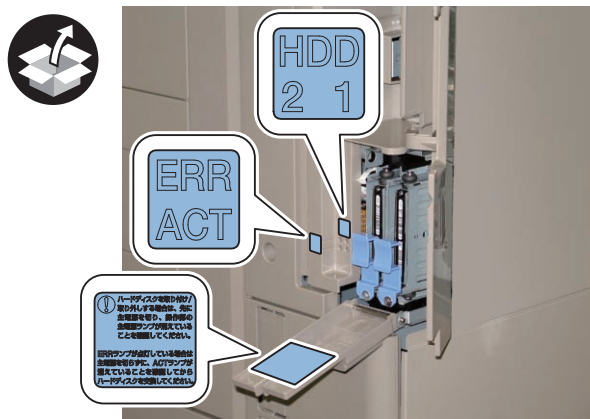


F-9-497



18) Affix the LED Label.

19) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-498



20) Close the HDD Cap, and install the key prepared by the user for locking.

**NOTE:**

Be sure to use the locking key which size is the one indicated below or smaller.

- Size (width x depth x height) : 67mmx14mmx64mm



F-9-499



21) Close the Right Rear Cover 1.

22) Return the Left Rear Cover to its original position, and secure the Reader Communication Cable and the Reader Power Supply Cable in place using the Wire Saddles.

23) Connect the power plug to the outlet.

24) Turn ON the main power switch. (Only when installing HDD Mirroring Kit)

## After Installing HDD Data Encryption & Mirroring Kit

### ■ Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product. It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product. Details follow.

#### 1. Requirements

- 1) PC  
Service support tool in the version that supports this host machine must be installed.
- 2) Cross Ethernet Cable

#### 2. Preparing for the Installation of the System Software of Host machine

- 1) If both PC and the machine are on, turn them off.
- 2) Connect the PC and the machine using an Ethernet cable.
- 3) Turn on the PC.
- 4) Start up the machine in download mode (safe mode).

#### 3. Selecting the System Software

- 1) Set the CD containing the latest system software in the PC on which the SST is used.
- 2) Start up the SST.
- 3) Click 'Register Firmware'.
- 4) Select the drive in which the System Software CD has been set, and click 'SEARCH'.
- 5) Click 'REGISTER'.
- 6) Click OK.

#### 4. Downloading the System Software

- 1) Click 'CONNECT'.
- 2) From the list of machine series, select the appropriate model.
- 3) Select 'Single', and click start.
- 4) Execute HDD format.
- 5) After 5 sec from when the power of the host machine is turned OFF, restart the host machine in download mode of safe mode.
- 6) When "download mode" is displayed on the control panel, click simple mode start.
- 7) Click start to execute download.
- 8) Follow the instruction on the screen and when download is complete, click OK.
- 9) Exit SST.

- 10) Check the versions of MN-CONT and LANG etc in service mode (COPIER > Display > VERSION).

### ■ Checking the Security Version

- 1) Press the Counter key (123 key) on the control panel.
- 2) Press the [Check Device Configuration] key appearing on the control panel.
- 3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.  
When several Encryption Boards are installed, multiple version information is displayed.

#### CAUTION:

The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

### ■ Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the host machine to make sure that an appropriate level of security is being maintained. The mark appears when the machine is equipped with an Encryption Board and the board is operating correctly. The Users Guide provides the following description in connection with the security mark:

< Confirming the Security Mark >

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark (🔒) is displayed on the lower left corner of a panel screen.

## Setting for Mirroring

- 1) Specify the setting for mirroring.
  - Service Mode > COPIER > OPTION > FNC-SW > W/RAID; select "1" for W/RAID.
- 2) Turn OFF/ON the main power switch to enable the setting value.
- 3) Check that the UI screen is started normally.
- 4) Open the HDD Cover, and check that the LED is flashing.
  - The green LED of HDD1 (Slot1) is flashing.
  - The green and red LEDs of HDD2 (Slot2) are flashing.

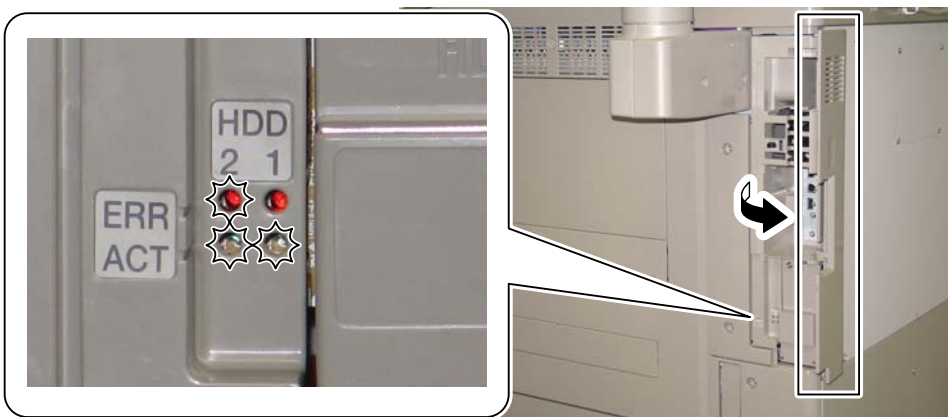
### CAUTION:

Re-building process starts after setting W/RAID to "1".

When the error indicating the message of "Need to replace Hard Disk (Contact with Service Technician)" on the UI occurs, re-execute the re-building process as follows;

- 1) Check the lighted Red LED is for the HDD2.
- 2) Set Service mode > COPIER > OPTION > FNC-SW > W/RAID to "0".
- 3) Turn OFF/ON the main power switch of the host machine to enable the setting value.
- 4) Set Service mode > COPIER > OPTION > FNC-SW > W/RAID to "1".
- 5) Turn OFF/ON the main power switch of the host machine to enable the setting value.

The abovementioned procedure is limited only for the re-building process at the initial installation. The error occurred at re-building process during operation is not targeted.



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## After Installing HDD Data Encryption & Mirroring Kit

### Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:

At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <Servicing work when a failure occurs>.

#### Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for 'Canon MFP Security Chip' as the version information of the security chip by referring to the description of Checking the Security Version.

#### Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

### Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.





## [TYPE-9] 2 Option HDDs (250GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

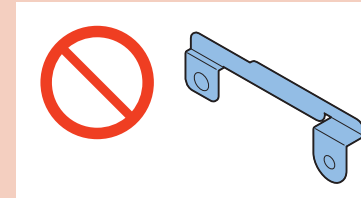
### Points to Note when HDD Data Encryption & Mirroring Kit has been Installed

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn. If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

### Checking the Contents

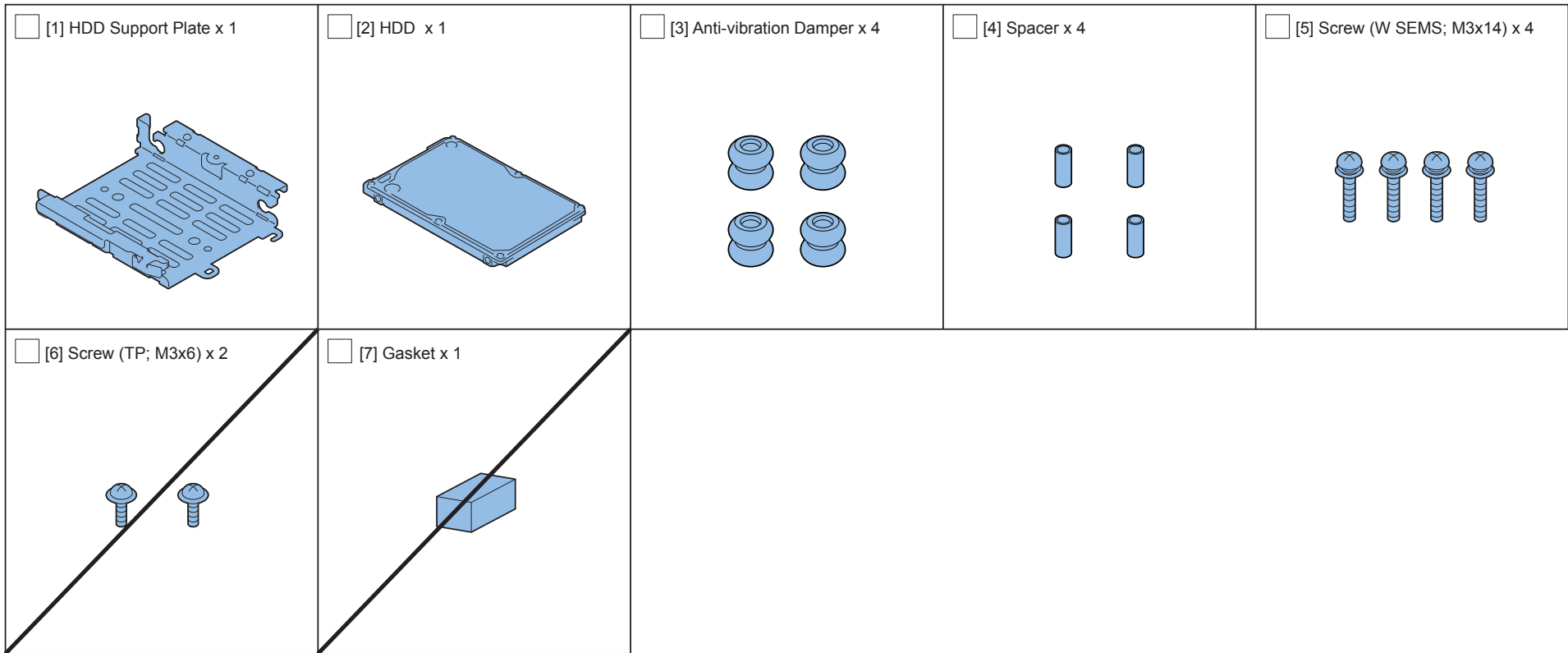
**CAUTION:**

If a Grounding Plate is included in the package of the Option HDD, do not use the HDD Grounding Plate. It may cause reduction in the transfer speed of the HDD.



F-9-501

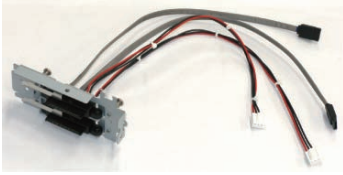
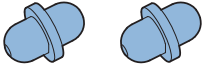
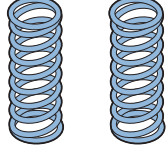
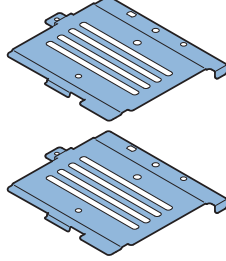
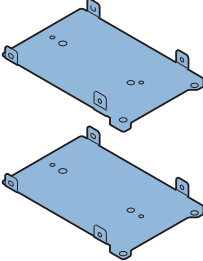
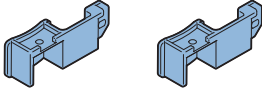
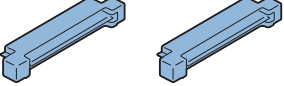
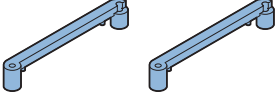
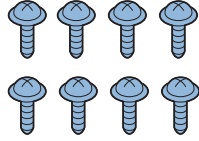
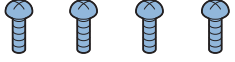
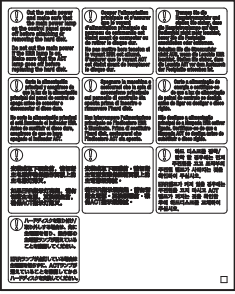
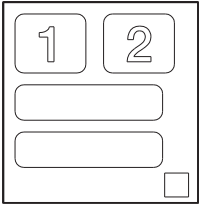
Option HDD (250GB)



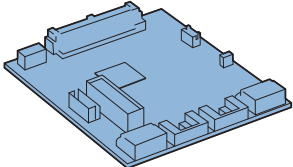
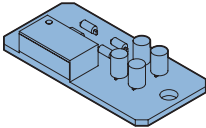
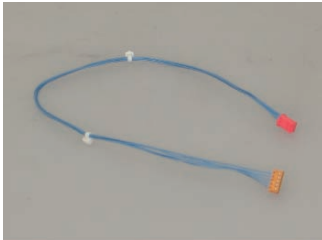
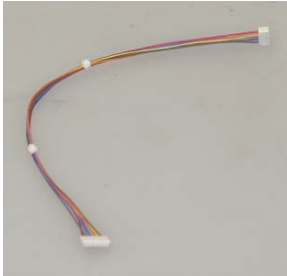
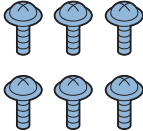
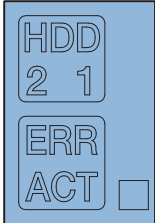
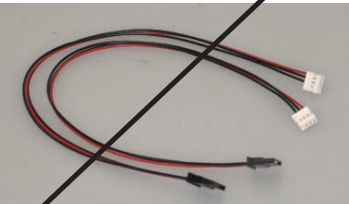


- < CD/Guides >
- FCC/IC Sheet

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Removable HDD Kit

<input type="checkbox"/> [1] HDD Drawer Unit X 1 	<input type="checkbox"/> [2] HDD Lock Pin X 2 	<input type="checkbox"/> [3] HDD Lock Pin X 2 	<input type="checkbox"/> [4] HDD Cover X 2 	<input type="checkbox"/> [5] HDD Connector Plate X 2 
<input type="checkbox"/> [6] HDD Connector Plate X 2 	<input type="checkbox"/> [7] Conversion Connector X 2 	<input type="checkbox"/> [8] Connector Fixation Block X 2 	<input type="checkbox"/> [9] Screw (TP Round End; M3x6) X 8 	<input type="checkbox"/> [10] Screw (P Tightening; M3x8) X 4 
<input type="checkbox"/> [11] HDD Caution Label X 1 	<input type="checkbox"/> [12] R-HDD Label X 1 			

## HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

<input type="checkbox"/> [1] Mirroring Board or Encryption Board X 1 	<input type="checkbox"/> [2] LED Board X 1 	<input type="checkbox"/> [3] STS Cable (340mm(Light Blue); FM3-9152) X 1 	<input type="checkbox"/> [4] LED Cable (310mm; FM3-9158) X 1 	<input type="checkbox"/> [5] Screw (TP; M3x6) X 6 
<input type="checkbox"/> [6] LED Label X 1 	<input type="checkbox"/> [7] Power Supply Cable (570mm; FK2-7831) X 2 	<input type="checkbox"/> [8] Signal Cable (550mm; FK2-7826) X 1 	<input type="checkbox"/> [9] Signal Cable (550mm; FK2-7827) X 1 	

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< CD/Guides of HDD Mirroring Kit >

- HDD Mirroring Kit User Documentation
- FCC/IC Sheet

< CD/Guides of HDD Data Encryption & Mirroring Kit >

- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

## Points to Note when HDD Data Encryption & Mirroring Kit has been Installed

### Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.

Backup or export work must not be performed by the service person because of security considerations.

In this Installation Procedure, a series of backup or export procedures are described for reference.

#### List of Data to be Deleted

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Send Function Favorite Settings	Yes
Data stored in Mail Boxes or the Advanced Box	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box	Yes

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\*1; Can only be backed up using the Remote UI.

\*2; Depending on the MEAP application.

\*3; Only the following data saved in Mail Box/Advanced Box are backed up.

- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image
- Advanced Box URI Transmission Settings

\*4; You may not be able to back up, depending on the type of the password.

\*5; Only the stored Favorite Settings can be backed up.

## List of Data to be Backed Up

Data to be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings (Forwarding Settings, Address List, Favorite Settings)	
Printer Settings	
Paper Information	
Favorite Settings for Web browser	See the "e-Manual > Web Access". (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box	See the "e-Manual > Remote UI" to "Setting the Backup Location for Stored Data".
Image forms stored in the Superimpose Image	
SSO-H (Single Sign-On H) user authentication information	See the "e-Manual > MEAP".
Quick Menu Information	See the "e-Manual > Quick Menu".
User Information of the Advanced Box	See the "e-Manual > Security".

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## CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the "e-Manual > MEAP".

## ■ Making a Backup of the Data (Reference only)

The data items that have been backed up may be restored when this product has been installed. These data items are property of the user, and the restoration work must be performed by the system administrator.

The method of restoration is described in the Users Guide. See Table (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

## 1. Procedure to make a backup of Address Book

1) Access the URL given below, and then access Remote UI.

[http://\[IP address of the device\]/](http://[IP address of the device]/)

If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].

2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].

3) Click [Address List].

4) Click [Export].

5) Select the save format for Address list, and click [Start Export].

6) Following the instructions on the window, specify the location to save the file. Be sure to set a distinctive name to an export file so that you can recognize it when importing it.

## NOTE:

Exporting the device settings will export all contents of the address list. In other words, there is no need for a backup unless it needs to be done individually.

## 2. Device Settings Export Procedure

1) Access the URL given below, and then access Remote UI.

[http://\[IP address of the device\]/](http://[IP address of the device]/)

If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].

2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].

3) Click [Device Settings (Forwarding Settings, Address List, Favorite Settings)].

4) Click [Export], and then click [Start Export].

5) Following the instructions on the window, specify the location to save the file.

### 3. Settings/Registration Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Settings/Registration].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 4. Printer Settings Export Procedure

**NOTE:**

The following items to be exported are the same as the ones which are distributed by device information distribution.

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Printer Settings].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 5. Paper Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Paper Information].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 6. Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

**CAUTION: MEAP Backup Function Using the SST**

Data that has been backed up using MEAP back of the SST before the use of this product is started must not be written back to the host machine after the use of this product is started. Similarly, even if the data that has been backed up after the use of this product is started is written back to the host machine before the use of this product is started, the machine does not operate. It is necessary to make sure that the implementation conditions for this product are compatible before and after making a backup of data, and the MEAP backup function does not permit making a backup of data in the course of installing the kit.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide.

### 7. Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

- 1) Select the URL given below and access SMS.  
http://[IP address of the device]:8000/sms/  
The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

**CAUTION:**

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

- 2) Click [MEAP Application Management].
- 3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
- 4) Click the application of which license has been installed.
- 5) Click [License Control], and then click [Disable]. Click [Yes] in a confirmation window for disabling the license.



- 6) Click [Download] under "Download/delete Disabled License File" item. Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
- 7) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
- 8) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

#### 8. User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

- 1) Access the URL given below.

http://[IP address of the device]:8000/sso/

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

##### CAUTION:

The default password is MeapSmsLogin. If the user has changed the password, ask him/her to change the password again after the use of this product is started.

- 2) Login with the user name and password registered as an administrator in SSO-H.  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [User Control].
- 4) Put a checkmark to Select All, and then click [Export].
- 5) Leave the file format and character code as defaults and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file and click [Save].

#### 9. Backup of User inbox and Advanced Box document data

##### CAUTION: Backup of "Advanced Box"

When setting a SMB server as a backup destination, Advanced Box data saved in a large capacity HDD cannot be backed up. The Advanced Box data backed up from the large capacity HDD cannot be restored to the standard HDD. Depending on the system version of the machine, both backup and restoration might not be performed.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

- Backup to SMB server  
Select SMB as a backup destination and specify an address, a user name, a password, and a path to the SMB server to which saved data is backed up.
- Backup to USB HDD  
Select USB HDD as a backup destination and specify a path to the USB HDD folder to which saved data is backed up.

##### CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

##### CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

##### CAUTION:

- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

#### [Backup method of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
- 2) Select 'All' or 'Changes' for the backup method.
- 3) Click [Execute].

#### CAUTION:

- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- If you select to encrypt the backup data, the backup process may take longer.

#### [Restoring the backup data of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
- 2) Click [Display Backup Data].
- 3) Select the backup data to restore from the list and then click [Execute].

#### CAUTION:

- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

#### 10. Quick Menu Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [Quick Menu] > [Export].
- 3) If the file needs to be encrypted, enter the password after check [Encrypt file]. (The number of characters for the password must be more than 4 but less than 16.)
- 4) Click [Export].
- 5) Following the instructions on the window, specify the location to save the file.

#### 11. User Information of the Advanced Box Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [User Access Control for Advanced Box]. The dialog box to enter the user name of administrator and password appears, enter the system administrator ID and password, and then click [Log In].  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [Export], and click [Start Export].
- 4) Following the instructions on the window, specify the location to save the file.

## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

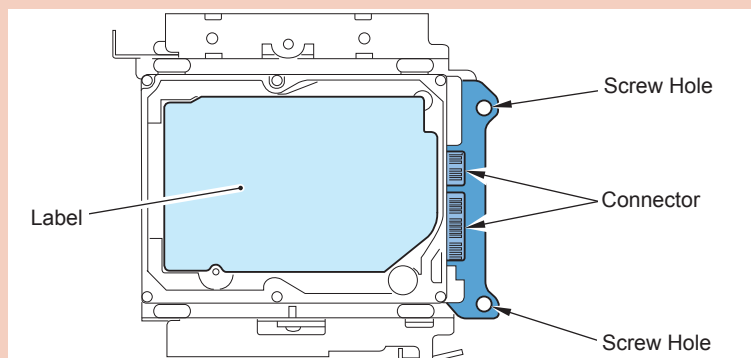
- 1) Turn OFF the main power switch.
- 2) Check that the Control Panel Display and the Main Power Lamp are turned OFF, and then disconnect the power plug.

## Installation Procedure

### Assembling the Option HDD

CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



F-9-505

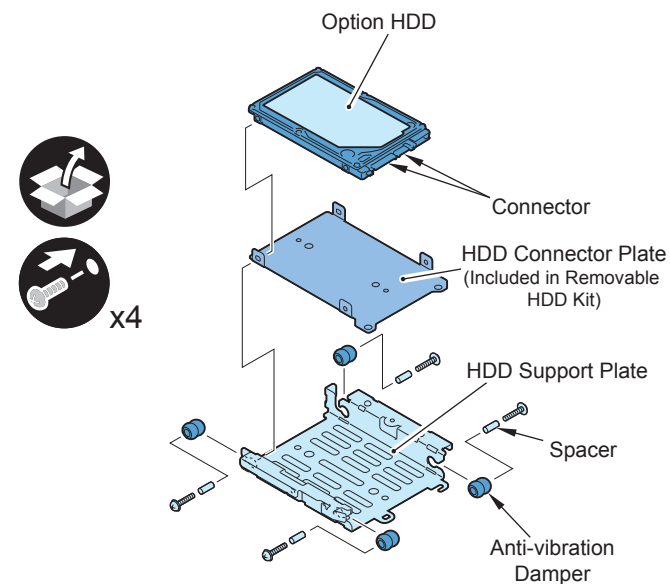
NOTE:

Use the parts included in the package of the Option HDD and the Removable HDD Kit.



1) Assemble the Option HDD (250GB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 HDD Connector Plate (Included in the Removable HDD Kit)
- 1 Option HDD
- 4 Screws (W Sems; M3x14)

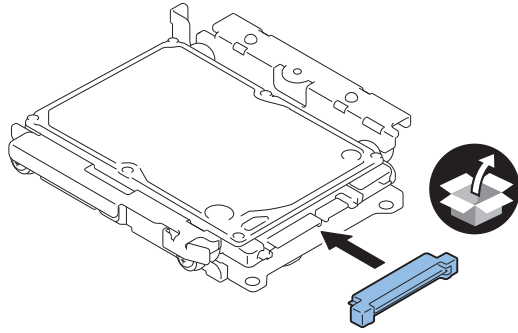


F-9-506

- 2) Install the Conversion Connector.

**CAUTION:**

Be sure that there is no gap between the HDD Connector and the Conversion Connector.

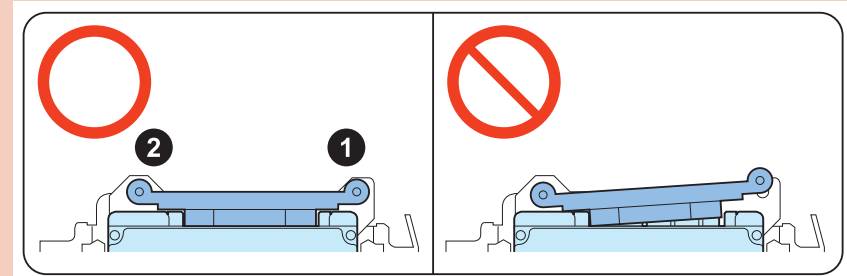


F-9-507

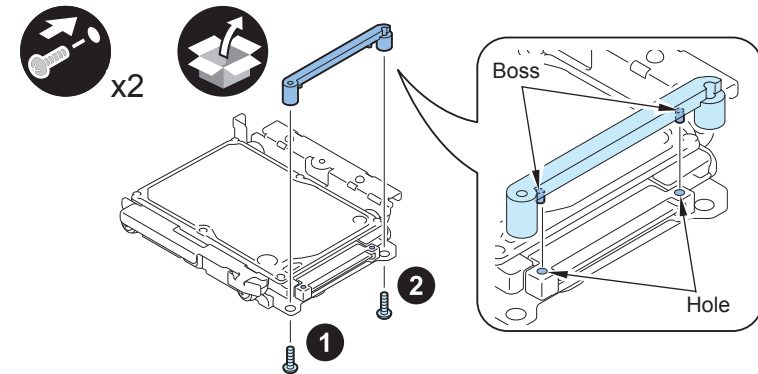
- 3) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.
- 2 Screws (P Tightening; M3x8)

**CAUTION:**

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-508



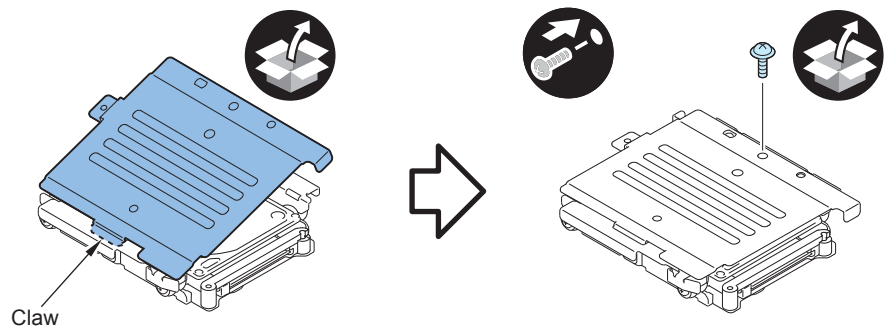
F-9-509

□  
4) Install the HDD Cover.

- 1 Claw
- 1 Screw (TP Round End; M3x6)

**CAUTION:**

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



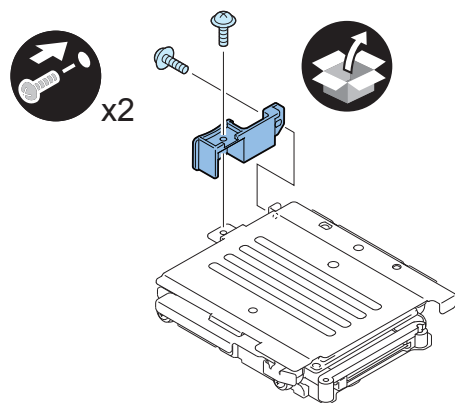
F-9-510

□  
5) Install the HDD Handle.

- 2 Screws (TP Round End; M3x6)

**CAUTION:**

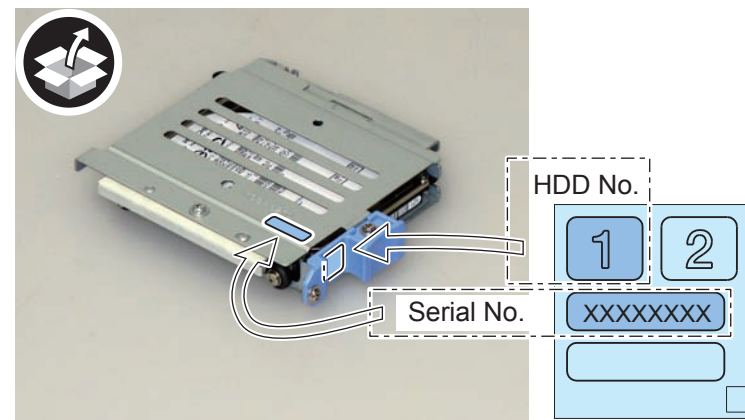
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-511

□  
6) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.

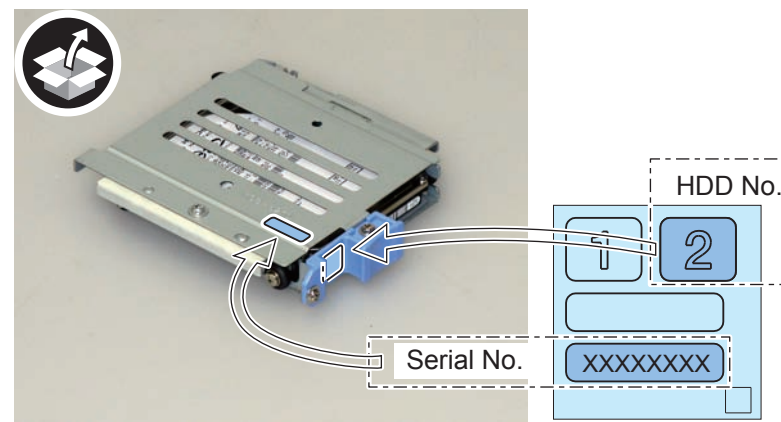
7) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



F-9-512

□  
8) Assemble the other Option HDD (250GB) in the same way according to steps 1) to 5).

□  
9) Affix the HDD No.2 of the R-HDD Label to the handle of the Removable HDD.  
10) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.

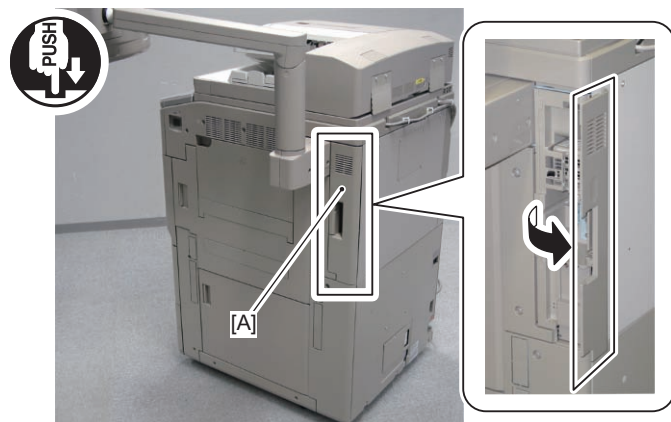


F-9-513

## Removing the HDD and HDD Case Unit



1) Push [A] part, and open the Right Rear Cover 1.

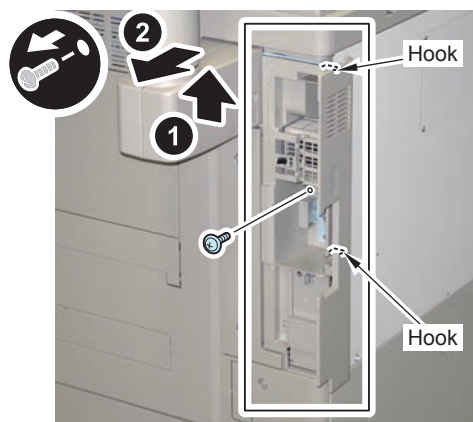


F-9-514



2) Remove the Side Cover.

- 1 Screw
- 2 hooks



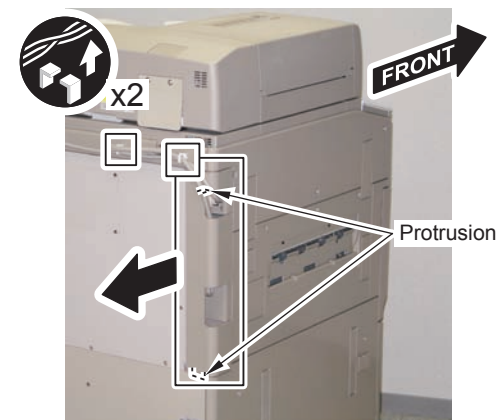
F-9-515



3) Free the Reader Communication Cable and the Reader Power Supply Cable from the 2 Wire Saddles.

4) Remove the Left Rear Cover.

- 2 Protrusions

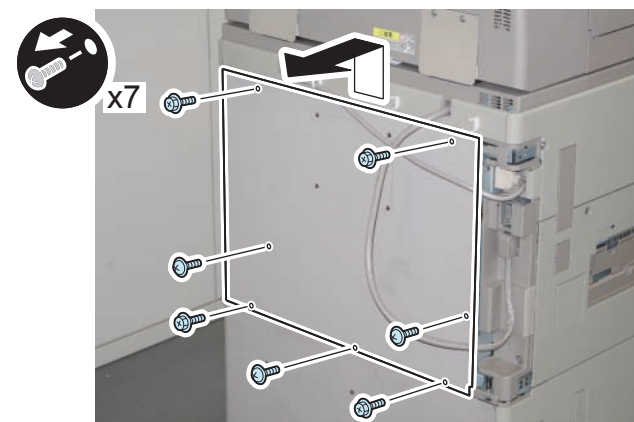


F-9-516



5) Remove the Rear Upper Cover.

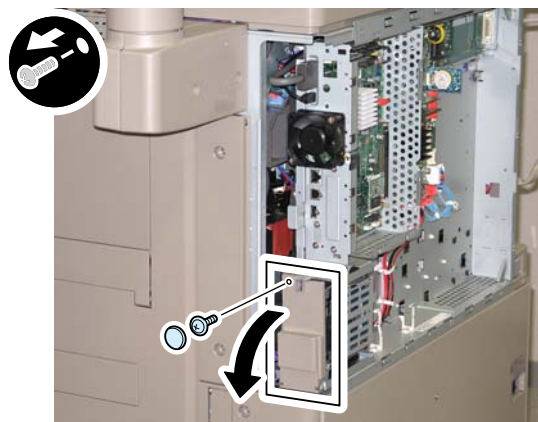
- 4 Screws (RS Tightening)
- 3 Screws (TP)



F-9-517

6) Open the HDD Cap.

- 1 Rubber cap
- 1 Screw (The removed screw will not be used.)

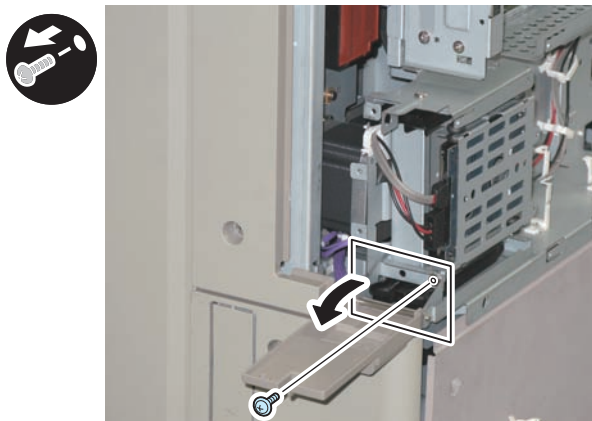


F-9-518

7) Return the rubber cap to the HDD cap.

8) Turn the HDD Fixed Plate toward the front.

- 1 Screw (The removed screw will not be used.)



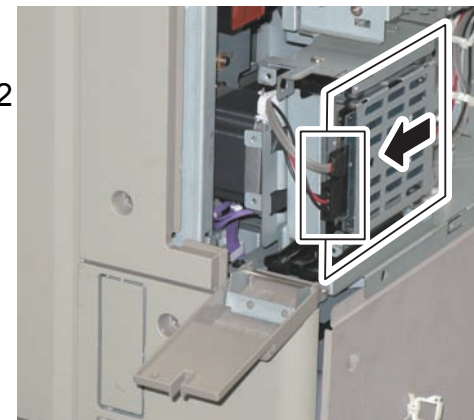
F-9-519

9) Remove the HDD. (The removed HDD will not be used.)

- 2 Connectors

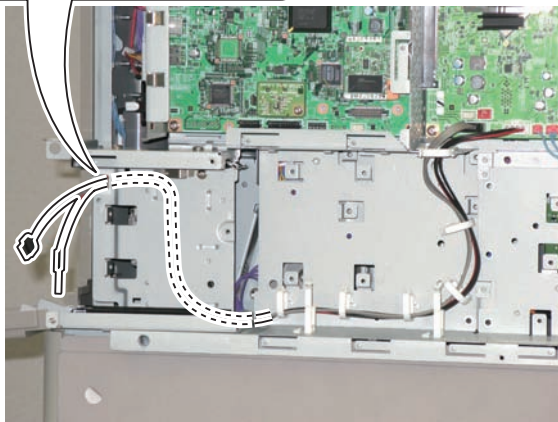
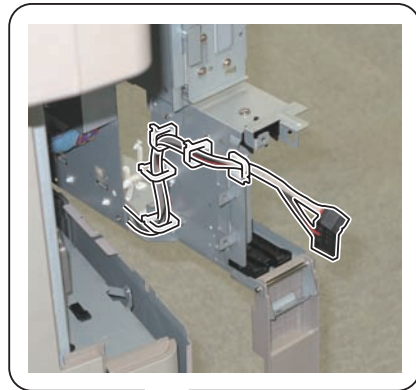


x2



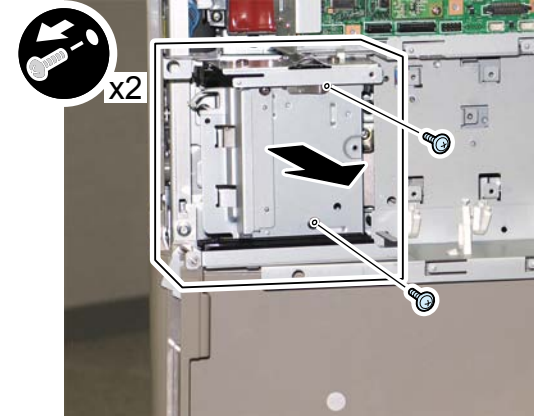
F-9-520

- 10) Open the Controller Box, and free the Signal Cable and the Power Supply Cable of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.



F-9-521

- 11) Remove the HDD Case Unit.
- 2 Screws (The removed screws will be used in "Installing the Mirroring Board or Encryption Board and HDD Case Unit" step 3.)

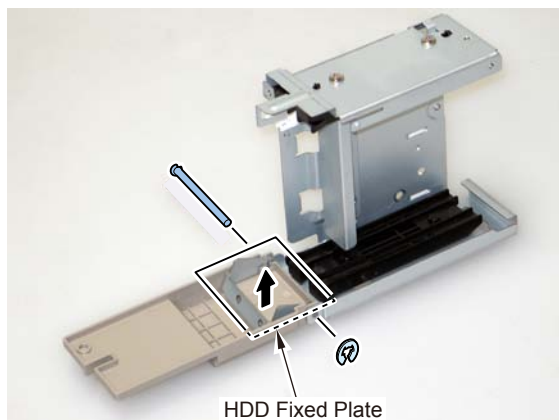


F-9-522



## Changing Configuration inside of HDD Case Unit

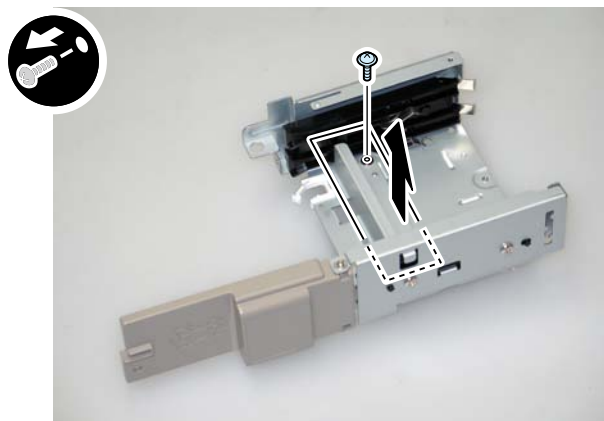
- 1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)



F-9-523

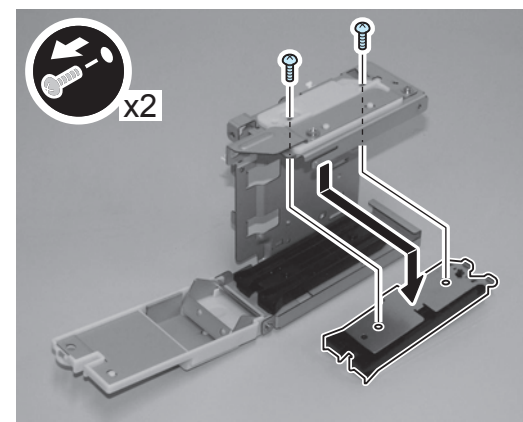
- 2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

- 3) Remove the Face Plate. (The removed Face Plate will not be used.)  
• 1 Screw



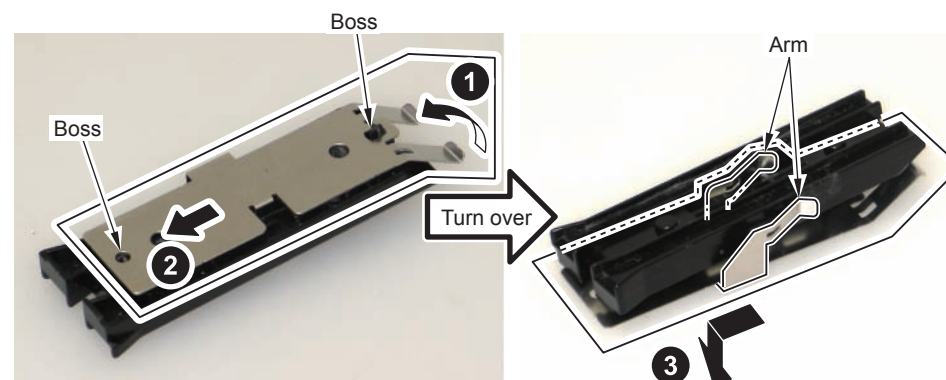
F-9-524

- 4) Remove the Upper Rail from the HDD Case Unit.  
• 2 Screws (The removed screws will be used in step 7.)



F-9-525

- 5) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)  
• 2 Bosses  
• 2 Arms



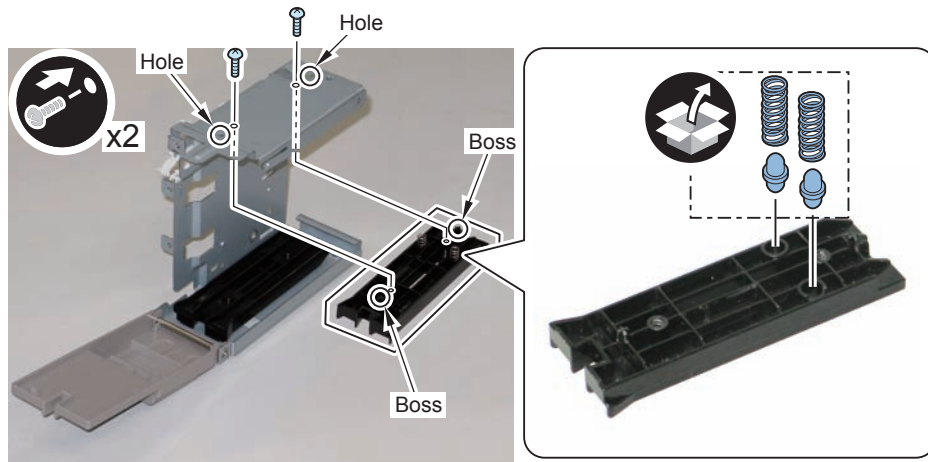
F-9-526



6) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.

7) Return the rail to its original position.

- 2 Bosses
- 2 Screws (Use the screws removed in step 4).)



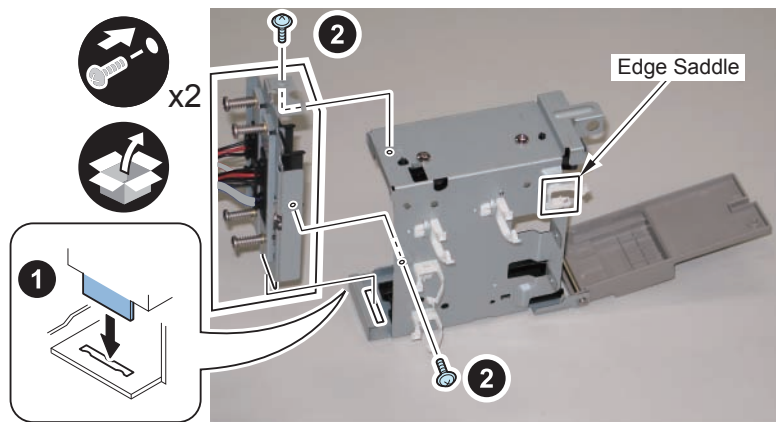
F-9-527



8) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.

- 2 Screws (TP Round End; M3x6)

9) Close the Edge Saddle.



F-9-528

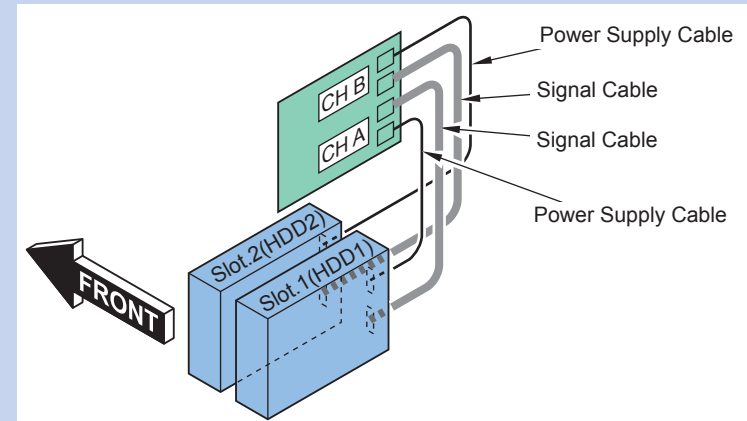
## ■ Installing the Mirroring Board or Encryption Board and HDD

### Case Unit

#### NOTE:

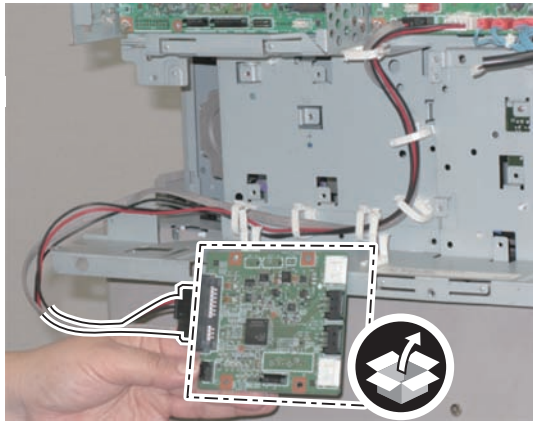
The following shows combination of the HDD and the Mirroring Board or Encryption Board.

- Connect "CH A" to Slot.1 (The new HDD)
- Connect "CH B" to Slot.2 (The new HDD)



F-9-529

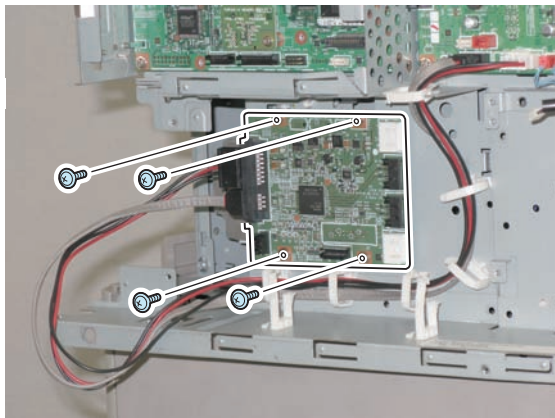
- 1) Connect the Signal Cable and the Power Cable of the host machine to the Mirroring Board or Encryption Board.



F-9-530

- 2) Install the Mirroring Board or Encryption Board.

- 4 Screws (TP; M3x6)



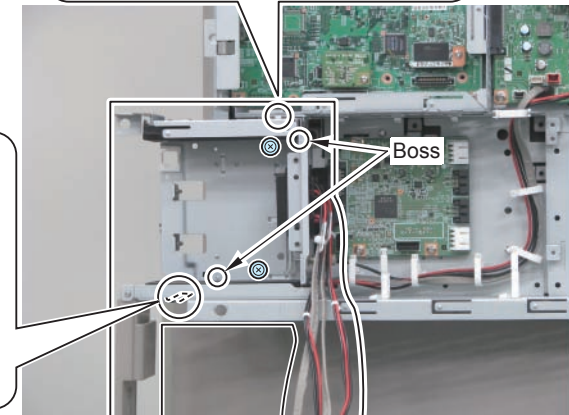
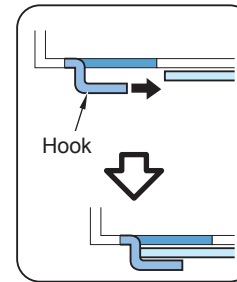
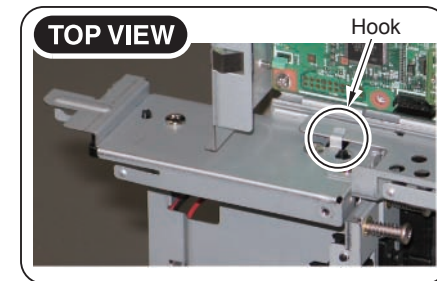
F-9-531

- 3) Install the HDD Case Unit.

- 2 Hooks
- 2 Bosses
- 2 Screws (Use the screws removed in "Removing the HDD and HDD Case Unit" step 11).)

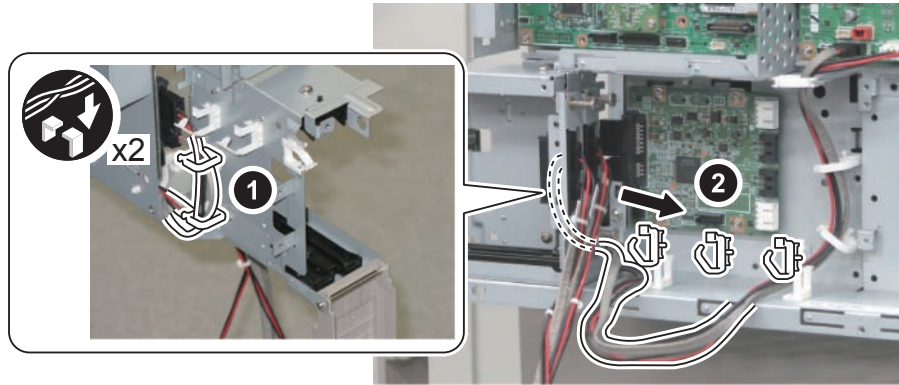
## NOTE:

Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.



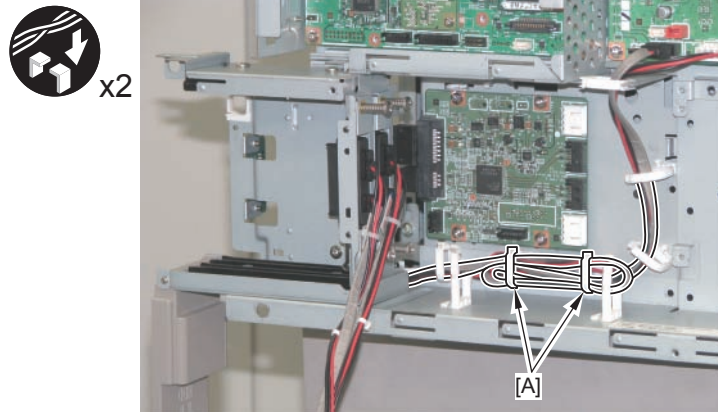
F-9-532

- 
- 4) Secure the Signal Cable and the Power Supply Cable in place using the 2 Wire Saddles at the back of the HDD Case Unit.
- 5) Free the cables from the 3 Wire Saddles at the front, and pull out the extra lengths of the cables to the front.



F-9-533

- 
- 6) Fold extra length of the Cable and secure it in place using the 2 Wire Saddles [A].

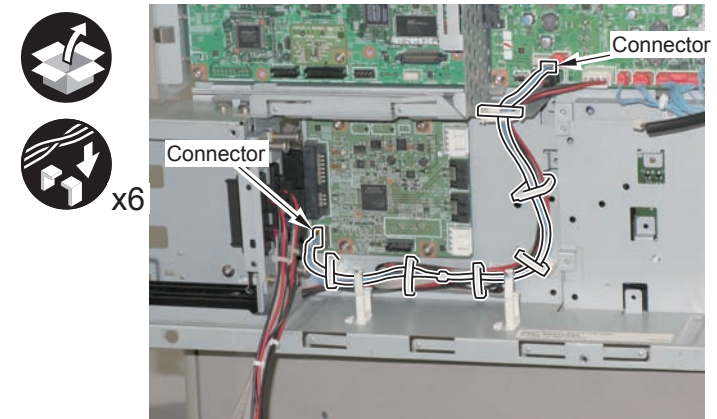


F-9-534

- 
- 7) Connect the STS Cable (340mm (Light Blue); FM3-9152) to the Main Controller PCB 2 and the Mirroring Board or Encryption Board.
- 2 Connectors
  - 1 Edge Saddle
  - 5 Wire Saddles

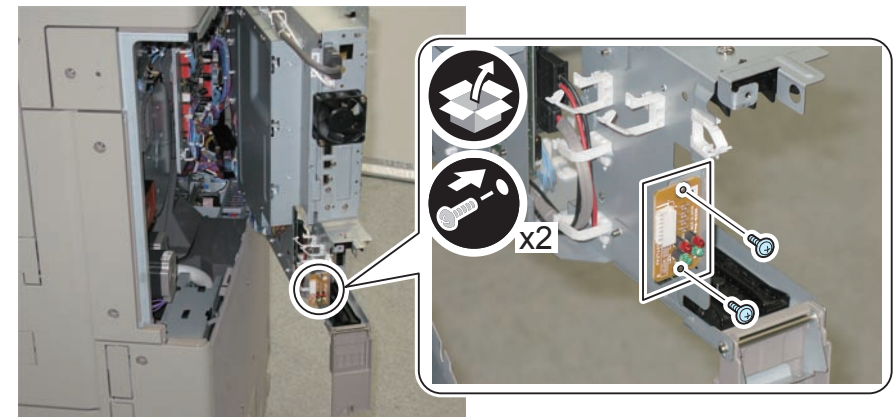
**CAUTION:**

Check that the STS Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-535

- 
- 8) Install the LED Board to the side surface of the HDD Case Unit.
- 2 Screws (TP; M3x6)



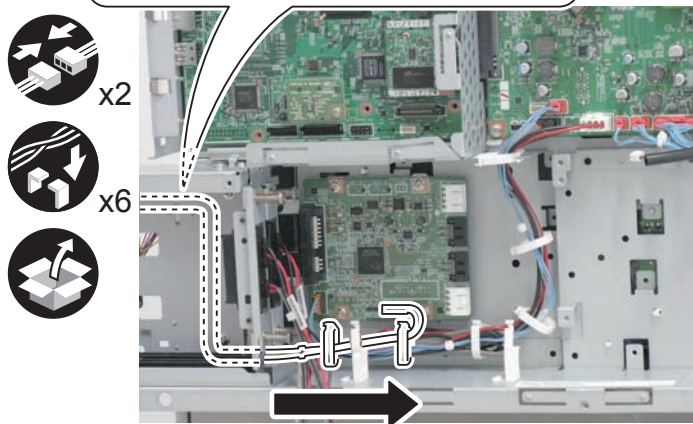
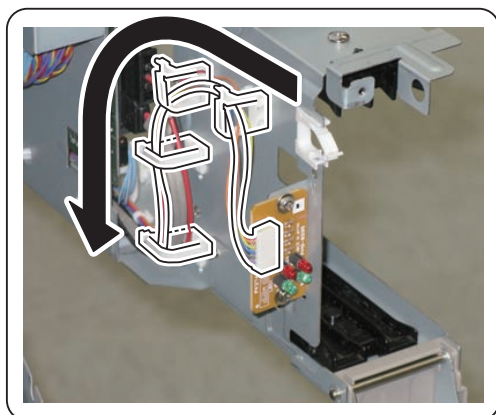
F-9-536

□  
9) Connect the LED Cable (310mm; FM3-9158) to the LED Board and the Mirroring Board or Encryption Board.

- 2 Connectors
- 6 Wire Saddles

**CAUTION:**

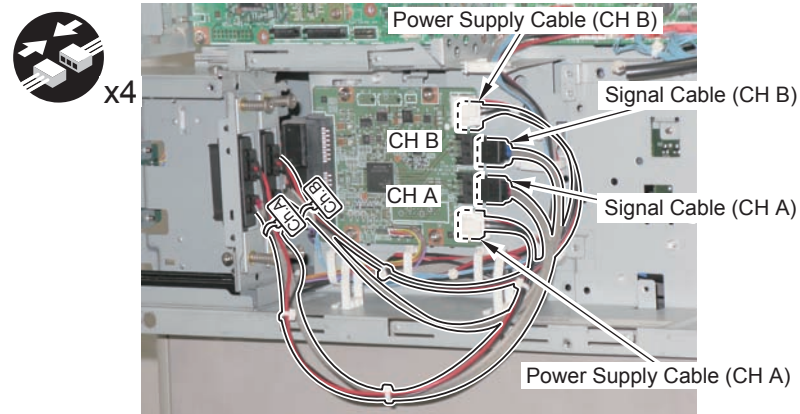
- Secure the LED Cable in the direction of the arrow.
- Check that the LED Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-537

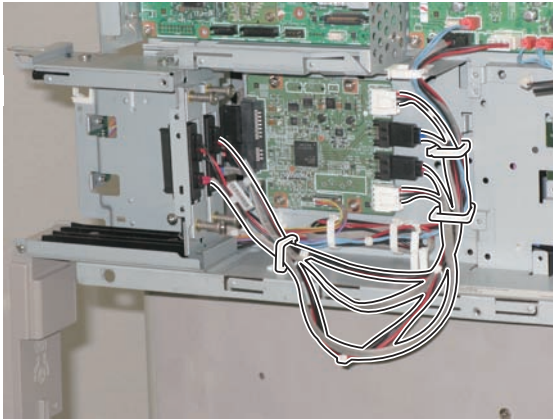
□  
10) Connect the 4 Connectors of the Signal Cables and the Power Supply Cables to the Mirroring Board or Encryption Board.

- Power Supply Cable (CH B; FK2-7837)
- Signal Cable (CH B; FK2-7837)
- Signal Cable (CH A; FK2-7832)
- Power Supply Cable (CH A; FK2-7832)



F-9-538

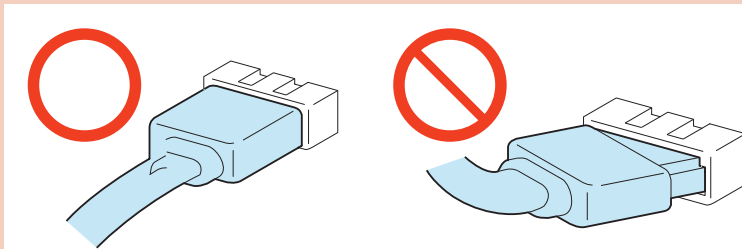
- 11) Secure the Signal Cable and the Power Supply Cable in place using the 3 Wire Saddles.



F-9-539

## CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.

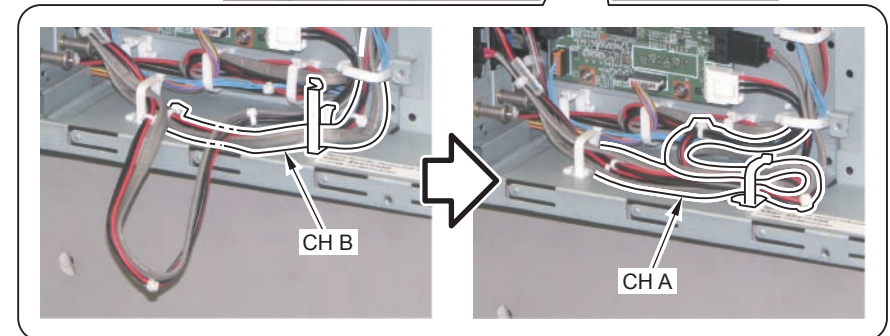
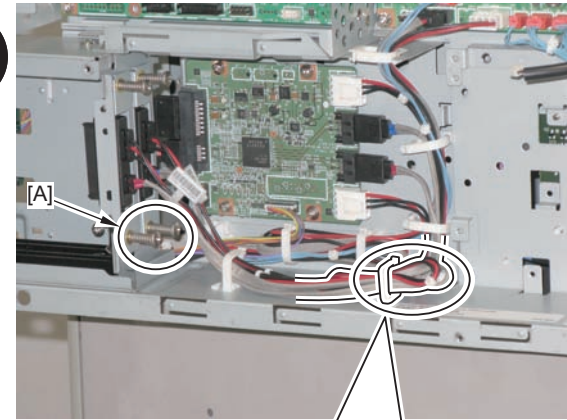


F-9-540

- 12) Put the CH B cable through the Wire Saddle.  
 □ 13) Fold the extra length of the CH A cable, and secure it with the Wire Saddle.

## CAUTION:

- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.

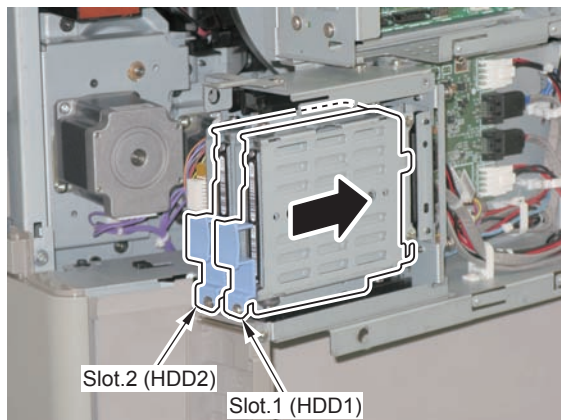


F-9-541

- 14) Insert the assembled Removable HDD.

**CAUTION:**

Be sure to insert the HDD No.1 to the Slot.1, and the HDD No.2 to the Slot.2.

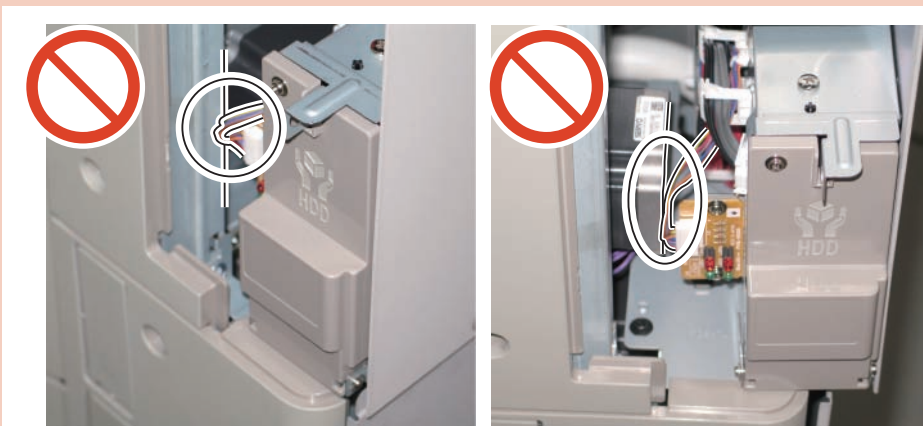


F-9-542

- 15) Close the Controller Box.

**CAUTION:**

When closing the Controller Box, check that the LED Cable is not trapped or does not contact with it.

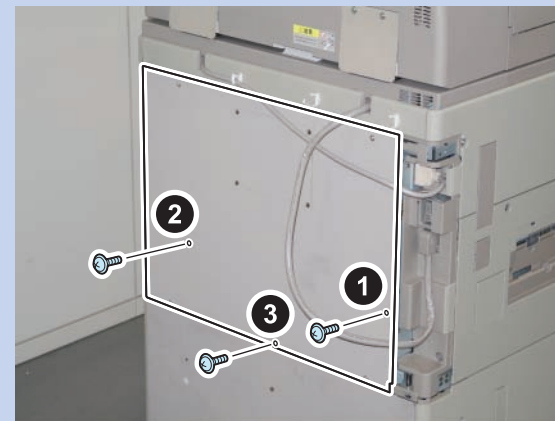


F-9-543

- 16) Install the Rear Upper Cover.

**NOTE:**

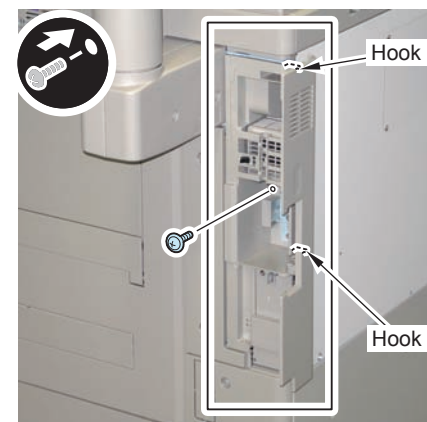
Be sure to install the 3 TP screws show in the figure below.



F-9-544

- 17) Install the Side Cover.

- 2 hooks
- 1 Screw

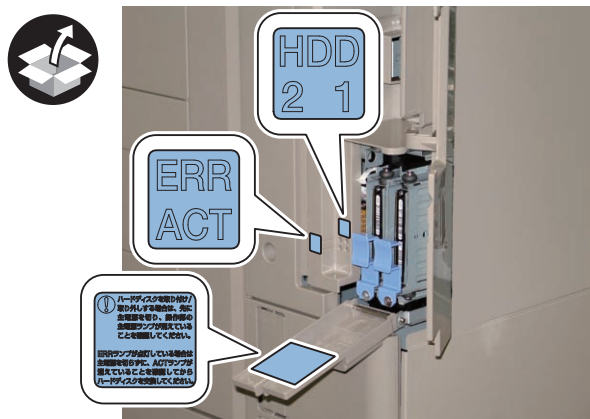


F-9-545



18) Affix the LED Label.

19) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-546



20) Close the HDD Cap, and install the key prepared by the user for locking.

**NOTE:**

Be sure to use the locking key which size is the one indicated below or smaller.

- Size (width x depth x height) : 67mmx14mmx64mm



F-9-547



21) Close the Right Rear Cover 1.

22) Return the Left Rear Cover to its original position, and secure the Reader Communication Cable and the Reader Power Supply Cable in place using the Wire Saddles.

23) Connect the power plug to the outlet.



## Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product. It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product. Details follow.

### 1. Requirements

- 1) PC  
Service support tool in the version that supports this host machine must be installed.
- 2) Cross Ethernet Cable

### 2. Preparing for the Installation of the System Software of Host machine

- 1) If both PC and the machine are on, turn them off.
- 2) Connect the PC and the machine using an Ethernet cable.
- 3) Turn on the PC.
- 4) Start up the machine in download mode (safe mode).

### 3. Selecting the System Software

- 1) Set the CD containing the latest system software in the PC on which the SST is used.
- 2) Start up the SST.
- 3) Click 'Register Firmware'.
- 4) Select the drive in which the System Software CD has been set, and click 'SEARCH'.
- 5) Click 'REGISTER'.
- 6) Click OK.

### 4. Downloading the System Software

- 1) Click 'CONNECT'.
- 2) From the list of machine series, select the appropriate model.
- 3) Select 'Single', and click start.
- 4) Execute HDD format.
- 5) After 5 sec from when the power of the host machine is turned OFF, restart the host machine in download mode of safe mode.
- 6) When "download mode" is displayed on the control panel, click simple mode start.
- 7) Click start to execute download.
- 8) Follow the instruction on the screen and when download is complete, click OK.
- 9) Exit SST.
- 10) Check the versions of MN-CONT and LANG etc in service mode (COPIER > Display > VERSION).

## After Installing HDD Data Encryption & Mirroring Kit

### Checking the Security Version

- 1) Press the Counter key (123 key) on the control panel.
- 2) Press the [Check Device Configuration] key appearing on the control panel.
- 3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.  
When several Encryption Boards are installed, multiple version information is displayed.

#### CAUTION:

The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

### Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the host machine to make sure that an appropriate level of security is being maintained. The mark appears when the machine is equipped with an Encryption Board and the board is operating correctly. The Users Guide provides the following description in connection with the security mark:

< Confirming the Security Mark >

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark (🔒) is displayed on the lower left corner of a panel screen.

## Setting for Mirroring

- 1) Specify the setting for mirroring.
  - Service Mode > COPIER > OPTION > FNC-SW > W/RAID; select "1" for W/RAID.
- 2) Turn OFF/ON the main power switch to enable the setting value.
- 3) Check that the UI screen is started normally.
- 4) Open the HDD Cover, and check that the LED is flashing.
  - The green LED of HDD1 (Slot1) is flashing.
  - The green and red LEDs of HDD2 (Slot2) are flashing.

### CAUTION:

Re-building process starts after setting W/RAID to "1".

When the error indicating the message of "Need to replace Hard Disk (Contact with Service Technician)" on the UI occurs, re-execute the re-building process as follows;

- 1) Check the lighted Red LED is for the HDD2.
- 2) Set Service mode > COPIER > OPTION > FNC-SW > W/RAID to "0".
- 3) Turn OFF/ON the main power switch of the host machine to enable the setting value.
- 4) Set Service mode > COPIER > OPTION > FNC-SW > W/RAID to "1".
- 5) Turn OFF/ON the main power switch of the host machine to enable the setting value.

The abovementioned procedure is limited only for the re-building process at the initial installation. The error occurred at re-building process during operation is not targeted.



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## Reporting to the System Administrator at the End of the Work (Only When HDD Data Encryption & Mirroring Kit has been Installed)

When you have completed all installation work, report to the system administrator for the following:

At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <Servicing work when a failure occurs>.

### Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for 'Canon MFP Security Chip' as the version information of the security chip by referring to the description of Checking the Security Version.

### Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

## Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.



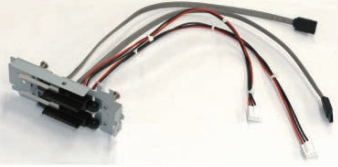
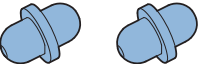
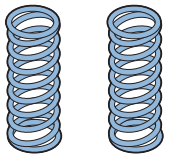
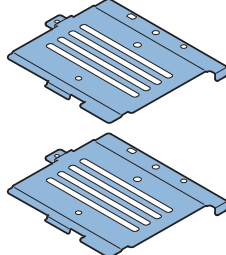
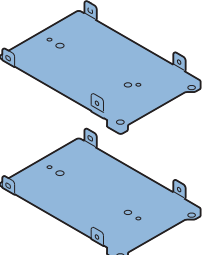
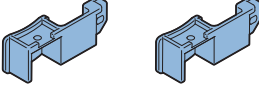
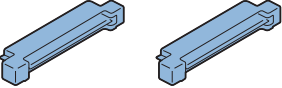
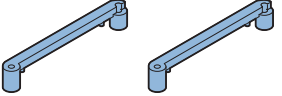
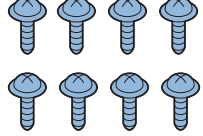
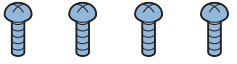
## [TYPE-10] Removable HDD Kit + HDD Data Encryption & Mirroring Kit

### Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

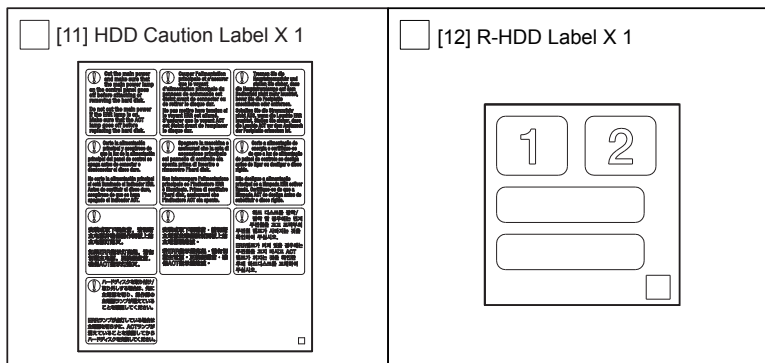
A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn. If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

### Checking the Contents

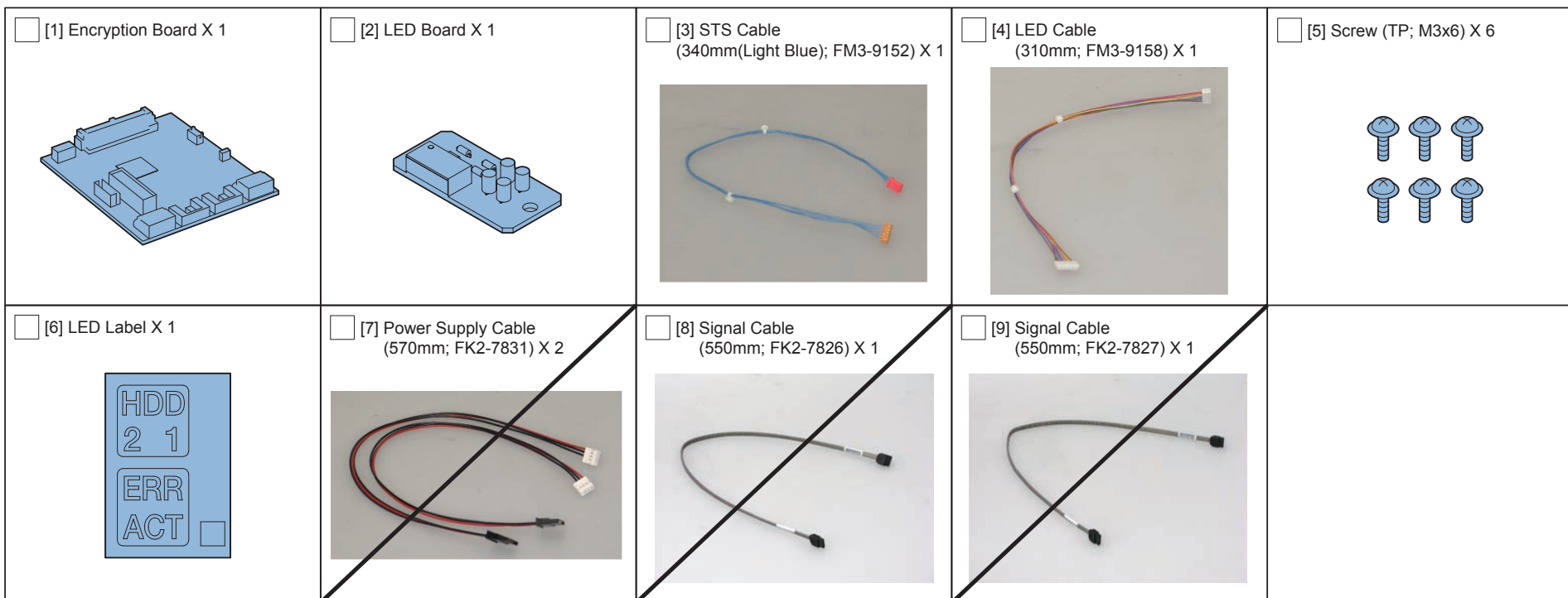
#### Removable HDD Kit

<input type="checkbox"/> [1] HDD Drawer Unit X 1 	<input type="checkbox"/> [2] HDD Lock Pin X 2 	<input type="checkbox"/> [3] HDD Lock Pin X 2 	<input type="checkbox"/> [4] HDD Cover X 2 Use 1 of them. 	<input type="checkbox"/> [5] HDD Connector Plate X 2 Use 1 of them. 
<input type="checkbox"/> [6] HDD Connector Plate X 2 Use 1 of them. 	<input type="checkbox"/> [7] Conversion Connector X 2 Use 1 of them. 	<input type="checkbox"/> [8] Connector Fixation Block X 2 Use 1 of them. 	<input type="checkbox"/> [9] Screw (TP Round End; M3x6) X 8 Use 6 of them. 	<input type="checkbox"/> [10] Screw (P Tightening; M3x8) X 4 Use 2 of them. 

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**HDD Data Encryption & Mirroring Kit**



< CD/Guides >

- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

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## Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.

Backup or export work must not be performed by the service person because of security considerations.

In this Installation Procedure, a series of backup or export procedures are described for reference.

### List of Data to be Deleted

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Send Function Favorite Settings	Yes
Data stored in Mail Boxes or the Advanced Box	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box	Yes

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\*1; Can only be backed up using the Remote UI.

\*2; Depending on the MEAP application.

\*3; Only the following data saved in Mail Box/Advanced Box are backed up.

- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image
- Advanced Box URI Transmission Settings

\*4; You may not be able to back up, depending on the type of the password.

\*5; Only the stored Favorite Settings can be backed up.

## List of Data to be Backed Up

Data to be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings (Forwarding Settings, Address List, Favorite Settings)	
Printer Settings	
Paper Information	
Favorite Settings for Web browser	See the "e-Manual > Web Access". (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box	See the "e-Manual > Remote UI" to "Setting the Backup Location for Stored Data".
Image forms stored in the Superimpose Image	
SSO-H (Single Sign-On H) user authentication information	See the "e-Manual > MEAP".
Quick Menu Information	See the "e-Manual > Quick Menu".
User Information of the Advanced Box	See the "e-Manual > Security".

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## CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the "e-Manual > MEAP".

 Making a Backup of the Data (Reference only)

The data items that have been backed up may be restored when this product has been installed. These data items are property of the user, and the restoration work must be performed by the system administrator.

The method of restoration is described in the Users Guide. See Table (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

## 1. Procedure to make a backup of Address Book

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Address List].
- 4) Click [Export].
- 5) Select the save format for Address list, and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file. Be sure to set a distinctive name to an export file so that you can recognize it when importing it.

## NOTE:

Exporting the device settings will export all contents of the address list. In other words, there is no need for a backup unless it needs to be done individually.

## 2. Device Settings Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Device Settings (Forwarding Settings, Address List, Favorite Settings)].
- 4) Click [Export], and then click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 3. Settings/Registration Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Settings/Registration].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 4. Printer Settings Export Procedure

**NOTE:**

The following items to be exported are the same as the ones which are distributed by device information distribution.

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Printer Settings].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 5. Paper Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Paper Information].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 6. Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

**CAUTION: MEAP Backup Function Using the SST**

Data that has been backed up using MEAP back of the SST before the use of this product is started must not be written back to the host machine after the use of this product is started. Similarly, even if the data that has been backed up after the use of this product is started is written back to the host machine before the use of this product is started, the machine does not operate. It is necessary to make sure that the implementation conditions for this product are compatible before and after making a backup of data, and the MEAP backup function does not permit making a backup of data in the course of installing the kit.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide.

### 7. Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

- 1) Select the URL given below and access SMS.  
http://[IP address of the device]:8000/sms/  
The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

**CAUTION:**

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

- 2) Click [MEAP Application Management].
- 3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
- 4) Click the application of which license has been installed.
- 5) Click [License Control], and then click [Disable]. Click [Yes] in a confirmation window for disabling the license.



- 6) Click [Download] under "Download/delete Disabled License File" item. Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
- 7) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
- 8) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

#### 8. User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

- 1) Access the URL given below.

`http://[IP address of the device]:8000/sso/`

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

##### CAUTION:

The default password is MeapSmsLogin. If the user has changed the password, ask him/her to change the password again after the use of this product is started.

- 2) Login with the user name and password registered as an administrator in SSO-H.  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [User Control].
- 4) Put a checkmark to Select All, and then click [Export].
- 5) Leave the file format and character code as defaults and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file and click [Save].

#### 9. Backup of User inbox and Advanced Box document data

##### CAUTION: Backup of "Advanced Box"

When setting a SMB server as a backup destination, Advanced Box data saved in a large capacity HDD cannot be backed up. The Advanced Box data backed up from the large capacity HDD cannot be restored to the standard HDD. Depending on the system version of the machine, both backup and restoration might not be performed.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

- Backup to SMB server  
Select SMB as a backup destination and specify an address, a user name, a password, and a path to the SMB server to which saved data is backed up.
- Backup to USB HDD  
Select USB HDD as a backup destination and specify a path to the USB HDD folder to which saved data is backed up.

##### CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

##### CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

##### CAUTION:

- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

[\[Backup method of User inbox and Advanced Box document data\]](#)

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
- 2) Select 'All' or 'Changes' for the backup method.
- 3) Click [Execute].

**CAUTION:**

- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- If you select to encrypt the backup data, the backup process may take longer.

[\[Restoring the backup data of User inbox and Advanced Box document data\]](#)

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
- 2) Click [Display Backup Data].
- 3) Select the backup data to restore from the list and then click [Execute].

**CAUTION:**

- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

[10. Quick Menu Information Export Procedure](#)

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [Quick Menu] > [Export].
- 3) If the file needs to be encrypted, enter the password after check [Encrypt file]. (The number of characters for the password must be more than 4 but less than 16.)
- 4) Click [Export].
- 5) Following the instructions on the window, specify the location to save the file.

[11. User Information of the Advanced Box Export Procedure](#)

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [User Access Control for Advanced Box]. The dialog box to enter the user name of administrator and password appears, enter the system administrator ID and password, and then click [Log In].  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [Export], and click [Start Export].
- 4) Following the instructions on the window, specify the location to save the file.

## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

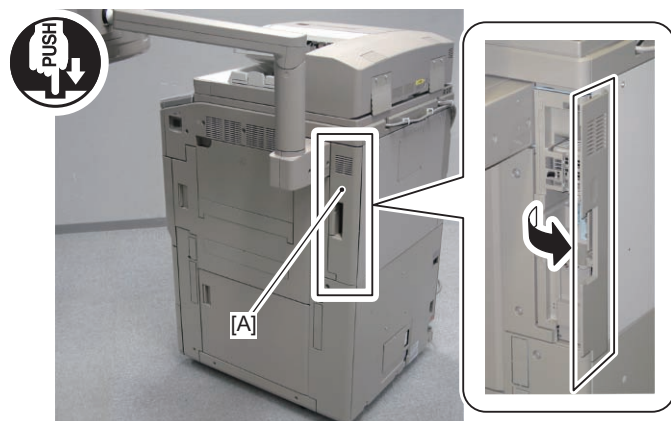
- 1) Turn OFF the main power switch.
- 2) Check that the Control Panel Display and the Main Power Lamp are turned OFF, and then disconnect the power plug.

## Installation Procedure

### Removing the HDD and HDD Case Unit

□

- 1) Push [A] part, and open the Right Rear Cover 1.

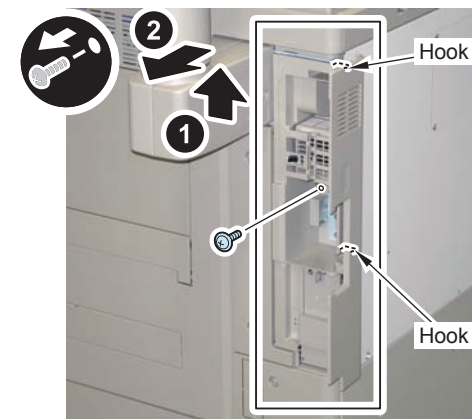


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□

- 2) Remove the Side Cover.

- 1 Screw
- 2 hooks



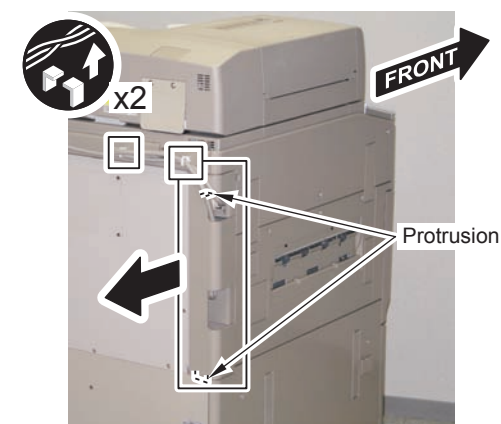
F-9-552

□

- 3) Free the Reader Communication Cable and the Reader Power Supply Cable from the 2 Wire Saddles.

- 4) Remove the Left Rear Cover.

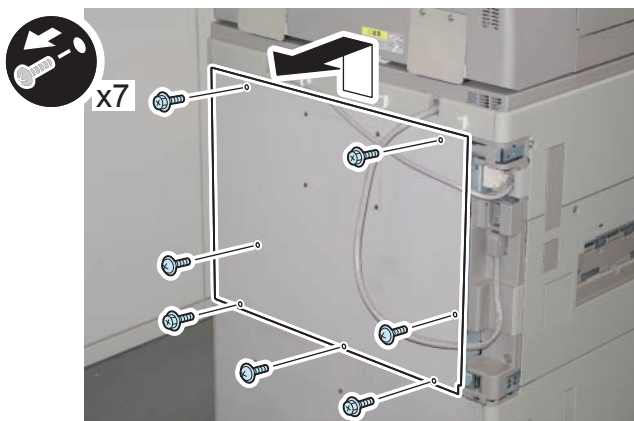
- 2 Protrusions



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□  
5) Remove the Rear Upper Cover.

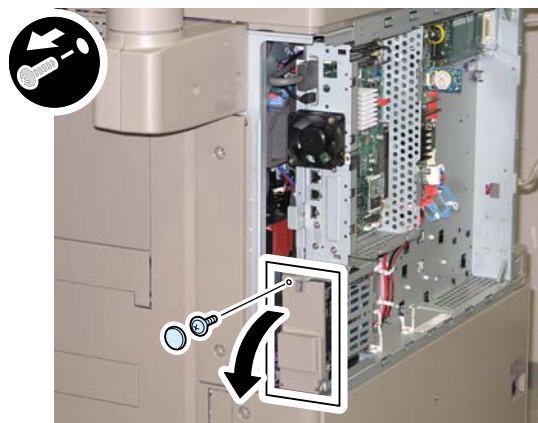
- 4 Screws (RS Tightening)
- 3 Screws (TP)



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□  
6) Open the HDD Cap.

- 1 Rubber cap
- 1 Screw (The removed screw will not be used.)

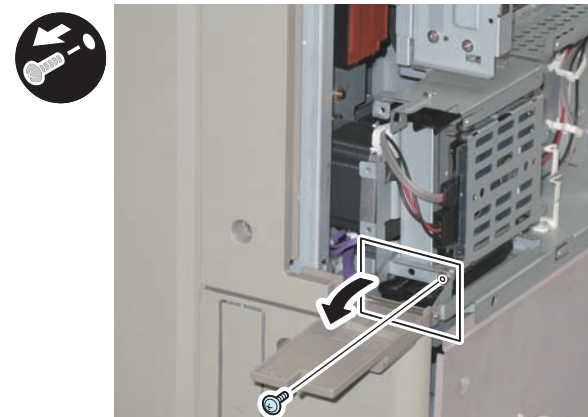


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□  
7) Return the rubber cap to the HDD cap.

□  
8) Turn the HDD Fixed Plate toward the front.

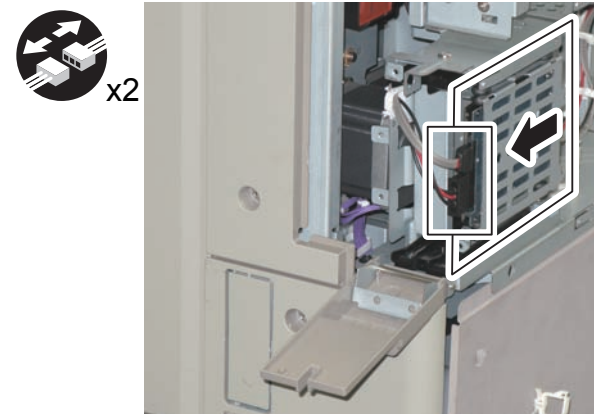
- 1 Screw (The removed screw will not be used.)



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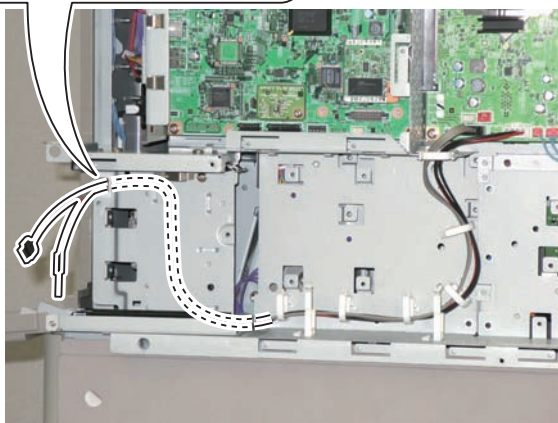
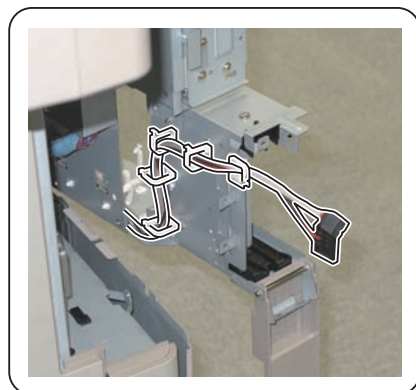
□  
9) Remove the HDD.

- 2 Connectors



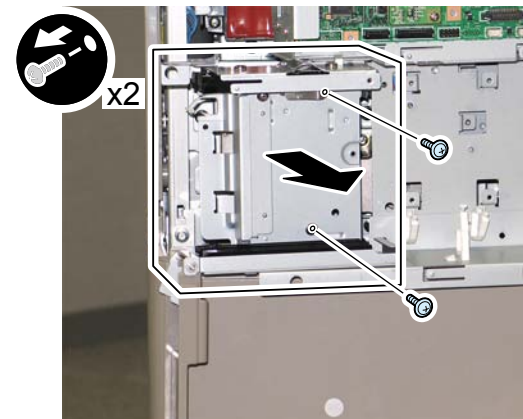
F-9-557

- 10) Open the Controller Box, and free the Signal Cable and the Power Supply Cable of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.



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- 11) Remove the HDD Case Unit.
- 2 Screws (The removed screws will be used in "Installing the Encryption Board and HDD Case Unit" step 3.)



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## Disassembling and Assembling of the HDD Removed from the Host Machine



1) Disassemble the removed HDD.

- 4 Screws (W Sems)
- 1 Screw (TP)
- 1 HDD Grounding Plate

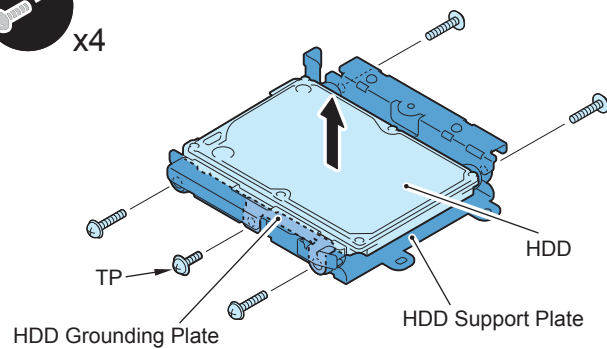
### NOTE:

If the removed HDD has the screw (TP) and the HDD Grounding Plate, remove them. The removed screw (TP) and the HDD Grounding Plate will not be used.

- 1 HDD Support Plate



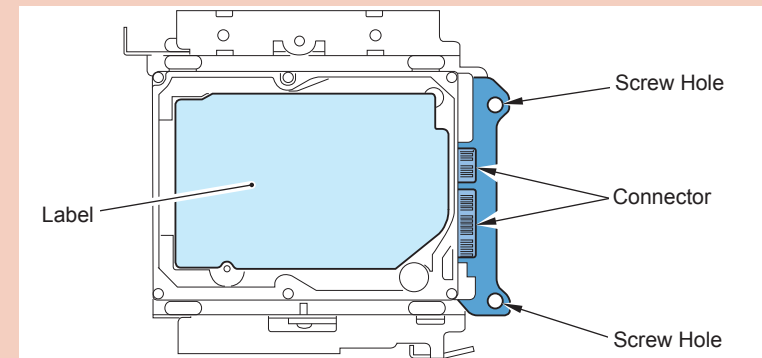
x4



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### CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



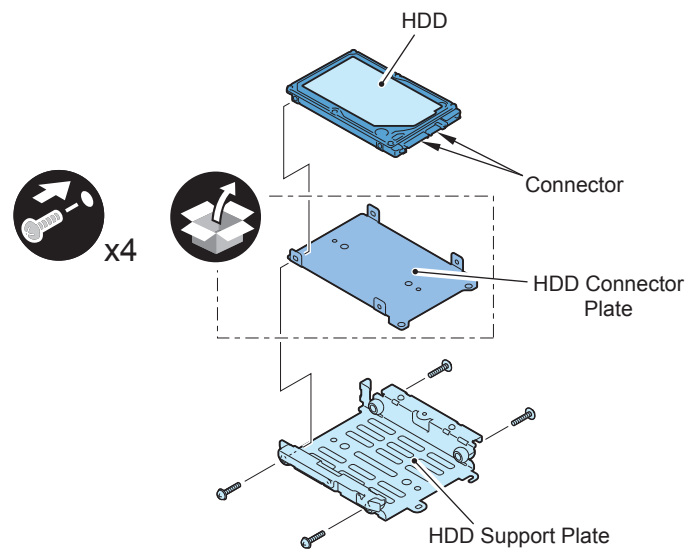
F-9-561

**NOTE:**  
Use the parts disassembled in step 1) and parts included in the Removable HDD Kit.



2) Assemble the HDD disassembled in step 1).

- 1 HDD Support Plate
- 1 HDD Connector Plate (Included in the Removable HDD Kit)
- 1 HDD
- 4 Screws (W Sems)



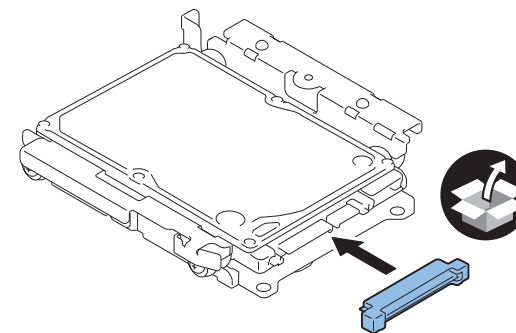
F-9-562



3) Install the Conversion Connector.

**CAUTION:**

Be sure that there is no gap between the HDD Connector and the Conversion Connector.

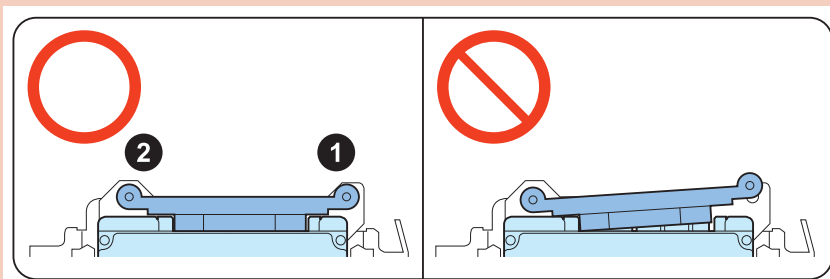


F-9-563

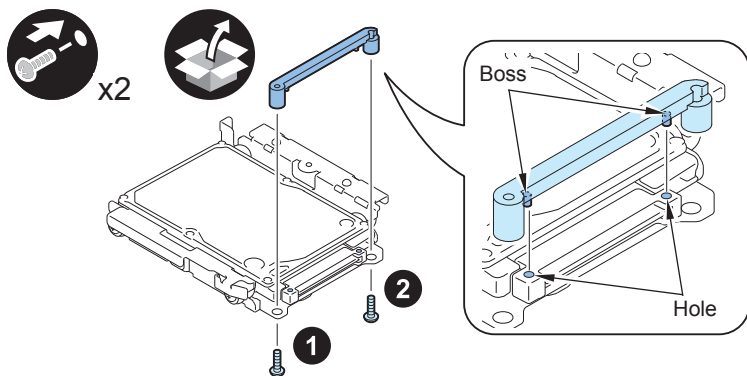
- 
- 4) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.
- 2 Screws (P Tightening; M3x8)

## CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-564

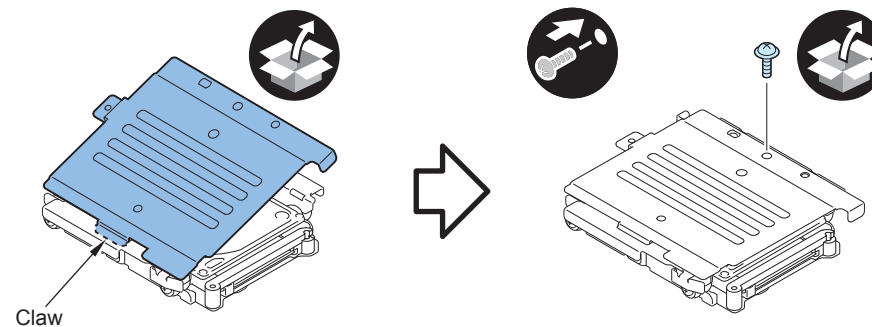


F-9-565

- 
- 5) Install the HDD Cover.
- 1 Claw
  - 1 Screw (TP Round End; M3x6)

## CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

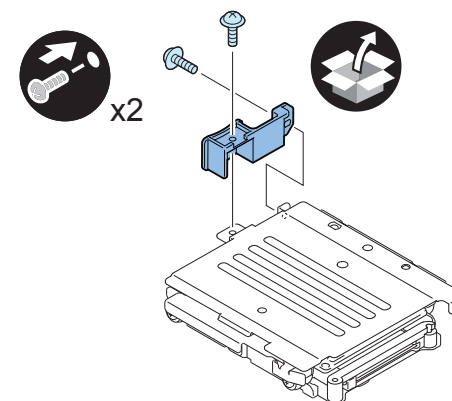


F-9-566

- 
- 6) Install the HDD Handle.
- 2 Screws (TP Round End; M3x6)

## CAUTION:

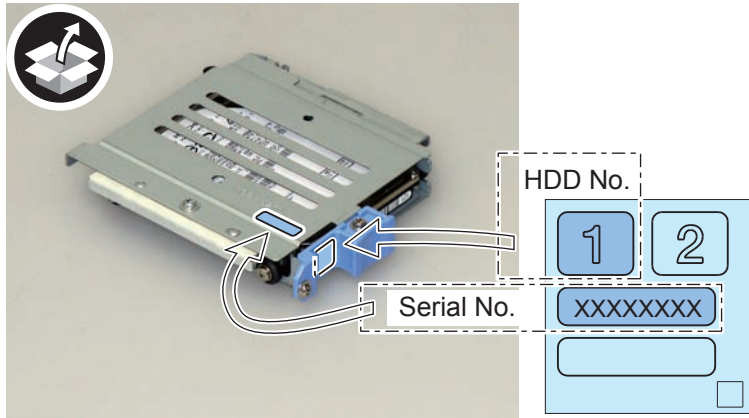
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-567



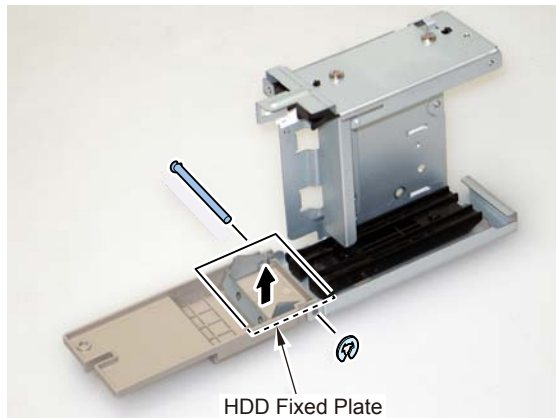
- 7) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.
- 8) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



F-9-568

### Changing Configuration inside of HDD Case Unit

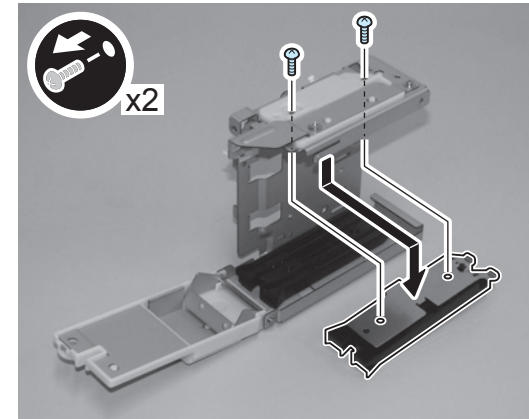
- 1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)



F-9-569

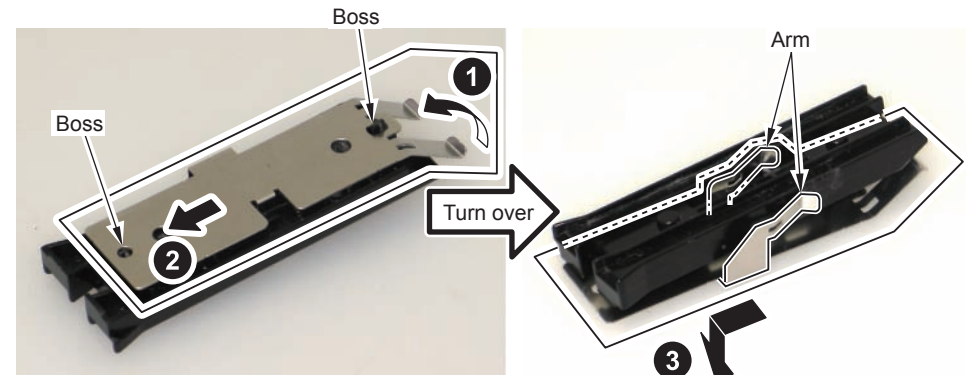
- 2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

- 3) Remove the Upper Rail from the HDD Case Unit.
  - 2 Screws (The removed screws will be used in step 6).)



F-9-570

- 4) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)
  - 2 Bosses
  - 2 Arms



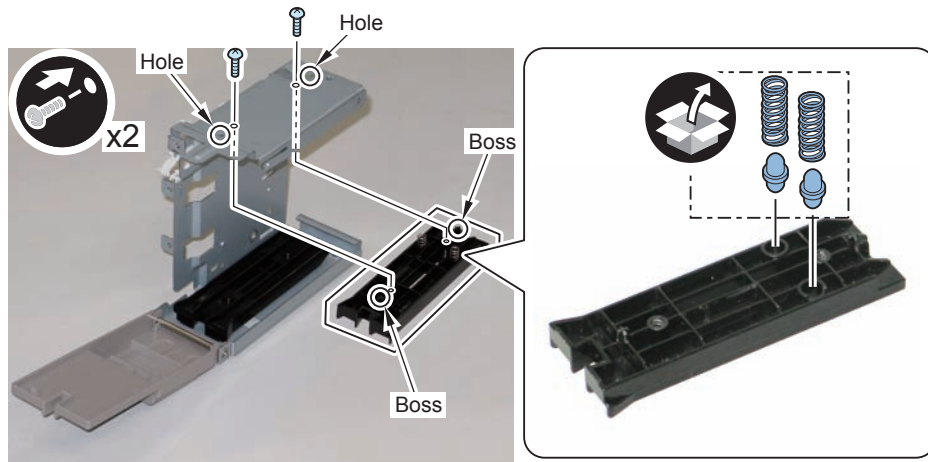
F-9-571



5) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.

6) Return the rail to its original position.

- 2 Bosses
- 2 Screws (Use the screws removed in step 3.)



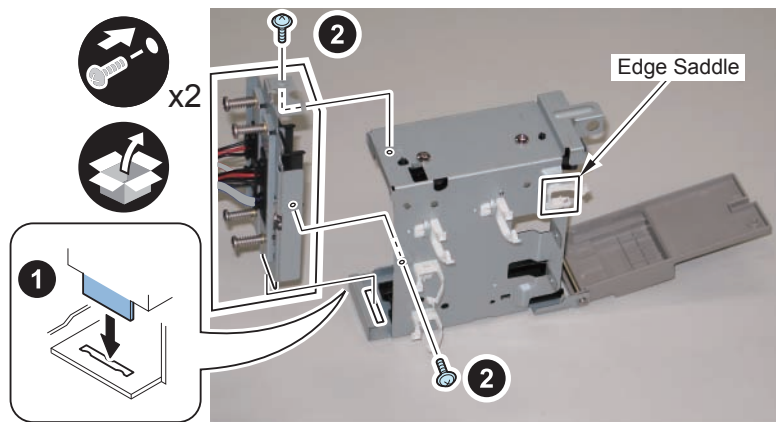
F-9-572



8) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.

- 2 Screws (TP Round End; M3x6)

9) Close the Edge Saddle.



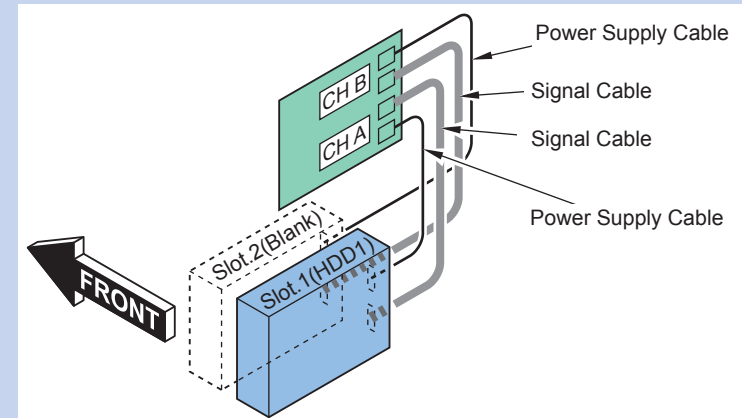
F-9-573

## ■ Installing the Encryption Board and HDD Case Unit

### NOTE:

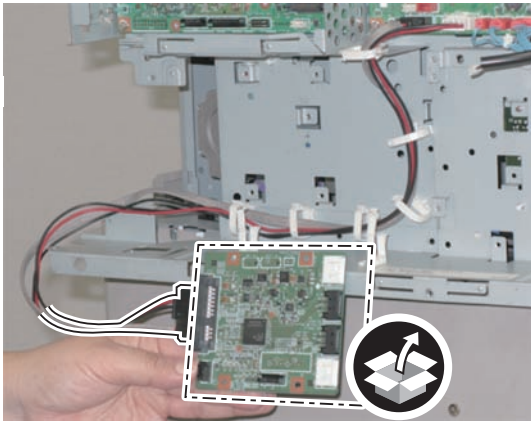
The following shows combination of the HDD and the Encryption Board.

- Connect "CH A" to Slot.1 (The original HDD)
- No HDD to Slot.2



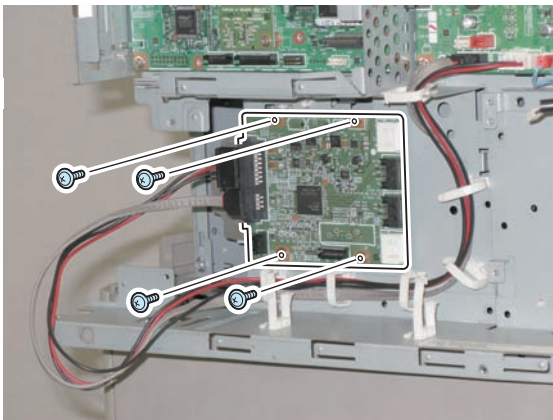
F-9-574

- 1) Connect the Signal Cable and the Power Cable of the host machine to the Encryption Board.



F-9-575

- 2) Install the Encryption Board.
- 4 Screws (TP; M3x6)



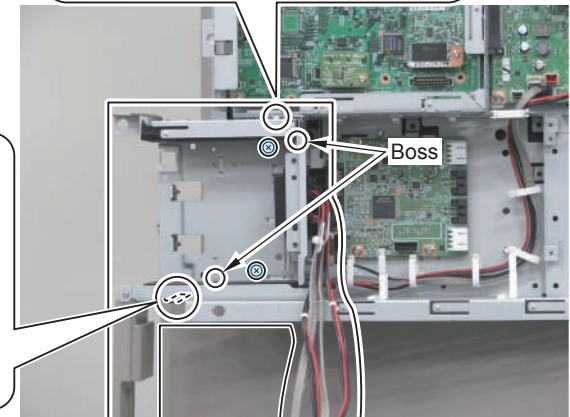
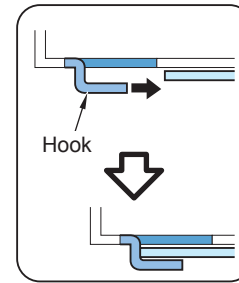
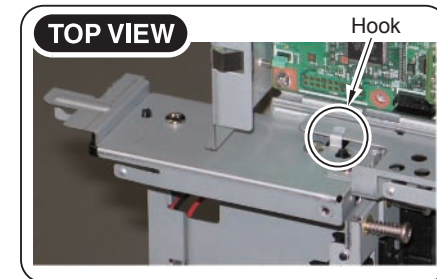
F-9-576

- 3) Install the HDD Case Unit.

- 2 Hooks
- 2 Bosses
- 2 Screws (Use the screws removed in "Removing the HDD and HDD Case Unit" step 11).)

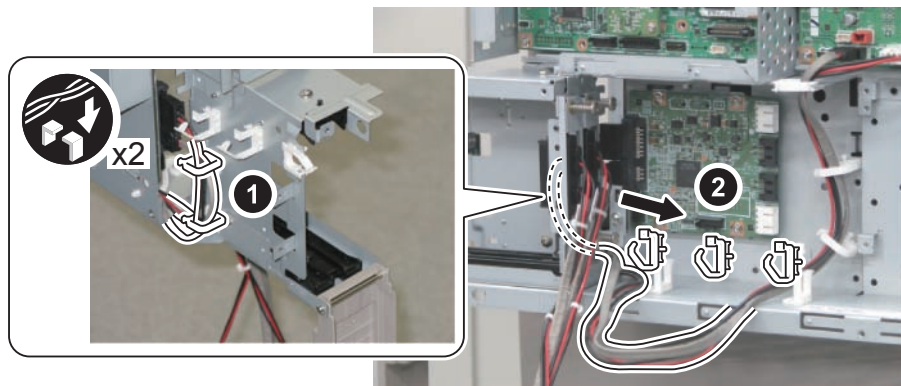
**NOTE:**

Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.



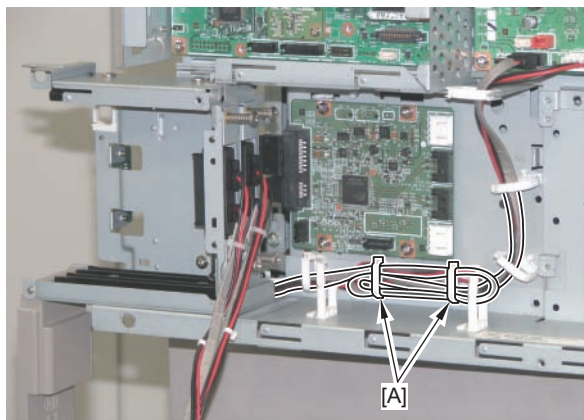
F-9-577

- 
- 4) Secure the Signal Cable and the Power Supply Cable in place using the 2 Wire Saddles at the back of the HDD Case Unit.
- 5) Free the cables from the 3 Wire Saddles at the front, and pull out the extra lengths of the cables to the front.



F-9-578

- 
- 6) Fold extra length of the Cable and secure it in place using the 2 Wire Saddles [A].

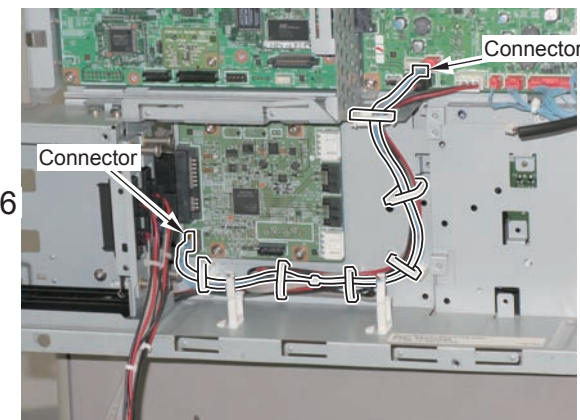


F-9-579

- 
- 7) Connect the STS Cable (340mm (Light Blue); FM3-9152) to the Main Controller PCB 2 and the Encryption Board.
- 2 Connectors
  - 1 Edge Saddle
  - 5 Wire Saddles

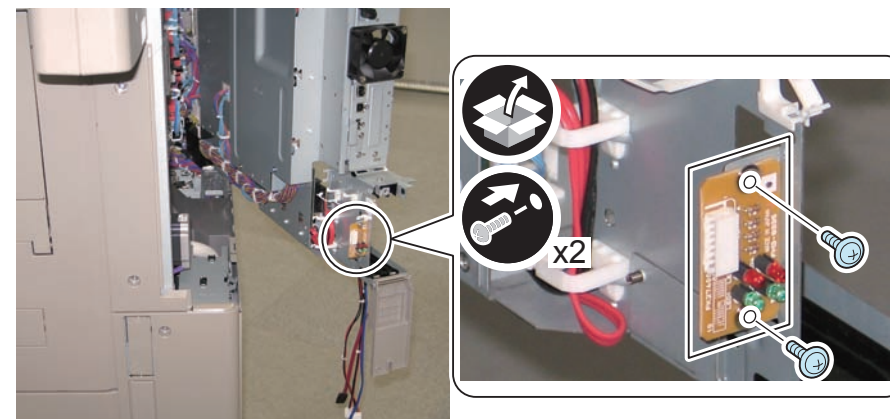
**CAUTION:**

Check that the STS Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-580

- 
- 8) Install the LED Board to the side surface of the HDD Case Unit.
- 2 Screws (TP; M3x6)



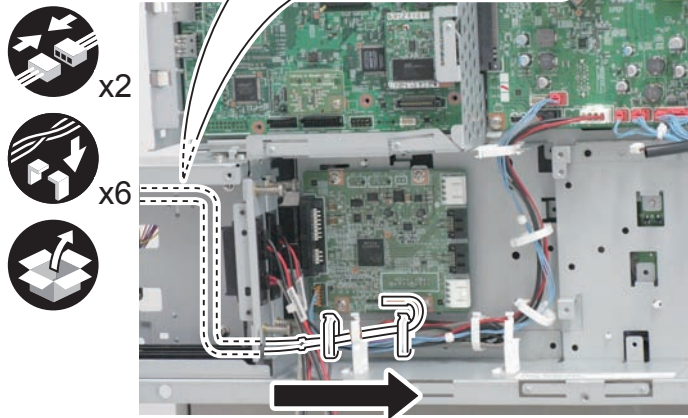
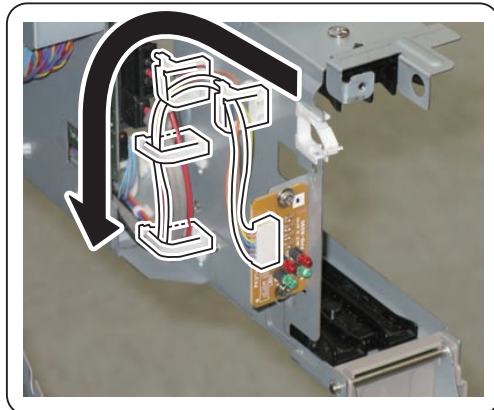
F-9-581

- 
- 9) Connect the LED Cable (310mm; FM3-9158) to the LED Board and the Encryption Board.

- 2 Connectors
- 6 Wire Saddles

## CAUTION:

- Secure the LED Cable in the direction of the arrow.
- Check that the LED Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.

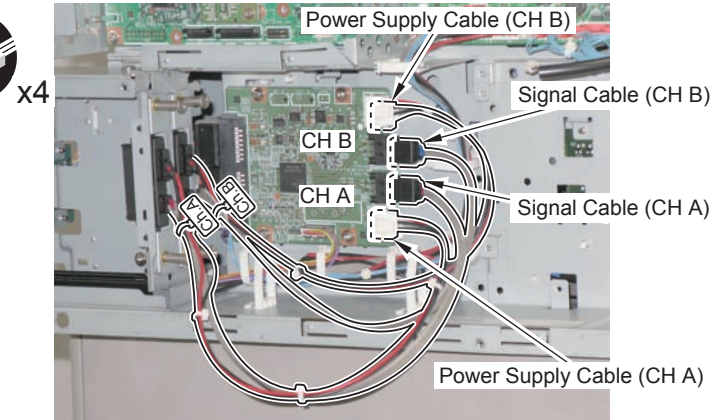


F-9-582



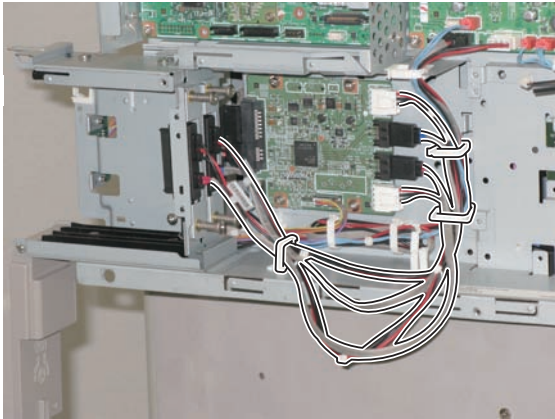
10) Connect the 4 Connectors of the Signal Cables and the Power Supply Cables to the Encryption Board.

- Power Supply Cable (CH B; FK2-7837)
- Signal Cable (CH B; FK2-7837)
- Signal Cable (CH A; FK2-7832)
- Power Supply Cable (CH A; FK2-7832)



F-9-583

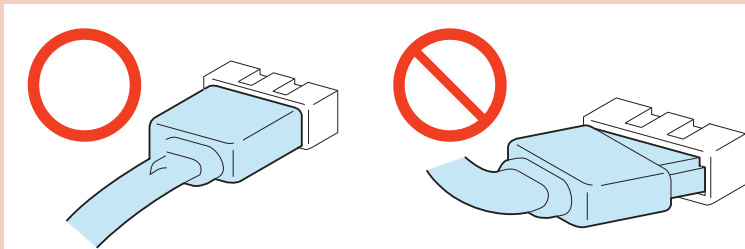
- 11) Secure the Signal Cable and the Power Supply Cable in place using the 3 Wire Saddles.



F-9-584

## CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.

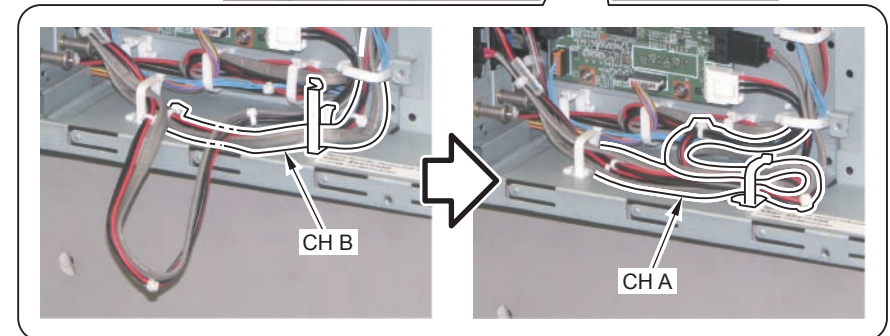
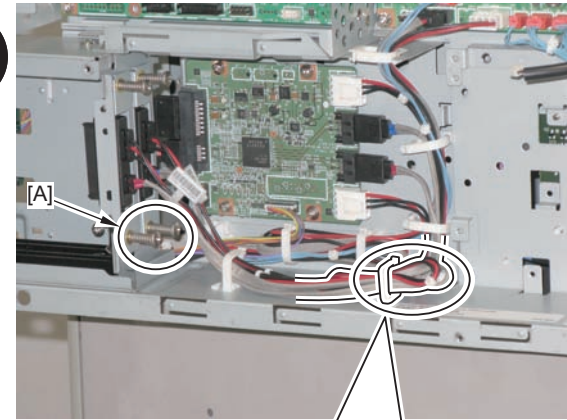


F-9-585

- 12) Put the CH B cable through the Wire Saddle.  
 □ 13) Fold the extra length of the CH A cable, and secure it with the Wire Saddle.

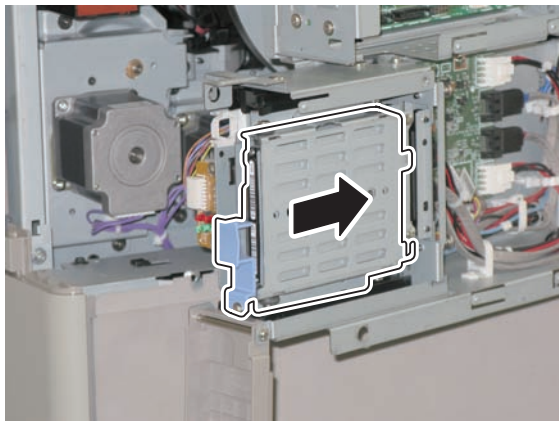
## CAUTION:

- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-586

- 14) Insert the assembled Removable HDD.

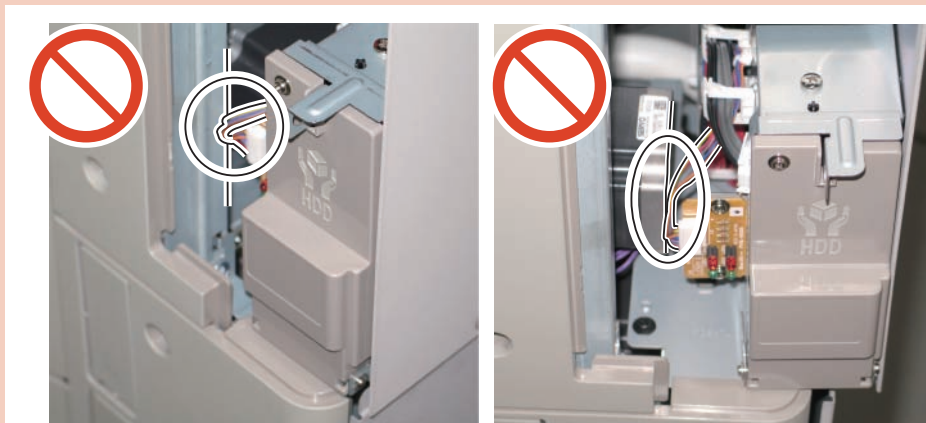


F-9-587

- 15) Close the Controller Box.

**CAUTION:**

When closing the Controller Box, check that the LED Cable is not trapped or does not contact with it.

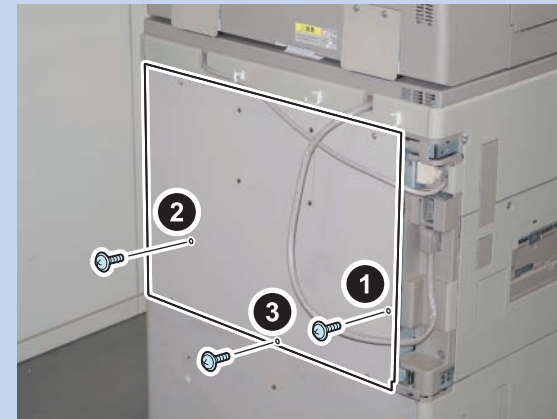


F-9-588

- 16) Install the Rear Upper Cover.

**NOTE:**

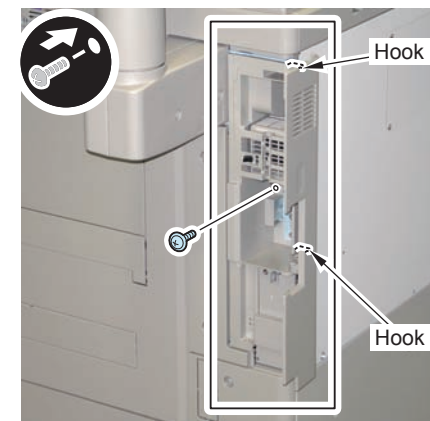
Be sure to install the 3 TP screws show in the figure below.



F-9-589

- 17) Install the Side Cover.

- 2 hooks
- 1 Screw

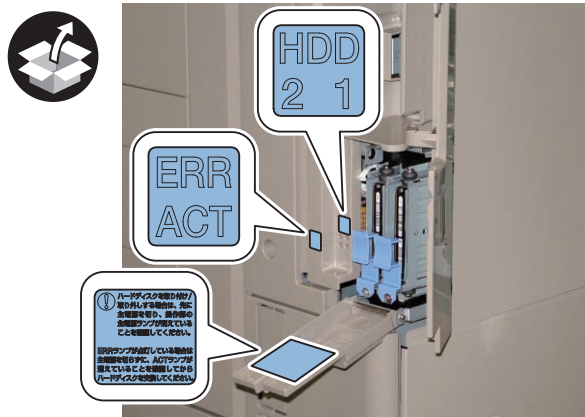


F-9-590



18) Affix the LED Label.

19) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-591



20) Close the HDD Cap, and install the key prepared by the user for locking.

**NOTE:**

Be sure to use the locking key which size is the one indicated below or smaller.

- Size (width x depth x height) : 67mmx14mmx64mm



F-9-592



21) Close the Right Rear Cover 1.

22) Return the Left Rear Cover to its original position, and secure the Reader Communication Cable and the Reader Power Supply Cable in place using the Wire Saddles.

23) Connect the power plug to the outlet.



## Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product. It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product. Details follow.

### 1. Requirements

#### 1) PC

Service support tool in the version that supports this host machine must be installed.

#### 2) Cross Ethernet Cable

### 2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.

2) Connect the PC and the machine using an Ethernet cable.

3) Turn on the PC.

4) Start up the machine in download mode (safe mode).

### 3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.

2) Start up the SST.

3) Click 'Register Firmware'.

4) Select the drive in which the System Software CD has been set, and click 'SEARCH'.

5) Click 'REGISTER'.

6) Click OK.

### 4. Downloading the System Software

1) Click 'CONNECT'.

2) From the list of machine series, select the appropriate model.

3) Select 'Single', and click start.

4) Execute HDD format.

5) After 5 sec from when the power of the host machine is turned OFF, restart the host machine in download mode of safe mode.

6) When "download mode" is displayed on the control panel, click simple mode start.

7) Click start to execute download.

8) Follow the instruction on the screen and when download is complete, click OK.

9) Exit SST.

10) Check the versions of MN-CONT and LANG etc in service mode (COPIER > Display > VERSION).

## Checking the Security Version

1) Press the Counter key (123 key) on the control panel.

2) Press the [Check Device Configuration] key appearing on the control panel.

3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.

When several Encryption Boards are installed, multiple version information is displayed.

### CAUTION:

The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

## Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the host machine to make sure that an appropriate level of security is being maintained. The mark appears when the machine is equipped with an Encryption Board and the board is operating correctly. The Users Guide provides the following description in connection with the security mark:

< Confirming the Security Mark >

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark (🔒) is displayed on the lower left corner of a panel screen.

## Checking after Installation

- 1) Open the HDD Cover, and check that the LED is flashing.
  - The green LED of HDD1 (Slot1) is flashing.



F-9-593

## Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:

At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <Servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for 'Canon MFP Security Chip' as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

## Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.



## [TYPE-11] Option HDD (250GB) + Removable HDD Kit + HDD Data Encryption & Mirroring Kit

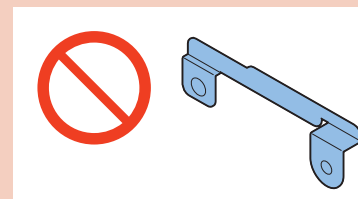
### Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn. If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

### Checking the Contents

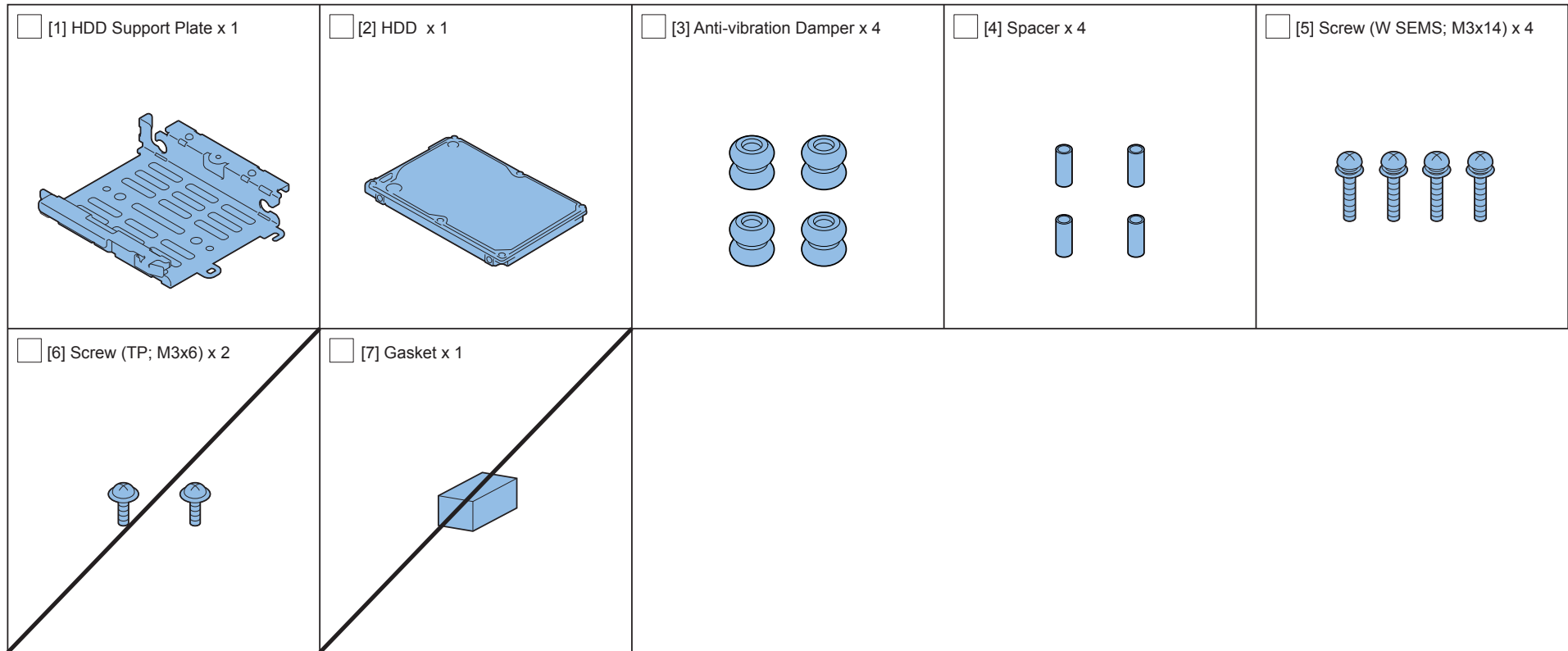
**CAUTION:**

If a Grounding Plate is included in the package of the Option HDD, do not use the HDD Grounding Plate. It may cause reduction in the transfer speed of the HDD.



F-9-594

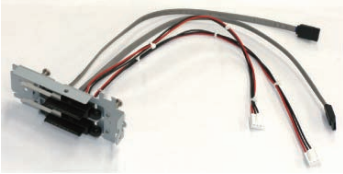
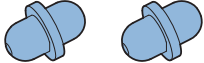
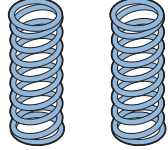
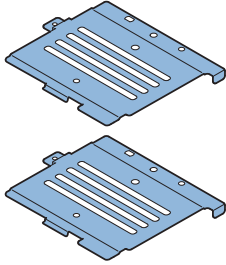
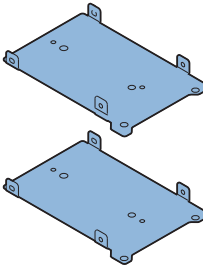
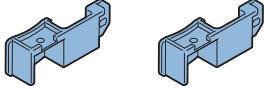
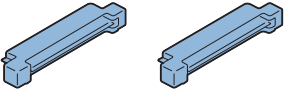
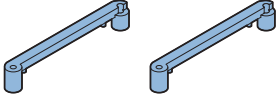
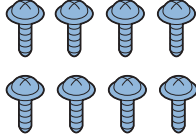
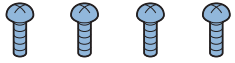
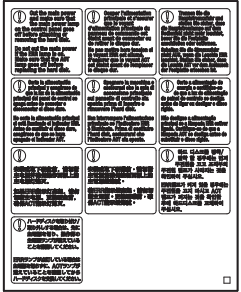
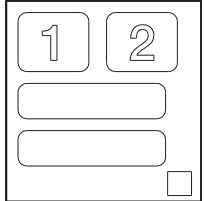
## ■ Option HDD (250GB)



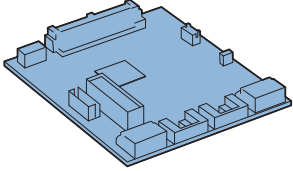
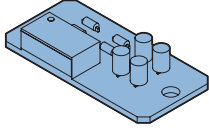
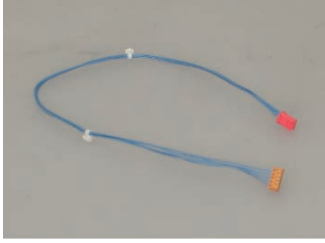

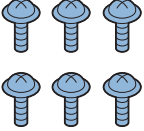
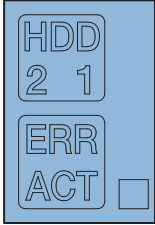
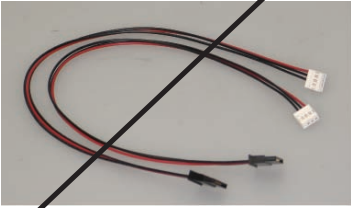

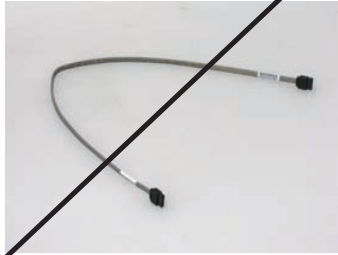
- < CD/Guides >  
• FCC/IC Sheet

F-9-595

Removable HDD Kit

<p><input type="checkbox"/> [1] HDD Drawer Unit X 1</p> 	<p><input type="checkbox"/> [2] HDD Lock Pin X 2</p> 	<p><input type="checkbox"/> [3] HDD Lock Pin X 2</p> 	<p><input type="checkbox"/> [4] HDD Cover X 2 Use 1 of them.</p> 	<p><input type="checkbox"/> [5] HDD Connector Plate X 2 Use 1 of them.</p> 
<p><input type="checkbox"/> [6] HDD Connector Plate X 2 Use 1 of them.</p> 	<p><input type="checkbox"/> [7] Conversion Connector X 2 Use 1 of them.</p> 	<p><input type="checkbox"/> [8] Connector Fixation Block X 2 Use 1 of them.</p> 	<p><input type="checkbox"/> [9] Screw (TP Round End; M3x6) X 8 Use 6 of them.</p> 	<p><input type="checkbox"/> [10] Screw (P Tightening; M3x8) X 4 Use 2 of them.</p> 
<p><input type="checkbox"/> [11] HDD Caution Label X 1</p> 		<p><input type="checkbox"/> [12] R-HDD Label X 1</p> 		

## HDD Data Encryption & Mirroring Kit

<input type="checkbox"/> [1] Encryption Board X 1 	<input type="checkbox"/> [2] LED Board X 1 	<input type="checkbox"/> [3] STS Cable (340mm(Light Blue); FM3-9152) X 1 	<input type="checkbox"/> [4] LED Cable (310mm; FM3-9158) X 1 	<input type="checkbox"/> [5] Screw (TP; M3x6) X 6 
<input type="checkbox"/> [6] LED Label X 1 	<input type="checkbox"/> [7] Power Supply Cable (570mm; FK2-7831) X 2 	<input type="checkbox"/> [8] Signal Cable (550mm; FK2-7826) X 1 	<input type="checkbox"/> [9] Signal Cable (550mm; FK2-7827) X 1 	

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&lt; CD/Guides &gt;

- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

## Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.

Backup or export work must not be performed by the service person because of security considerations.

In this Installation Procedure, a series of backup or export procedures are described for reference.

### List of Data to be Deleted

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Send Function Favorite Settings	Yes
Data stored in Mail Boxes or the Advanced Box	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box	Yes

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\*1; Can only be backed up using the Remote UI.

\*2; Depending on the MEAP application.

\*3; Only the following data saved in Mail Box/Advanced Box are backed up.

- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image
- Advanced Box URI Transmission Settings

\*4; You may not be able to back up, depending on the type of the password.

\*5; Only the stored Favorite Settings can be backed up.



## List of Data to be Backed Up

Data to be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings (Forwarding Settings, Address List, Favorite Settings)	
Printer Settings	
Paper Information	
Favorite Settings for Web browser	See the "e-Manual > Web Access". (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box	See the "e-Manual > Remote UI" to "Setting the Backup Location for Stored Data".
Image forms stored in the Superimpose Image	
SSO-H (Single Sign-On H) user authentication information	See the "e-Manual > MEAP".
Quick Menu Information	See the "e-Manual > Quick Menu".
User Information of the Advanced Box	See the "e-Manual > Security".

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## CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the "e-Manual > MEAP".

 Making a Backup of the Data (Reference only)

The data items that have been backed up may be restored when this product has been installed. These data items are property of the user, and the restoration work must be performed by the system administrator.

The method of restoration is described in the Users Guide. See Table (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

## 1. Procedure to make a backup of Address Book

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Address List].
- 4) Click [Export].
- 5) Select the save format for Address list, and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file. Be sure to set a distinctive name to an export file so that you can recognize it when importing it.

## NOTE:

Exporting the device settings will export all contents of the address list. In other words, there is no need for a backup unless it needs to be done individually.

## 2. Device Settings Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Device Settings (Forwarding Settings, Address List, Favorite Settings)].
- 4) Click [Export], and then click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 3. Settings/Registration Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Settings/Registration].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 4. Printer Settings Export Procedure

**NOTE:**

The following items to be exported are the same as the ones which are distributed by device information distribution.

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Printer Settings].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 5. Paper Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
- 3) Click [Paper Information].
- 4) Click [Export], and click [Start Export].
- 5) Following the instructions on the window, specify the location to save the file.

### 6. Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

**CAUTION: MEAP Backup Function Using the SST**

Data that has been backed up using MEAP back of the SST before the use of this product is started must not be written back to the host machine after the use of this product is started. Similarly, even if the data that has been backed up after the use of this product is started is written back to the host machine before the use of this product is started, the machine does not operate. It is necessary to make sure that the implementation conditions for this product are compatible before and after making a backup of data, and the MEAP backup function does not permit making a backup of data in the course of installing the kit.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide.

### 7. Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

- 1) Select the URL given below and access SMS.  
http://[IP address of the device]:8000/sms/  
The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

**CAUTION:**

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

- 2) Click [MEAP Application Management].
- 3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
- 4) Click the application of which license has been installed.
- 5) Click [License Control], and then click [Disable]. Click [Yes] in a confirmation window for disabling the license.

- 6) Click [Download] under "Download/delete Disabled License File" item. Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
- 7) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
- 8) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

#### 8. User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

- 1) Access the URL given below.

http://[IP address of the device]:8000/sso/

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

##### CAUTION:

The default password is MeapSmsLogin. If the user has changed the password, ask him/her to change the password again after the use of this product is started.

- 2) Login with the user name and password registered as an administrator in SSO-H.  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [User Control].
- 4) Put a checkmark to Select All, and then click [Export].
- 5) Leave the file format and character code as defaults and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file and click [Save].

#### 9. Backup of User inbox and Advanced Box document data

##### CAUTION: Backup of "Advanced Box"

When setting a SMB server as a backup destination, Advanced Box data saved in a large capacity HDD cannot be backed up. The Advanced Box data backed up from the large capacity HDD cannot be restored to the standard HDD. Depending on the system version of the machine, both backup and restoration might not be performed.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

- Backup to SMB server  
Select SMB as a backup destination and specify an address, a user name, a password, and a path to the SMB server to which saved data is backed up.
- Backup to USB HDD  
Select USB HDD as a backup destination and specify a path to the USB HDD folder to which saved data is backed up.

##### CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

##### CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

##### CAUTION:

- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

#### [Backup method of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
- 2) Select 'All' or 'Changes' for the backup method.
- 3) Click [Execute].

#### CAUTION:

- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- If you select to encrypt the backup data, the backup process may take longer.

#### [Restoring the backup data of User inbox and Advanced Box document data]

- 1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
- 2) Click [Display Backup Data].
- 3) Select the backup data to restore from the list and then click [Execute].

#### CAUTION:

- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

#### 10. Quick Menu Information Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [Quick Menu] > [Export].
- 3) If the file needs to be encrypted, enter the password after check [Encrypt file]. (The number of characters for the password must be more than 4 but less than 16.)
- 4) Click [Export].
- 5) Following the instructions on the window, specify the location to save the file.

#### 11. User Information of the Advanced Box Export Procedure

- 1) Access the URL given below, and then access Remote UI.  
http://[IP address of the device]/  
If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
- 2) Select Basic Tools > [User Access Control for Advanced Box]. The dialog box to enter the user name of administrator and password appears, enter the system administrator ID and password, and then click [Log In].  
The default administrator user name and password are as follows:  
User Name: Administrator  
Password: password
- 3) Click [Export], and click [Start Export].
- 4) Following the instructions on the window, specify the location to save the file.

## Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

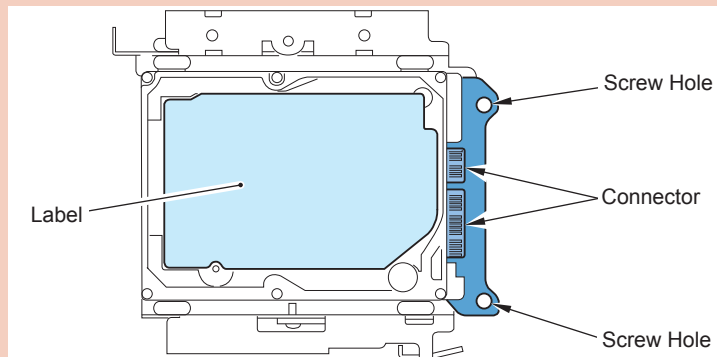
- 1) Turn OFF the main power switch.
- 2) Check that the Control Panel Display and the Main Power Lamp are turned OFF, and then disconnect the power plug.

## Installation Procedure

### Assembling the Option HDD

CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



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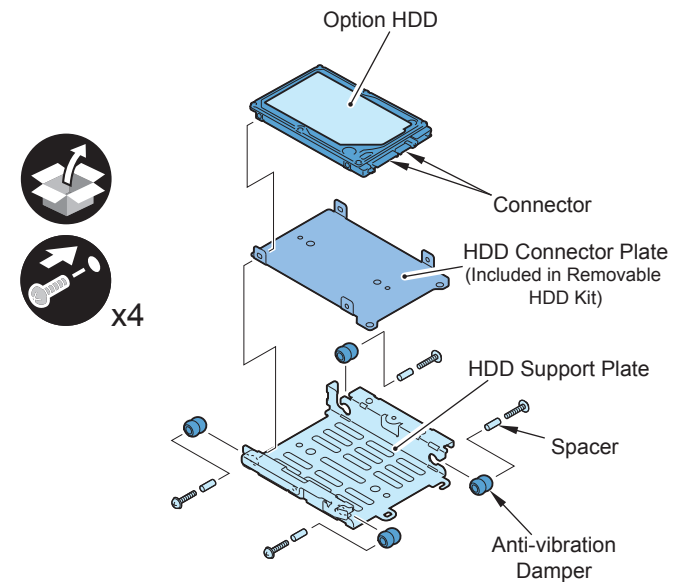
NOTE:

Use the parts included in the package of the Option HDD and the Removable HDD Kit.



1) Assemble the Option HDD (250GB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 HDD Connector Plate (Included with the Removable HDD Kit)
- 1 Option HDD
- 4 Screws (W Sems; M3x14)



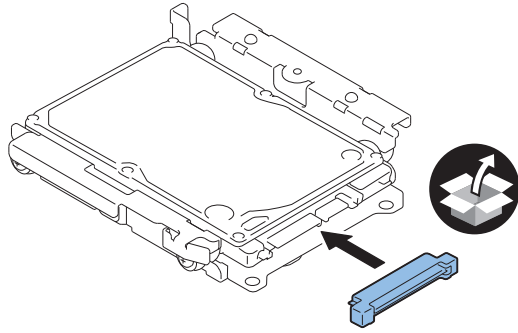
F-9-599



2) Install the Conversion Connector.

**CAUTION:**

Be sure that there is no gap between the HDD Connector and the Conversion Connector.



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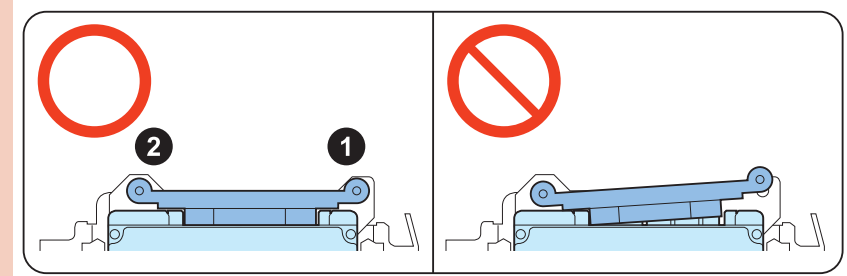


3) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.

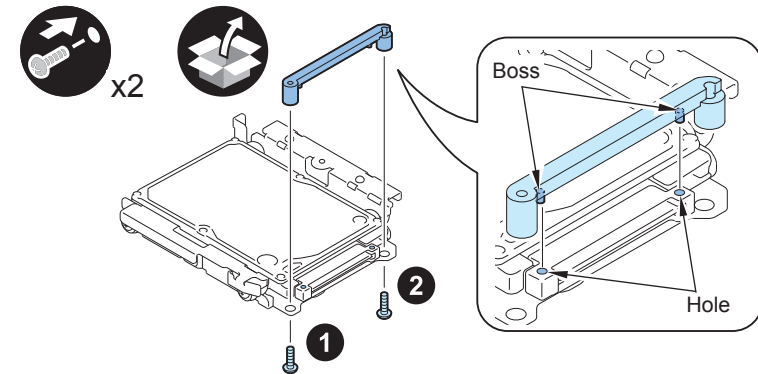
- 2 Screws (P Tightening; M3x8)

**CAUTION:**

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



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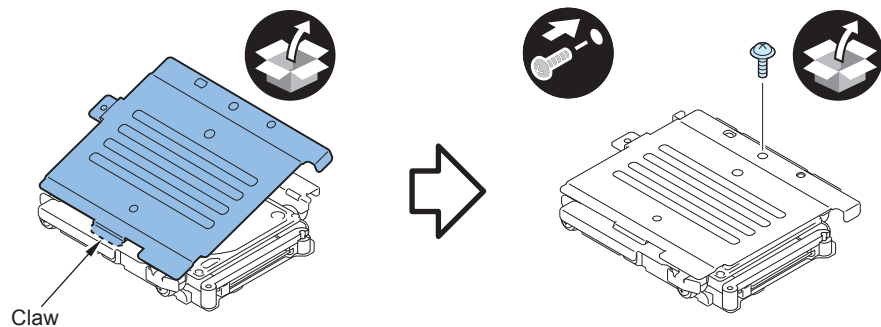
F-9-602

□  
4) Install the HDD Cover.

- 1 Claw
- 1 Screw (TP Round End; M3x6)

**CAUTION:**

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



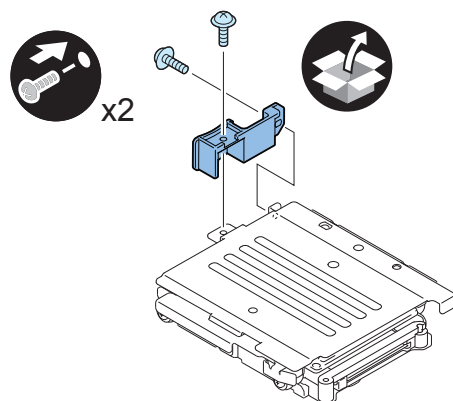
F-9-603

□  
5) Install the HDD Handle.

- 2 Screws (TP Round End; M3x6)

**CAUTION:**

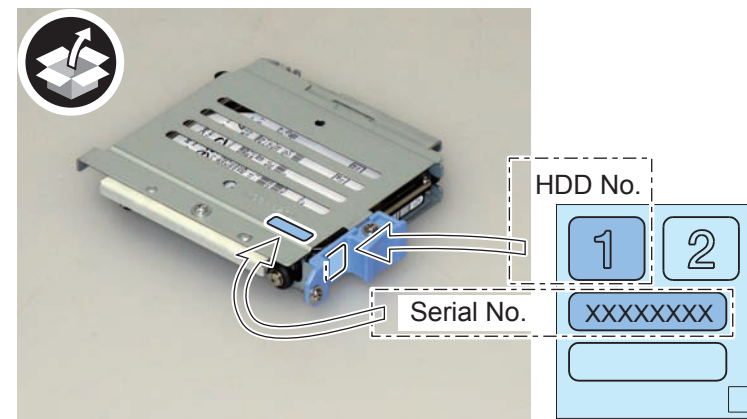
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



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□  
6) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.

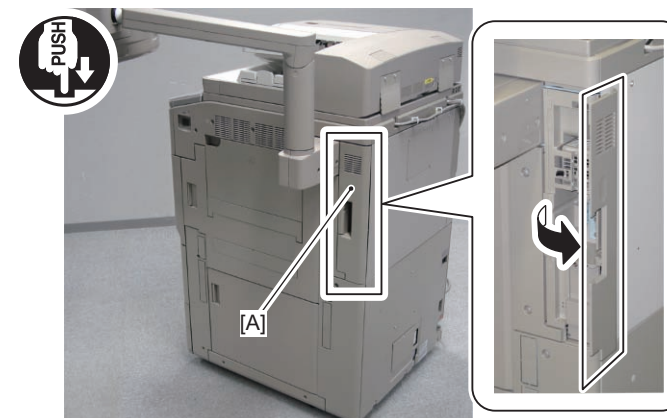
- 7) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



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## ■ Removing the HDD and HDD Case Unit

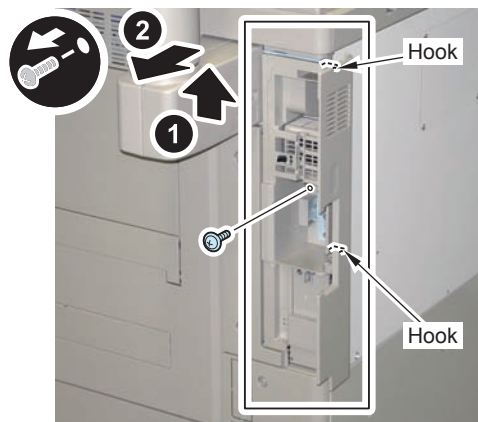
- 1) Push [A] part, and open the Right Rear Cover 1.



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□ 2) Remove the Side Cover.

- 1 Screw
- 2 hooks

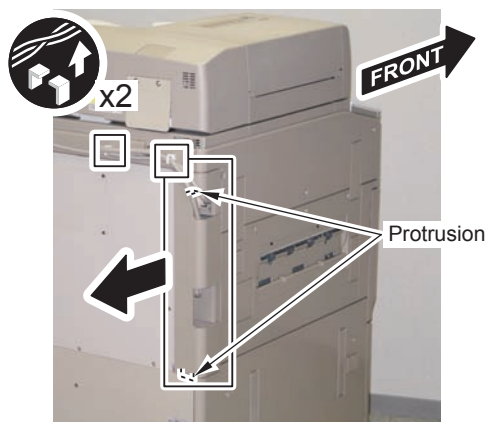


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□ 3) Free the Reader Communication Cable and the Reader Power Supply Cable from the 2 Wire Saddles.

4) Remove the Left Rear Cover.

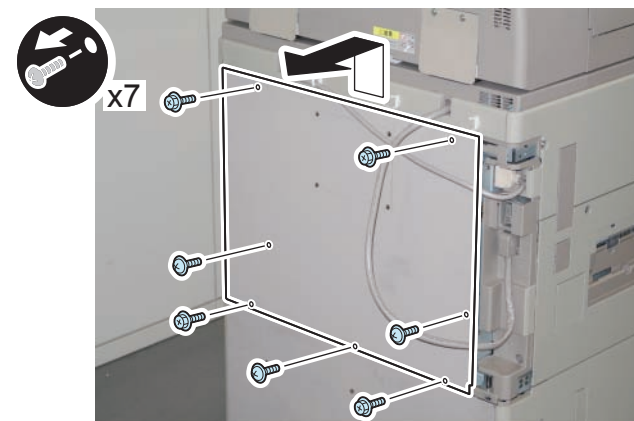
- 2 Protrusions



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□ 5) Remove the Rear Upper Cover.

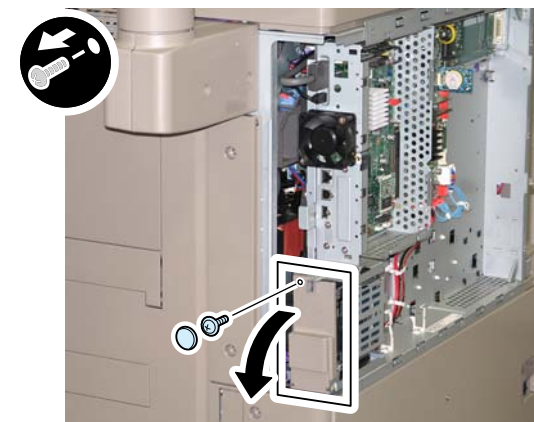
- 4 Screws (RS Tightening)
- 3 Screws (TP)



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□ 6) Open the HDD Cap.

- 1 Rubber cap
- 1 Screw (The removed screw will not be used.)

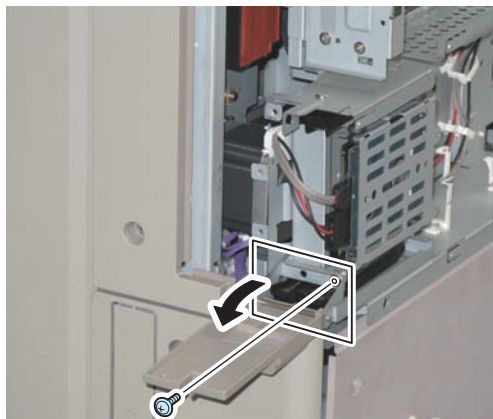


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□ 7) Return the rubber cap to the HDD cap.



- 8) Turn the HDD Fixed Plate toward the front.  
• 1 Screw (The removed screw will not be used.)

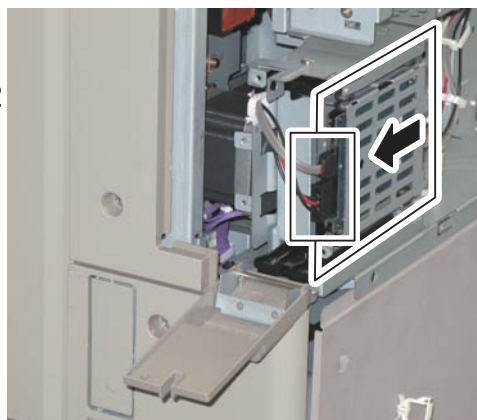


F-9-611

- 9) Remove the HDD. (The removed HDD will not be used.)  
• 2 Connectors

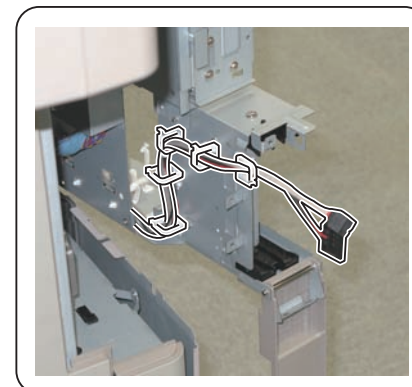


x2

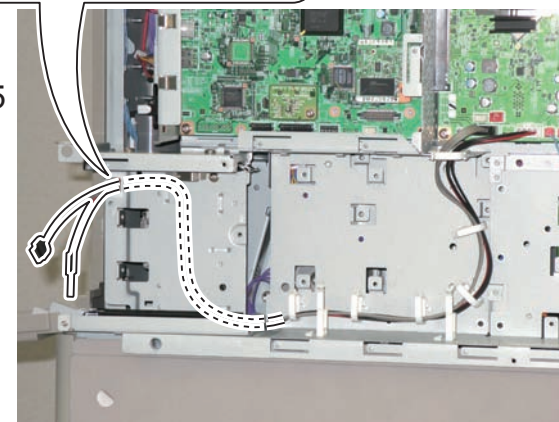


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- 10) Open the Controller Box, and free the Signal Cable and the Power Supply Cable of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.



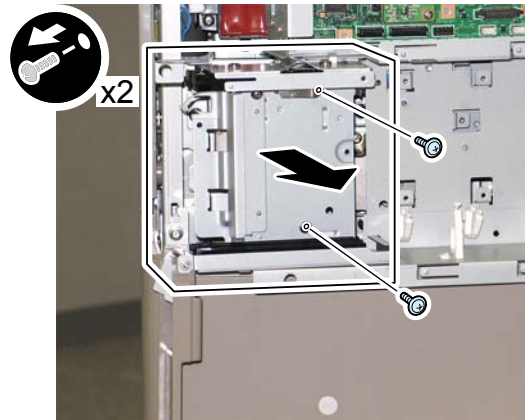
x5



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□  
11) Remove the HDD Case Unit.

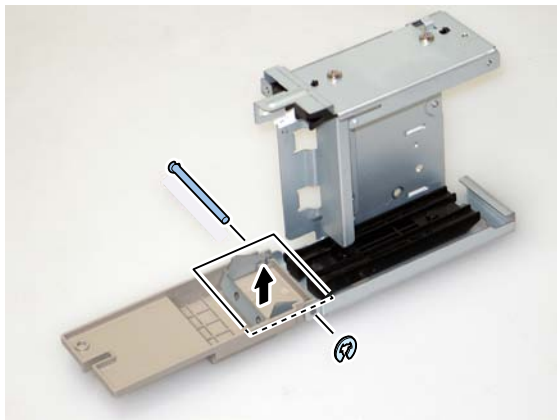
- 2 Screws (The removed screws will be used in “Installing the Encryption Board and HDD Case Unit” step 3.)



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## ■ Changing Configuration inside of HDD Case Unit

□  
1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)

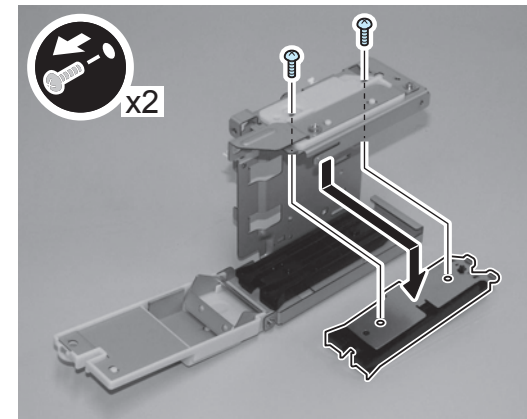


F-9-615

□  
2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

□  
3) Remove the Upper Rail from the HDD Case Unit.

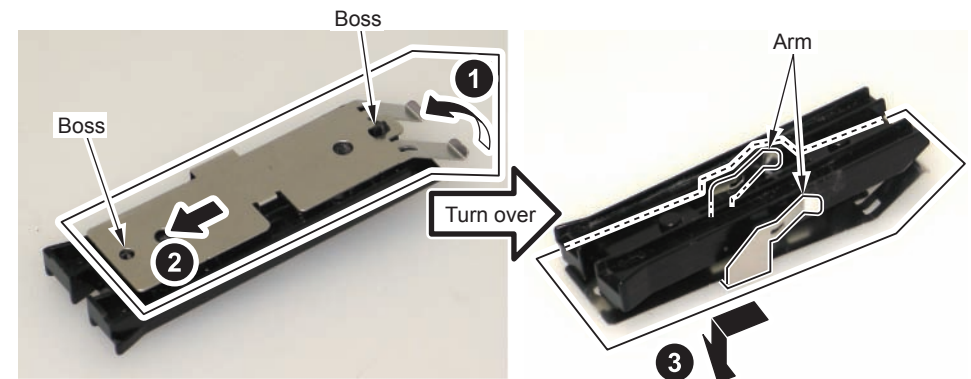
- 2 Screws (The removed screws will be used in step 6.)



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□  
4) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)

- 2 Bosses
- 2 Arms



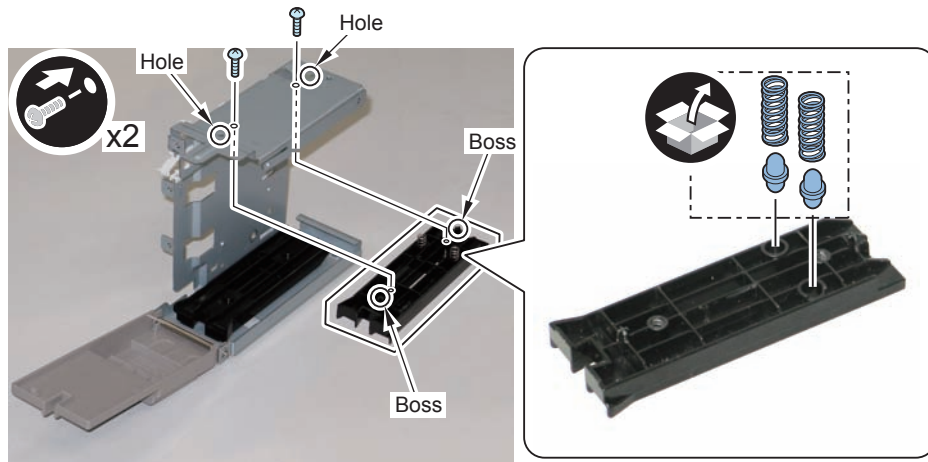
F-9-617



5) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.

6) Return the rail to its original position.

- 2 Bosses
- 2 Screws (Use the screws removed in step 3.)



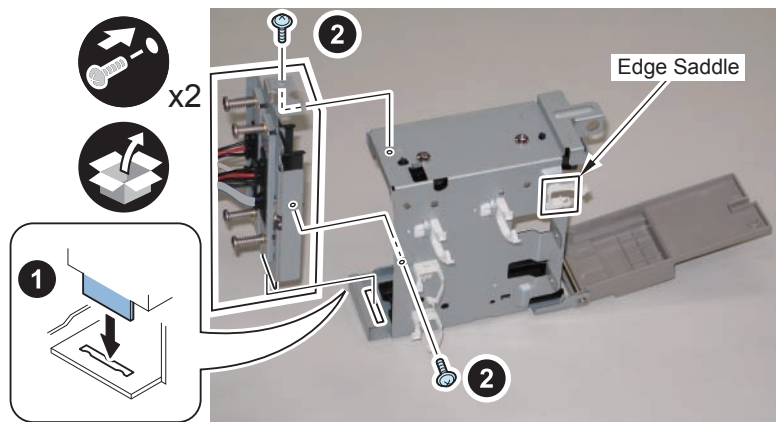
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8) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.

- 2 Screws (TP Round End; M3x6)

9) Close the Edge Saddle.



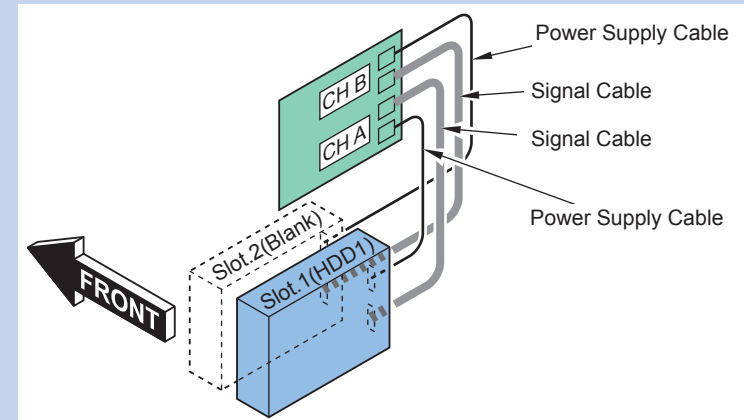
F-9-619

## ■ Installing the Encryption Board and HDD Case Unit

### NOTE:

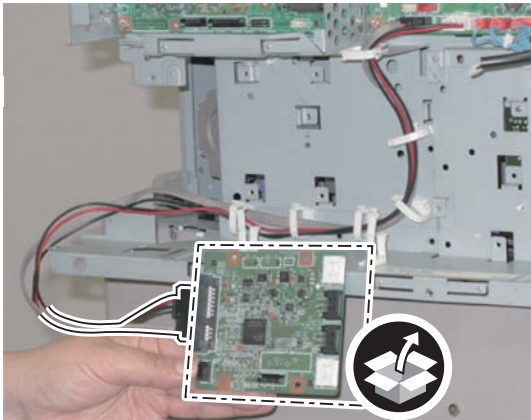
The following shows combination of the HDD and the Encryption Board.

- Connect "CH A" to Slot.1 (The new HDD)
- No HDD to Slot.2



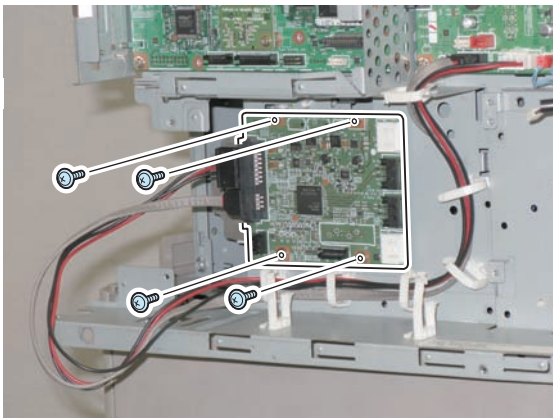
F-9-620

- 1) Connect the Signal Cable and the Power Cable of the host machine to the Encryption Board.



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- 2) Install the Encryption Board.
- 4 Screws (TP; M3x6)



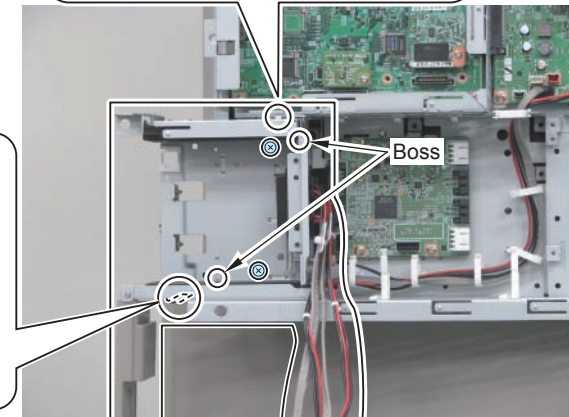
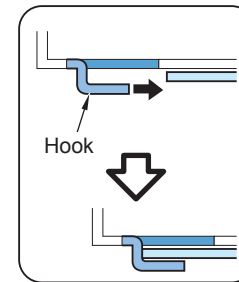
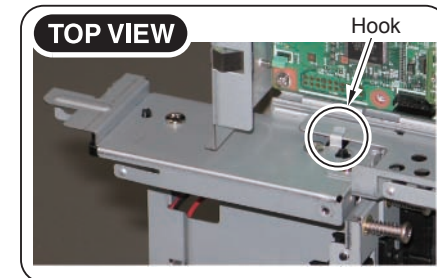
F-9-622

- 3) Install the HDD Case Unit.

- 2 Hooks
- 2 Bosses
- 2 Screws (Use the screws removed in "Removing the HDD and HDD Case Unit" step 11).)

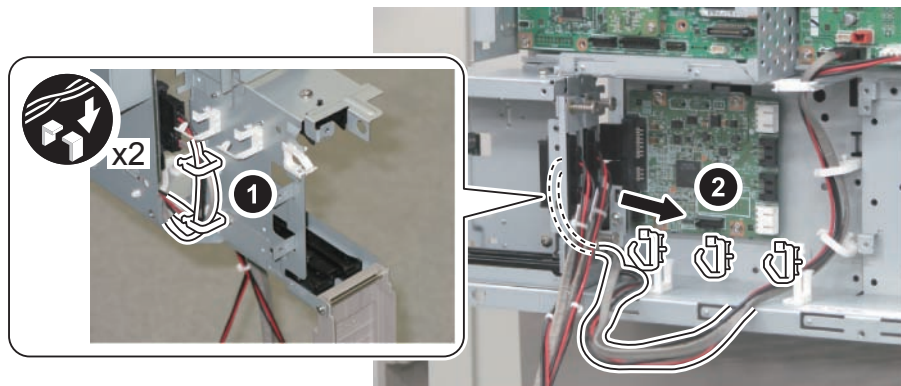
**NOTE:**

Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.



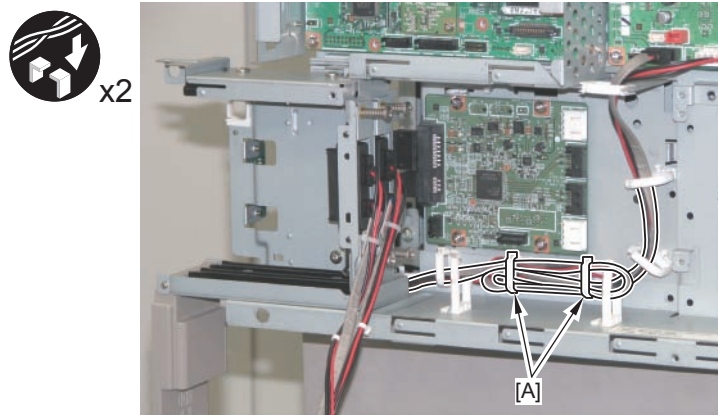
F-9-623

- 
- 4) Secure the Signal Cable and the Power Supply Cable in place using the 2 Wire Saddles at the back of the HDD Case Unit.
- 5) Free the cables from the 3 Wire Saddles at the front, and pull out the extra lengths of the cables to the front.



F-9-624

- 
- 6) Fold extra length of the Cable and secure it in place using the 2 Wire Saddles [A].

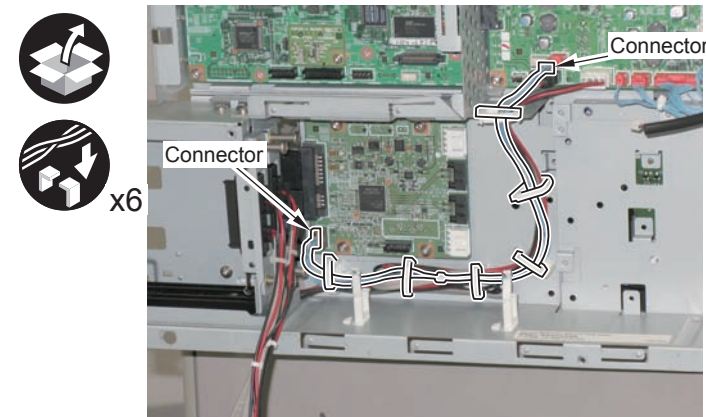


F-9-625

- 
- 7) Connect the STS Cable (340mm (Light Blue); FM3-9152) to the Main Controller PCB 2 and the Encryption Board.
- 2 Connectors
  - 1 Edge Saddle
  - 5 Wire Saddles

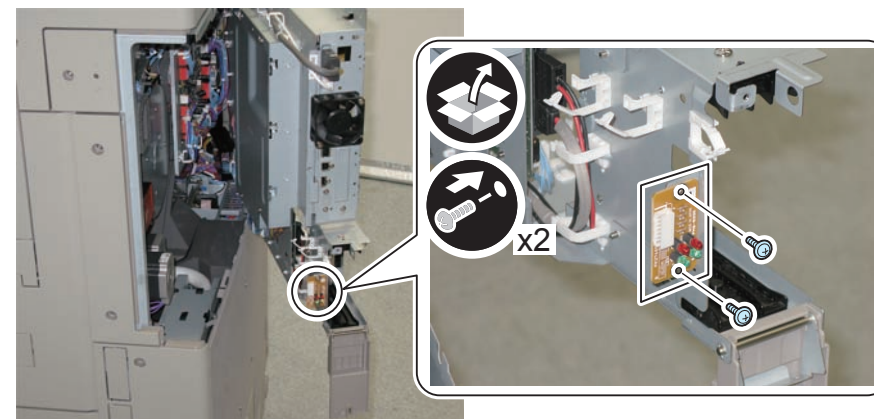
**CAUTION:**

Check that the STS Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-626

- 
- 8) Install the LED Board to the side surface of the HDD Case Unit.
- 2 Screws (TP; M3x6)



F-9-627

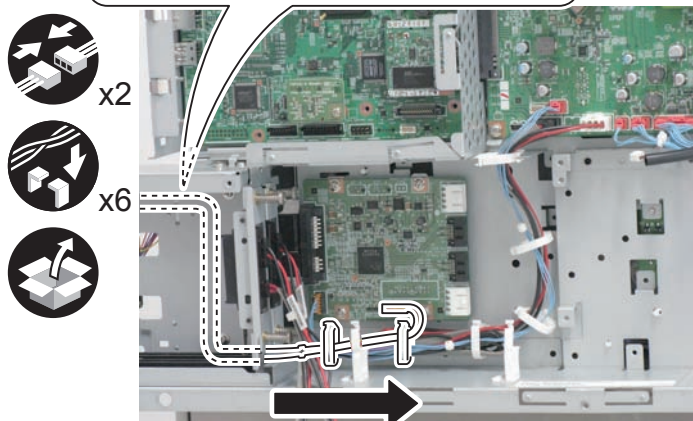
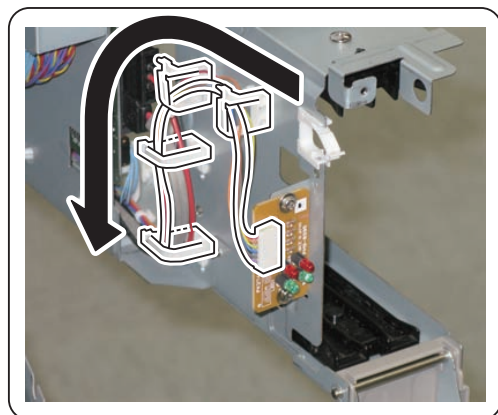


9) Connect the LED Cable (310mm; FM3-9158) to the LED Board and the Encryption Board.

- 2 Connectors
- 7 Wire Saddles

**CAUTION:**

- Secure the LED Cable in the direction of the arrow.
- Check that the LED Cable is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.

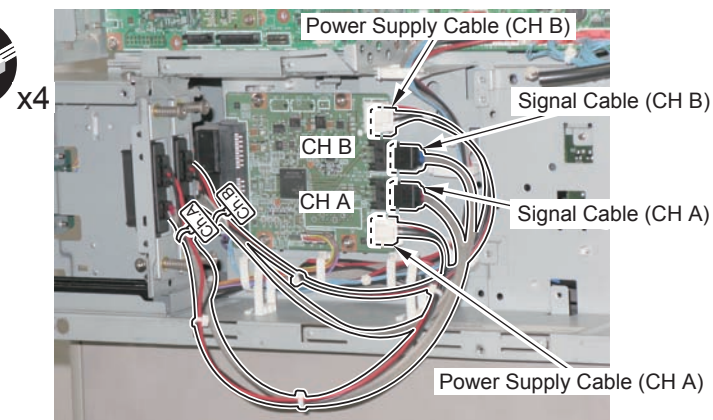


F-9-628



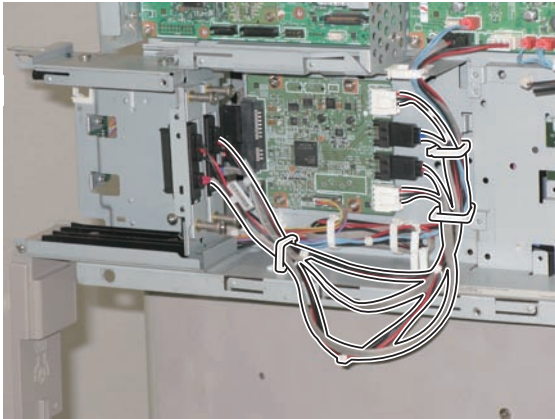
10) Connect the 4 Connectors of the Signal Cables and the Power Supply Cables to the Encryption Board.

- Power Supply Cable (CH B; FK2-7837)
- Signal Cable (CH B; FK2-7837)
- Signal Cable (CH A; FK2-7832)
- Power Supply Cable (CH A; FK2-7832)



F-9-629

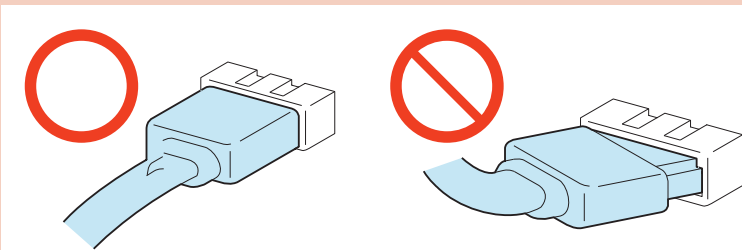
- 11) Secure the Signal Cable and the Power Supply Cable in place using the 3 Wire Saddles.



F-9-630

## CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.

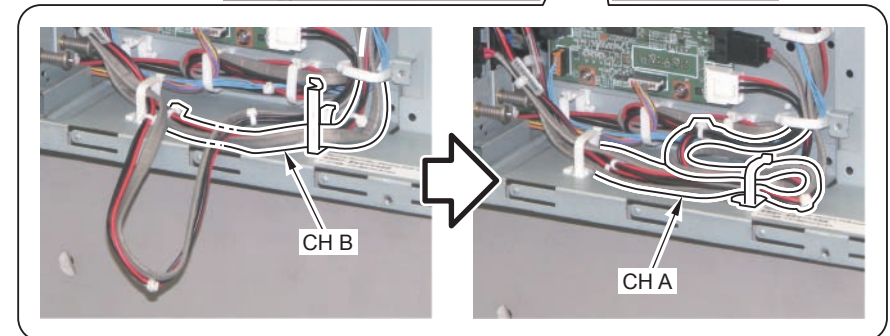
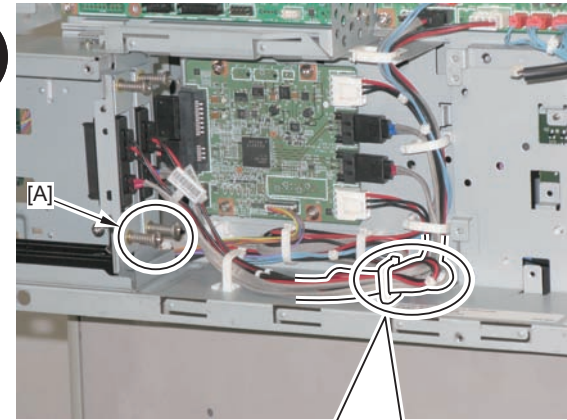


F-9-631

- 12) Put the CH B cable through the Wire Saddle.  
 □ 13) Fold the extra length of the CH A cable, and secure it with the Wire Saddle.

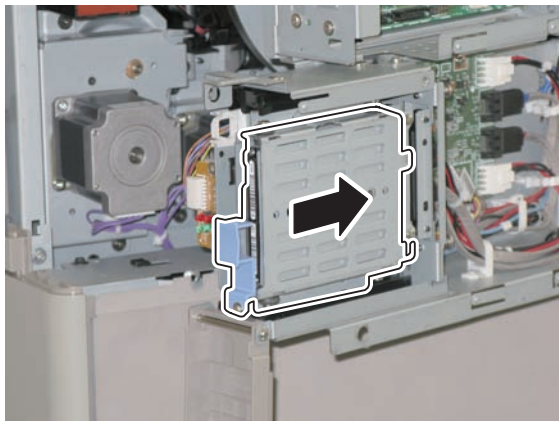
## CAUTION:

- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-632

- 14) Insert the assembled Removable HDD.

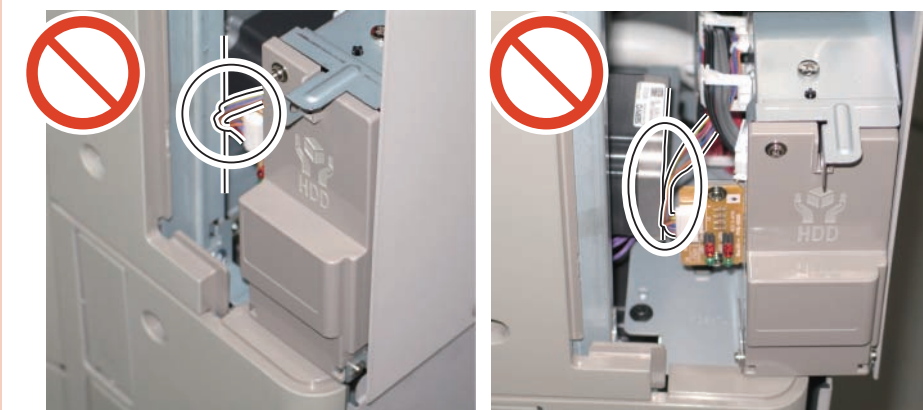


F-9-633

- 15) Close the Controller Box.

**CAUTION:**

When closing the Controller Box, check that the LED Cable is not trapped or does not contact with it.

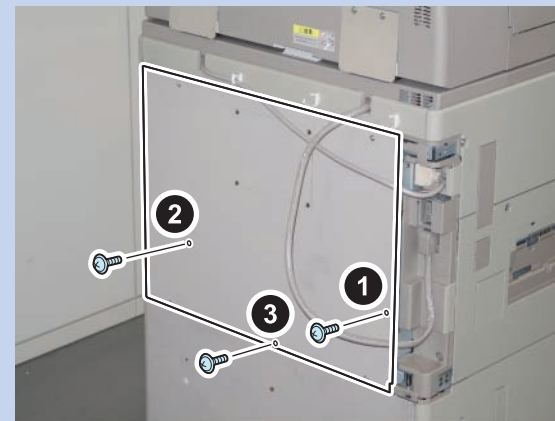


F-9-634

- 16) Install the Rear Upper Cover.

**NOTE:**

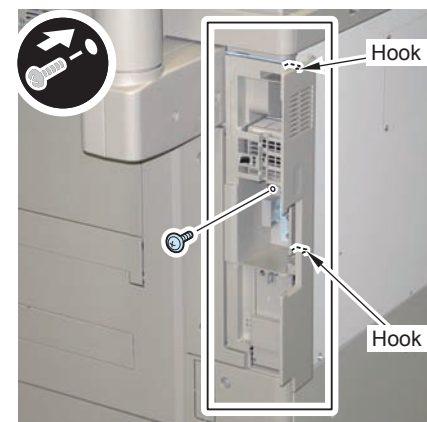
Be sure to install the 3 TP screws shown in the figure below.



F-9-635

- 17) Install the Side Cover.

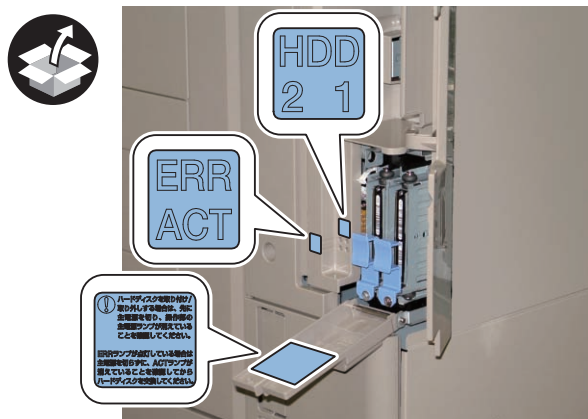
- 2 hooks
- 1 Screw



F-9-636



- 18) Affix the LED Label.
- 19) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-637

- 20) Close the HDD Cap, and install the key prepared by the user for locking.

**NOTE:**

Be sure to use the locking key which size is the one indicated below or smaller.

- Size (width x depth x height) : 67mmx14mmx64mm



F-9-638

- 21) Close the Right Rear Cover 1.
- 22) Return the Left Rear Cover to its original position, and secure the Reader Communication Cable and the Reader Power Supply Cable in place using the Wire Saddles.
- 23) Connect the power plug to the outlet.

## Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product. It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product. Details follow.

### 1. Requirements

- 1) PC  
Service support tool in the version that supports this host machine must be installed.
- 2) Cross Ethernet Cable

### 2. Preparing for the Installation of the System Software of Host machine

- 1) If both PC and the machine are on, turn them off.
- 2) Connect the PC and the machine using an Ethernet cable.
- 3) Turn on the PC.
- 4) Start up the machine in download mode (safe mode).

### 3. Selecting the System Software

- 1) Set the CD containing the latest system software in the PC on which the SST is used.
- 2) Start up the SST.
- 3) Click 'Register Firmware'.
- 4) Select the drive in which the System Software CD has been set, and click 'SEARCH'.
- 5) Click 'REGISTER'.
- 6) Click OK.

### 4. Downloading the System Software

- 1) Click 'CONNECT'.
- 2) From the list of machine series, select the appropriate model.
- 3) Select 'Single', and click start.
- 4) Execute HDD format.
- 5) After 5 sec from when the power of the host machine is turned OFF, restart the host machine in download mode of safe mode.
- 6) When "download mode" is displayed on the control panel, click simple mode start.
- 7) Click start to execute download.
- 8) Follow the instruction on the screen and when download is complete, click OK.
- 9) Exit SST.
- 10) Check the versions of MN-CONT and LANG etc in service mode (COPIER > Display > VERSION).

## Checking the Security Version

- 1) Press the Counter key (123 key) on the control panel.
- 2) Press the [Check Device Configuration] key appearing on the control panel.
- 3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.  
When several Encryption Boards are installed, multiple version information is displayed.

### CAUTION:

The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

## Checking the Security Mark

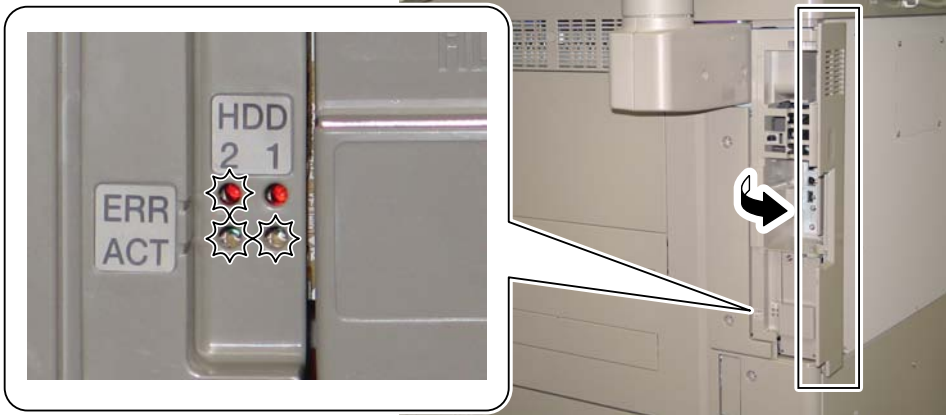
The user may check the security mark, appearing on the control panel when using the host machine to make sure that an appropriate level of security is being maintained. The mark appears when the machine is equipped with an Encryption Board and the board is operating correctly. The Users Guide provides the following description in connection with the security mark:

< Confirming the Security Mark >

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark (🔒) is displayed on the lower left corner of a panel screen.

## Checking after Installation

- 1) Open the HDD Cover, and check that the LED is flashing.
  - The green LED of HDD1 (Slot1) is flashing.



F-9-639

## Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:

At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <Servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for 'Canon MFP Security Chip' as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

## Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.



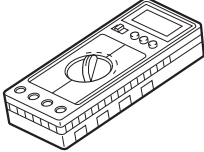
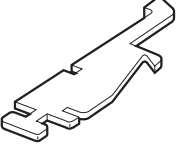
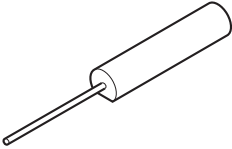
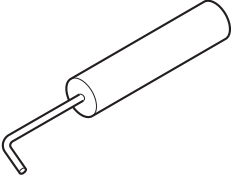
# Appendix

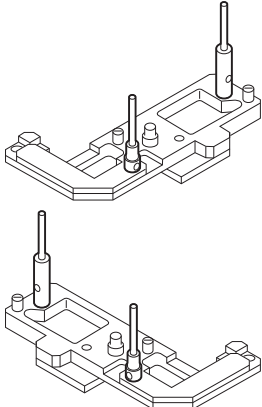
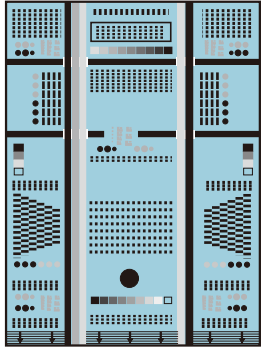
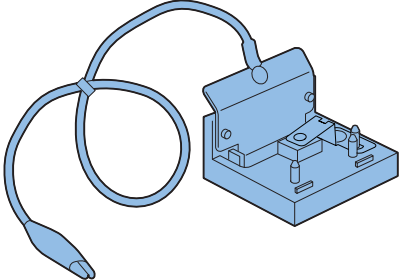
- Service Tools
- General Timing Chart
- General Circuit Diagram
- List of User Mode
- Backup Data
- Detail of HDD partition
- Soft Counter List

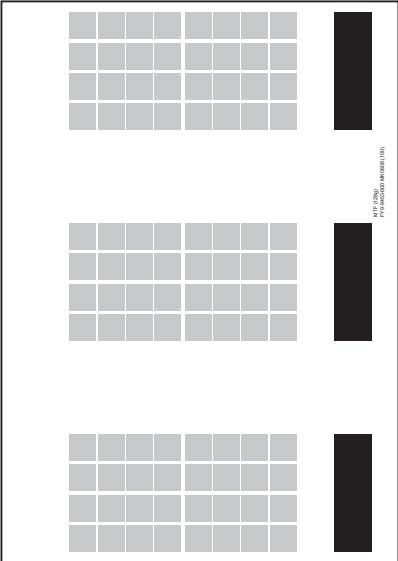
## Service Tools

### Special Tools

In addition to the standard tools set, the following special tools are required when servicing the machine:

Tool name	Tool No	Ctgr	Appearance	Remarks
Digital multimeter	FY9-2002	A		Used for electrical checks; for adjustment of laser power in combination with the laser power checker.
Cover switch	TKN-0093	A		
Tester extension pin	FY9-3038	A		
Tester extension pin(L-shaped)	FY9-3039	A		Used as a probe extension when making electrical checks.

Tool name	Tool No	Ctgr	Appearance	Remarks
Mirror positioning tool(front, rear)	FY9-3046-000	B		Used for positioning the mirror mount 1 and the mirror mount 2.
NA-3 Test Sheet	FY9-9196	A		Use for image adjustment / check
Electrode for checking potential sensor	FY9-3059-000	B		Surface potential sensor for zero-level check

Tool name	Tool No	Ctgr	Appearance	Remarks
MTF TEST SHEET	FY9-9453	N		MTF adjustment

T-10-1



 Solvents and Oils

Name	Uses	Composition	Remarks
Alcohol	Cleaning; e.g., glass, plastic, rubber; external covers.	Fluoride-family hydrocarbon Alcohol Surface activating agent Water	<ul style="list-style-type: none"> <li>Do not bring near fire.</li> <li>Procure locally.</li> <li>Substitute: IPA (isopropyl alcohol)</li> </ul>
Alcohol	Cleaning; e.g., metal; oil or toner stain.	Fluoride-family hydrocarbon Chlorine-family hydrocarbon Alcohol	<ul style="list-style-type: none"> <li>Do not bring near fire.</li> <li>Procure locally</li> <li>Substitute: MEK</li> </ul>
Lubricating oil (EM-50L)	Lubrication; e.g., gears.	Special oil Special solid lubricating agent Lithium soap	Tool No.: HY9-0007
Lubricating oil	Lubrication; e.g., scanner rail	Synthetic oil	<ul style="list-style-type: none"> <li>Synthetic oil</li> <li>NTN Corporation EU-1</li> <li>Tool No.: FY9-6028 (50 cc)</li> </ul>
Super lube grease	Apply to the gear of the fixing assembly	Chemical synthesis oil	<ul style="list-style-type: none"> <li>Chemical synthesis oil</li> <li>Tool No.: FY9-6005 (80 g)</li> </ul>
Tospearl (lubricant for Photo-sensitive drum cleaning blade)	Use it for preventing detachment of the drum cleaning blade.	-	Tool No.: FY9-6007
Conducting grease	Drum sliding Assembly	Ether, polytera fluoethylene	Tool No.: FY9-6008 (10 g)
Drum cleaning powder	Cleaning the photosensitive drum.	Aluminum oxide Zirconium silicate	<ul style="list-style-type: none"> <li>FO #6000</li> <li>Fujimi Incorporated</li> <li>Tool No.: FY9-6024</li> </ul>

T-10-2

# General Timing Chart

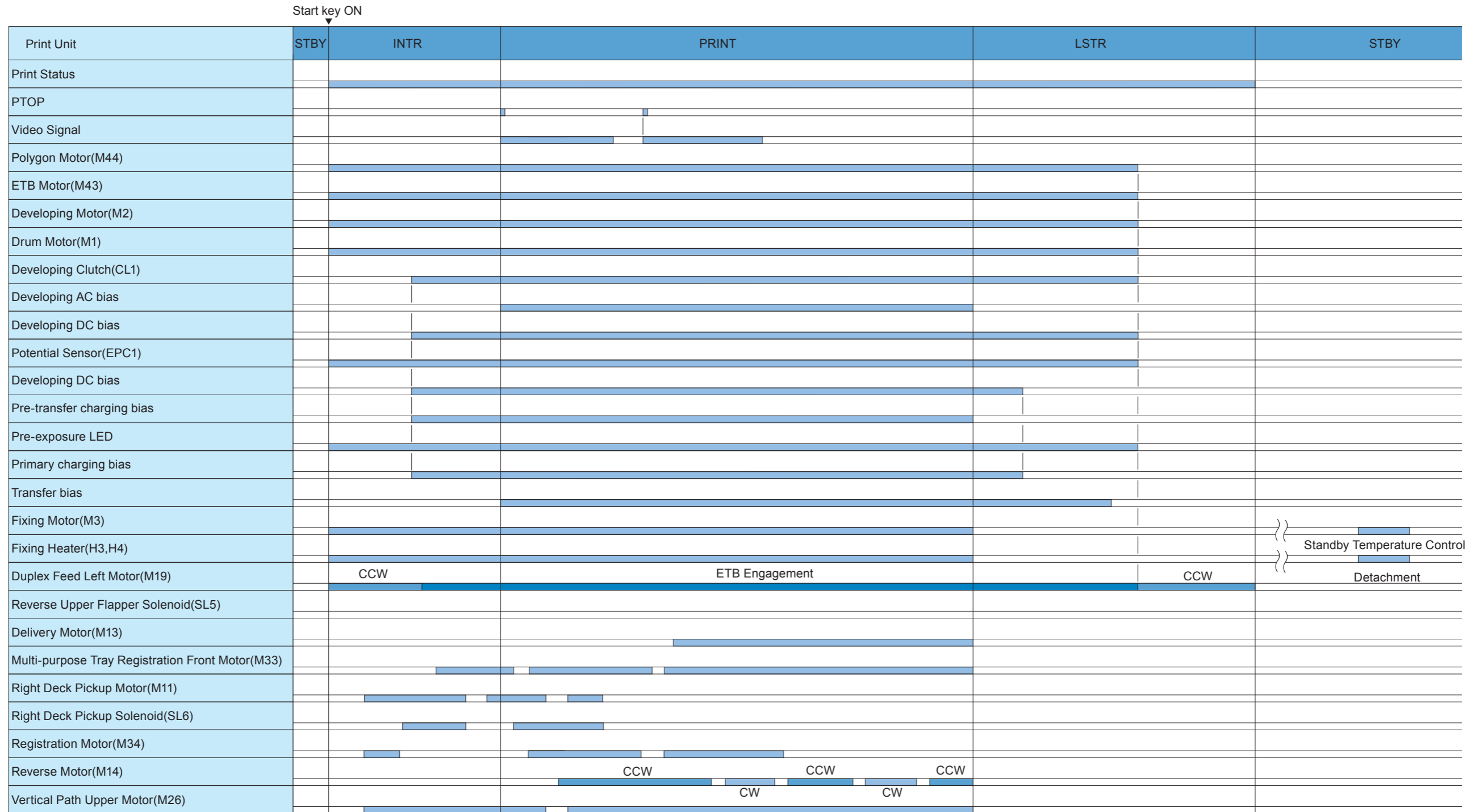
## Basic sequence at power ON



\* CW=Positive Rotation,CCW=Negative Rotation

F-10-1

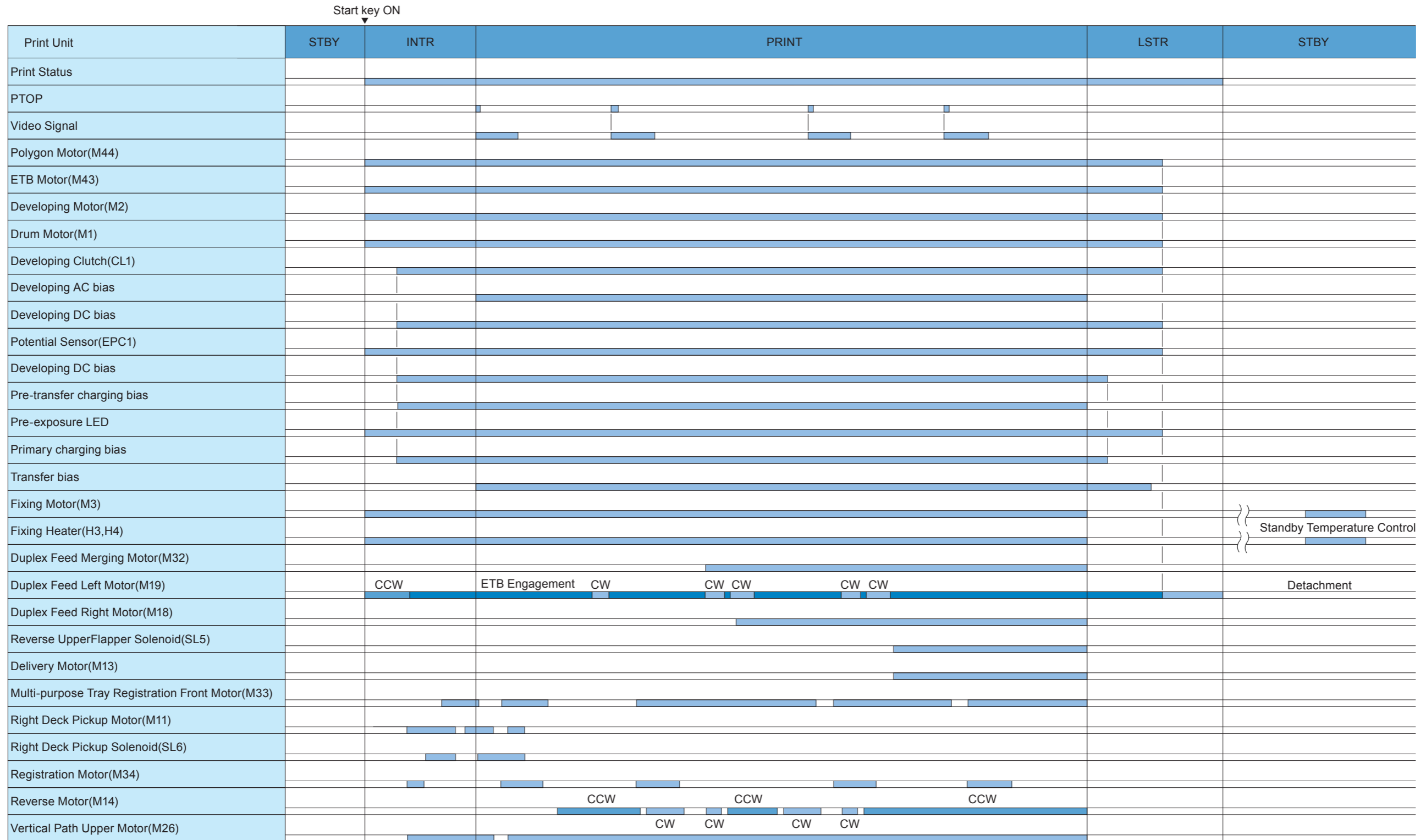
Basic sequence at printing <Condition: A4 1-sided (2 sheets), Right deck, Reverse delivery>



\* CW=Positive Rotation,CCW=Negative Rotation

F-10-2

Basic sequence at printing <Condition: A4 2-sided (2 sheets), Right deck, Reverse delivery>



\* CW=Positive Rotation,CCW=Negative Rotation

Appendix > General Timing Chart > Basic sequence at printing <Condition: A4 2-sided (2 sheets), Right deck, Reverse delivery>

Appendix > General Timing Chart > Basic sequence at printing <Condition: A4 2-sided (2 sheets), Right deck, Reverse delivery>

## General Circuit Diagram

### Signal Input/Output List

Jack No.	Abbreviated Signal Name	Signal Name
J401	12V_FUSE_SW_2	12V Fuse Switch 2
	24VB_OCD_SW_2	24VB OCD Switch 2
J411	DRV1_1ST_J_CLK-	Main Driver High Speed Serial Clock Signal 1 (Differential -)
	DRV1_1ST_J_CLK+	Main Driver High Speed Serial Clock Signal 1 (Differential +)
	DRV1_1ST_J_M2S+	Main Driver High Speed Serial Transmission Signal 1 (Differential +)
	DRV1_1ST_J_M2S-	Main Driver High Speed Serial Transmission Signal 1 (Differential -)
	DRV1_2ND_J_M2S-	Main Driver High Speed Serial Transmission Signal 2 (Differential -)
	DRV1_2ND_J_M2S+	Main Driver High Speed Serial Transmission Signal 2 (Differential +)
	DRV1_1ST_J_S2M-	Main Driver High Speed Serial Communication Reception Signal 1 (Differential -)
	DRV1_1ST_J_S2M+	Main Driver High Speed Serial Communication Reception Signal 1 (Differential +)
	DRV1_2ND_J_S2M+	Main Driver High Speed Serial Communication Reception Signal 2 (Differential +)
	DRV1_2ND_J_S2M-	Main Driver High Speed Serial Communication Reception Signal 2 (Differential -)
J412	DRV1_3RD_J_S2M-	Main Driver High Speed Serial Communication Reception Signal 3 (Differential -)
	DRV1_3RD_J_S2M+	Main Driver High Speed Serial Communication Reception Signal 3 (Differential +)
	DRV1_3RD_J_CLK-	Main Driver High Speed Serial Clock Signal 3 (Differential -)
	DRV1_3RD_J_CLK+	Main Driver High Speed Serial Clock Signal 3 (Differential +)
	DRV1_3RD_J_M2S+	Main Driver High Speed Serial Transmission Signal 3 (Differential +)
	DRV1_3RD_J_M2S-	Main Driver High Speed Serial Transmission Signal 3 (Differential -)
J413	AD0	Potential Sensor Detection Signal
	AD1	Patch Sensor Detection Signal
	IH_PWM2	IH Power Supply PWM Output 2
	IH_PWM1	IH Power Supply PWM Output 1
	IH_PWM0	IH Power Supply PWM Output 0
	IH_I_LIMIT	IH Power Supply Over Currency Detection Signal
	DRV1_ANALOG_IF_CNCT_DTCX	Main Driver Connection Detection Signal
J414	+5V	5V Power Supply
	+3.3V	3.3V Power Supply

Jack No.	Abbreviated Signal Name	Signal Name
J421	DRV2_5TH_J_CLK-	Pickup Driver High Speed Serial Clock Signal 5 (Differential -)
	DRV2_5TH_J_CLK+	Pickup Driver High Speed Serial Clock Signal 5 (Differential +)
	DRV2_5TH_J_M2S+	Pickup Driver High Speed Serial Transmission Signal 5 (Differential +)
	DRV2_5TH_J_M2S-	Pickup Driver High Speed Serial Transmission Signal 5 (Differential -)
	DRV2_6TH_J_M2S-	Pickup Driver High Speed Serial Transmission Signal 6 (Differential -)
	DRV2_6TH_J_M2S+	Pickup Driver High Speed Serial Transmission Signal 6 (Differential +)
	DRV2_5TH_J_S2M-	Pickup Driver High Speed Serial Communication Reception Signal 5 (Differential -)
	DRV2_5TH_J_S2M+	Pickup Driver High Speed Serial Communication Reception Signal 5 (Differential +)
	DRV2_6TH_J_S2M+	Pickup Driver High Speed Serial Communication Reception Signal 6 (Differential +)
	DRV2_6TH_J_S2M-	Pickup Driver High Speed Serial Communication Reception Signal 6 (Differential -)
J431	DRV3_7TH_J_S2M-	Duplex Driver High Speed Serial Communication Reception Signal 7 (Differential -)
	DRV3_7TH_J_S2M+	Duplex Driver High Speed Serial Communication Reception Signal 7 (Differential +)
	DRV3_8TH_J_S2M+	Duplex Driver High Speed Serial Communication Reception Signal 8 (Differential +)
	DRV3_8TH_J_S2M-	Duplex Driver High Speed Serial Communication Reception Signal 8 (Differential -)
J432	DRV3_7TH_J_CLK-	Duplex Driver High Speed Serial Clock Signal 7 (Differential -)
	DRV3_7TH_J_CLK+	Duplex Driver High Speed Serial Clock Signal 7 (Differential +)
	DRV3_7TH_J_M2S+	Duplex Driver High Speed Serial Transmission Signal 7 (Differential +)
	DRV3_7TH_J_M2S-	Duplex Driver High Speed Serial Transmission Signal 7 (Differential -)
	DRV3_8TH_J_M2S-	Duplex Driver High Speed Serial Transmission Signal 8 (Differential -)
	DRV3_8TH_J_M2S+	Duplex Driver High Speed Serial Transmission Signal 8 (Differential +)
	DUP_DRAWER_CNCT_DTCX	Fixing Feed Drawer Connection Detection Signal
J441	PVD_K0	Printer Video Data Signal 0
	PVD_K1	Printer Video Data Signal 1
	PVD_K2	Printer Video Data Signal 2
	PVD_K3	Printer Video Data Signal 3
	PVD_K4	Printer Video Data Signal 4
	PVD_K5	Printer Video Data Signal 5
	PVD_K6	Printer Video Data Signal 6
	PVD_K7	Printer Video Data Signal 7
	PHSYNC_K	Printer Horizontal Synchronization Signal
	PVCLK_K	Printer Video Transmission Clock
	PBD_K	Printer BD Signal
PVREQ_K	Printer Image Request Signal	

Jack No.	Abbreviated Signal Name	Signal Name	
J442	DDI_PPRTST	Printer Start Signal	
	DDI_PPOWER	Printer Power Supply Control Signal	
	DDI_PRTS	Controller Receivable Signal	
	DDI_RXD	Printer Serial Command Signal (Main Controller→DC Controller)	
	DDI_PCTS	Printer Receivable Signal	
	DDI_TXD	Printer Serial Status Signal (DC Controller→Main Controller)	
	DDI_PSCNST	Scan Start Signal	
	DDI_PPRDY	Printer Power Ready Signal	
	DDI_DCON_LIVE	Printer Operation Signal	
	DDI_PPO1	Printer Universal Output Signal	
	DDI_INT_DCON	Printer Interruption Signal	
	DDI_PCPRDY	Controller Power Ready Signal	
	DDI_PPI2	Printer Reset Signal	
	DDI_PLIVEWAKE	Printer Live Wake Mode Signal	
	DDI_DOWNLOAD	Printer Download Mode Signal	
	J451	RMT_TEIHANX	Duplex Driver Power Supply Remote
		DTC_24VA_ILX	24VA Interlock Detection Signal
		DTC_24VB_ILX	24VB Interlock Detection Signal
DTC_12V_LZX		12V Interlock Detection Signal	
DCP_FAN_FULLX		Power Supply Fan Full Speed Signal	
DCP_FAN_ERR		Power Supply Fan Error Detection Signal	
RELAY_IF_CNCT_DTC		Relay Board Connection Detection Signal	
J461	CHOUHI_CLK	Clock (Option Deck Communication IF)	
	DECK_CLK	Option Deck Pickup Motor Clock	
	CHOUHI_TXEND	Transmission is complete (Option Deck Communication IF)	
	CHOUHI_TXD	Reception Request Signal (Option Deck Communication IF)	
	CHOUHI_RXLOAD	Reception is complete (Option Deck Communication IF)	
	CHOUHI_RXD	Reception Signal (Option Deck Communication IF)	
J462	CHOUHI_TXOUTEN	Output Enable (Option Deck Communication IF)	
	FIN_RMTX	Finisher Remote Signal	
	IPC_RXD	Finisher Communication Reception Signal	
	IPC_TXD	Finisher Communication Transmission Signal	
	FIN_MODE	Finisher Mode Signal	
	FIN_RESET	Finisher Reset Signal	
J471	FIN_DOWNLOAD	Finisher Download Signal	
	K_LDG_P	LDG Data (Differential +)	
	K_LDG_N	LDG Data (Differential -)	
	K_LDH_P	LDH Data (Differential +)	
	K_LDH_N	LDH Data (Differential -)	
	K_LDF_P	LDF Data (Differential +)	
	K_LDF_N	LDF Data (Differential -)	
	K_LDE_P	LDE Data (Differential +)	
	K_LDE_N	LDE Data (Differential -)	

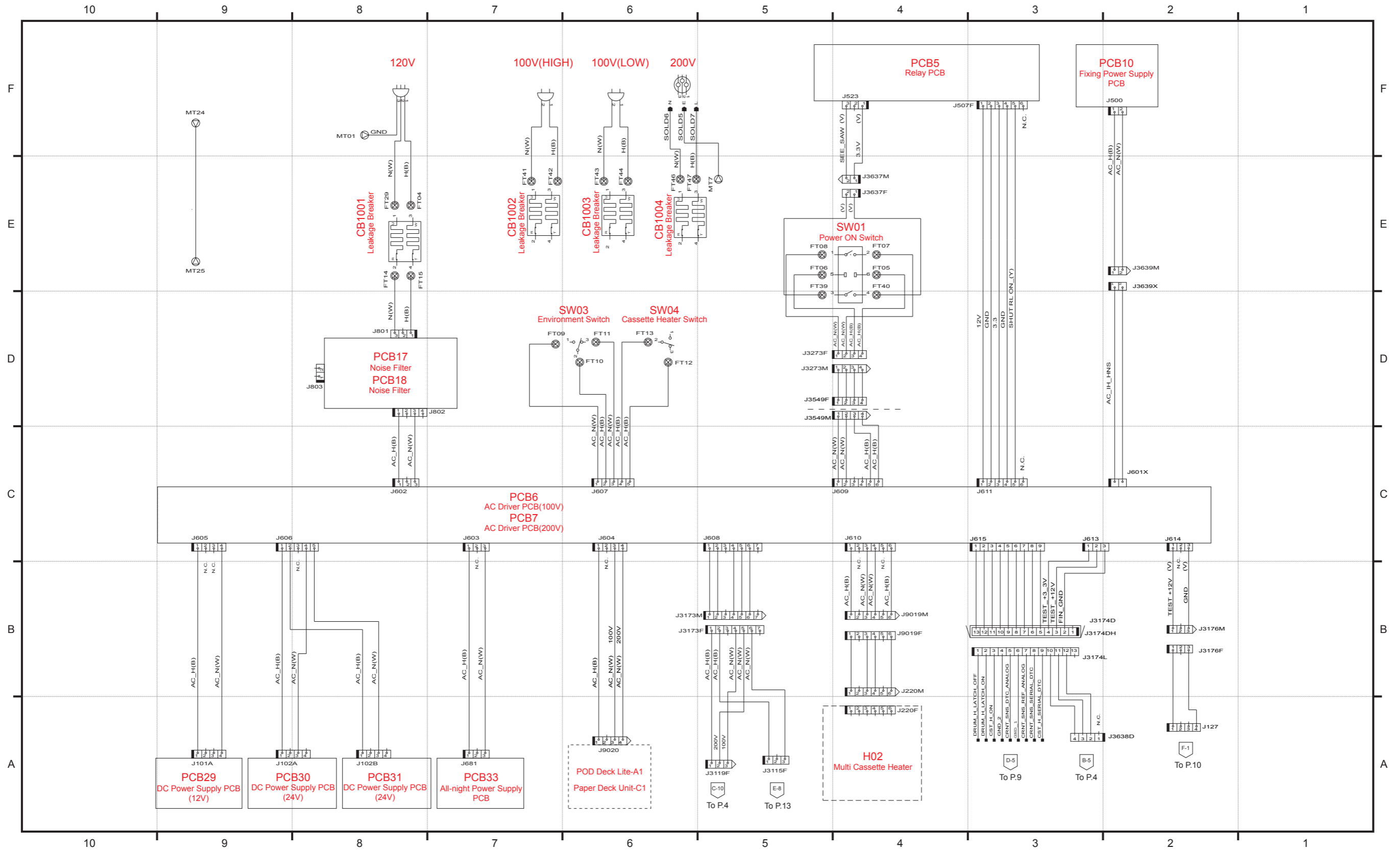
Jack No.	Abbreviated Signal Name	Signal Name	
J471	K_5V_MON	5V Monitor Signal	
	K_SDCLK	Shading Clock	
	K_WENN	Serial Interface Right Enable Signal	
	K_WCLK	Shading IO Clock	
	K_SD_DATA_E	Shading Data(E)	
	K_SD_DATA_F	Shading Data(F)	
	K_SD_DATA_H	Shading Data(H)	
	K_SD_DATA_G	Shading Data(G)	
	K_AKM_SCLK	AKM Clock	
	K_DIO	Data Input/Output	
	K_AKM1_IC_SELN	APC Control Chip Selection 1	
	K_INT_APC	Initial APC Signal	
	K_APC_SEL	APC Selection Signal	
	K_CTL0	Laser Operation Control Signal 0	
	K_CTL1	Laser Operation Control Signal 1	
	K_CTL2	Laser Operation Control Signal 2	
	K_CTL3	Laser Operation Control Signal 3	
	K_GAIN_FIX	Gain Fixed Signal	
	K_AKM2_IC_SELN	APC Control Chip Selection 2	
	K_SD_DATA_A	Shading Data (A)	
	K_SD_DATA_B	Shading Data (B)	
	K_SD_DATA_C	Shading Data (C)	
	K_SD_DATA_D	Shading Data (D)	
	K_LDD_N	LDD Data (Differential -)	
	K_LDD_P	LDD Data (Differential +)	
	K_LDC_N	LDC Data (Differential -)	
	K_LDC_P	LDC Data (Differential +)	
	K_LDA_N	LDA Data (Differential -)	
	K_LDA_P	LDA Data (Differential +)	
	K_LDB_N	LDB Data (Differential -)	
	K_LDB_P	LDB Data (Differential +)	
	J472	K_E2PROM_CS	EEPROM Chip Selection
		K_AKM_2_CSN	AKM2 Chip Selection
K_AKM_1_CSN		AKM1 Chip Selection	
K_PO_DEC		Polygon Motor Deceleration Signal	
K_PO_ACC		Polygon Motor Acceleration Signal	
K_PO_FG		Polygon Motor Rotation Signal (FG Signal)	
S/S		Start/Stop Signal	
K_SYS_OE	System Output Enable Signal		
K_BD	BD Signal		

Jack No.	Abbreviated Signal Name	Signal Name
J463	-CLK	Clock Signal (-CLK)
	+CLK	Clock Signal (+CLK)
	+TX	Transmission Signal (+TX)
	-TX	Transmission Signal (-TX)
	+RX	Reception Signal (+RX)
	-RX	Reception Signal (-RX)

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# General Circuit Diagram

## General Circuit Diagram (1/25)



P.1

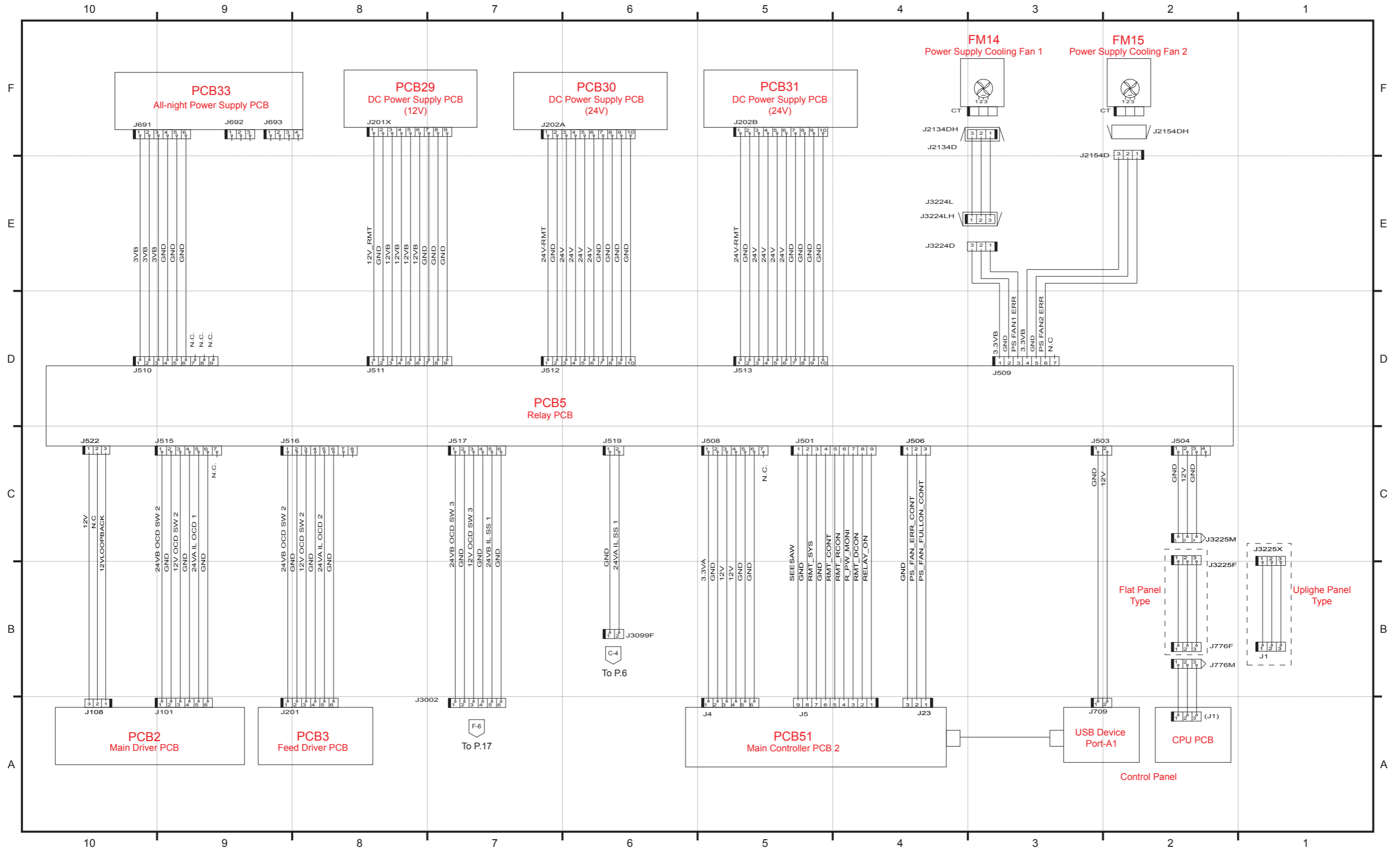
F-10-4

Appendix > General Circuit Diagram > General Circuit Diagram (1/25)

Appendix > General Circuit Diagram > General Circuit Diagram (1/25)



General Circuit Diagram (2/25)



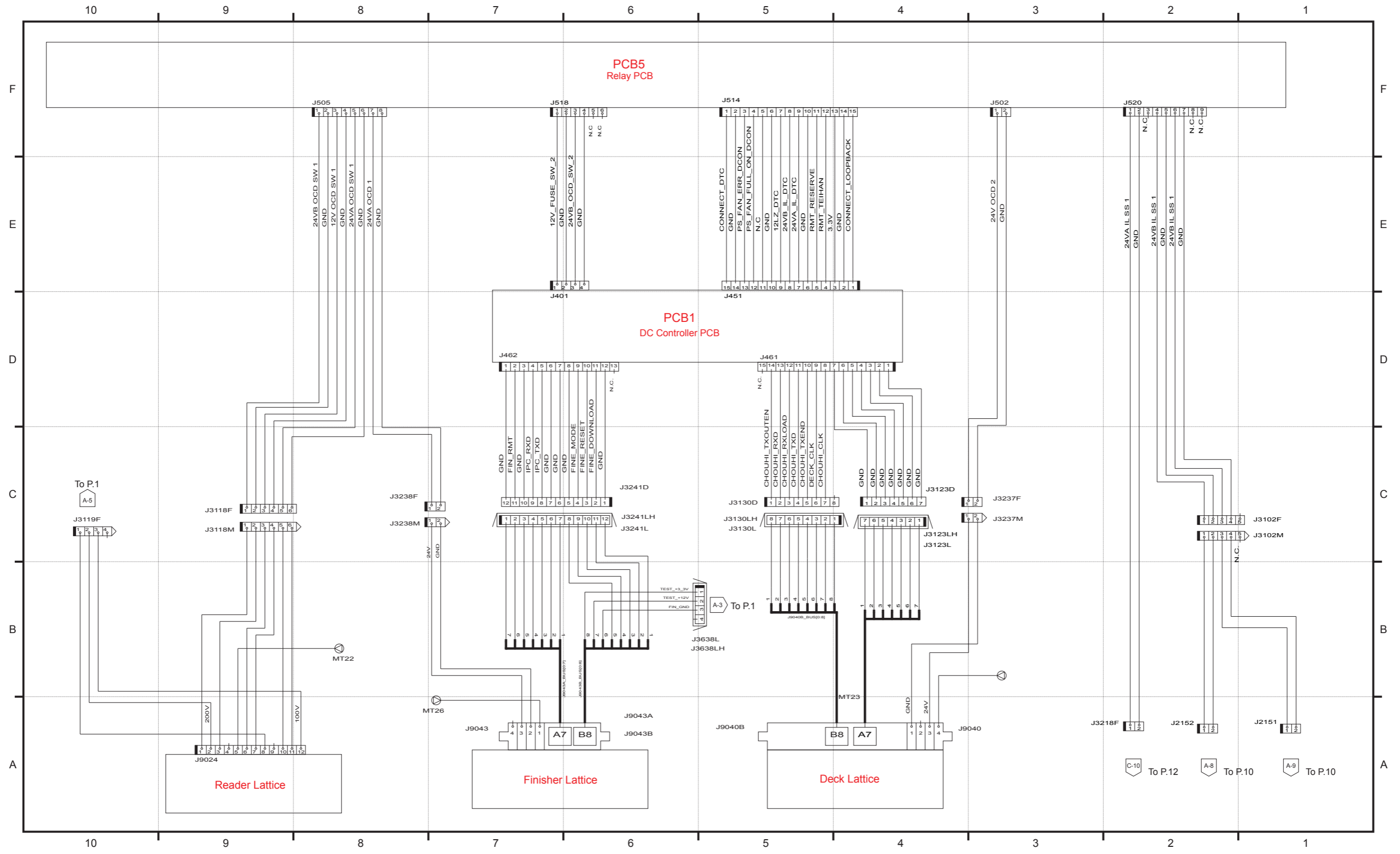
P.2

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Appendix > General Circuit Diagram > General Circuit Diagram (2/25)

Appendix > General Circuit Diagram > General Circuit Diagram (2/25)

General Circuit Diagram (3/25)



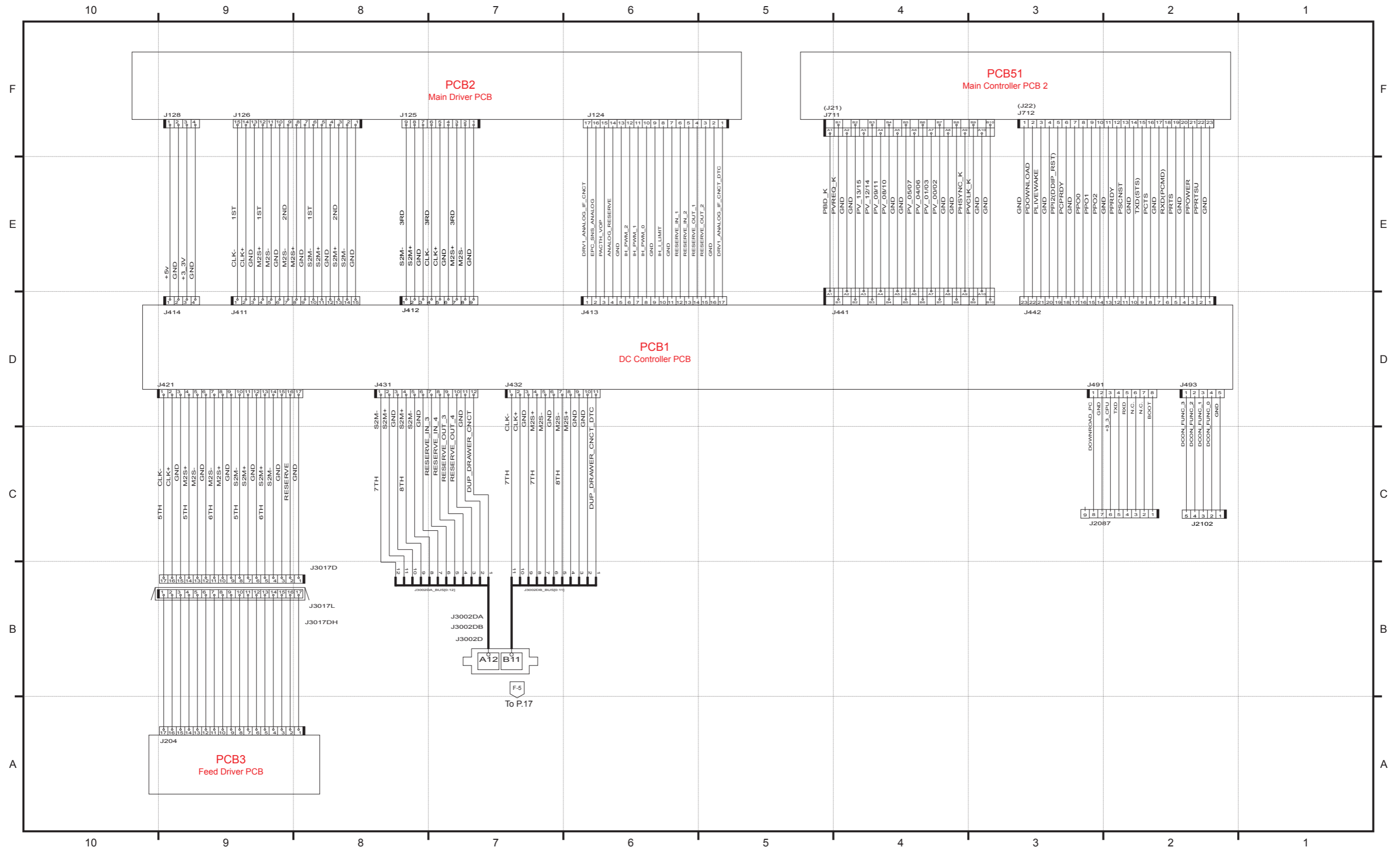
P.3

F-10-6

Appendix > General Circuit Diagram > General Circuit Diagram (3/25)

Appendix > General Circuit Diagram > General Circuit Diagram (3/25)

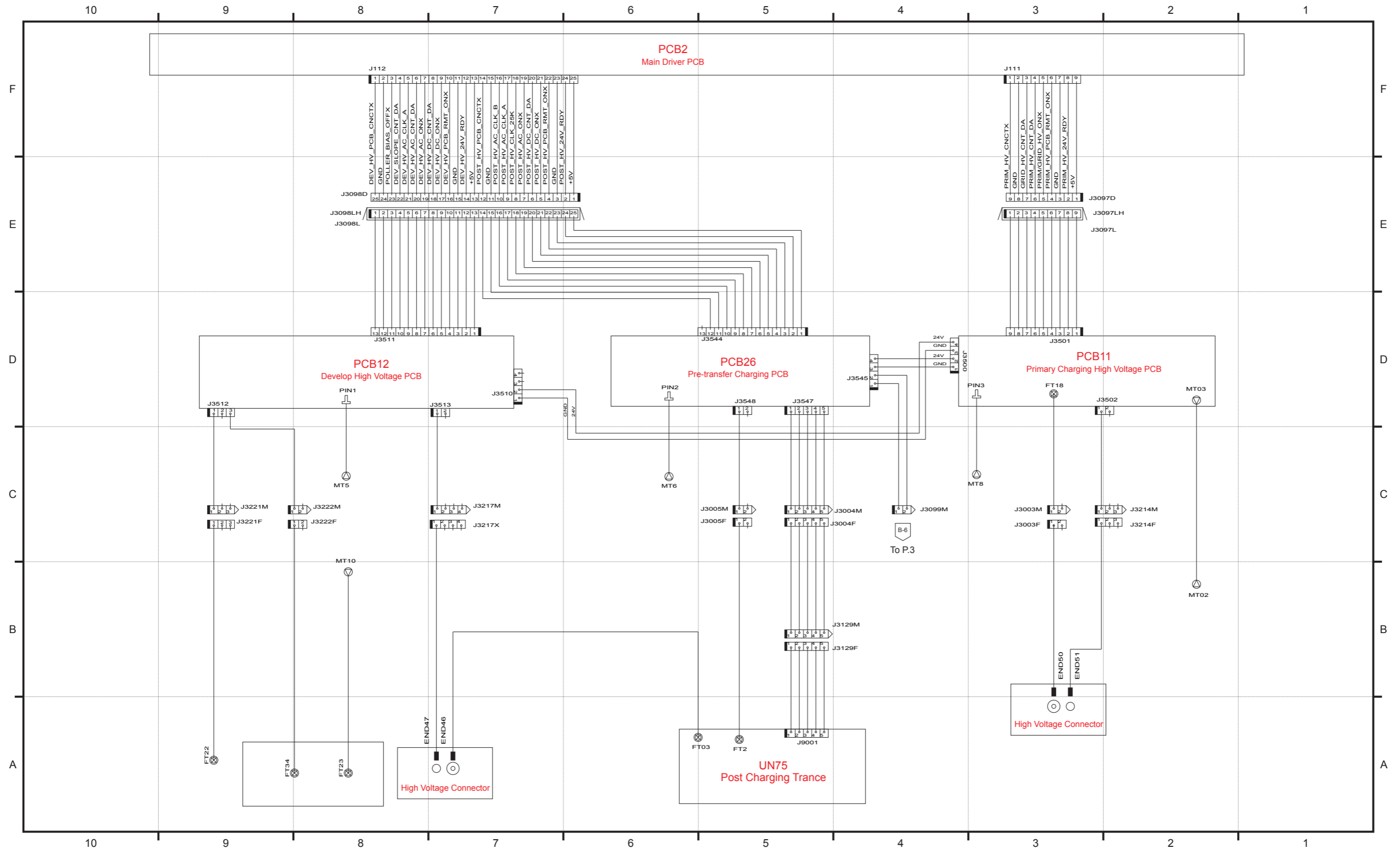
General Circuit Diagram (4/25)



P.4

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General Circuit Diagram (5/25)

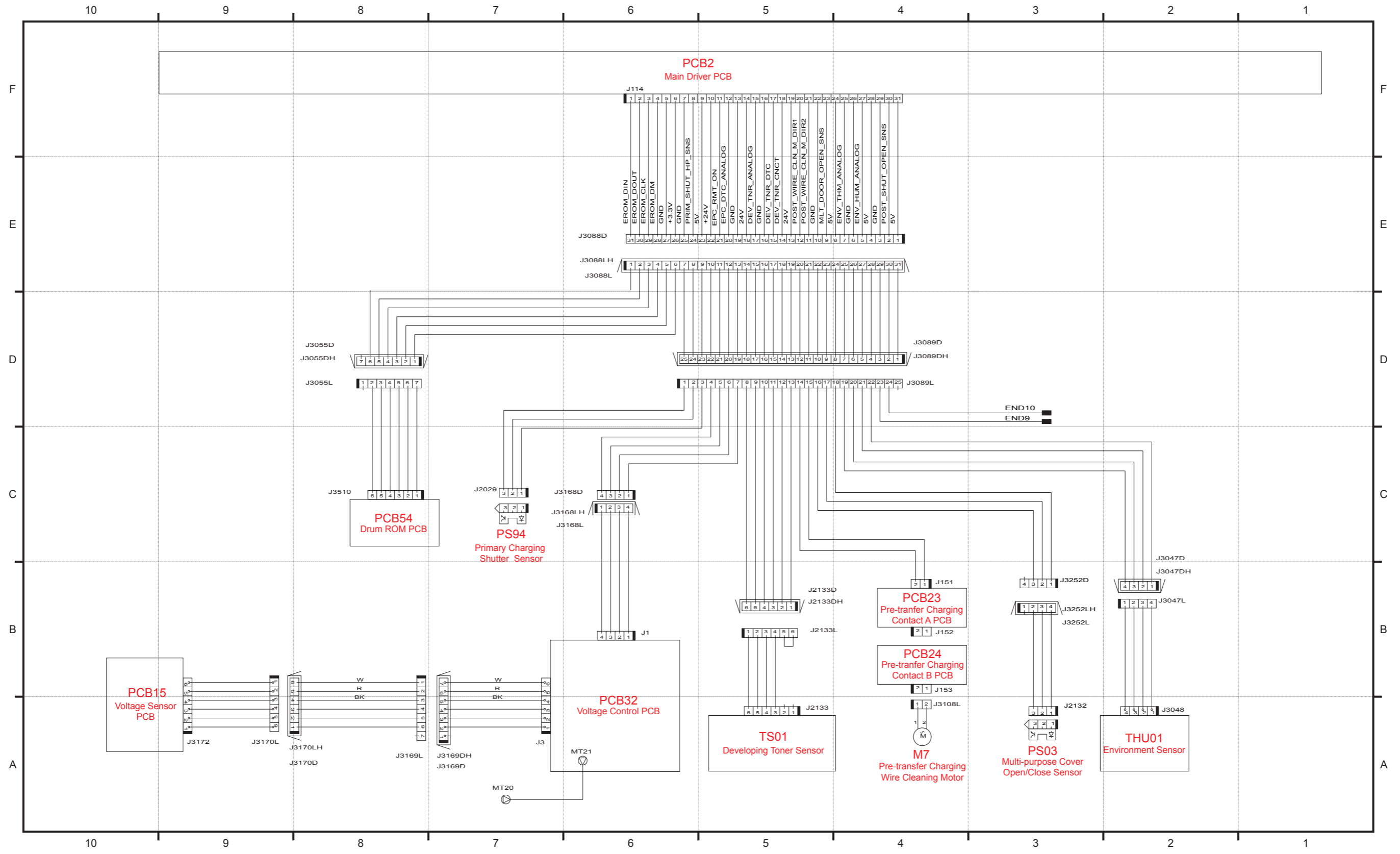


P.5

Appendix > General Circuit Diagram > General Circuit Diagram (5/25)

Appendix > General Circuit Diagram > General Circuit Diagram (5/25)

General Circuit Diagram (6/25)



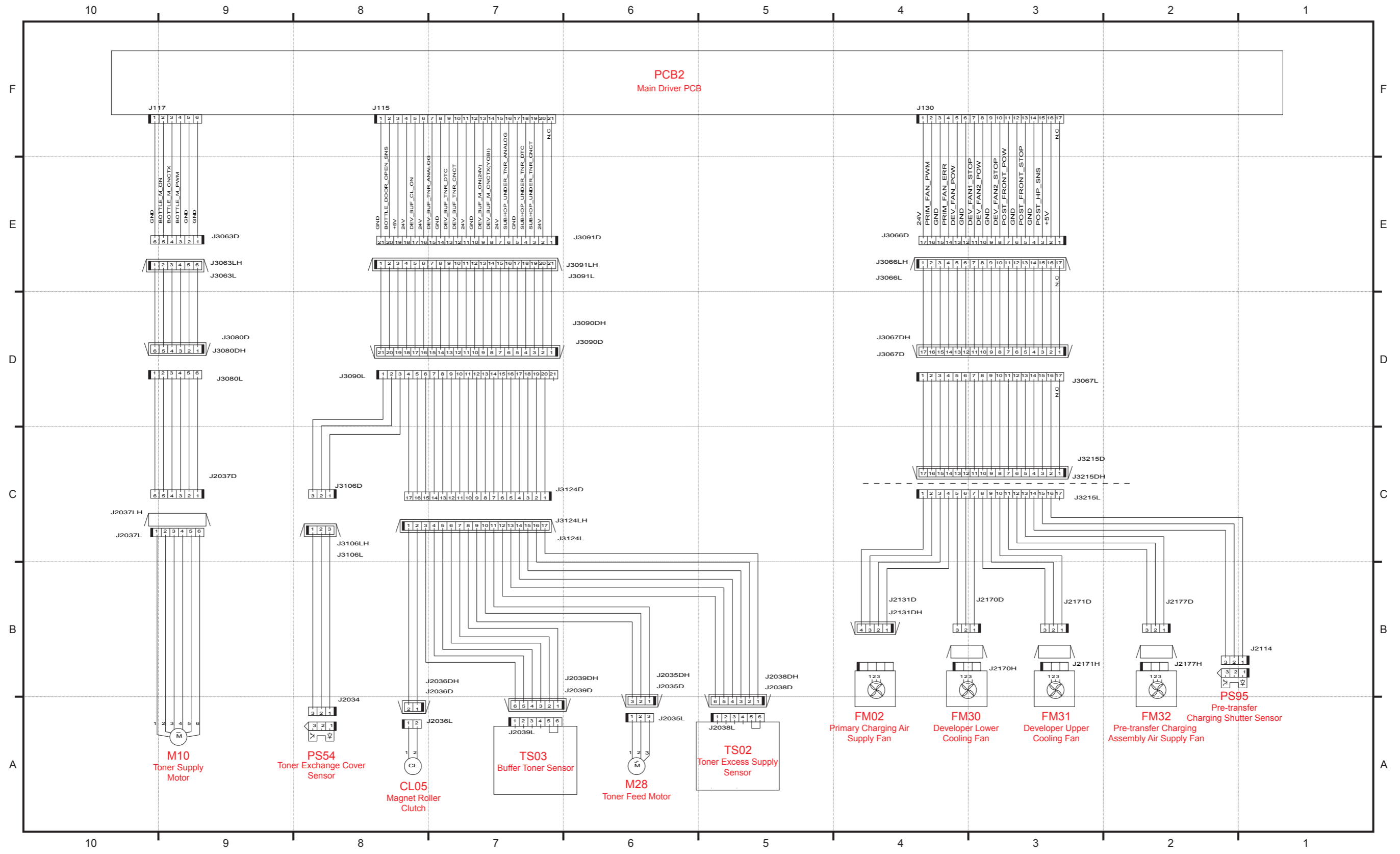
P.6

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Appendix > General Circuit Diagram > General Circuit Diagram (6/25)

Appendix > General Circuit Diagram > General Circuit Diagram (6/25)

General Circuit Diagram (7/25)

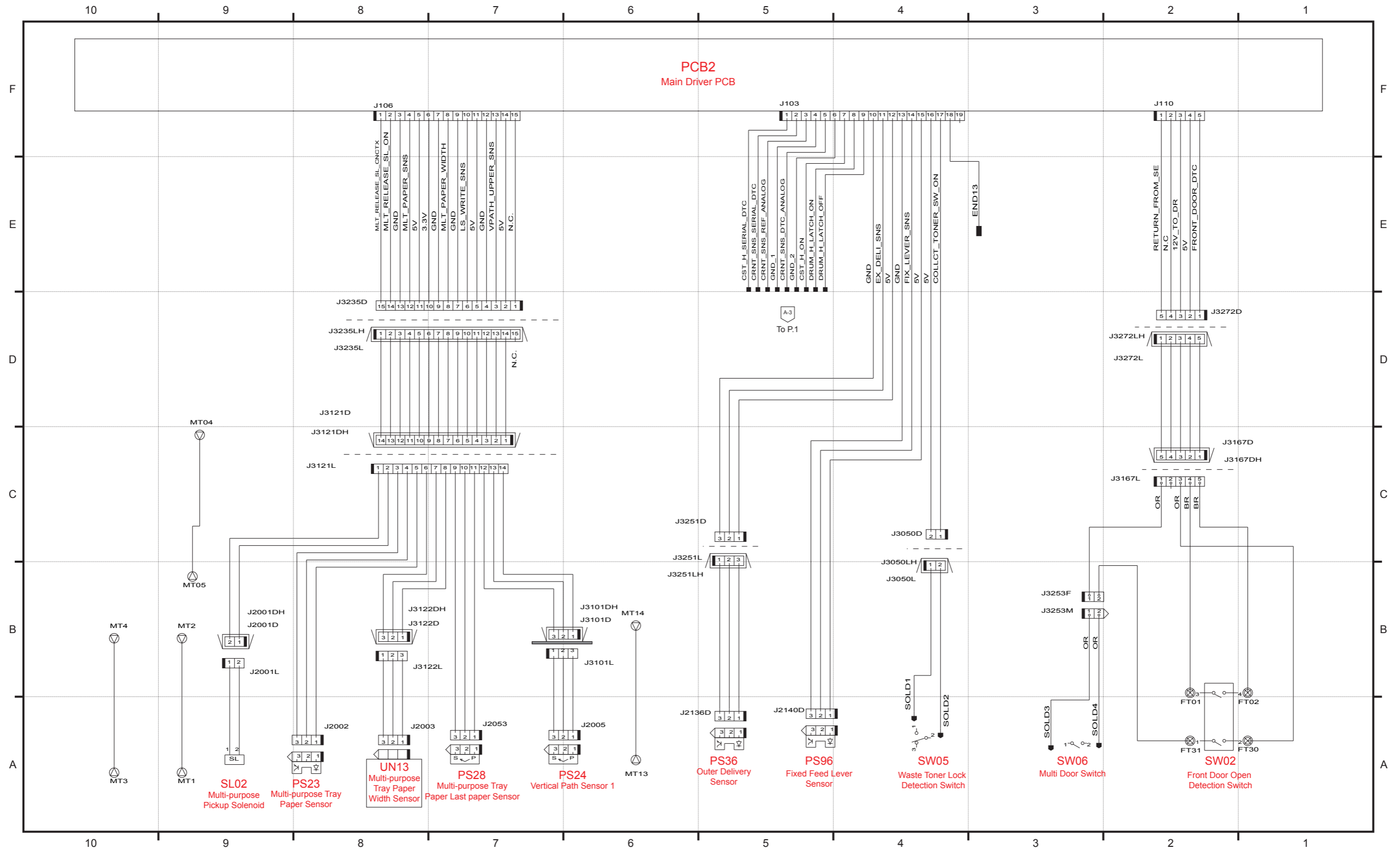


P.7

Appendix > General Circuit Diagram > General Circuit Diagram (7/25)

Appendix > General Circuit Diagram > General Circuit Diagram (7/25)

General Circuit Diagram (8/25)



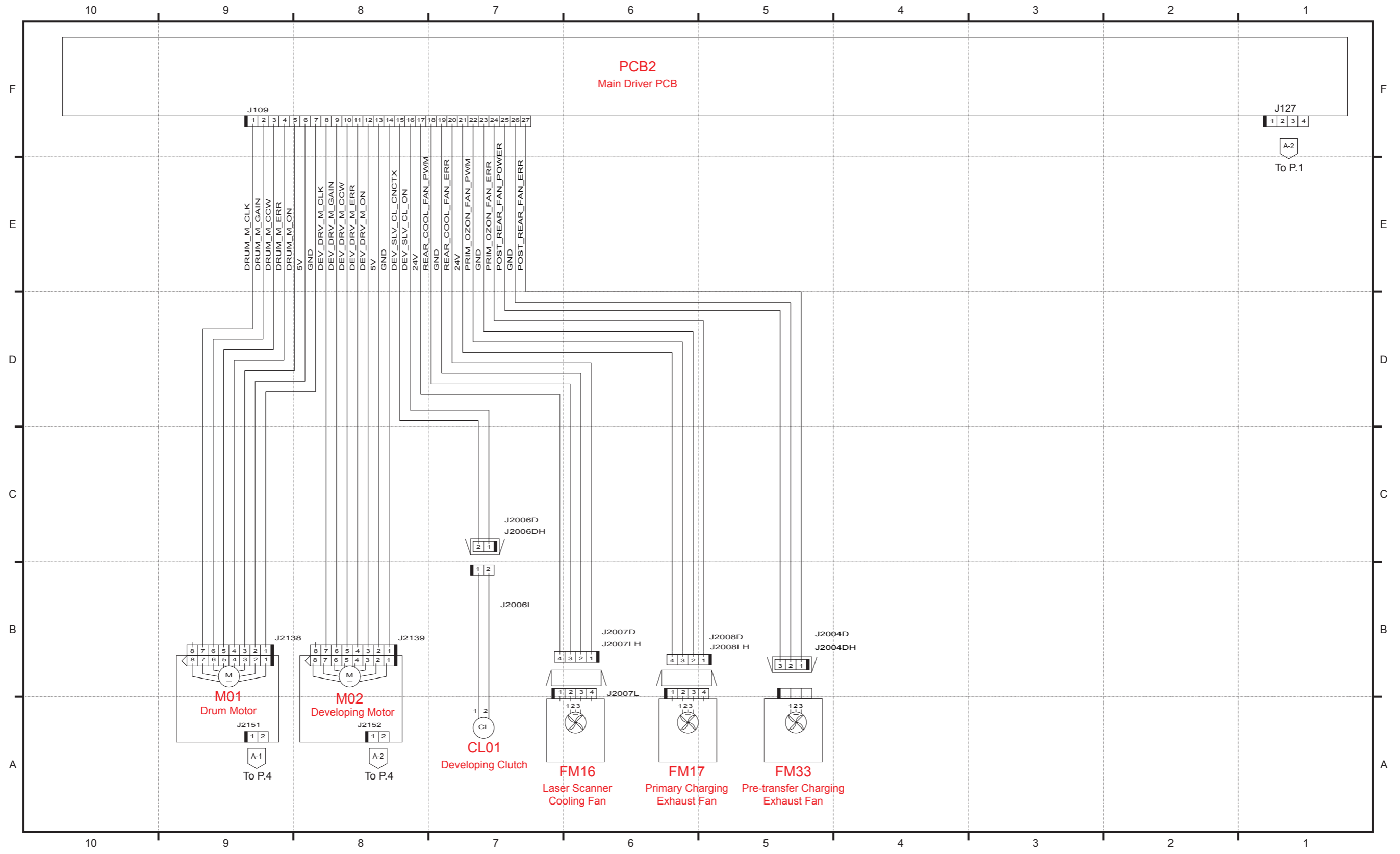
P.8

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Appendix > General Circuit Diagram > General Circuit Diagram (8/25)

Appendix > General Circuit Diagram > General Circuit Diagram (8/25)

General Circuit Diagram (9/25)



P.9

Appendix > General Circuit Diagram > General Circuit Diagram (9/25)

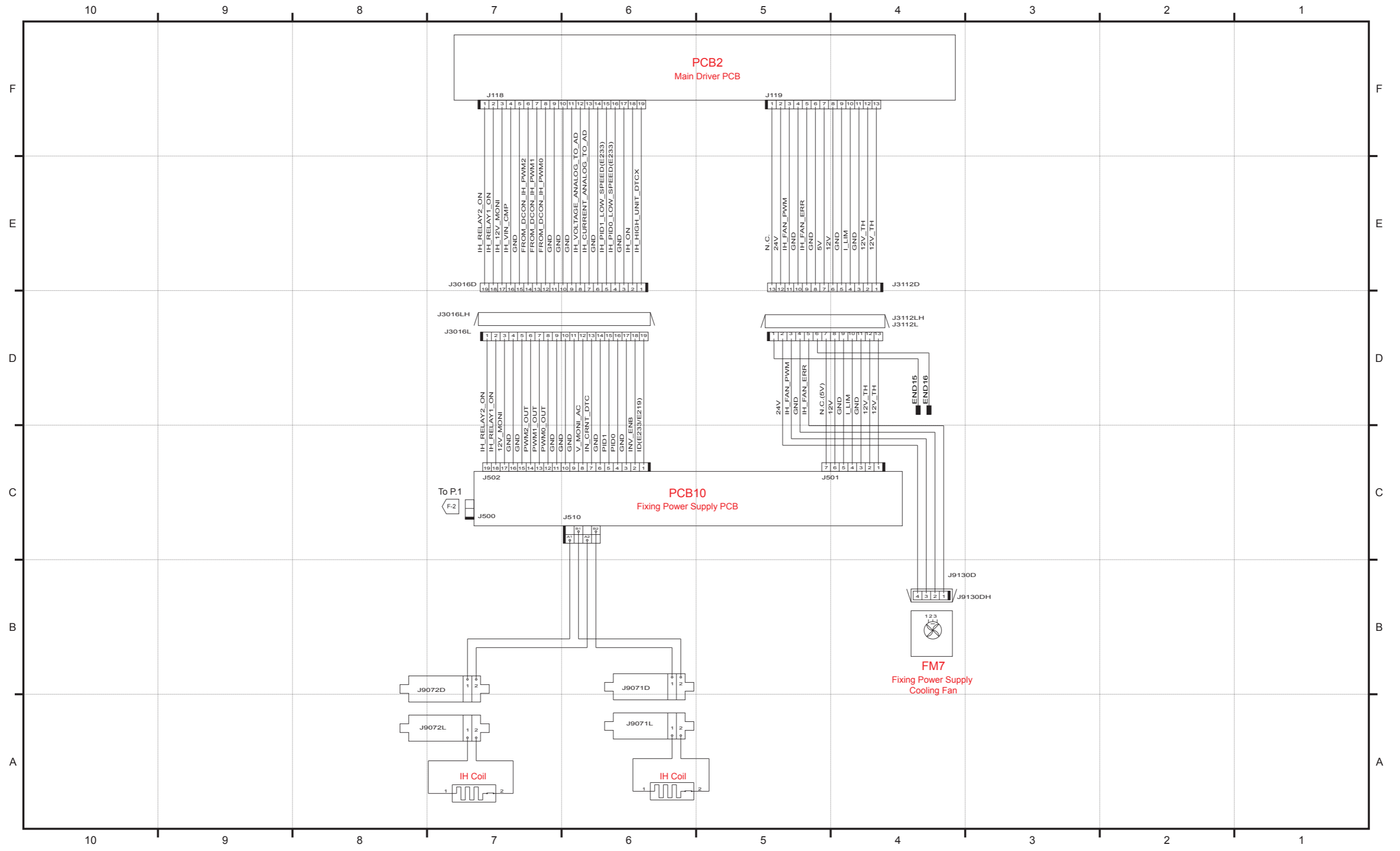
Appendix > General Circuit Diagram > General Circuit Diagram (9/25)



General Circuit Diagram (10/25)

Appendix > General Circuit Diagram > General Circuit Diagram > General Circuit Diagram (10/25)

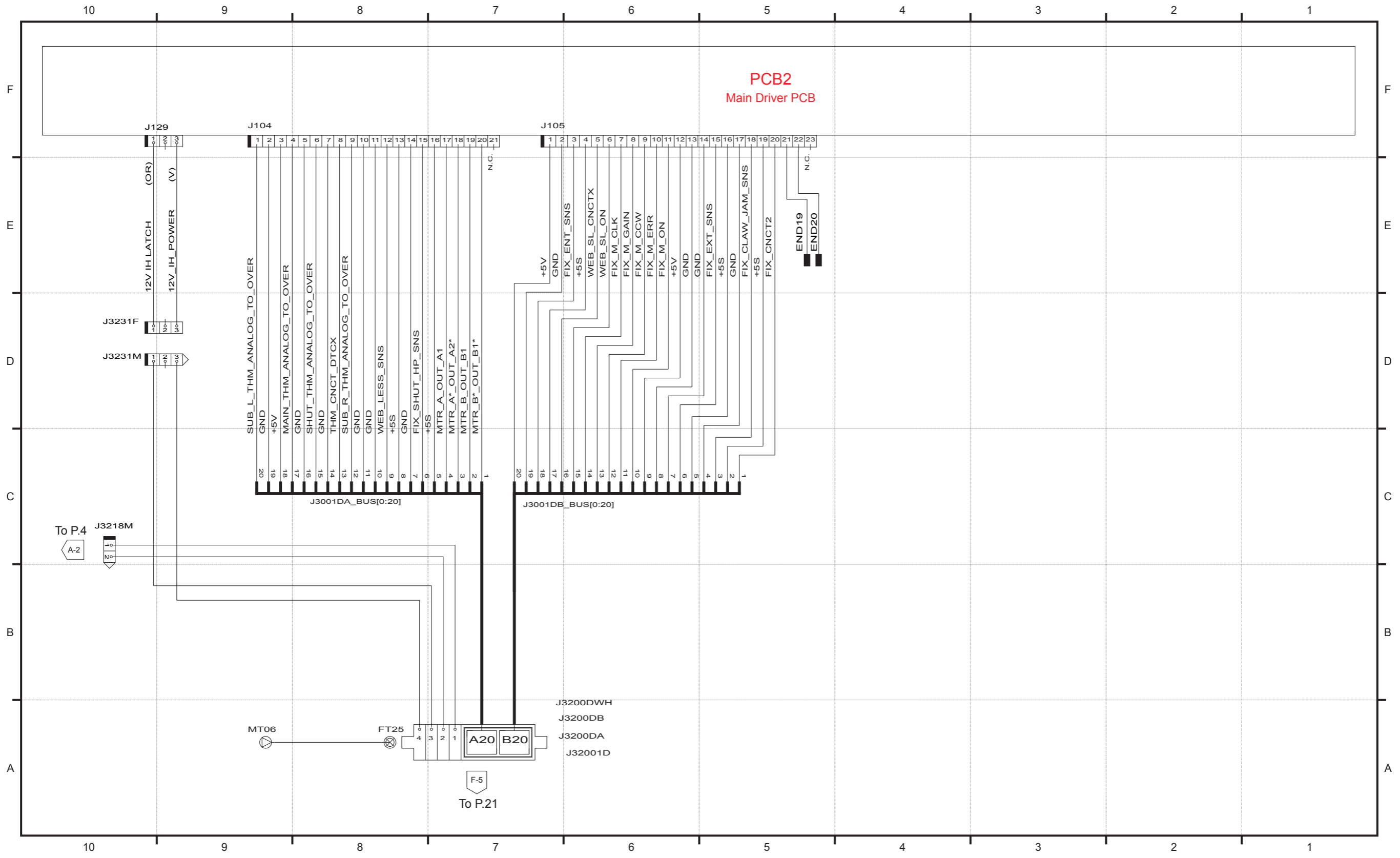
Appendix > General Circuit Diagram > General Circuit Diagram > General Circuit Diagram (10/25)



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General Circuit Diagram (11/25)



P.11

F-10-14

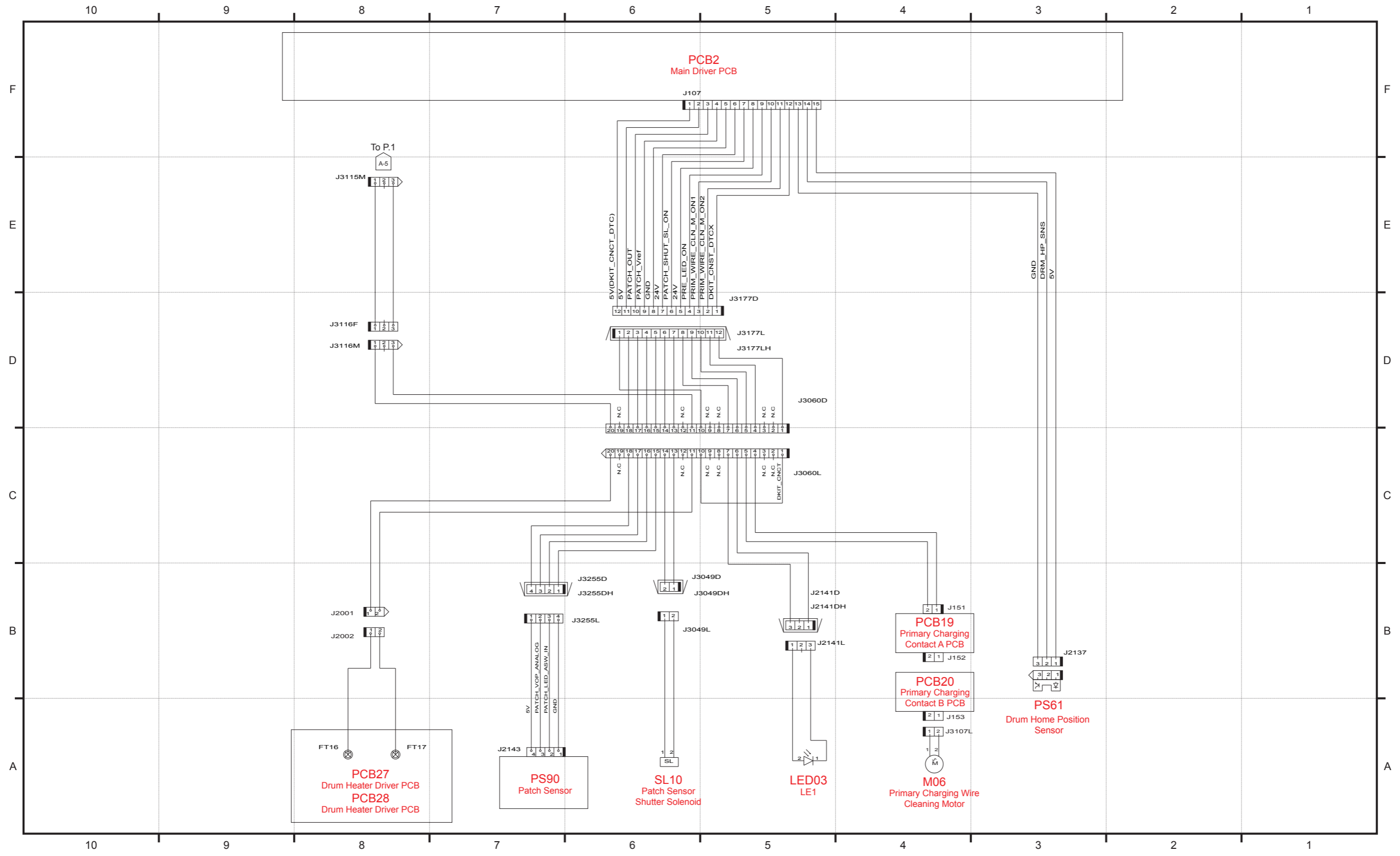
Appendix > General Circuit Diagram > General Circuit Diagram > General Circuit Diagram (11/25)

Appendix > General Circuit Diagram > General Circuit Diagram > General Circuit Diagram (11/25)

General Circuit Diagram (12/25)

Appendix > General Circuit Diagram > General Circuit Diagram (12/25)

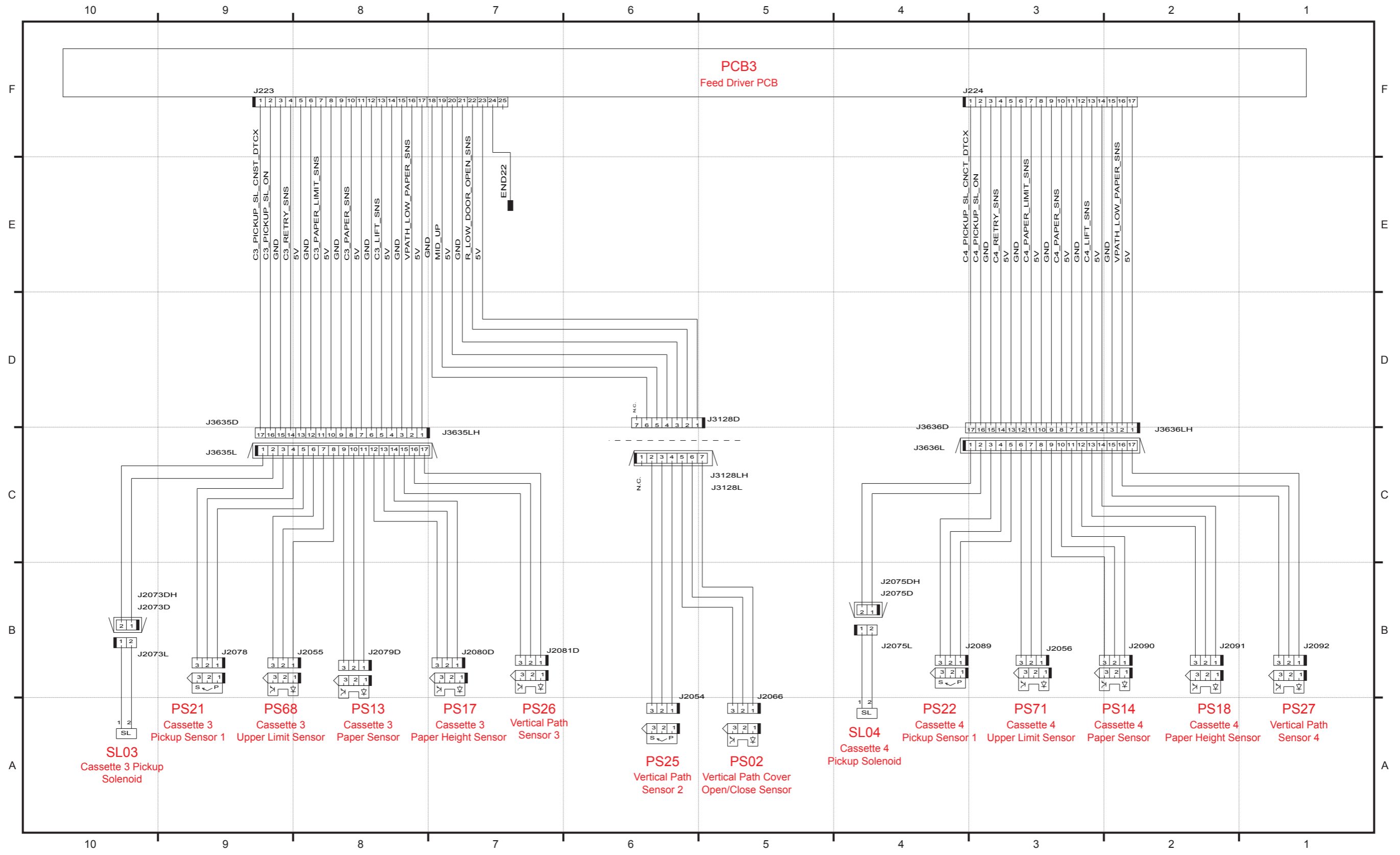
Appendix > General Circuit Diagram > General Circuit Diagram (12/25)



P.12

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General Circuit Diagram (13/25)



P.13

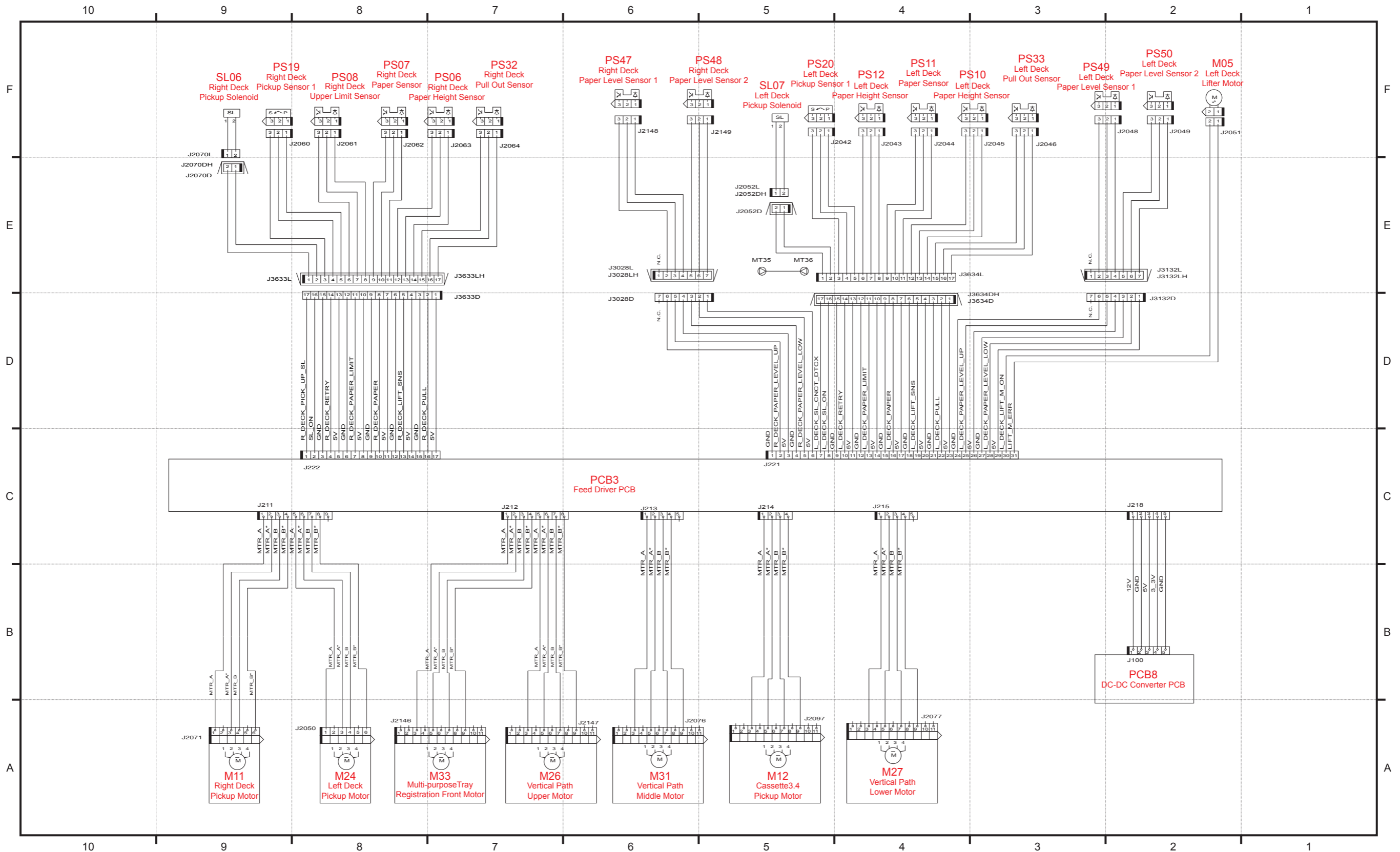
Appendix > General Circuit Diagram > General Circuit Diagram (13/25)

Appendix > General Circuit Diagram > General Circuit Diagram (13/25)

General Circuit Diagram (14/25)

Appendix > General Circuit Diagram > General Circuit Diagram (14/25)

Appendix > General Circuit Diagram > General Circuit Diagram (14/25)



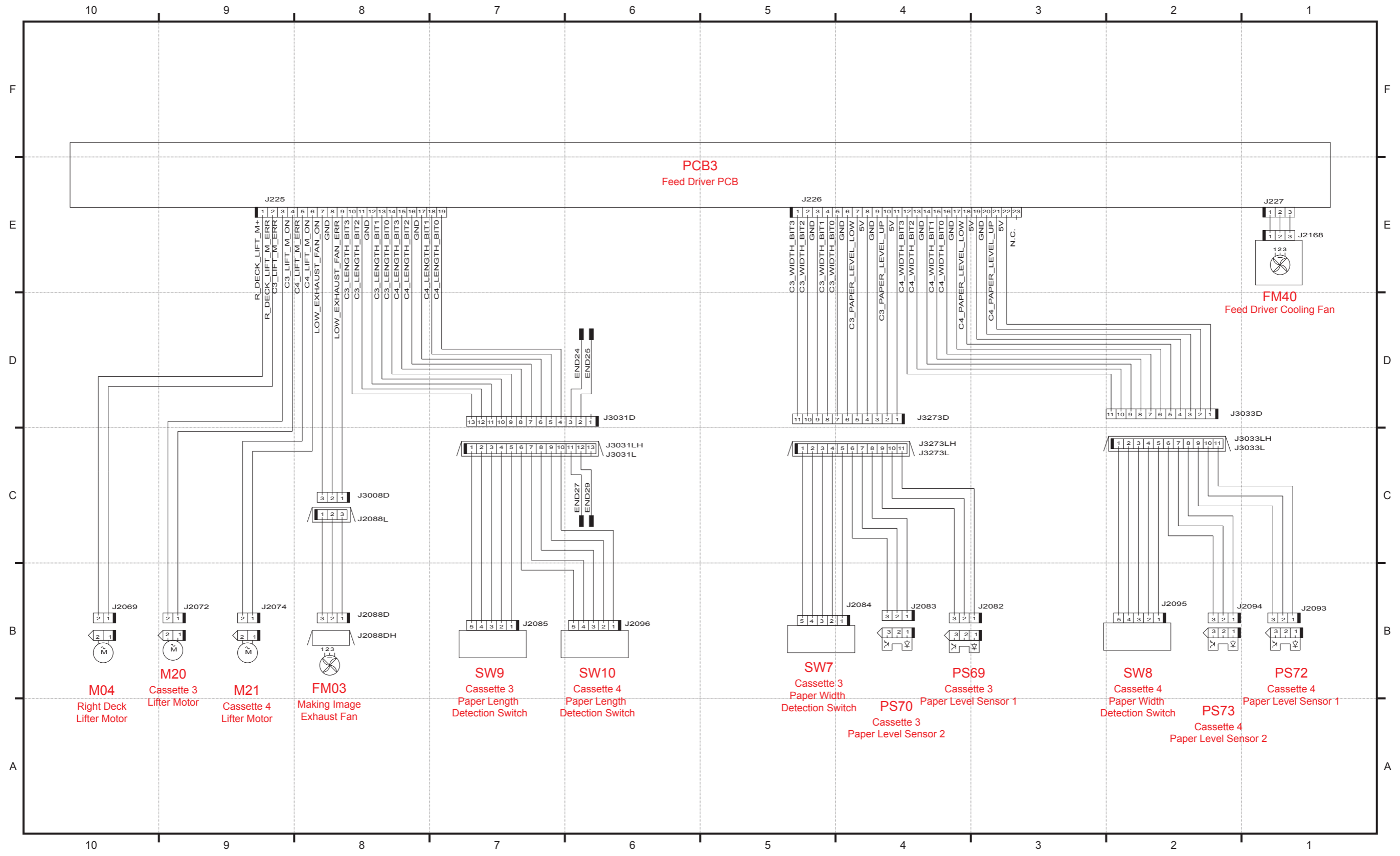
P.14

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General Circuit Diagram (15/25)

Appendix > General Circuit Diagram > General Circuit Diagram (15/25)

Appendix > General Circuit Diagram > General Circuit Diagram (15/25)



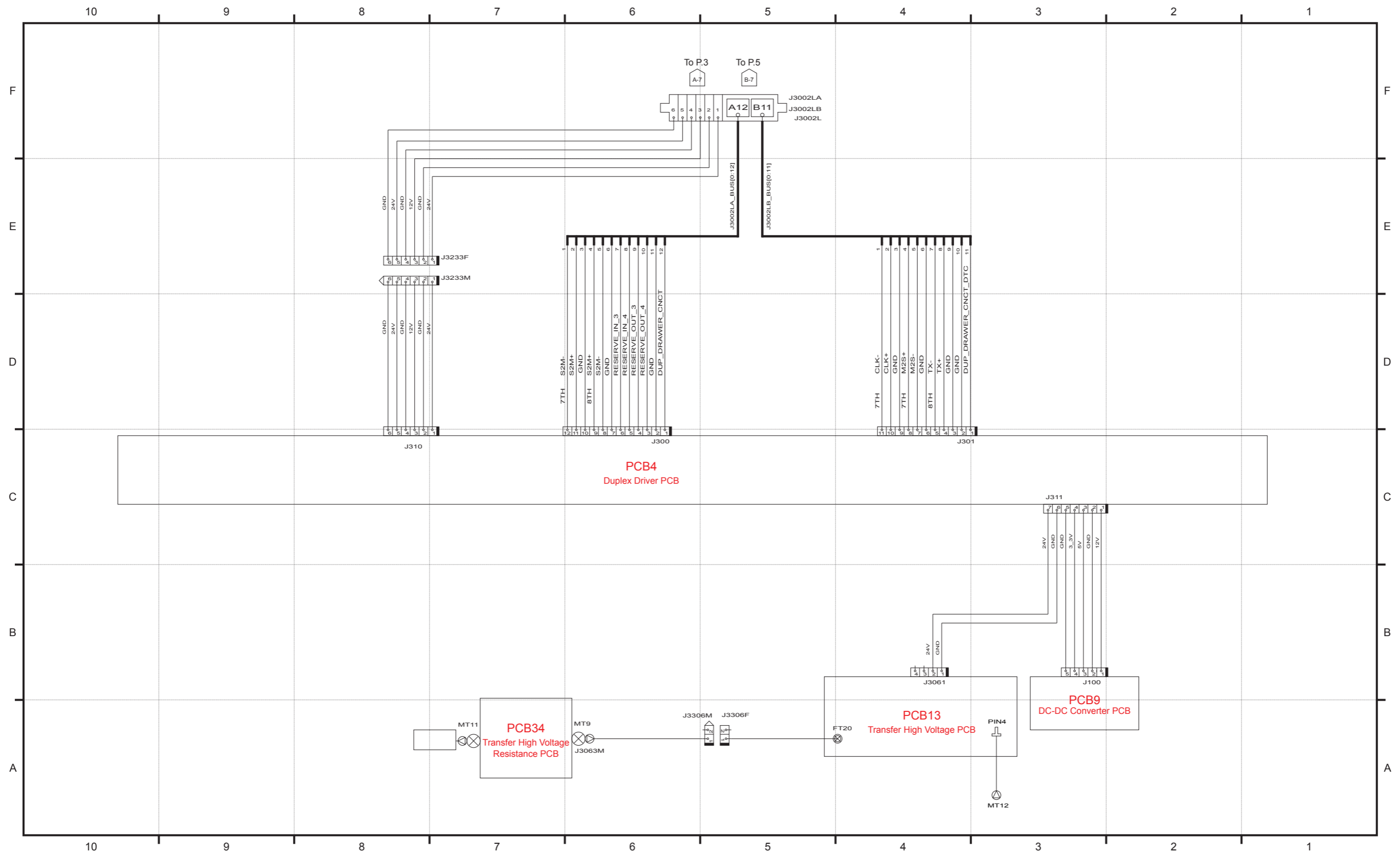
P.15

F-10-18

General Circuit Diagram (16/25)

Appendix > General Circuit Diagram > General Circuit Diagram (16/25)

Appendix > General Circuit Diagram > General Circuit Diagram (16/25)



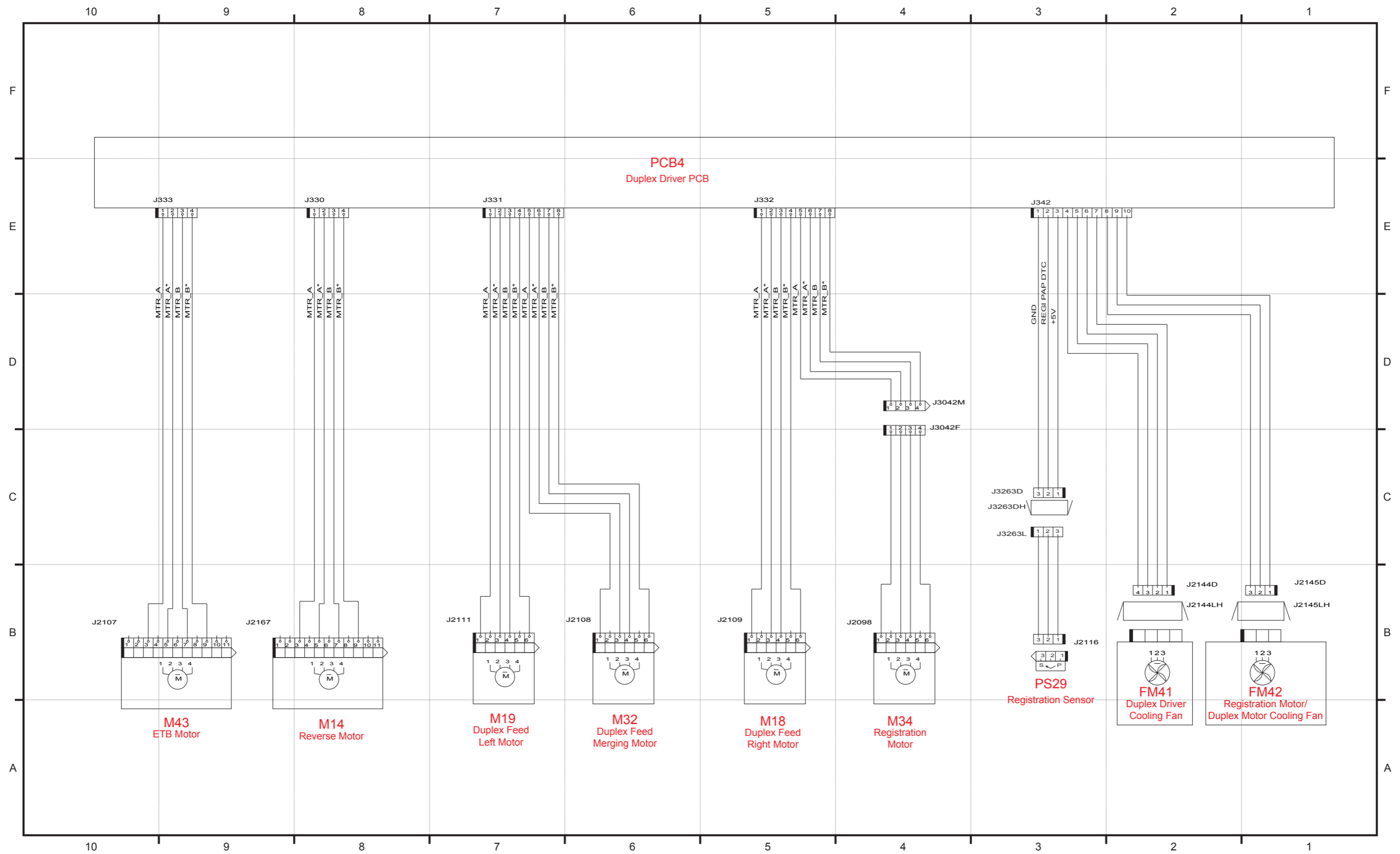
P.16

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General Circuit Diagram (17/25)

Appendix > General Circuit Diagram > General Circuit Diagram (17/25)

Appendix > General Circuit Diagram > General Circuit Diagram (17/25)



P.17

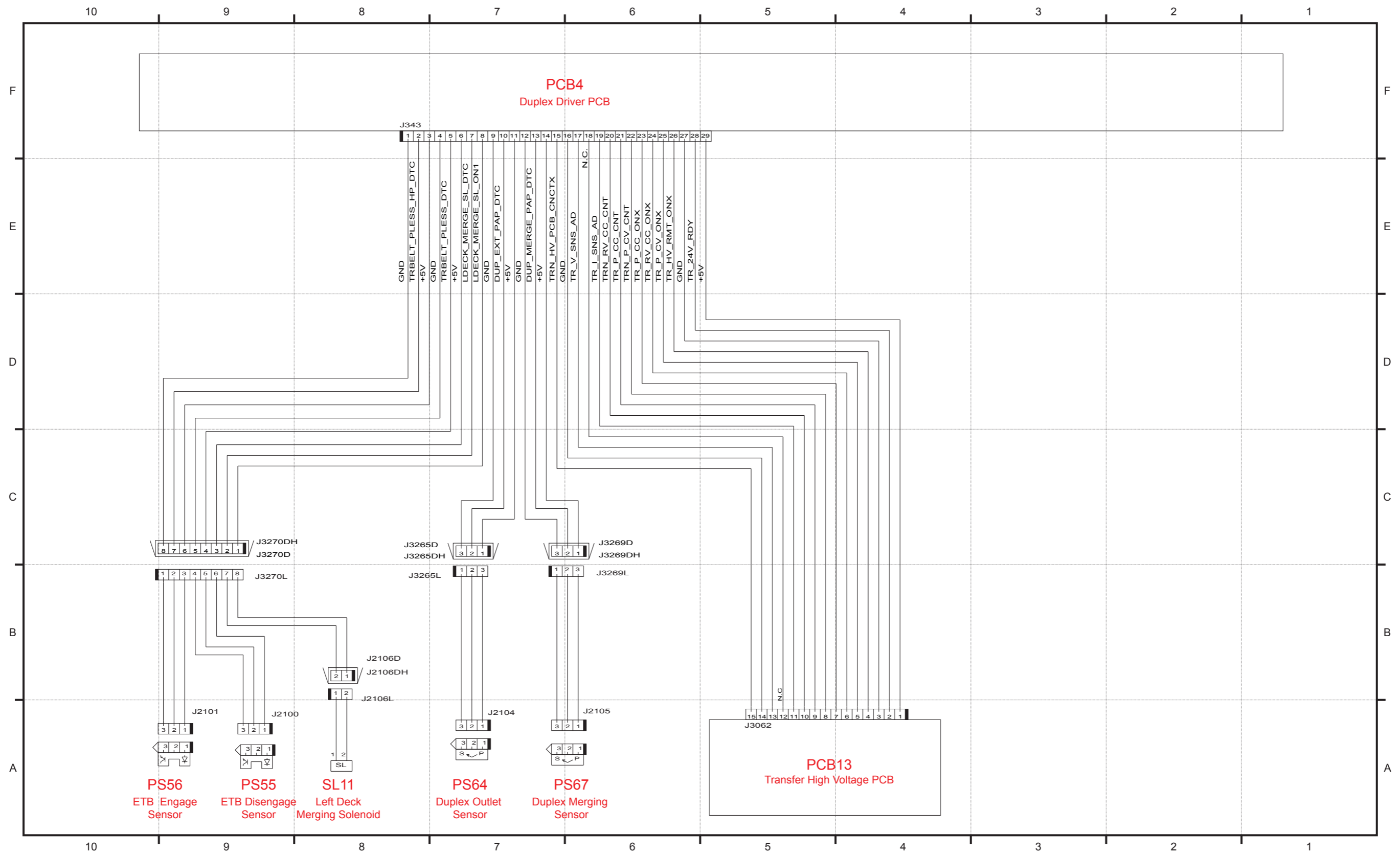
F-10-20



General Circuit Diagram (18/25)

Appendix > General Circuit Diagram > General Circuit Diagram (18/25)

Appendix > General Circuit Diagram > General Circuit Diagram (18/25)



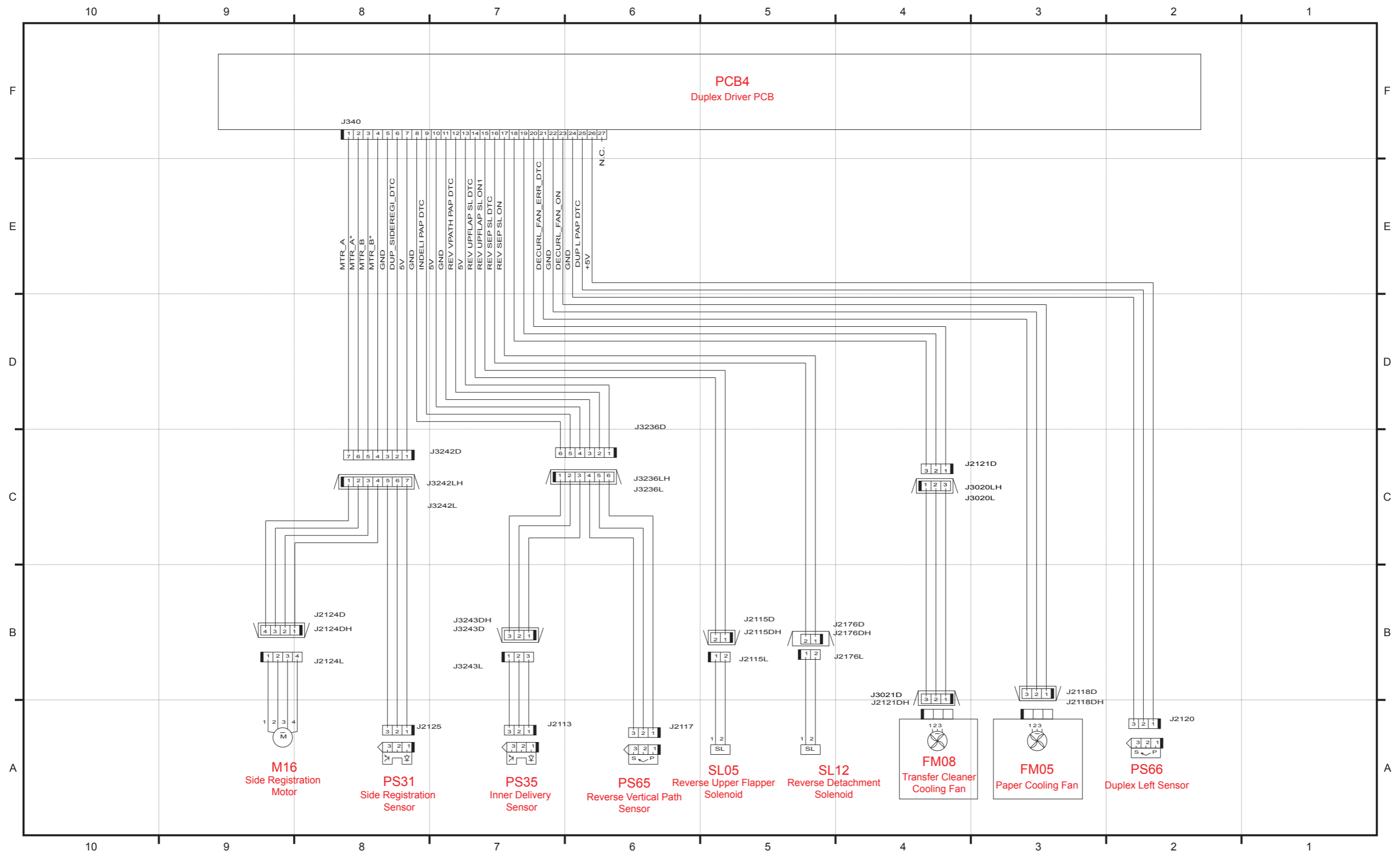
P.18

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General Circuit Diagram (19/25)

Appendix > General Circuit Diagram > General Circuit Diagram (19/25)

Appendix > General Circuit Diagram > General Circuit Diagram (19/25)



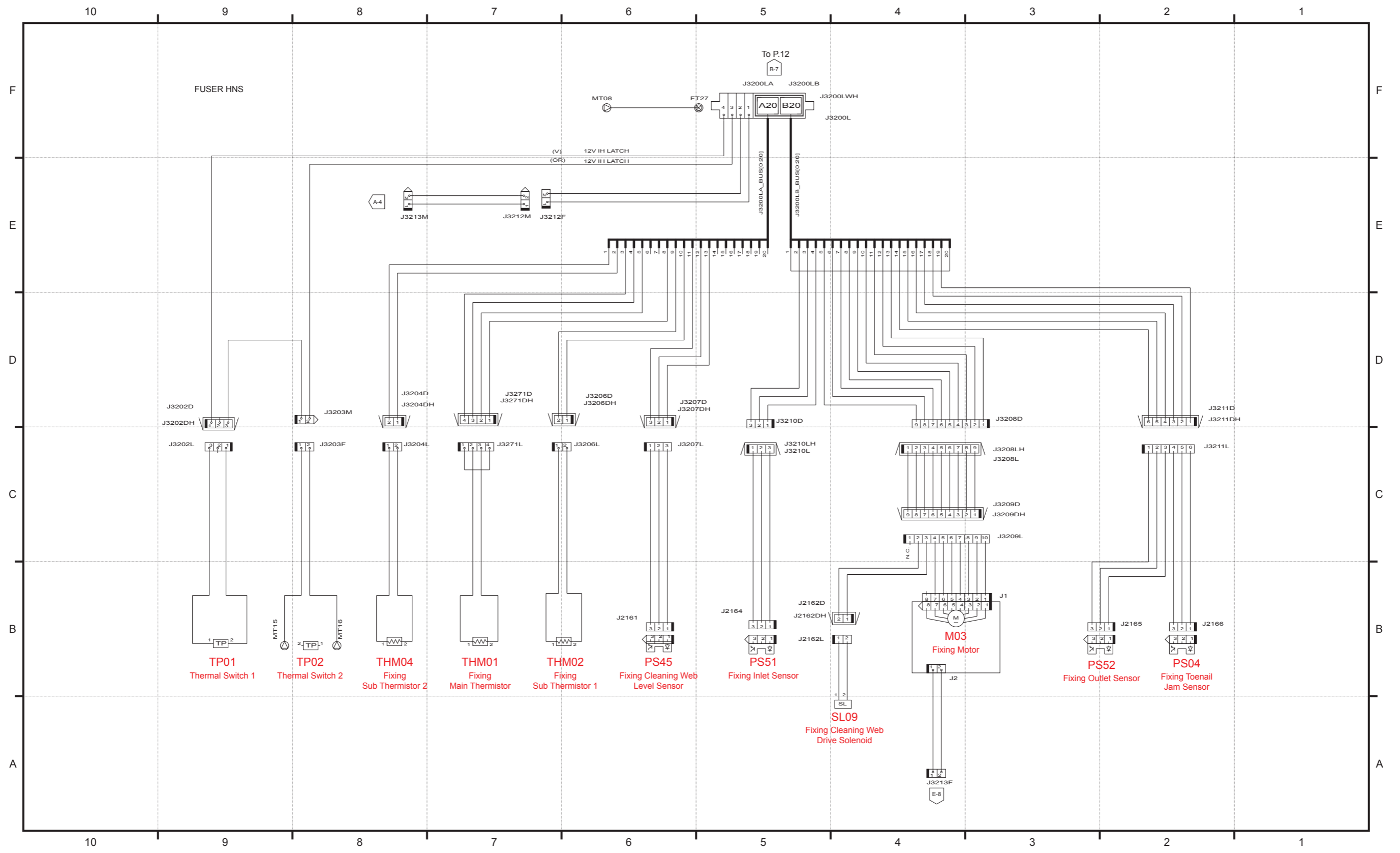
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General Circuit Diagram (20/25)

Appendix > General Circuit Diagram > General Circuit Diagram (20/25)

Appendix > General Circuit Diagram > General Circuit Diagram (20/25)

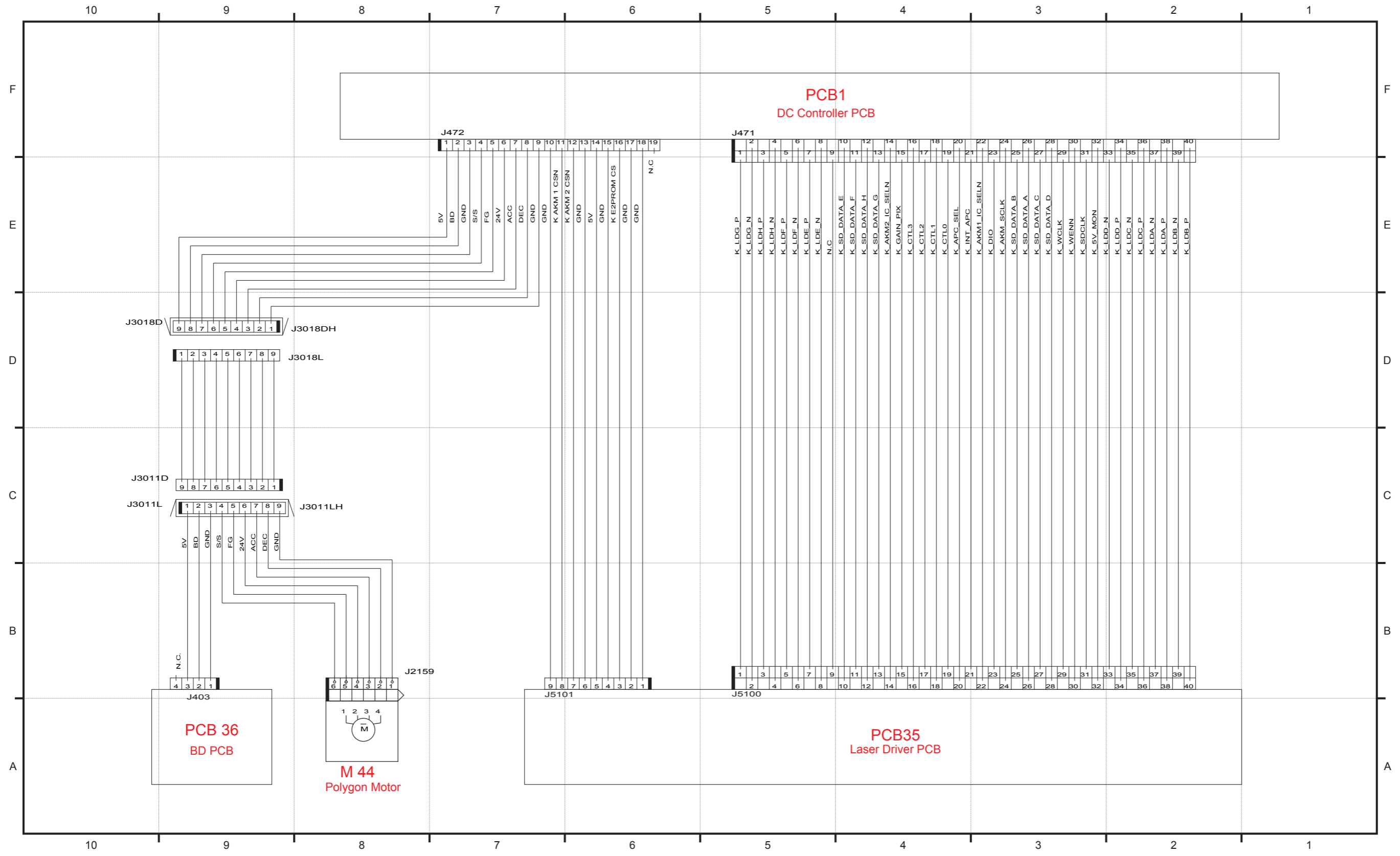


P.20

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General Circuit Diagram (21/25)

Appendix > General Circuit Diagram > General Circuit Diagram (21/25)



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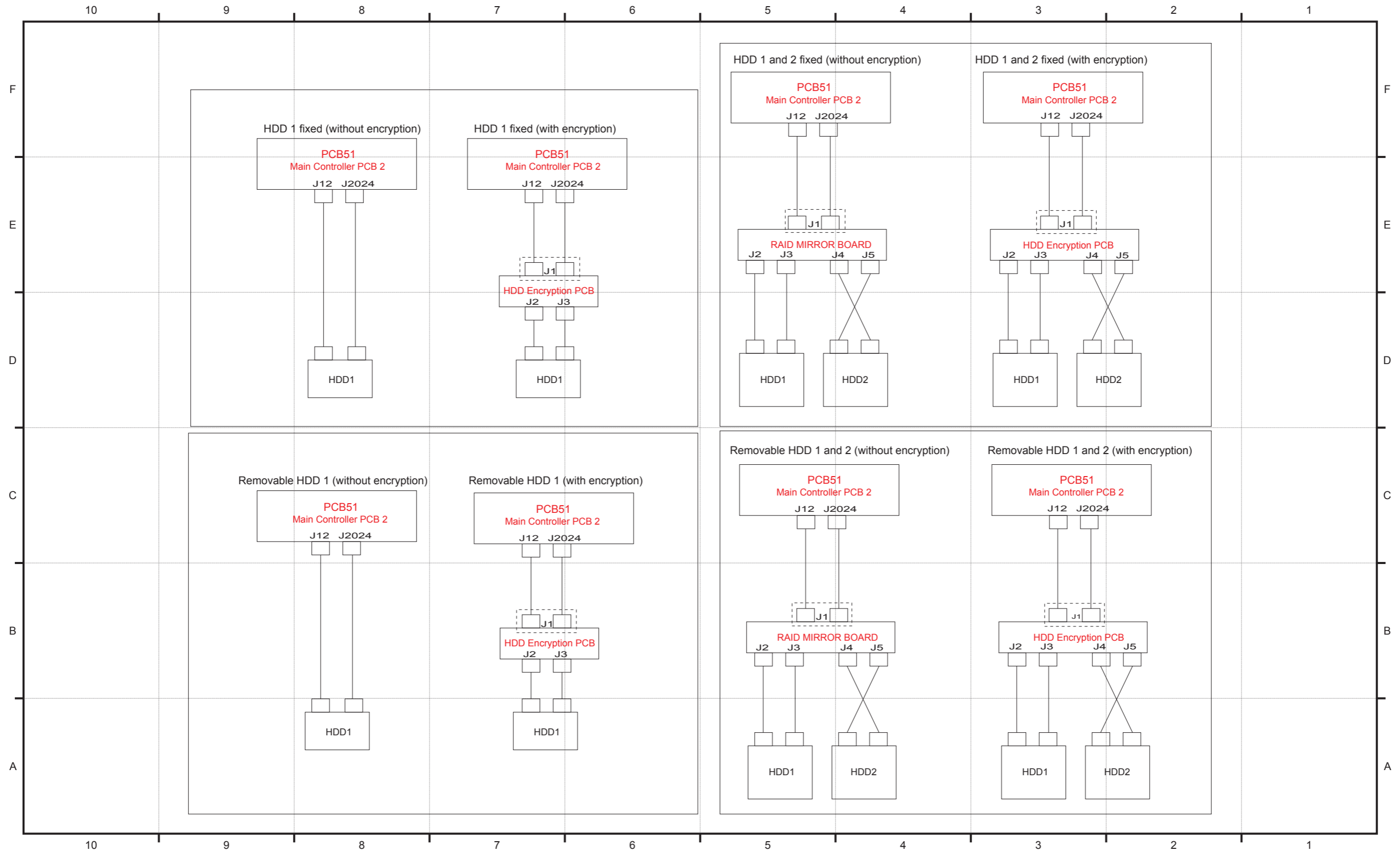
F-10-24

Appendix > General Circuit Diagram > General Circuit Diagram (21/25)

General Circuit Diagram (22/25)

Appendix > General Circuit Diagram > General Circuit Diagram (22/25)

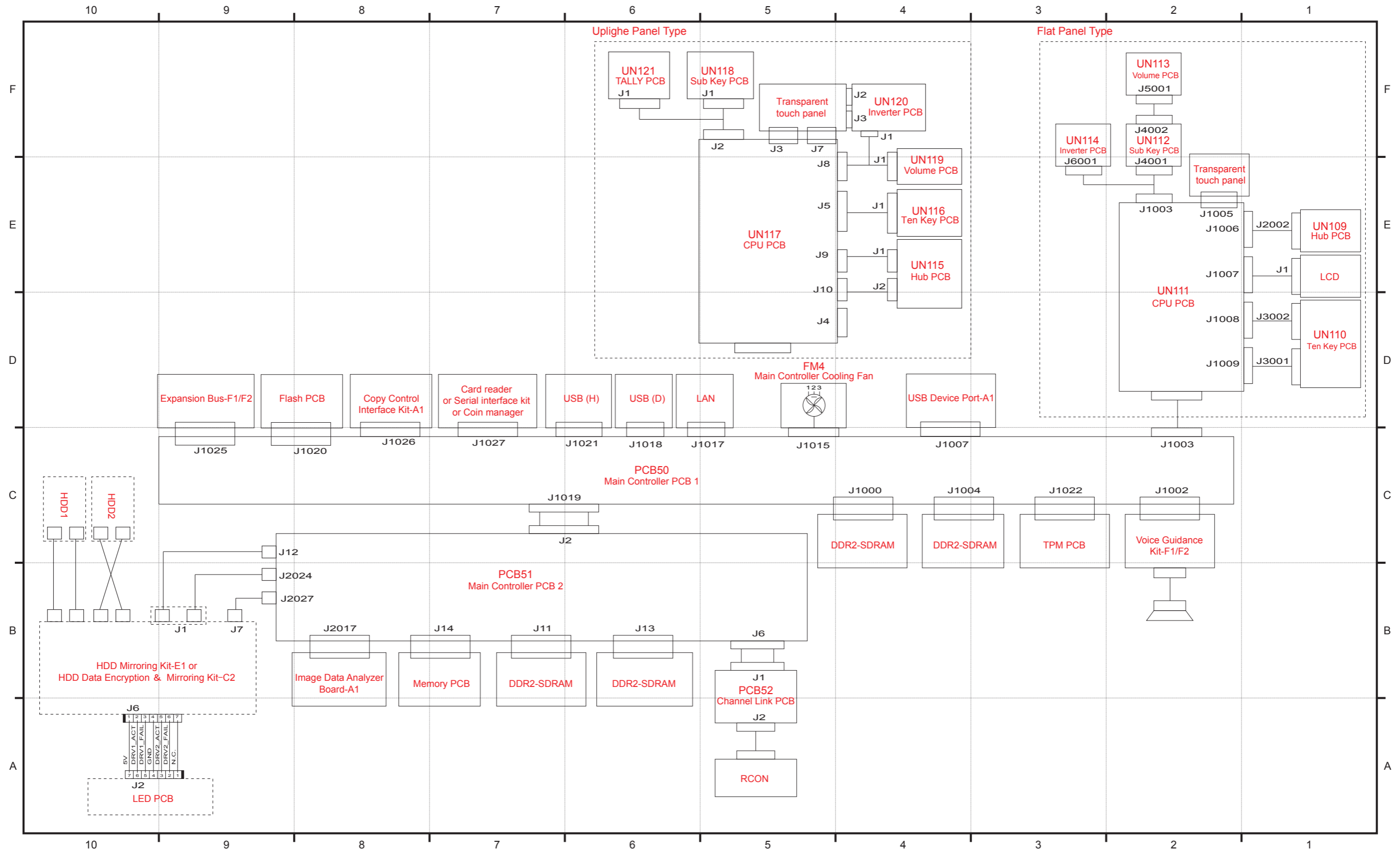
Appendix > General Circuit Diagram > General Circuit Diagram (22/25)



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General Circuit Diagram (23/25)



P.23

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Appendix > General Circuit Diagram > General Circuit Diagram (23/25)

Appendix > General Circuit Diagram > General Circuit Diagram (23/25)



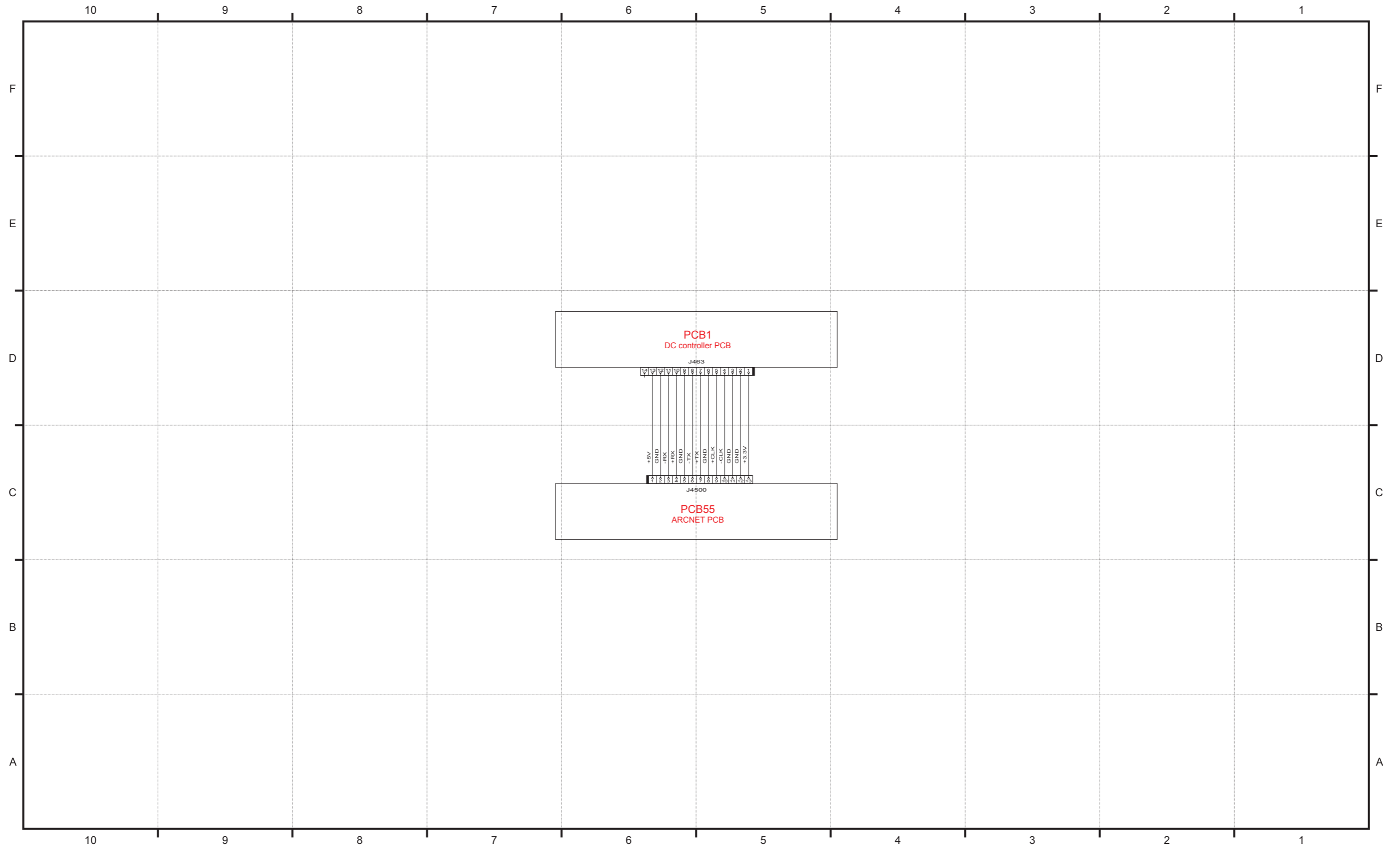




General Circuit Diagram (24/25)

Appendix > General Circuit Diagram > General Circuit Diagram > General Circuit Diagram (24/25)

Appendix > General Circuit Diagram > General Circuit Diagram > General Circuit Diagram (24/25)



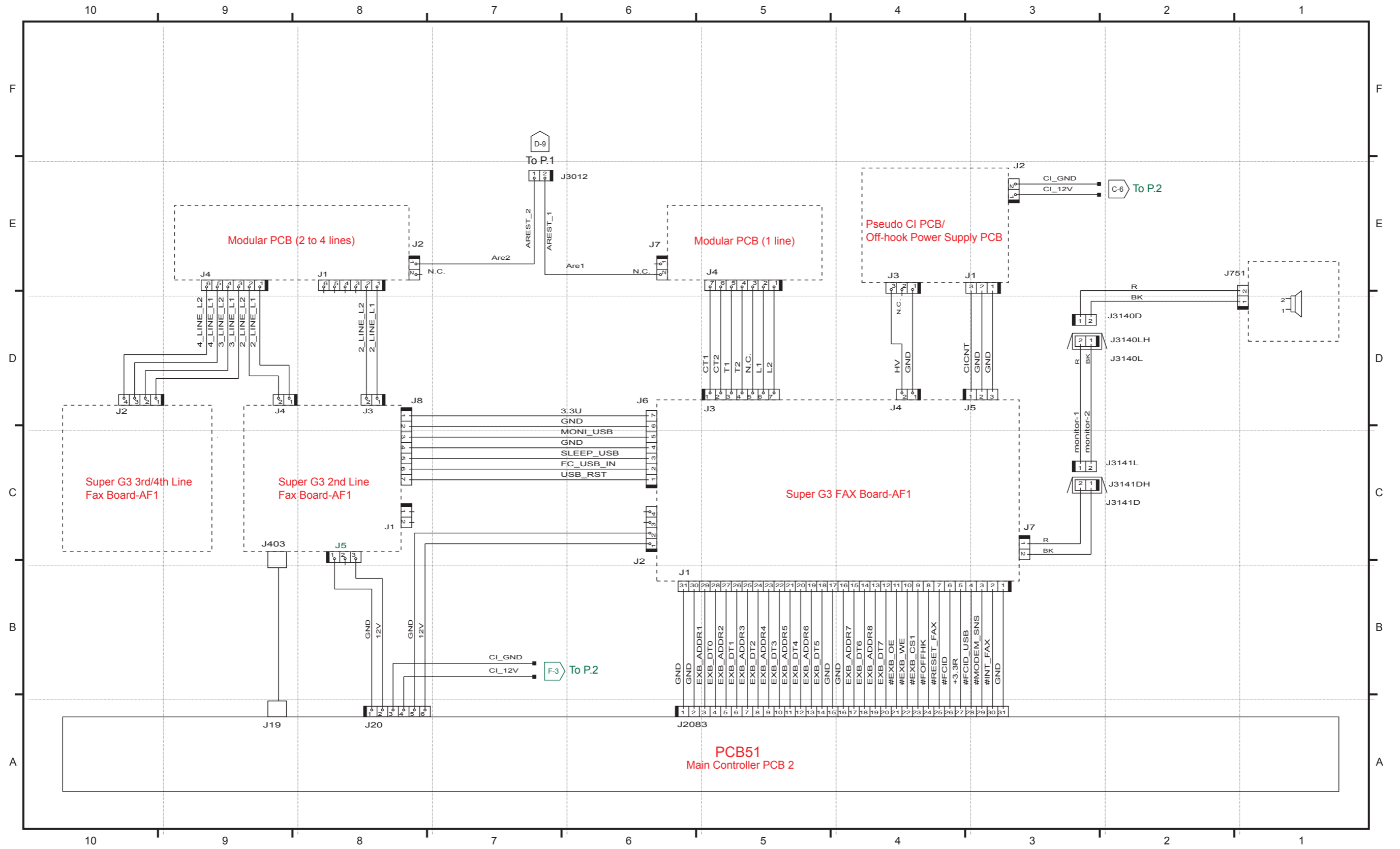
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General Circuit Diagram (25/25)

Appendix > General Circuit Diagram > General Circuit Diagram (25/25)

Appendix > General Circuit Diagram > General Circuit Diagram (25/25)



P.25

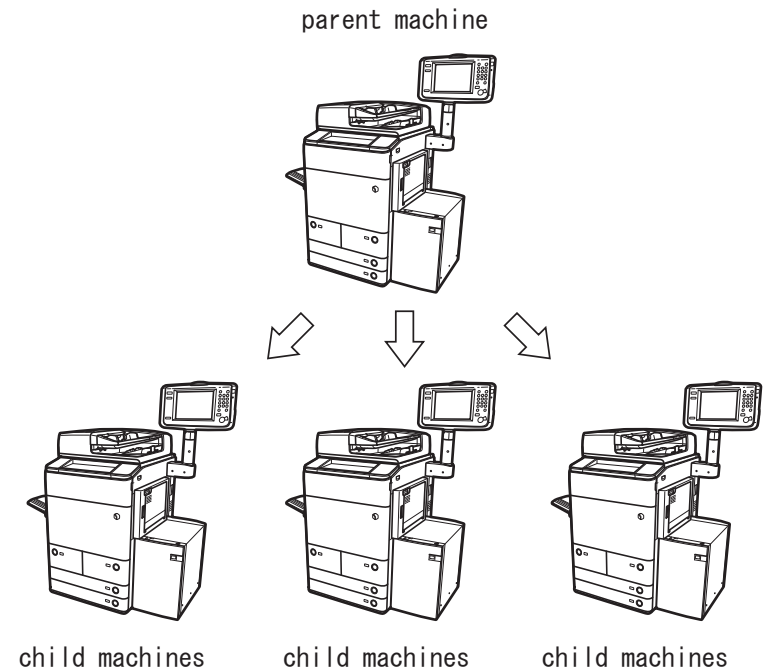
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## List of User Mode

### Device Information Delivery Settings

Registering device information in your machine enables you to set the machine to deliver the same device information to other machines that are connected to the same network. This enables you to easily manage multiple machines at the same time.

Your machine is capable of both sending and receiving device information, which can be delivered manually and automatically.



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## Environment Settings

### Paper Settings

\* Default Settings

Item	Setting Description	Device Information Delivery Available
Paper Settings	Thin, Plain*, Heavy 1, Heavy 2, Heavy 3, Color, Recycled, Tracing, Transparency, Labels, Bond, Tab, Pre-punched, Letterhead	No
A5R/STMTR Original Selection	A5R, STMTR*	No
B5/EXEC Original Selection	B5, EXEC*	No
Paper Type Management Settings	Details/Edit • Name, Category, Basis Weight, Type, Finish, Creep (Displacement) Correction Adjustment, Color, Adjusting Image Position	Yes
	Duplicate, Delete	No
Register Multi-Purpose Tray Defaults	On, Off*	No
Register Custom Size	Register/Edit, Delete, Register Name	Yes

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## ■ Display Settings

\* Default Settings

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

\*2 If the Duplex Color Image Reader Unit is not attached, the default setting is [On].

Item	Setting Description	Device Information Delivery Available
Default Screen at Startup	Main Menu*, Quick Menu, Copy <sup>*1</sup> , Scan and Send, Fax <sup>*1</sup> , Scan and Store, Access Stored Files, Fax/I-Fax Inbox, Secured Print, Web Browser, Workflow Composer, Remote Scanner, Print Server, Scan Lock Analyzer, Tutorial Open Status Monitor/Cancel: On, Off <sup>*2</sup>	No
Default Screen (Status Monitor/Cancel)	Default Status Type: Copy/Print*, Send, Receive, Store, Consumables	No
	Status/Log: Job Status*, Log	No
	Details: Print Jobs, Send Jobs, Receive Jobs, Copy <sup>*1</sup> , Fax <sup>*1</sup> , Forward, Local Print, Printer, Cascade Copy, RX Print, Print Report	No
Copy Screen Display Settings <sup>*1</sup>	Regular Copy*, Express Copy	No
Display Fax Function <sup>*1</sup>	On*, Off	No
	On	No
	Enable Fax in Scan and Send Function: On*, Off	No
Store Location Display Settings	Mail Box: On*, Off	No
	Advanced Box/Network: On*, Off	No
	Memory Media: On, Off*	No
Language/Keyboard Switch On/Off	On, Off*	No
Language/Keyboard Switch	Language, Keyboard Layout	No
Display Remaining Paper Message	On*, Off	No
No. of Copies/Job Duration Status	On*, Off	No
Display Original Scanning Cleaning Area <sup>*1</sup>	On*, Off	No
Select Paper Screen Priority	Simple*, Detailed	No
mm/Inch Entry Switch	mm, inch*	Yes
ID/User Name Display On/Off	On*, Off	No
Edit Puncher Unit Die Name <sup>*1</sup>	Edit	No

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## ■ Timer/Energy Settings

\* Default Settings

Item	Setting Description	Device Information Delivery Available
Adjust Time	00: 00 to 23: 59, in one minute increments (00: 00*)	No
Date/Time Settings	Date and Time Setting (12 digit number)	No
	Time Zone: GMT -12: 00 to GMT +12: 00 (GMT -05:00*)	No
	Daylight Saving Time: On, Off*	No
Time Format	24 Hour, 12 Hour*	No
Auto Reset Time	0 (Off), 10 to 50 seconds in 10 seconds increments, 1 to 9 minutes in one minute increments (2minutes*)	Yes
Function After Auto Reset	Initial Function*, Selected Function	Yes
Auto Sleep Time	10 secs, 1, 2, 10, 15*, 20, 30, 40, 50 min., 1 hour, 90 min., 2, 3, 4 hours (1 mins*)	Yes
Sleep Mode Energy Use	Low*, High	Yes
Weekly Timer Settings	Sunday to Saturday, 00: 00 to 23: 59, in one minute increments	Yes
Energy Saver/Sleep Mode Exit Time Settings	00: 00 to 23: 59, in one minute increments	Yes
Change Energy Saver Mode	-10*, -25, -50%, None	Yes
Silent Mode Time	0 (Off) to 9 minutes, in one minute increments (1 mins*)	Yes

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## Network

If you are configuring the settings for the first time in "Interface Settings," "TCP/IPv4 Settings," "TCP/IPv6 Settings," or "Settings Common to TCP/IPv4 and TCP/IPv6," use the control panel of the machine. After configuring the TCP/IP settings, you can change them using the Remote UI.

In the NetWare or AppleTalk network, the TCP/IP protocol must be used to specify the settings with software other than the control panel of the machine. The setting items are shown below.

- Some items can be set using the Remote UI. Use the control panel of the device to set items which cannot be set using the Remote UI.

\* Default Settings

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

\*2 Indicates items that appear only when the PS Printer Kit is activated.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
User Data List	Plint List	Yes	No
Confirm Network Connection Set. Changes	On, Off*	No	Yes
TCP/IP Settings			
IPv4 Settings			
Use IPv4	On*, Off	Yes	No
IP Address Settings			
IP Address: 0.0.0.0*		Yes	No
Subnet Mask: 0.0.0.0*		Yes	No
Gateway Address: 0.0.0.0*		Yes	No
DHCP: On, Off*		Yes	Yes
RARP: On, Off*		Yes	Yes
BOOTP: On, Off*		Yes	Yes
PING Command	IP Address: 0.0.0.0*	No	No
IPv6 Settings			
Use IPv6	On, Off*	Yes	No
Stateless Address Settings			
Use Stateless Address: On*, Off		Yes	No
Manual Address Settings			
Use Manual Address: On, Off*		Yes	No
Manual Address: IPv6 Address (39characters maximum)		Yes	No
Prefix Length: 0 to 128 (64*)		Yes	No
Default Router Address (39 characters maximum)		Yes	No
Use DHCPv6	On, Off*	Yes	Yes
PING Command	IPv6 Address: (39characters maximum)	Yes	No
Host Name	48 characters maximum	Yes	No
DNS Settings			
DNS Server Address Settings			
IPv4			
Primary DNS Server: IP Address:0.0.0.0*		Yes	No
Secondary DNS Server: IP Address:0.0.0.0*		Yes	No
IPv6			
Primary DNS Server: IPv6 Address		Yes	No
Secondary DNS Server: IPv6 Address		Yes	No
DNS Host/Domain Name Settings			
IPv4			
Host Name: 47 characters maximum (Canon + represents the last six digits of a MAC address)		Yes	No
Domain Name: 47 characters maximum		Yes	No

Item		Setting Description	Can be set in Remote UI	Device Information Delivery Available
	IPv6	Use Same Host Name/Domain Name as IPv4: On, Off*	Yes	No
		Host Name: 47 characters maximum (Canon + represents the last six digits of a MAC address)	Yes	No
		Domain Name: 47 characters maximum	Yes	No
DNS Dynamic Update Settings				
	IPv4	DNS Dynamic Update: On, Off*	Yes	No
	IPv6	DNS Dynamic Update: On, Off*	Yes	No
		Register Stateless Address: On, Off*	Yes	No
		Register Manual Address: On, Off*	Yes	No
		Register Stateless Address: On, Off*	Yes	No
WINS Settings				
	WINS Resolution	On, Off*	Yes	No
	WINS Server Address	IP Address: 0.0.0.0*	Yes	No
	Node Type	Auto Set, display only	No	No
	Scope ID	63 characters maximum	Yes	No
LPD Print Settings				
	LPD Print Settings	On*, Off	Yes	Yes
	LPD Banner Page <sup>1</sup>	On, Off*	Yes	Yes
RAW Print Settings				
	RAW Print Settings	On*, Off	Yes	Yes
	Bidirectional Communication	On, Off*	Yes	Yes
SNTP Settings				
	Use SNTP	On, Off*	Yes	No
	Polling Interval	Interval for performing time synchronization (1 to 48 hours) (24hours*)	Yes	No
	NTP Server Address	IP address or host name	Yes	No
	Check NTP Server	-	Yes	No
FTP Print Settings				
	Use FTP printing	On, Off*	Yes	Yes
	User	User name for FTP server login (24 characters maximum)	Yes	No
	Password	Password for FTP server login (24 characters maximum)	Yes	No
WSD Print Settings				
	Use WSD	On, Off*	Yes	Yes
	Use WSD Browsing	On, Off*	Yes	Yes
	Use Multicast Discovery	On, Off*	Yes	Yes
Use FTP PASV Mode				
	Use FTP PASV Mode	On, Off*	Yes	Yes
IPP Print Settings				
	IPP Print Settings	On, Off*	Yes	Yes
	Use SSL	On, Off*	Yes	No
	Use Authentication	On, Off*	Yes	No
	User	User name for IPP authentication (24 characters maximum)	Yes	No
	Password	Password for IPP authentication (24 characters maximum)	Yes	No



Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Multicast Discovery Settings			
Response	On* Off	Yes	Yes
Scope name	Scope name to be used for a multicast discovery (32 characters maximum) (default*)	Yes	No
Use HTTP	On* Off	Yes	Yes
Use Web DAV Server	On, Off*	Yes	Yes
SSL Settings	Settings that use SSL	Yes	No
Key and Certificate			
Set as the Default Key	-	Yes	No
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/Public Key/Cert Thumbprint/Certificate	Yes	No
Display Use Location	Displays what the key pair is being used for	Yes	No
Proxy Settings			
Use proxy	On, Off*	Yes	No
Server Address	IP address or FQDN (128 characters maximum)	Yes	No
Port Number	1 to 65535 (80*)	Yes	No
Use Proxy within the Same Domain	On, Off*	Yes	No
Set Authentication			
Use Proxy Auth.	On, Off*	Yes	No
User	24 characters maximum	Yes	No
Password	24 characters maximum	Yes	No
Confirm Dept. ID PIN	On, Off*	Yes	No
IPSec Settings			
Use IPSec	On, Off*	Yes	No
Receive Non-policy Packets	Allow*/Reject	Yes	No
Edit		Yes	No
Delete		Yes	No
Policy On, Off		Yes	No
Register			
Policy Name	24 characters maximum	Yes	No
Register: Selector Settings	Local Address: All IP Addresses*/IPv4 Address/IPv6 Address/IPv4 Manual Settings/IPv6 Manual Settings	Yes	No
	Remort Address: All IP Addresses*, All IPv4Address, All IPv6Address, IPv4Manual Settings, IPv6 Manual Settings	Yes	No
	Port: Specify by Port Number*/Specify by Service Name	Yes	No
IKE Settings	IKE mode : Main*/Aggressive	Yes	No
	Authentication Method : Pre-Shared Key Method*/Digital sig. Method	Yes	No
	Auth./Encryption Algorithm : Auto*/Manual Settings	Yes	No
IPSec Network Settings	Validity : Time (1 to 65535minuites)(480minuites*)	Yes	No
	Validity : Size (1 to 65535 MB)(65535 MB*)	Yes	No
	PFS : On, Off*	Yes	No
	Auth./Encryption Algorithm : Auto*/Manual Settings	Yes	No
	Connect. Mode : Transport, display only	-	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Netware Settings			
Use NetWare	On, Off*	Yes	No
Frame Type	Auto Detect*/Ethernet II/Ethernet 802.2/Ethernet 802.3/Ethernet SNAP	Yes	Yes
IPX External Network Number	Auto Set, display only	-	No
Node Number	Auto Set, display only	-	No
Print Service	Bindery PServer, R Printer, NDS Pserver*, NPrinter	Yes	No
Packet Signature	Auto Set, display only	-	No
Bindery Pserver Settings			
Print Server Name	47 characters maximum	Yes	No
File Server Name	47 characters maximum	Yes	No
Print Server Password	20 characters maximum	Yes	No
Printer Number	0 to 15 (0*)	Yes	No
Polling Interval	1 to 15seconds (5seconds*)	Yes	No
Printer Form	0 to 255 (0*)	Yes	No
Buffer Size	1 to 20 KB (20KB*)	Yes	No
Service Mode	Service only currently mounted form/Change forms as needed/Minimize form changes across print queues/Minimize form changes within print queues*	Yes	No
Rprinter Settings			
Print ServerName	47 characters maximum	Yes	No
File ServerName	47 characters maximum	Yes	No
Printer Number	0 to 15 (0*)	Yes	No
NDS PServer Settings			
Printer Number	64 characters maximum	Yes	No
Tree Name	32 characters maximum	Yes	No
Context	256 characters maximum	Yes	No
Print Server Password	20 characters maximum	Yes	No
Printer Number	0 to 254 (0*)	Yes	No
Polling Interval	1 to 255 seconds (5seconds*)	Yes	No
Printer Form	0 to 255 (0*)	Yes	No
Buffer Size	3 to 20KB (20KB*)	Yes	No
Service Mode	Service only currently mounted form/Change forms as needed/Minimize form changes across print queues/Minimize form changes within print queues*	Yes	No
NPrinter Settings			
Print ServerName	64 characters maximum	Yes	No
Tree Name	32 characters maximum	Yes	No
Context	256 characters maximum	Yes	No
Printer Number	0 to 254 (0*)	Yes	No
Apple Talk Settings			
Use Apple Talk	On, Off*	Yes	Yes
Phase	Phase 2 (fixing)	-	No
Service Name	32 characters maximum (Model name*)	Yes	No
Zone	32 characters maximum	Yes	No
Print Mode <sup>2</sup>	Both*, Spool, Direct	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
SMB Server Settings			
Use SMB Server	On, Off*	Yes	No
ServerName	15 characters maximum (Canon+represents the last six digits of a MAC address)	Yes	No
Workgroup	15 characters maximum (WORKGROUP*)	Yes	No
Comment	48 characters maximum	Yes	No
LM Announce	On, Off*	Yes	No
SMB Printer Settings			
Use SMB Print	On, Off*	Yes	No
Printer Name	13 characters maximum (PRINTER*)	Yes	No
SMB Auth. Settings			
Use SMB Authentication	On, Off*	Yes	No
Authentication Type	NTLMv1*, NTLMv2*	Yes	No
SNMP Settings			
Get Printer Mgmt Info from Host	On, Off*	Yes	No
Use SNMPv1	On*, Off	Yes	Yes
Community Name1 Settings			
Community Name1	On*, Off	Yes	No
MIB Access Permission	Read/Write/Read Only*	Yes	No
Community Name	Community Name (32 characters maximum) (public*)	Yes	No
Community Name2 Settings			
Community Name2	On, Off*	Yes	No
MIB Access Permission	Read/Write/Read Only*	Yes	No
Community Name	Community Name (32 characters maximum) (public2*)	Yes	No
Use SNMPv3	On, Off*	Yes	No
User Settings			
User On, Off	-	Yes	No
Register	User/MIB Access Permission/Security Settings/Authent.Algorithm/Authent.Password/Encryption Algorithm/Encryption Password	Yes	No
Details/Edit	User/MIB Access Permission/Security Settings/Authent.Algorithm/Authent.Password/Encryption Algorithm/Encryption Password	Yes	No
Delete	-	Yes	No
Context Settings			
Register	Context Name (32 characters maximum)	Yes	No
Edit	Context Name (32 characters maximum)	Yes	No
Delete	-	Yes	No
Dedicated Port Settings			
Dedicated Port Settings	On*, Off	Yes	Yes
Use Spool Function			
Use Spool Function	On, Off*	Yes	Yes
Startup Settings			
Startup Settings	30 to 300 seconds (30*)	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
<b>Ethernet Driver Settings</b>			
Auto Detect	On*, Off	Yes	No
Communication Mode	Half Duplex*/Full Duplex	Yes	No
Ethernet Type	10 Base-T*, 100 Base-TX, 1000 Base-T	Yes	No
MAC Address	Display only	-	No
<b>IEEE802.1X Settings</b>			
Use IEEE802.1X	On, Off*	Yes	No
Login Name	24 characters maximum	Yes	No
User	Name of the user to be authenticated with IEEE802.1X authentication	Yes	No
Password	Password of the user to be authenticated with IEEE802.1X authentication	Yes	No
<b>TLS Settings</b>			
Use TLS	On, Off*	Yes	No
<b>Key and Certificate</b>			
Set as the Default Key	-	Yes	No
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/Public Key/Cert.Thumbprint/Certificate	Yes	No
Display Use Location	Displays what the key pair is being used for.	Yes	No
<b>TTLS Settings</b>			
Use TTL	On, Off*	Yes	No
TTLS Settings	MSCHAPv2*, PAP	Yes	No
<b>PEAP Settings</b>			
Use PEAP	On, Off*	Yes	No
Same User Name as Login Name	On*, Off	Yes	No
<b>Firewall Settings</b>			
IP Address Block Log	Time, Category, IP Address, Result	Yes	No
<b>IPv4 Address Filter</b>			
TX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv4 Address	Up to 16 IPv4 addresses can be stored.	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv4 Address	Up to 16 IPv4 addresses can be stored.	Yes	No
<b>IPv6 Address Filter</b>			
TX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv6 Address	Up to 16 IPv4 addresses can be stored.	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv6 Address	Up to 16 IPv4 addresses can be stored.	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
MAC Address Filter			
TX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
MAC Address	Up to 100 IPv4 addresses can be stored.	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
MAC Address	Up to 100 IPv4 addresses can be stored.	Yes	No

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## External Interface

\* Default Settings

Item	Setting Description	Device Information Delivery Available
USB Settings		
Use USB Device	On*, Off	Yes
Use MEAP Driver for USB Device	On, Off*	Yes
Use MEAP Driver for USB External Drive	On, Off*	Yes

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## Accessibility

\* Default Settings

Item	Setting Description	Device Information Delivery Available
Key Repetition Settings	Standard*, Slightly Slow, Slow	No
Reversed Display (Color)	On, Off*	No

T-10-9

## Adjustment/Maintenance

### Adjust Image Quality<sup>\*1</sup>

\* Default Settings

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Auto Adjust Gradation	Quick Adjust: Press [Start] Full Adjust: Automatic after the machine prints and scans four sets of test pages	No
Correct Density	Copy/Scan and Store (Mail Box), Black Send/Scan and Store (other than Mail Box), Color Send/Scan and Store (Other Than Mail Box)Light, Dark: 1 to 9 levels (5levels*)	No
Fine Adjust Zoom	X, Y: -1.0% to +1.0%, in 0.1% increments (X: 0.0%* Y: 0.0%*)	No

T-10-10

### Adjust Action<sup>\*1</sup>

\* Default Settings

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Change Stitching Position	-2.00 mm to +2.00 mm, in 0.25 mm increments (0.00 mm*)	No
Adjust Saddle Stitch Fold Position	-2.00 mm to +2.00 mm, in 0.25 mm increments (0.00 mm*)	No
Finisher Puncher Switch	Speed Priority, Precision Priority	No
Adjust Trim Width	2.0 mm to 20.0 mm (0.08" to 0.78"), in 0.1 mm (0.01") increments (2.0 mm, 0.08*)	No
Adjust Fold Position		
Adjust Z-Fold Position	-2.0 mm to +1.5 mm, 0.5 mm increments (0.0 mm*)	No
Adjust C-Fold Position	-7.0 mm to +5.0 mm, in 0.5 mm increments (-1.0 mm*)	No
Adjust Accordion Z-Fold Position	-7.0 mm to +5.0 mm, 0.5 mm increments (-1.0 mm*)	No
Adjust Half Fold Position	-2.0 mm to +2.0 mm, 0.5 mm increments (0.0 mm*)	No
Adjust Saddle Fold Position	-2.00 mm to +2.00 mm, 0.25 mm increments (0.00 mm*)	No
Adjust Paper Deck Plates	Press [Start]	No

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### Maintenance

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Clean Feeder <sup>*1</sup>	Press [Start]	No
Clean Wire	Press [Start]	No
Clean Drum	Press [Start]	No
Original Scanning Area Cleaning Method <sup>*1</sup>	Display the cleaning method	No

T-10-12

## Function Settings

### Common

\* Default Settings

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

\*2 Indicates information that is delivered only if the number of output trays in the host machine and client machines is the same.

\*3 Indicates items that cannot be used with the default setting. Also, the Adobe LiveCycle Rights Management ES is necessary. Contact your local authorized Canon dealer.

Item	Setting Description	Device information Delivery Available
Paper Feed Settings		
Paper Drawer Auto Selection On/Off	Copy, Printer, Access Stored Files, Receive/Fax <sup>*1</sup> , Other	No
Multi-Purpose Tray	On, Off*	No
Other	On*, Off	No
Copy	Consider Paper Type : On*, Off	No
Suspended Job Timeout On	On, Off*	Yes
	0 to 999 min. (5min*)	
Paper Output Settings		
Output Tray Settings		
If the Staple Finisher/Booklet Finisher Is Attached		
Tray A	Copy, Access Stored Files*, Printer, Receive, Fax, Other	No <sup>*2</sup>
Tray B	Copy*, Access Stored Files*, Printer, Receive, Fax, Other	No <sup>*2</sup>
Tray C	Copy*, Access Stored Files*, Printer*, Receive, Fax, Other	No <sup>*2</sup>
Tray Home Position	Off, Tray A*, Tray B, Tray C	No <sup>*2</sup>
Offset Jobs <sup>*1</sup>	On*, Off	Yes
Job Separator Between Jobs	On, Off*	Yes
Job Separator Between Copies	On, Off*	No
Different Paper Sizes for the Output Tray	On*, Off	No
Unfinished Tab Paper Forced Output	On, Off*	Yes
Print Settings		
Print Priority		
Copy	1*,2,3	Yes
Printer	1,2*,3	Yes
Access Stored File, Receive/Fax <sup>*1</sup> , Other	1,2,3*	Yes
Local Print Default Settings		
Select Paper	All Paper Sources, Auto*	No
No. of Prints	1 to 9,999 sets (1set*)	No
Finishing <sup>*1</sup>		
If the Stapele Finisher is Attached.	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Face Up/Face Down	No
If the Booklet Finisher is Attached.	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Saddle Fold, Adjust Fold Position, Face Up/Face Down	No
If the Staple Finisher and Puncher Unit-BF1/Professional Puncher Are Attached.	Do Not Collate, Collate (Page Order), Offset, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Hole Punch, Face Up/Face Down	No

Item		Setting Description	Device information Delivery Available
	If the Staple Finisher/Booklet Finisher and Paper Folding Unit Are Attached:	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Fold, Face Up/Face Down	No
	If the Staple Finisher/Booklet Finisher, Puncher Unit-BF1/ Professional Puncher, and Paper Folding Unit-G1 Are Attached.	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Hole Punch, Fold, Face Up/Face Down	No
	2-Sided Printing	On, Off*	No
	Delete File After Printing	On, Off*	No
	Merge and Print	On, Off*	No
Output Report Default Settings			
	2-Sided Printing	On, Off*	Yes
	Register Form	Register (Solid/Transparent) <sup>1</sup> , Delete, Check Print, Details	No
	Register Characters for Page No./Watermark	Register, Edit, Delete	Yes
	Copy Set Numbering Option Settings	On, Off*	Yes
	Number Option ON		
	ID/User Name	On, Off*	Yes
	Date	On, Off*	Yes
	Text	On, Off*	Yes
Secure Watermark/Document Scan Lock <sup>1</sup>			
	Forced Secure Watermark/Doc. Scan Lock		
	Copy	Do Not Set*, Forced Secure Watermark, Forced Document Scan Lock	Yes
	Mail Box	Do Not Set*, Forced Secure Watermark, Forced Document Scan Lock	Yes
	Printer	Do Not Set*, Forced Secure Watermark, Forced Document Scan Lock	Yes
	Printer Driver Watermark/Doc. Scan Lock	Do Not Set*, Driver Secure Watermark, Driver Doc. Scan Lock	Yes
	Adjust Background/Character Contrast	Print Settings, Sample Print, Initialize	No
	Relative Contrast	-7 to +7 (0*)	No
	Standard Value Settings	1 to 64 (16*)	No
	Latent Area Density:	1 to 36 (8*)	No
	Adjust TL Code	Dot Size, Dot Density, Relative Contrast (Sample Print), Standard Value Settings, Initialize	No
	Dot Size	4*	No
	Dot Density	Standard*, Rough	No
	Relative Contrast	-7 to +7 (-1*)	No
	Standard Value Settings	1 to 64 (12*)	No
Scan Settings <sup>1</sup>			
	Timing to Raise Feeder Tray	When Start is pressed*, When Panel Is Touched	Yes
	Feeder Jam Recovery Method	From 1st Page*, From Stopped Original	Yes
	Scanner Noise Settings	Speed Priority*, Quiet	Yes
	Streak Prevention	On*, Off	Yes
	LTRR/STMT Original Selection	Select Manually, Use LTRR Format*, Use STMT Format	Yes
	Remote Scan Data Compression Ratio	High Ratio, Normal*, Low Ratio	Yes
	Remote Scan Gamma Value	Gamma 1.0, Gamma 1.4, Gamma 1.8*, Gamma 2.2	Yes
	Auto Online	On, Off*	Yes
	Auto Offline	On, Off*	Yes



Item	Setting Description	Device information Delivery Available
Generate File		
High Compression Image Quality Level		
Image Level in Text/Photo Mode or Photo Mode	Data Size Priority, Normal*, Image Quality Priority	Yes
Image Level in Text Mode	Data Size Priority, Normal*, Image Quality Priority	Yes
OCR (Text Searchable) Settings		
Smart Scan	On*, Off	Yes
No. of OCR File Name Characters	1 to 24*	Yes
Trace & Smooth Settings		
Outline Graphics	On*, Off	Yes
Graphics Recognition Level	Normal, Moderate*, High	Yes
Background Image Level	Data Size Priority, Normal*, Image Quality Priority	Yes
Format PDF to PDF/A	On, Off*	Yes
Optimize PDF for Web	On, Off*	Yes
Rights Management Server Settings	Server URL: 128 characters maximum	No
	User: 128 characters maximum	No
	Password: 24 characters maximum	No
	Use Password for Each User: On, Off*	No
Document Scan Lock Settings		
Use Document Scan Lock/Embedded Info.	On*, Off	Yes
Multiple Embedded Information Action	Continue Job, Cancel Job*	Yes
Use Document Scan Lock	On*, Off	Yes
Restrict Options	On*, Off	Yes

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## ■ Copy\*<sup>1</sup>

\* Default Settings

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Register/Edit Favorite Settings	Register/Edit, Delete (M1 to M9), Check Content	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	Finishing*, Unassigned	No
Shortcut 2	2-Sided*, Unassigned	No
Shortcut 3	Density* Unassigned	No
Shortcut 4	Original Type*, Unassigned	No
Shortcut 5	Unassigned*	No
Register Options Shortcuts		
Shortcut 1	No Settings*	No
Shortcut 2	No Settings*	No
Shortcut 3	No Settings*	No
Shortcut 4	No Settings*	No
Shortcut 5	No Settings*	No
Shortcut 6	No Settings*	No
Auto Collate	On*, Off	Yes
Image Orientation Priority	On, Off*	Yes
Auto Orientation	On*, Off	Yes
Photo Printout Mode	On, Off*	Yes
Register Remote Device for Cascade Copy	Register (Seven devices maximum), Details, Delete	No
Cascade Copy Communication Timeout	5 to 30* seconds	Yes

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## ■ Printer

\* Default Settings

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Output Report		
PCL		
Configuration Page	Print	No
Font List	Print	No
PS		
Configuration Page	Start	No
Font List	Print	No
Printer Settings	Setting the Machine (PS/PCL/UFR II Printer)	Yes
Restrict Printer Jobs	On, Off*	Yes
PDL Selection (Plug-n-play)	UFR II, PCL5e, PCL6, PS3, FAX	No

T-10-15

## Send

\* Default Setting

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

\*4 Indicates item that appears only if the Super G3 2nd Line Fax Board is installed in addition to installing the Super G3 FAX Board.

\*5 Indicates item that appears only if the Super G3 3rd/4th Line Fax Board is installed in addition to installing the Super G3 FAX Board.

\*6 Indicates item that appears according to the telephone line number specified in [No. of Sending Lines].

Item	Setting Description	Device Information Delivery Available
Output Report		
TX/RX User Data List	Print List	No
Fax User Data List <sup>*1</sup>	Print List	No
Common Settings		
Register Favorite Settings Edit Favorite Settings	Register/Edit, Delete (M1 to M18), Check Content	Yes
Show Comment	On, Off*	Yes
Display Confirmation for Favorite Settings	On*, Off	No
Default Screen	Standard*, Address Book, One-Touch, Favorite Settings	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	2-Sided Original*, Unassigned	No
Shortcut 2	Different Size Originals*, Unassigned	No
TX Report	For Error Only*, On, Off	Yes
Report with TX Image	On*, Off	Yes
Communication Management Report		
Auto Print (100 Transmissions)	On*, Off	Yes
Specify Print Time	On, Off*	Yes
Timer Setting	00 : 00 to 23 : 59 (00 : 00*)	Yes
Send/Receive Separate	On, Off*	Yes
TX Terminal ID	Print*, Do Not Print	Yes
	TX Terminal ID: Print • Printing Position: Outside • Display Destination Unit Name: On, Off • Telephone # Mark <sup>*1</sup> : FAX, TEL	Yes
Delete Failed TX Jobs	On*, Off	Yes
Retry Times	0 to 5 times (3 times*)	Yes
Data Compression Ratio	High Ratio, Normal*, Low Ratio	Yes
YCbCr TX Gamma Value	Gamma 1.0, Gamma 1.4, Gamma 1.8*, Gamma 2.2	Yes
Use Divided Chunk Send for WebDAV TX	On*, Off	Yes
Limit New Destinations		
Fax	On, Off*	Yes
E-mail	On, Off*	Yes
I-Fax	On, Off*	Yes
File	On, Off*	Yes
Always Add Device Signature to Send <sup>*1</sup>	On*, Off	Yes
Restrict File Formats	On, Off*	Yes

Item	Setting Description	Device Information Delivery Available
E-mail/fax Settings		
Register Unit Name	24 characters maximum	No
Communication Settings		
SMTP RX	On, Off*	Yes
POP	On* Off	Yes
SMTP Server	Server name or IP Address (48 characters maximum)	No
E-mail Address	64 characters maximum	No
POP Server	Server name or IP Address (48 characters maximum)	No
POP Address	64 characters maximum	No
POP Password	32 characters maximum	No
POP Interval	0* to 99 (If the interval is set to '0', the incoming e-mail is not checked automatically.)	No
POP AUTH Method	Standard*/APOP/POP AUTH	Yes
POP Authentication before Sending	On, Off*	No
SMTP Authentication (SMTP AUTH)	On, Off*	No
User	User name for SMTP authentication (64 characters maximum)	No
Password	Password for SMTP authentication (32 characters maximum)	No
Allow SSL (POP)	On, Off*	No
Allow SSL (SMTP Send)	On, Off*	No
Display Auth. Screen When Send	On, Off*	No
Allow SSL (SMTP Receive)	Always SSL, On, Off*	No
Maximum Data Size for Sending	0=(Off)/1 to 99 MB (3MB*)	Yes
Default Subject	40 characters maximum (Attached Image*)	Yes
Use SMTP Authentication for Each User	On*, Off	No
Specify Authentication User Dest. to Reply	On, Off*	No
Set Authorized User Destination to Sender	On*, Off	No
Allow Sending to Unregistered Destinations	On, Off*	Yes
Full Mode TX Timeout	1 to 99 hours (24hours*)	Yes
Print MDN/DSN upon Receipt	On, Off*	Yes
Use Send via Server	On, Off*	Yes
Allow MDN Not via Server	On*, Off	Yes
Restrict TX Destination Domain		
Restrict Sending to Domains	On, Off*	Yes
Permitted Domains	Register, Details/Edit, Delete	No
Fax Settings <sup>1</sup>		
Default Screen	Standard*, Address Book	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	Density*, Unassigned	No
Shortcut 2	Original Type*, Unassigned	No
Shortcut 3	2-Sided Original*, Unassigned	No
Shortcut 4	Different Size Originals*, Unassigned	No
Register Sender Name (TTI)	01 to 99: Register/Edit, Delete	No
ECM TX	On*, Off	Yes

Item	Setting Description	Device Information Delivery Available
Set Pause Time	1 to 15 seconds (2 seconds*)	Yes
Auto Redial	On*, Off	Yes
Redial Times	1 to 10 times (2 times*)	Yes
Redial Interval	2 to 99 minutes (2 minutes*)	Yes
Redial When TX Error	Error and 1st page*, All pages, Off	Yes
Check Dial Tone Before Sending	On*, Off	Yes
Fax TX Report	For Error Only*, On, Off	Yes
Report with TX Image	On*, Off	Yes
Fax Activity Report		
Auto Print (40 Transmissions)	On*, Off	Yes
Specify Print Time	On, Off*	Yes
Timer Setting	00: 00 to 23: 59 (00: 00*)	Yes
Send/Receive Separate	On, Off*	Yes
Set Line		
Register Unit Telephone Number	20 digits maximum	No
Register Unit Name	24 characters maximum	No
Select Line Type	Pulse, Tone*	No
Line	If the Super G3 FAX Board and Super G3 2nd Line Fax Board are installed: • Line 2	No
	If the Super G3 FAX Board, Super G3 2nd Line Fax Board, and Super G3 3rd/4th Line Fax Board are installed: • Line 2, Line 3, Line 4	No
Select TX Line	If the Super G3 FAX Board is installed: • Line 1: Priority TX*, Prohibit TX	No
	If the Super G3 FAX Board and Super G3 2nd Line Fax Board are installed: • Line 1: Priority TX*, Prohibit TX • Line 2: Priority TX, Prohibit TX	No
	If the Super G3 FAX Board, Super G3 2nd Line Fax Board, and Super G3 3rd/4th Line Fax Board are installed: • Line 1: Priority TX*, Prohibit TX • Line 2: Priority TX, Prohibit TX • Line 3: Priority TX, Prohibit TX • Line 4: Priority TX, Prohibit TX	No
TX Start Speed	33600 bps*, 14400 bps, 9600 bps, 7200 bps, 4800 bps, 2400 bps	Yes
PIN Code Access	On, Off*	Yes
Confirm Entered Fax Number	On, Off*	Yes
Allow Fax Driver TX	On*, Off	Yes
Remote Fax TX Settings		
Remote Fax Server Address	Host name or the IP address (48 characters maximum)	No
TX Timeout	1 to 99 hours (24 hours*)	Yes
No. of Sending Lines	1 to 4 lines (1*)	No
Select Priority Line	Auto*, Line 1, Line 2 <sup>6</sup> , Line 3 <sup>6</sup> , Line 4 <sup>6</sup>	No
Remote Fax Settings		
Use Remote Fax	On*, Off	Yes

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## Receive/Forward

\* Default Setting

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

\*7 Indicates item that is not delivered as device information.

Receive Type, Details/Edit, Delete, Print List, E-Mail Priority

Item	Setting Description	Device Information Delivery Available
<b>Output Report</b>		
TX/RX User Data List	Print List	No
Fax User Data List <sup>*1</sup>	Print List	No
<b>Common Settings</b>		
Print on Both Side	On, Off*	Yes
Select Drawer		
Switch A	On*, Off	Yes
Switch B	On*, Off	Yes
Switch C	On*, Off	Yes
Switch D	On*, Off	Yes
Reduce Fax RX Size	On*, Off	Yes
	On • Reduction Mode: Auto • Reduction %: 90% • Reduction Direction: Vertical Only	Yes
2 On 1 Log	On, Off*	Yes
Received Page Footer	Print, Do Not Print*	Yes
Handle Files with Forwarding Errors	Always Print*, Store/Print, Off	Yes
Forwarding Settings	Type, Validate/Invalidate, Register (Registered Forwarding Settings), Forward w/o Conditions, E-Mail Priority, Details/Edit, Delete, Print List	Yes <sup>*7</sup>
<b>Set Fax/I-Fax Inbox</b>		
Set/Register Confidential Fax Inboxes		
Inbox No.	00 to 49	Yes
Register Box Name:	24 characters maximum	Yes
PIN	Seven digits maximum	Yes
URL Send Settings	-	Yes
Initialize	-	No
Memory RX Inbox PIN	Seven digit number	No
Use Fax Memory Lock <sup>*1</sup>	On, Off*	Yes
Use I-Fax Memory Lock	On, Off*	Yes
Memory Lock Start Time	Everyday, Select Days, Off*	Yes
Memory Lock End Time	Everyday, Select Days, Off*	Yes
Divided Data RX Timeout	0 to 99 hours (24hours*)	Yes
Always Send Notice for RX Errors	*On, Off	Yes
<b>Fax Settings<sup>*1</sup></b>		
ECM RX	On*, Off	Yes
Fax RX Report	For Error Only, On, Off*	Yes
Confidential Fax Inbox RX Report	On*, Off	Yes
RX Start Speed	33600 bps*, 14400 bps, 9600 bps, 7200 bps, 4800 bps, 2400 bps	Yes
RX Password	20 digits maximum	No

## Store/Access Files

\* Default Setting

Item	Setting Description	Device Information Delivery Available
<b>Common Settings</b>		
Scan and Store Settings		
Register/Edit Favorite Settings	Register, Rename, Delete (Up to 9 Set Keys), Check Content	No
Photo Printout Mode	On, Off*	Yes
Change Default Settings	Register, Initialize	No
Access Stored Files Settings		
Register/Edit Favorite Settings	Register, Rename, Delete (Up to 9 Set Keys), Check Content	No
Change Default Settings	Register, Initialize	No
<b>Mail Box Settings</b>		
Set/Register Mail Boxes		
Mail Box No.	00 to 99	No
Register Box Name	24 characters maximum	Yes
PIN	Seven digits	Yes
Time Until File Auto Delete	0 (Off), 1, 2, 3, 6, 12 hours, 1, 2, 3*, 7, 30 days	No
URL Send Settings	-	Yes
Print upon Storing from Printer Driver	On, Off*	Yes
Initialize	-	No
Settings for All Mail Boxes		
Time Until File Auto Delete	0 (Off), 1, 2, 3, 6, 12 hours, 1, 2, 3*, 7, 30 days	No
Print When Storing from Printer Driver	On, Off*	No
<b>Advanced Box Settings</b>		
Open to Public	By SMB, By WebDAV, Off*	Yes
WebDAV Server Settings		
Authentication Type	Basic, Off*	Yes
Use SSL	On*, Off	Yes
Allow to Create Personal Space	On*, Off	Yes
Delete All Personal Spaces	Delete	No
Initialize Shared Space	Initialize	No
Prohibit Writing from External	On*, Off	Yes
Authentication Management	On, Off*	Yes
File Formats Allowed for Storing	Printable Formats Only*, Common Office Formats, All	Yes
<b>Network Settings</b>		
Network Place Settings	Register, Details, Delete	No
Protocol for External Reference		
SMB	On*, Off	No
WebDAV	On*, Off	No

## Encrypted Secure Print

T-10-18

\* Default Setting

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Only Allow Encrypted Print Jobs <sup>*1</sup>	On, Off*	Yes

## Set Destination

### Set Destination

\* Default Setting

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Address List	Address List 1 to 10, One-touch	No
	Print List: Print	No
Register Destinations	Register New Dest., Details/Edit, Delete, Search by Name	Yes
Rename Address List	Rename	Yes
Register One-Touch	Register/Edit, Delete	Yes
Change Default Display of Address Book	Local*, LDAP Server, Remote	No
Address Book PIN	Seven digit number	Yes
Manage Address Book Access Numbers	On, Off*	Yes
Register LDAP Server	Register, Details/Edit, Delete, Register/Edit LDAP Search, Print List	No
Auto Search When Using LDAP Server	On* Off	Yes
Acquire Remote Address Book		
Acquire Address Book	On*, Off	Yes
Remote Address Book Server Address	IP Address or Host Name (128 characters maximum)	No
Communication Timeout	15 to 120 seconds (30 seconds*)	Yes
Fax TX Line Auto Select Adjustment	On*, Off	Yes
Make Remote Address Book Open		
Make Address Book Open	On, Off*	Yes

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## Management Settings

### User Management

\* Default Settings

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
System Manager Information Settings		
System Manager ID	Seven digit number maximum (7654321*)	Yes
System PIN	Seven digit number maximum (7654321*)	Yes
System Manager	32 characters maximum	Yes
E-Mail Address	64 characters maximum	Yes
Contact Information	32 characters maximum	Yes
Comment	32 characters maximum	Yes
Department ID Management		
Department ID Management	On, Off*	Yes
Register PIN	Register, Edit, Delete, Limit Functions	Yes
Page Totals	Clear, Print List, Clear All Totals, Large2 Count Management	No
Allow Printer Jobs with Unknown IDs	On*, Off	Yes
Allow Remote Scan Jobs With Unknown IDs	On*, Off	Yes

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### Device Management

\* Default Settings

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Device Information Settings		
Device Name	32 characters maximum	No
Location	32 characters maximum	No
Device Information Delivery Settings		
Register Destinations	Auto Search/Register, Register, Details, Delete, Print List	No
	Auto Search/Register <ul style="list-style-type: none"> <li>List</li> <li>Search Depth (Router): 1 to 8</li> <li>Display Host Name: On, Off</li> <li>Start Auto Search</li> </ul>	No
Set Auto Settings	Everyday, Specify Days, Off*	No
Settings/Registration Value	On, Off* Network Settings: Include, Exclude*	No
Dept. ID	On, Off*	No
Address Book	On, Off*	No
Web Access Favorites	On, Off*	No
Printer Settings	On, Off*	No
Paper Information	On, Off*	No

Item	Setting Description	Device Information Delivery Available
Manual Delivery		
Settings/Registration Value	On, Off* Network Settings: Include, Exclude*	No
Dept. ID	On, Off*	No
Address Book	On, Off*	No
Web Access Favorites	On, Off*	No
Printer Settings	On, Off*	No
Paper Information	On, Off*	No
Restrictions Receiving Device Information	On*, Off	No
Restore Data	Settings/Registration Value, Dept. ID, Address Book, Web Access Favorites, Printer Settings, Paper Information	No
Restrict Restriction for Each Function		
Settings/Registration Value	On*, Off	No
Dept. ID	On*, Off	No
Address Book	On*, Off	No
Web Access Favorites	On, Off*	No
Printer Settings	On*, Off	No
Paper Information	On*, Off	No
Set Paper Information	All, Basic Only*	No
Communication Log	Details, Print List, Report Settings	No
	Report Settings	No
	• Auto Print (100 transmissions): On*, Off	No
	• Specify Print Time: On, Off*	No
	-00: 00* to 23:59	No
	• Separate Report Type: On, Off*	No
Limited Functions Mode <sup>1</sup>		
Finissher Tray A/B/C	On, Off*	
Finissher Saddle Stitch Unit	On, Off*	
Folding Unit	On, Off*	No
Finissher Puncher	On, Off*	
Confirm Device Signature Certificate	Certificate Details: Certificate	No
Confirm User Signature Certificate	Certificate Details: Certificate	No
Certificate Settings		
Certificate Settings: Generate Key: Generate Network Communication Key		
Key Name	24 characters maximum	No
Key Algorithm	RSA, Display only	No
Key Length (bit)	512*, 1024	No
Start Date of Validity	Month, Date, Year (2000/01/01~2048/12/31)	No
End Date of Validity	Month, Date, Year (2000/01/01~2048/12/31)	No
Country/Region	Country/Region name and code (2 characters maximum) (US*)	No
State	24 characters maximum	No
City	24 characters maximum	No
Organization	24 characters maximum	No
Organization Unit	24 characters maximum	No
Common Name	IP address or FQDN (24 characters maximum)	No

Item	Setting Description	Device Information Delivery Available
Certificate Settings:Generate Key		
Generate/Update Device Signature Key* <sup>1</sup>	-	No
Certificate Settings: Key and Certificate List: Key and Certificate List for this Machine Editing Key Pairs and Server Certificates Confirming a Key Pair and Device Certificate		
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/Public Key/Cert. Thumbprint/Certificate	No
Delete	-	No
Display Use Location	Displays what the key pair is being used for	No
Certificate Settings: Key and Certificate List: Key and Certificate List for Users*		
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/Public Key/Cert. Thumbprint(SHA1)/Certificate	No
Delete	-	No
Certificate Settings: CA Certificate List		
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/Public Key/Cert. Thumbprint/Certificate	No
Delete	-	No
Certificate Settings: Register Key and Certificate		
Register	Key Name (24 characters maximum) Password (24 characters maximum)	No
Delete	-	No
Certificate Settings: Register CA Certificate		
Register	-	No
Delete	-	No
Display Status Before Authentication	On*, Off	No
Display Log	On*, Off	No
	Off • Obtain Job Log From Management Software: Permit, Do Not Allow*	No

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## License/Other

\* Default Settings

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Register License	24 characters maximum	No
MEAP Settings		
Print System Information	Print	No
SSL Settings	On • Use SSL:On, Off*	No
Remote UI	On*, Off	Yes
	On • Use SSL:On, Off*	No
Use Reference Print	On, Off*	Yes
Delete Message Board Contents	Clear	No

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## ■ Data Management

\* Default Settings

\*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
HDD Data Complete Deletion*		
Timing of Deletion	During Job*, After Job	No
Overwrite Method for Deletion Mode	0 (Null) Data 1 Time*, Random Data 1 Time, Random Data 3 Times, DOD Standard	No
Initialize All Data/Settings		
	Initialize	No
TPM Settings		
	Use TPM: On, Off*	No
	Backup TPM Key, Restore TPM Key	No

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## Backup Data

Data	Location	Clear?											Backup by User			Backup by CE			Remarks
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	Replace the TPM PCB	Initialize All Data / Settings	Function > CLEAR > MN-CONT	Function > CLEAR > DC-CON	Function > CLEAR > R-CON	Function > CLEAR > MMI	Function > CLEAR > ADRS-BK	Function > CLEAR > JV-CACHE	Yes/No	Method	Location to be stored	Yes/No	Method	Location to be stored	
Address List	HDD	Clear	-	-	-	Clear	-	-	-	-	Clear	-	Yes	Remote UI (Export / Import)	PC	No	-	-	
Forwarding Settings	SRAM (MCON2)	-	-	Clear	-	Clear	Clear	-	-	Clear	-	-	Yes	Remote UI (Export / Import)	PC	Yes	SST (Sramimg)	PC	
Settings / Registration																			
Preferences	SRAM (MCON2)	-	-	Clear	-	Clear	Clear	-	-	Clear	-	-	Yes (*)	Remote UI (Export / Import)	PC	Yes	SST (Sramimg)	PC	*: Timer/Energy Settings> Excluding Adjust Time, Date/Time Settings
Adjustment/Maintenance	SRAM (MCON2)	-	-	Clear	-	Clear	Clear	-	-	Clear	-	-	Yes	Remote UI (Export / Import)	PC	Yes	SST (Sramimg)	PC	
Function Settings	SRAM (MCON2)	-	-	Clear	-	Clear	Clear	-	-	Clear	-	-	Yes (*)	Remote UI (Export / Import)	PC	Yes	SST (Sramimg)	PC	*: Excluding the following items • Network > SNMP Settings > Use SNMPv3 > User Settings, Context Settings • Network > Firewall Settings > IPv4 Address Filter, IPv6 Address Filter • Receive/Forward > Common Settings > Forwarding Settings, Fax/I-Fax Inbox
Set Destination	SRAM (MCON2)	-	-	Clear	-	Clear	Clear	-	-	Clear	-	-	Yes	Remote UI (Export / Import)	PC	Yes	SST (Sramimg)	PC	
Management Settings	SRAM (MCON2)	-	-	Clear	-	Clear	Clear	-	-	Clear	-	-	Yes (*)	Remote UI (Export / Import)	PC	Yes	SST (Sramimg)	PC	*: Excluding User Management > Dept. ID Management > Page Total
Printer Settings	SRAM (MCON2)	-	-	Clear	-	Clear	Clear	-	-	Clear	-	-	Yes	Remote UI (Export / Import)	PC	Yes	SST (Sramimg)	PC	
Set Paper Information	HDD	Clear	-	-	-	Clear	-	-	-	-	-	-	Yes	Remote UI (Export / Import)	PC	No	-	-	
Setting items for each menu in Main Menu (Copy, Scan and Send, Fax, Scan and Store, Access Stored Files, Fax/I-Fax Inbox)																			
Favorite Settings	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Yes (*1)	Remote UI (Export / Import)	PC	Yes (*2)	SST (Meapback)	PC	*1: Backup is available only "Favorite Settings" in "Scan to Send" *2: Available only in the following case: The download mode in safe mode is started when the HDD is faulty and backup of Meapback is available by SST. In such a case, perform the following procedure to restore: • Execute backup of Meapback using SST • Replace the HDD • Install the system • Check if the system has been normally started • Start in safe mode and execute restoration using SST
Default Settings	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	No	-	-	Yes (*)	SST (Meapback)	PC	*: Available only in the following case: The download mode in safe mode is started when the HDD is faulty and backup of Meapback is available by SST. In such a case, perform the following procedure to restore: • Execute backup of Meapback using SST • Replace the HDD • Install the system • Check if the system has been normally started • Start in safe mode and execute restoration using SST
Shortcut settings for "Options"	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	No	-	-	Yes (*)	SST (Meapback)	PC	*: Available only in the following case: The download mode in safe mode is started when the HDD is faulty and backup of Meapback is available by SST. In such a case, perform the following procedure to restore: • Execute backup of Meapback using SST • Replace the HDD • Install the system • Check if the system has been normally started • Start in safe mode and execute restoration using SST
Previous Settings	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	No	-	-	Yes (*)	SST (Meapback)	PC	*: Available only in the following case: The download mode in safe mode is started when the HDD is faulty and backup of Meapback is available by SST. In such a case, perform the following procedure to restore: • Execute backup of Meapback using SST • Replace the HDD • Install the system • Check if the system has been normally started • Start in safe mode and execute restoration using SST

Data	Location	Clear?											Backup by User			Backup by CE			Remarks
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	Replace the TPM PCB	Initialize All Data / Settings	Function > CLEAR > MN-CONT	Function > CLEAR > DC-CON	Function > CLEAR > R-CON	Function > CLEAR > MMI	Function > CLEAR > ADRS-BK	Function > CLEAR > JV-CACHE	Yes/No	Method	Location to be stored	Yes/No	Method	Location to be stored	
Setting items for Quick Menu																			
Button Size information	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Yes	Remote UI (Export / Import)	PC	Yes (*)	SST (Meapback)	PC	*: Available only in the following case: The download mode in safe mode is started when the HDD is faulty and backup of Meapback is available by SST. In such a case, perform the following procedure to restore: • Execute backup of Meapback using SST • Replace the HDD • Install the system • Check if the system has been normally started • Start in safe mode and execute restoration using SST
Wallpaper Setting	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Yes	Remote UI (Export / Import)	PC	Yes (*)	SST (Meapback)	PC	*: Available only in the following case: The download mode in safe mode is started when the HDD is faulty and backup of Meapback is available by SST. In such a case, perform the following procedure to restore: • Execute backup of Meapback using SST • Replace the HDD • Install the system • Check if the system has been normally started • Start in safe mode and execute restoration using SST
Button information in Quick Menu	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Yes	Remote UI (Export / Import)	PC	Yes (*)	SST (Meapback)	PC	*: Available only in the following case: The download mode in safe mode is started when the HDD is faulty and backup of Meapback is available by SST. In such a case, perform the following procedure to restore: • Execute backup of Meapback using SST • Replace the HDD • Install the system • Check if the system has been normally started • Start in safe mode and execute restoration using SST
Restrict Quick Menu	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Yes	Remote UI (Export / Import)	PC	Yes (*)	SST (Meapback)	PC	*: Available only in the following case: The download mode in safe mode is started when the HDD is faulty and backup of Meapback is available by SST. In such a case, perform the following procedure to restore: • Execute backup of Meapback using SST • Replace the HDD • Install the system • Check if the system has been normally started • Start in safe mode and execute restoration using SST
Setting items for Main Menu																			
Button settings in Main Menu	HDD	Clear	-	-	-	Clear	-	-	-	-	-	-	No	-	-	No	-	-	
Button settings on the top of the screen	HDD	Clear	-	-	-	Clear	-	-	-	-	-	-	No	-	-	No	-	-	
Wallpaper Setting for Main Menu	HDD	Clear	-	-	-	Clear	-	-	-	-	-	-	No	-	-	No	-	-	
Other settings for Main Menu	HDD	Clear	-	-	-	Clear	-	-	-	-	-	-	No	-	-	No	-	-	
Box settings																			
User Box specification settings (Register Box Name, Password, Time until Document Auto Erase, Print upon storing from the printer driver)	HDD (management information in SRAM)	Clear	-	Clear (*1)	-	Clear	Clear	-	-	-	-	-	Yes	Remote UI (Backup / Restore)	PC	Yes (*2, 3)	SST (Sramimg)	PC	Note 1: When replacing Main Controller PCB 2, backup of Streaming is necessary using SST because the management information is kept in SRAM on Main Controller PCB 2. Note 2: Restoration is available only when backup of streaming with SST is available before replacing MCON2. Be sure to restore Streaming at the initial startup after replacement of Main Controller PCB 2. Note 3: Restoration of Streaming is not available if the HDD is encrypted (when the HDD Data Encryption/Mirroring Kit is installed).
Image data of User Box, Confidential Fax Box, and System Box Image Data	HDD (management information in SRAM)	Clear	-	Clear (*1)	-	Clear	Clear	-	-	-	-	-	Yes	Remote UI (Backup / Restore)	PC	Yes (*2, 3)	SST (Sramimg)	PC	Note 1: When replacing Main Controller PCB 2, backup of Streaming is necessary using SST because the management information is kept in SRAM on Main Controller PCB 2. Note 2: Restoration is available only when backup of streaming with SST is available before replacing MCON2. Be sure to restore Streaming at the initial startup after replacement of Main Controller PCB 2. Note 3: Restoration of Streaming is not available if the HDD is encrypted (when the HDD Data Encryption/Mirroring Kit is installed).
Data File of Advanced Box	HDD	Clear	-	-	-	Clear	-	-	-	-	-	-	Yes	Remote UI (Backup / Restore)	PC	No	-	-	Available only when the user logs in as an administrator. *: When the option HDD is installed, only the USB-HDD is available as the backup destination. *: When the authentication management of Advanced Box is ON, it is necessary to export the Advanced Box in advance to import at the time of restoration.

Data	Location	Clear?											Backup by User			Backup by CE			Remarks
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	Replace the TPM PCB	Initialize All Data / Settings	Function > CLEAR > MN-CONT	Function > CLEAR > DC-CON	Function > CLEAR > R-CON	Function > CLEAR > MMI	Function > CLEAR > ADRS-BK	Function > CLEAR > JV-CACHE	Yes/No	Method	Location to be stored	Yes/No	Method	Location to be stored	
<b>Advanced box settings</b>																			
Advanced box account	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Yes (*1)	Remote UI (Authentication management of Advanced Box)	PC	Yes (*2)	SST (Meapback)	PC	*1: When the authentication management of Advanced Box is ON, it is necessary to export the Advanced Box in advance to import at the time of restoration. *2: Available only in the following case: The download mode in safe mode is started when the HDD is faulty and backup of Meapback is available by SST. In such a case, perform the following procedure to restore: • Execute backup of Meapback using SST • Replace the HDD • Install the system • Check if the system has been normally started • Start in safe mode and execute restoration using SST
Network place setting information	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	No	-	-	No	-	-	
<b>PDL settings</b>																			
Image forms stored in the Form Composition mode	HDD (management information in SRAM)	Clear	-	Clear (*1)	-	Clear	Clear	-	-	-	-	-	Yes	Remote UI (Backup / Restore)	PC	Yes (*2, 3)	SST (Sramimg)	PC	Note 1: When replacing Main Controller PCB 2, backup of Streaming is necessary using SST because the management information is kept in SRAM on Main Controller PCB 2. Note 2: Restoration is available only when backup of streaming with SST is available before replacing MCON2. Be sure to restore Streaming at the initial startup after replacement of Main Controller PCB 2. Note 3: Restoration of Streaming is not available if the HDD is encrypted (when the HDD Data Encryption/Mirroring Kit is installed).
<b>Web browser settings</b>																			
Web Access setting information	HDD	Clear	-	-	-	Clear	-	-	-	-	-	-	Yes (*)	Remote UI (Export / Import)	PC	No	-	-	*: Backing up available only Favorites
<b>MEAP settings</b>																			
MEAP application	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	No	-	-	Yes	SST (Meapback)	PC	
License files for MEAP applications	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Yes	SMS	PC	Yes	SST (Meapback)	PC	
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Yes	SMS	PC	Yes	SST (Meapback)	PC	
Data saved using MEAP applications	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Yes (*)	-	PC	Yes	SST (Meapback)	PC	*: Depending on the MEAP application.
SMS (Service Management Service) password of MEAP	HDD	Clear	-	-	-	Clear	-	-	-	-	-	Clear	No	-	-	Yes	SST (Meapback)	PC	
<b>Universal data settings</b>																			
Unsent documents (documents waiting to be sent with the Delayed Send mode)	HDD	Clear	-	-	-	Clear	-	-	-	-	-	-	No	-	-	No	-	-	
Job logs	HDD	Clear	-	-	-	Clear	-	-	-	-	-	-	No	-	-	No	-	-	
Key Pair and Server Certificate in Certificate Settings in TCP/IP Settings in Network Settings in System Settings (from the Additional Functions screen)	HDD	Clear	-	-	-	Clear	-	-	-	-	-	-	No	-	-	No	-	-	
Auto Adjust Gradation setting values	SRAM (MCON2)	-	-	Clear	-	Clear	Clear	-	-	-	-	-	No	-	-	Yes	SST (Sramimg)	PC	
PS font	HDD	Clear	-	-	-	Clear	-	-	-	-	-	-	No	-	-	No	-	-	
Key information to be used for encryption when TPM is OFF	SRAM (MCON2)	Clear (*1)	-	Clear (*2)	-	Clear	Clear (*2)	-	-	Clear (*2)	-	-	No (*3)	-	-	Yes	SST (Sramimg)	PC	*1: After clearing the backup key information in the HDD, it is automatically restored from the key in the SRAM. *2: After clearing the key information in the SRAM, it is automatically restored from the backup key in the HDD. *1, 2: When replacing the HDD and Main Controller PCB 2 simultaneously, restoring the key information is not executed automatically. *3: There is no method to back up to the external devices.

Data	Location	Clear?											Backup by User			Backup by CE			Remarks
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	Replace the TPM PCB	Initialize All Data / Settings	Function > CLEAR > MN-CONT	Function > CLEAR > DC-CON	Function > CLEAR > R-CON	Function > CLEAR > MMI	Function > CLEAR > ADRS-BK	Function > CLEAR > JV-CACHE	Yes/No	Method	Location to be stored	Yes/No	Method	Location to be stored	
Key and settings information to be used for encryption when TPM is ON	SRAM (MCON2) HDD TPM Board	Clear (*1)	-	Clear (*2)	Clear	Clear (*3)	Clear (*2)	-	-	Clear (*2)	-	-	Yes (*4)	Settings / Registration mode (Management Settings > Data Management > TPM Settings)	USB memory	Yes	SST (Sramimg)	PC	*1: An error code is displayed when the TPM setting is "ON". Recovery procedure differs depending on the controller's version as follows: <ul style="list-style-type: none"> <li>• Before Ver13 Perform Initialize All Data/Settings after rebooting, and then set the TPM setting "ON" again to restore.</li> <li>• Ver.13 or later After installation of the system, execute restoration of the TPM key to restore.</li> </ul> *2: After executing each CLEAR operation, the key information in the SRAM can be automatically restored from the common backup key in the HDD, and the TPM setting becomes "ON". However, only the UI display is "OFF", so it is required to change the TPM setting to "ON" manually.                     *3: By initializing all data/settings, the TPM setting is changed to "OFF".                     *4: Restoration is not available with other machines where the TPM setting is set "ON". The available range for backup of key information differs depending on the controller's version as follows. <ul style="list-style-type: none"> <li>• Before Ver13 Backup is available only for failure with TPM PCB</li> <li>• Ver.13 or later Backup is available for effective key and settings information even in the case of failure with HDD</li> </ul>
Service mode setting values (MN-CON)	SRAM (MCON2)	-	-	Clear (*)	-	-	Clear	-	-	-	-	-	No	-	-	Yes	SST (Sramimg)	PC	
Service mode setting values (DC-CON)	SRAM (DC-CON)	-	-	-	-	-	-	Clear	-	-	-	-	No	-	-	Yes	Service mode (COPIER > FUNCTION > SYSTEM > DSRAMBUP)	HDD	
Service mode setting values (R-CON)	EEPROM (R-CON)	-	-	-	-	-	-	-	Clear	-	-	-	No	-	-	Yes	Service mode (COPIER > FUNCTION > SYSTEM > RSRAMBUP)	HDD	



## Detail of HDD partition

Partition name	CHK-TYPE	Description	HDD Format
FSTDEV	1	Image data storage area	enable
IMG-MNG		Management data of image	
FSTCDEV		Image data storage area (for Chasing)	
THUMDEV		Thumbnail	
APL_GEN	11	Storage area of universal data (Note: For details, see the following.)	enable
TMP_GEN	2	Storage area of universal data (temporary file)	enable
TMP_FAX		FAX (temporary file)	
TMP_PSS		PSS (temporary file)	
PDLDEV	3	PDL-related file storage area (font, registration form, color correction information file for ICCProfile-PDL function)	Enabled
BOOTDEV	4	Firmware storage area (Bootable/MEAP/key/certificate/PDF dictionary/RUI contents/voice dictionary (ICC profile. PS test data.))	Disabled
APL_MEAP	5	MEAP	Enabled
APL_SEND	6	Address book, Setting for Forwarding	Disabled
APL_KEEP	7	MEAP stored data	Disabled
APL_LOG	8	System log storage area	Enabled
CRBDEV	9	Advanced Box area	Enabled
APL_CDS	10	Area for distribution server	Enabled

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## APL\_GEN Details of universal data

Category	Data
Settings / Registration	Preferences
	Adjustment/Maintenance
	Function Settings
	Set Destination
	Management Settings
	Printer Settings
	Paper Information Settings
Setting items for each menu in Main Menu	Favorite Settings
	Default Settings
	Shortcut settings for "Options"
	Previous Settings

Category	Data
Setting for Advance Box	User information of Advanced Box
	Registration information of Network Place
Setting for Web Access	Web Access Setting information
Setting for Universal Data	Unsent document (which is set timer transmission or reservation transmission)
	Job log information
	Key and server certificate which are registered in Management Settings>Device Settings>Certificate Setting
	Auto Adjust Gradation setting values
	PS font

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## Soft Counter List

### Soft counter specifications

000 to 099: Remote copy  
 100 to 199: Total  
 200 to 299: Copy  
 300 to 399: Print  
 400 to 499: Copy and print  
 500 to 599: Scan  
 600 to 699: Box  
 700 to 799: Reception print  
 800 to 899: Report print  
 900 to 999: Transmission

- Explanation of symbols shown in the table -

- yes: Valid counter for this machine
- 4C: Full color
- Mono: Mono color (Y, M, C / R, G, B / retro monochrome)
- Bk: Single black color
- L: Large size (larger than B4 size)
- S: Small size (smaller than B4 size)
- Numbers 1, 2 indicated under "Counter Details": Number of counts for large size paper
- It can be changed by the service mode (COPIER > OPTION > USER > B4\_L\_CNT) so that the paper larger than B4 size can be counted as large size paper.
- Copy: Local copy + remote copy
- Copy A: Local copy + remote copy + box print
- Print: PDL print + report print + box print
- Print A: PDL print + report print
- Scan: Black and white scan + color scan

### Soft Counter List

#### 000 to 099

Valid or invalid	Number	Counter Details
no	002	Remote copy (full color 1)
no	003	Remote copy (full color 2)
no	004	Remote copy (mono color 1)
no	005	Remote copy (mono color 2)
yes	006	Remote copy (black and white 1)
yes	007	Remote copy (black and white 2)
no	008	Remote copy (full color / large)
no	009	Remote copy (full color / small)
no	010	Remote copy (mono color / large)
no	011	Remote copy (mono color / small)
yes	012	Remote copy (black and white / large)
yes	013	Remote copy (black and white / small)
no	014	Remote copy (full color + mono color / large)
no	015	Remote copy (full color + mono color / small)
no	016	Remote copy (full color + mono color 2)
no	017	Remote copy (full color + mono color 1)
no	018	Remote copy (full color / large / double sided)
no	019	Remote copy (full color / small / double sided)
no	020	Remote copy (mono color / large / double sided)
no	021	Remote copy (mono color / small / double sided)
yes	022	Remote copy (black and white / large / double sided)
yes	023	Remote copy (black and white / small / double sided)
no	071	Toner bottle black
no	072	Toner bottle yellow
no	073	Toner bottle magenta
no	074	Toner bottle cyan
no	075	Toner bottle clear
no	081	Toner bottle + Halfway replacement black
no	082	Toner bottle + Halfway replacement yellow
no	083	Toner bottle + Halfway replacement magenta
no	084	Toner bottle + Halfway replacement cyan
no	091	1/10 Toner bottle black

Valid or invalid	Number	Counter Details
no	092	1/10 Toner bottle yellow
no	093	1/10 Toner bottle magenta
no	094	1/10 Toner bottle cyan
no	095	1/10 Toner bottle clear

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## 100 to 199

Valid or invalid	Number	Counter Details
yes	101	Total 1
yes	102	Total 2
yes	103	Total (large)
yes	104	Total (small)
no	105	Total (full color 1)
no	106	Total (full color 2)
yes	108	Total (black and white 1)
yes	109	Total (black and white 2)
no	110	Total (mono color / large)
no	111	Total (mono color / small)
yes	112	Total (black and white / large)
yes	113	Total (black and white / small)
yes	114	Total 1 (double sided)
yes	115	Total 2 (double sided)
yes	116	large (double sided)
yes	117	small (double sided)
no	118	Total (mono color 1)
no	119	Total (mono color 2)
no	120	Total (full color / large)
no	121	Total (full color / small)
no	122	Total (full color + mono color / large)
no	123	Total (full color + mono color / small)
no	124	Total (full color + mono color 2)
no	125	Total (full color + mono color 1)
yes	126	Total A1
yes	127	Total A2
yes	128	Total A (large)
yes	129	Total A (small)

Valid or invalid	Number	Counter Details
no	130	Total A (full color 1)
no	131	Total A (full color 2)
yes	132	Total A (black and white 1)
yes	133	Total A (black and white 2)
no	134	Total A (mono color / large)
no	135	Total A (mono color / small)
yes	136	Total A (black and white / large)
yes	137	Total A (black and white / small)
yes	138	Total A 1 (double sided)
yes	139	Total A 2 (double sided)
yes	140	large A (double sided)
yes	141	small A (double sided)
no	142	Total A (mono color 1)
no	143	Total A (mono color 2)
no	144	Total A (full color / large)
no	145	Total A (full color / small)
no	146	Total A (full color + mono color / large)
no	147	Total A (full color + mono color / small)
no	148	Total A (full color + mono color 2)
no	149	Total A (full color + mono color 1)
yes	150	Total B1
yes	151	Total B2
yes	152	Total B (large)
yes	153	Total B (small)
no	154	Total B (full color 1)
no	155	Total B (full color 2)
yes	156	Total B (black and white 1)
yes	157	Total B (black and white 2)
no	158	Total B (mono color / large)
no	159	Total B (mono color / small)
yes	160	Total B (black and white / large)
yes	161	Total B (black and white / small)
yes	162	Total B1 (double sided)
yes	163	Total B2 (double sided)
yes	164	large B (double sided)

Valid or invalid	Number	Counter Details
yes	165	small B (double sided)
no	166	Total B (mono color 1)
no	167	Total B (mono color 2)
no	168	Total B (full color / large)
no	169	Total B (full color / small)
no	170	Total B (full color + mono color / large)
no	171	Total B (full color + mono color / small)
no	172	Total B (full color + mono color 2)
no	173	Total B (full color + mono color 1)
no	191	Toner replacement / yellow
no	192	Toner replacement / magenta
no	193	Toner replacement / cyan
no	194	Toner replacement / black
no	195	Toner replacement / clear
no	196	Toner replacement / expansion

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Valid or invalid	Number	Counter Details
no	218	Copy (full color 2)
no	219	Copy (mono color 1)
no	220	Copy (mono color 2)
yes	221	Copy (black and white 1)
yes	222	Copy (black and white 2)
no	223	Copy (full color / large)
no	224	Copy (full color / small)
no	225	Copy (mono color / large)
no	226	Copy (mono color / small)
yes	227	Copy (black and white / large)
yes	228	Copy (black and white / small)
no	229	Copy (full color + mono color / large)
no	230	Copy (full color + mono color / small)
no	231	Copy (full color + mono color / 2)
no	232	Copy (full color + mono color / 1)
no	233	Copy (full color / large / double sided)
no	234	Copy (full color / small / double sided)
no	235	Copy (mono color / large / double sided)
no	236	Copy (mono color / small / double sided)
yes	237	Copy (black and white / large / double sided)
yes	238	Copy (black and white / small / double sided)
no	245	Copy A (full color 1)
no	246	Copy A (full color 2)
no	247	Copy A (mono color 1)
no	248	Copy A (mono color 2)
yes	249	Copy A (black and white 1)
yes	250	Copy A (black and white 2)
no	251	Copy A (full color / large)
no	252	Copy A (full color / small)
no	253	Copy A (mono color / large)
no	254	Copy A (mono color / small)
yes	255	Copy A (black and white / large)
yes	256	Copy A (black and white / small)
no	257	Copy A (full color +mono color / large)
no	258	Copy A (full color +mono color / small)

## 200 to 299

Valid or invalid	Number	Counter Details
yes	201	Copy (Total 1)
yes	202	Copy (Total 2)
yes	203	Copy (large)
yes	204	Copy (small)
yes	205	Copy A (Total 1)
yes	206	Copy A (Total 2)
yes	207	Copy A (large)
yes	208	Copy A (small)
yes	209	Local copy (Total 1)
yes	210	Local copy (Total 2)
yes	211	Local copy (large)
yes	212	Local copy (small)
yes	213	Remote copy (Total 1)
yes	214	Remote copy (Total 2)
yes	215	Remote copy (large)
yes	216	Remote copy (small)
no	217	Copy (full color 1)

Valid or invalid	Number	Counter Details
no	259	Copy A (full color +mono color 2)
no	260	Copy A (full color +mono color 1)
no	261	Copy A (full color / large / double sided)
no	262	Copy A (full color / small / double sided)
no	263	Copy A (mono color / large / double sided)
no	264	Copy A (mono color / small / double sided)
yes	265	Copy A (black and white / large / double sided)
yes	266	Copy A (black and white / small / double sided)
no	273	Local copy (full color 1)
no	274	Local copy (full color 2)
no	275	Local copy (mono color 1)
no	276	Local copy (mono color 2)
yes	277	Local copy (black and white 1)
yes	278	Local copy (black and white 2)
no	279	Local copy (full color / large)
no	280	Local copy (full color / small)
no	281	Local copy (mono color / large)
no	282	Local copy (mono color / small)
yes	283	Local copy (black and white / large)
yes	284	Local copy (black and white / small)
no	285	Local copy (full color + mono color / large)
no	286	Local copy (full color + mono color / small)
no	287	Local copy (full color + mono color 2)
no	288	Local copy (full color + mono color 1)
no	289	Local copy (full color / large / double sided)
no	290	Local copy (full color / small / double sided)
no	291	Local copy (mono color / large / double sided)
no	292	Local copy (mono color / small / double sided)
yes	293	Local copy (black and white / large / double sided)
yes	294	Local copy (black and white / small / double sided)

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## 300 to 399

Valid or invalid	Number	Counter Details
yes	301	Print (Total 1)
yes	302	Print (Total 2)
yes	303	Print (large)
yes	304	Print (small)
yes	305	Print A (Total 1)
yes	306	Print A (Total 2)
yes	307	Print A (large )
yes	308	Print A (small)
no	309	Print (full color 1)
no	310	Print (full color 2)
no	311	Print (mono color 1)
no	312	Print (mono color 2)
yes	313	Print (black and white 1)
yes	314	Print (black and white 2)
no	315	Print (full color / large)
no	316	Print (full color / small)
no	317	Print (mono color / large)
no	318	Print (mono color / small)
yes	319	Print (black and white / large)
yes	320	Print (black and white / small)
no	321	Print (full color +mono color / large)
no	322	Print (full color +mono color / small)
no	323	Print (full color +mono color / 2)
no	324	Print (full color +mono color / 1)
no	325	Print (full color / large / double sided)
no	326	Print (full color / small / double sided)
no	327	Print (mono color / large / double sided)
no	328	Print (mono color / small / double sided)
yes	329	Print (black and white / large / double sided)
yes	330	Print (black and white / small / double sided)
yes	331	PDLPrint (Total 1)
yes	332	PDLPrint (Total 2)
yes	333	PDLPrint (large)
yes	334	PDLPrint (small)

Valid or invalid	Number	Counter Details
no	335	PDLPrint (full color 1)
no	336	PDLPrint (full color 2)
yes	339	PDLPrint (black and white 1)
yes	340	PDLPrint (black and white 2)
no	341	PDLPrint (full color / large)
no	342	PDLPrint (full color / small)
yes	345	PDLPrint (black and white / large)
yes	346	PDLPrint (black and white / small)
no	351	PDLPrint (full color / large / double sided)
no	352	PDLPrint (full color / small / double sided)
yes	355	PDLPrint (black and white / large / double sided)
yes	356	PDLPrint (black and white / small / double sided)

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## 400 to 499

Valid or invalid	Number	Counter Details
no	401	Copy + print (full color / large)
no	402	Copy + print (full color / small)
yes	403	Copy + print (black and white / large)
yes	404	Copy + print (black and white / small)
yes	405	Copy + print (black and white 2)
yes	406	Copy + print (black and white 1)
no	407	Copy + print (full color + mono color / large)
no	408	Copy + print (full color + mono color / small)
no	409	Copy + print (full color + mono color / 2)
no	410	Copy + print (full color + mono color / 1)
yes	411	Copy + print (large)
yes	412	Copy + print (small)
yes	413	Copy + print (2)
yes	414	Copy + print (1)
no	415	Copy + print (mono color / large)
no	416	Copy + print (mono color / small)
no	417	Copy + print (full color / large / double sided)
no	418	Copy + print (full color / small / double sided)
no	419	Copy + print (mono color / large / double sided)
no	420	Copy + print (mono color / small / double sided)

Valid or invalid	Number	Counter Details
yes	421	Copy + print (black and white / large / double sided)
yes	422	Copy + print (black and white / small / double sided)
no	431	Clear mixed + mono-clear (total 1)
no	432	Clear mixed + mono-clear (total 2)
no	433	Clear mixed + mono-clear (full-page 1)
no	434	Clear mixed + mono-clear (full-page 2)
no	435	Clear mixed + mono-clear (partial 1)
no	436	Clear mixed + mono-clear (partial 2)
no	437	Clear mixed + mono-clear (full-page / large)
no	438	Clear mixed + mono-clear (full-page / small)
no	439	Clear mixed + mono-clear (partial / large)
no	440	Clear mixed + mono-clear (partial / small)
no	441	Clear mixed (total 1)
no	442	Clear mixed (total 2)
no	443	Clear mixed (full-page 1)
no	444	Clear mixed (full-page 2)
no	445	Clear mixed (partial 1)
no	446	Clear mixed (partial 2)
no	447	Clear mixed (full-page / large)
no	448	Clear mixed (full-page / small)
no	449	Clear mixed (partial / large)
no	450	Clear mixed (partial / small)
no	451	Mono-clear (total 1)
no	452	Mono-clear (total 2)
no	453	Mono-clear (full-page 1)
no	454	Mono-clear (full-page 2)
no	455	Mono-clear (partial 1)
no	456	Mono-clear (partial 2)
no	457	Mono-clear (full-page / large)
no	458	Mono-clear (full-page / small)
no	459	Mono-clear (partial / large)
no	460	Mono-clear (partial / small)

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## 500 to 599

Valid or invalid	Number	Counter Details
yes	501	Scan (Total 1)
yes	502	Scan (Total 2)
yes	503	Scan (large)
yes	504	Scan (small)
yes	505	Black and white Scan (Total 1)
yes	506	Black and white Scan (Total 2)
yes	507	Black and white Scan (large)
yes	508	Black and white Scan (small)
yes	509	Color scan (Total 1)
yes	510	Color scan (Total 2)
yes	511	Color scan (large)
yes	512	Color scan (small)

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## 600 to 699

Valid or invalid	Number	Counter Details
yes	601	Box print (Total 1)
yes	602	Box print (Total 2)
yes	603	Box print (large)
yes	604	Box print (small)
no	605	Box print (full color 1)
no	606	Box print (full color 2)
no	607	Box print (mono color 1)
no	608	Box print (mono color 2)
yes	609	Box print (black and white 1)
yes	610	Box print (black and white 2)
no	611	Box print (full color / large)
no	612	Box print (full color / small)
no	613	Box print (mono color / large)
no	614	Box print (mono color / small)
yes	615	Box print (black and white / large)
yes	616	Box print (black and white / small)
no	617	Box print (full color + mono color / large)
no	618	Box print (full color + mono color / small)

Valid or invalid	Number	Counter Details
no	619	Box print (full color + mono color 2)
no	620	Box print (full color + mono color 1)
no	621	Box print (full color / large / double sided)
no	622	Box print (full color / small / double sided)
no	623	Box print (mono color / large / double sided)
no	624	Box print (mono color / small / double sided)
yes	625	Box print (black and white / large / double sided)
yes	626	Box print (black and white / small / double sided)
yes	631	Memory media print (Total 1)
yes	632	Memory media print (Total 2)
yes	633	Memory media print (large)
yes	634	Memory media print (small)
yes	639	Memory media print (black and white 1)
yes	640	Memory media print (black and white 2)
yes	645	Memory media print (black and white / large)
yes	646	Memory media print (black and white / small)
yes	655	Memory media print (black and white / large / double sided)
yes	656	Memory media print (black and white / small / double sided)

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## 700 to 799

Valid or invalid	Number	Counter Details
yes	701	Reception print (Total 1)
yes	702	Reception print (Total 2)
yes	703	Reception print (large)
yes	704	Reception print (small)
no	705	Reception print (full color 1)
no	706	Reception print (full color 2)
no	707	Reception print (Gray scale 1)
no	708	Reception print (Gray scale 2)
yes	709	Reception print (black and white 1)
yes	710	Reception print (black and white 2)
no	711	Reception print (full color / large)
no	712	Reception print (full color / small)
no	713	Reception print (Gray scale / large)
no	714	Reception print (Gray scale / small)

Valid or invalid	Number	Counter Details
yes	715	Reception print (black and white / large)
yes	716	Reception print (black and white / small)
no	717	Reception print (full color + Gray scale / large)
no	718	Reception print (full color + Gray scale / small)
no	719	Reception print (full color + Gray scale 2)
no	720	Reception print (full color + Gray scale 1)
no	721	Reception print (full color / large / double sided)
no	722	Reception print (full color / small / double sided)
no	723	Reception print (Gray scale / large / double sided)
no	724	Reception print (Gray scale / small / double sided)
yes	725	Reception print (black and white / large / double sided)
yes	726	Reception print (black and white / small / double sided)
yes	727	Advance box print (Total 1)
yes	728	Advance box print (Total 2)
yes	729	Advance box print (large)
yes	730	Advance box print (small)
no	731	Advance box print (full color 1)
no	732	Advance box print (full color 2)
yes	733	Advance box print (black and white 1)
yes	734	Advance box print (black and white 2)
no	735	Advance box print (full color / large)
no	736	Advance box print (full color / small)
yes	737	Advance box print (black and white / large)
yes	738	Advance box print (black and white / small)
no	739	Advance box print (full color / large / double sided)
no	740	Advance box print (full color / small / double sided)
yes	741	Advance box print (black and white / large / double sided)
yes	742	Advance box print (black and white / small / double sided)
yes	743	Network print (Total 1)
yes	744	Network print (Total 2)
yes	745	Network print (large)
yes	746	Network print (small)
no	747	Network print (full color 1)
no	748	Network print (full color 2)
yes	749	Network print (black and white 1)

Valid or invalid	Number	Counter Details
yes	750	Network print (black and white 2)
no	751	Network print (full color / large)
no	752	Network print (full color / small)
yes	753	Network print (black and white / large)
yes	754	Network print (black and white / small)
no	755	Network print (full color / large / double sided)
no	756	Network print (full color / small / double sided)
yes	757	Network print (black and white / large / double sided)
yes	758	Network print (black and white / small / double sided)
yes	759	Mobile print (Total 1)
yes	760	Mobile print (Total 2)
yes	761	Mobile print (large)
yes	762	Mobile print (small)
no	763	Mobile print (full color 1)
no	764	Mobile print (full color 2)
yes	765	Mobile print (black and white 1)
yes	766	Mobile print (black and white 2)
no	767	Mobile print (full color / large)
no	768	Mobile print (full color / small)
yes	769	Mobile print (black and white / large)
yes	770	Mobile print (black and white / small)
no	771	Mobile print (full color / large / double sided)
no	772	Mobile print (full color / small / double sided)
yes	773	Mobile print (black and white / large / double sided)
yes	774	Mobile print (black and white / small / double sided)

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## 800 to 899

Valid or invalid	Number	Counter Details
yes	801	Report print (Total 1)
yes	802	Report print (Total 2)
yes	803	Report print (large)
yes	804	Report print (small)
no	805	Report print (full color 1)
no	806	Report print (full color 2)
no	807	Report print (Gray scale 1)



Valid or invalid	Number	Counter Details
no	808	Report print (Gray scale 2)
yes	809	Report print (black and white 1)
yes	810	Report print (black and white 2)
no	811	Report print (full color / large)
no	812	Report print (full color / small)
no	813	Report print (Gray scale / large)
no	814	Report print (Gray scale / small)
yes	815	Report print (black and white / large)
yes	816	Report print (black and white / small)
no	817	Report print (full color + Gray scale / large)
no	818	Report print (full color + Gray scale / small)
no	819	Report print (full color + Gray scale 2)
no	820	Report print (full color + Gray scale 1)
no	821	Report print (full color / large / double sided)
no	822	Report print (full color / small / double sided)
no	823	Report print (Gray scale / large / double sided)
no	824	Report print (Gray scale / small / double sided)
yes	825	Report print (black and white / large / double sided)
yes	826	Report print (black and white / small / double sided)

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## 900 to 999

Valid or invalid	Number	Counter Details
no	901	Copy scan total 1 (color)
no	902	Copy scan total 1 (black and white)
no	903	Copy scan total 2 (color)
no	904	Copy scan total 2 (black and white)
no	905	Copy scan total 3 (color)
no	906	Copy scan total 3 (black and white)
no	907	Copy scan total 4 (color)
no	908	Copy scan total 4 (black and white)
no	909	Local copy scan (color)
no	910	Local copy scan (black and white)
no	911	Remote copy scan (color)
no	912	Remote copy scan (black and white)
no	913	Transmission scan total 1 (color)

Valid or invalid	Number	Counter Details
no	914	Transmission scan total 1 (black and white)
yes	915	Transmission scan total 2 (color)
yes	916	Transmission scan total 2 (black and white)
yes	917	Transmission scan total 3 (color)
yes	918	Transmission scan total 3 (black and white)
no	919	Transmission scan total 4 (color)
no	920	Transmission scan total 4 (black and white)
yes	921	Transmission scan total 5 (color)
yes	922	Transmission scan total 5 (black and white)
yes	929	Transmission scan total 6 (color)
yes	930	Transmission scan total 6 (black and white)
no	931	Transmission scan total 7 (color)
no	932	Transmission scan total 7 (black and white)
no	933	Transmission scan total 8 (color)
no	934	Transmission scan total 8 (black and white)
no	935	Universal transmission scan total (color)
no	936	Universal transmission scan total (black and white)
yes	937	Box scan (color)
yes	938	Box scan (black and white)
yes	939	Remote scan (color)
yes	940	Remote scan (black and white)
no	941	Transmission scan / Fax (color)
no	942	Transmission scan / Fax (black and white)
no	943	Transmission scan / I Fax (color )
no	944	Transmission scan / I Fax (black and white)
yes	945	Transmission scan / E-mail (color)
yes	946	Transmission scan / E-mail (black and white)
no	947	Transmission scan / FTP (color)
no	948	Transmission scan / FTP (black and white)
no	949	Transmission scan / SMB (color)
no	950	Transmission scan / SMB (black and white)
no	951	Transmission scan / IPX (color)
no	952	Transmission scan / IPX (black and white)
no	953	Transmission scan / Database (color)
no	954	Transmission scan / Database (black and white)

Valid or invalid	Number	Counter Details
no	955	Transmission scan / Local print (color )
no	956	Transmission scan / Local print (black and white)
no	957	Transmission scan / Box (color)
no	958	Transmission scan / Box (black and white)
yes	959	Media scan (color)
yes	960	Media scan (black and white)
yes	961	Application scan (Total 1)
yes	962	Application black and white scan (Total 1)
yes	963	Application color scan (Total 1)
yes	964	Super Box Local scan (color)
yes	965	Super Box Local scan (black and white)

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