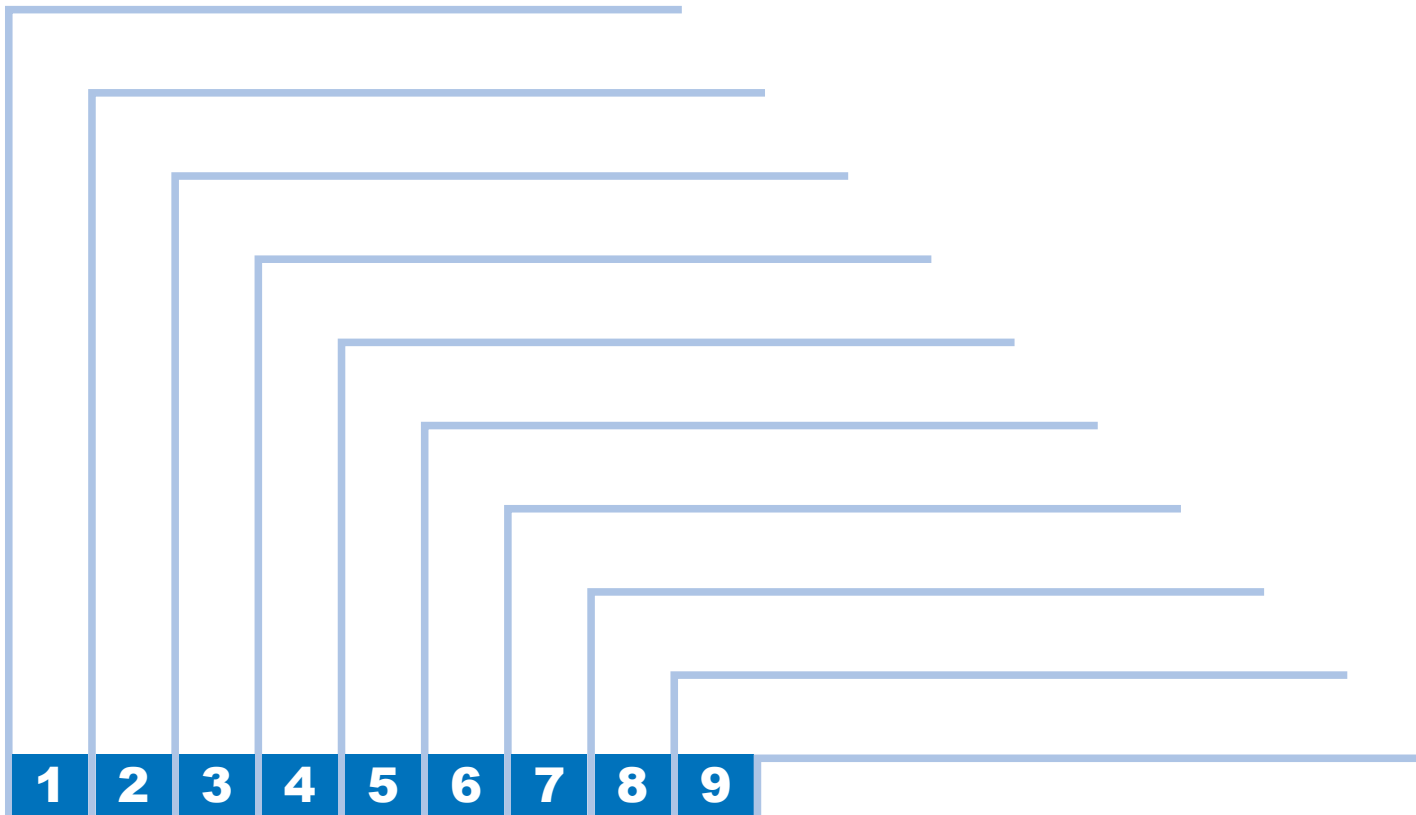




imageRUNNER ADVANCE C2030/C2025/C2020 Series

Service Manual Rev.7



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
- Points to Note About Turning Off the Main Power Switch
- Safety of Toner
- Notes When Handling a Lithium Battery
- Notes Before it Works Serving
- Points to Note at Cleaning



imageRUNNER ADVANCE
C2030/2025/2020 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, JAPAN

MANUFACTURED:

THIS PRODUCT CONFORMS WITH DHHS RADIATION
PERFORMANCE STANDARD 21CFR CHAPTER 1
SUBCHAPTER J.



A different description may be used for a different product.

F-0-1

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.

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.

↑ **DANGER** - Invisible laser radiation when open and interlocks defeated. AVOID DIRECT EXPOSURE TO BEAM.
CAUTION - CLASS 3B INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO THE BEAM.
ATTENTION - RAYONNEMENT LASER INVISIBLE DE CLASSE 3B EN CAS D'OUVERTURE OU LORSQUE LE CONTACT DE SECURITE EST DEVEROUILLE. EVITEZ L'EXPOSITION AU FAISCEAU.

VORSICHT - UNSICHTBARE LASERSTRAHLUNG KLASSE 3B, WENN ABDECKUNG GEÖFFNET UND SICHERHEITSVERREGELUNGEN ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
PRECAUCIÓN - RADIACIÓN LASER INVISIBLE DE CLASE 3B PRESENTE AL ABRIR Y CUANDO ESTAN NEUTRALIZADOS LOS BLOQUES DE SEGURIDAD. EVITE LA EXPOSICIÓN AL RAYO.
VARNING - KLASS 3B OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRRAR ÄR URKOPPLADE. STRÅLEN ÄR FARLIG.
VAROITUS - LUOKAN 3B NÄKYMÄTTÖMÄLLE LASER-SÄTELYÄ AVATTUNA JA SUOLALUKITUKSET POISTETTUNA. VÄLTÄ ALTISTUMISTA SÄTEELLE.

注意 - 当打开或联锁装置失效时，会有不可见的3B类激光辐射。请避免接触该激光束。
- 打開機器蓋板或鬆釋連結鎖時有3B級不可視雷射光射出，應避免曝射。
- 알리거나 인터록 고장의 경우 등급 3B 비가시 레이저 방사선이 방출됩니다. 방사선에 노출을 피하십시오.
- ここを開き、インターロックを解除するとクラス3B不可視レーザー放射線が出ます。ビームに身をさらさないこと。

↑ **DANGER** - Invisible laser radiation when open and interlocks defeated. AVOID DIRECT EXPOSURE TO BEAM.
CAUTION - CLASS 3B INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO THE BEAM.
ATTENTION - RAYONNEMENT LASER INVISIBLE DE CLASSE 3B EN CAS D'OUVERTURE OU LORSQUE LE CONTACT DE SECURITE EST DEVEROUILLE. EVITEZ L'EXPOSITION AU FAISCEAU.

VORSICHT - UNSICHTBARE LASERSTRAHLUNG KLASSE 3B, WENN ABDECKUNG GEÖFFNET UND SICHERHEITSVERREGELUNGEN ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
PRECAUCIÓN - RADIACIÓN LASER INVISIBLE DE CLASE 3B PRESENTE AL ABRIR Y CUANDO ESTAN NEUTRALIZADOS LOS BLOQUES DE SEGURIDAD. EVITE LA EXPOSICIÓN AL RAYO.
VARNING - KLASS 3B OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRRAR ÄR URKOPPLADE. STRÅLEN ÄR FARLIG.
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注意 - 当打开或联锁装置失效时，会有不可见的3B类激光辐射。请避免接触该激光束。
- 打開機器蓋板或鬆釋連結鎖時有3B級不可視雷射光射出，應避免曝射。
- 알리거나 인터록 고장의 경우 등급 3B 비가시 레이저 방사선이 방출됩니다. 방사선에 노출을 피하십시오.
- ここを開き、インターロックを解除するとクラス3B不可視レーザー放射線が出ます。ビームに身をさらさないこと。

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).

CAUTION:

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).

Safety of Toner

About Toner

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


CAUTION:

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

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


The following warnings are given to comply with Safety Principles (EN60950).

 CAUTION:
Wenn mit dem falschen Typ ausgewechselt, besteht Explosionsgefahr.
Gebrauchte Batterien gemäß der Anleitung beseitigen.

Notes Before it Works Serving

 CAUTION:
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

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

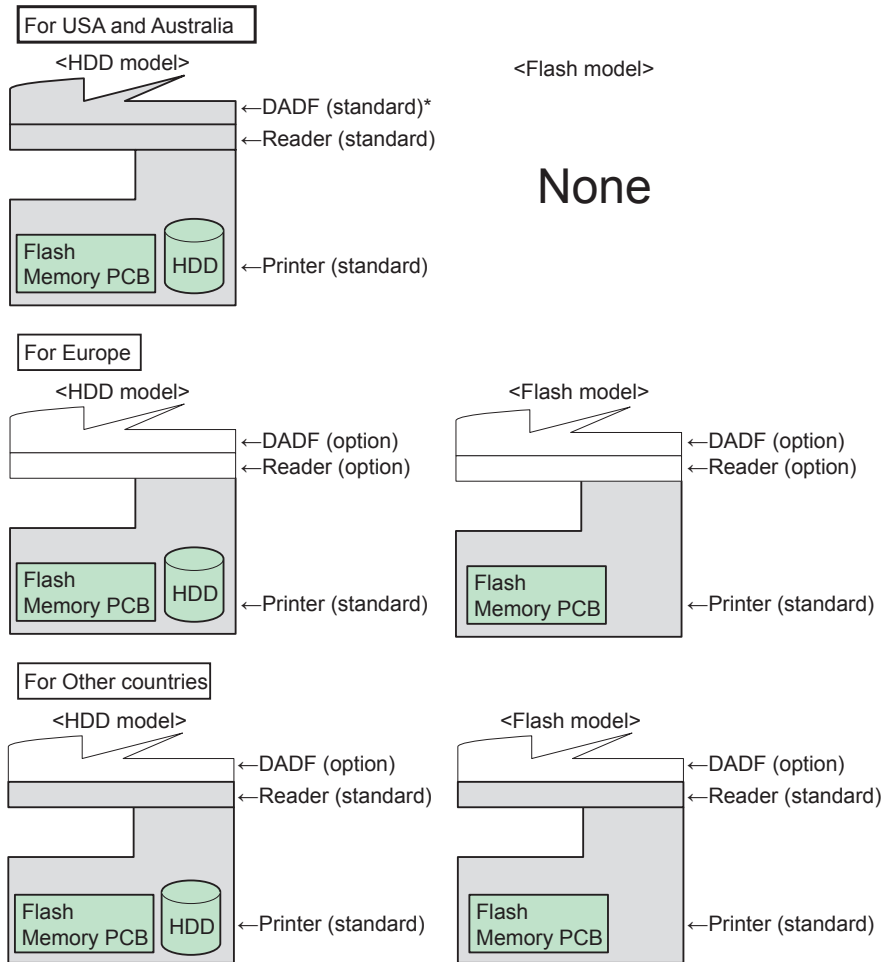


Features/ Specifications

- Product Lineup
- Features
- Specifications
- Parts Name

Product Lineup

Host Machine



F-1-1

Model Type

	C2030	C2025	C2020
Print speed (BW/Color)	30ppm	25ppm	20ppm
Positioning	Cost-prioritized Standard-office model Target mode: iRC3380/2880 series, iRC3100 series		

T-1-1

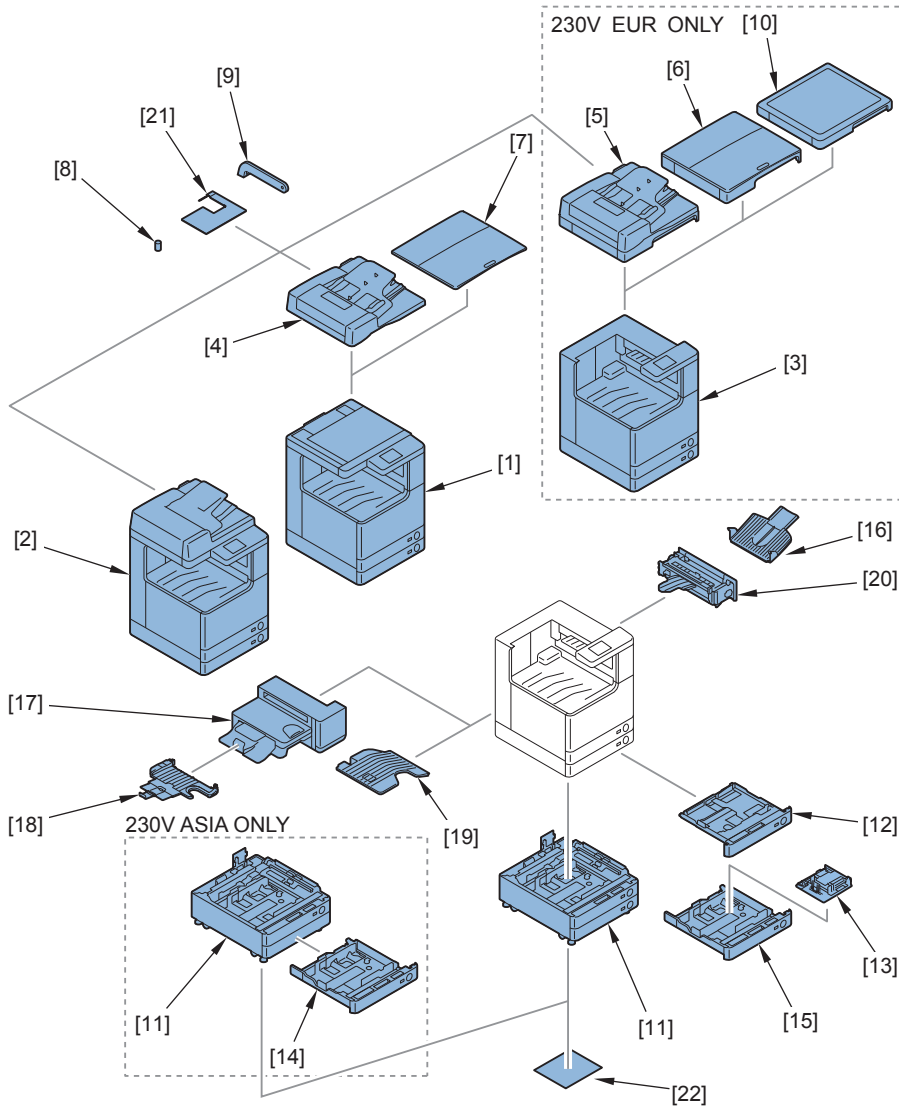
imageRUNNER ADVANCE C 20 30
A B

A: Product category (90: Production model, 50: Office model, 20: Standard-office model)

B: Print speed (Unit: ppm; print per minutes)

Options

Pickup/Delivery/Image Reading System Options

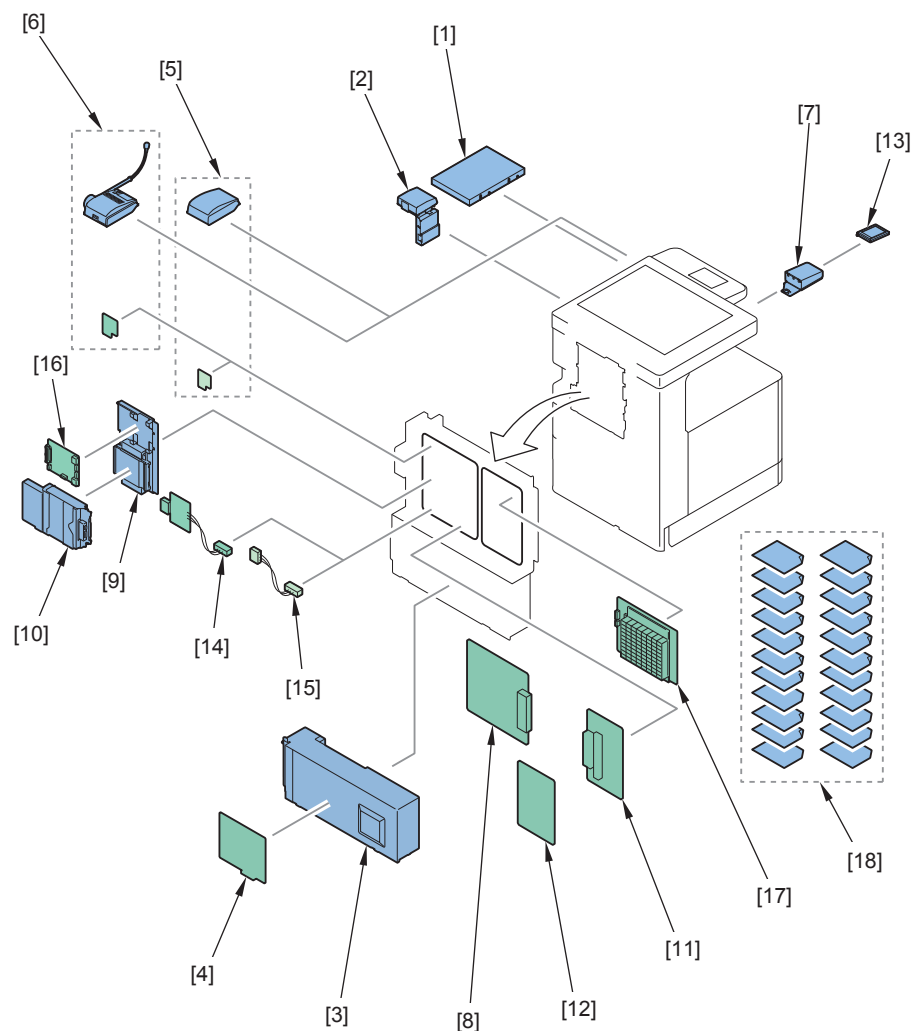


No.	name	Condition
[1]	imageRUNNER ADVANCE C2030/2025/2020	FLASH model
[2]	imageRUNNER ADVANCE C2030/2025/2020	HDD model
[3]	imageRUNNER ADVANCE C2030/2025/2020	For Europe
[4]	DADF-AC1	
[5]	Color Image Reader Unit-D1	
[6]	Color Image Reader Unit-D2	
[7]	Platen Cover Type R	
[8]	Stamp Unit-B1	
[9]	ADF Access Handle-A1	
[10]	Printer Cover-D1	
[11]	Cassette Feeding Unit-AF1	
[12]	FL Cassette-AN1	
[13]	FL Cassette-AM1	
[14]	Cassette Module-X1	For ASIA
[15]	Envelope Feeder Attachment-D1	
[16]	Copy Tray-J1	Expansion Delivery Kit-C1 is required
[17]	Inner Finisher-C1	Expansion Delivery Kit-C1 is required Cannot be installed with Inner 2-way Tray-F1.
[18]	Inner Finisher Additional Tray-A1	
[19]	Inner 2way Tray-F1	Expansion Delivery Kit-C1 is required Cannot be installed with Inner Finisher-C1.
[20]	3 Way Unit-C1	USA,AUS: Standard Others: Option
[21]	Reader Heater Unit-H1	
[22]	Cassette Heater Unit-37	

T-1-2

F-1-2

Function Expansion System Options



F-1-3

No.	name	Condition
[1]	Utility Tray-A2	
[2]	Card Reader-C1 Copy Card Reader Attachment Kit-B2	
[3]	Super G3 FAX Board-AH1	1-line Fax Board is required.
[4]	Super G3 2nd Line FAX Board-AH1	1-line Fax Board is required.
[5]	Voice Guidance Kit-F2	
[6]	Voice Operation Kit-C2	
[7]	USB Device Port-C1	
[8]	Wireless LAN Board-B2	
[9]	2.5inch/80GB HDD-E1	
[10]	Removable HDD Kit-AE1	For FLASH model, Optional HDD (2.5 inch/160GB) E1 is required.
[11]	Expansion Bus-F2	
[12]	IPSec Security Board-B2	PCI Bus Expansion Kit-F2 is required.
[13]	Multimedia Reader/Writer-A2	USB Device Port-B2 is required.
[14]	Serial Interface Kit-K1	Cannot be installed with Control Interface Kit-A1
[15]	Control Interface Kit-A1	Cannot be installed with Serial Interface Kit-K1.
[16]	HDD Data Encryption Kit-C3	
[17]	Image Analysis Board-A1	
[18]	PCL Printer Kit-AG1	
	PS Expansion Kit-AG1	
	Direct Print Expansion Kit (for PDF/XPS)-H1	
	Barcode Printing Kit-D1	
	Color Universal Send Kit-R1	
	Universal Send Advanced Feature Set-E1	
	Universal Send Security Feature Set-D1	
	Universal Send Digital User Signature Kit-C1	
	Remote Operation Kit-B1	
	Data Erase Kit-C1	
	HDD Data Encryption Kit-C3	
	Encrypted Secure Print Software-D1	
	Secure Watermark-B1	
	Document Scan Lock Kit-A1	
	ACCESS MANAGEMENT SYSTEM KIT-B1	
	Web Access Software-H1	
	eM Controller-C1, 230V	
	Remote FAX Kit-A1	

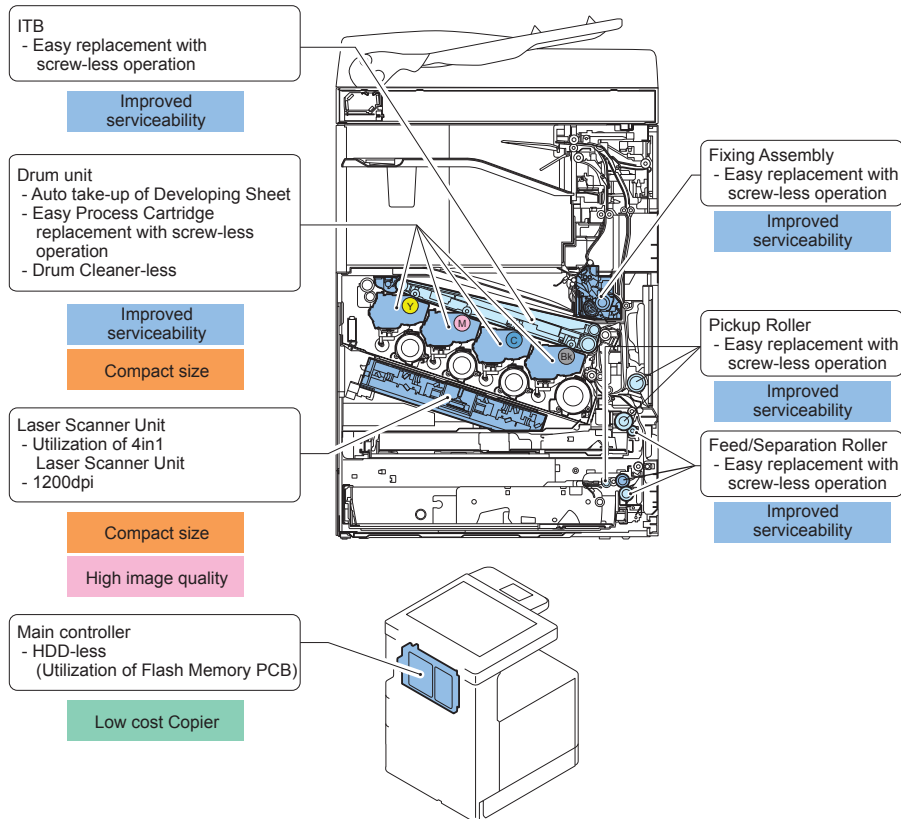
T-1-3

NOTE:

There are combinations to install No. 1, 2, 5, and 6. (Only No. 2 can be connected as a single unit. Only one of other products can be connected.)

Features

Product Features



F-1-4

Service Features

Improved Upgrading Operability

The options can be upgraded through the host machine.

The version upgrading can be executed by any of the three methods; by using SST (Service Support Tool), via a USB memory using SST, and via Internet using CDS (Contents Display System).

Since only the difference can be upgraded, work time is reduced.

Applying New Connectors

A new connector is introduced to prevent the occurrence of a communication error due to the causes listed below.

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



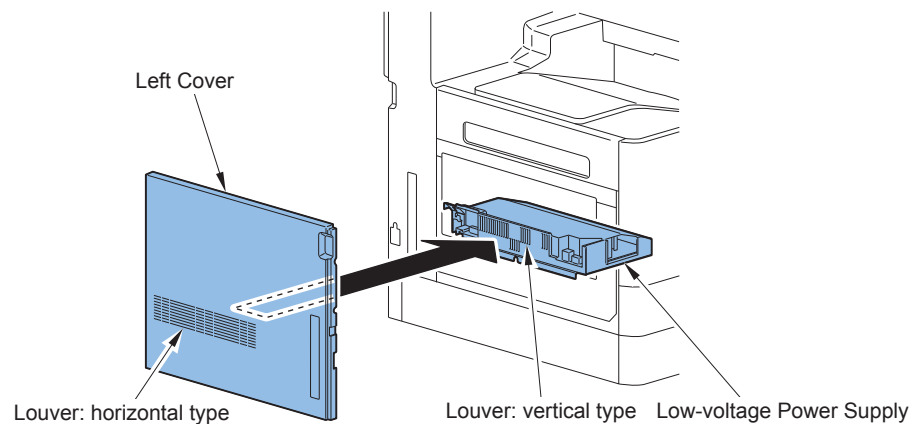
DC Controller Connectors

F-1-5

Realization of Breaker-less Machine

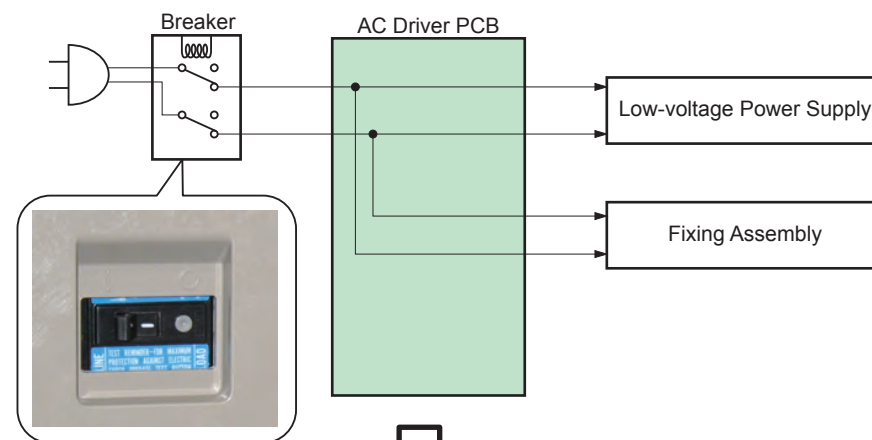
To reduce costs, a breaker is discontinued. At the same time, the following two measures are executed to prevent leakage of electricity.

- To prevent foreign matters from entering the power supply, the Power Supply Cover is added, and the direction of the Louver on the Power Supply Cover and the Left Cover is changed.
- Fuses (4 in total) are provided in both lines in the AC Driver PCB. This makes a safety measure for blowout of a fuse in the case of overload, short-circuit or short-circuit between the AC line and the grounding (host machine).
- Double insulation measures are provided between the AC line and the host machine to enhance insulating performance.

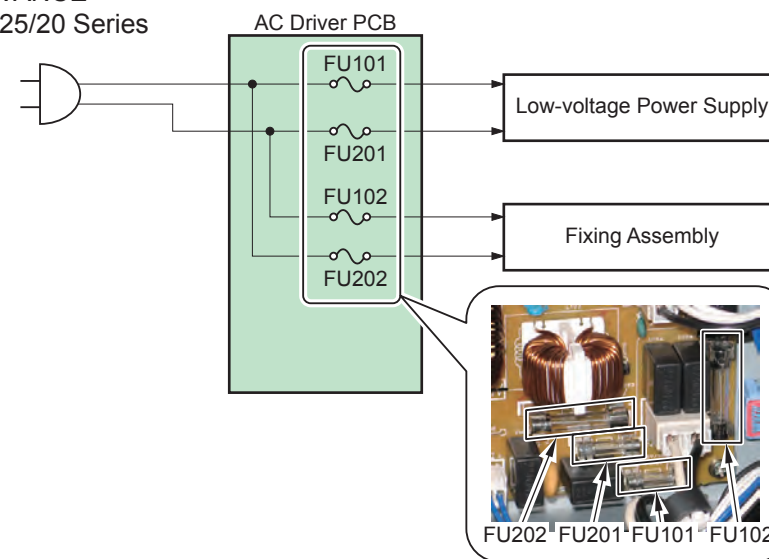


F-1-6

- Conventional model



- iR ADVANCE C2030/25/20 Series



F-1-7

To replace major parts, a simple replacement procedure in which fixing screws do not have to be removed is introduced. This improved serviceability and enabled a user to execute replacement, which reduced a number of service calls.

Target parts are listed below.

- Drum Unit
- ITB Unit
- Pickup/Separation Roller (Cassette 1)
- Pickup/Delivery/Separation Roller (Cassette 2)
- Pickup Roller (Multi-purpose Tray)

Specifications

Specifications

Machine installation method	Desktop
Photosensitive medium	OPC
Exposure method	Laser exposure
Charging method	Roller charging
Developing method	Dry, 2-component development
Transfer method	Intermediate Belt transfer (Primary transfer: Roller transfer, Secondary transfer: Roller transfer)
Separation method	Curvature separation + Static Eliminator
Pickup method	Cassette 1: Simple Separation Roller method (Pickup Roller + Separation Roller) Cassette 2: Separation Roller method (Pickup Roller + Delivery Roller + Separation Roller) Multi-purpose Tray: Separation Pad method (Pickup Roller + Separation Pad)
Fixing method	On-demand fixing (Aluminum heater + 24mm diameter elastic film)
Delivery method	Face-down
Drum cleaning method	Cleaner-less method
Transfer cleaning method	Cleaning Blade
Toner type	Non-magnetic negative toner
Toner supplying method	Toner Container method
Toner level detection function	Yes
Leading edge image margin	4.0+1.5/-1.0mm
Left edge image margin	2.5+/-1.5mm
Leading edge non-image width	4.0+1.5/-1.0mm
Left edge non-image width	2.5+/-1.5mm
Warm-up time	At power-on: 30 sec. or less (iR ADVANCE C2030/C2025/C2020: 38 sec. or less) At recovery from sleep mode: 10 sec. or less
Image gradations	256 gradations
Print resolution	600×600dpi (Full speed), 1200×1200dpi (Half speed)
Paper type (Cassette 1)	Thin paper (60 to 64g/m ²), Plain paper 1 (65 to 82g/m ²), Plain paper 2 (83 to 99g/m ²), Plain paper 3 (100 to 105g/m ²), Thick paper 1 (106 to 120g/m ²), Bond paper, Recycled paper, Pre-punched paper

Paper type (Cassette 2)	Thin paper (60 to 64g/m ²), Plain paper 1 (65 to 82g/m ²), Plain paper 2 (83 to 99g/m ²), Plain paper 3 (100 to 105g/m ²), Heavy paper 1 (106 to 120g/m ²), Heavy paper 2 (121 to 163g/m ²), Transparency, Envelope, Bond paper, Recycled paper, Pre-punched paper
Paper type (Multi-purpose Tray)	Thin paper (60 to 64g/m ²), Plain paper 1 (65 to 82g/m ²), Plain paper 2 (83 to 99g/m ²), Plain paper 3 (100 to 105g/m ²), Heavy paper 1 (106 to 120g/m ²), Heavy paper 2 (121 to 163g/m ²), Heavy paper 3 (164 to 220g/m ²), Transparency, Recycled paper, Color paper, Pre-punched paper, Tracing paper, Coated paper, Labels, Bond paper, Postcard, Envelope
Paper size (Cassette 1)	A3, B4, A4, A4R, B5, B5R, A5R, LDR, LGL, LTR, LTRR, EXE, 8K, 16K, STMT, STMTR
Paper size (Cassette 2)	A3, B4, A4, A4R, B5, B5R, A5R, LDR, LGL, LTR, LTRR, EXE, STMTR, 12"x18", 8K, 16K
Paper size (Multi-purpose Tray)	305x457mm (12"x18"), 320x450mm (SRA3), A3, B4, A4, A4R, B5, B5R, A5, A5R, LDR, LGL, LTR, LTRR, EXE, 8K, 16K, STMT, STMTR, Postcard, Envelope, Custom size (99x140mm minimum to 320x457mm maximum)
Pickup capacity	Cassette 1: 250 sheets (80g/m ²), Cassette 2: 550 sheets (80g/m ²), Multi-purpose Tray: 100 sheets (80g/m ²)
Duplex method	Through-pass duplex
Memory capacity	Main Controller PCB 1: 1GB Main Controller PCB 2: 1GB
FLASH memory	4GB
HDD capacity	For USA, Australia: STD: 80GB For Other area HDD Model: 80GB Flash Model: None(Option: 80GB)
Operation noise	70dB or less (During printing)
Ozone volume	Maximum: 3.0 mg/h or less (RAL UZ-122:2006)
Rated power supply	AC120V/15A ,AC230V/10A
Maximum power consumption	1.5kW or less
Power consumption during copy	666W or less
Power consumption during standby	105W
Dimensions (WxDxH)	iR ADVANCE C2030/C2025/C2020 (Flash Model): Approx. 565mm (Width) x Approx. 650mm (Depth) x Approx. 791mm (Height) iR ADVANCE C2030/C2025/C2020 (HDD Model): Approx. 565mm (Width) x Approx. 680mm (Depth) x Approx. 928mm (Height)
Weight	iR ADVANCE C2030/C2025/C2020 (Flash Model Main body + Reader): Approx. 77kg iR ADVANCE C2030/C2025/C2020 (HDD Model Main body + Reader + DADF + HDD): Approx. 87kg

T-1-4

Weight and Size

Product name	Width (mm)	Depth (mm)	Height (mm)	Weight: Approx. (kg)
iR ADVANCE C2030/C2025/C2020 (Flash Model)	565	650	790	77
iR ADVANCE C2030/C2025/C2020 (HDD Model)	565	680	928	87
2-cassette Pedestal-AF1	562	650	251	27.5
Inner Finisher-C1	602	540	234	12.5

T-1-5

Productivity (Print Speed)

Size	Mode	Type	Paper weight (g/m ²)	imageRUNNER ADVANCE					
				C2030		C2025		C2020	
				Cassette	Multi-purpose Tray	Cassette	Multi-purpose Tray	Cassette	Multi-purpose Tray
				Color, B/W	Color, B/W	Color, B/W	Color, B/W	Color, B/W	Color, B/W
A4	1-sided	Plain paper	60-105	30.0	30.0	25.0	25.0	20.0	20.0
		Heavy paper	106-163	12.0	12.0	12.0	12.0	12.0	12.0
			164-220	-	12.0	-	12.0	-	12.0
	2-sided	Plain paper	60-105	30.0	30.0	25.0	25.0	20.0	20.0
		Heavy paper	106-120	12.0	12.0	12.0	12.0	12.0	12.0
A3	1-sided	Plain paper	60-105	15.0	15.0	15.0	15.0	15.0	15.0
		Heavy paper	106-163	7.5	7.5	7.5	7.5	7.5	7.5
			164-220	-	7.5	-	7.5	-	7.5
	2-sided	Plain paper	60-105	15.0	15.0	15.0	15.0	15.0	15.0
		Heavy paper	106-120	7.5	7.5	7.5	7.5	7.5	7.5

T-1-6

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 1-1	139.7 to 181.9	99.0 to 139.6
Custom paper size 1-2	182.0 to 420.0	
Custom paper size 1-3	420.1 to 457.2	
Custom paper size 2-1	139.7 to 181.9	139.7 to 147.9
Custom paper size 2-2	182.0 to 420.0	
Custom paper size 2-3	420.1 to 457.2	
Custom paper size 3-1	182.0 to 209.9	148.0 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 4-1	139.7 to 181.9	297.1 to 304.8
Custom paper size 4-2	182.0 to 420.0	
Custom paper size 4-3	420.1 to 457.2	
Custom paper size 5-1	139.7 to 181.9	304.9 to 330.0
Custom paper size 5-1	182.0 to 420.0	
Custom paper size 5-1	420.1 to 457.2	
Custom paper size 6	457.3 to 1200	99.0 to 320.0

T-1-7

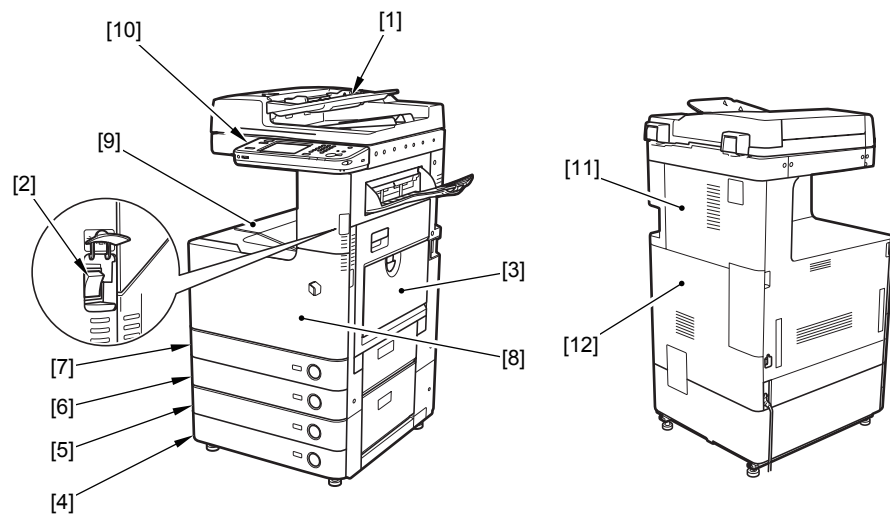
Pickup

Type (g/m ²)	Size	Host Machine Multi-purpose Tray	Host Machine Cassette 1	Host Machine Cassette 2	Cassette Pedestal
• Plain paper (60 to 105) Environment paper / Recycled paper / Pre-punched paper / Color paper / Bond paper	A3, B4, A4, A4R, A5R, B5, B5R, LDR, LGL, LTR, LTRR, EXE, 8K, 16K	○	○	○	○
	STMTR, 12"×18"	○	×	○	○
• Heavy Paper 1 (106 to 120)	A5, STMT, SRA3, OFFICIO, E-OFFICIO, B-OFFICIO, M-OFFICIO, A-OFFICIO, A-LTR, A-LTRR, GLTR-R, GLTR, GLGL, AFLS, FLS, F4A, Custom 1-1, Custom 1-2, Custom 1-3, Custom 1-4, Custom 2-1, Custom 2-2, Custom 2-3, Custom 2-4, Custom 3-1, Custom 3-2, Custom 3-3, Custom 3-4, Custom 4-1, Custom 4-2, Custom 4-3, Custom 4-4, Custom 5 (TBD)	○	×	×	×
	A3, B4, A4, A4R, A5R, B5, B5R, LDR, LGL, LTR, LTRR, EXE, 8K, 16K, STMTR, 12"×18"	○	×	○	○
• Heavy paper 2 (121 to 163)	SRA3,A5,STMT	○	×	×	×
	Transparency	○	×	○	○
• Heavy paper 3 (164 to 220)	A4, LTR	○	×	○	○
	A3, B4, A4, A4R, A5R, B5, B5R, LDR, LGL, LTR, LTRR, EXE, 8K, 16K, STMTR, 12"×18", A5, STMT,	○	×	×	×
Labels	B4, A4, LTR, A4R, LTRR	○	×	×	×
Tracing paper	A3, B4, A4, A4R, B5, B5R	○	×	×	×
Coated paper	A3, A4	○	×	×	×
Postcard	Postcard, Reply Postcard, 4 on 1 Postcard	○	×	×	×
Envelope	COM10, Monarch, ISO-C5, DL,	○	×	×	×

T-1-8

Parts Name

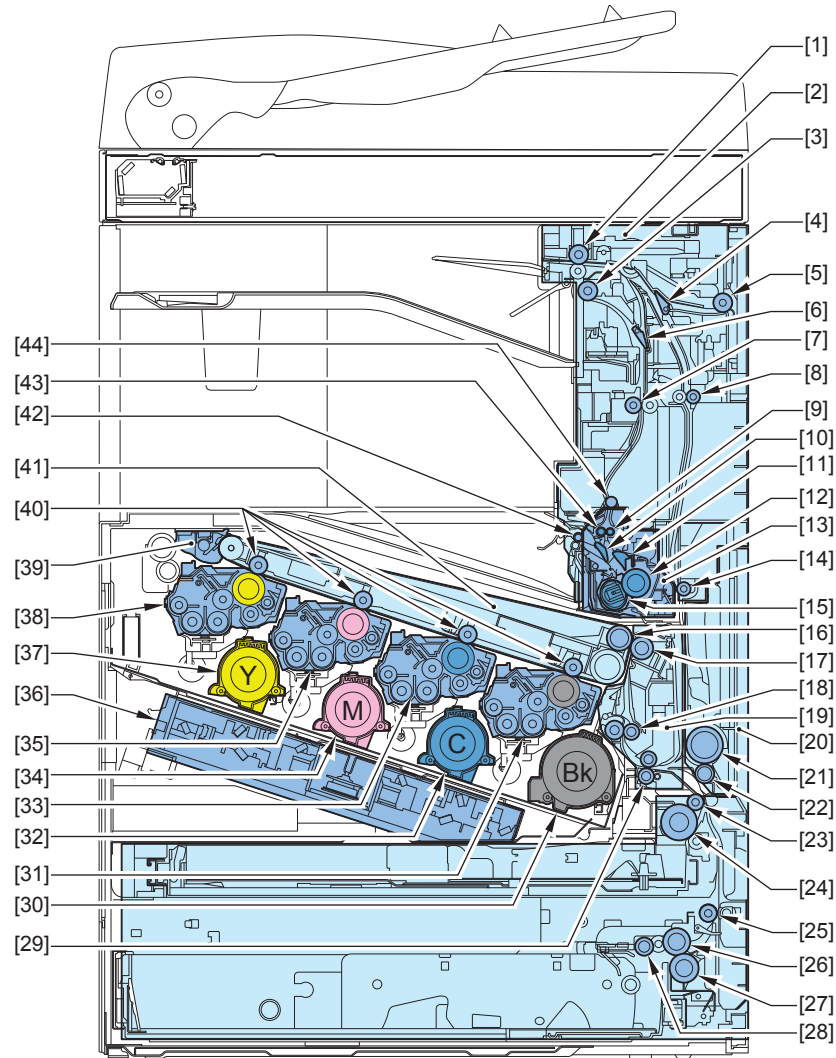
External View



- | | |
|------------------------|-------------------------|
| [1] DADF | [7] Cassette 1 |
| [2] Main Power Switch | [8] Front Cover |
| [3] Multi-purpose Tray | [9] First Delivery Tray |
| [4] Cassette 4 | [10] Control Panel |
| [5] Cassette 3 | [11] Rear Upper Cover |
| [6] Cassette 2 | [12] Rear Cover |

F-1-8

Cross Section View



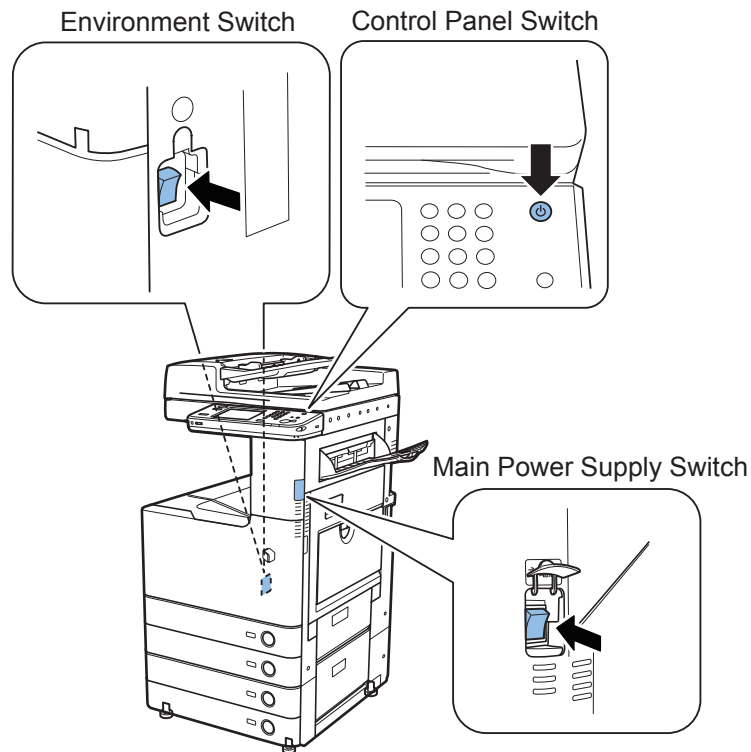
- | | | |
|--|---|-----------------------------------|
| [1] Reverse Roller | [16] Secondary Transfer Inner Roller | [31] Drum Unit (Bk) |
| [2] Duplex/Delivery Unit | [17] Secondary Transfer Outer Roller | [32] Toner Container (C) |
| [3] Second Delivery Roller | [18] Registration Roller | [33] Drum Unit (C) |
| [4] Third Delivery Flapper | [19] Registration Unit | [34] Toner Container (M) |
| [5] Third Delivery Roller | [20] Multi-purpose Delivery Unit | [35] Drum Unit (M) |
| [6] Second Delivery Inlet Flapper | [21] Multi-purpose Tray Pickup Roller | [36] Laser Scanner Unit |
| [7] Second / Third Delivery Inlet Roller | [22] Multi-purpose Tray Separation Pad | [37] Toner Container (Y) |
| [8] Duplex Feed Upper Roller | [23] Cassette 1 Vertical Path Roller | [38] Drum Unit (Y) |
| [9] Fixing Delivery Upper Roller | [24] Cassette 1 Pickup Roller | [39] ITB Cleaner Unit |
| [10] Fixing Flapper | [25] Cassette 2 Vertical Path Roller | [40] Primary Transfer Roller |
| [11] Fixing Separation Guide | [26] Cassette 2 Feed Roller | [41] ITB Unit |
| [12] Pressure Roller | [27] Cassette 2 Separation Roller | [42] First Delivery Roller |
| [13] Fixing Assembly | [28] Cassette 2 Pickup Roller | [43] Fixing Delivery Lower Roller |
| [14] Duplex Feed Lower Roller | [29] Multi-purpose Tray/Duplex Merging Roller | [44] Fixing Rear Roller |
| [15] Fixing Film Unit | [30] Toner Container (Bk) | |

F-1-9

Operation

Power Switch

Types of Power Switches



F-1-10

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

[1] Main Power Switch

This switch is used to turn OFF/ON the Main Power Switch.

[2] Control Panel Power Switch

This switch is used to enter the energy saver mode or recover to the normal mode.

[3] Environment Heater Switch

This switch is used to supply or shut power to the Reader Heater or Cassette Heater.

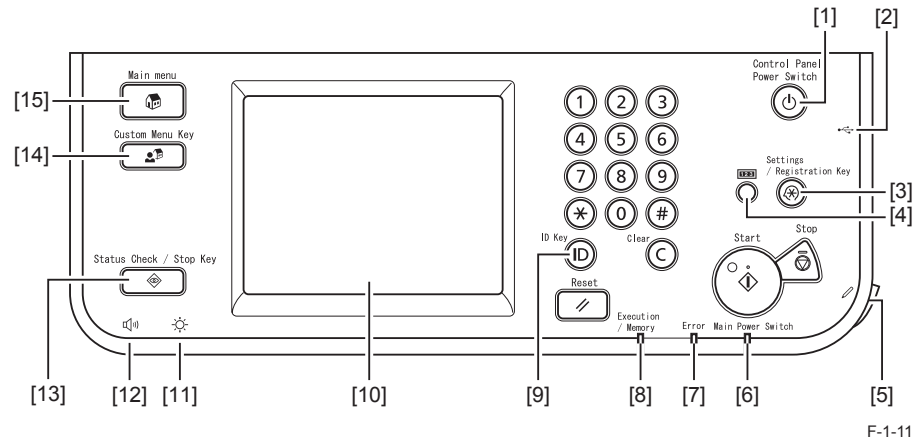
Points to Note on Turning ON/OFF the Power Switch

- Be sure to turn OFF the Main Power Switch when turning off 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

iR ADVANCE C2030/2025/2020 series

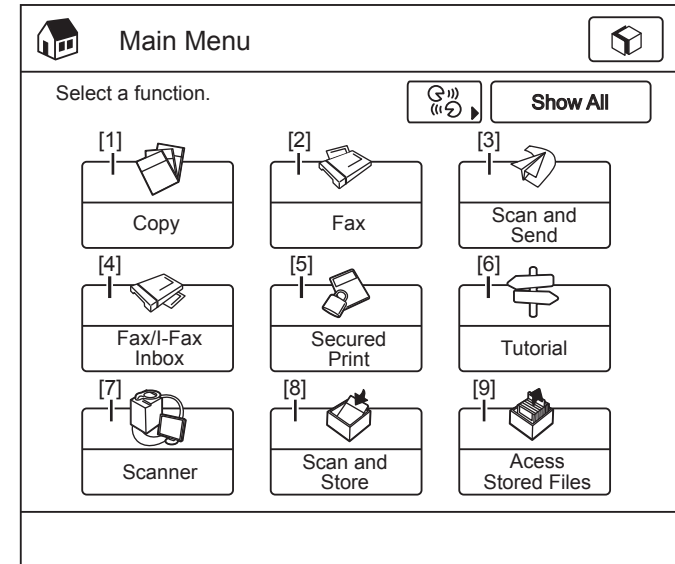


F-1-11

- | | |
|--------------------------------|--|
| [1] Control Panel Power Switch | [9] ID (Authentication) Key |
| [2] USB Slot | [10] Touch Panel Display |
| [3] Settings/Registration Key | [11] Screen Brightness Adjustment Dial |
| [4] Check Counter Key | [12] Fax Volume Adjustment Key |
| [5] Operation Pen | [13] Check/Stop Status Key |
| [6] Main Power Lamp | [14] Custom Menu Key |
| [7] Error Lamp | [15] Main Menu Key |
| [8] Execute/Memory Lamp | |

Main Menu

iR ADVANCE C2030/2025/2020 series



F-1-12

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

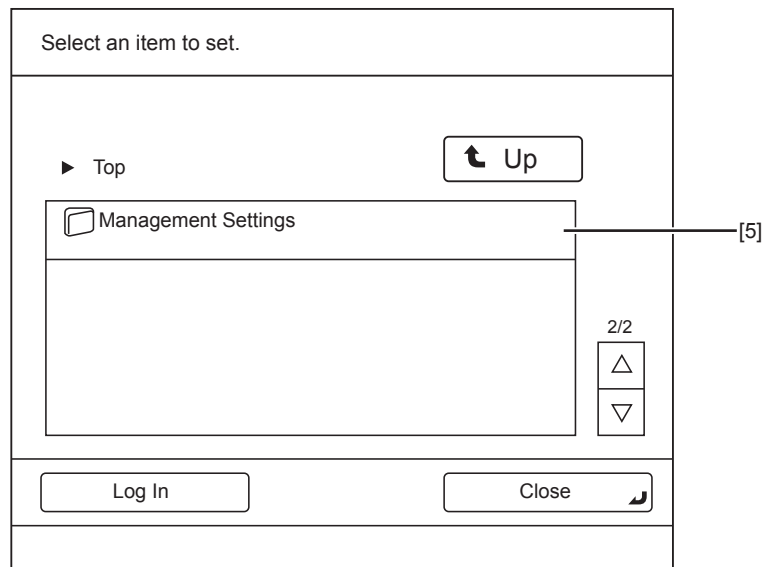
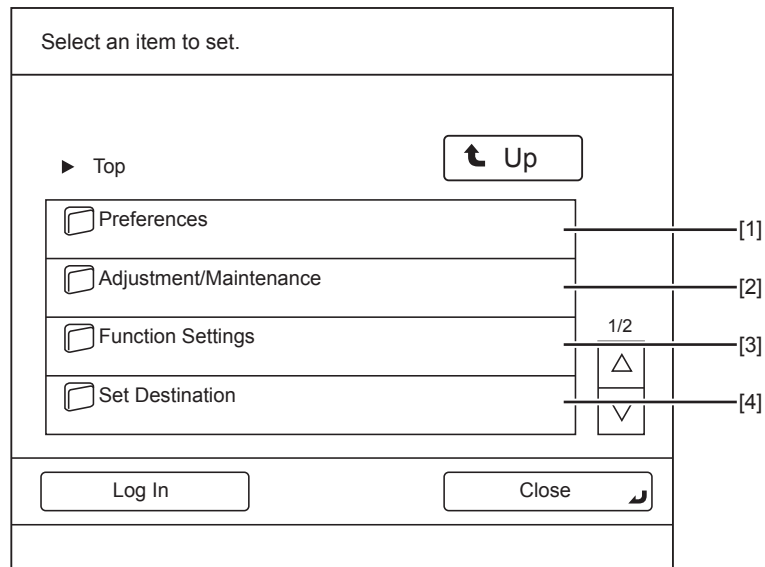
Difference of Main Menu

iRC 3380/2880 series	iR ADVANCE C2030/2025/2020 series
Copy	Copy
Send/Fax	Scan and Send/Fax
Mail Box	Scan and Save
	Access Stored Files
	Fax/I-Fax Inbox
Menu Switch Key	-----
Print	Secured Print
Remote Scanner	Remote Scanner
(Easy NAVI)	Introduction to Useful Features

T-1-9

Settings/Registration Menu

iR ADVANCE C2030/2025/2020 series



F-1-13

- | | |
|----------------------------|-------------------------|
| [1] Preferences | [4] Set Destination |
| [2] Adjustment/Maintenance | [5] Management Settings |
| [3] Function Settings | |

■ Difference of Settings/Registration

iRC 3380/2880 series	iR ADVANCE C2030/2020 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	Set Destination

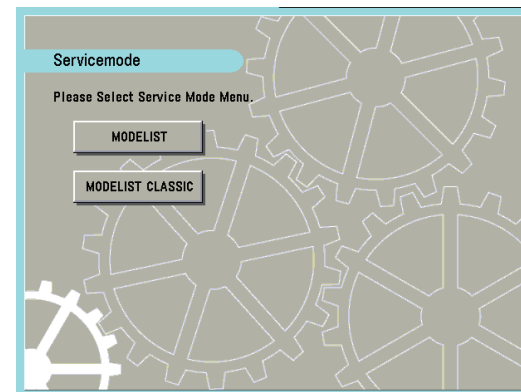
T-1-10

● Service mode

It is possible to see each item of service mode so that those who access to service mode can understand how to use them.

Following shows the points which have been added or changed from the existing machines.

■ Service Mode Menu



F-1-14

"MODELIST" :

This is a new mode which has been added with this machine.

In this mode, functions for referring to each item in service mode, etc. are available.

Those new features to be described later are enabled with the MODELIST.

"MODELIST CLASSIC" :

This is the mode which is similar to the existing machines.

Those new features to be described later are disabled with the MODELIST CLASSIC.

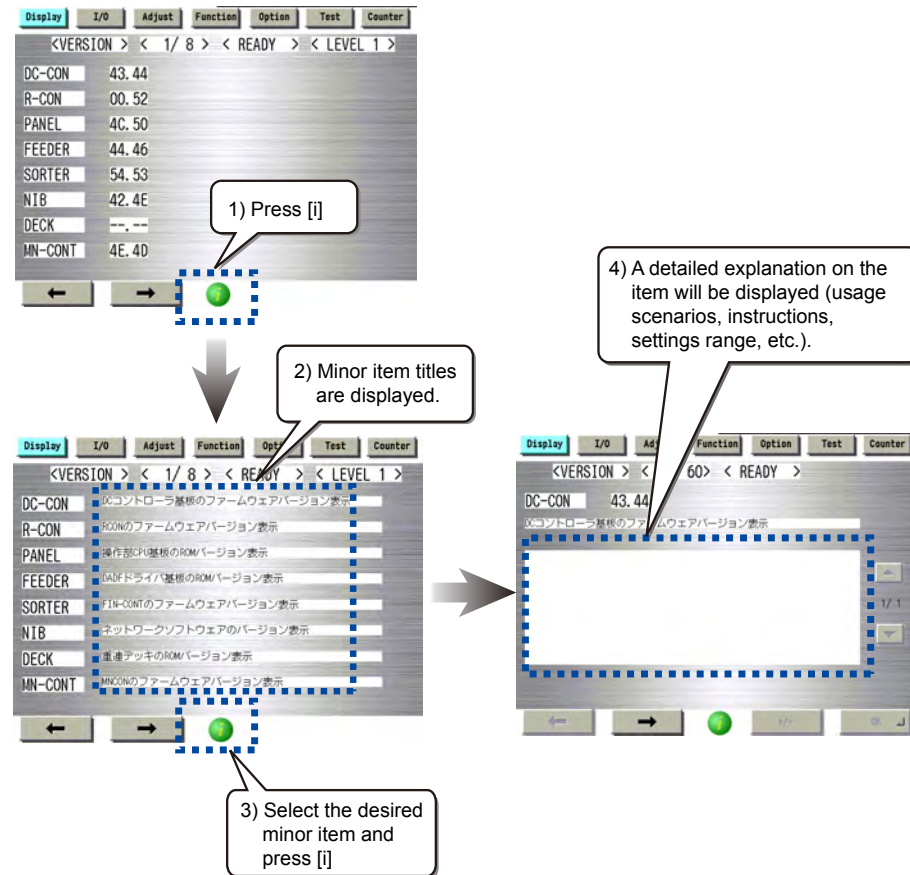
By pressing [MODELIST] or [MODELIST CLASSIC] button, it moves to the initial screen of each mode.

Description of Service Mode Items

The description of the initial screen, the main items, the intermediate items and the sub items can be displayed.

After selecting any item of the initial screen, main item, the intermediate item or the sub item, pressing "I" (Information Button) displays the description of the selected item (hereinafter referred to as the service mode contents).

e.g.) COPIER > DISPLAY > Version screen

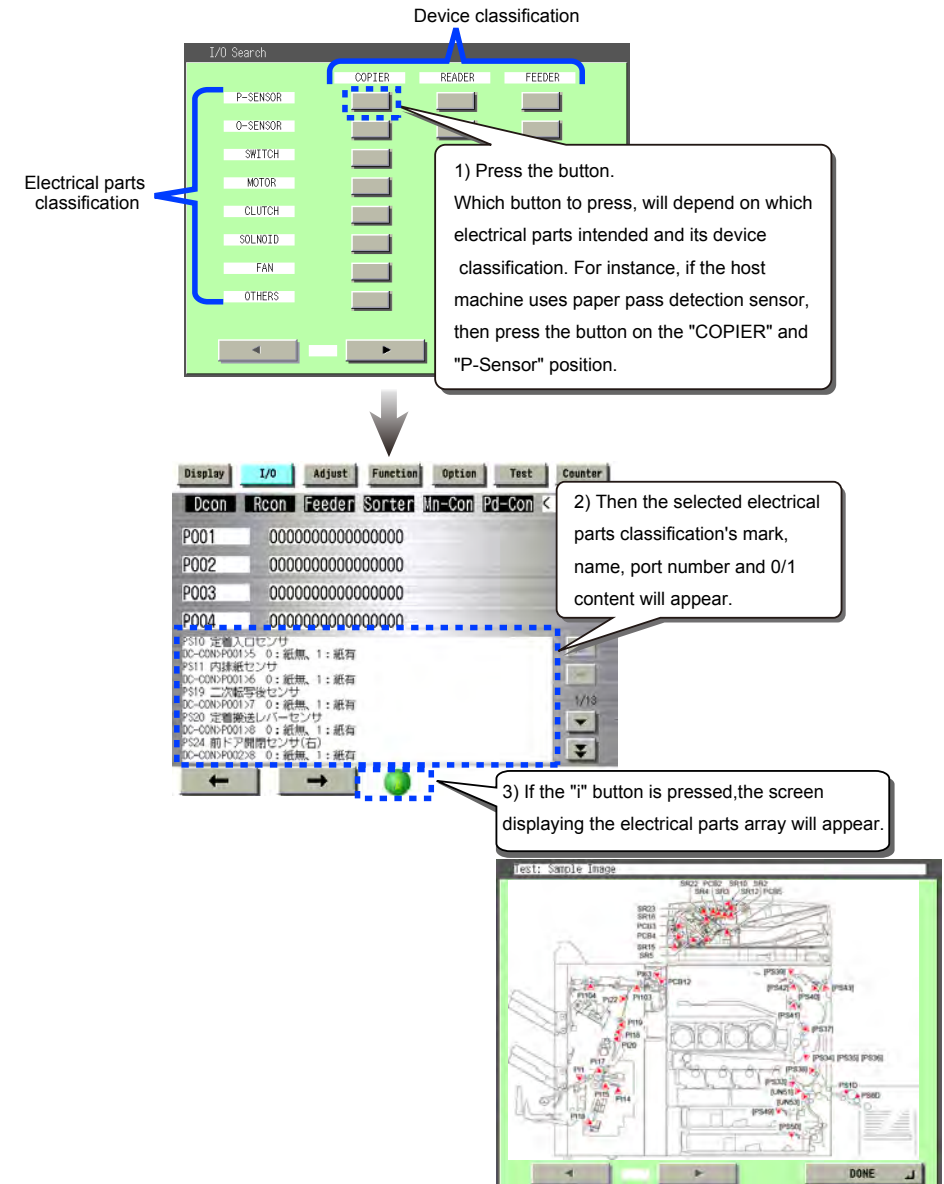


F-1-15

- Displayed language of the service mode contents can be selected from J/E/F/I/G/S.
- The service mode contents can be upgraded with the SST (just like the other system software).

Enhanced I/O Information

This is the mode to check signal's input/output state of electrical parts (e.g. sensor, motor, fan) in use. In the mode COPIER > I/O, it becomes easier to find the target electrical part. In addition, input/output state of signal can be checked on the screen.



The description of error code/alarm code is displayed

Description of each code is available on the error code/alarm code log 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

【タイトル】
→次吸気ファンエラー
【推定原因】
→次吸気ファンで異常を検知した場合

1/ 1

DONE ↵

Alarm Code: COPIER > DISPLAY > ALARM-2

Display I/O Adjust Function Option Test Counter

< ALARM-2 > < 2/ 7 > < READY > < LEVEL 1 >

No.	DATE	TIME1	TIME2	CODE	DTL	CNTR
09	0308	1345	160			
10	0308	1345	160			
11	0308	1345	160			
12	0308	1345	160			
13	0308	1345	160			
14	0308	1345	1600	040046	0000	0
15	0308	1345	1600	040047	0000	0
16	0308	1345	1600	040048	0000	0

ALARM CODE : 000004-0048

上段デッキ右分離ファンコネクタ抜け
動作：上段デッキを使用しない/リフタを下限位置まで下げる
解除方法：電源OFF/ONで解除

1/ 1

DONE ↵

■ Classification of COPIER > OPTION > BODY

It has been difficult to find target item because the existing machine has so many items in COPIER > OPTION > BODY (items relating to specifications of the machine).

With this machine, however, the entire items in BODY are classified into 15 categories according to the purpose so that the target item can be found more quickly.

Sub item classification	Sub item code	Description
Switch function	FNC-SW	Language, Cassette, paper configuration, NAVI/DA connection, count-up specification, original size detection, dust detection level
Switch display/display timing	DSPLY-SW	Items relating to UI display
Image-related (Fixing)	IMG-FIX	Items relating to fixing
Image-related (Transfer)	IMG-TR	Primary transfer, Secondary transfer, ITB
Image-related (Developing)	IMG-DEV	Items relating to developing
Image-related (Laser/latent image)	IMG-LSR	Items relating to the laser and latent image
Image-related (Reader/ADF)	IMG-RDR	Images relating to Reader and ADF
Image-related (Controller, Others)	IMG-MCON	Items relating to MN-CON image as well as any image other than MN-CON
Image quality/copy speed	IMG-SPD	Down sequence
Cleaning	CLEANING	Cleaning of Charging Assembly, Drum, Transfer Roller, ITB, etc.
Preferences	ENV-SET	Temperature/Humidify, Environment Heater/Condensation/Log retrieval
Feeding (Pickup/delivery)	FEED-SW	Stacking performance, fine adjustment of motor speed, delivery function, etc.
Noise reduction	SOUND	Items relating to the noise
Network	NETWORK	Network settings, IFAX, SEND, E-RDS, etc.
Custom	CUSTOM	For individual measures

T-1-11

■ Security Support

A password can be specified to prevent an unauthorized access to the service mode.

- Related service mode
COPIER > OPTION > FNC-SW > PSWD-SW (Level 1)

Setting password when the screen is switched to the service mode

<Setting range>

0: No password [Default]

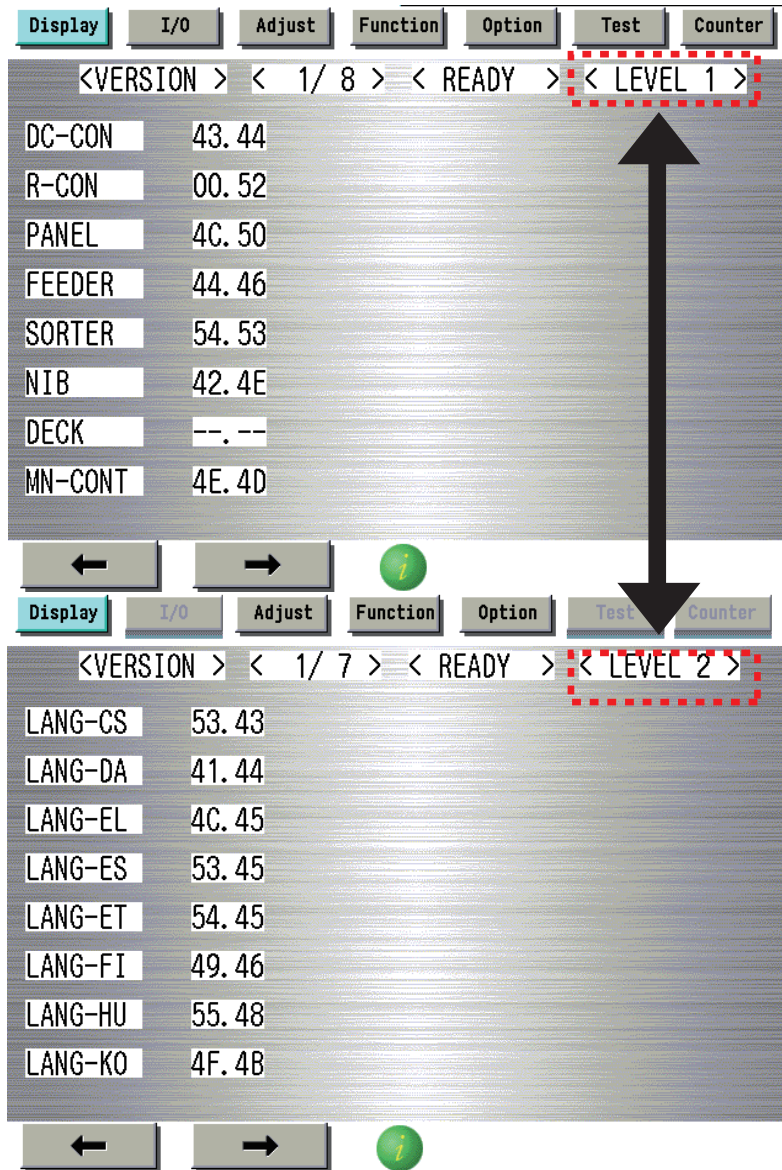
1: For service engineer

2: For system administrator + service engineer

Switching the Screen Display (Level 1 <->2)

Switching of screens between Level 1 and Level 2 becomes easier.

By pressing <LEVEL 1> at the upper right of the screen while Level 1 screen is displayed, the screen is switched to Level 2 screen.

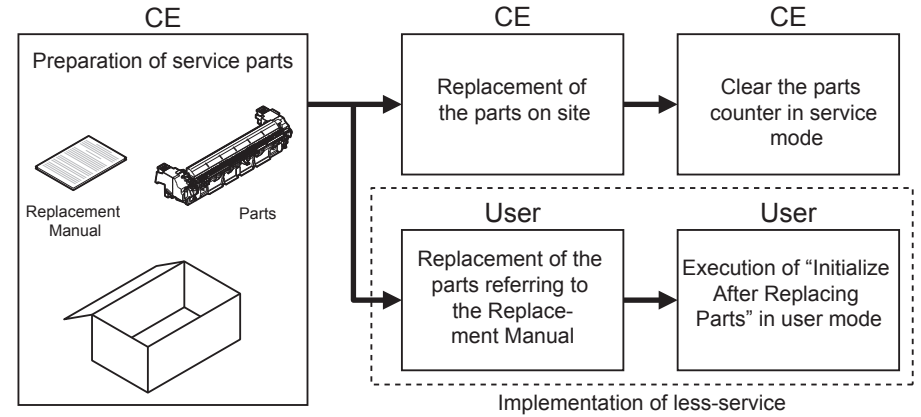


F-1-16

Specifications of User Messages Related to Consumable Parts

This machine displays life warning messages, which prompt a user to replace consumable parts, and the part counter initialization menu on the UI screen as part of measures for "service-less" operation.

The following shows the operation when consumable parts are replaced by users.



Parts name	Life warning message	Method to display the part counter initialization menu	Place of menu on UI	Points to note
ITB Unit	None	Set the service mode (COPIER>OPTION>DSPLY-SW>ITB-DSP) to 1.	Adjustment/ Maintenance > Initialize After Replacing Parts > ITB	The ITB needs to be disengaged by executing the ITB replacement mode before part replacement. (See *3.)
Fixing Assembly	None (See *1.)	Set the service mode (COPIER>OPTION>DSPLY-SW>FXU-DSP) to 1.	Adjustment/ Maintenance > Initialize After Replacing Parts > Fixing Unit	
Pickup Roller/ Separation Pad (Multi-purpose Tray)	None	Set the service mode (COPIER>OPTION>DSPLY-SW>PUMF-DSP) to 1.	Adjustment/ Maintenance > Initialize After Replacing Parts > Ppr. Feed Roller & Separation Pad of MP Tray	

Parts name	Life warning message	Method to display the part counter initialization menu	Place of menu on UI	Points to note
Pickup Roller/ Separation Roller (Cassette 1)	None	Set the service mode (COPIER>OPTION>DSPLY-SW>PUC1-DSP) to 1.	Adjustment/ Maintenance > Initialize After Replacing Parts > Cassette 1 Pickup Roller & Separation Roller	
Pickup Roller (Cassettes 2 to 4)	None	Set the service mode (COPIER>OPTION>DSPLY-SW>PUC2-DSP to PUC4-DSP) to 1.	Adjustment/ Maintenance > Initialize After Replacing Parts > Cassettes 2 to 4 Pickup Roller	
Waste Toner Container	Displayed	None (The counter is automatically cleared.)	None	
Drum Unit	None (See *2.)	None (The counter is automatically cleared.)	None	The ITB needs to be disengaged by executing the ITB replacement mode before part replacement. (See *3.)

T-1-12

- *1: The life warning of the target part is displayed in the Control Panel by setting the service mode (COPIER>OPTION>DSPLY-SW>FXMSG-SW) (Level 2) to 1.
- *2: The life warning of the target part is displayed in the Control Panel by setting the service mode (COPIER>OPTION>USER>P-CRG-LF) (Level 2) to 1.
- *3: To use the ITB replacement mode, set the service mode (COPIER>OPTION>DSPLY-SW>ITB-DSP) (Level 1) to 1.
Since this operation makes the ITB replacement mode appear in the menu on UI, pressing the "Start" button starts ITB disengagement operation.

2

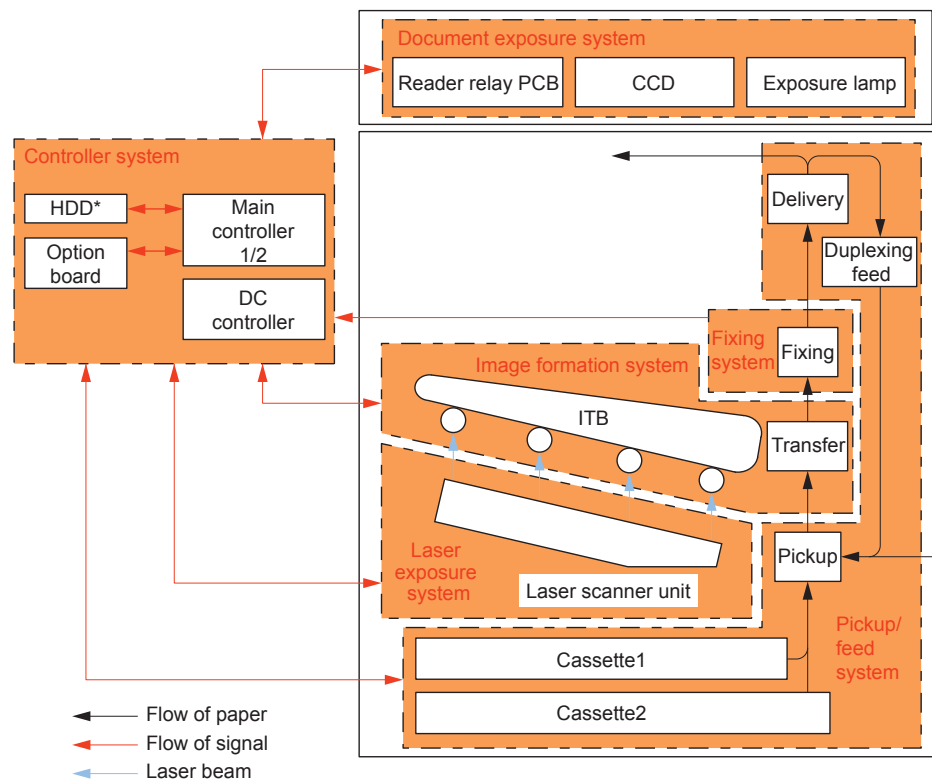
Process/Operation

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

Basic Configuration

Functional Configuration

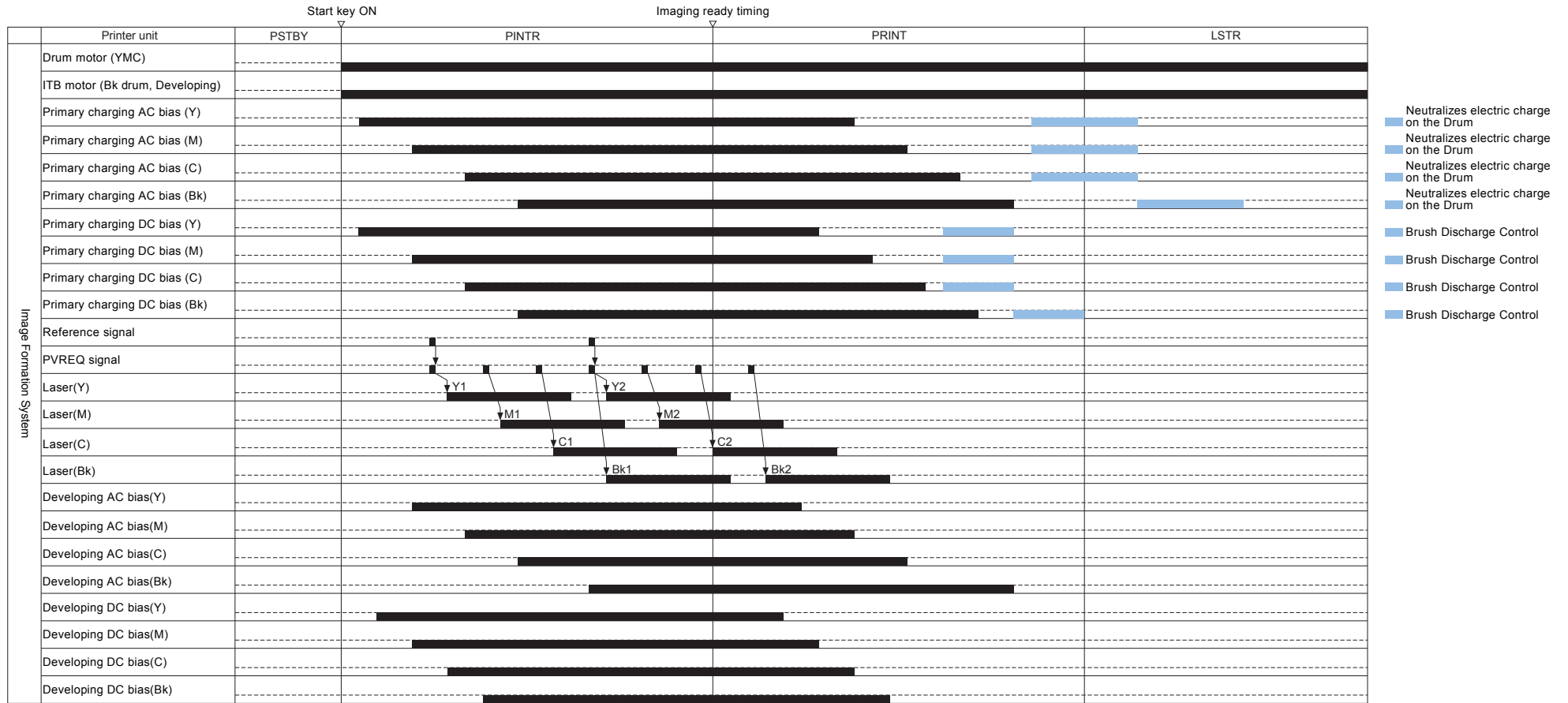
The machine may broadly be divided into the following functional system blocks; document exposure system block, controller system block, laser exposure system block, image formation system block, fixing system block and pickup/feed system block.



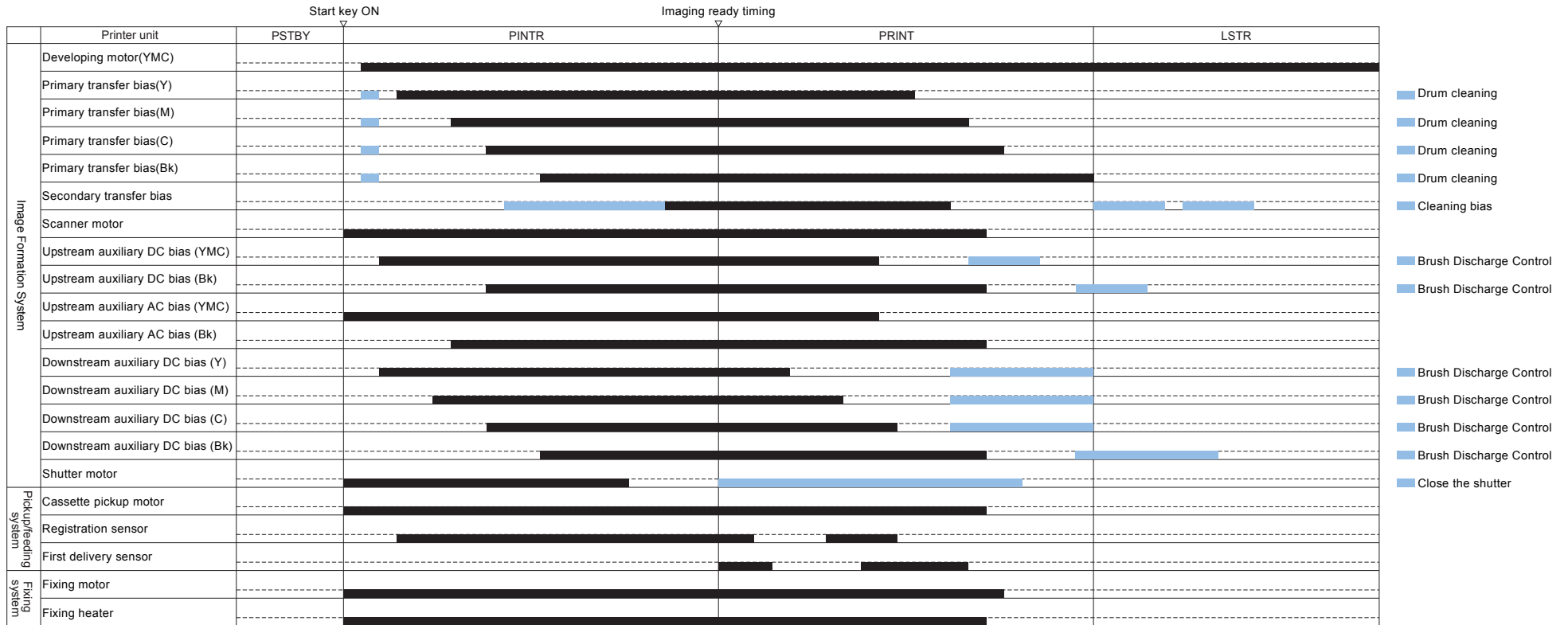
F-2-1

Basic Sequence

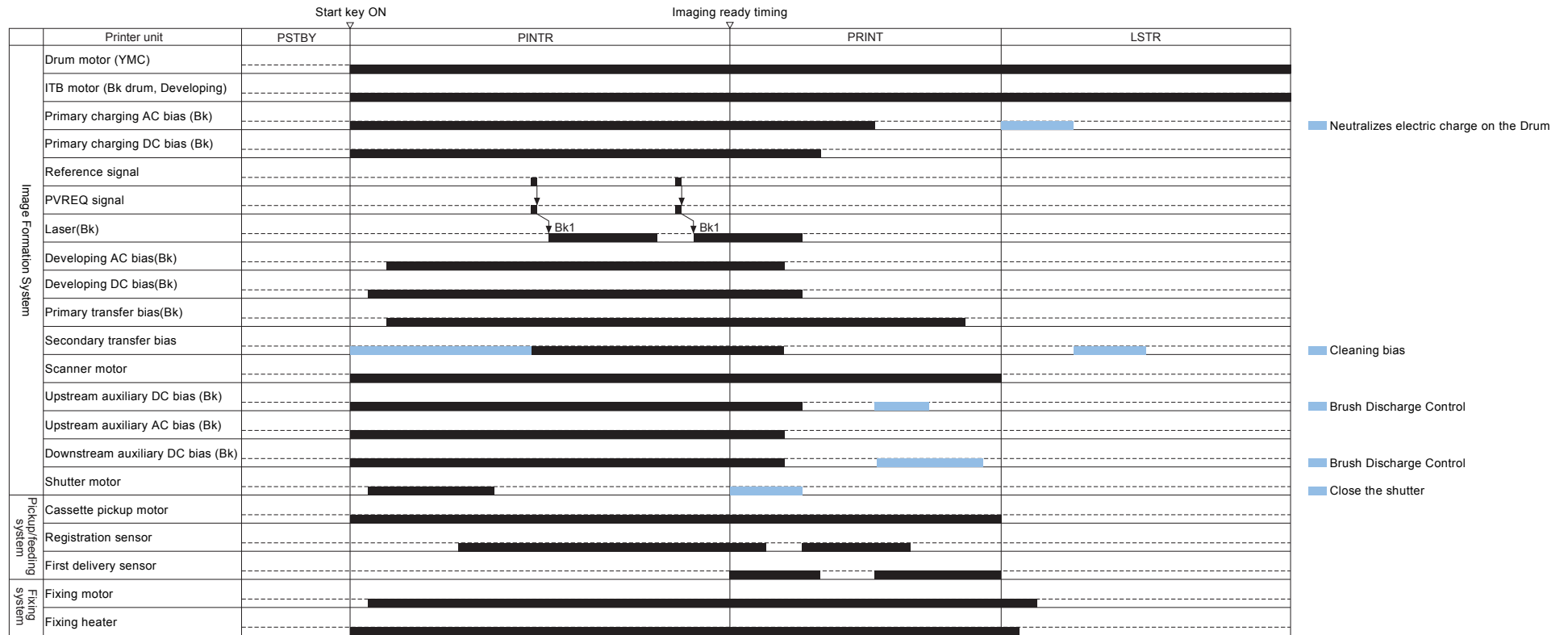
A4 single-sided 2 prints full color



F-2-2



■ A4 single-sided 2 prints Bk color



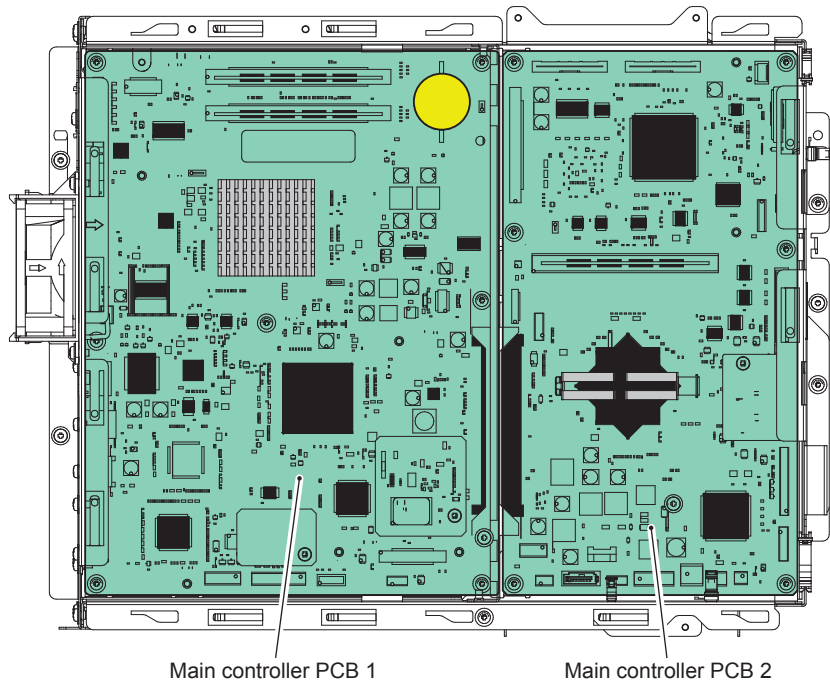
F-2-4

Main Controller

Overview

■ Features

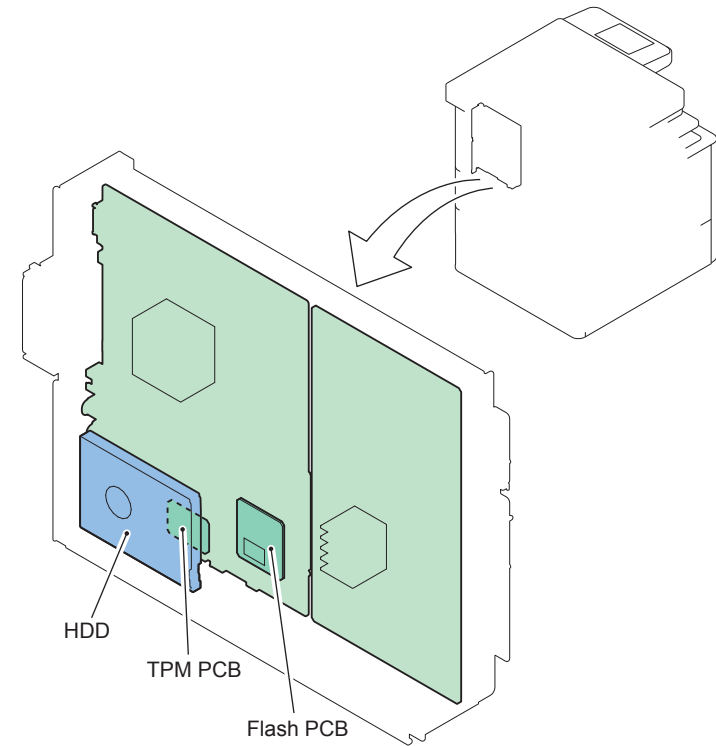
Introduction of the new controller enables high speed PDL processing, high image quality and high functionality.



F-2-5

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

- Specifications/ Configuration
- PCBs



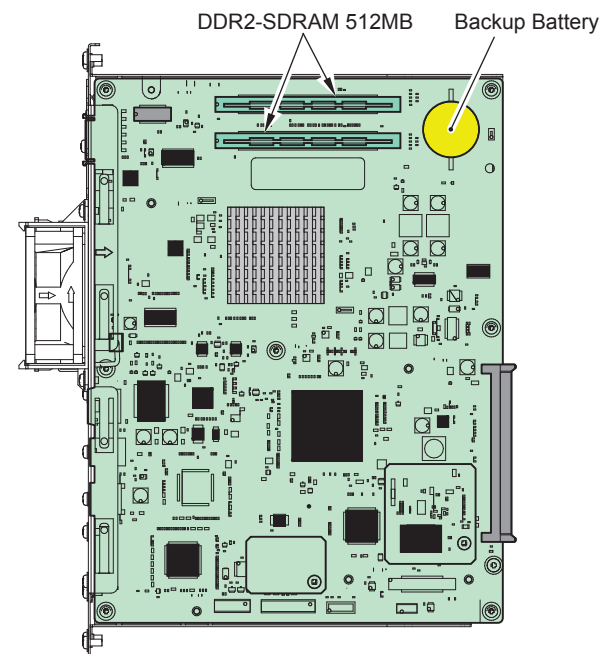
F-2-6

Parts name	Functions, specifications and features
Main Controller PCB 1	CPU: 1.2 GHz, Controls the entire system. Various controls (memory, Control Panel, electric power, voice), I/F Boards (PCI, USB (host)), RTC
Flash PCB	Retains the system data, image data and preference data. (The HDD model retains the image data and preference data in the HDD.)
TPM PCB	Generates and stores the encryption key. Management Settings > Data Management > TPM Settings; this function is enabled when the TPM setting is set "On" (default: Off)
Main Controller PCB 2	CPU: 400 MHz, Controls image. Image processing (color space conversion, enlargement/reduction, rotation, composition, compression, rasterizing, resolution conversion, image binarization), delay memory control between Drums, HDD control, I/F Boards (reader, Fax, USB (device))
HDD (HDD model or installing an HDD as an option)	2.5 inch SATA I/F Standard: 160 GB (80G usable area) Only 1 option board can be installed. Inbox data, address list, security information (password, certificate). Op. (for the flash memory model only): Option HDD (2.5inch / 160GB)

T-2-1

• Memory Devices

Main Controller PCB 1

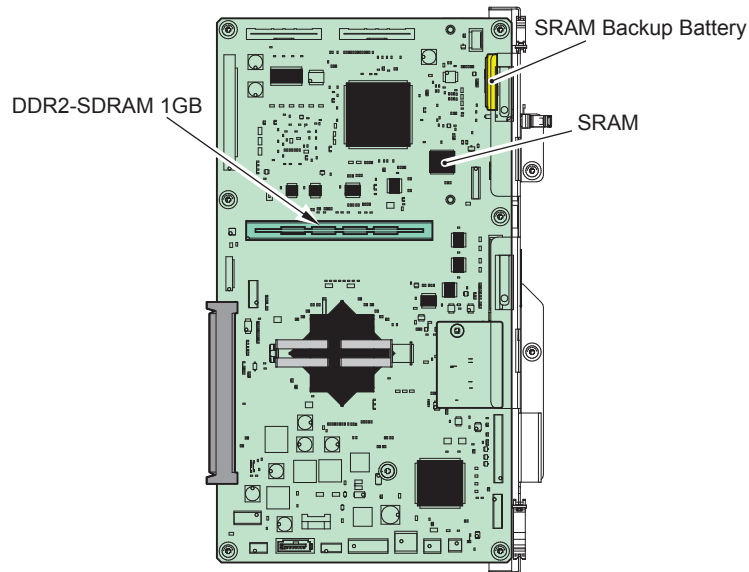


F-2-7

Parts name	Functions, specifications and features
DDR2-SDRAM	2 slots / 1GB (standard) J2031: 512 MB J2032: 512 MB Clock frequency: 667 MHz Used for storing image and program data
Lithium battery (BAT1)	For RTC Life: approx. 10 years

T-2-2

Main Controller PCB 2



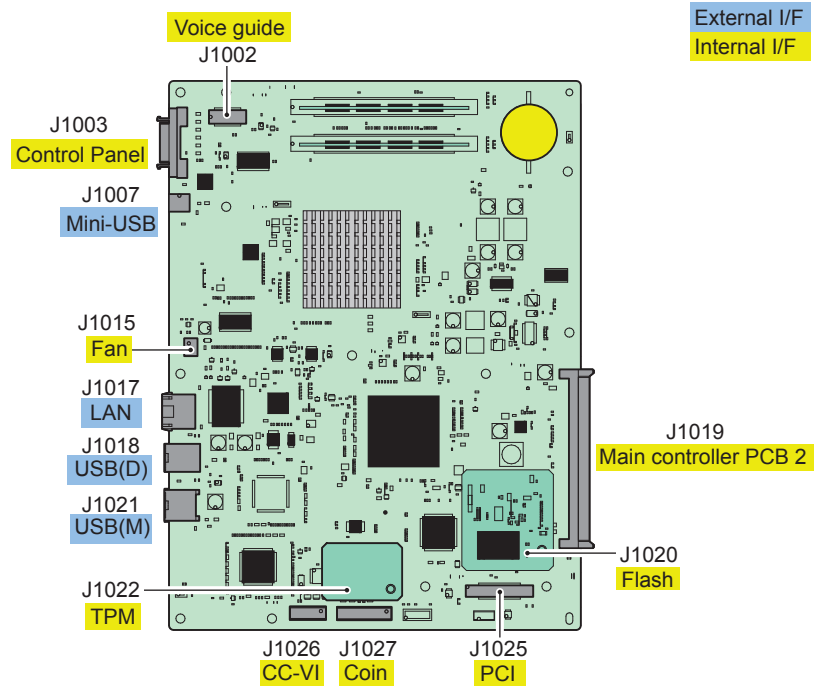
F-2-8

Parts name	Functions, specifications and features
DDR2-SDRAM (TBD)	1GB (standard) / Clock frequency: 667MHz Rasterizing, rendering, resolution conversion, coding/decoding
SRAM	16 Mbit Retains data in the Settings/Registration mode/service mode and the image data management information in the HDD.
Lithium battery (BAT1)	For SRAM backup. Life: approx. 10 years

T-2-3

I/F, Connector

Main Controller PCB 1



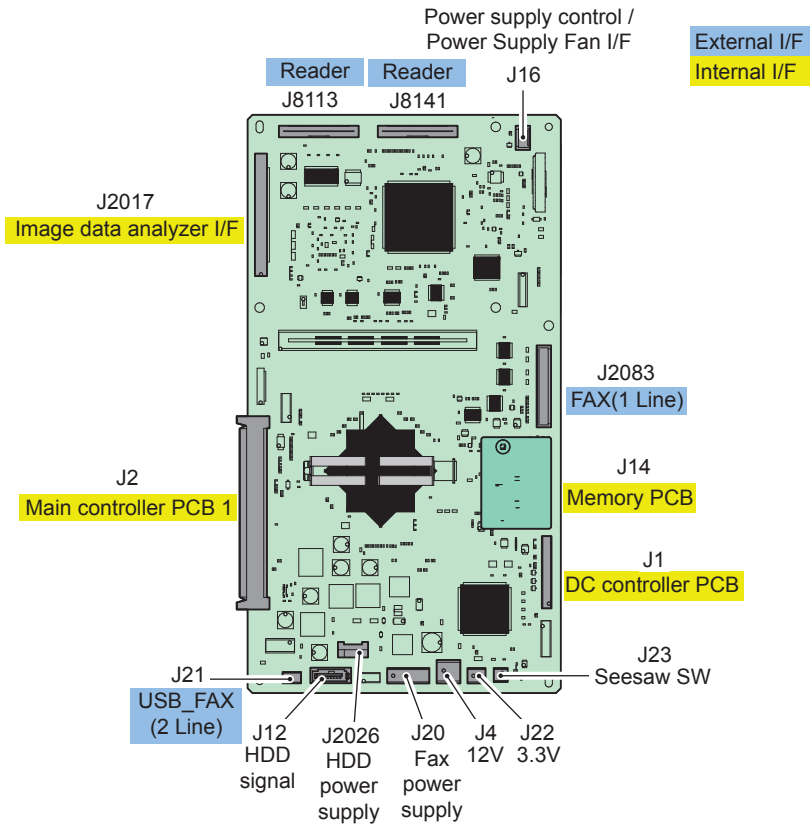
F-2-9

No.	Functions and specifications	No.	Functions and specifications
J1002	Voice I/F (Op.)	J1019	Main Controller PCB 2 I/F
J1003	Control Panel I/F	J1020	Flash PCB I/F
J1007	Mini-USB I/F (Op.) Connects USB Device Port-B2.	J1021	USB I/F (Host) *1 For MEAP, For USB Keyboard (Op.)
		J1022	TPM PCB I/F
J1015	Fan I/F	J1025	I/F for Expansion Bus-F2
J1017	LAN I/F 1000BASE-T / 100BASE-TX / 10BASE-T	J1026	I/F for Copy Control Interface Kit-A1 (Op.)
		J1027	I/F for Card Reader, I/F for Serial Interface Kit-K1 (all assigned as Op.)
J1018	USB I/F		

T-2-4

*1 There is also a port on the Control Panel.

Main Controller PCB 2



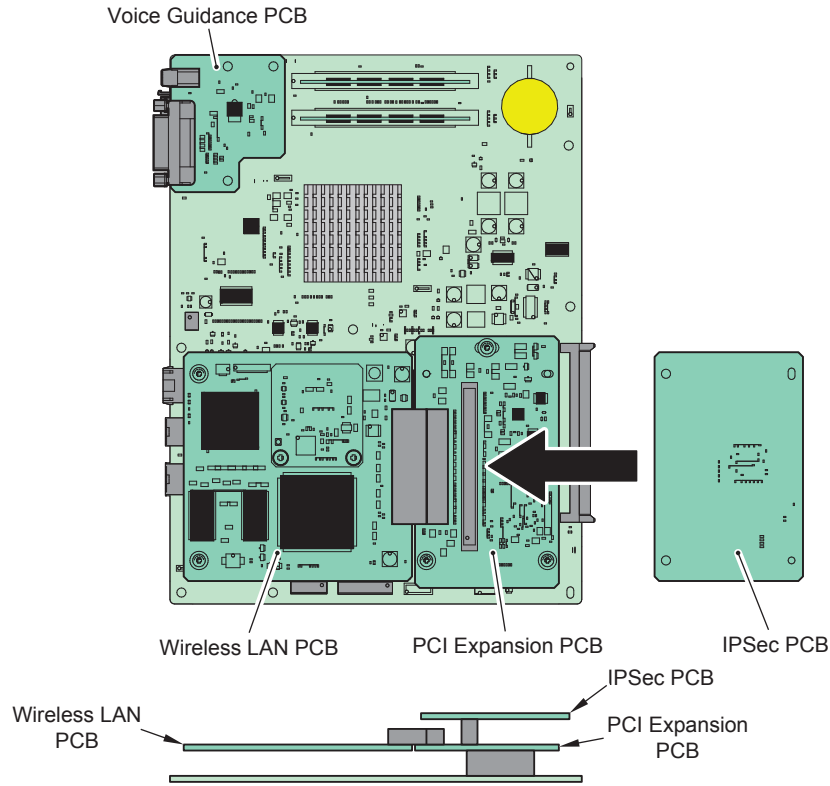
No.	Functions and specifications
J1	DC Controller PCB
J2	Main Controller PCB 1 I/F
J4	12V
J12	HDD signal
J14	Memory PCB
16	Power Supply Fan I/F
J20	Fax power supply
J21	Fax-USB I/F 2-line for fax Product name: Super G3 2nd Line FAX Board-AH1
J22	3.3V
J23	Main Power Switch
J2017	Image Data Analyzer PCB
J2025	HDD power supply
J2083	Fax I/F 1-line for fax Product name: Super G3 Fax Board-AH1
J8113	Reader I/F
J8141	Reader I/F

T-2-5

F-2-10

• Function Expansion Options

Main Controller PCB 1

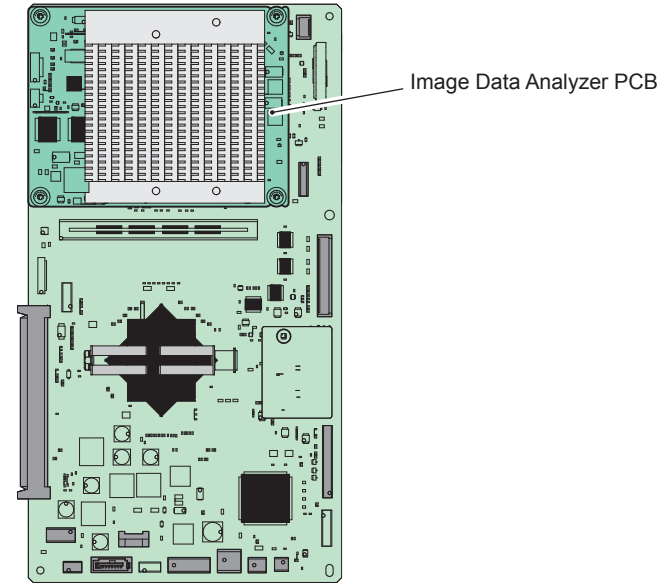


F-2-11

Name	Functions, specifications and features
Voice Recognition PCB Voice Guidance PCB	Product name: Voice Operation Kit-C2, Voice Guidance Kit-F2
PCI Expansion PCB	Product name: Expansion Bus-F2 Required when a PCI option (Wireless LAN Board-B2, IPsec Board-B2) is installed.
Wireless LAN PCB	Product name: Wireless LAN Board-B2 Expansion Bus-F2 is required.
IPsec PCB	Encryption/decryption processing of packet data. Product name: IPsec Board-B2 Expansion Bus-F2 is required.

T-2-6

Main Controller PCB 2



F-2-12

Name	Functions, specifications and features
Image Data Analyzer PCB	Product name: Image Data Analyzer PCB-A1 Scan protection for output original (Copy/SEND/Inbox)

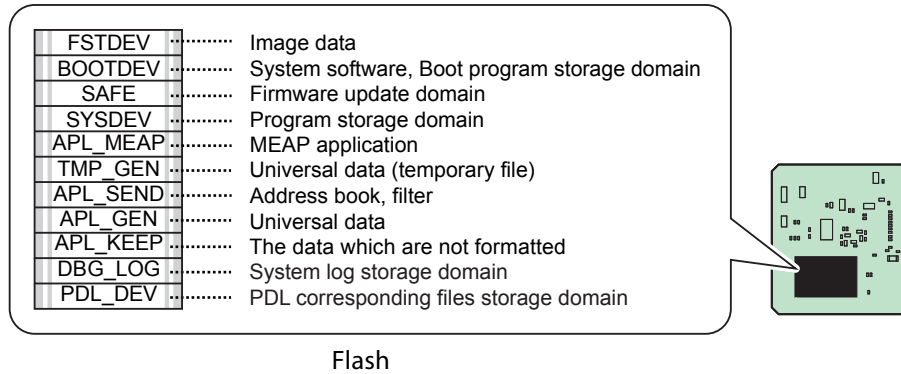
T-2-7

Flash model and HDD model

The partition and usage pattern differ between the flash memory model and the HDD model.

Flash model(a configuration consists of the flash memory only)

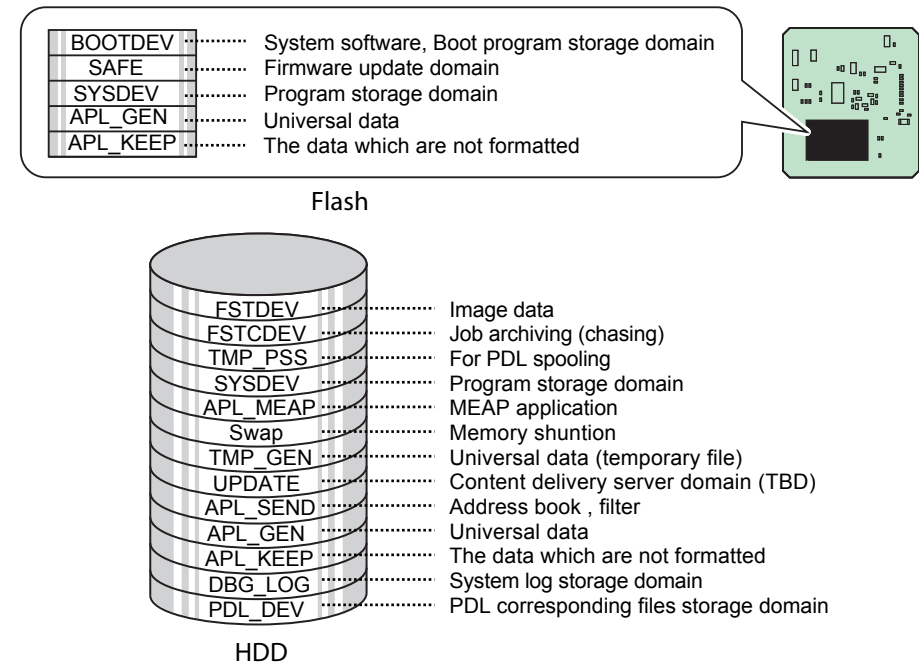
The 4GB flash memory is used. All the data of the system/image/other data is stored in the flash memory.



F-2-13

HDD model

The 80GB HDD is used together with the 4GB flash memory. The system data is stored in the flash memory while the image/other data is stored in the HDD.



F-2-14

Difference in specifications of respective applications when installing the HDD option

The following table shows the applications to which the specification is changed when installing the HDD option.

Those without change of specifications are indicated with “-“while those with change of specifications are indicated with the “description of changed specifications”.

Refer to the Service Manuals and User’s Guide for details.

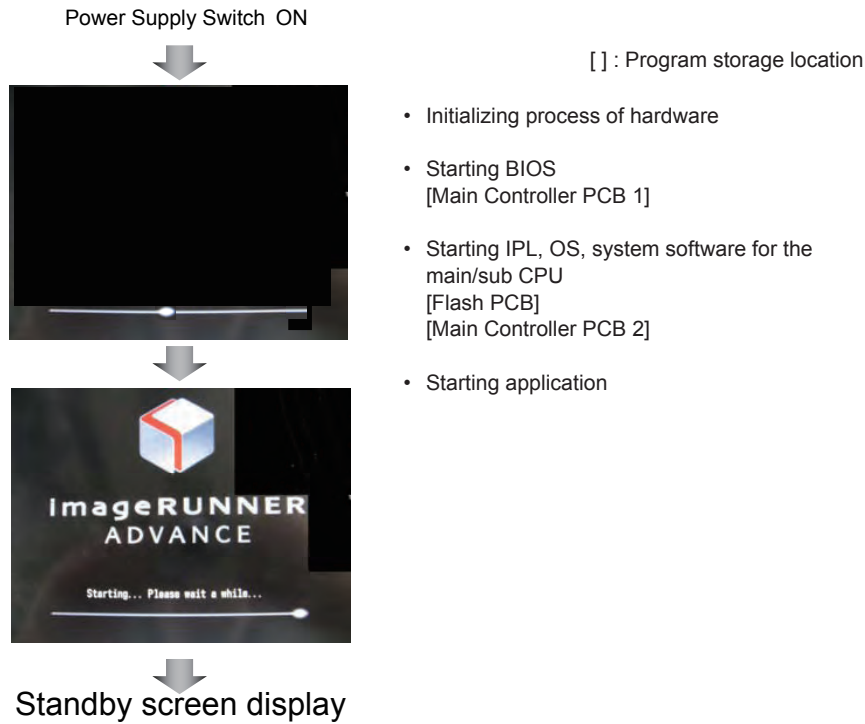
	Installation of HDD option
COPY	The number of sorting pages is increased, the number of reservation jobs is increased
PDL print	The types of PDLs are increased, the number of sorting pages at the device side is increased
FAX	-
Scan and Store	The specification for network (Advanced Box Client) is added
Scan and Send	The types of transmission documents are increased
FAX/I-FAX Inbox	-
Remote Scanner	-
Secured Print	The specification for secured print is added
Workflow Composer	Setting available
Shortcut for Setting/Registration	-
User Mode	The number of items are increased according to functions increase
Service Mode	-
Others UI	The security options are added such as the job archive, ACQ, etc. The browser-related function is added.
MEAP	The number of applications is increased.
RUI	-

T-2-8

NOTE

For the flash memory only, you can install the HDD option or removed the installed HDD. As for the(original) HDD model, you can remove the HDD to make it as a flash memory model.

■ Boot Sequence



NOTE:
 Due to the high speed startup, the progress bar and the active 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 codes	Error description
E602	HDD error
0001	HDD detection error Unable to find the startup partition (BOOTDEV) at startup.
0002	File system error on the HDD
E604	Memory failure (Main Controller PCB 1)
1024	Insufficient capacity of DDR2-SDRAM (1 GB required)
E613	Memory failure (Main Controller PCB 2)
1024	Insufficient capacity of DDR2-SDRAM (M0, M1) (1 GB required)
E614	Flash error
0001	Flash PCB detection error Unable to recognize the Flash PCB. The Flash PCB is not formatted.
0002	Error in file system on the Flash PCB
E748	Board error (Flash PCB)
2010	Unable to find the IPL (Initial Program Loader).
2011	Unable to find the OS.

T-2-9

■ Shutdown Sequence

Before shutting OFF the power supply, it is necessary to perform the HDD completion process (for the HDD models only. Purpose: to prevent damage on the HDD) and execute the fixing disengagement operation. This sequential process is called "shutdown sequence". The shutdown sequence has been manually executed with the legacy (existing) models (by holding down the power supply switch on the Control Panel for a specific duration).

When the Main Power Switch is turned OFF with this equipment, Main Controller PCB 1 detects this operation to start/execute the shutdown sequence automatically.
 Note that the maximum shutdown time with this equipment is 110 seconds.

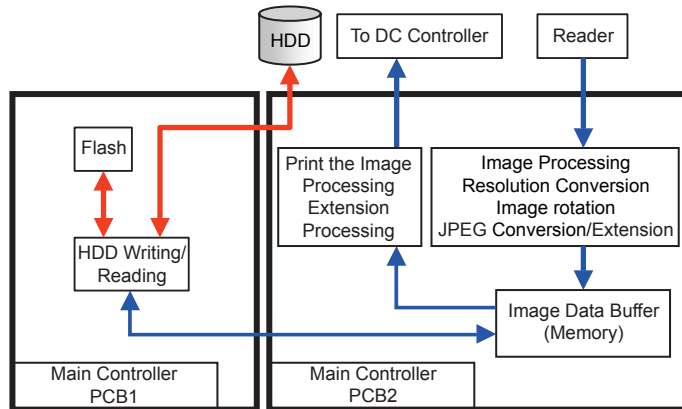
NOTE:
 When the power supply is stopped without advance shutdown of the equipment, or the complete deletion process of the HDD (deletion of the primary file) failed to be completed within the shutdown time (max. 110 sec.), data matching is checked at startup. In such a case, startup takes up to 80 seconds. The progress bar is displayed during the data checking.

Controls

Flow of Image Data

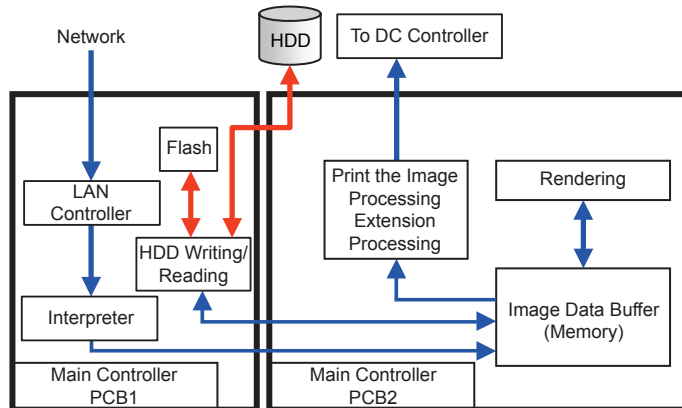
Red line....If there is HDD, the data goes in HDD. If there is not HDD, the data goes in Flash memory.

- Copy



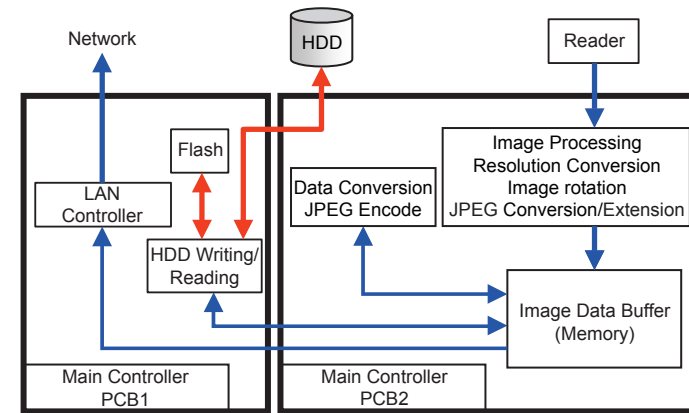
F-2-15

- Print



F-2-16

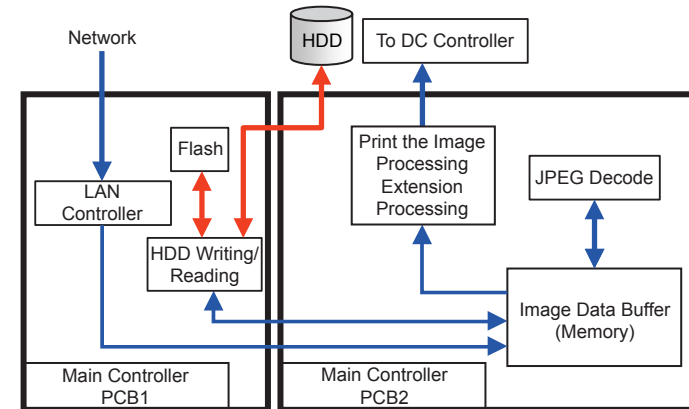
- SEND



F-2-17

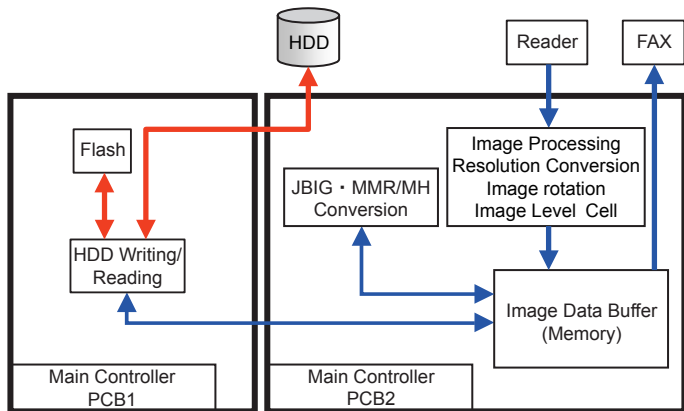
*Same as Remote FAX.

- Network(Advanced Box / Space Client)



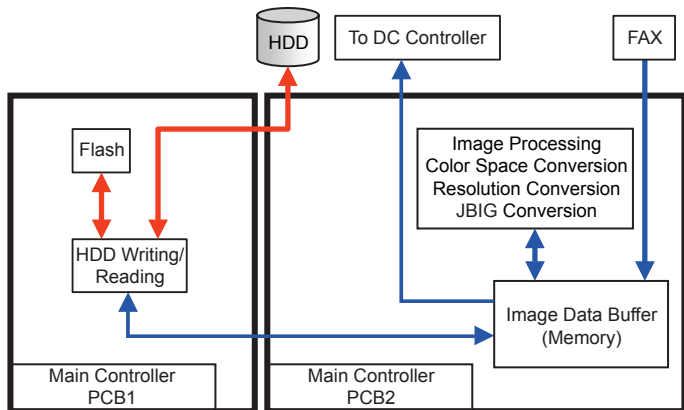
F-2-18

• Fax SEND



F-2-19

• Fax Recieve



F-2-20

Security

■ Setting the Management on the Hard Disk

In addition to the document data to be accumulated by FAX function, the registration information of the Address Book and the password information of the System Box and the Address Book are saved in the HDD of the host machine. Therefore, data management in the HDD needs to be executed under a tight security measure.

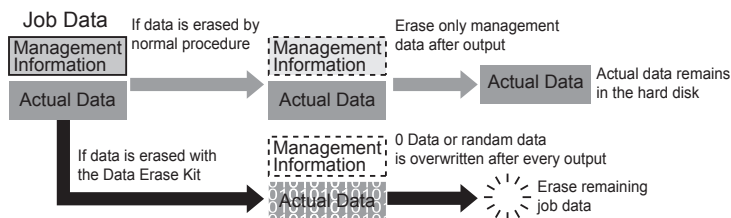
The host machine has functions such as data encryption and data deletion and the data is managed which prevents data leak to the outside so that the data is maintained safely and confidentially.

● HDD Data Erase

To use this function, Data Erase Kit - C1 is required.

The host machine saves the job data by dividing it into the management information area and the actual data area at the time of copy, transmission/reception or print output. While the management information is automatically deleted after job completion, the actual data is left in the HDD.

Overwriting 0-data or random data can completely delete the actual data left in the HDD of the host machine. This procedure is effective to prevent data leak to the outside when the HDD is replaced or disposed.



F-2-21

Enabling the Data Erase Kit can completely delete the unnecessary data or the deleted data in the HDD. For data deletion in the HDD, deletion timing and deletion mode can be selected. The following shows the data to be completely deleted from the HDD:

- Temporary image data generated at the time of scanning.
- Residual data after deleting a file in Fax/I-Fax Inbox(Fax Box/System Box).
- Fax/I-Fax sent/received data
- Spool data
- Data temporarily saved as print data

● Initializing All Data/Settings

Initializing the saved file and the registration information

This function enables to delete (initialize) the data such as the file saved in the host machine, the registration information of the Address Book and the job log information*

Caution:

This "Initialize All Data/Settings" setting is equipped without adding Data Erase Kit and executed voluntarily by a user when the machine is disposed. The effect is different from complete deletion of the job data and the user management information is deleted as well; therefore, take note not to explain this function to the user.

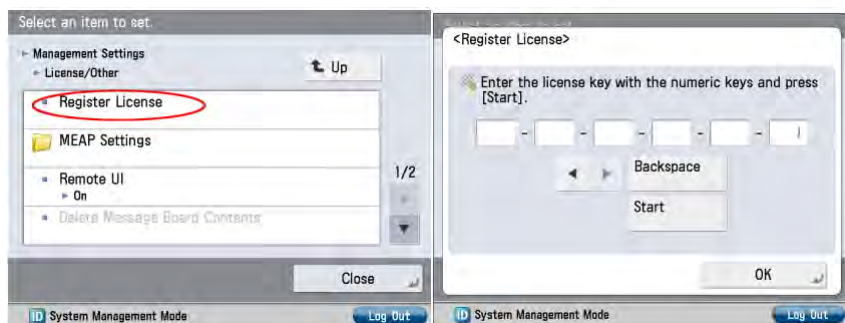
*The details are to be explained in the TPM section.

■ Installation procedure of the HDD

The iR-ADV C2020 series has the flash memory model and the HDD model respectively. To upgrade a flash memory model to a HDD model, the license registration is required in addition to physical installation. (not available in Europe)

The service technician is to execute installation as a field operation.

- (1) The service technician shuts down a flash memory model of iR-ADV C2020 series to turn OFF the power.
- (2) The service technician installs a HDD to the flash memory model by following the installation procedure of the HDD.
- (3) Turn ON the power to start the iR-ADV C2020 machine.
- (4) The service technician enters the license with an administrator privilege for Settings/Registration (this process creates a partition and executes format reservation).



F-2-22

- (5) Then, the service technician restarts the iR-ADV C2020 machine.
- (6) At the time of restarting the machine, the iR-ADV C2020 machine executes reserved initialization, and then duplicates the necessary data from the flash memory.
- (7) After duplication to the HDD, the iR-ADV C2020 machine is started as a HDD model.
- (8) The user or the service technician checks the operation for the HDD model (See "Check Device Configuration").
- (9) The service technician deletes the data left in the flash memory by executing "Delete Old Data", which is to be described in the next page.

*In the case of failure in setup of HDD, an error code (E602) is displayed and the machine is stopped. When the machine can be started by the flash memory, an error code is displayed after the machine is started.

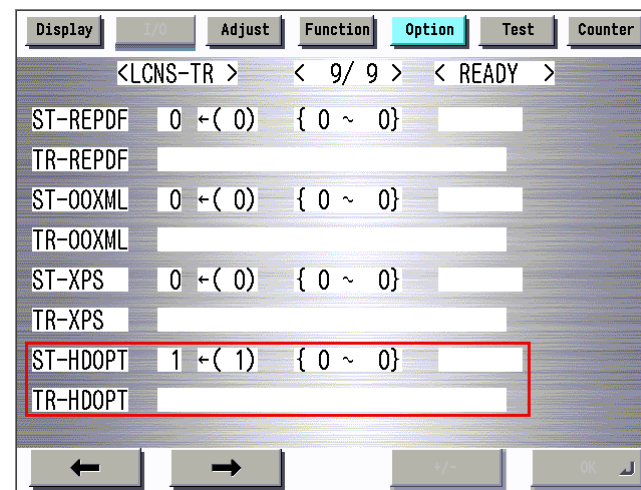
*In the case that the power is disconnected during setup of the HDD, the setup procedure is resumed from the first step.

■ The procedure to disable the HDD license transfer

For transferring the HDD license in the case of replacing a device, this function is used to disable the license and move the HDD option to the other device.

Caution: This function is available only with the original flash memory model after the HDD installation. For field operation, this is just for transferring the HDD license by device replacement. Note that removing a HDD will not make a flash memory model.

- (1) Get in service mode level 2 to display the following service mode:
Copier > Option > LCNS-TR



F-2-23

- (2) The license is disabled by executing the function to disable the HDD license transfer (set 0 for ST-HDOPT). During the process to transfer the HDD license, reservation for initializing data area in the flash memory and SRAM is executed.
 - The data area in flash memory is initialized so that the setting value, adjustment value and document are set as those at the time of factory shipment.
 - As for SRAM, the application area is cleared and set to the data at the time of factory shipment.
 - When there is no license for complete deletion process at data initialization in the flash memory, complete deletion process is not executed.
 - Such data is processed at the time of restarting the machine, which makes the starting time by approximately 1 minute longer (on average).
 - The HDD is not recognized at the time of reboot. Remove the HDD, after power supply OFF.

- Before disabling the HDD license transfer, the license depending on HDD such as Secure print or PS must be disabled.

■ Delete Old Data

Background

This function is used after upgrading a flash memory model to a HDD model.

In the case of upgrading a flash memory model to a HDD model with imageRUNNER ADVANCE C2020 series, there is a mechanism to transfer the user data to the HDD side by the data migration function.

In consideration of power disconnection during data transfer or cancelling of model switching at the time of data migration, the data should be copied rather than data transfer.

In the case of installing a HDD Encryption Kit or Data Erase Kit, the data in the flash memory is not encrypted but left in the flash memory; therefore, this function is necessary to delete the data.

Function overview

When this function is executed, the machine basically executes the same operation as “Initialize All Data/Settings” (such as auto rebooting, processing at startup, complete deletion, clearing).

The following shows the difference:

- SRAM is not deleted.
- The job information in the machine is deleted for the flash memory side only.
- The MEAP application information is deleted for the flash memory side only.

Caution:

In the case of returning a machine due to expiry of the lease period after upgrading the machine, or in the case of disposing the machine, do not execute “Delete Old Data” but execute the normal “Initialize All Data/Settings”.

The data to be deleted:

- Image data
- Address Book
- Temporary data
- The font and profile installed by the user

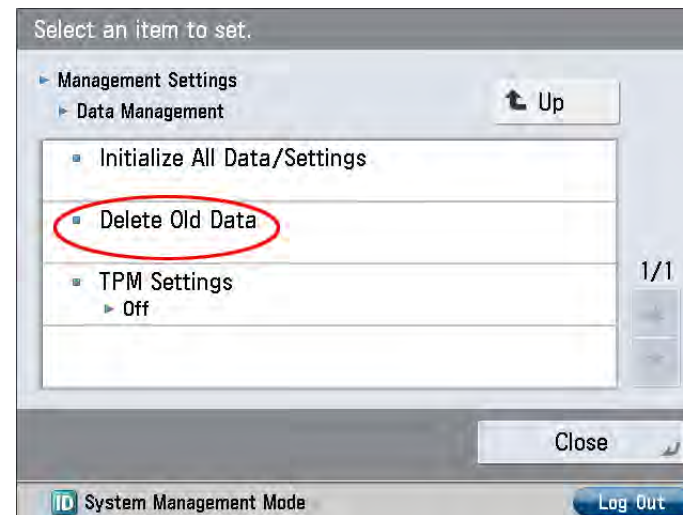
The data not to be deleted:

- Adjustment value at the factory

- Program and library at the time of factory shipment
- System data(such as the pre-installed font data, etc)

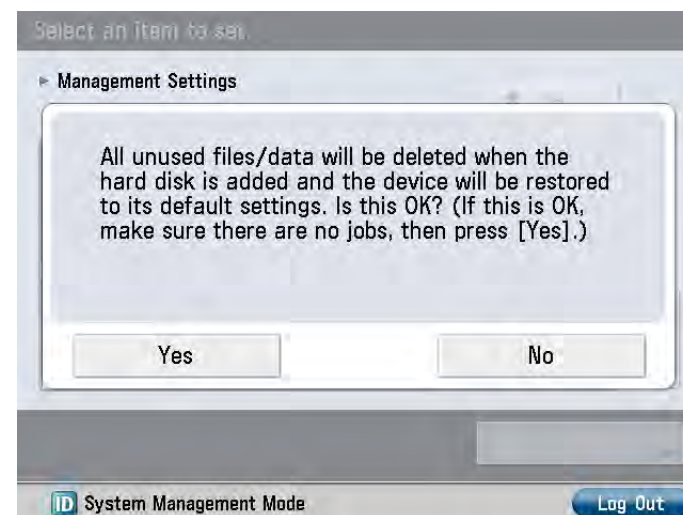
Operation

1. Select the following: Settings/Registration > Management Settings > Data Management > Delete Old Data



F-2-24

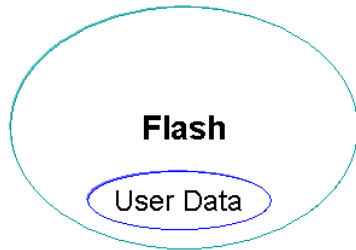
2. Select “Yes”.



F-2-25

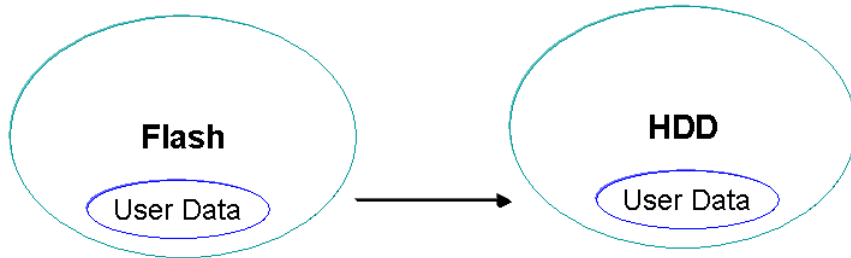
Basic concept for "Delete Old Data"

1.Using the flash memory



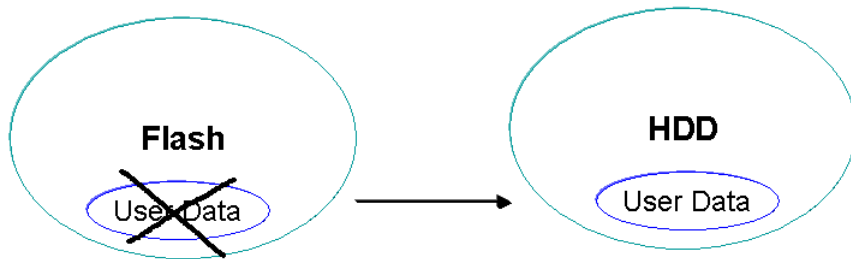
F-2-26

2.At the time of increasing a HDD or license registration



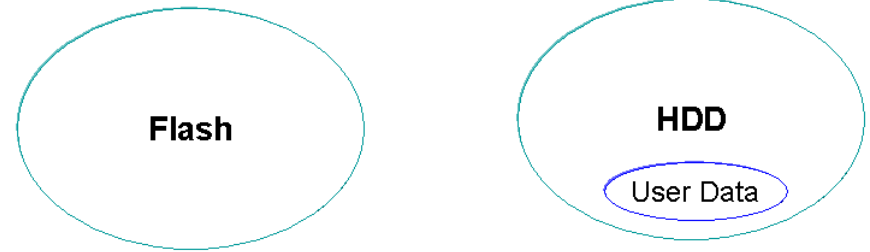
F-2-27

3."Delete Old Data" in user mode



F-2-28

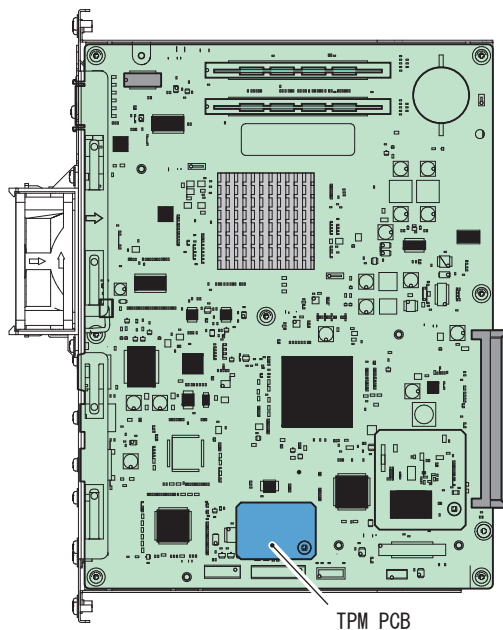
4.Using the HDD



F-2-29

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

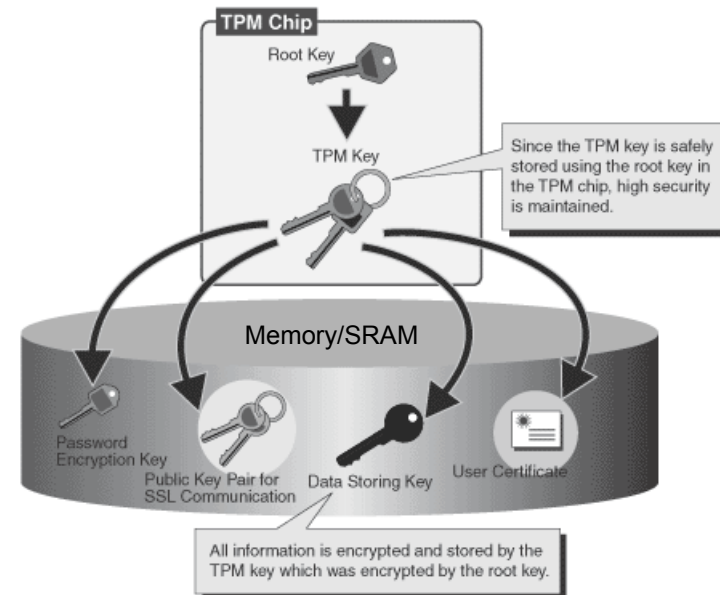
On the Main Controller PCB 1 of the main body, "TPM PCB" is equipped. TPM stands for Trusted Platform Module, and is the chip name which generates and stores the encryption key and has the encryption calculation function for the public key.



F-2-30

TPM PCB can protect the security information(password, certificate and encryption key) stored in the Flash and SRAM. Set / registered / saved data other than the security information is not protected.

To encrypt or decode the security information, use the TPM key installed in the chip.



F-2-31

It is extremely difficult from the outside to take out the TPM key installed in the chip. Therefore, even the following cases occur, the security information in the main body can be protected securely.

- HDD or Main Controller PCB is taken out
- System of the main body is intruded through the network

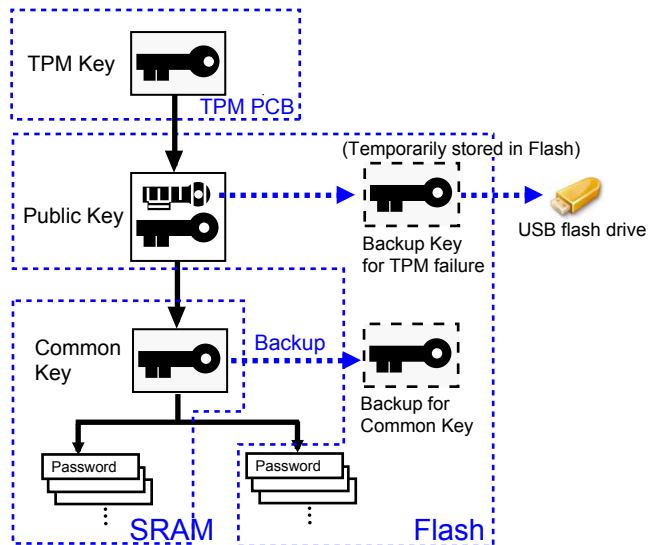
To enable this function, setting is required in Settings / Registration mode.

Management Settings > Data Management > TPM Settings -> On (default: OFF)

• 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

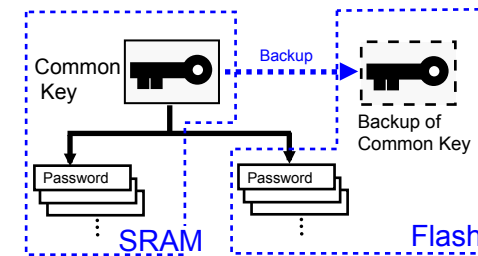


F-2-32

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 Flash. 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 Flash 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 Flash. The common key information is stored in the Flash 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 Flash 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 Flash is failed or formatted because the public key information stored in the Flash 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-2-33

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 Flash. When the TPM setting is set to OFF, the security information is protected by the common key and multiple passwords stored in SRAM and Flash. The common key information is stored in the Flash 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 Flash 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 Flash is initialized when the Flash 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".

• Before / after introduction

The setting needs to be specified in Settings / Registration mode ("TPM setting" is set OFF at the time of shipment from the factory)

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

Basically the user should perform this work

Caution:

To set "ON" for TPM setting, be sure to instruct the following points to the user.

- Be sure to backup the TPM key immediately after selecting "ON"
- Keep the password at the time of backup
- Be sure not to lose the USB memory that has saved the backup file of TPM key.

In the case of replacing the TPM PCB due to failure, it is necessary to restore the TPM key after replacement.

Unless restoration is implemented, security information (password, certificate and encryption key) cannot be used.

If restore work could not be performed due to lost of USB memory, etc., it is necessary to first execute [Initialize All Data / Settings] to enable the TPM feature again. This is due to security issue to keep the setup/register data unchanged.

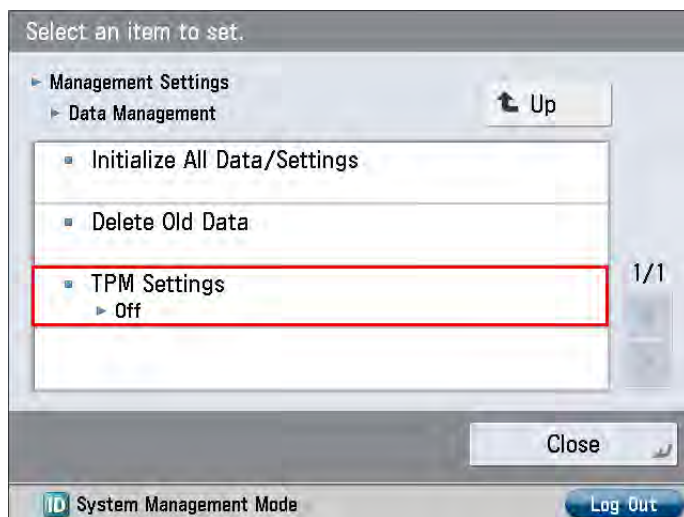
1. Enable the feature

Setting of "system management encryption number"

Recommend the user (administrator) to set up the system management encryption number in advance.

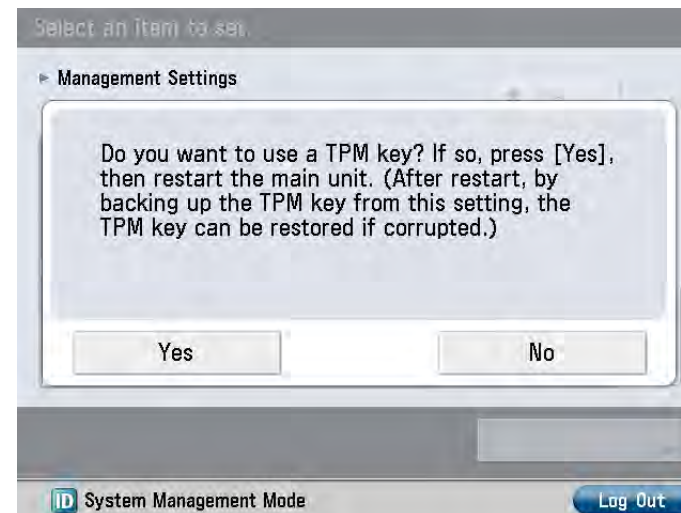
Backup of TPM key is performed after selecting "ON" for TPM settings, however, backup is available only once. Therefore, it is efficient to set the system management encryption number as a mean to avoid incidents, such as when backup file is obtained by anyone other than the administrator, etc.

1) Select the following: Management Settings > Data Management > TPM Setting; and select "ON" for TPM setting.



F-2-34

2) Click "Yes", and then reboot this machine.



F-2-35

Encryption / decoding feature of security information is enabled after rebooting the machine.

2. Backup of TPM key

Only the USB memory (supported system file: FAT32) can be used as the device for saving backup file of TPM key.

Data size of this file is several MB.



F-2-36

1) Connect the USB memory to the main unit.

There are two USB I/F (host): one at the side of the control panel and the other at the side of main controller PCB 1.

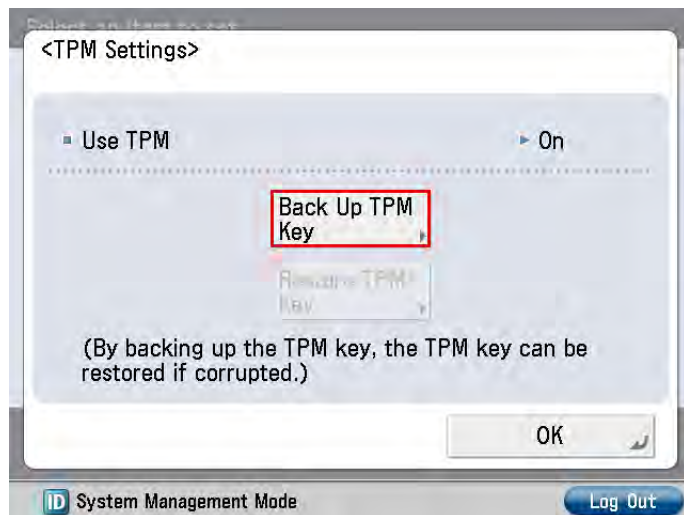
Caution:

Be sure to connect only one USB memory, otherwise, a message indicating backup failure is shown if performing backup while 2 or more USB memories are connected.

NOTE:

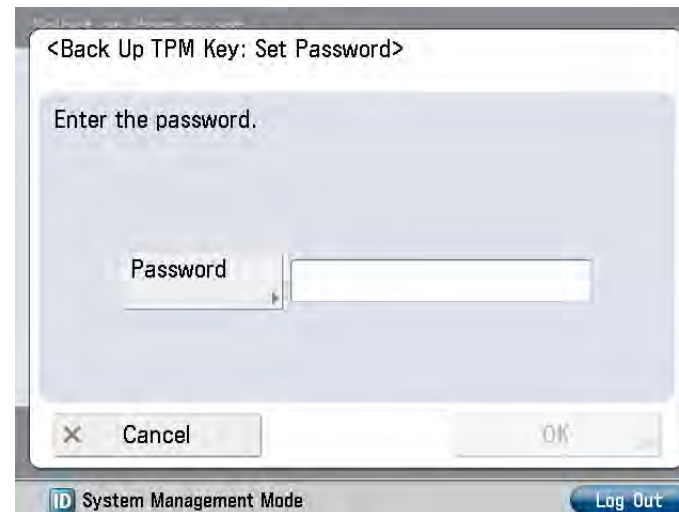
The USB memory can save multiple backup files for TPM key.

2) Select the following: Management setting > Data Management > TPM setting; and click [Backup TPM key].



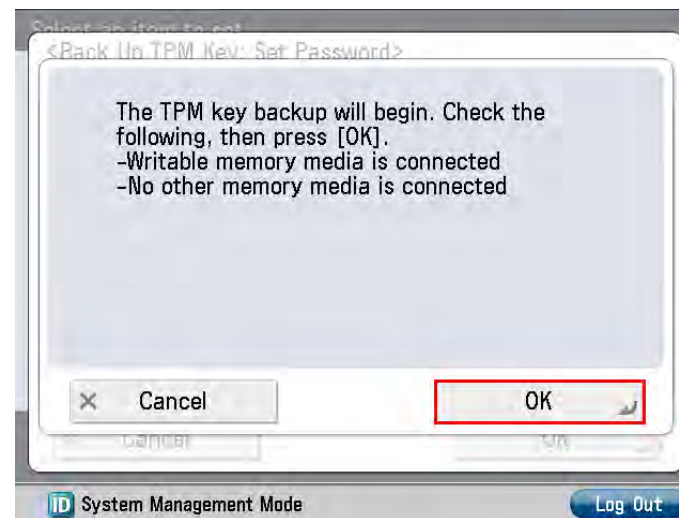
F-2-37

3) Click [Password] to enter the password (4 to 12-digit), and then enter the password to confirm the entry.



F-2-38

4) Click [OK] to start backup of TPM key.



F-2-39

5) Once the backup completion screen is shown, click [OK] and remove the USB memory.

Caution:**Cause of backup failure**

In the case of the following, a message is shown indicating backup failure and its cause. Be sure to perform appropriate remedy.

- USB memory is not connected
- 2 or more USB memories are connected
- Memory capacity of USB memory is insufficient
- Connected USB memory is read-only (writing is prohibited)
- There is no key

Caution:**Storage of USB memory**

Be sure to instruct the following points to the user.

- The USB memory should be securely kept/managed.
- Do not put the backup file of TPM key stored in the USB memory to any location accessible by general public, such as on the server.

NOTE: Backup file name of TPM key
Serial No. is automatically given as the backup file name.

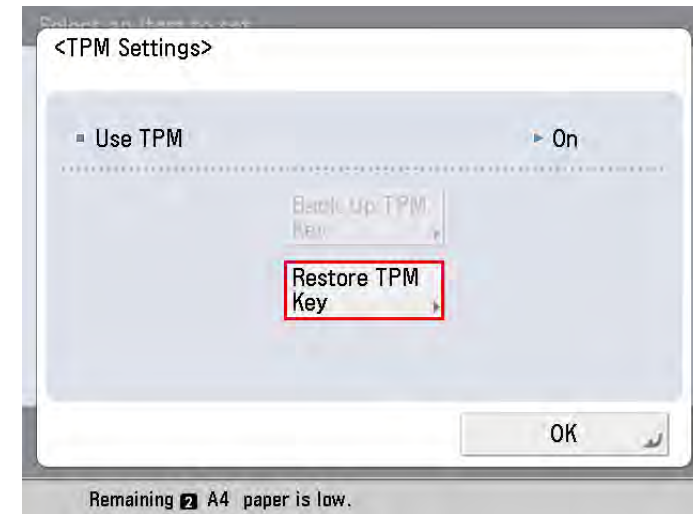
3. Restore of TPM Key

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-2-40

- 3) Enter the password that has been specified at backup work.
- 4) Once the screen to confirm restore start is shown, click [OK] to start restore.
- 5) Once the restore completion screen is shown, click [OK] and remove the USB memory, and turn OFF and then ON the main power switch.

Caution:**Cause of restore failure**

In the case of the following, a message is shown indicating restore failure and its cause.

Be sure to perform appropriate remedy.

- USB memory is not connected.
- 2 or more USB memories are connected.
- Connected USB memory is with security feature.
- There is no TPM key in the USB memory.
- The TPM key in the USB memory is not appropriate for the target machine.
- Mismatched entry password
- [Initialize All Data /Setting] is executed after obtaining backup of TPM key.
- The SRAM (main controller PCB 1) or the Flash is faulty.

Caution: Points to note 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 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]

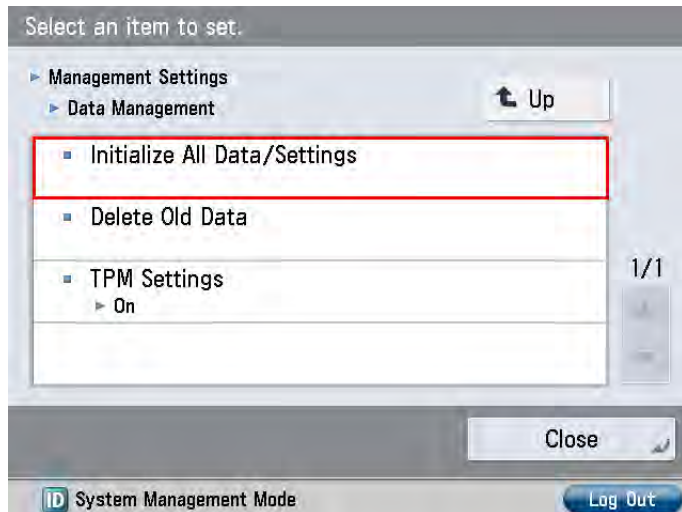
Steps of data restoration after recovery

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.

4. Disable the feature

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



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- Related Error Code

Error Code	Error title, description, remedy	
E746	Error in encryption	
0031	Engine ID error	
	Description	Hardware error
	Remedy	1. Turn OFF and then ON the power 2. Replace the TPM PCB
0032	Engine ID error	
	Description	TPM key mismatch
	Remedy	Format the system Use SST or USB memory to format the HDD, and then execute downloading of the system software. See Chapter 6 Upgrading for details. For reference, the method using USB memory is shown below: 1. Prepare USB memory in which the system software was registered
0033	Engine ID error	
	Description	Mismatched data in the TPM
	Remedy	Recovery is available if backup of the TPM has been executed 1. Connect the USB memory in which the TPM key is saved 2. Management Settings > Data Management > TPM Settings; click [Restore TPM key] 3. Enter the password that was specified at the time of backup work 4. Once the restore completion screen is displayed, click [OK] and remove the USB memory, and then turn OFF and ON the main power switch. When backup of the TPM key is not executed System format is necessary Use SST or USB memory to format the HDD, and then download the system software
0034	TPM auto recovery error	
	Description	An error occurs when clearing the HDD while the TPM setting is ON
	Remedy	The symptom is recovered by turning OFF and then ON the power

T-2-10

- Data to be encrypted / decoded(reference)

Flash model

Type	Application/feature	Security information	Saving destination
Password/encryption number	FAX Box	Password for FAX Box	Flash
	Send	Password for File destination in Address Book	Flash
		Password of LDAP server	SRAM
		Password of POP3 server	SRAM
		Password of Adobe ES Rights Management server	SRAM
		Password for address (destination) registration	SRAM
	UI	Password for Service Mode	SRAM
	Network	Password for IPP authentication	SRAM
		Password for FTP authentication	SRAM
		User name and password of Proxy authentication client	SRAM
		Login password of NetWare print server	SRAM
		Policy common key for IPSec	SRAM
		User name and password for PEAP/TTLS authentication	SRAM
	Others	Login user information of device	Flash
		Password for FAX reception	SRAM
Department management data (including administrator password)		SRAM	
Encryption key	MIB	Authentication key and encryption key for SNMPv3	SRAM
Others	User preference data	Key bundle information (password)	

T-2-11

HDD model

Type	Application/feature	Security information	Saving destination	
Password/encryption number	FAX Box	Password for FAX Box	HDD	
	Send	Send	Password for File destination in Address Book	HDD
			Password of LDAP server	SRAM
			Password of POP3 server	SRAM
			Password of Adobe ES Rights Management server	SRAM
			Password for address (destination) registration	SRAM
	UI	Password for Service Mode	SRAM	
	Network		Password for IPP authentication	SRAM
			Password for FTP authentication	SRAM
			User name and password of Proxy authentication client	SRAM
			Login password of NetWare print server	SRAM
			Policy common key for IPSec	SRAM
			User name and password for PEAP/TLS authentication	SRAM
	Others		Login user information of device	HDD
			Password for FAX reception	SRAM
			Department management data (including administrator password)	SRAM
Encryption key	MIB	Authentication key and encryption key for SNMPv3	SRAM	
Certificate/Secret Key	SSL, AMS	Device key pair	HDD	
	Signature SEND	User key pair	HDD	
Others	User preference data	Key bundle information (password)	HDD	

T-2-12

■ HDD Encryption Kit (Optional)

This option enables to generate the encryption key inside the encryption board and to encrypt the whole HDD including the system software. Performing encryption can protect the temporary image data generated at copying or printing, the registration information of the Address Book and the password information from leakage of confidential information by theft of the HDD.

Mirroring function is built in the HDD Encryption Kit - C3, however, the HDD for mirroring cannot be installed with the imageRUNNER ADVANCE C2030/C2025/C2020 series. Since mirroring is not available, the following explains the encryption function of the HDD.

Caution:

There is no need to reinstall the system in the case of installing the HDD Encryption Kit. This is because the system is not deleted but stored in the flash memory.

● HDD encryption function

Temporary image data such as scanned image or PDL data is written in the HDD of the host machine on an as-needed basis. In normal operation, only the management information is deleted after printing is complete or the file is deleted; therefore, the image or the user file information remain in the HDD as they are (without modification). In this case, HDD encryption function prevents an original image being restored from pulling out the HDD and analyzing in disk editor.

● 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.

● 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.

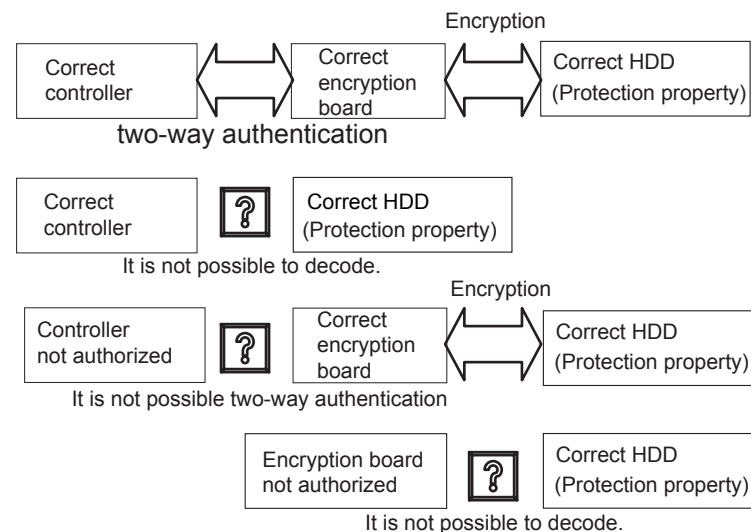
The following shows the statuses for each use case.

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



F-2-42

● Actions against Troubles - Overview

Servicing	User data	Recovery	Action
HDD replacement	cleared	Replace HDDs	1) Format the HDD
Encryption board replacement	cleared	Install HDD encryption Kit	1) Replace encryption board 2) Initialize Encryption Board 3) Format the HDD
Main controller 2 replacement (SRAM)	cleared	Clear the key for HDD data encryption kit	1) Initialize the encryption board 2) Format the HDD
Main controller 1 replacement	not cleared	N/A	N/A

Servicing	User data	Recovery	Action
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-2-13

- 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 .
	Failure in Encryption Board	Error in recognition of the encryption board		
	Device Error	Failure in the encryption board		

T-2-14

Service Tasks

■ Actions at Parts Replacement

Reference to the section 5.

■ Periodically Replaced Parts

None.

■ Consumable Parts

None.

■ Service Notes

None.

Laser Exposure System

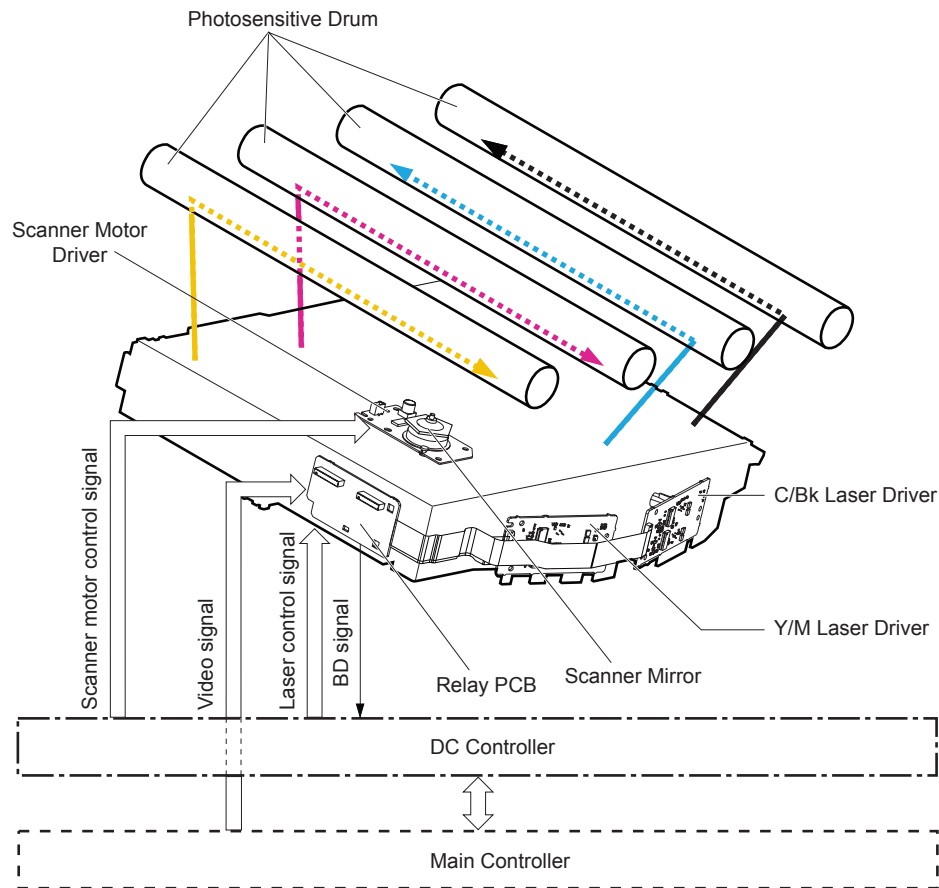
Overview

Overview

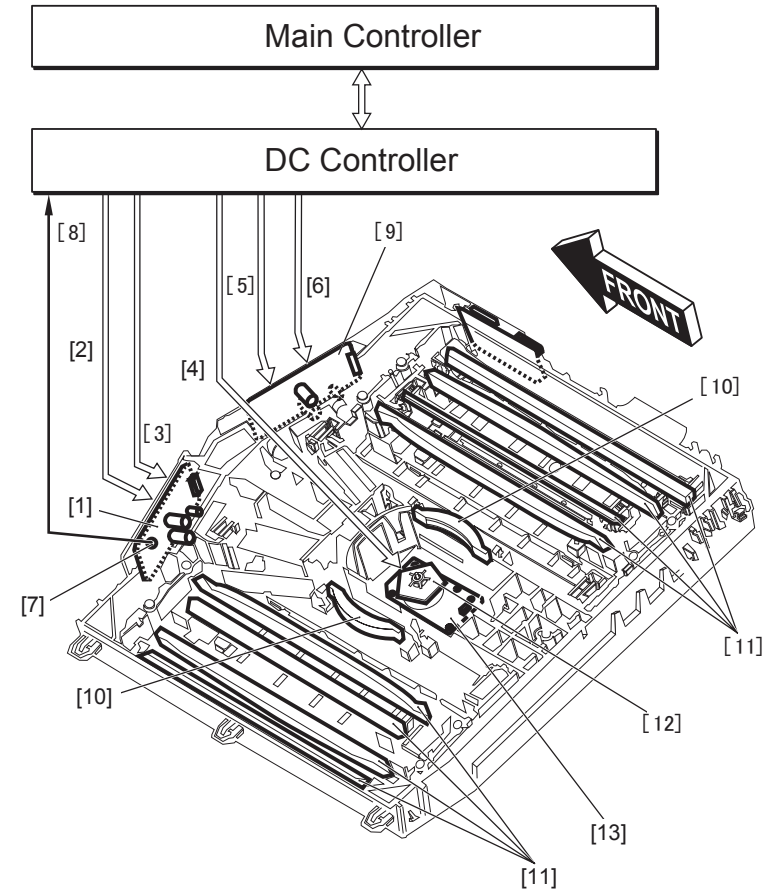
Laser exposure system forms the electrostatic latent image on the photosensitive drum by the laser exposure.

This system is composed of the laser assembly and the scanner motor assembly that are unified as the laser scanner unit.

In this machine, 1-polygon 4-laser method is adopted for the purpose of downsizing.



F-2-43



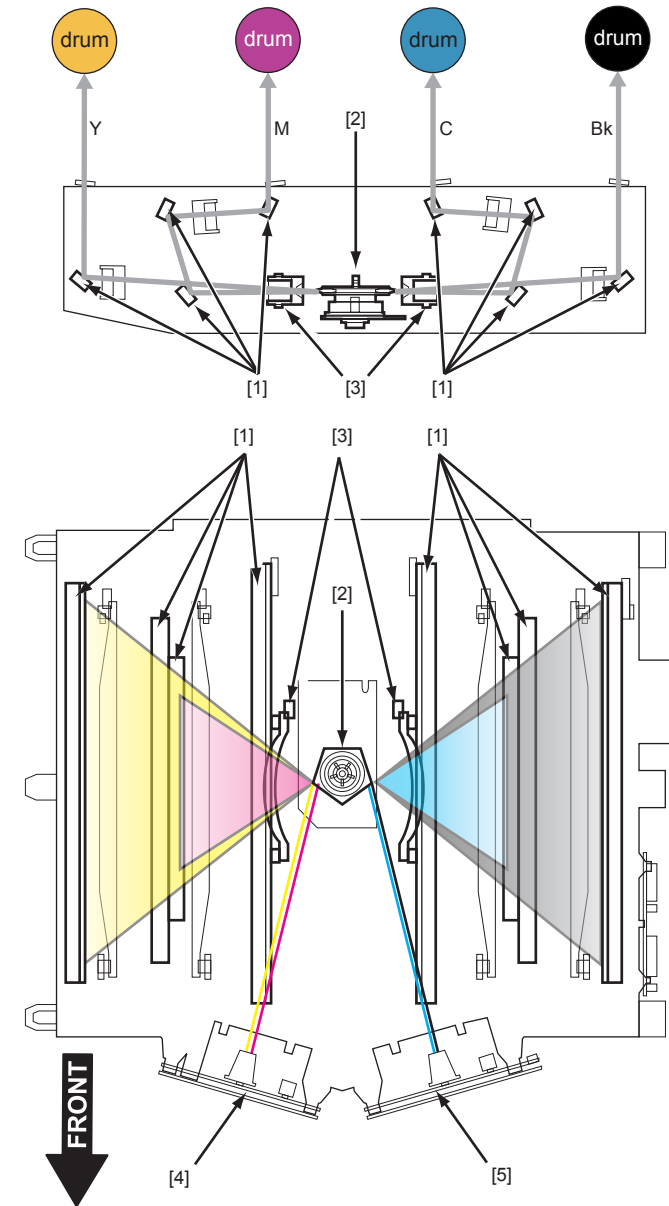
F-2-44

- | | |
|----------------------------------|---------------------------|
| [1] C/Bk Laser Driver | [8] BD signal |
| [2] C/Bk video signal | [9] Y/M Laser Driver |
| [3] C/Bk laser control signal | [10] Imaging Lens |
| [4] Scanner motor control signal | [11] Reflection Mirror |
| [5] Y/M video signal | [12] Polygon Mirrors |
| [6] Y/M laser control signal | [13] Scanner Motor Driver |
| [7] BD Circuit | |

■ 1-Polygon 4-Laser Method

This method uses 1 scanner motor (polygon motor) and 4 laser diodes to execute laser scanning. This method allows to emit the 4 lasers on the multi-facet mirror on one scanner motor contributing to space-saving.

Following is the outline of the laser scanner unit.



- | | |
|-----------------------|-----------------------|
| [1] Reflection Mirror | [4] Y/M Laser Driver |
| [2] Polygon Mirror | [5] C/Bk Laser Driver |
| [3] Imaging Lens | |

F-2-45

■ Specification

Item	Description
Wavelength	780 to 800nm
Laser type	Red color laser (non-visible light)
Laser output	7mW
Number of laser scanner unit	1
Number of laser light	imageRUNNER ADVANCE C2030/C2025/C2020 : 1 beam for each color
Resolution	600dpi/1200dpi
Motor type	Brushless motor
Number of motor rotation	imageRUNNER ADVANCE C2030/C2025/C2020 Approx.38268rpm(1/1-speed,1/2-speed)
Number of scanner mirror facet	5 facet (phi 40)

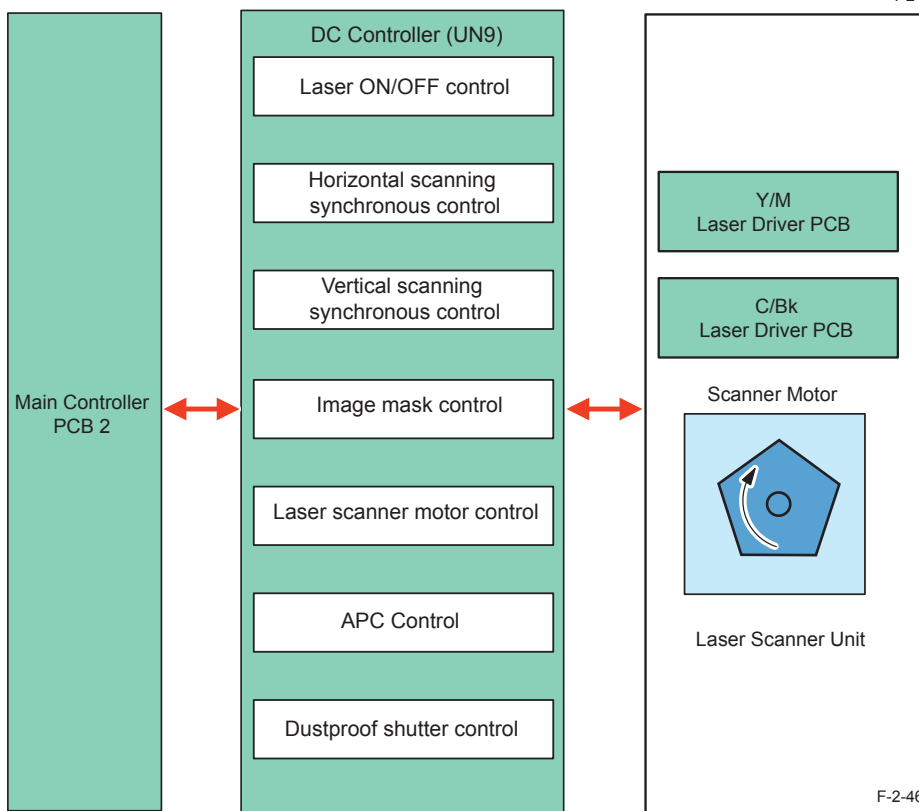
T-2-15

Various Controls

Overview

Item	Operation description
Laser ON / OFF control	Laser light is turned ON / OFF according to the combination of laser control signal
Horizontal scanning synchronous control	To align the writing start position in horizontal scanning direction.
Vertical scanning synchronous control	To align the writing start position in vertical scanning direction.
Image Mask Control	This control prevents the laser beam from being emitted in non-image area to avoid the secondary transfer outer roller from getting dirt.
Laser Scanner Motor Control	To rotate the scanner mirror by the specified speed.
APC control	To make the laser light per 1 line consistent amount
BD correction control	To correct the gap BD timing gap due to the angle variation of Scanner Mirror.
Dustproof shutter control	To prevent the laser light from being emitted to the machine inside.

T-2-16



F-2-46

Laser ON/OFF control

Purpose

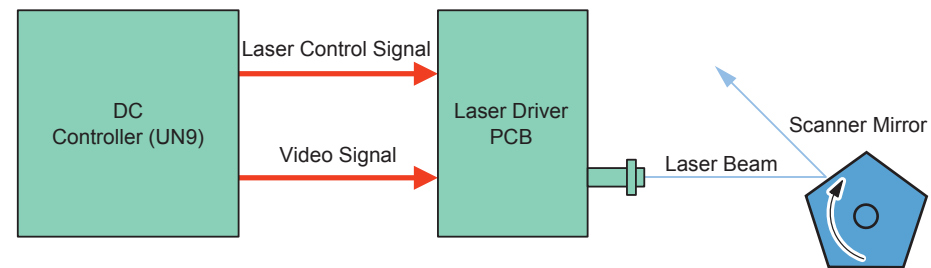
Laser light is turned ON / OFF according to the combination of laser control signal.

Execution timing

After the power ON

Control detail

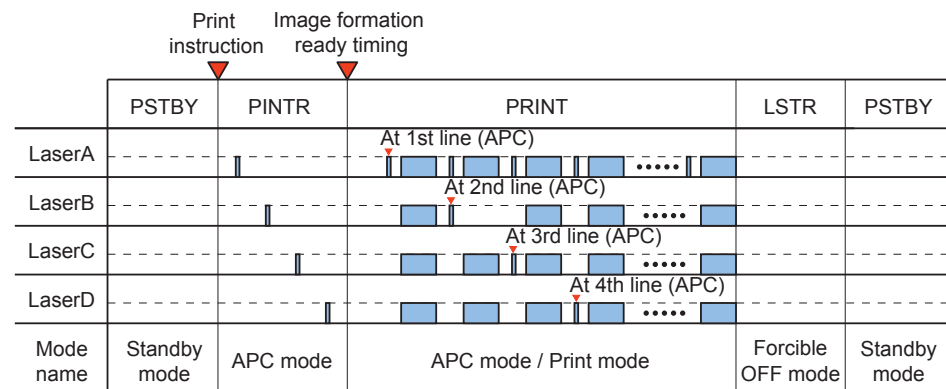
DC Controller switches the 4 modes (forcible OFF mode, APC mode, Print mode and standby mode) according to the laser control signal.



F-2-47

Mode	Laser status	Remark
Forcible OFF mode	OFF	Light intensity setting decided on APC is cleared.
APC mode	ON	Laser light intensity adjustment
Print mode	ON / OFF	Laser is emitted according to the video signal.
Standby mode	OFF	Host machine is in standby status.

T-2-17



F-2-48

■ Horizontal scanning synchronous control

● Purpose

To align the writing start position in horizontal scanning direction.

● Execution timing

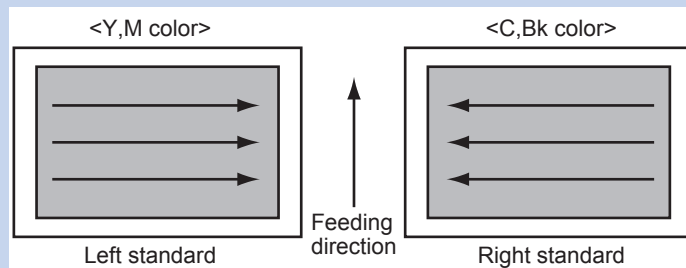
Per 1 line

● Control detail

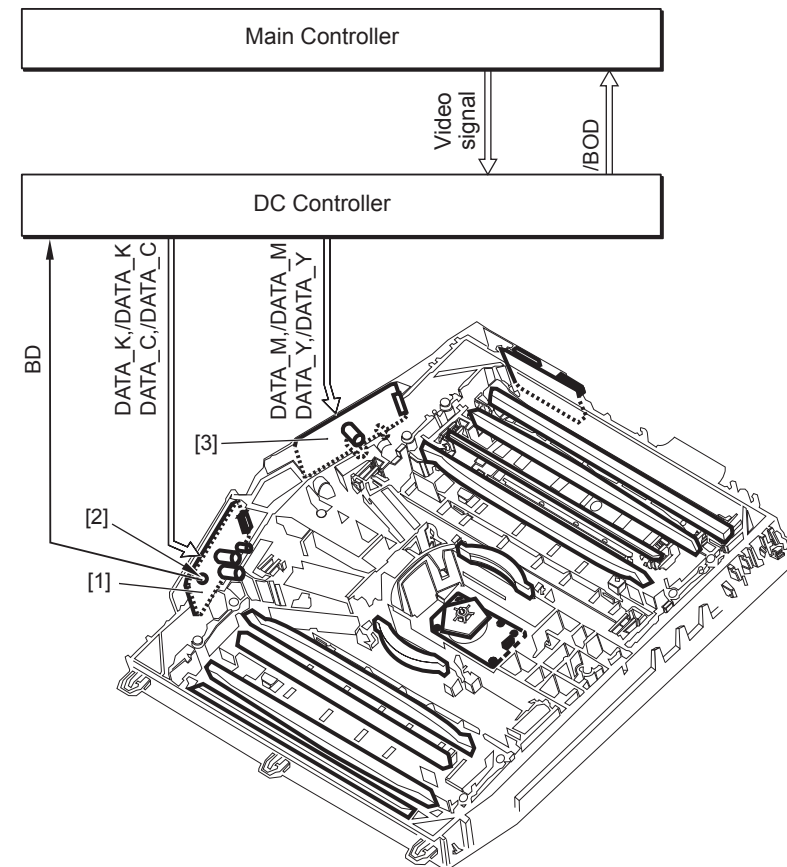
- 1) DC controller forcibly emits the laser diode of Bk laser driver circuit in non-image area.
- 2) There is the BD circuit on the scanning light path of the laser beam and laser beam is emitted to the BD circuit and then, is sent to the DC controller as a parallel synchronous signal (/BD1).
- 3) DC controller sends /BD1 signal as a horizontal scanning synchronous signal (/BD0) to the main controller.
- 4) When the main controller inputs /BD0 signal, the video signal per 1 line of each color (DATA_Y, DATA_M, DATA_C, DATA_K) is outputted to the DC controller after the specified time. According to this, each laser driver emits the laser beam from the specified position per 1 line.

NOTE:

- Since /BD signal is the horizontal scanning synchronous signal of Bk line, Bk color is used as a standard of horizontal scanning for each color.
- Horizontal scanning direction of this machine of left standard (left to right) for Y color and M color, and right standard (right to left) for C color and Bk color.



F-2-49



- [1] C/Bk Laser Driver
- [2] BD Sensor
- [3] Y/M Laser Driver

F-2-50

■ Vertical Scanning Synchronous Control

● Purpose

This is to align the writing start position in vertical scanning direction.

● Execution timing

Per color, Per printing

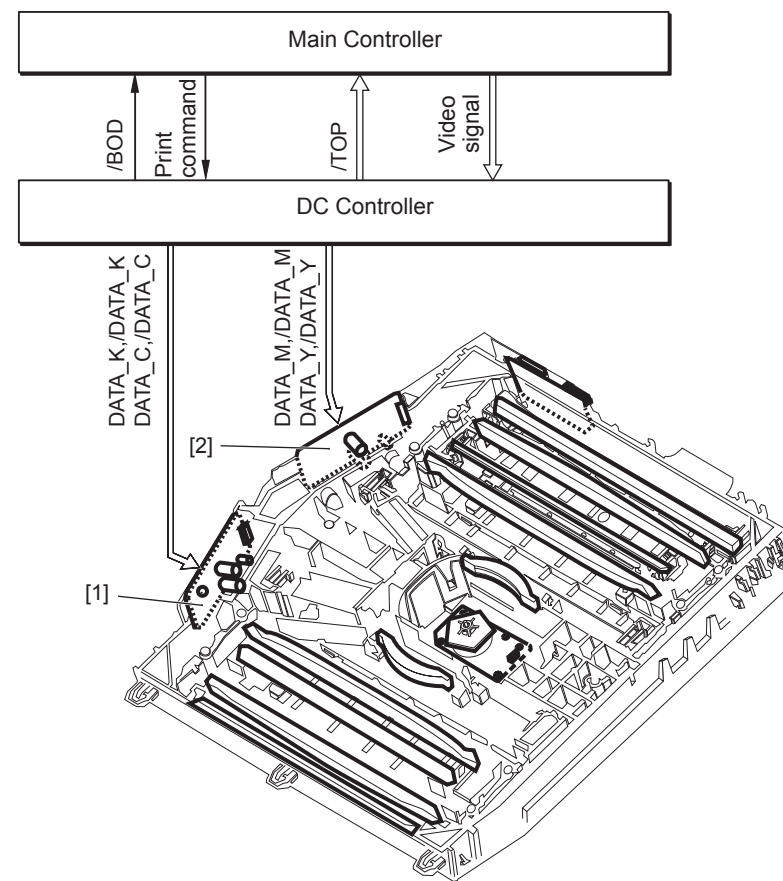
● Control detail

- 1) When the DC controller receives a print command, it creates the vertical synchronous signal (/TOP) based on the inner timer and sends the signal to the main controller.
- 2) After receiving /TOP signal, the main controller counts the horizontal scanning synchronous signal (/BD0) and outputs the video signal for 1 page of each color (DATA_Y, DATA_M, DATA_C, DATA_K) to the DC controller in the specified number of times of horizontal scanning.

As a result, the laser driver of each color emits the laser beam from the specified position for 1 page.

NOTE :

If the process speed is decelerated due to the print mode, interval of TOP signal in continuous printing gets longer according to the slowdown level.



- [1] C/Bk Laser Driver
[2] Y/M Laser Driver

F-2-51

■ Image Mask Control

● Purpose

This control prevents the laser beam from being emitted in non-image area to avoid the secondary transfer outer roller from getting dirt.

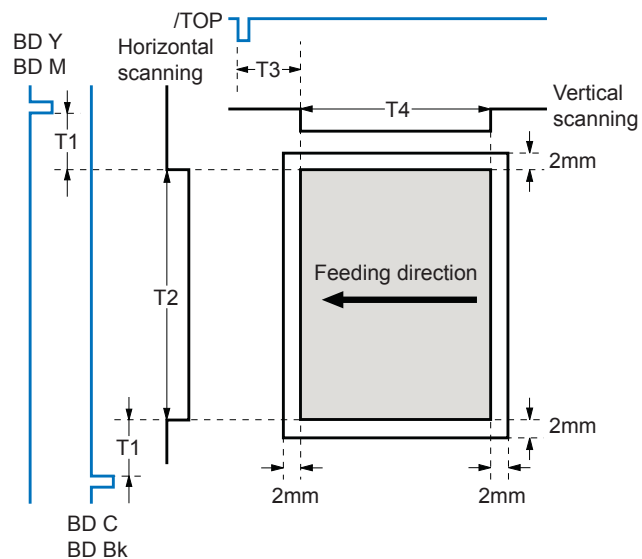
Image mask control is executed for horizontal scanning and vertical scanning respectively.


● Execution timing

At Power ON, Per printing

Type	Control contents	Mask width
Horizontal scanning	Based on the paper size specified by a user, image mask is executed in horizontal scanning direction (BD signal of each color is used as a standard.).	2mm
Vertical scanning	Based on the paper size specified by a user, image mask is executed in vertical scanning direction (TOP signal is used as a standard.).	2mm

T-2-18



-  is image mask disable area (image written available) .
- T1、T2、T4 are differ by paper size.
- T3 is differ by feeding control.

F-2-52

■ Laser scanner motor control

● Purpose

This is to rotate the scanner mirror by the specified speed.

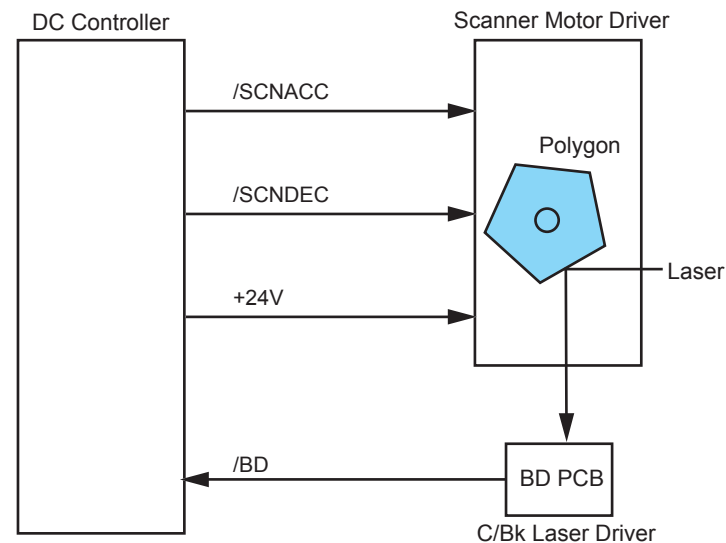
● Execution timing

At power ON, Per printing

● Control detail

DC controller outputs the acceleration signal (/SCNACC) and the deceleration signal (/SCNDEC) to the scanner motor to turn the polygon mirror. The rotation speed of the scanner motor is detected by the input timing of BD signal and the DC controller controls the rotation speed of the scanner motor based on the input timing of the BD signal.

If the process speed is changed due to the print mode, the rotation speed of the scanner motor is also changed according to the process speed.



F-2-53

■ APC(Auto Power Control) Control

● Purpose

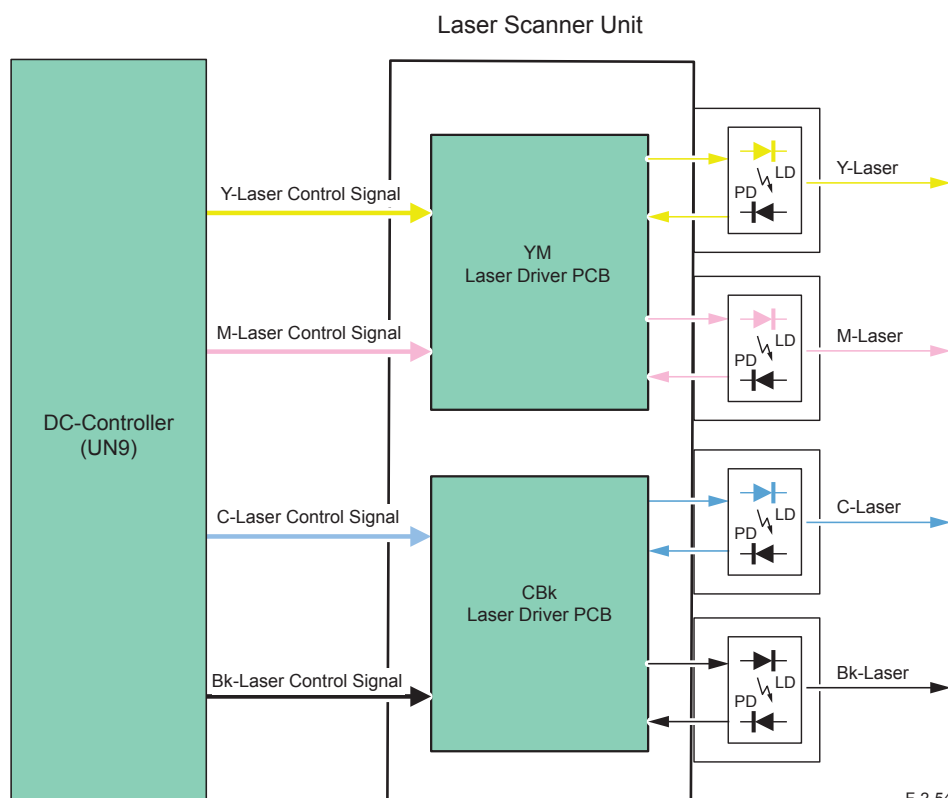
This is to make the laser light for 1 line consistent amount.

● Execution timing

Per 1 line. (before print writing)

● Control detail

- 1)DC Controller outputs the laser control signal to the Laser Driver IC on the Laser Driver PCB.
- 2)APC mode is specified to the Laser Driver IC and it forcibly emits the laser diode of each color. At the same time, each laser driver IC monitors the laser diode(LD) on the photo diode (PD) and adjusts the output of laser diode until the light intensity becomes consistent amount.



F-2-54

■ Dustproof shutter control

● Purpose

This is to prevent the residue toner from sticking to the dust-prevention glass. Or to prevent the laser light from emitting to the machine inside when the front cover / right cover is opened.

● Execution timing

After Power ON

● Execution time

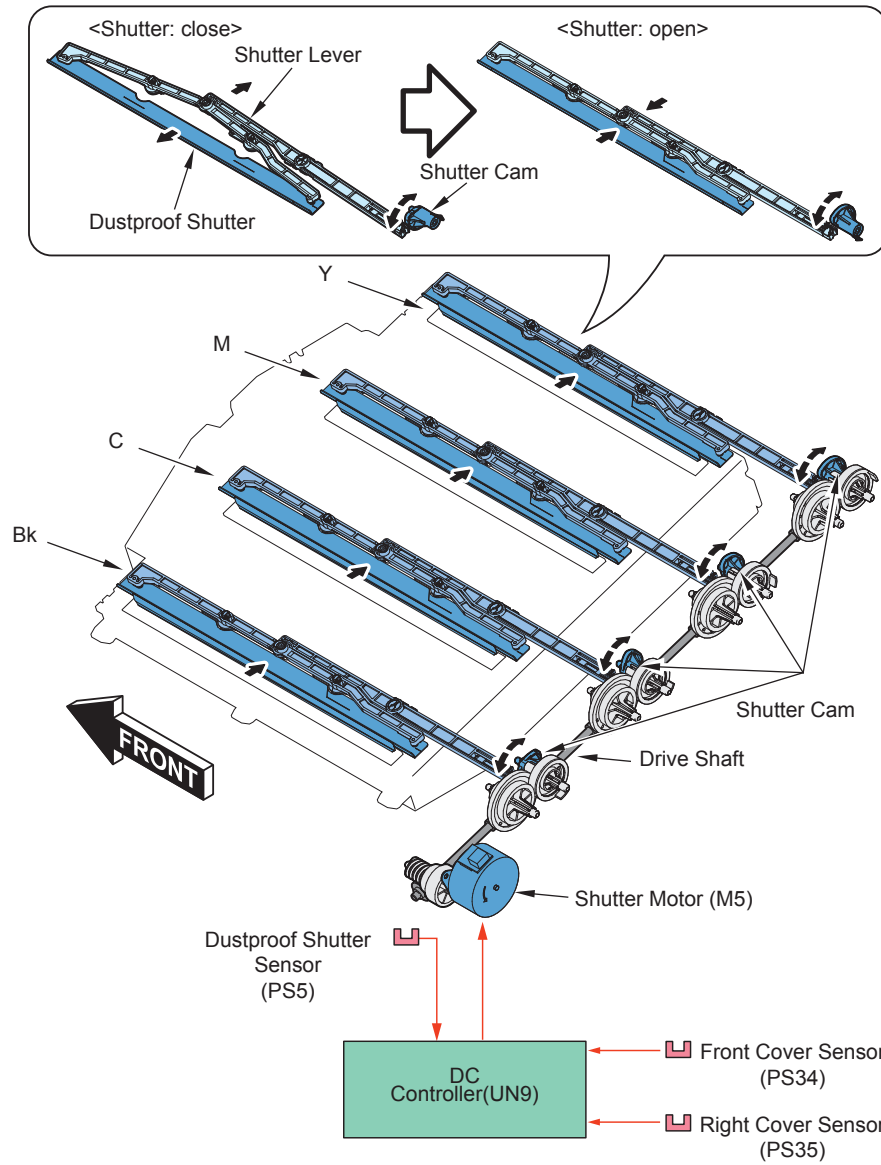
Approx. 3s (at power-ON), approx. 1s (when scanner motor is started or cover is opened)

● Control detail

While the Laser Scanner Motor is operating, the Laser Shutter is opened. During other period, the laser shutter is closed.

Also, the Front Cover Sensor (PS34) or the Right Cover Sensor (PS35) works together and it stops the output signal of laser driver. At the same time, if the Front Cover or Right Cover is opened, the Shutter is closed and the laser light path is forcibly blocked.

Those operations are controlled by the DC Controller.



F-2-55

● Servicing

■ Periodically Replaced Parts

There is no part that required periodical replacement.

■ Consumable Parts

There is no consumable part.

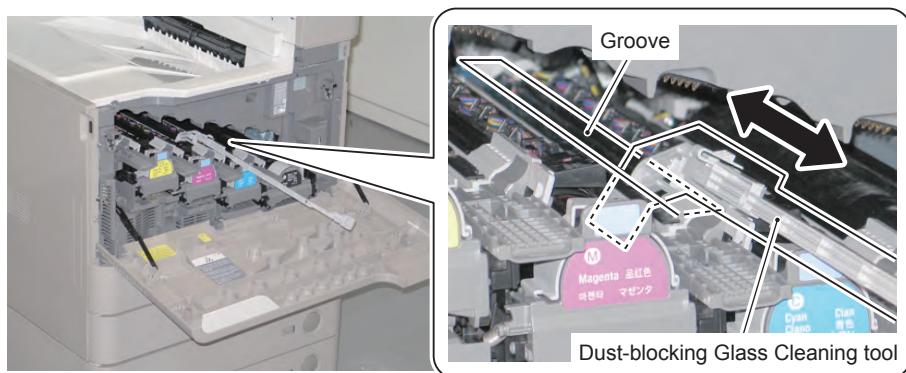
■ List of Periodical Service Works

Part name: Dustproof Glass

Estimated life: every 50000 sheets

Actions:

1. Execute the following service mode to open the Dustproof Shutter.
COPIER > FUNCTION > MISC-P > SHT-OPEN
2. Pull out the Drum Unit.
3. Clean the glass with the Dustproof Glass cleaning tool stored at back of the Front Cover.



F-2-56

■ Actions at Parts Replacement

No.

Image Formation System

Overview

Overview

Image formation system of this machine uses the non-magnetic 2-component AC developing method for developing and the intermediate transfer method for transferring to form toner images.

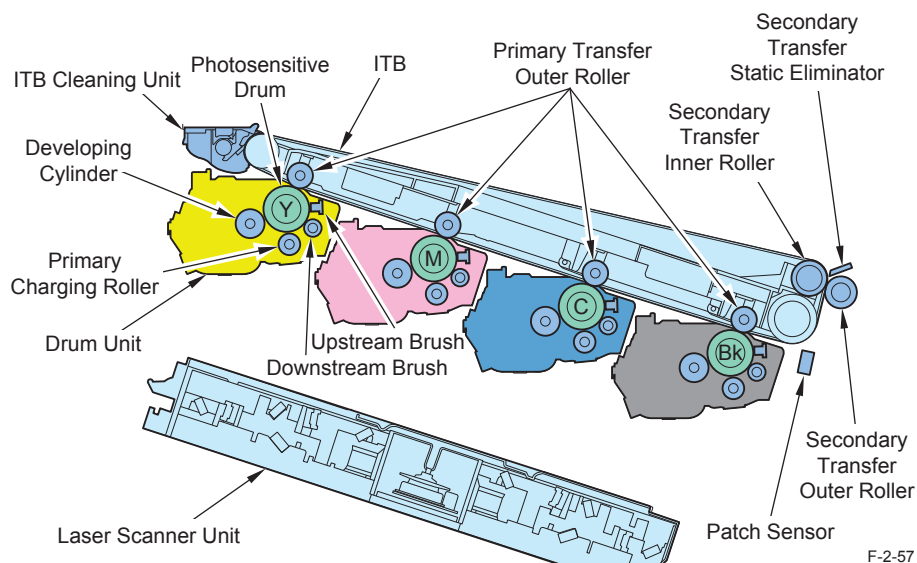
To increase life of the Image Formation Unit, this machine uses the primary transfer disengagement method.

This machine accomplished features such as space-saving and low initial cost while maintaining the basic specifications of iRC3380 / 2880 series. To enable such features, there is no Drum Cleaner with this machine and toner is fed to the upward direction.

The following shows major improved points compared to the previous iRC3880 / 2880 series:

Feature:	Improved points:
Low initial cost	Self-manufacturing of the parts. Less parts
Space-saving	Upward feeding of toner and the machine is designed without a Drum Cleaner
Reduced downtime	Adjustment of execution time and timing for each control
Serviceless	The ITB and the Drum Unit can be replaced with screw-less operation

T-2-19



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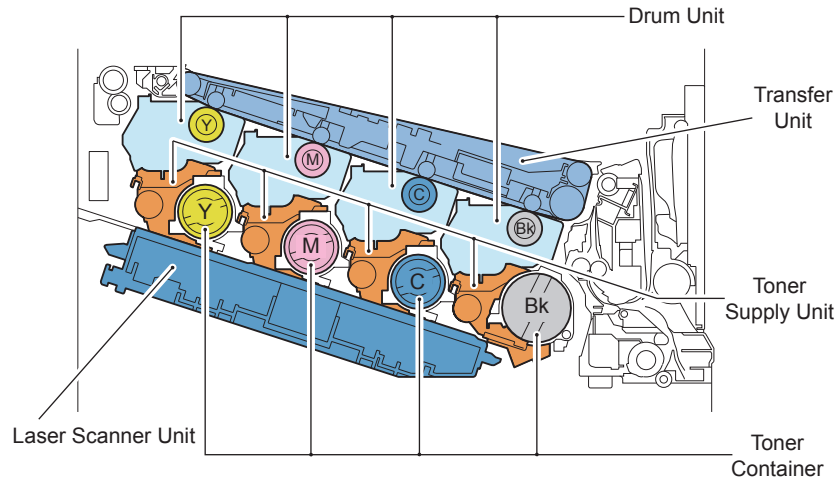
Specifications

Item		Function/Method
Photosensitive Drum	Material	OPC
	Drum diameter	30mm dia.
	Cleaning	Cleaner-less method
	Process speed	imageRUNNER ADVANCE C2030 = 135mm/s imageRUNNER ADVANCE C2020 = 135mm/s
Developing Assembly	Drum Heater	None
	Developing Cylinder	1 cylinder (single-developing method)
	Developing method	Dry, 2-component AC developing
Primary charging	Toner	Non-magnetic negative toner
	Toner level detection	Yes
Primary charging	Charging method	Roller charging
	Cleaning	Engagement Sheet
Toner Container	Toner Container detection	Yes
	Replacement of Toner Container (during continuous print)	Disabled
Transfer method		Intermediate transfer (ITB)
ITB Unit	Circumferential length	791mm
	Cleaning	Cleaning Blade
	Belt displacement correction	Yes
Primary transfer	Transfer method	Transfer Roller
	Disengagement mechanism	Yes
Secondary transfer	Transfer method	Transfer Roller
	Disengagement mechanism	None
	Cleaning	Static cleaning
Separation method		Curvature separation + Static Eliminator
Patch Sensor		Yes

T-2-20

■ Parts Configuration

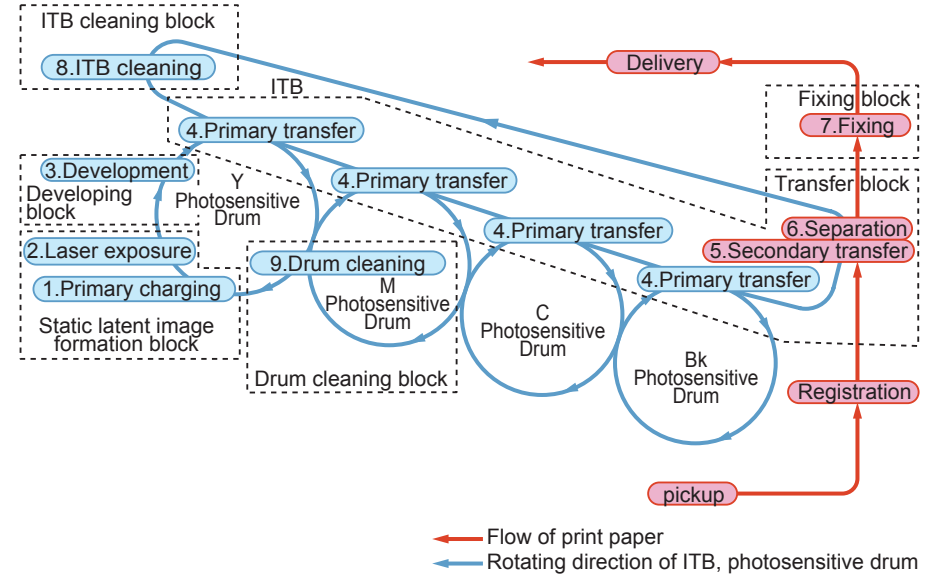
● Major Parts



F-2-58

■ Print Process

● Overview



F-2-59

Static latent image formation block	1	Primary charging	The surface of the Photosensitive Drum is charged to make a uniform negative potential.
	2	Laser exposure	Emission of the laser light forms a static latent image on the surface of the Photosensitive Drum. (Image exposure: laser exposed area becomes image area)
Developing block	3	Developing	With the non-magnetic, 2-component AC developing method, toner that has been negatively charged by the Developing Cylinder is attached to the Photosensitive Drum.
Transfer block	4	Primary transfer	Toner on the surface of the Photosensitive Drum is transferred to the ITB by applying positive potential from back side of the ITB.
	5	Secondary transfer	Toner on the ITB is transferred to the paper by applying positive potential to the Secondary Transfer Outer Roller.
	6	Separation	With the curvature separation method, the paper is separated from the ITB. In the case of thin paper which has low elastic force, the Static Eliminator reduces potential on the back side of paper to make the thin paper to be separated easily.
Fixing block	7	Fixing	The toner on the paper is fixed on the paper by heat and pressure.
ITB cleaning block	8	ITB cleaning	The Cleaning Blade removes the residual toner attached on the ITB.
Drum cleaning block	9	Drum cleaning	As well as removing potential on the Drum by the Upstream Brush and the Downstream Brush, character of residual toner on the Drum is adjusted so that residual toner on the Drum is collected in the Developing Assembly.

T-2-21

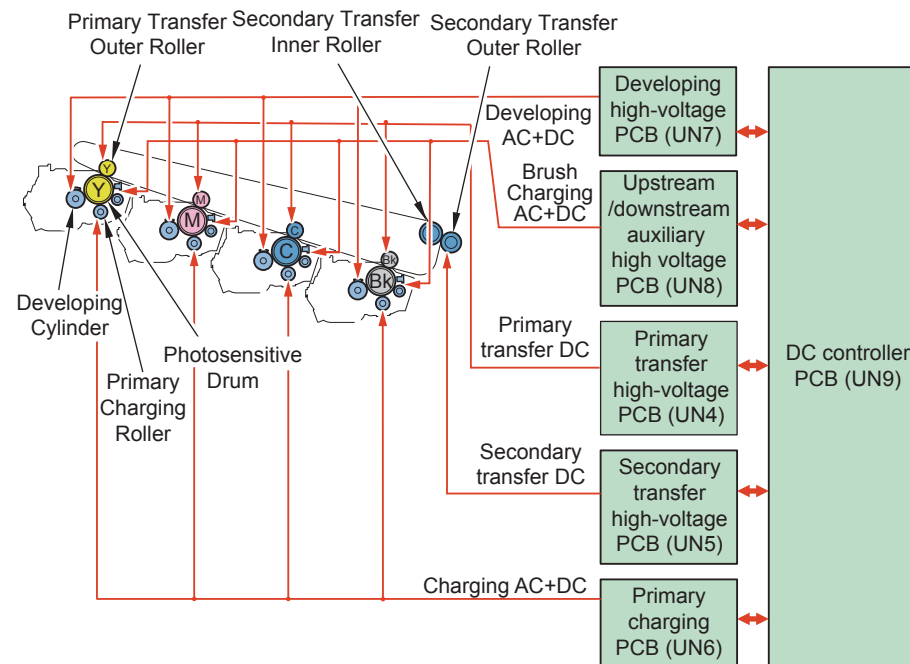
Bias Types

The following 9 types of bias are used with this machine.

Bias name	Bias types	Bias value (Reference value)	Application location
Primary charging bias (DC)	DC	Approx. -600V	Primary Charging Roller
Primary charging bias (AC)	AC	Approx. 1.5kVpp	
Developing bias (DC)	DC	Approx. -450V	Developing Cylinder
Developing bias (AC)	AC	Approx. 1.7kVpp	
Upstream Brush bias (DC)	DC	Approx. 200V	Upstream Brush
Upstream Brush bias (AC)	AC	Approx. 400Vpp	
Downstream Brush bias (DC)	DC	Approx. -1000V	Downstream Brush
Primary transfer bias	DC	Approx. 300V	Primary Transfer Roller
Secondary transfer bias	DC	Approx. 2.5kV	Secondary Transfer Outer Roller

T-2-22

The abovementioned biases are generated by the 5 High Voltage PCBs and are also supplied to the loads used in printing process.



F-2-60

Controls

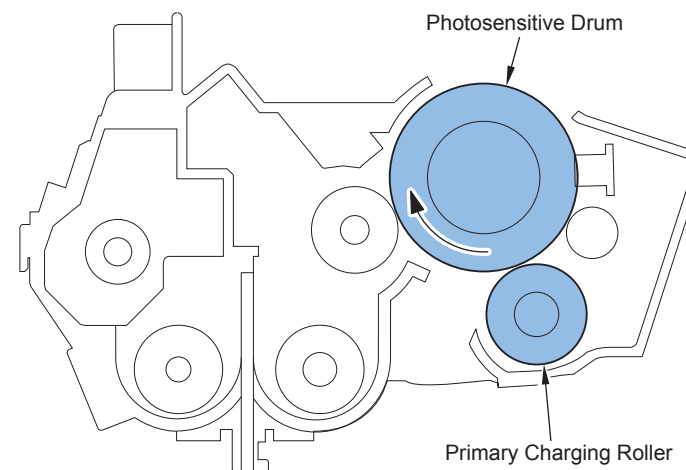
Overview

Primary charging		Image stabilization control	
	Primary charging bias control		D-max control
	Discharge current control		PASCAL control
			D-half control
			ARCDAT control
			Color displacement correction control
			ATR control
			ATVC control
Drum Unit (Developing/Drum)		Toner supply	
	Developing bias control		Toner Cap opening
	Drum Unit detection		Toner supply control/Toner level detection
	Drum Unit Life Detection		
	Drum phase control		
Transfer/Separation		Waste toner feeding	
	Primary Transfer Roller disengagement control		Waste toner full level detection
	Primary transfer bias control		Waste Toner Container detection
	Secondary transfer bias control		
	ITB displacement correction control		
	ITB cleaning control		
	Secondary Transfer Outer Roller cleaning control		
Drum cleaning			
	Auxiliary Brush control		
	Brush discharge control		

Primary Charging

Overview

This machine uses the roller charging method for primary charging.



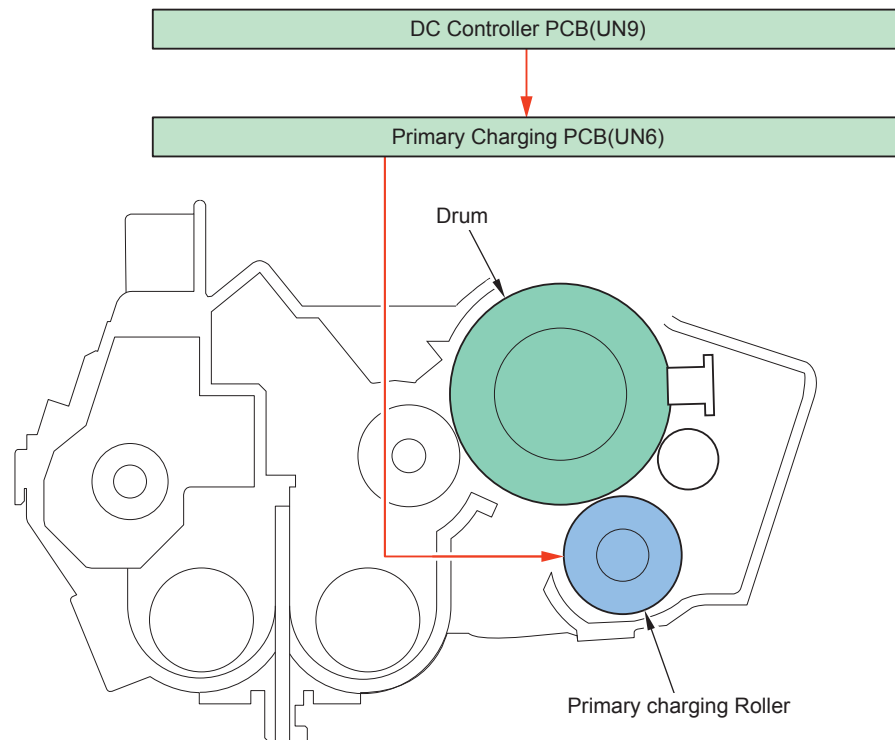
F-2-61

• Primary Charging Bias Control

The surface of the Photosensitive Drum is charged to make a uniform negative potential. The primary charging bias (AC + DC negative), which has been generated by the Primary Charging PCB (UN6), is applied to the Primary Charging Roller.

The primary charging bias value is determined by the following conditions on the DC Controller PCB:

- Environment (humidity detected by the Environment Sensor)
- Print speed
- Life of the Photosensitive Drum



F-2-62

• Discharge Current Control/Simple Discharge Current Control

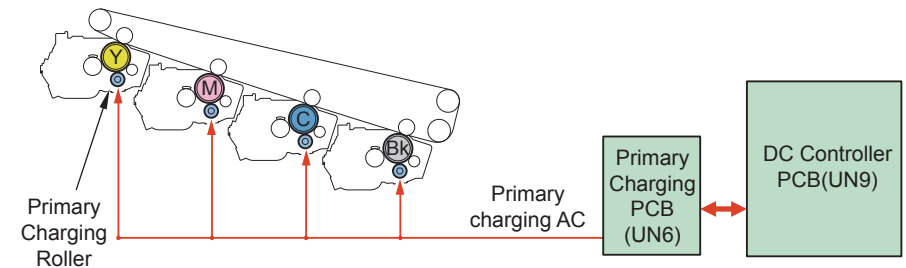
Optimal primary charging bias is applied according to the environment change or use of the Photosensitive Drum.

	Discharge current control	Simple discharge current control
Control timing	1) At power-on 2) When replacing the Drum Unit 3) At initial rotation after printing of 500 sheets	1) Initial rotation at recovery from sleep mode 2) Paper interval when 2 or more sheets are printed continuously
Detection description	Current value of the primary charging AC bias is detected.	AC current value that was obtained by executing sampling for 16 times at 20m seconds intervals.
Execution time	within 3 seconds	within 1 second

T-2-23

Operation of the host machine

- 1) Current value of the primary charging AC bias is detected.
- 2) Optimal current value of the primary charging is determined by the result of Environment Sensor (UN45) and the current value.
- 3) The primary charging AC bias is determined that is to be applied to the Primary Charging Roller.



F-2-63

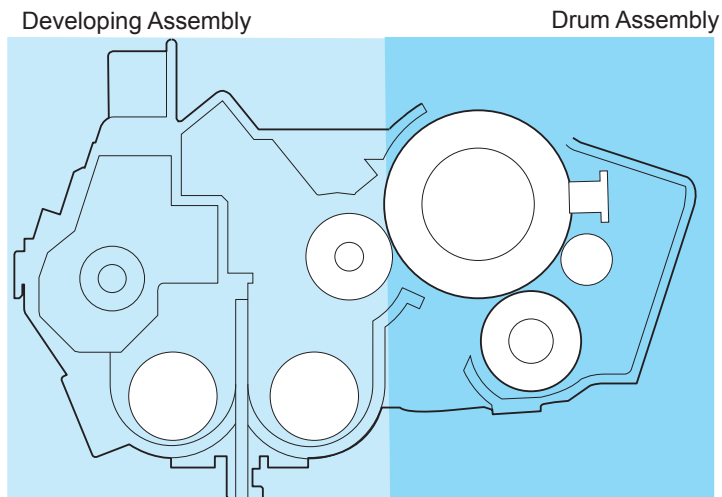
Related error codes

- E065-0000 Detection error in abnormal Y charging AC current value
- E065-0001 Detection error in abnormal M charging AC current value
- E065-0002 Detection error in abnormal C charging AC current value
- E065-0003 Detection error in abnormal Bk charging AC current value

■ Drum Unit (Developing/Drum)

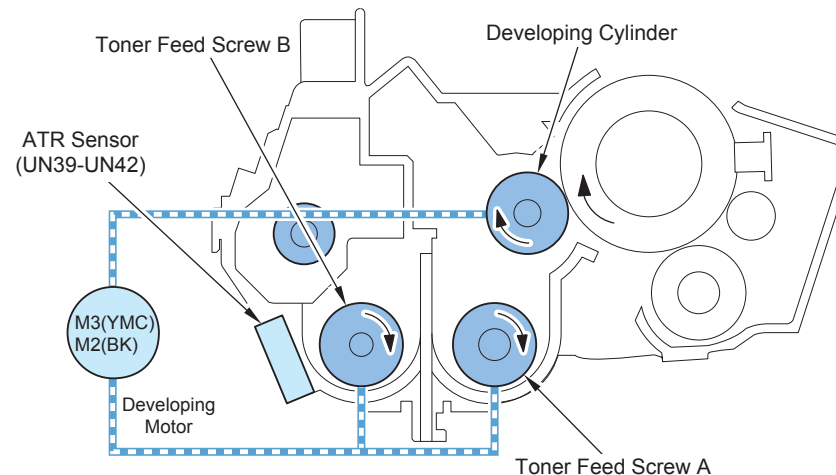
● Drum Unit Overview

The Drum Unit consists of the Developing Assembly and the Drum Assembly.



F-2-64

● Developing Overview/ Drive Configuration



F-2-65

Parts name	Function
Developing Assembly	To develop toner fed from the Hopper Unit to the Photosensitive Drum.
Developing Cylinder	To develop toner in the Developing Assembly on the Photosensitive Drum.
Toner Feed Screw A/B	Developer (toner and carrier) in the Toner Container is stirred and is supplied to the Developing Cylinder.
Toner Feed Screw C	Toner is supplied from the Toner Container to the Developing Assembly.

T-2-24

Parts name	Function	
M2	ITB Motor	To rotate the Bk Developing Cylinder and the Toner Feed Screw.
M3	Developing Motor	To rotate the Y/M/C Developing Cylinder and the Toner Feed Screw.
UN39 to UN42	ATR Sensor	To detect the ratio of developer (toner + carrier) in the Developing Assembly.

T-2-25

• Developing bias control

A toner image is formed on the Photosensitive Drum by attaching toner to the Developing Cylinder.

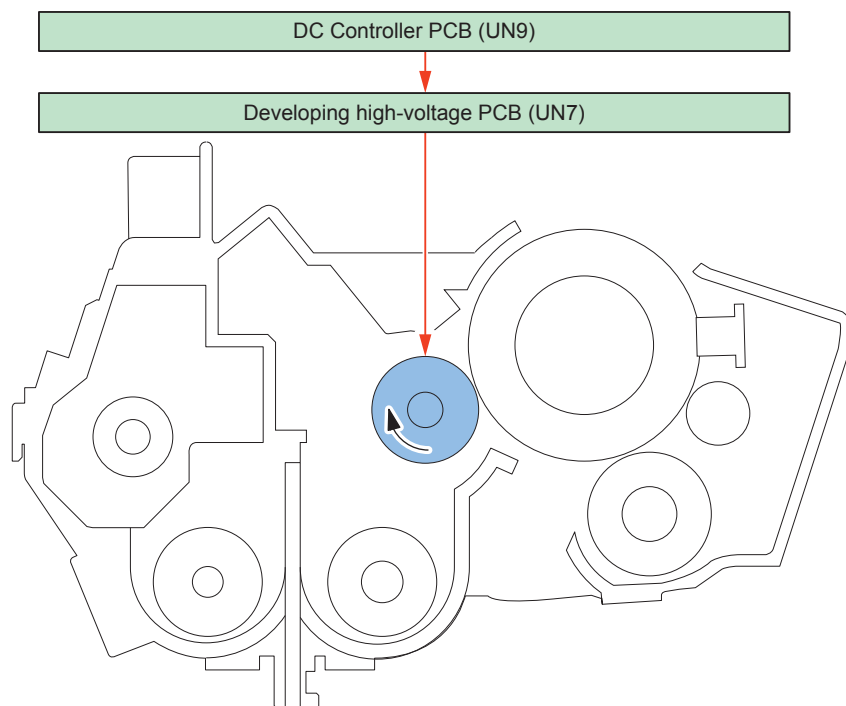
Control description

The developing bias (AC, DC negative), which has been generated on the Develop High Voltage PCB (UN9), is applied to the Developing Cylinder.

- Developing DC bias: The bias to generate potential difference with the Photosensitive Drum.

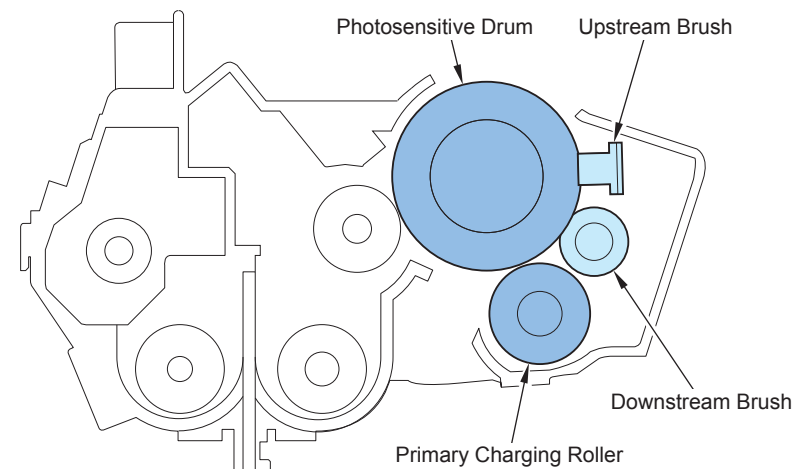
The bias value is determined based on the Environment Sensor (UN45).

- Developing AC bias: The bias to improve image quality.



F-2-66

• Drum Overview

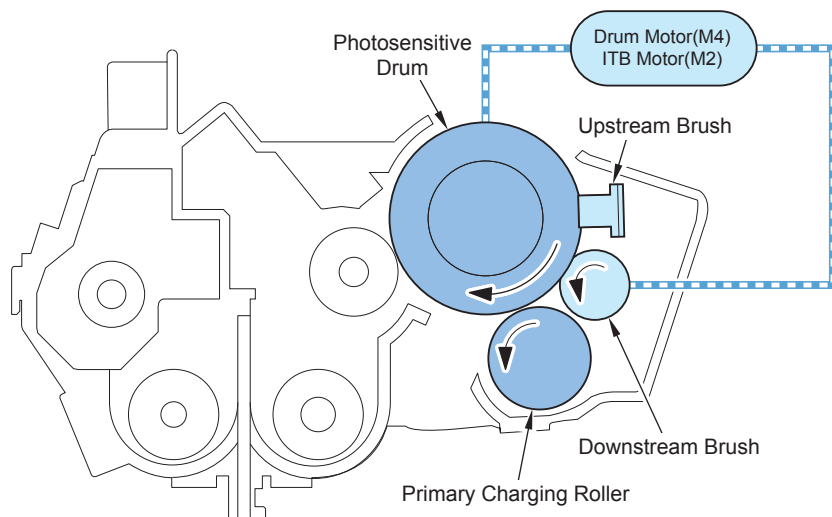


F-2-67

Parts name	Function
Drum Assembly	After a static latent image has been formed on the Photosensitive Drum, a toner image is formed with the toner from the Developing Cylinder.
Photosensitive Drum	A toner image is formed on the Photosensitive Drum.
Primary Charging Roller	The surface of the Photosensitive Drum is charged to make a uniform potential.
Upstream Brush	Previous latent image is removed by neutralizing electric charge on the Photosensitive Drum.
Downstream Brush	The Photosensitive Drum is negatively charged supplementarily. The residual toner is negatively charged (so that the residual toner is easily collected in the Developing Assembly).

T-2-26

• Drive Configuration



F-2-68

Parts name	Function	
M2	ITB Motor	Rotation of the Photosensitive Drum (Bk)
M4	Drum Motor	Rotation of the Photosensitive Drum (YMC)
PS3	Color Drum HP Sensor	HP detection of the Photosensitive Drum (YMC) (rotation detection)
PS4	Bk Drum HP Sensor	HP detection of the Photosensitive Drum (Bk) (rotation detection)

T-2-27

Related error codes

- E010-0001 Error in startup of the ITB Motor (M2)
- E010-0002 Error in speed of the ITB Motor (M2)
- E010-0003 Lock detection of the ITB Motor (M2)
- E012-0001 Error in startup of the Drum Motor (M4)
- E012-0002 Error in speed of the Drum Motor (M4)
- E012-0003 Lock detection of the Drum Motor (M4)

• Drum Unit Detection

Whether the Drum Unit is installed or not is detected.

Detection timing

- 1) At power-on, at recovery from sleep mode, when the Front Door is opened/closed.

Detection description

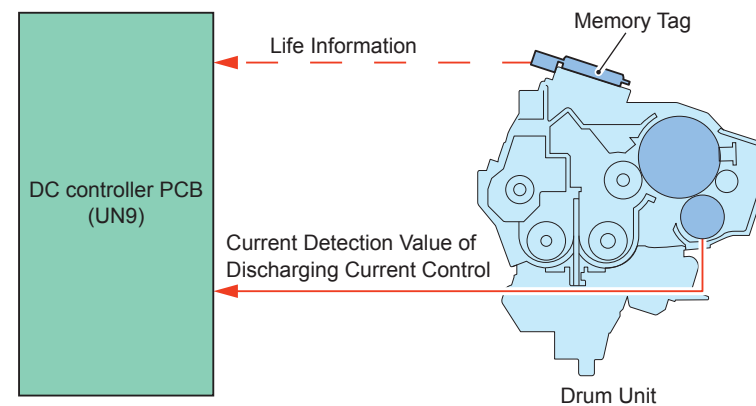
- 1) The memory tag of the Drum Unit is detected.
- 2) The discharge current control is executed based on the value saved in the memory tag and presence/absence of the Drum Unit is determined according to the charging value at the time of the control.
 - When the detected value for discharge current control shows the specified value or larger, it is detected that the Drum Unit is installed and the discharge current control is continued.
 - When the detected value for discharge current control shows less than the specified value, it is detected that there is no Drum Unit.

Execution time

Within 1 second

Operation of the host machine

The machine is stopped and "No" is displayed on the Control Panel at the same time.



F-2-69

● Drum Unit Life Detection

Life of the Drum Unit (Photosensitive Drum) is detected.

Detection timing

- At power-on
- At every print
- At recovery from sleep mode

Detection description

- 1) Count value for the Drum life is calculated by rotation time of the Photosensitive Drum + time that the primary charging AC bias is applied as well as the time that the developing AC bias is applied.
- 2) The count value calculated in step 1) is added to the Drum count value that has been stored in the memory tag of the Drum Unit.

NOTE:

The life (displayed in %) can be checked by the following service mode:
COPIER > COUNTER > LF > X-DRM-LF
(Enter Y/M/C/K for X above)

● Drum Phase Control

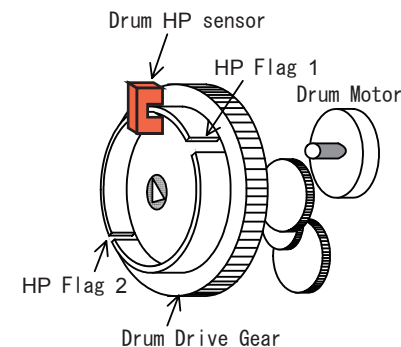
Overview

There can be uneven rotation speed of the Drum because the shapes of the Drive Gears (that rotate the Drum) slightly differ with each other. This control adjusts relative position of the Drum Drive Gears between YMC and Bk as well as controls uneven rotation between the YMK Motors and the Bk Motor to avoid color displacement.

Drum Phase Detection

Using the Drum HP Sensor, this is to detect absolute positional relation of the Y, M, C and Bk Drum Drive Gears by detection of the slit equipped with the Drum Drive Gear of the Host Machine. There are 2 detection positions for Drum phase: 1 position for Y, M and C and 1 position for Bk.

The following shows an outline drawing of the unit relating to phase detection.



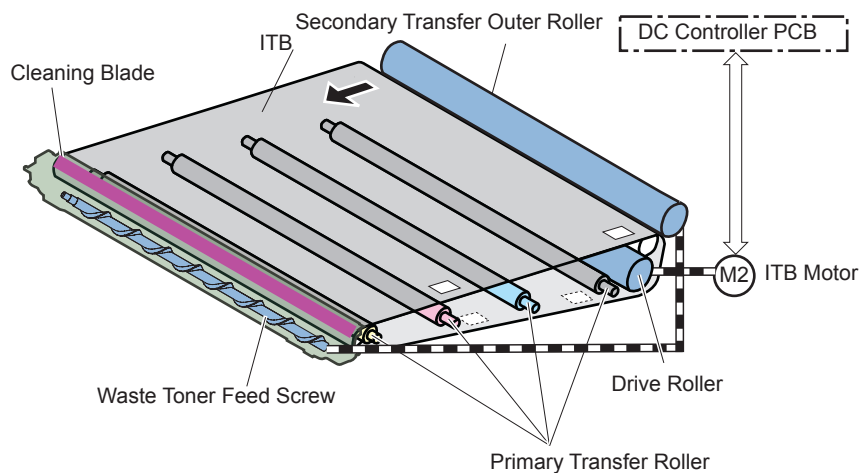
F-2-70

There are ribs with the Drum Drive Gear, which also have 2 slits of the HP Flags facing each other (opposed by 180 degree): HP Flag 1 (4mm width) and HP Flag 2 (2mm width). The Drum phase detection area determines which HP Flag (the flag at slit 1 or the flag at slit 2) has passed by the time when the slit passes through the Drum HP Sensor. Because the phase has been aligned at the time of assembly, even just the 2 slits can make the phase aligned with high accuracy.

■ Transfer/Separation

● Overview

The ITB Unit transfers a toner image on the Photosensitive Drum onto the ITB. Then, the toner image is transferred on the paper. With the seals affixed on the front side of the ITB, HP detection and rotation detection are performed.

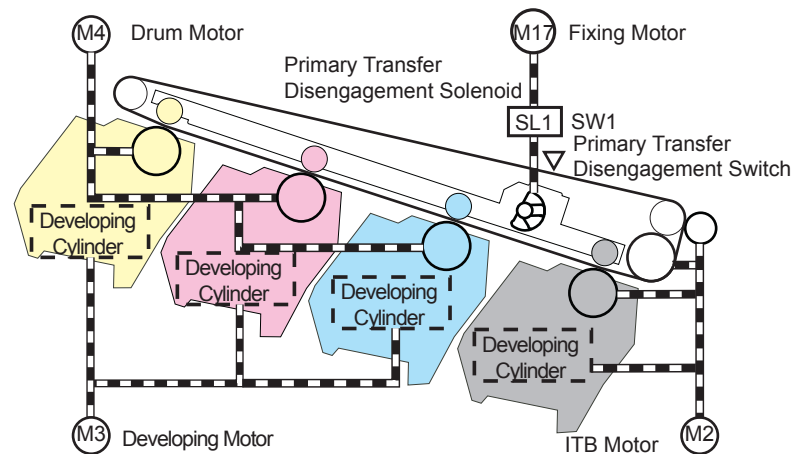


F-2-71

Parts name	Function
ITB Unit	Toner on the Photosensitive Drum is transferred to a paper.
ITB (Intermediate Transfer Belt)	Toner on the Photosensitive Drum is transferred to a paper.
Primary Transfer Roller	Toner on the Photosensitive Drum is attracted to the ITB.
Drive Roller	The ITB is driven.
Cleaning Blade	Toner on the ITB is scraped.
Waste Toner Feed Screw	Residual toner inside the ITB Cleaner Unit is fed.
Secondary Transfer Outer Roller	As well as attracting toner on the ITB to the paper, paper is fed.

T-2-28

● Drive Configuration



F-2-72

Parts name	Function	
M2	ITB Motor	Rotation of the ITB, the Waste Toner Screw, the Bk Drum and the Developing Cylinder
M17	Fixing Motor	The Primary Transfer Roller (Y/M/C) is engaged.
SL1	Primary Transfer Disengagement Solenoid	The Primary Transfer Roller (Y/M/C) is engaged. The disengagement status is switched.
SW1	Primary Transfer Disengagement Switch	The Primary Transfer Roller (Y/M/C) is engaged. The status of disengagement is detected.

T-2-29

Related error codes

- E010-0001: Error in startup of the ITB Motor (M2)
- E010-0002: Error in speed of the ITB Motor (M2)
- E010-0003: Lock detection of the ITB Motor (M2)

• Primary Transfer Roller Disengagement Control

The Primary Transfer Roller is usually engaged. The Primary Transfer Roller needs to be disengaged when a part is replaced; otherwise, the ITB can contact with the Drum Unit.

The timing to make the Primary Transfer Roller disengaged

- At the time of shipment
- In the case of selecting the ITB/Drum Unit replacement in service mode or user mode

The timing to make the roller engaged

- At power-on
- At recovery from sleep mode
- When the Front Door is opened/closed

The roller is engaged after the roller is once disengaged.

Related service mode:

- Execution of the Primary Transfer Roller disengagement
COPIER > FUNCTION > MISC-P > T1-UP

Related user mode:

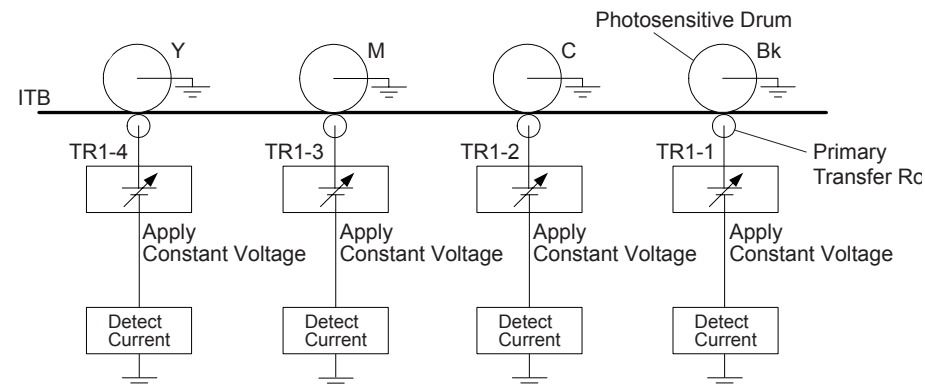
- Execution of ITB/Drum Unit Replacement Mode
Adjustment/Maintenance > Maintenance > ITB/Drum Unit Replacement Mode > Start

The above mode is displayed by selecting the following in service mode:
COPIER > OPTION > DSPLY-SW > ITB-DSP > 1 (default: 0)

• Primary Transfer Bias Control

The primary transfer bias is divided into each color (Y, M, C, Bk) to be generated on the primary transfer bias generation circuit. The primary transfer bias (TR1-1, TR1-2, TR1-3, TR1-4), which has been generated, is applied to the Primary Transfer Roller.

The primary transfer bias value is determined by the ATVC control with the DC Controller, which makes constant current value running through the Primary Transfer Roller.



F-2-73

NOTE:

The ATVC control secures transfer performance that can be affected by change in resistance caused by the environment as well as deterioration of the Primary Transfer Roller. The ATVC control is performed respectively for the primary transfer bias in each color.

• Secondary Transfer Bias Control

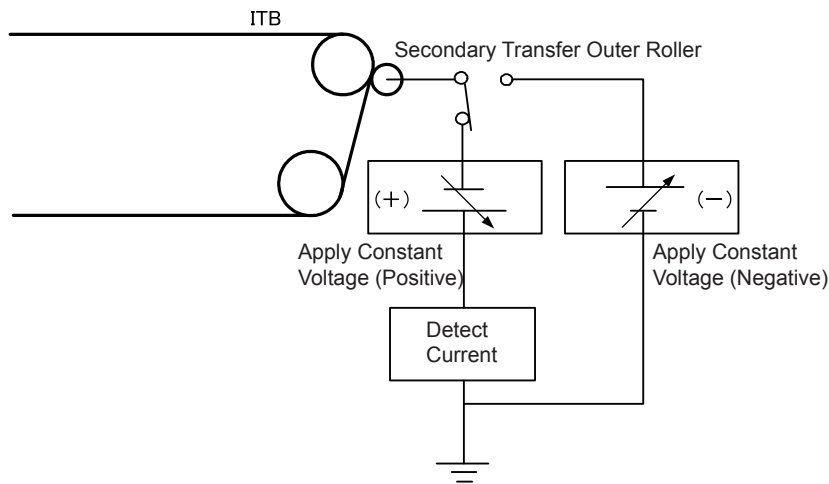
Toner on the ITB is transferred to a paper.

The secondary transfer bias (TR2), which has been generated on the secondary transfer bias generation circuit, is applied to the Secondary Transfer Outer Roller.

There are 2 types of the secondary transfer bias (the DC positive and the DC negative) to apply bias with the following purpose.

- DC positive: Toner on the ITB is transferred to a paper when printing.
- DC negative: Toner on the Secondary Transfer Outer Roller is attracted onto the ITB when cleaning.

The secondary transfer bias value is determined by the ATVC control with the DC Controller, which makes constant current value running through the Secondary Transfer Outer Roller.

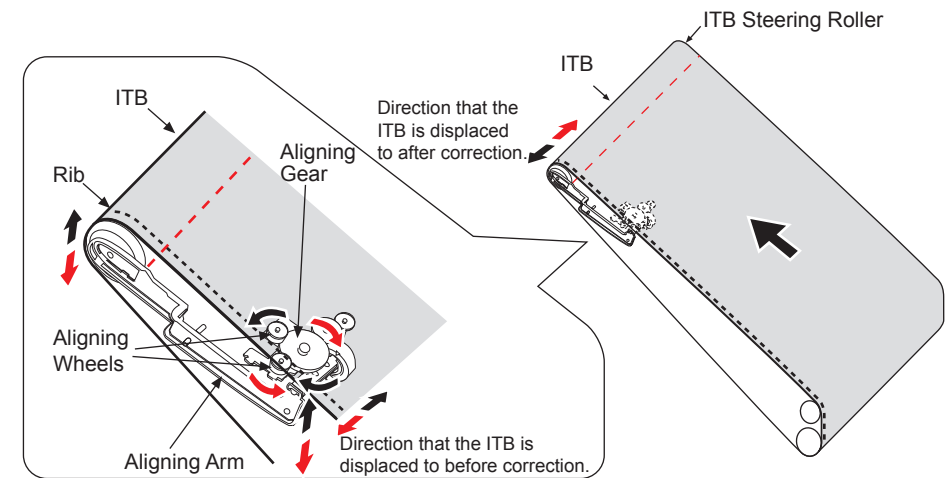


F-2-74

• ITB Displacement Correction Control

The ITB displacement correction control corrects displacement of the ITB to prevent tear of the ITB (caused by displacement of the ITB).

There is a rib inside the ITB at the front edge and the 2 Aligning wheels are located across the rib. When the ITB is displaced toward the front or the rear during rotation of the ITB, the rib contacts the Aligning wheels at the front or the rear, which makes the Aligning wheels rotate. The rotation of the Aligning wheels is transmitted to the Aligning Gear and the Aligning Arm moves the Steering Roller up and down. The up/down movement of the Steering Roller makes the ITB slide to the front or the rear to correct displacement.



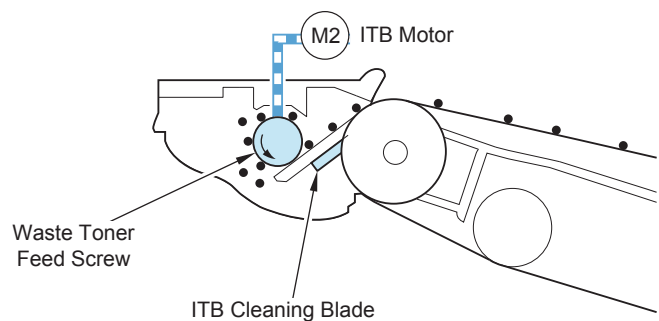
F-2-75

● ITB Cleaning Control

Residual toner on the ITB is removed.

Control description

- 1) The ITB Cleaning Blade scrapes toner on the ITB.
- 2) The scraped toner is fed to the Waste Toner Container with the Waste Toner Feed Screw.



F-2-76

● Secondary Transfer Outer Roller Cleaning Control

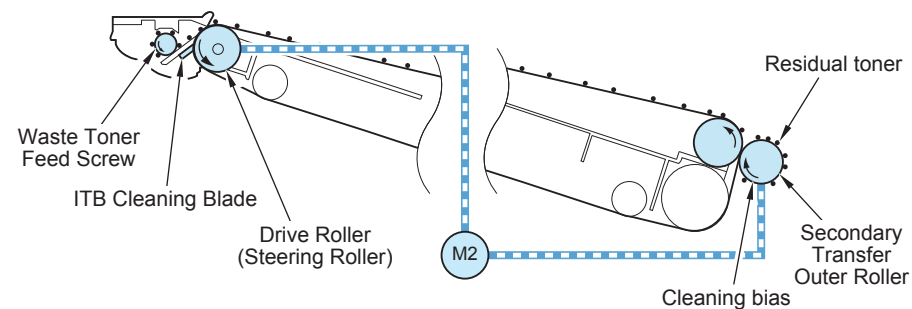
Soiling at the back of the sheet caused by soiling of the Secondary Transfer Outer Roller can be prevented.

Control timing

- 1) At initial rotation (less than 50 deg C of fixing temperature, jam recovery)
- 2) At last rotation
- 3) After executing the image stabilization control (generation of patch image on the ITB)

Control description

The secondary transfer cleaning bias, which has been generated on the Secondary Transfer High-voltage PCB (UN5), is applied to the Secondary Transfer Outer Roller. Residual toner on the Secondary Transfer Outer Roller is attached to the ITB, and then collected by the ITB Cleaning Unit.



F-2-77

Related service mode:

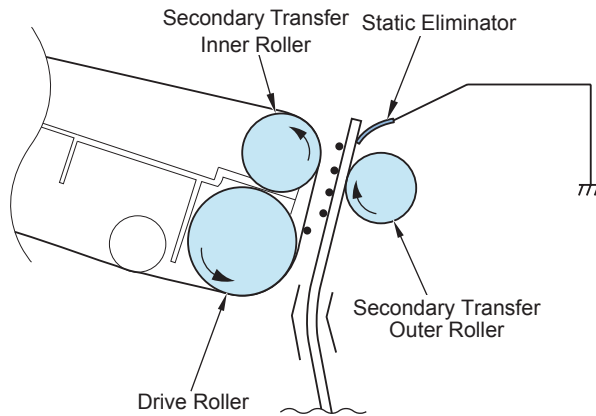
- Forced execution of the Secondary Transfer Outer Roller cleaning
COPIER > FUNCTION > CLEANING > 2TR-CLN

• Separation

This control separates paper from the ITB by elastic force of the paper (curvature separation method).

In the case of thin paper which has low elastic force, the Static Eliminator removes positive potential at the back of the paper.

This reduces electrostatic absorption force of the paper so that paper can be easily separated.



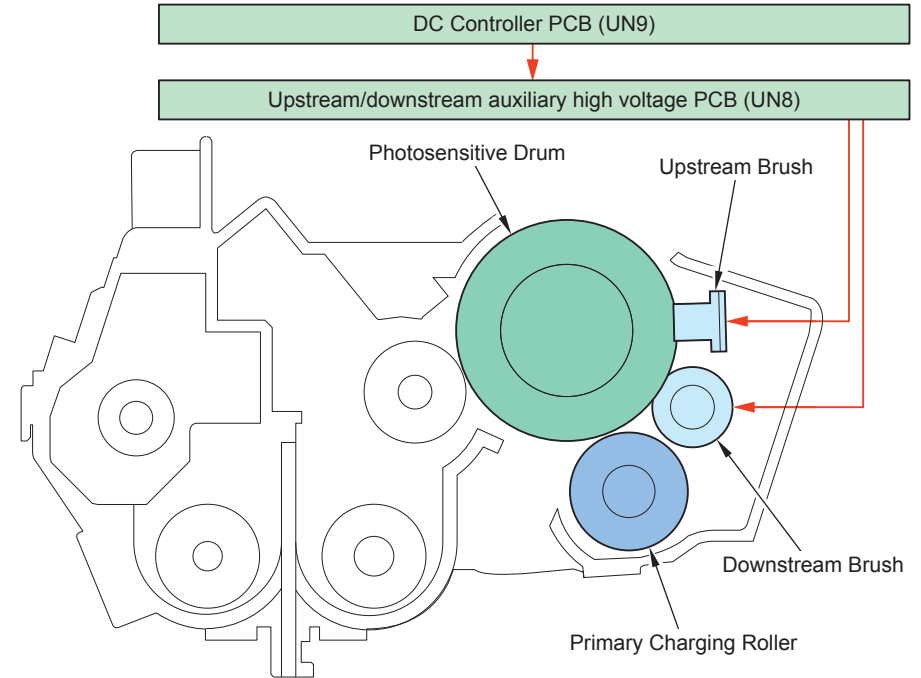
F-2-78

■ Drum Cleaning

• Overview

There is no Drum Cleaner with this machine.

This machine uses the 2 Auxiliary Brushes to control polar character of residual toner and the residual toner is collected to the Developing Assembly so that no Cleaner is used with this machine.



F-2-79

• Auxiliary Brush Control

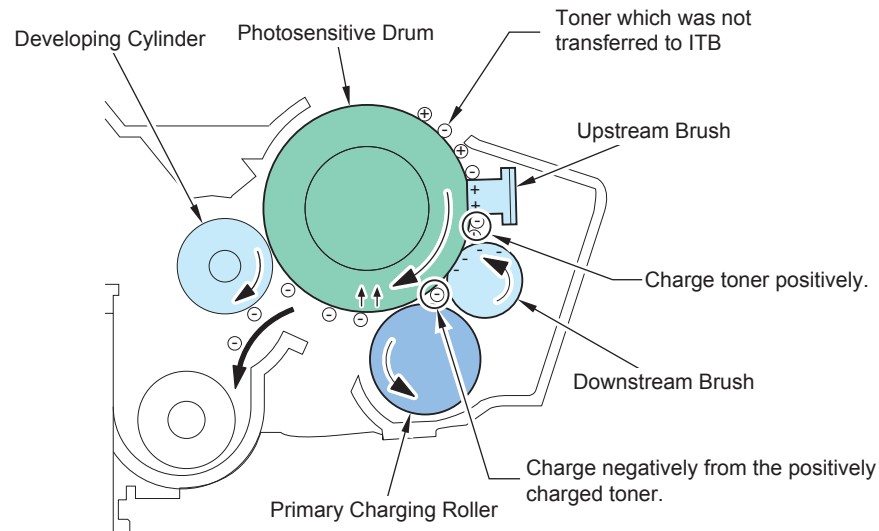
By controlling the polar character of the transfer-residual toner on the surface of the Photosensitive Drum, attachment of the toner to the Primary Charging Roller is prevented and also collecting performance of the toner in the Developing Assembly is improved.

Control timing

- 1) Immediately after the primary transfer

Control description

- 1) Bias value of the Upstream Brush and the Downstream Brush is determined according to the environment.
- 2) The Upstream Brush neutralizes electric charge on the Photosensitive Drum.
- 3) The Downstream Brush supplementarily makes the Photosensitive Drum negatively-charged.
- 4) The negatively-charged residual toner is repelled by the negative bias of the Developing Cylinder and collected into the Developing Assembly.



F-2-80

• Brush Discharge Control

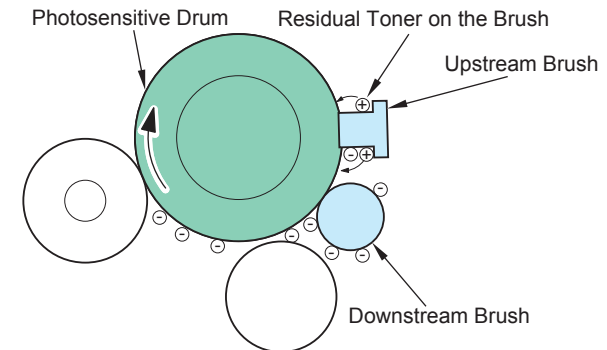
Toner accumulated with the Auxiliary Brush is discharged to maintain performance of the Auxiliary Brush.

Control timing

- 1) At last rotation
- 2) At power-on
- 3) At recovery from sleep mode
- 4) At every 100 sheets (accumulated) during printing

Control description

- 1) Switching bias of the Upstream Brush or the Downstream Brush (ON/OFF) can discharge toner (positively/negatively charged respectively) attached with the Brush to the Photosensitive Drum.
- 2) The toner discharged from each Brush is transferred to the ITB (primary transfer) and collected into the ITB Cleaning Unit in the end.

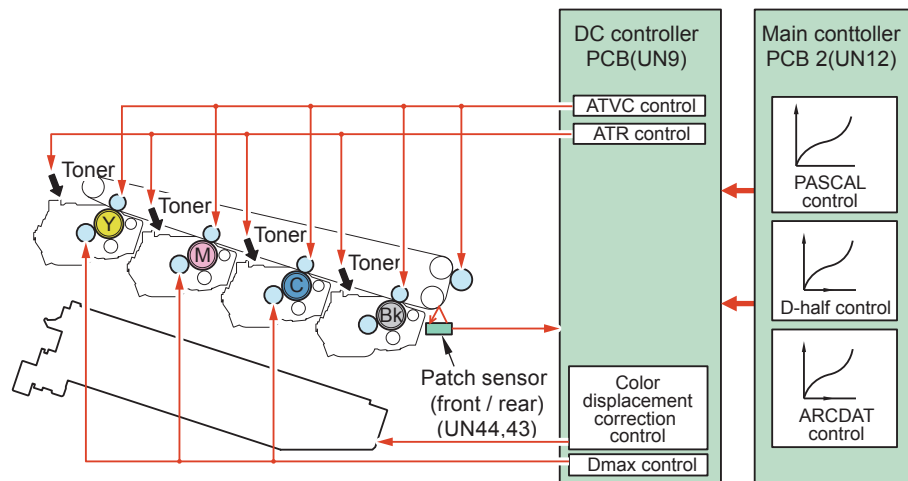


F-2-81

Image Stabilization Control

Overview

Image failure due to change of the environment or deterioration of the Photosensitive Drum is prevented to ensure stabilized print.



F-2-82

Control 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 and estimated downtime.

Startup timing	Conditions for execution	Time required (sec.)	Control type									
			Startup correction (*1)	Discharge current control	ATR control (patch detection)	Primary transfer ATVC	Secondary transfer ATVC	Secondary transfer cleaning	D-max control	ARCDAT control	D-half control	Brush discharge
At power-on	At normal time	Approx. 30 sec.	○	○		○	○	○		○		○
	H/H environment	Approx. 35 sec.	○	○		○	○	○	○	○		○
At recovery from sleep mode	Within 8 hours of sleep state	Approx. 10 sec.		○		○	○	○				
	8 or more hours of sleep state	Approx. 30 sec.	○	○		○	○	○		○		○
	8 or more hours of sleep state (in H/H environment)	Approx. 35 sec.	○	○		○	○	○	○	○		○
At initial rotation	At normal time	Approx. 0 sec.					○	○				
	At environmental change	Approx. 4 sec.		○		○	○	○				
	Every 500 sheets (accumulated)	Approx. 3 sec.		○		○	○	○				
At paper interval	At normal time	Approx. 4 sec.		○		○		○				
	Every 100 sheets (accumulated) during printing	Approx. 5 sec.						○		○		
	Every 200 sheets (accumulated) during printing	Approx. 4 sec.			○			○				○
	Every 3000% of accumulated image ratio during printing	Approx. 4 sec.			○			○				

Startup timing	Conditions for execution	Time required (sec.)	Control type									
			Startup correction (*1)	Discharge current control	ATR control (patch detection)	Primary transfer ATVC	Secondary transfer ATVC	Secondary transfer cleaning	D-max control	ARCDAT control	D-half control	Brush discharge
At last rotation	After printing of 25 sheets	Approx. 15 sec.						○				
	After printing of 50 sheets	Approx. 18 sec.						○	○			
	After printing of 100 to 200 sheets	Approx. 17 sec.			○		○					○
	Every 1500% of accumulated image ratio after printing	Approx. 17 sec.			○		○					○
	After printing of 500 sheets	Approx. 42 sec.				○	○	○		○		
	After printing of 5000 sheets	Approx. 45 sec.	○			○	○	○		○		

*1: Correction of soiling on the ITB, correction of the Patch Sensor, etc. T-2-30
 CAUTION: Because the color displacement control is executed according to the environment, there is no specific execution timing. Therefore, execution timing is not described in the table above.

Related service mode:
 COPIER > OPTION > CLEANING > OHP-PTH (to specify the number of sheets to execute the ITB cleaning sequence after feeding of transparency)
 COPIER > OPTION > CLEANING > ITBB-TMG (to specify frequency of ITB Cleaning Band)

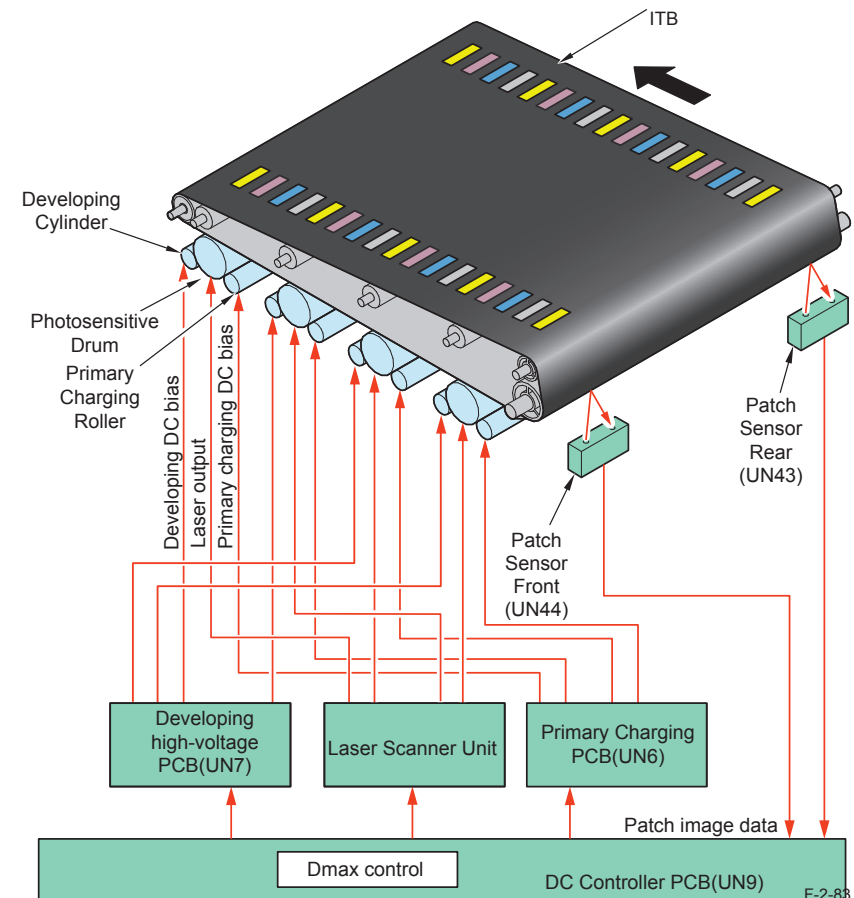
• D-max Control

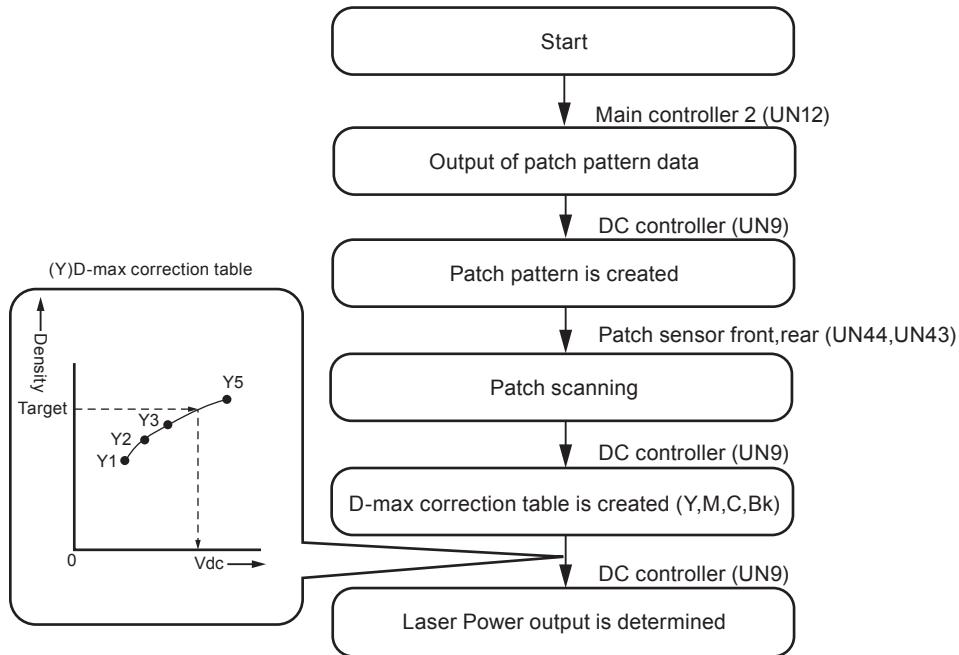
The optimal developing DC bias, primary charging bias and laser output are determined
Control timing

- 1) When replacing the Drum Unit
- 2) At last rotation on a specified print basis
- 3) At power-on in H/H environment
- 4) At recovery from sleep mode

Control description

- 1) Main Controller PCB 2 forms patch pattern in the target color on the ITB.
- 2) The DC Controller measures patch density by the Patch Sensor Front (UN44)/Patch Sensor Rear (UN43) to correct developing bias, primary charging bias and laser output in each color to meet the target density.





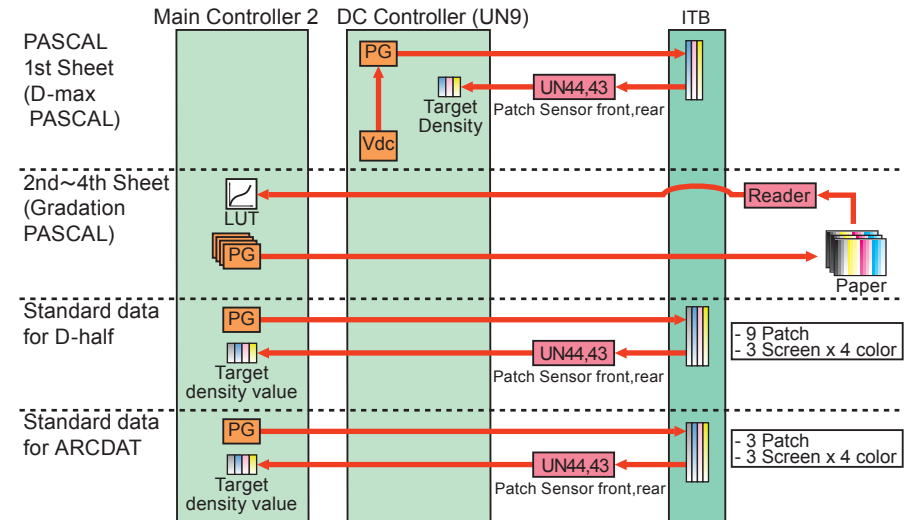
F-2-84

● PASCAL control

Gradation density characteristics on the image are stabilized.

This control is executed when the following is selected in user mode: Auto Adjust Gradation > Full Adjust. Gradation density of the patch pattern on the test print is scanned by the Reader to create an image density correction table.

The foregoing table corrects image gradation density characteristics which change according to the environment change and deterioration of the Photosensitive Drum.



F-2-85

Control timing

When executing calibration (during execution of "Auto Gradation Adjustment > Full Adjustment" in user mode)

Control description

- 1)When the specified conditions are satisfied, the Main Controller PCB 2 prints 3 types of memorized test prints (patch pattern).
- 2)Place the test prints in the Reader.
- 3)Reader scans the gradation density of the patch pattern on the test print.
- 4)The Main Controller PCB 2 creates an image gradation density correction table from the gradation density data of patch pattern scanned by the Reader.

NOTE:

The following 3 types of patch patterns are formed with this control:

- A pattern for copy (64 patches for each color)
- A pattern for text (64 patches for each color)
- A pattern for photo (64 patches for each color)

NOTE:

With this machine, executing correction of gradation density characteristics of plain paper estimates the appropriate value for the other media. Therefore, there is no need to individually execute this control with other media.

Note that the estimated value is just the predicted value. In the case of executing correction in a precise sense, change the numeric figure in the following service mode so that a correction menu is displayed in user mode.

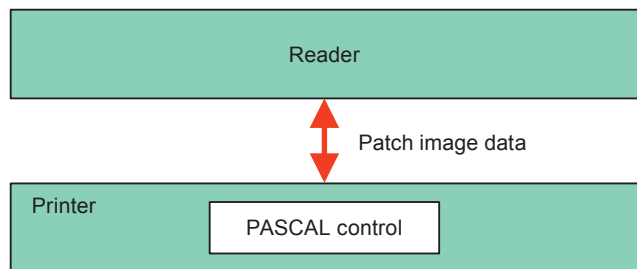
COPIER > OPTION > DSPLY-SW > HPFL-DSP

0 Displays Auto Gradation Adjustment with plain paper only (default)

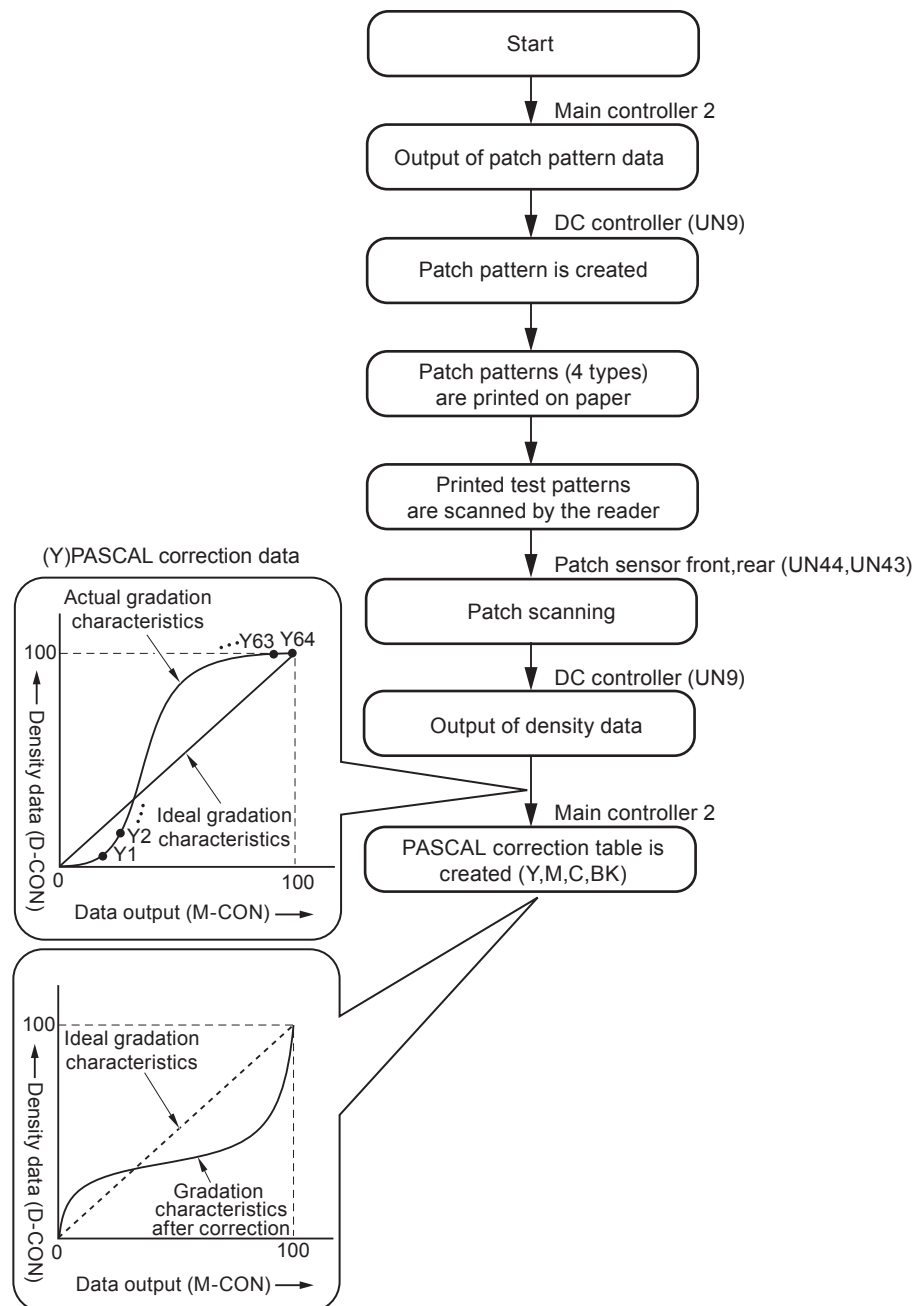
1 Displays Auto Gradation Adjustment with plain paper and heavy paper

2 Displays Auto Gradation Adjustment with plain paper and 1200dpi resolution setting.

3 Displays Auto Gradation Adjustment with plain paper, heavy paper and 1200dpi resolution setting.



F-2-86



F-2-87

• D-half Control

Optimal image gradation is determined.

Control timing

- 1) When replacing the Drum Unit
- 2) At last rotation on a specified print basis
- 3) When executing PASCAL control
- 4) At recovery from sleep mode

Control description

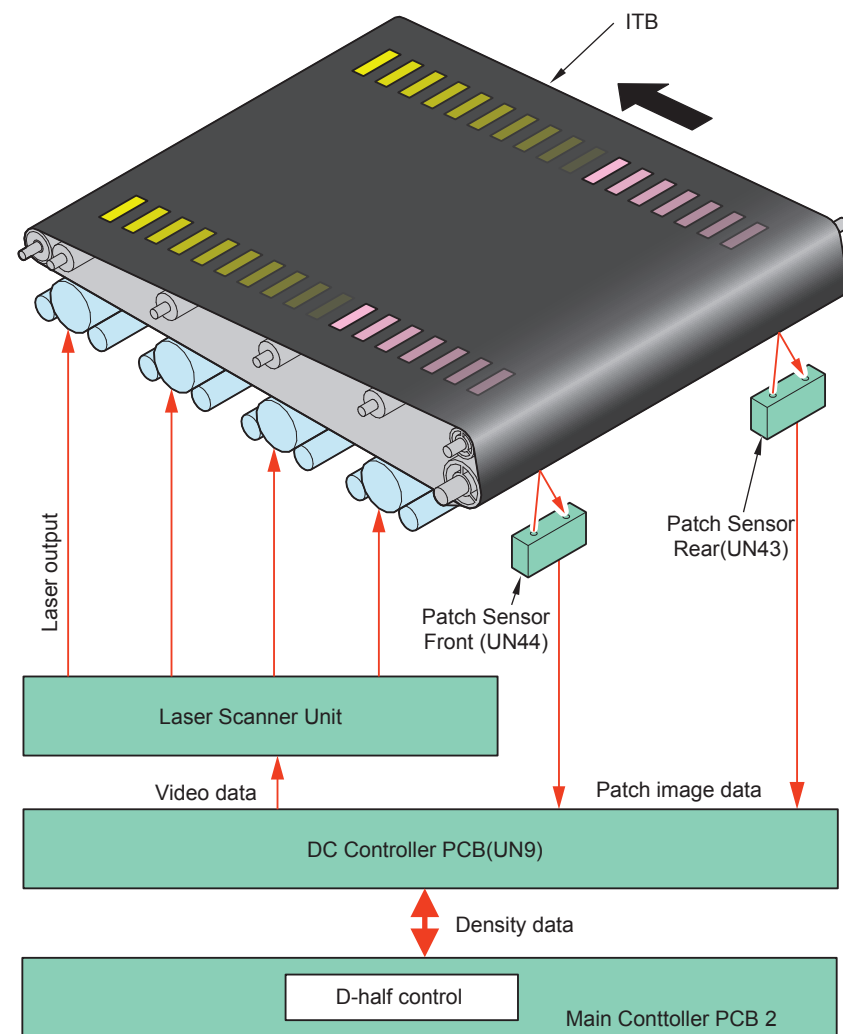
- 1) Main Controller PCB 2 outputs patch data in each color (Y, M, C, and Bk) to the DC Controller PCB.
- 2) From the data above, the DC Controller PCB forms patch pattern in each color (Y, M, C, and Bk) on the ITB.
- 3) The DC Controller measures the patch pattern by the Patch Sensor Front (UN44) and the Patch Sensor Rear (UN43) and the result is returned to the Main Controller PCB 2.
- 4) Based on the data above, the Main Controller PCB 2 executes gradation correction to obtain ideal halftone image.

Note that the reference patch used for ARCDAT control is formed with this control and the measurement result of the Patch Sensors or the reference data for ARCDAT is stored. (See NOTE)

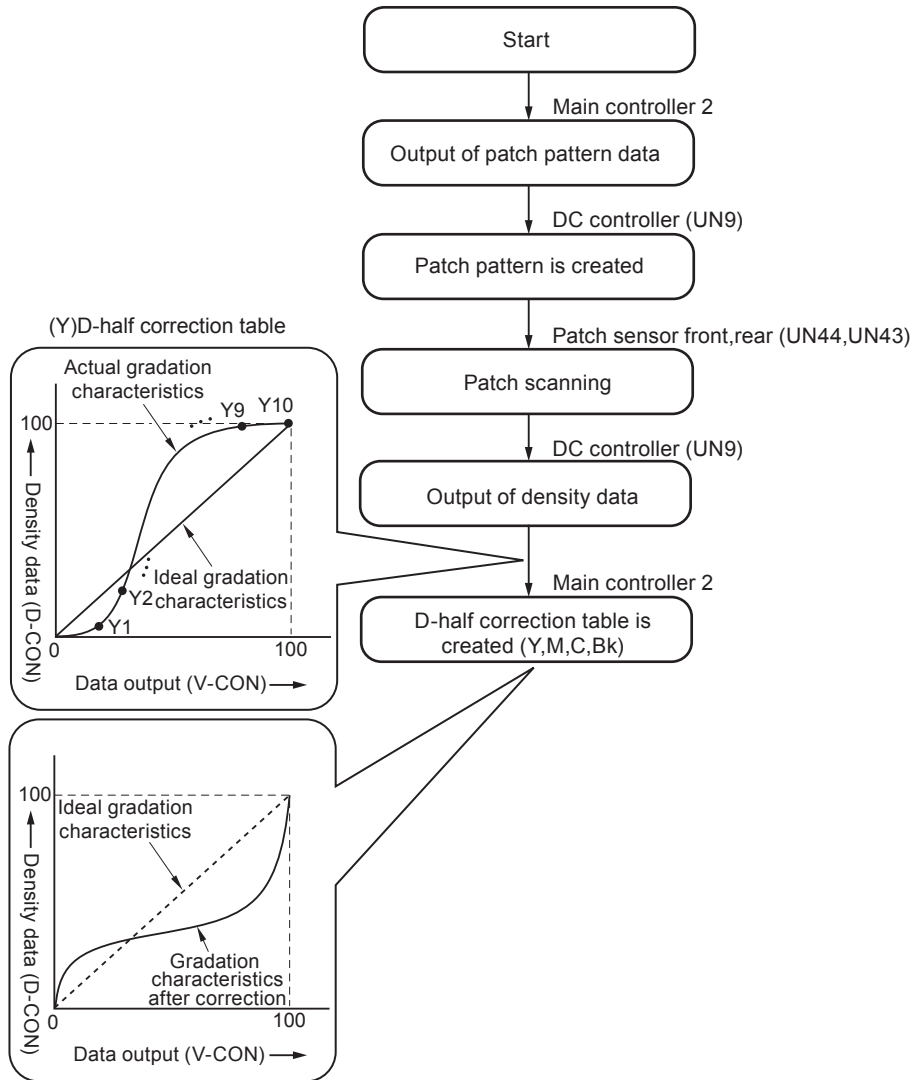
NOTE:

The following 4 types of patch patterns are formed with this control:

- A pattern for copy (9 patches for each color)
- A pattern for text priority (9 patches in each color)
- A pattern for photo priority (8 patches in each color)
- A reference pattern for ARCDAT control (3 patches in each color)

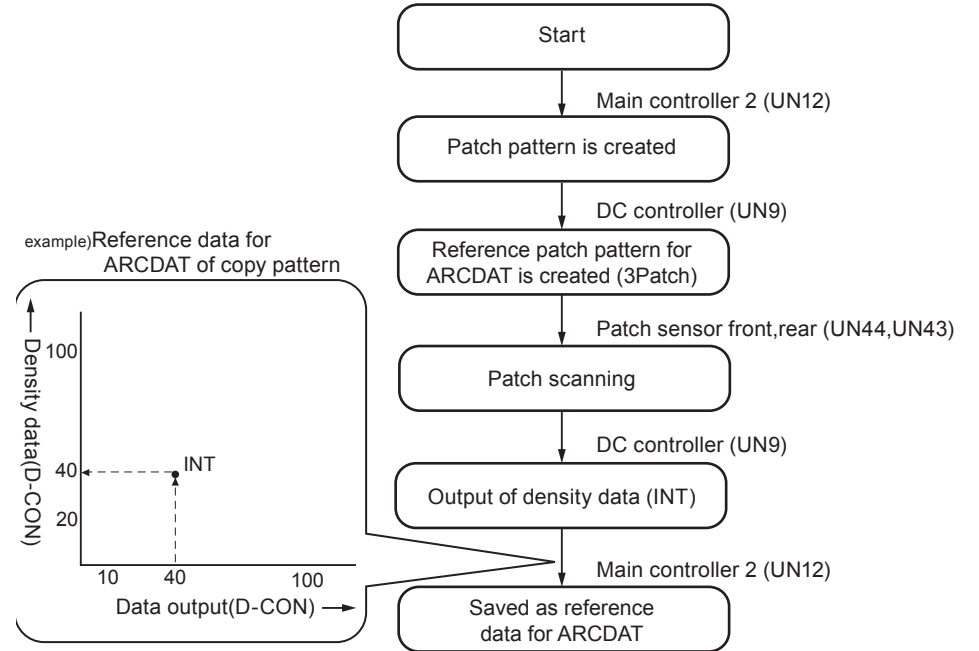


F-2-88



F-2-89

The flow to calculate correction value for ARCDAT control



F-2-90

● ARCDAT Control (Automatic and Reciprocal Color Density Adjustment Technology)

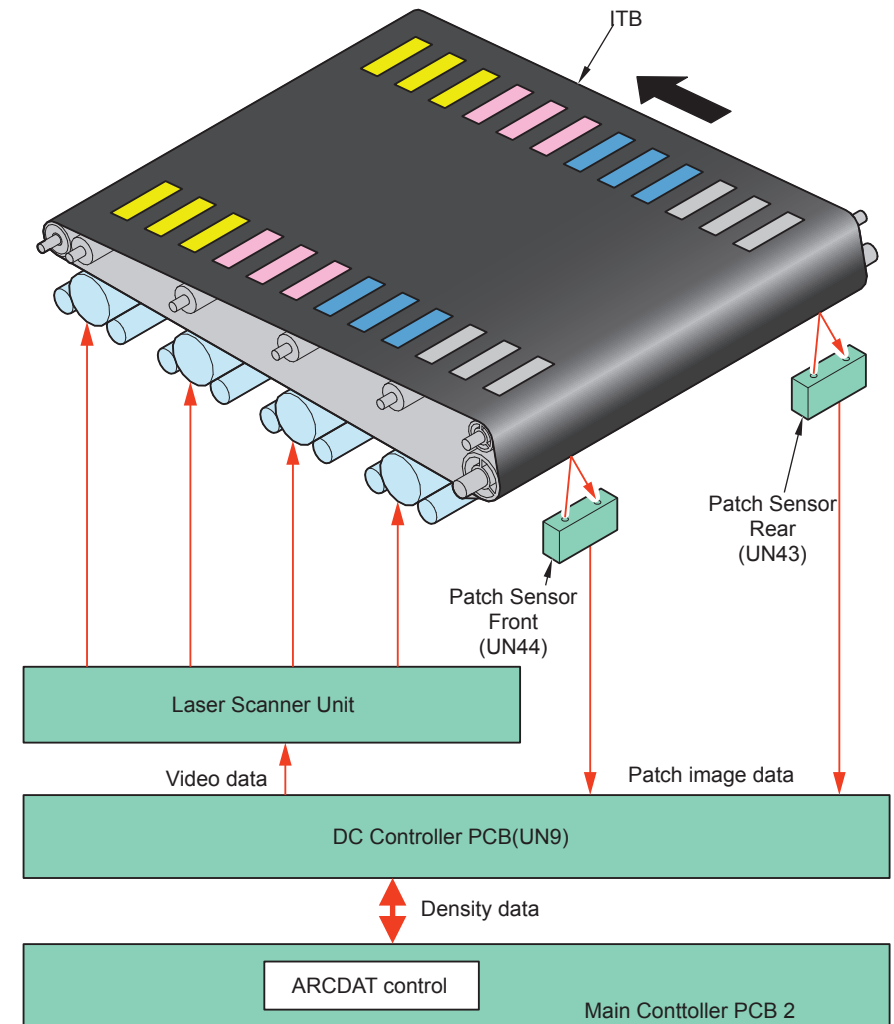
While reducing downtime, the ideal gradation characteristics are realized.

Control timing

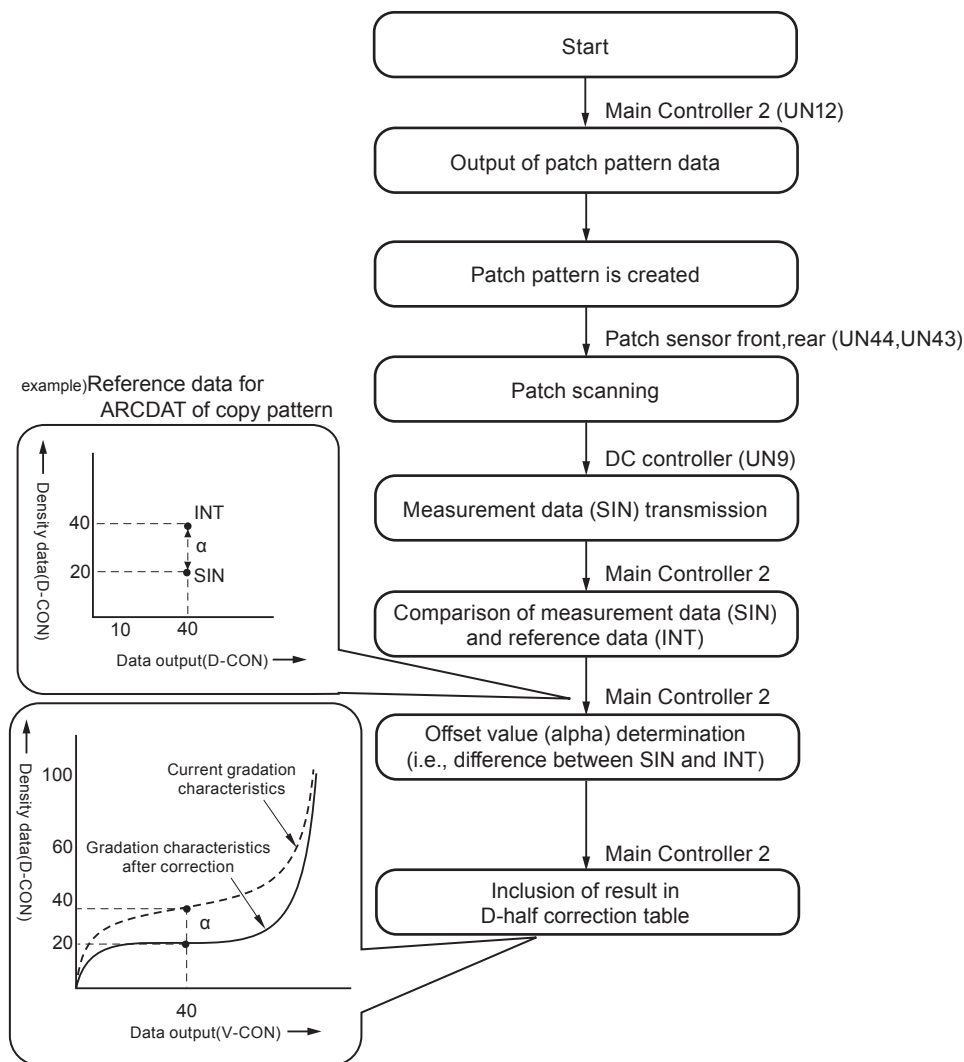
- 1)When replacing the Drum Unit
- 2)At power-on
- 3)At paper interval on a specified print basis or at last rotation
- 4)At recovery from sleep mode

Control description

- 1)Main Controller PCB 2 outputs patch data in each color (Y, M, C, and Bk) to the DC Controller PCB.
- 2)The DC Controller PCB forms patch pattern in each color (Y, M, C, and Bk) on the ITB. (Total of 12 patterns: 3 patch patterns for each color)
- 3)The DC Controller PCB measures the patch pattern by the Patch Sensor Front (UN44) and the Patch Sensor Rear (UN43) and the result is returned to the Main Controller PCB 2.
- 4)Main Controller PCB 2 compares this measured data with the reference data for ARCDAT control that has been backed up. The difference by comparison is reflected to the D-half result as the offset value.



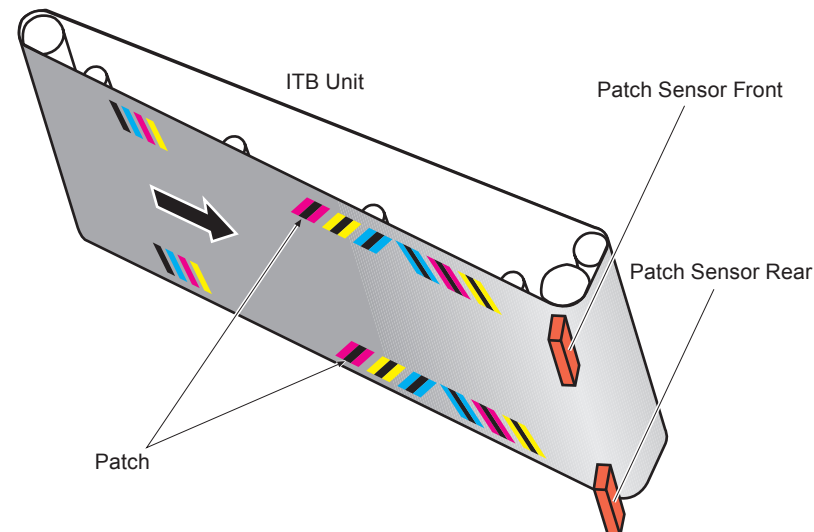
F-2-91



F-2-92

Color Displacement Correction Control

Uneven exposure of the Laser Scanner Unit and color displacement caused by uneven rotation of the drum or the ITB is corrected.



F-2-93

Startup timing

- 1) Execution of this control is determined according to the status of the host machine at power-on or recovery from the sleep mode.
- 2) When it is determined necessary based on the predicted value for temperature inside the machine (according to the usage environment and continuous print state). The control is executed based on the predicted value; therefore, there is no specific timing for control timing. As a guide, the control is executed once in the case of 1-sided continuous print for 30 minutes.

Control description 1: Color displacement correction based on patch pattern

- 1) The Main Controller forms patch pattern in each color on the ITB.
- 2) The DC Controller PCB scans the patch pattern by the Patch Sensor Front (UN44) and the Patch Sensor Rear (UN43) to detect the degree of color displacement comparing to the reference color (Bk).
- 3) Based on the abovementioned detection result, the DC Controller PCB executes correction according to the degree of color displacement.

Control description 2: Color displacement correction based on temperature prediction

- 1) The degree of color displacement is measured based on the operating condition (mainly

temperature).

- 2) Exposure timing for YMC is adjusted with reference to Bk.
- 3) When the log for color displacement becomes large, the color displacement correction is performed with the patch pattern above.

Control type		Correction description
Correction in horizontal scanning direction	Write start correction	Write-start timing in horizontal scanning direction is changed.
	Entire magnification ratio correction	Pixels in horizontal scanning direction is increased/reduced (at the both edges of the image)
	One-direction magnification ratio correction	Pixels in horizontal scanning direction is increased/reduced (at the center of the image)
Correction in vertical scanning direction	Write start correction	Write-start timing in vertical scanning direction is changed.
	Image skew correction	Image data is corrected.

T-2-31

● ATR Control (Auto Toner Regulation)

Toner is supplied to the Developing Assembly to make the developer (toner + carrier) in the assembly to meet at an ideal ratio.

Control timing

When replacing the Drum Unit (ATR Sensor)

At every print (Developing Assembly supply count, ATR Sensor)

At paper interval on a specified print basis or at last rotation (Patch Sensor)

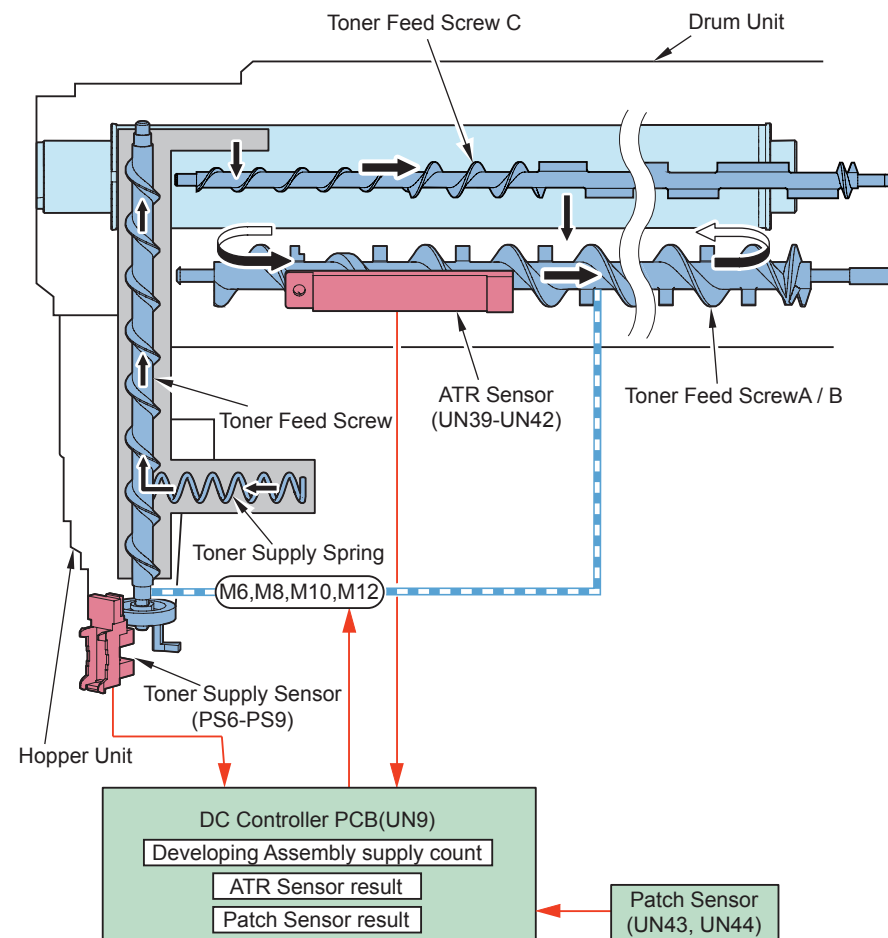
Control description

Supply amount of the toner for each color is calculated by the abovementioned startup timing, and toner is supplied to the Drum Unit. The DC Controller PCB determines toner supply amount by the following 3 data:

- Developing Assembly supply count
- ATR Sensor
- Patch Sensor

The DC Controller PCB turns ON the Toner Supply Motors (M6, M8, M10, M12) when it determines that toner supply is necessary.

This makes the Toner Upward Feed Screw and the Toner Feed Screw A/B rotate so that the specified amount of toner is supplied to the Developing Assembly.



F-2-94

Related error codes

X indicates the target color (1=Y, 2=M, 3=C, 4=Bk)

E020-0XB0: The TD ration detected by ATR Sensor is higher than the specified value (high density)

E020-0XB1: The TD ration detected by ATR Sensor is lower than the specified value (low density)

E020-0X20: The average of density reference value is lower than the specified value at the time of ATR Sensor initialization.

E020-0X30: The average of density reference value is higher than the specified value at the time of ATR Sensor initialization.

E020-0X40: Unable to adjust the control voltage at the time of ATR Sensor initialization.

E020-0X41: Unable to adjust the control voltage at the time of ATR Sensor initialization.

E020-0X90: The average of the detected toner density value is low.

E020-0X91: The average of the detected toner density value is high.

E020-0X50: The density for the target is high at patch detection.

E020-0X60: The density for the target is low at patch detection.

E020-1X50: Density is still high even the patch level is set to 0 (failed to be in the target range between 550 and 640)

E020-1X60: Density is still low even the patch level is set to 7 (failed to be in the target range between 550 and 640)

• ATVC Control

Transfer failure due to environmental change or deterioration of the Primary Transfer Roller or the Secondary Transfer Roller can be prevented.

Primary Transfer ATVC

Control timing

- 1) At power-on
- 2) When replacing the Drum Unit
- 3) At recovery from sleep mode
- 4) At paper interval on a specified print basis or at last rotation
- 5) At environmental change

Control description

- 1) Monitor current value of the primary transfer DC bias is detected.
- 2) Optimal target current value is determined based on temperature/humidity data of the Environment Sensor.
- 3) The primary transfer DC bias is determined that is to be applied to the Primary Transfer Roller.

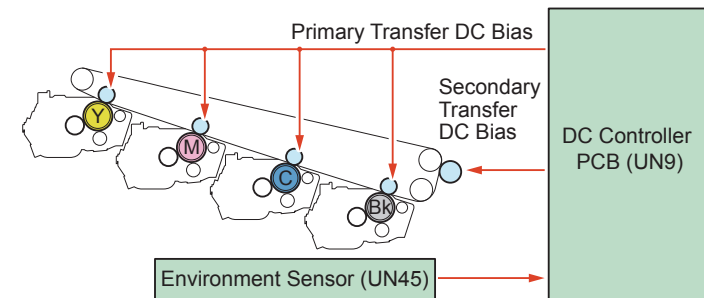
Secondary Transfer ATVC

Control timing

- 1) At power-on
- 2) At every print job

Control description

- 1) Monitor current value of the secondary transfer DC bias is detected.
- 2) Optimal target current value is determined based on temperature/humidity data of the Environment Sensor and paper type.
- 3) The secondary transfer DC bias is determined that is to be applied to the Secondary Transfer Roller.



F-2-95

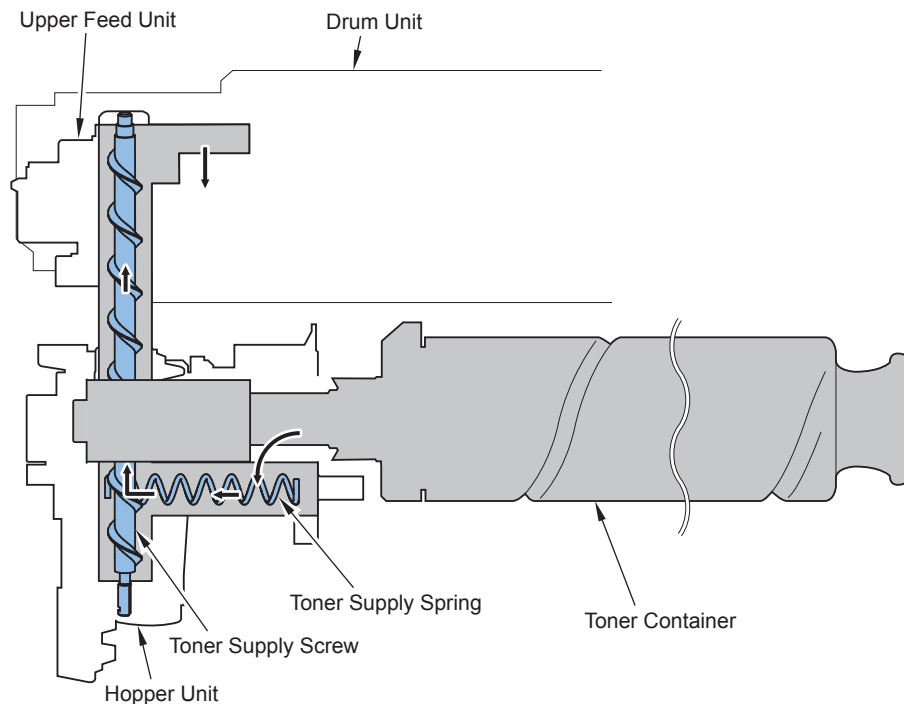
■ Toner Supply Assembly

● Overview

Toner is supplied from the Toner Container to the Developing Assembly.

With this machine, toner is fed from the Toner Container located at the lower side to the Drum Unit located at the upper side.

In addition, this machine has a mechanism to stir toner at the lower side of the Hopper Unit to prevent toner fixation.



F-2-96

Parts name	Function
Cap Drive Link Holder	The Toner Cap is opened/closed, and the Toner Container is rotated.
Cap Release Holder	The Toner Cap is released.
Toner Supply Spring	Toner is supplied from the Hopper Unit to the Upward Feed Unit.
Toner Feed Screw	Toner is supplied from the Hopper Unit to the Developing Assembly.

T-2-32

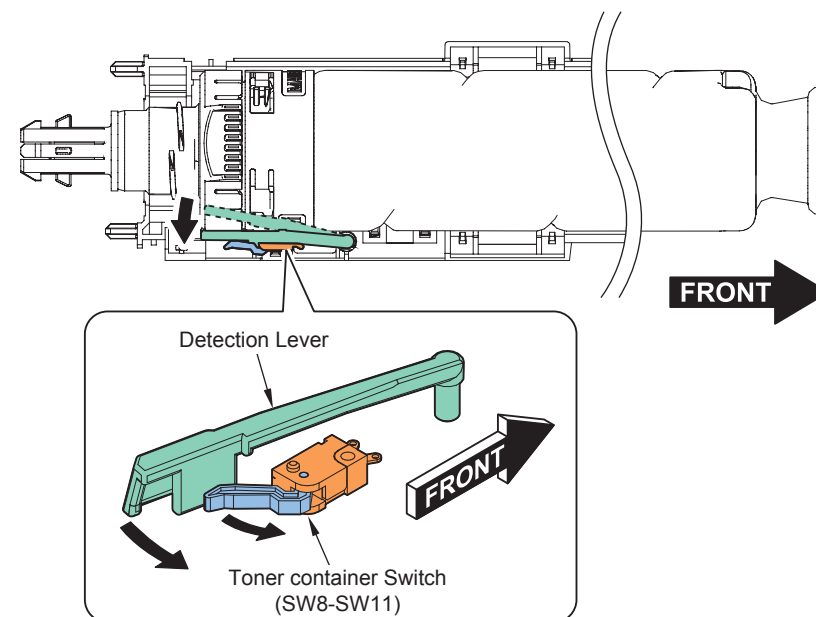
● Toner Cap Opening

A cap of the Toner Container is opened/closed in conjunction with opening and closing the Toner Container Cover.

● Toner Container Detection

Presence/absence of the Toner Container is detected.

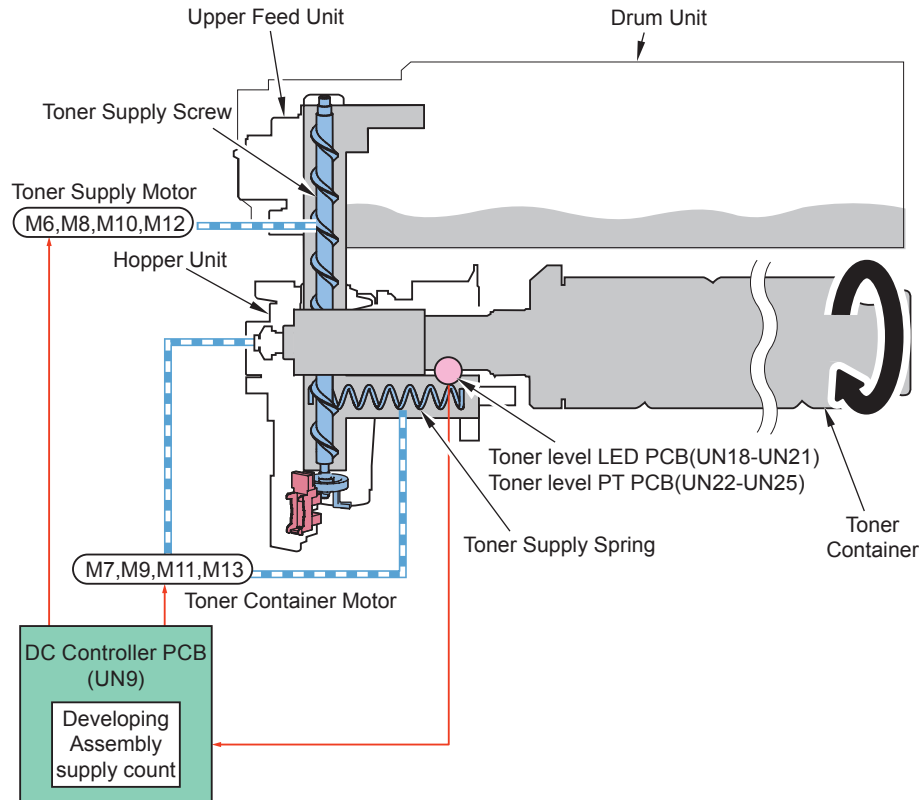
There are the Toner Container Switches (SW8 to 11) as shown in the figure below and they are pressed when the Toner Container is set so that presence of the Toner Container is detected.



F-2-97

● Toner Supply Control/Toner Level Detection

Toner is supplied from the Toner Container to the Developing Assembly. At the same time, toner level in the Hopper Unit is detected. The light emitted from the Toner Level LED PCB is received on the Toner Level PT PCB, and toner level in the Hopper Assembly is detected according to the light reception.



F-2-98

Toner Supply Control

Title	Description	Supply timing	Operation of the host machine
Supply to the Hopper	Toner is supplied from the Toner Container to the Hopper Unit.	When the output result of Toner Level PT PCB (UN22 to UN25) is changed from L to H.	The Toner Container Motors (M7, M9, M11, M13) are driven and toner is supplied until the Sensor shows L.
Supply to the Developing Assembly	Toner is supplied from the Hopper Unit to the Developing Assembly.	When toner supply is determined necessary by the result of ATR control.	The Toner Supply Motors (M6, M8, M10, M12) are driven for 1 block.

T-2-33

Toner Level Detection

Detection description	Detection timing	Detecting to (location)	Message (machine operation)
Empty toner warning 1 (approx. 10% left until the toner is out)	Prediction from the Developing Assembly toner supply count (Judged from the number of toner supply to the Hopper Unit.)	Developing Assembly supply count *1	Please prepare a toner container(Continuous printing is enabled.)
Empty toner (approx. 0% left until the toner is out)	The output result of the Toner Level PT PCBs (UN22 to UN25) is changed from L to H and the H state continues for 60 seconds.	Toner Level PT PCB	Replace the toner cartridge. (Host machine is stopped.)

*1: Developing Assembly supply count shows the level of toner supplied from the Hopper Unit to the Developing Assembly.

NOTE:

The Developing Assembly supply count is reset in the case that the Toner Container is removed and then installed while absence of toner is detected, print operation is made, and then presence of toner is detected. Therefore, there is no need to reset the service mode. Note that the supply count is not reset in other cases.

Because the Hopper Assembly in this equipment is very small, printing cannot be executed after absence of toner in the Toner Container is detected. Therefore, the 3-level display, which is available with the existing models, is not available.

In the case that the Toner Container is replaced while continuous printing is available, warning message will not be cleared. To clear the warning message, select the following: User Mode > Adjustment/Maintenance > Replace Toner While Printing Is Still Possible, and then select the target color.

Example: when selecting black

A message "Did you replace the black toner while printing was possible? (Perform this operation only if toner was replaced when printing was possible.)" is displayed. By selecting "Yes", the supply count is reset and the warning is cleared.

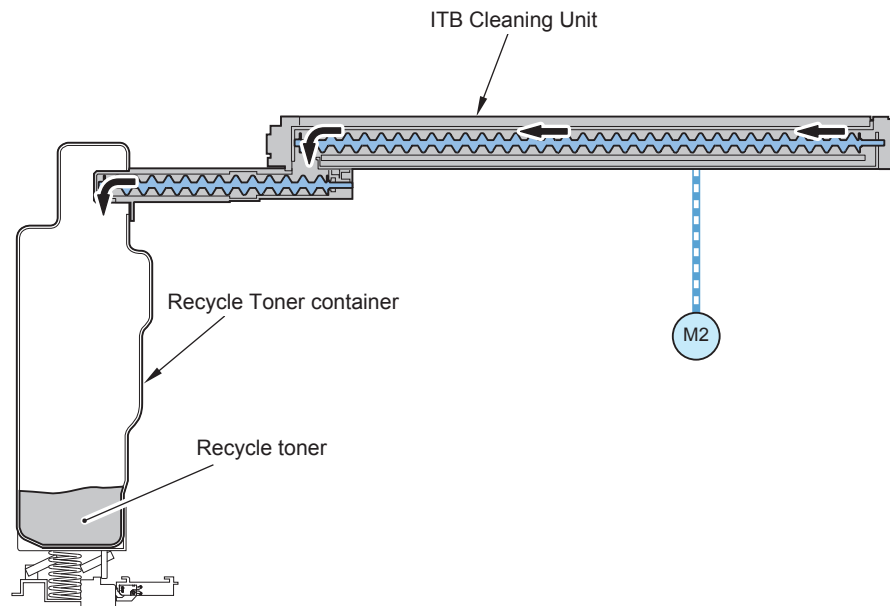
Related error codes: (x : 0 = Y, 1 = M, 2 = C, 3 = Bk)

- E025-0x00 Toner Supply Motor error
- E025-0x10 Toner Container Motor error
- E025-0x20 Toner Container Motor Driver error
- E025-0x30 Toner Container Motor short circuit error

Waste Toner Feeding Area

Overview

Waste toner in the ITB Cleaning Unit is fed to the Waste Toner Container.



F-2-99

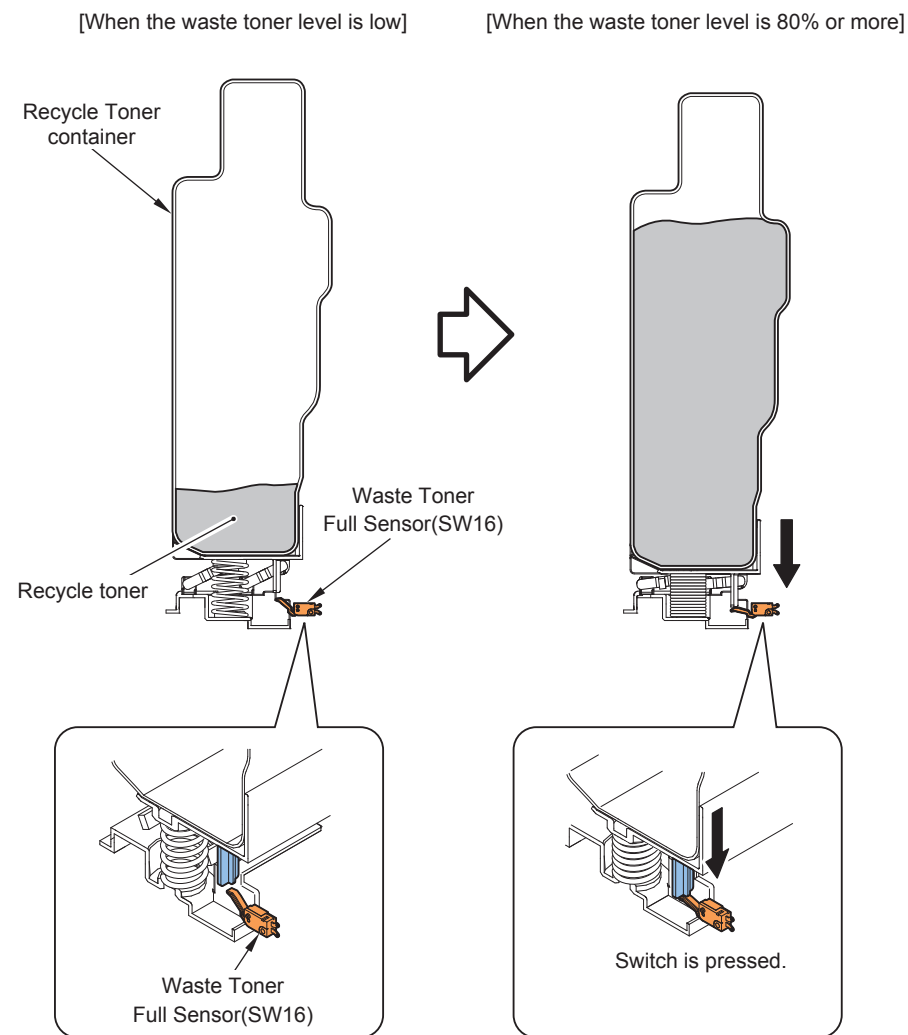
Parts name	Function
Waste Toner Feed Screw	Waste toner from the ITB Cleaning Unit is fed.
Waste Toner Container	Waste toner is collected.

T-2-35

Waste Toner Container Full Level Detection

Toner level accumulated in the Waste Toner Container is detected.

This machine uses a weight-based detection mechanism. When waste toner is accumulated, the weight of accumulated waste toner pushes the spring, which gradually goes down.



F-2-100

Before Cont v35.02, Dcon v62.02

Detection description	Warning for full level of waste toner (approx. 1000 sheets to reach full level for waste toner)	Full level of waste toner
Detection timing	Adjustable by changing the EXT-TBOX value	Either of the following cases that comes first: After approx. 1000 sheets are printed from the point that the Developing Assembly supply count is started after the full level warning (in the case of A4 and dot ratio at 5% image for each color), or when 1000 sheets are printed since the full level warning.
Detecting to (location)	Waste Toner Full Level Switch (SW16)	Developing Assembly supply count OR The number of prints
Message (machine operation)	Please prepare a waste toner container (Continuous printing is enabled.)	Replace the waste toner container. (Host machine is stopped.)

T-2-36

Cont v35.02, Dcon v62.02 and later

Detection description	Detection timing	Detecting to (location)
Detection timing	The Waste Toner Container preparation warning is displayed after counting up approx. 9000 counts at 5% duty from the point that the weight detection is ON. (Adjustable by changing the EXT-TBOX value)	Either of the following cases that comes first: After approx. 1000 sheets are printed from the point that the Developing Assembly supply count is started after the full level warning (in the case of A4 and dot ratio at 5% image for each color), or when 1000 sheets are printed since the full level warning.
Detecting to (location)	Waste Toner Full Level Switch (SW16)	Developing Assembly supply count OR The number of prints
Message (machine operation)	Please prepare a waste toner container (Continuous printing is enabled.)	Replace the waste toner container. (Host machine is stopped.)

T-2-37

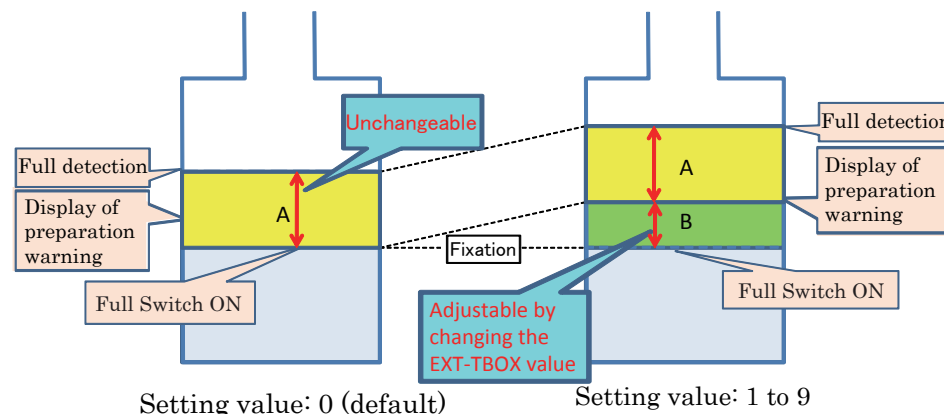
NOTE:

There is no mechanism to stir the waste toner with this equipment. Therefore, the volume is not equal to the weight and the volume tends to be large to the weight. Considering the worst situation since the waste toner volume is easily increased depending on the environment (e.g. high temperature and humidity), it is designed to release a warning when the weight reaches about 60% of the full weight so that toner spill is surely avoided. (The value that the volume reaches full in the worst case)

● Adjustment mode of Waste Toner Container preparation warning timing (Setting of service mode > COPIER > OPTION > CUSTOM > EXT-TBOX : Before Cont v35.02, Dcon v62.02)

By setting this service mode, the number of pages from when the full level switch is turned on until the machine stops can be set.

(0: 0 pages (default value), 1: 1000 pages, ...9: 9000 pages)



A: Unchangeable

Below (1) or (2), whichever is earlier after the display timing of the Waste Toner Container preparation warning.

(1) Count of the number of sheets: 1000 counts (1-sided: 1, 2-sided: 2, small size: 1, large size: 2)

(2) Developing supply count: Supply amount equivalent to approx. 1000 counts at 5% image ratio

* This number of sheets decreases as the image ratio increases.

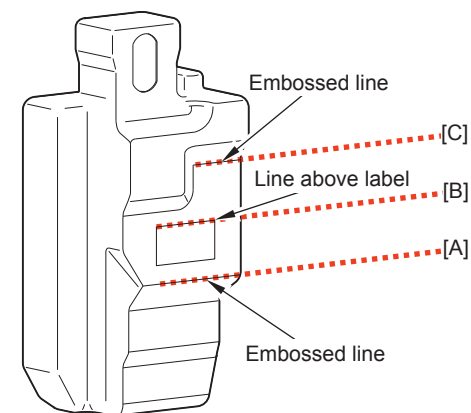
F-2-101

B: Varies according to the EXT-TBOX value

Service mode setting value	Display timing of Waste Toner Container preparation warning
"0" (Default setting)	When Waste Toner Full Sensor is turned ON
"1"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 1000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 1000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.
"2"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 2000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 2000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.
---	----- Count of the number of sheets: Added in increments of 1000 Developing supply count: Added in increments of approx. 1000 sheets at 5% image ratio
"9"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 9000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 9000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.

T-2-38

By using this service mode, the Waste Toner Container can be used effectively, but waste toner may overflow depending on the environment or status of usage. Therefore, the value must be set carefully. Following shows the reference for setting.



F-2-102

When toner level in the Waste Toner Container at previous replacement is less than A	+5
When toner level in the Waste Toner Container at previous replacement is over A but less than B	+1
When toner level in the Waste Toner Container at previous replacement is over B but less than C	Do not change the value
When toner level in the Waste Toner Container at previous replacement is over C	-1

T-2-39

CAUTION:

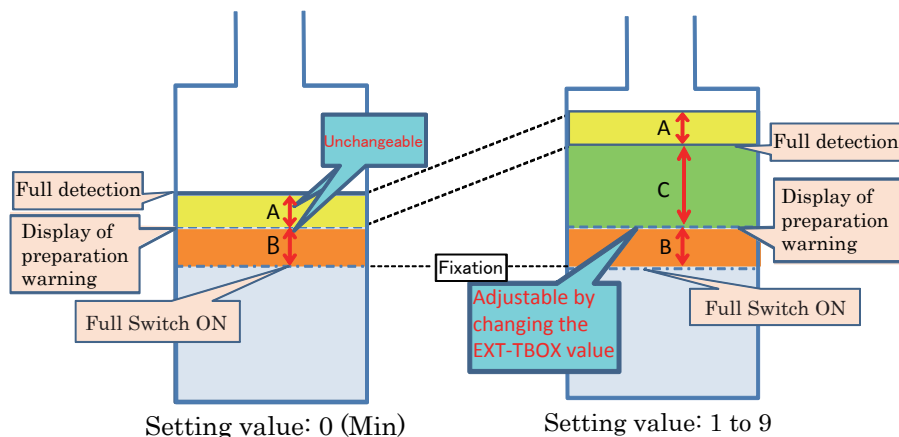
Even setting the service mode as above, waste toner leak may occur depending on usage of the user. (If a user prints a large volume of solid images in color, it may overflow.) Therefore, when changing the value, be sure to check the status of usage to confirm that not so many solid images in color have been output, and do not set a large value at once.

For the user who output a large volume of solid images in color, do not use this service mode. In summer, volume of waste toner tends to increase. Be careful not to increase the value too much before summer.

● Adjustment mode of Waste Toner Container preparation warning timing (Setting of service mode > COPIER > OPTION > CUSTOM > EXT-TBOX : Cont v35.02, Dcon v62.02 and later).

By setting this service mode, the number of pages from when the full level switch is turned on until the machine stops can be set.

(0: 5000 pages, 1: 6000 pages, ..., 4: 9000 pages (default value), ...9: 14000 pages)



A: Unchangeable

F-2-103

Below (1) or (2), whichever is earlier after the display timing of the Waste Toner Container preparation warning.

(1) Count of the number of sheets: 1000 counts (1-sided: 1, 2-sided: 2, small size: 1, large size: 2)

(2) Developing supply count: Supply amount equivalent to approx. 1000 counts at 5% image ratio

* This number of sheets decreases as the image ratio increases.

B: Unchangeable

Below (1) or (2), whichever is earlier after the display timing of the Waste Toner Container preparation warning.

(1) Count of the number of sheets: 5000 counts (1-sided: 1, 2-sided: 2, small size: 1, large size: 2)

(2) Developing supply count: Supply amount equivalent to approx. 5000 counts at 5% image ratio

* This number of sheets decreases as the image ratio increases.

C: Varies according to the EXT-TBOX value

Service mode setting value	Display timing of Waste Toner Container preparation warning
"0"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 5000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 5000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.
"1"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 6000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 6000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.
---	---
"4"(Default setting)	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 9000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 9000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.
---	---
"9"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 14000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 14000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.

T-2-40

By using this service mode, the Waste Toner Container can be used effectively, but waste toner may overflow depending on the environment or status of usage. Therefore, the value must be set carefully. Following shows the reference for setting.

CAUTION:

Even setting the service mode as above, waste toner leak may occur depending on usage of the user. (If a user prints a large volume of solid images in color, it may overflow.) Therefore, when changing the value, be sure to check the status of usage to confirm that not so many solid images in color have been output, and do not set a large value at once.

For the user who output a large volume of solid images in color, do not use this service mode. In summer, volume of waste toner tends to increase. Be careful not to increase the value too much before summer.

● Waste Toner Container Detection

Presence/absence of the Waste Toner Container is detected.

Detection timing

- 1) At power-on

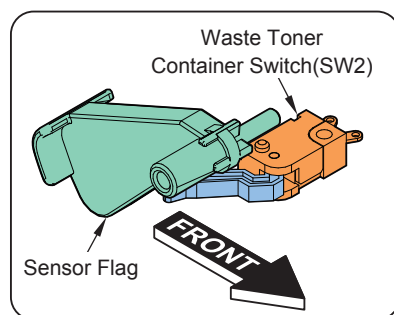
Detection description

Presence/absence of the Waste Toner Container is detected according to the status of the Waste Toner Container Switch (SW2).

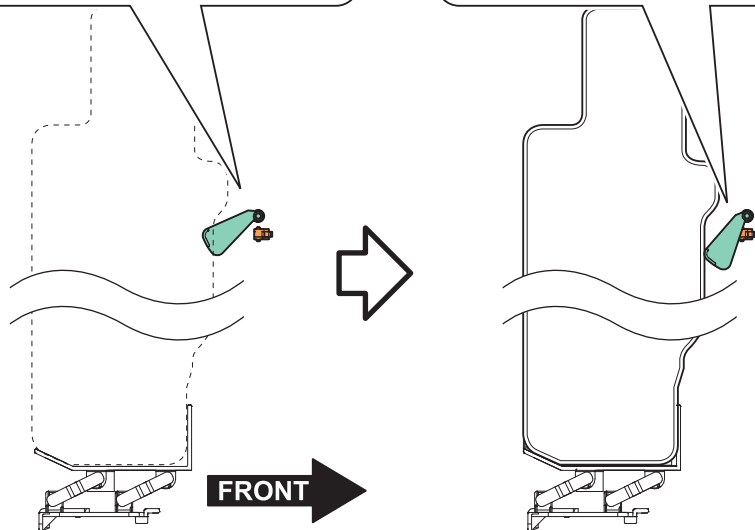
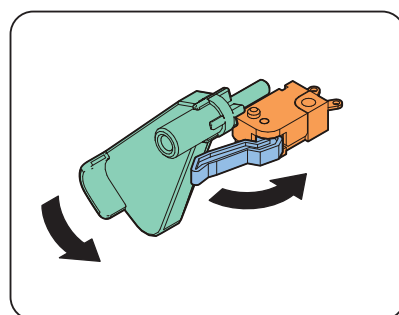
ON: There is a Waste Toner Container

OFF: There is no Waste Toner Container (display user message)

[Without the container]



[With the container]

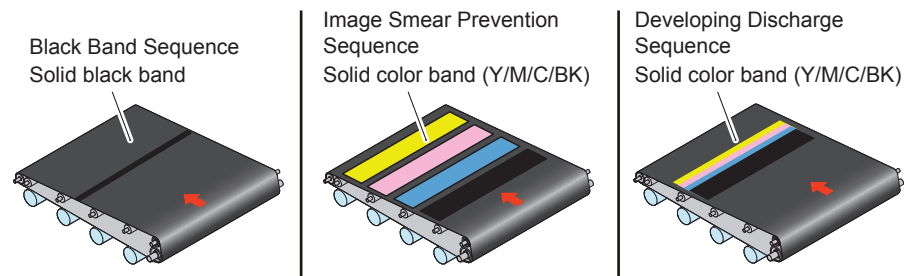


F-2-104

■ Other Controls

● Special Controls

This machine has the following sequences as the special sequence.



F-2-105

Black Band Sequence

Control timing: At last rotation after printing of 100 sheets

When performing continuous printing while no toner is fed to the ITB Cleaning Blade, it may cause the blade to be everted. To prevent it happens, toner is transferred onto the ITB (a solid black band: width = whole ITB width, length = 1mm) to supply toner to the blade.

Image Smear Prevention Sequence

Control timing: Immediately after generating patch pattern with ATR control under a high humidity environment.

Toner band for all colors is formed to prevent image smear by supplying toner to the Auxiliary Brush and increasing sweeping performance for discharged product on the Drum.

Developing Discharge Sequence

Control timing: When the average image ratio per sheet reaches 2% or less

Developing performance can decrease when performing continuous printing with low image ratio. To prevent this error, the average image ratio for each color is calculated with the ATR control and adequate amount of toner based on the calculation (width = A4, length = a solid color band according to the deteriorated toner amount) is transferred to the ITB.

Print Mode Switch Sequence

This sequence is executed when the print mode to be printed next is different from the print mode currently executed. For this sequence, the operation to be executed differs between color mode switching and print speed switching. Therefore, downtime differs as well. Up to 28 seconds downtime is expected.

Type	Control to execute switching
Color mode switching (Color mode, Black mode)	• Drum phase control (when the print mode to be printed next is the color only)
Print speed switching (Full-speed, Half-speed)	• Fixing temperature switching • Scanner Motor / Feed Motor speed switching • Drum phase control (when the print mode is the color only)

T-2-41

Service Tasks

■ Periodically Replaced Parts

None

■ Consumable Parts

No.	Parts name	Parts number	Quantity	Estimated life	Remarks
1	ITB Unit	FM3-8240	1	150,000 images	
2	Secondary Transfer Outer Roller	RM1-7928	1	150,000 images	
3	Waste Toner Container	FM3-8137	1	60,000 images	Plain paper, Intermittent printing of 2 sheets per job, Bk color, image ratio at 5% If service engineer removes the waste toner from the Waste Toner Container, the Waste Toner Container can be reused.

T-2-42

■ List of Periodical Service Works

No.	Parts name	Execution period	Work	Remarks
1	Patch Sensor	50,000 sheets	Cleaning	

T-2-43

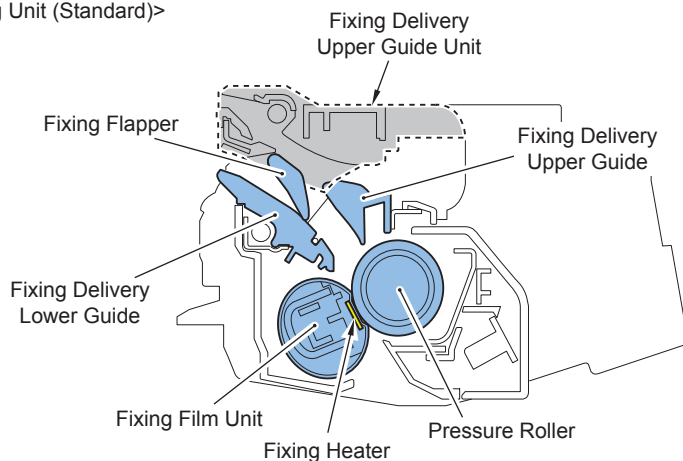
Fixing System

Overview

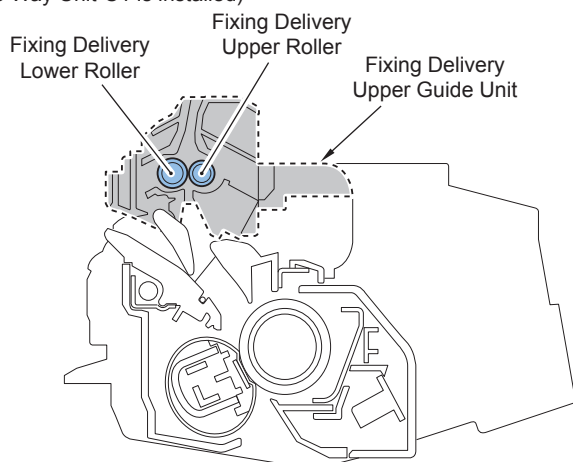
■ Features

This machine uses the on-demand fixing method.

<Fixing Unit (Standard)>



<Fixing Unit (when 3 Way Unit-C1 is installed)>



F-2-106

1. Applying a "service-less" Fixing Assembly

To replace the Fixing Assembly, a simple replacement procedure in which fixing screws do not have to be removed is realized for improving the serviceability.

2. Realizing a compact Fixing Assembly

By reducing the diameter of the Fixing Film and Pressure Roller, a compact Fixing Unit is realized.

3. Realizing improvement of fixing performance

By enhancing nip pressure and using two thermistors for fixing temperature control, highly accurate temperature control according to media is enabled.

As a result, a Fixing Assembly with high fixing performance is realized.

The Fixing Delivery Upper Guide Unit is not installed in the Fixing Assembly (service part).

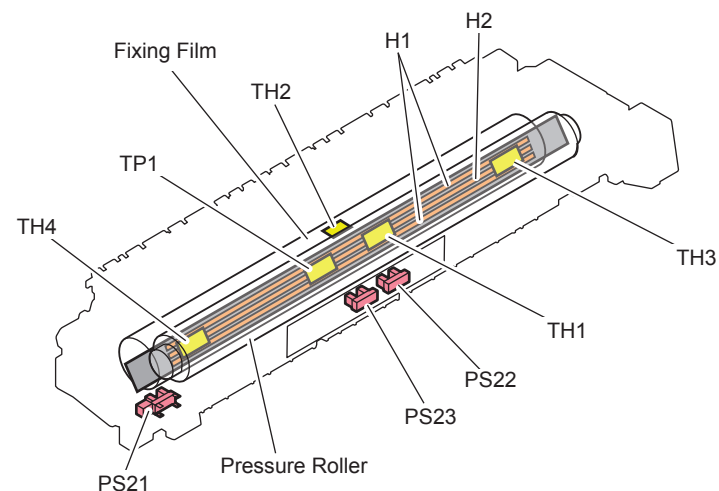
When replacing the Fixing Assembly, remove the guide from the old Fixing Assembly and attach it to the new Fixing Assembly.

■ Specifications

Item	Function/method
Fixing method	On-demand fixing
Fixing speed	135 mm/s (1/1 speed, plain paper) 67.5 mm/s (1/2 speed, heavy paper, long length heavy paper: SRA3, 12"×18")
Heater	Aluminum Heater Main Heater (Heat distribution: High at the center) / Sub Heater (Heat distribution: High at the edge) are driven independently. The heater activation rate changes according to the paper size. Purpose: To control temperature increase at the edge
Control temperature	Target temperature at printing <Plain Paper 1 (65 to 82g/m ²)> 134 to 155 deg C
Detection of temperature	Detected by Main Thermistor 1/2, Sub Thermistor 1/2.
Protection function	Main Thermistor 1/2, Sub Thermistor 1/2. When a failure is detected, power supply to Fixing Heater is shut down. Temperature fuse Rated operation temperature: 228 +0/-6 deg C

T-2-44

■ Major Components



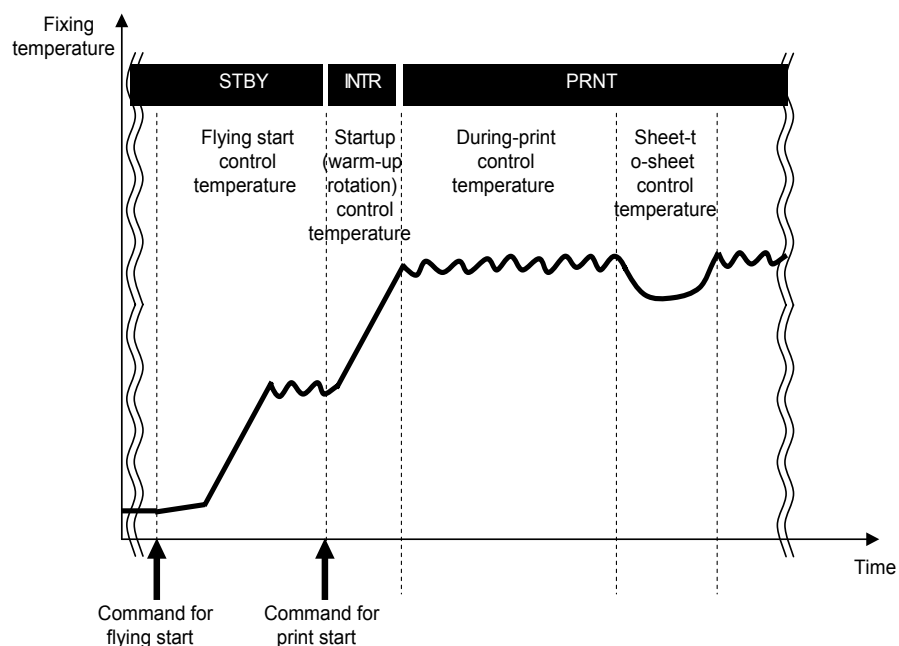
F-2-107

Parts name	Function/method	
---	Fixing Film Unit	A toner image on paper is fixed by applying heat/pressure.
---	Pressure Roller	
H1	Fixing Main Heater	For heating the center of Fixing Film (Aluminum Heater)
H2	Fixing Sub Heater	For heating the edge of Fixing Film (Aluminum Heater)
TH1	Main Thermistor 1	This is engaged with the inside surface of Film. Temperature is controlled and abnormal temperature increase is detected.
TH2	Main Thermistor 2	This is engaged with Heater. Temperature is controlled and abnormal temperature increase is detected.
TH3	Sub Thermistor 1	This is engaged with Heater. (Non paper feed area. Installed at the rear side of the host machine.) Temperature is controlled, and temperature at the edge and abnormal temperature increase are detected.
TH4	Sub Thermistor 2	This is engaged with Heater. (Non paper feed area. Installed at the front side of the host machine.) Temperature is controlled, and temperature at the edge and abnormal temperature increase are detected.
TP1	Temperature Fuse	Heater non contact type AC power supply is shut down at detection of a failure.
PS21	First Delivery Sensor	Jam detection
PS22	Loop Sensor 1	The fixing arch level is detected. (For heavy paper)
PS23	Loop Sensor 2	The fixing arch level is detected. (For other papers)

T-2-45

Controls

Overview of Fixing Temperature Control



F-2-108

Standby Temperature Control

This control is executed to pre-heat the Fixing Assembly to reduce time to start printing.

- Flying start temperature control

Print Temperature Control

This control is executed to increase a fixing temperature to the target level and keep it during printing.

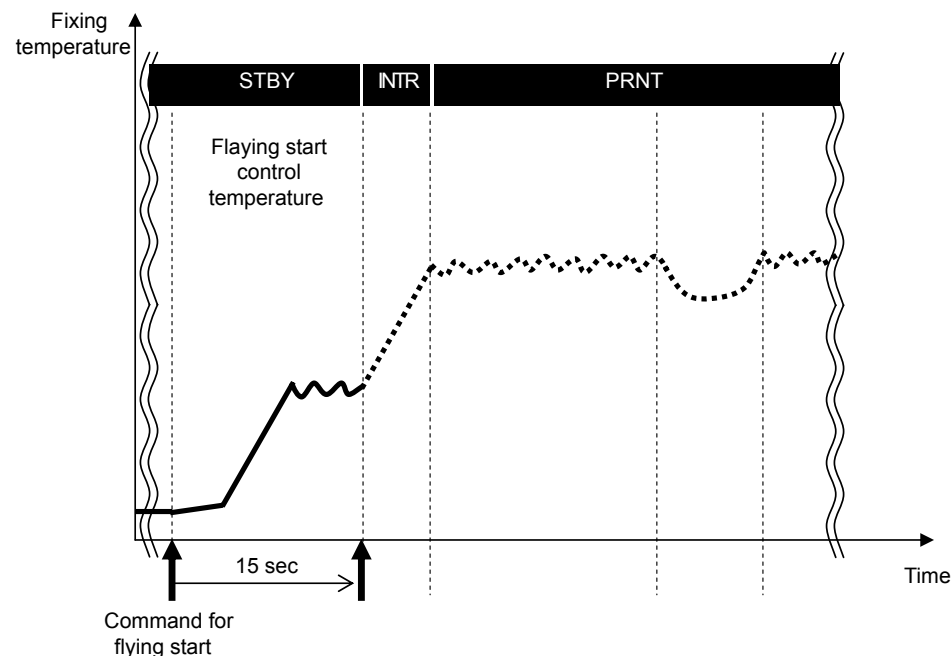
- Startup (initial rotation) temperature control
- Print temperature control
- Paper interval temperature control

Down Sequence Control

This control is executed to prevent a fixing failure due to temperature increase at the edge or temperature decrease. Throughput decreases.

- Down sequence when small-size paper is fed
- Down sequence when the paper size is switched

Standby Temperature Control



F-2-109

Flying start temperature control

Purpose: To reduce time to print the first sheet (FPOT).

Startup condition:

- When pressing a numeric key on Control Panel
- When pressing a software key on Touch Panel
- When opening/closing the Cassette
- When recovering from sleep mode to standby mode

Control description:

A temperature is increased to a specified level (125 to 140 deg C: Main Thermistor 2: TH2) and controlled. It takes 15 seconds from the final operation.

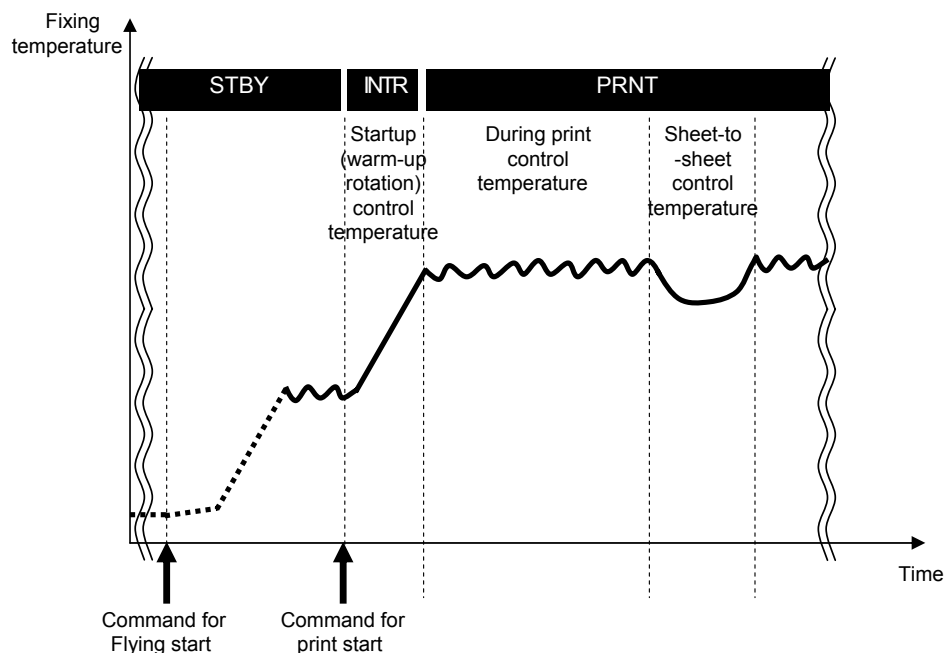
Related service mode: (Lv.2) COPIER > OPTION > IMG-FIX> FLYING
(Setting of whether or not to execute flying start)

<Setting value>

0: Flying start is executed. [Default]

1: Flying start is not executed.

Print Temperature Control



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Startup (initial rotation) temperature control

A fixing temperature is increased to a temperature where printing can be executed after receiving an instruction to start printing.

Print temperature control

An appropriate target temperature is set according to the number of sheets, paper type, and environment at continuous printing.

A temperature of the Fixing Heater is controlled according to the result of detection by the Main Thermistor 1/2 (TH1/2).

Target temperature during printing

Paper type	Resolution	Fixing speed	Target temperature (deg C)
Plain paper 1 (65 to 82g/m ²), Color paper, Recycled paper	600dpi	135mm/sec (1/1 speed)	134 to 155
Plain paper 2 (83 to 99g/m ²), Pre-punched paper, Tracing paper, Washi (JPN paper), Bond paper			144 to 155
Thin paper			129 to 145
Plain paper 3 (100 to 105g/m ²)			149 to 160
Plain paper 1 (65 to 82g/m ²), Color paper, Recycled paper	1200dpi	67.5mm/sec (1/2 speed)	119 to 133
Plain paper 2 (83 to 99g/m ²), Pre-punched paper, Tracing paper, Washi (JPN paper), Bond paper			123 to 138
Thin paper			116 to 128
Plain paper 3 (100 to 105g/m ²)			126 to 143
Heavy paper 1 (106 to 120g/m ²), Heavy paper 2 (121 to 163g/m ²), 1-Sided Coated paper 1 (100 to 163g/m ²)	600/1200dpi		128 to 140
2-Sided Coated paper 1 (100 to 163g/m ²)			138 to 150
Labels (121 to 220g/m ²)			
1-Sided Coated paper 2 (106 to 163g/m ²), 2-Sided Coated paper 2 (164 to 200g/m ²), Heavy paper 3 (164 to 220g/m ²), Postcard, 4 on 1 Postcard			132 to 140
Envelope			
Transparency			
Plain paper wide (60 to 105g/m ²)			132 to 147
Heavy paper 1 wide (106 to 120g/m ²)			140 to 145
Heavy paper 2 wide (121 to 163g/m ²)			145 to 150
Heavy paper 3 wide (164 to 220g/m ²)			

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* Wide: 12"×18" (305mm x 457mm), SRA3 (320mm x 450mm)

Paper interval temperature control

A paper interval temperature is decreased to prevent temperature increase when the paper interval became wider than a normal condition ^{*1}.

Paper Interval Temperature = Target temperature during printing - (15 to 30 deg C) ^{*2}

- *1: At down sequence
- An interval between the first side and the second side at 2-sided printing
 - At execution of controls (ATR control, registration control, ATVC control)
- *2: Determined according to the time which elapsed from when fixing temperature control (including standby control) finished last time and the fixing temperature when startup control started.

Related service mode:

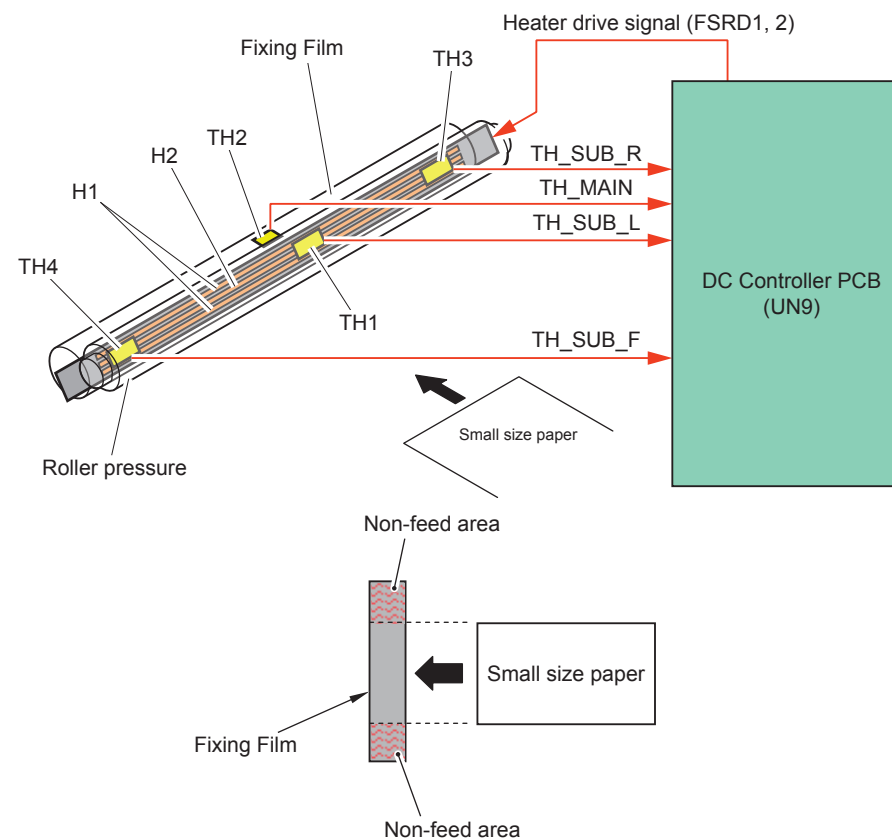
- Display of Thermistor detection temperature
(Lv.1) COPIER > DISPLAY > ANALOG
> FIX-C (Main Thermistor 2 detection temperature)
> FIX-E (Main Thermistor 1 detection temperature)
> FIX-E2 (Sub Thermistor 2 detection temperature)
> FIX-E3 (Sub Thermistor 2 detection temperature)
- Fixing temperature control offset
(Lv.1) COPIER > OPTION > CUSTUM
> TEMP-TBL (1/1Speed: Plain paper 1 to 3, Thin Paper)
(Lv.1) COPIER > OPTION > IMG-FIX
> TMP-TBL2 (1/2Speed: Heavy paper 1 to 3)
> TMP-TBL4 (1/2Speed: Plain paper 1 to 3, Thin Paper)
> TMP-TBL5 (OHT)
> TMP-TBL6 (Envelope)

<Setting value>

TH1 offset temperature	TH2 offset temperature
-2: -10 deg C	-2: -5 deg C
-1: -5 deg C	-1: -2.5 deg C
0: 0 deg C [Default]	0: 0 deg C [Default]
+1: +5 deg C	+1: +2.5 deg C
+2: +10 deg C	+2: +5 deg C

Down Sequence Control

Down sequence when small-size paper is fed



Purpose:

Deterioration of the Fixing Offset and Fixing Film is prevented by controlling temperature increase at a non paper feed area at continuous printing of small-size paper (paper with the width direction size of less than LTR)

Startup condition:

Executed when the detection temperature by the Sub Thermistor 1 (TH3) or Sub Thermistor 2 (TH4) exceeded a specified temperature (235 to 270 deg C) during printing.

F-2-111

Operation:

A temperature is decreased by increasing a paper interval, and the temperature is controlled at a slightly lower level than the target temperature at normal printing

Paper type (): Paper weight (g/m ²)	Resolution (600/1200dpi) *	Target temperature (deg C)	Print speed (ppm)
Plain paper 1 (65 to 82) / Recycled paper (65 to 82) / Pre-punched paper / Tracing paper / Washi (JPN paper) (93)	600	134 to 155	15 to 4
Thin paper (60 to 64) / Color paper (65 to 82)		129 to 145	
Plain paper 2 (83 to 105) / Bond paper (80 to 90)		144 to 160	
Plain paper 1 (65 to 82) / Recycled paper (65 to 82) / Pre-punched paper / Tracing paper / Washi (JPN paper) (93)	1200	119 to 133	8 to 2
Thin paper (60 to 64) / Color paper (65 to 82)		116 to 128	
Plain paper 2 (83 to 105) / Bond paper (80 to 90)		123 to 143	
Heavy paper 1 (106 to 163) / Heavy paper 2 (164 to 209) / Coated paper 1 (106 to 163)	600/1200dpi	128 to 140	
Heavy paper 3 (210 to 220) / Texture paper (150) / Postcard, 4 on 1 Postcard (190) / Tab paper (160 to 203) / Coated paper 2 (164 to 209)		138 to 150	
Envelope		132 to 140	
Transparency		129 to 145	

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* Half-speed control is executed for 1200dpi processing.

Related service mode:

- Down sequence start temperature setting when small-size paper is fed (Lv.1) COPIER > OPTION > IMG-SPD > FX-D-TMP

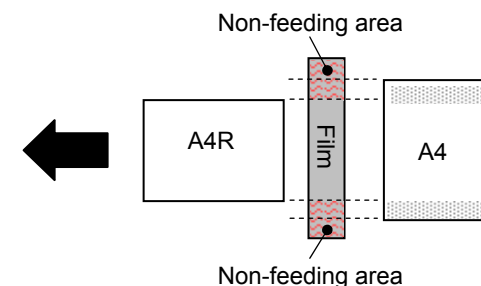
<Setting value>

-4:	-8 deg C
-3:	-6 deg C
-2:	-4 deg C
-1:	-2 deg C
0:	0 deg C [Default]
+1:	+2 deg C
+2:	+4 deg C
+3:	+6 deg C
+4:	+8 deg C

- Down sequence when the paper size is switched

Purpose:

During continuous printing, when a succeeding sheet with a wider width than a preceding sheet is fed, temperature at the non paper feed area increases, and it may cause fixing offset and wrinkles, etc. This down sequence controls temperature increase at the non paper feed area.



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Startup condition:

Executed when the difference between the higher temperature detected by either Sub Thermistor 1 (TH3) or Sub Thermistor 2 (TH4) and the temperature of the Main Thermistor (TH1) is the specified temperature (5 to 30 deg C) or higher at the timing when a sheet with a wider width than a preceding sheet is fed during printing.

Operation:

The paper interval is increased to decrease temperature, and feeding the succeeding sheet and power supply to the Heater are stopped.

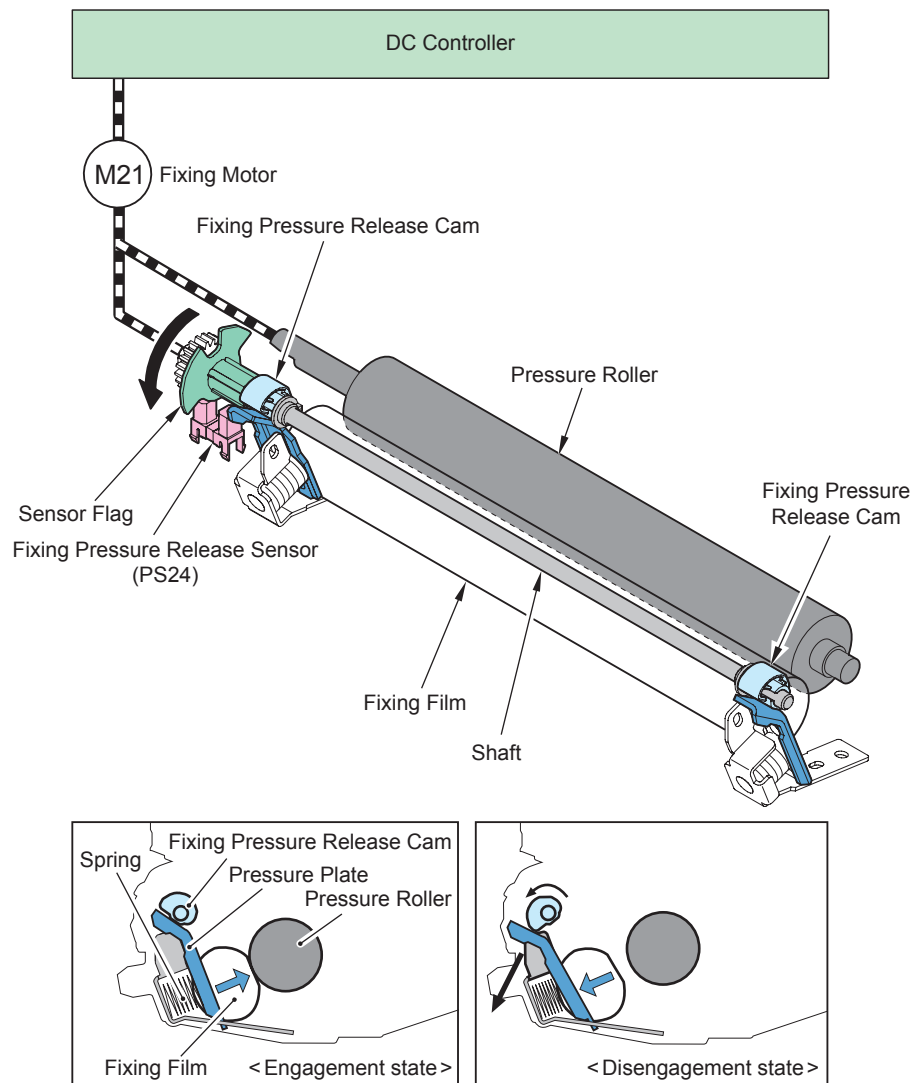
Termination condition:

This down sequence is terminated at the point when any of the following conditions is satisfied.

- The difference between the higher temperature detected by either Sub Thermistor 1 (TH3) or Sub Thermistor 2 (TH4) and the temperature of the Main Thermistor 1 (TH1) has become the specified temperature (5 to 30 deg C) or less.
- 30 seconds at maximum have elapsed since the preceding sheet passed the Fixing Nip.

Film Unit Engagement/Disengagement Control

The Fixing Film Unit is disengaged from the Pressure Roller under a specific condition for the purpose of preventing deformation of the Fixing Film/Pressure Roller due to heat and pressure when the drive of the Pressure Roller stops and improving a jam removal processing.



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Execution condition/timing of engagement operation:

- When the unit is disengaged at power-on
- At recovery from sleep mode
- At recovery after jam removal
- When closing the Front Cover/Right Cover

Execution condition/timing of disengagement operation:

- When turning OFF the power
- When detecting a jam at power-on
- At transition to sleep mode (When the power switch on the Control Panel is turned OFF, and the setup time for transition to sleep mode has elapsed)
- At occurrence of a jam
- At occurrence of an error

Related error code:

E009-0000 (Fixing Film Unit engagement/disengagement error)

There is no change in the result of detection by the Fixing Pressure Release Sensor even after five seconds elapsed after counterclockwise rotation of the Fixing Motor started.

Fixing Arch Control

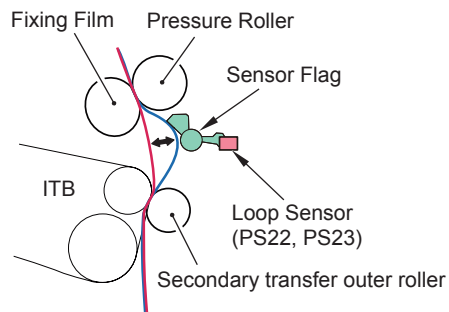
This machine executes fixing loop control to prevent image and feeding failures.

Fixing loop control is executed to prevent image and feeding failures by keeping the slack of paper between the Secondary Transfer Outer Roller and Pressure Roller to a specified level. Since the feeding speed of the Pressure Roller and that of the Secondary Transfer Outer Roller are not completely the same when a sheet is fed to the Fixing Assembly, the following problems occur.

When the feeding speed of the Pressure Roller is slower than that of the Secondary Transfer Outer Roller, the slack of paper becomes larger, causing an image failure or paper wrinkle.

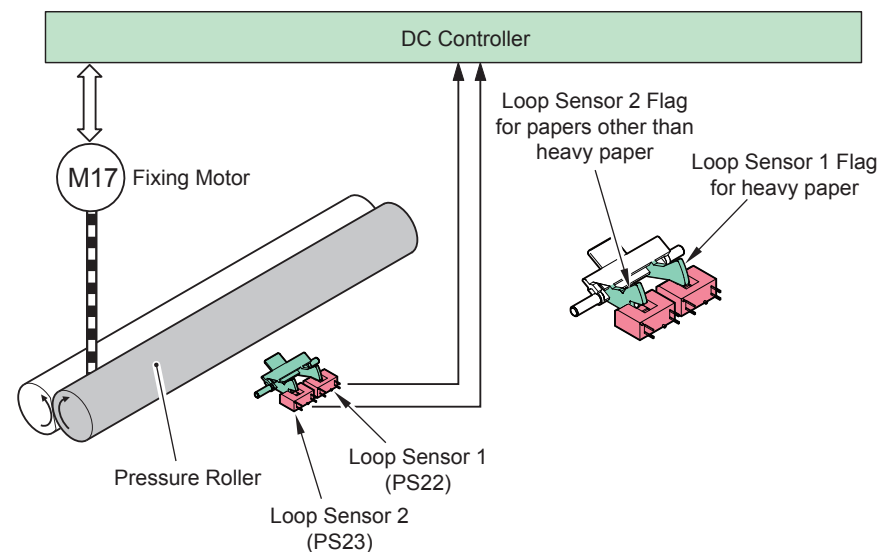
When the feeding speed of the Pressure Roller is faster than that of the Secondary Transfer Outer Roller, the slack of paper becomes smaller, causing incorrect transfer of a toner image, and an image expansion occurs.

The following figure shows the slack of paper.



F-2-114

To prevent this symptom, two Arch Sensors located at the inlet of the Fixing Assembly detect the slack of paper, and the DC Controller controls the rotation speed of the Fixing Motor. This keeps an appropriate level of paper slack.

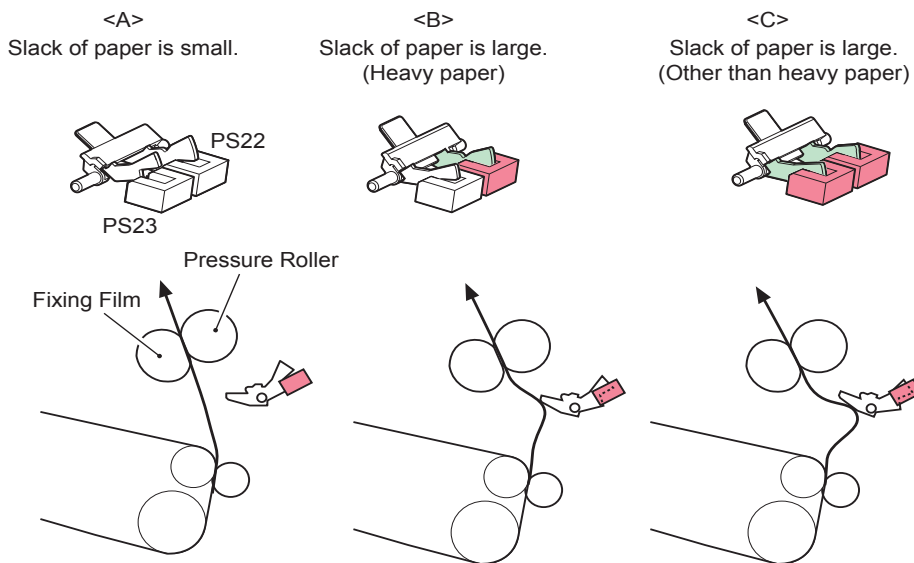


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Two Arch Sensors are explained below.

Arch Sensor 1 (PS22): Detects slack of paper when heavy paper is fed.

Arch Sensor 2 (PS23): Detects slack of paper when plain paper other than heavy paper is fed.



F-2-116

Illustration No.	Arch Sensor (PS22)	Arch Sensor (PS23)	Operation of Fixing Motor	
			Heavy paper	Paper other than heavy paper
A	OFF	OFF	Speed decreases.	Speed decreases
B	ON	OFF	Speed increases.	
C	ON	ON		Speed increases.

T-2-48

NOTE:

As for heavy paper, when the slack of paper is large and the trailing edge of the paper goes through the Secondary Transfer Outer Roller, the slack is rapidly removed because the paper elasticity is strong. As a result, the trailing edge of the paper oscillates, which may cause unfixed toner on the paper to scatter.

To prevent this problem, this machine has a sensor (PS22) to control the arch volume of heavy paper.

Fixing Assembly Detection

Presence of the Fixing Assembly is judged by a Fixing Assembly detection signal (/FSR_OPEN), which is input to the DC Controller at warm-up rotation (power-on, opening the cover).

When it is judged that the Fixing Assembly is absent, the machine displays "The fixing unit is not set. Please check the manual and set it correctly." and stops operation.

Signal	Judgment result
Fixing Assembly detection signal (/FSR_OPEN)	High: Fixing Assembly is absent. Low: Fixing Assembly is present.

Protection function

Code	Description	Clearing of error
E001	Detection of abnormal high temperature	
0001	Main Thermistor 1 (TH1) detected a temperature of 230 deg C or higher for more than 0.1 second.	Clear
0002	Main Thermistor 2 (TH2) detected a temperature of 283 deg C or higher for more than 0.1 second.	Clear
0003	Sub Thermistor 1 (TH3) detected a temperature of 283 deg C or higher for more than 0.1 second.	Clear
0004	Sub Thermistor 2 (TH4) detected a temperature of 283 deg C or higher for more than 0.1 second.	Clear
0005	Main Thermistor 2 hardware error detection signal executed detection for more than 1 second. (Hardware error detection temperature: 288 deg C)	Clear
0006	Sub Thermistor 1 hardware error detection signal executed detection for more than 1 second. (Hardware error detection temperature: 288 deg C)	Clear
0007	Sub Thermistor 2 hardware error detection signal executed detection for more than 1 second. (Hardware error detection temperature: 288 deg C)	Clear
0008	The temperature difference between the Sub Thermistor 1 (TH3) and the Sub Thermistor 2 (TH4) remained 45 deg C or more for 1 second or more.	Clear
E002	Detection of abnormal temperature increase	
0006	At startup while Fixing Motor is rotating, the temperature of Main Thermistor 1 (TH1) does not increase by 1 deg C or more per second.	Clear
E003	Detection of low temperature	
0001	In the period from initial rotation to printing, Main Thermistor 1 detected a temperature of 22 deg C or lower for more than 5 seconds.	Clear
0002	In the period from initial rotation to printing, Main Thermistor 2 detected a temperature of 40 deg C or lower for more than 3 seconds.	Clear
0003	In the period from initial rotation to printing, Sub Thermistor 1 detected a temperature of 40 deg C or lower for more than 3 seconds.	Clear
0004	In the period from initial rotation to printing, Sub Thermistor 2 detected a temperature of 40 deg C or lower for more than 3 seconds.	Clear
0005	In the period from printing to last rotation, Main Thermistor 1 detected a temperature of 70 deg C or lower for more than 5 seconds.	Clear
0006	In the period from printing to last rotation, Main Thermistor 2 detected a temperature of 80 deg C or lower for more than 1 second.	Clear
0007	In the period from printing to last rotation, Sub Thermistor 1 detected a temperature of 80 deg C or lower for more than 1 second.	Clear
0008	In the period from printing to last rotation, Sub Thermistor 2 detected a temperature of 80 deg C or lower for more than 1 second.	Clear

Code	Description	Clearing of error
E004	Detection of a failure in fixing heater drive circuit	
0001	Fixing Relay welding detection error	Not needed.
0005	Failure in electrical current detection circuit (Less than the specified range of current value)	Not needed
0006	Failure in electrical current detection circuit (More than the specified range of current value)	Not needed
E009	Fixing Film Unit engagement/disengagement error	
0000	There is no change in the result of detection by the Fixing Pressure Release Sensor even after five seconds elapsed after counterclockwise rotation of the Fixing Motor started.	Not needed
E808	Detection of a failure in zero cross circuit	Not needed
0001	A failure of zero cross detection signal was detected for more than 5 seconds after power-on.	Not needed
0002	A failure of zero cross detection signal was detected for more than 0.5 seconds after startup of Fixing Assembly.	Not needed

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Service Tasks

Periodically Replaced Parts

None.

Consumable Parts

Parts name	Parts number	Quantity	Estimated life (sheets)	Counter (DRBL-1)	Adjustment	Remarks
1 Fixing Assembly	FM1-B289	1	150000	FX-UNIT	None	100V
	FM1-B290					120V
	FM1-B291					230V

T-2-50

List of Periodical Service Works

None.

Actions at Parts Replacement

None.

Pickup Feed System

Overview

■ Features

- Pickup mechanism
 - Since the pickup mechanism of Cassette 1 differs from that of Cassette 2, the stacking capacity, available paper sizes, and paper weight differ.
- Improvement of productivity
 - Nonstop registration control enables image matching without stopping a paper at the registration position, and improved productivity.
- Automatic paper size recognition by cassettes
 - Automatic paper size recognition is achieved by using two size switches and side plates. A user does not need to set the size of paper other than special paper.
- Increased stack capacity in the Multi-purpose Tray
 - The stack capacity increased from 50 sheets to 100 sheets.

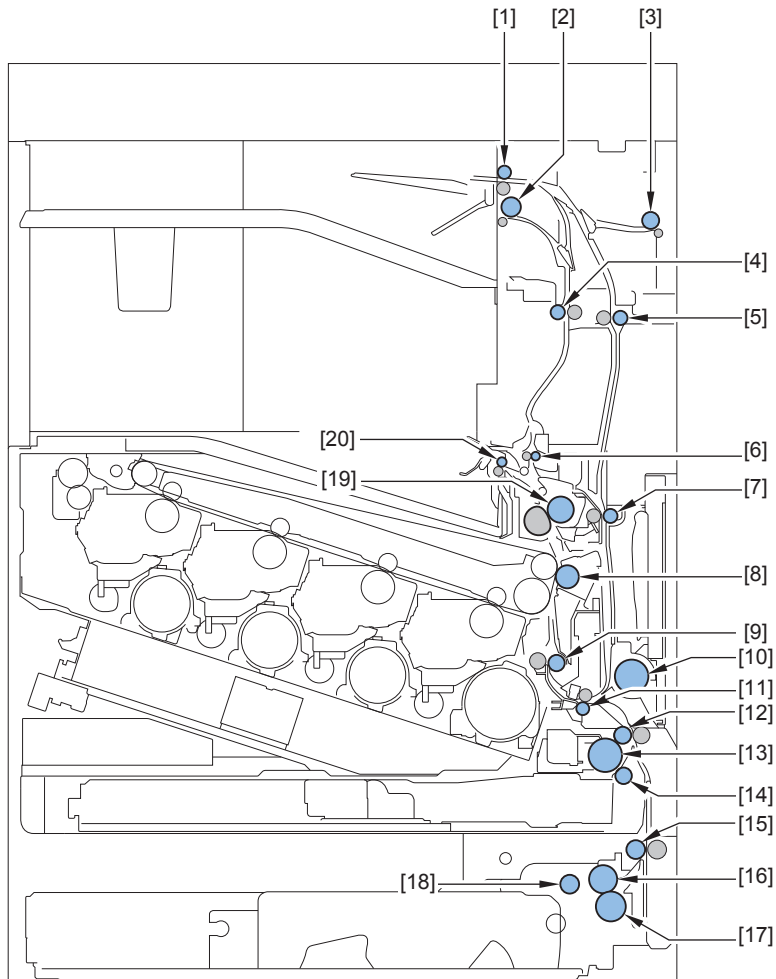
■ Specification

Item		Description
Paper storage method		Front loading method
Pickup method	Cassette 1	Simple Separation Roller method (Pickup Roller + Separation Roller)
	Cassette 2	Separation Roller method (Pickup Roller + Delivery Roller + Separation Roller)
	Multi-purpose tray	Separation Pad method (Pickup Roller + Separation Pad)
Paper stack capacity	Cassette 1	250 sheet (64g/m2 paper)
	Cassette 2	680 sheets (64g/m2 paper)
	Multi-purpose tray	100 sheets (64g/m2 paper)
Paper feed reference		Center reference
Paper size	Cassette 1	Standard (universal) A3,B4,A4,A4R,B5,B5R,A5R,LDR,LGL,LTR,LTRR,K8,K16
	Cassette 2	Standard (universal) A3,B4,A4,A4R,B5,B5R,A5R,LDR,LGL,LTR,LTRR,K8,K16,EXEC,STMTR,12"×18"
	Multi-purpose tray	A3,B4,A4,A4R,B5,A5,A5R,LDR,LGL,LTR,LTRR,K8,K16,EXEC,STMT,S TMTR,12"×18",SRA3,postcard, envelope, non-standard size (99mm x 140mm to 320mm x 457mm)
Paper grammage	Cassette 1	60-120g/m2
	Cassette 2	60-163g/m2
	Multi-purpose tray	60-220g/m2
Paper size switch	Cassette 1, 2	Size auto detection
	Multi-purpose tray	Input from the operation panel by uses
2-sided print method		Through path method
Paper level display		Yes
OHP detection		No
Lead edge margin	1-side	4.0mm +/-1.0mm
	2-side	4.0mm +1.5/-1.0mm
Left edge margin	1-side	2.5mm +/-1.5mm
	2-side	2.5mm +/-2.0mm

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■ Parts Configuration

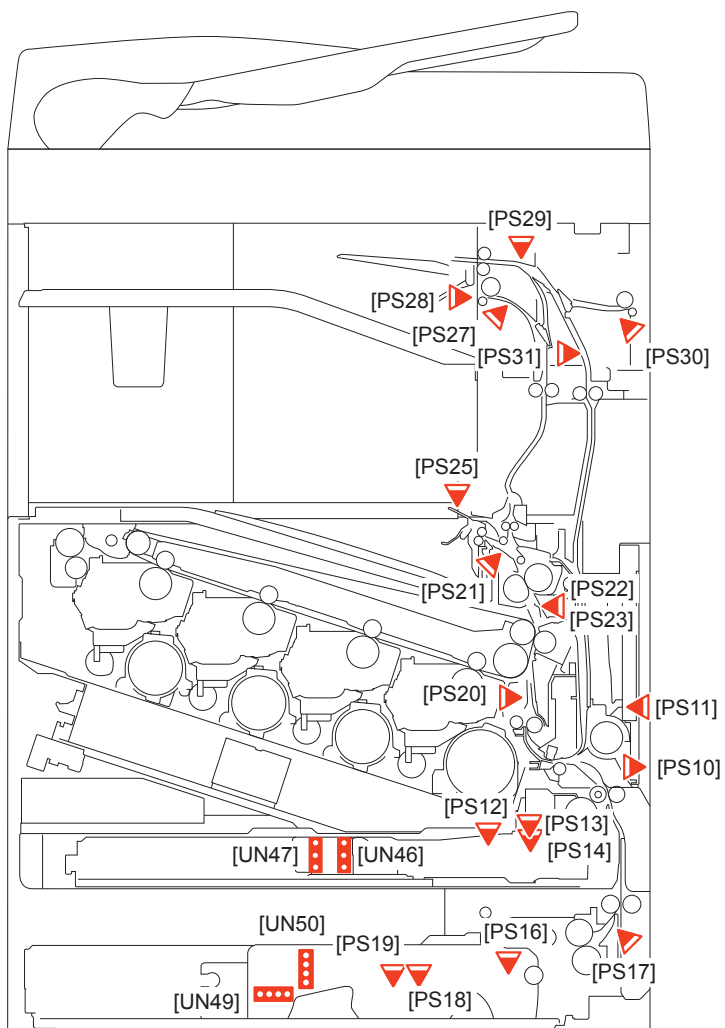
● Roller Layout Drawing



F-2-117

- | | |
|--|--------------------------------------|
| [1] Reverse Roller | [11] Merging Roller |
| [2] Second Delivery Roller | [12] Cassette 1 Vertical Path Roller |
| [3] Third Delivery Roller | [13] Cassette 1 Pickup Roller |
| [4] Second / Third Delivery Inlet Roller | [14] Cassette 1 Separation Roller |
| [5] Duplex Feed Upper Roller | [15] Cassette 2 Vertical Path Roller |
| [6] Fixing Delivery Upper Roller | [16] Cassette 2 Feed Roller |
| [7] Duplex Feed Lower Roller | [17] Cassette 2 Separation Roller |
| [8] Primary Transfer Outer Roller | [18] Cassette 2 Pickup Roller |
| [9] Registration Roller | [19] Roller Pressure |
| [10] Multi-purpose Tray Pickup Roller | [20] First Delivery Roller |

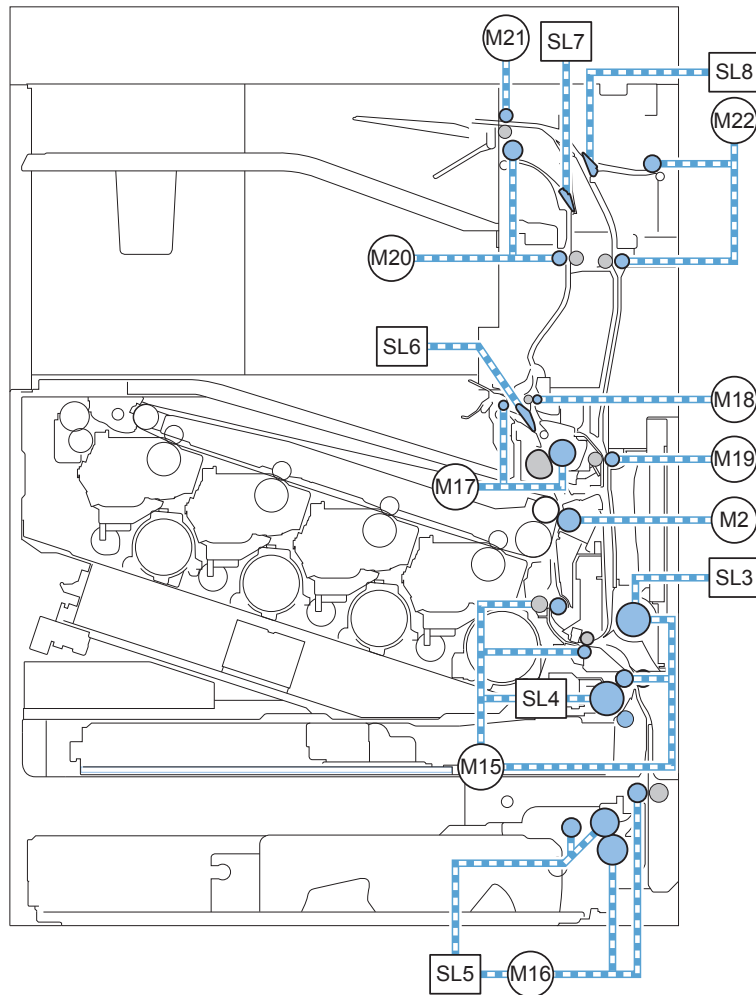
- Sensor/Switch Layout Drawing



F-2-118

PS10	Multi-purpose Tray Paper Sensor	PS25	First Delivery Tray Paper Full Sensor
PS11	Multi-purpose Tray Last Paper Sensor	PS27	Second Delivery Sensor
PS12	Cassette Lifter Sensor	PS28	Second Delivery Tray Full Sensor
PS13	Cassette 1 Paper Sensor	PS29	Reverse Sensor
PS14	Cassette 1 Paper Level Sensor	PS30	Third Delivery Sensor
PS16	Cassette 2 Paper Sensor	PS31	Duplex Sensor
PS17	Cassette 2 Vertical Path Sensor	UN46	Cassette 1 Size Switch A
PS18	Cassette 2 Paper Level Sensor A	UN47	Cassette 1 Size Switch B
PS19	Cassette 2 Paper Level Sensor B	UN49	Cassette 2 Size Switch A
PS20	Registration Sensor	UN50	Cassette 2 Size Switch B
PS21	First Delivery Sensor		
PS22	Arch Sensor 1		
PS23	Arch Sensor 2		

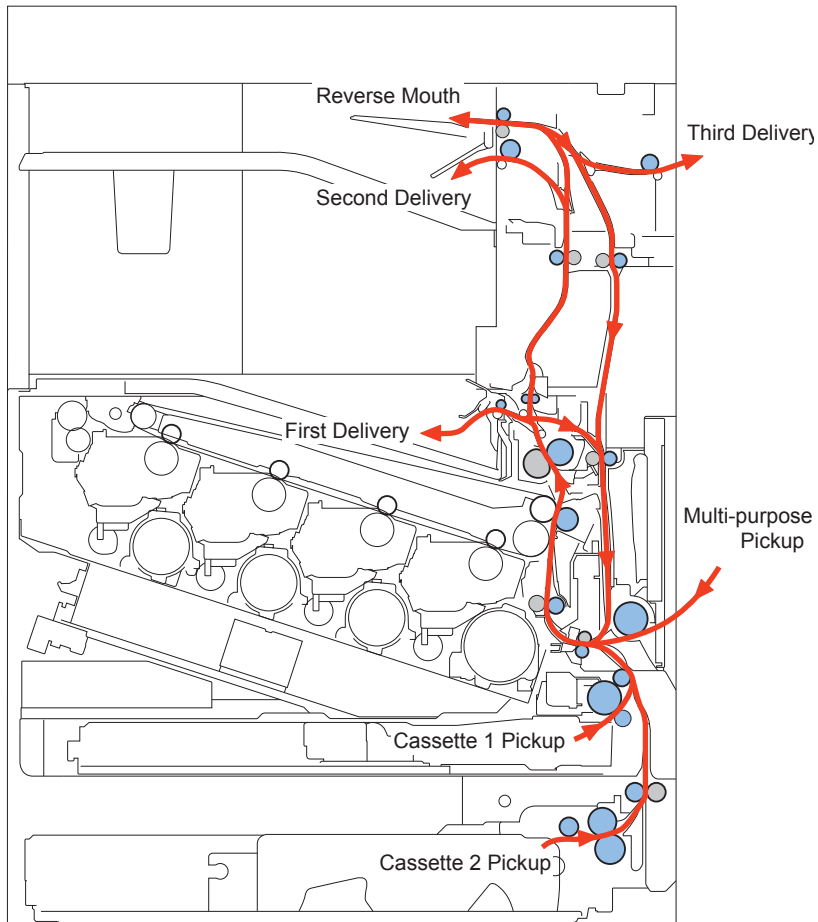
- Load Driving Drawing



F-2-119

M15	Cassette 1 Pickup Motor	SL3	Multi-purpose Tray Pickup Solenoid
M16	Cassette 2 Pickup Motor	SL4	Cassette 1 Pickup Solenoid
M17	Fixing Motor	SL5	Cassette 2 Pickup Solenoid
M18	Fixing Outlet Motor	SL6	First Delivery Flapper Solenoid
M19	Duplex Feed Motor	SL7	Second Delivery Flapper Solenoid
M20	Second Delivery Motor	SL8	Third Delivery Flapper Solenoid
M21	Reverse Motor		
M22	Third Delivery Motor		

■ Paper path



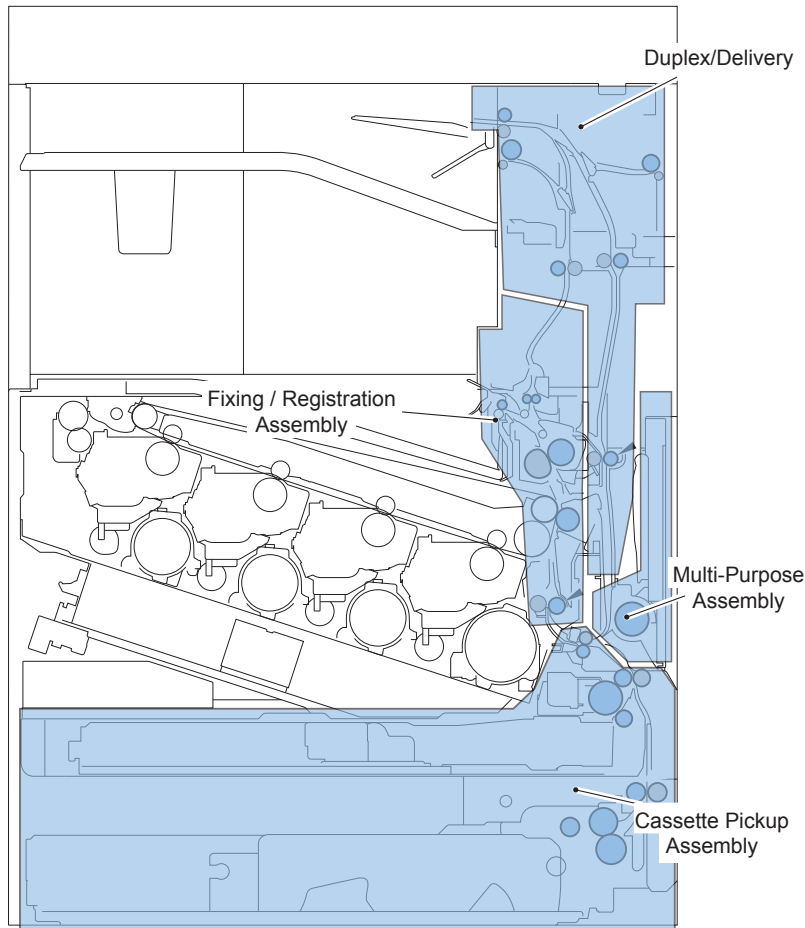
F-2-120

To feed heavy paper, the feed path in the Duplex Feed Assembly is made gently curved to minimize damage to the paper.

The paper feed speed is 135mm/sec.

Various Controls

Overview



F-2-121

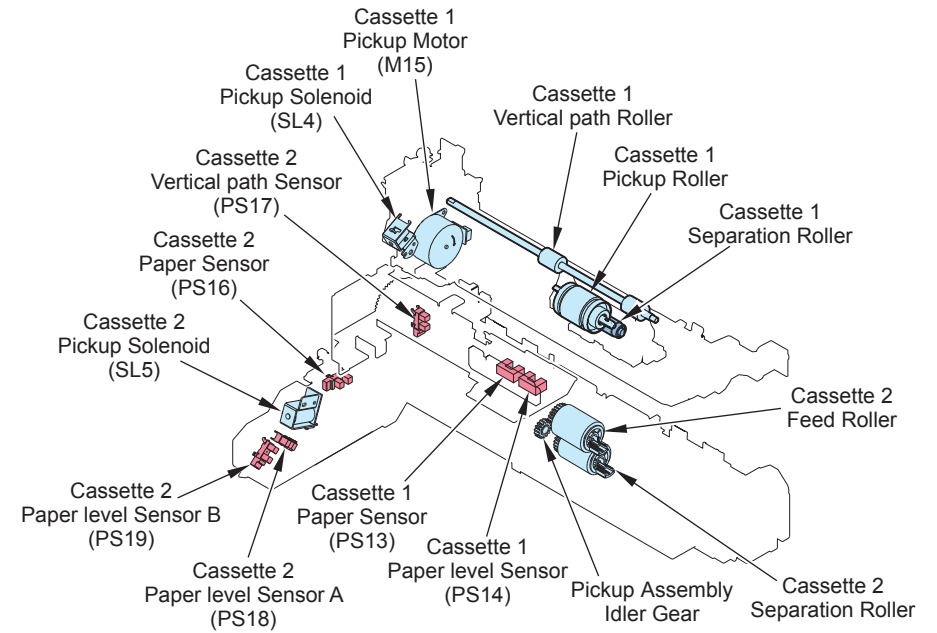
Area	Detection,Control
Cassette	Paper Level / Presence Detection
	Paper Size / Cassette Presence Detection
Multi-Purpose Pickup	The Multi-purpose Tray Paper Presence Detection
	The Multi-purpose Tray Last Paper Detection
Fixing / Registration Assembly	Registration Control
Duplex/Delivery	Duplex Feed Control
	Duplex Wait Control

Area	Detection,Control
JAM Detection	JAM Detection

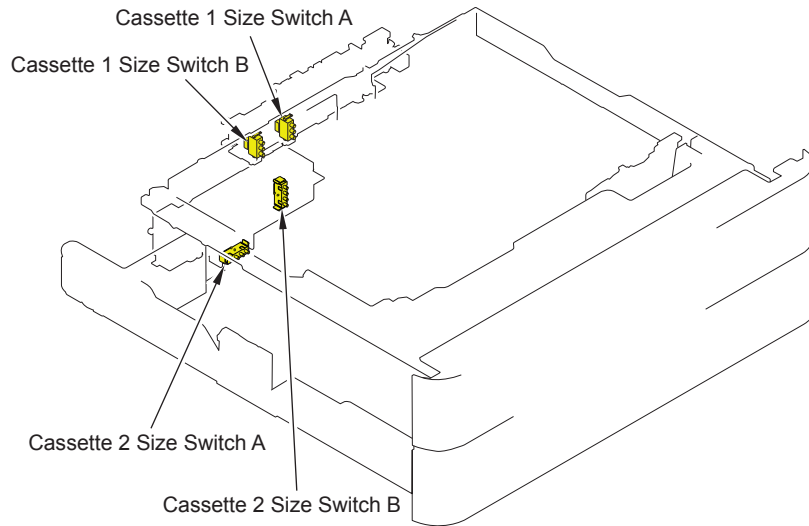
T-2-52

Cassette Pickup Assembly

Parts Configuration



F-2-122



F-2-123

Paper Size Detection / Cassette Presence Detection

Cassette 1

The Cassette 1 Size Switch A/B detects the size of the paper set in the cassette. Length and width are detected according to the ON / OFF combination of switches. As long as standard paper, both AB type and inch type can be used.

NOTE:

When a failure occurred while the cassette of the host machine is being lifted up, the cassette presence/absence and paper size status are not detected.

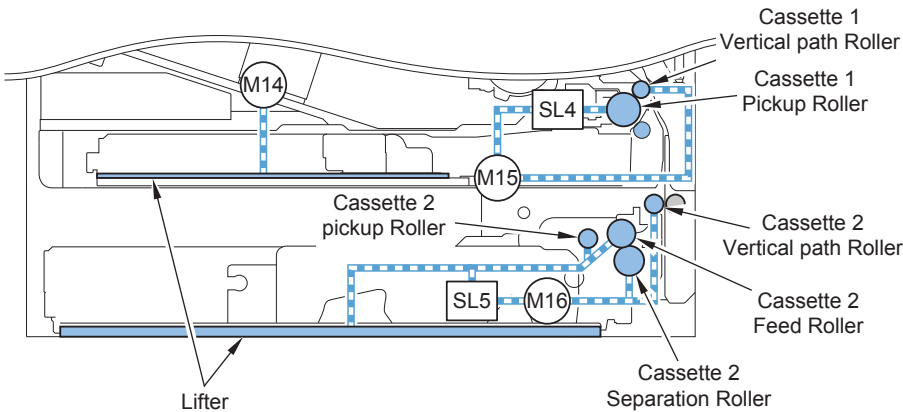
	Width	Length	Size switch A (Width Detection)			Size switch B (Length Detection)		
			1	2	3	1	2	3
B5	257.0	182.0	ON	OFF	OFF	-	OFF	OFF
K16	270.0	195.0	OFF	OFF	OFF	-	OFF	OFF
A5-R	148.5	210.0	OFF	ON	ON	-	OFF	OFF
A4	297.0	210.0	ON	ON	ON	-	OFF	OFF
LTR	279.4	215.9	ON	ON	OFF	-	OFF	OFF
B5-R	182.0	257.0	OFF	OFF	ON	-	OFF	OFF
LTR-R	215.9	279.4	ON	OFF	ON	-	OFF	OFF
A4-R	210.0	297.0	ON	OFF	ON	-	OFF	ON
LGL	215.9	355.6	ON	OFF	ON	-	ON	ON
B4	257.0	364.0	ON	OFF	OFF	-	ON	ON
K8	270.0	390.0	OFF	OFF	OFF	-	ON	ON
A3	297.0	420.0	ON	ON	ON	-	ON	ON
LDR	279.4	431.8	ON	ON	OFF	-	ON	ON

T-2-53

NOTE:

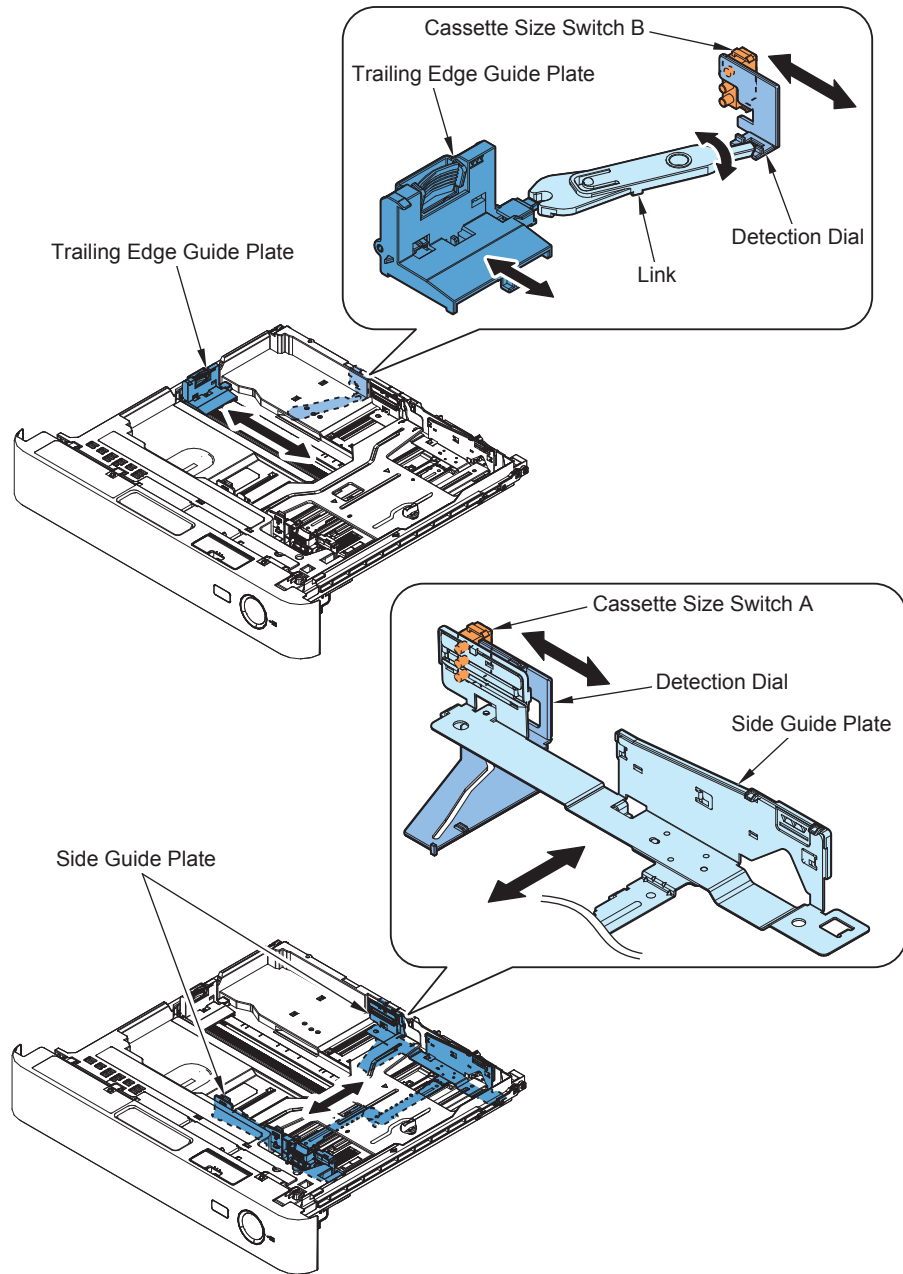
The upper switch of the Cassette Paper Length Switch detects the presence of the cassette. If there is cassette, the switch will be turned ON, and if there is no cassette, the switch will be turned OFF.

Drive Configuration

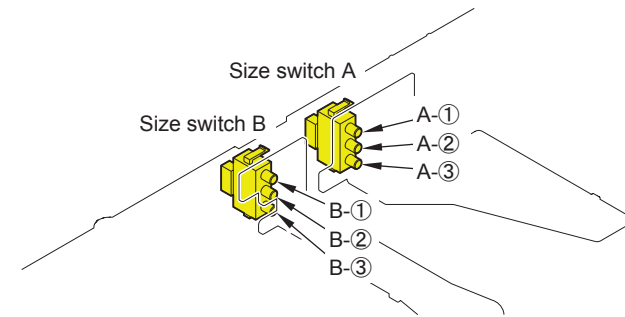


F-2-124

- M14 Lifter Motor
- M15 Cassette 1 Pickup Motor
- M16 Cassette 2 Pickup Motor
- SL4 Cassette 1 Pickup Solenoid
- SL5 Cassette 2 Pickup Solenoid



F-2-125



F-2-126

● Cassette 2

Paper size of the cassette can be automatically detected by adjusting the position of the guide plate.

The Cassette 1 Size Switch A/B detects the size of the paper set in the cassette. Length and width are detected according to the ON / OFF combination of switches. As long as standard paper, both AB type and inch type can be used.

However, size should be found manually on the check screen for the combination of A5-R and STMT-R or the combination of B5 and EXE.

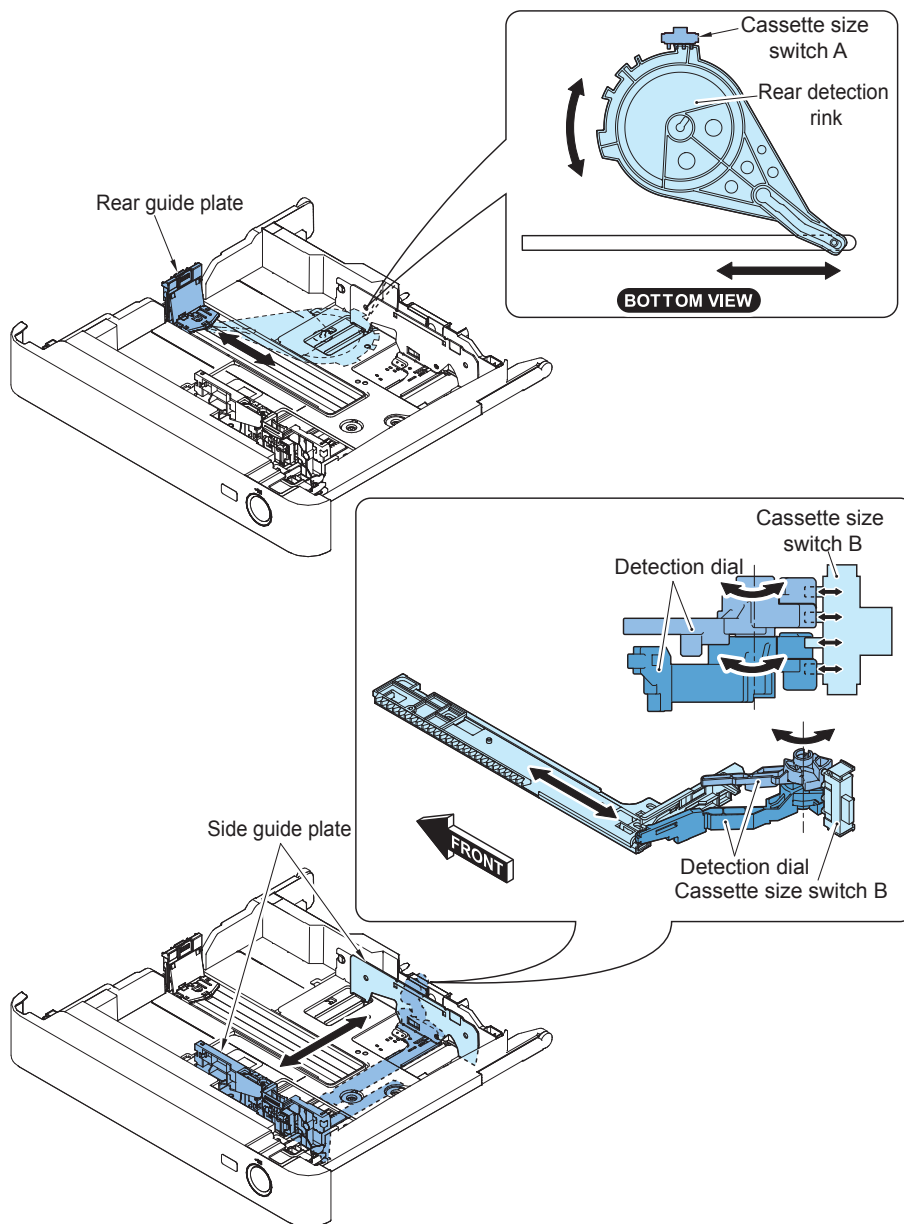
	Width	Length	Size switch A (Width Detection)				Size switch B (Length Detection)			
			1	2	3	4	1	2	3	4
B5	257.0	182.0	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
EXE	267.0	184.0	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
K16	270.0	195.0	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
A5-R	148.5	210.0	ON	OFF	ON	OFF	ON	ON	OFF	OFF
A4	297.0	210.0	OFF	ON	OFF	OFF	ON	ON	OFF	OFF
STMT-R	139.7	215.9	ON	OFF	ON	OFF	ON	ON	OFF	OFF
LTR	279.4	215.9	OFF	ON	ON	OFF	ON	ON	OFF	OFF
B5-R	182.0	257.0	ON	OFF	ON	OFF	OFF	ON	ON	ON
LTR-R	215.9	279.4	OFF	OFF	ON	OFF	ON	OFF	OFF	ON
A4-R	210.0	297.0	OFF	OFF	ON	OFF	OFF	ON	ON	OFF
LGL	215.9	355.6	OFF	OFF	ON	OFF	ON	ON	OFF	ON
B4	257.0	364.0	OFF	ON	ON	OFF	ON	ON	ON	OFF
K8	270.0	390.0	OFF	ON	ON	OFF	ON	ON	ON	ON
A3	297.0	420.0	OFF	ON	OFF	OFF	OFF	OFF	ON	ON
LDR	279.4	431.8	OFF	ON	ON	OFF	OFF	OFF	ON	ON
12x18	304.8	457.2	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON

T-2-54

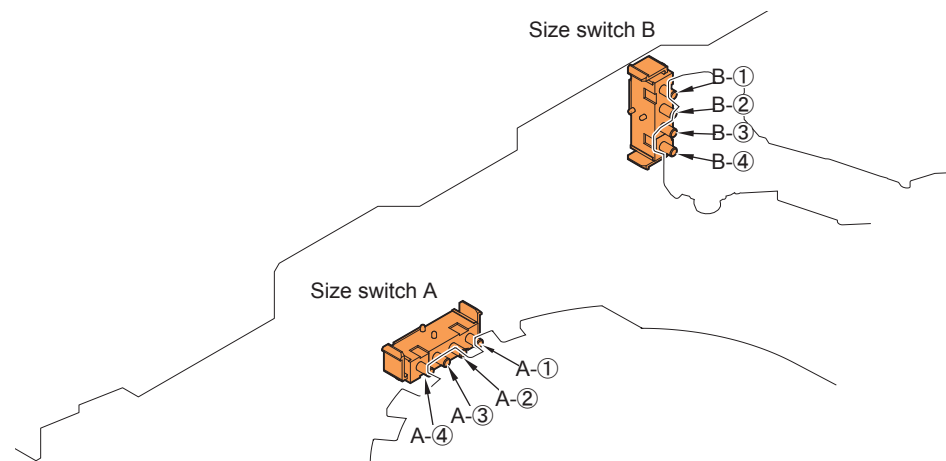
Also, the cassette presence is detected when the size switch is pushed. (If no switch is pushed, it is determined as no cassette.)

NOTE:

- A5R/STMTR Original Selection
[Settings/registration] > [Preferences] > [Paper Settings] > [A5R/STMTR Original Selection]
Setting value Cassette3: A5R, STMTR, Cassette4: A5R, STMTR
- B5/EXEC Original Selection
[Settings/registration] > [Preferences] > [Paper Settings] > [B5/EXEC Original Selection]
Setting value Cassette3: B5, EXEC, Cassette4: B5, EXEC
- Service Mode
(Lv.1) COPIER > OPTION > CST> CSTX-P1 (X: Cassette numbers 2 to 4)
Setting value 0: A5R, 1: STMTR
(Lv.1) COPIER > OPTION > CST> CSTX-P2 (X: Cassette numbers 2 to 4)
Setting value 0: B5, 1: EXEC



F-2-127



F-2-128

• Method of Setting 8K and 16K (Chinese Paper)

- 1) Set the original detection size to AB configuration.
(Lv.1) COPIER > OPTION > FNC-SW > MODEL-SZ = 0
- 2) Enable detection and display of Chinese paper (K size paper: 8K and 16K).
(Lv.2) COPIER > OPTION > FNC-SW > KSIZE-SW = 1
- 3) Change the setting of Cassette 1 from EXEC to 16K.
(Lv.2) COPIER > OPTION > CST > CST-K-SW = 1
- 4) (Lv.2) COPIER > OPTION > FNC-SW > MODELSZ2 = 0.
- 5) Turn OFF and then ON the main power.

• Cassette Heater

To prevent paper in the cassette from absorbing moisture, this machine has a Cassette Heater at the bottom of the Cassette 2.

Timing when the Cassette Heater is turned ON

If the Environment Switch is ON, the Cassette Heater is always ON regardless of ON/OFF of the machine power or sleep state.

CAUTION:

When the Environment Switch is ON, set "1" for COPIER > OPTION > USER > CSTHT-SW; otherwise the Cassette Heater is not recognized.

• Method of Setting Special Paper

- Service mode

COPIER > OPTION > CST > CSTX-UY > Setting number

X: Cassette number, Y: Size category (X: 1 to 4, Y: 1 to 4)

CAUTION:
The size category of Cassette 1 is different from that of Cassette 2/3/4.

Size category	Cassette1	Cassette2/3/4
	Size	
U1	FLSP, A-FLSP, OFI, A-OFI, B-OFI, E-OFI, M-OFI, G-LGL	FLSP, A-FLSP, OFI, A-OFI, M-OFI, FA4, G-LGL, A-LTRR, FA4
U2	A-LTRR, G-LTRR	G-LTRR
U3	A-LTR	A-LTR, G-LTR
U4	G-LTR	B-OFI

T-2-55

Setting No.	Size
22	K-LGL
23	K-LGLR
24	FLSC
25	A-FLS
27	E-OFI
28	B-OFI
29	A-LTR
30	A-LTRR
31	G-LTR
32	G-LTRR
33	A-LGL
34	G-LGL
36	A-OFI
37	M-OFI
42	FA4

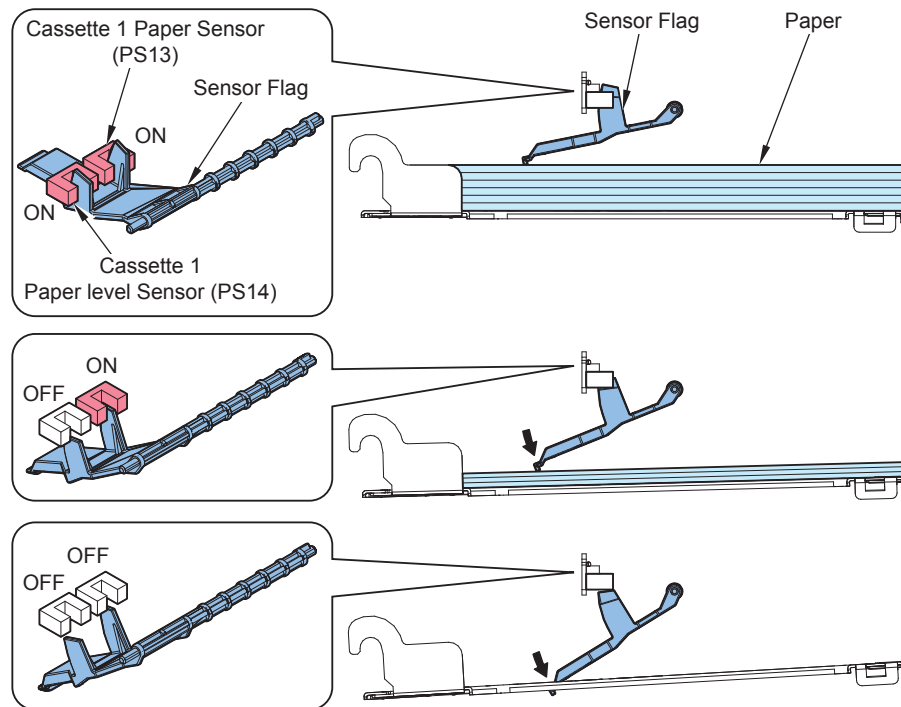
T-2-56

Example: When setting G-LTR to Cassette 2
COPIER> OPTION> CST> CST2-U3> 31

■ Paper Level /Presence Detection

• Cassette 1

There are 2 sensors to detect the paper level and paper presence in the cassette.
The paper level is displayed in three levels in the Control Panel.



F-2-129

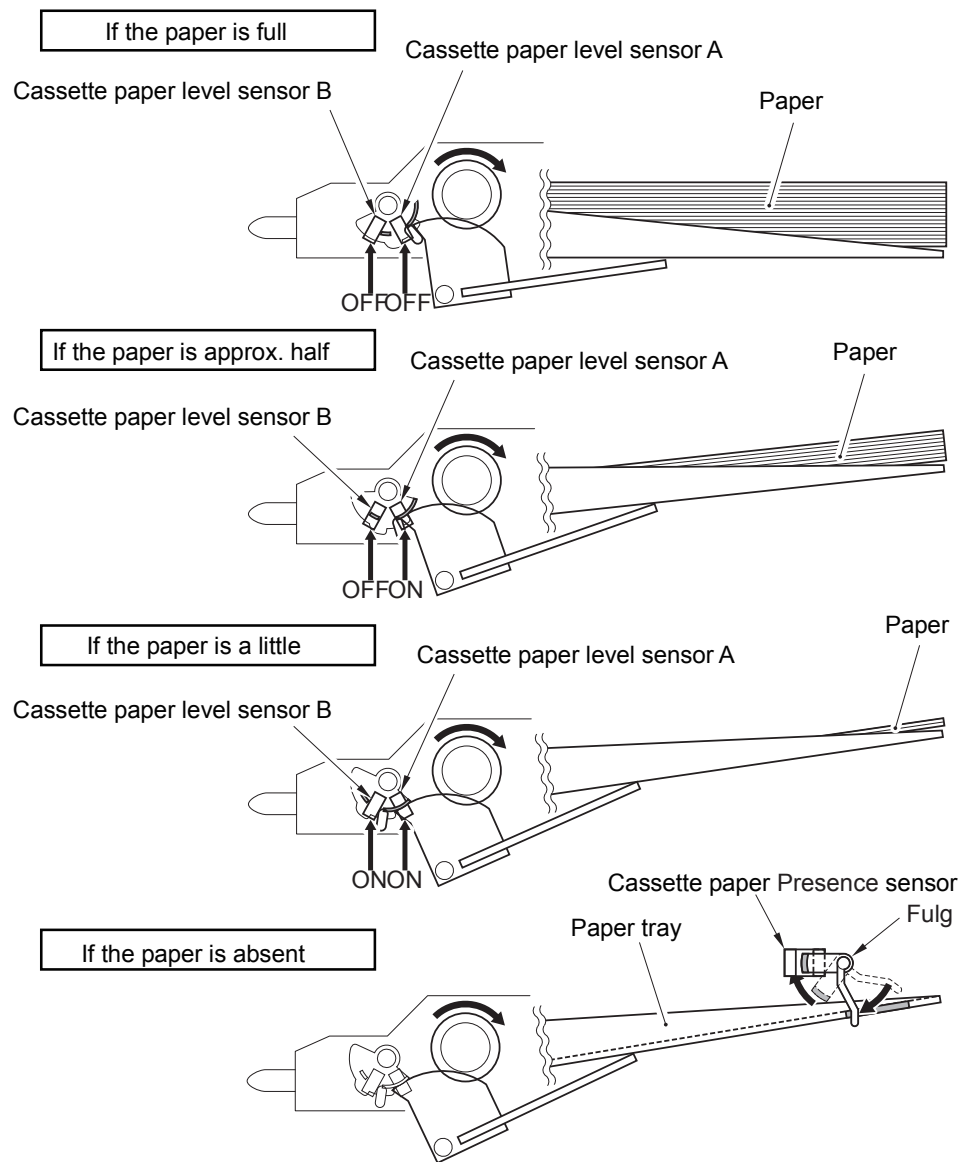
Display	Remaining Level	Paper Level Sensor	Paper Sensor
	100% to approx. 50 sheets	ON	ON
	approx. 50 sheets or less	OFF	ON
	No paper	OFF	OFF

F-2-130

● **Cassette 2**

There are 3 sensors to detect the paper level and paper presence in the cassette.

The paper level is displayed in four levels in the Control Panel.



F-2-131

Display	Remaining Level	Sensor A	Sensor B	Paper Presence Sensor
☐	100% to approx. 50% of capacity	OFF	OFF	OFF
▬	Approx. 50% of capacity to approx. 50 sheets	ON	OFF	OFF
▬	Approx. 50 sheets or less	ON	ON	OFF
☐	No paper	-	-	ON

F-2-132

● **Separation paper list**

It is recommended to separate the following paper depending on the paper status (especially moisture absorption) and paper trimming state when setting the paper.

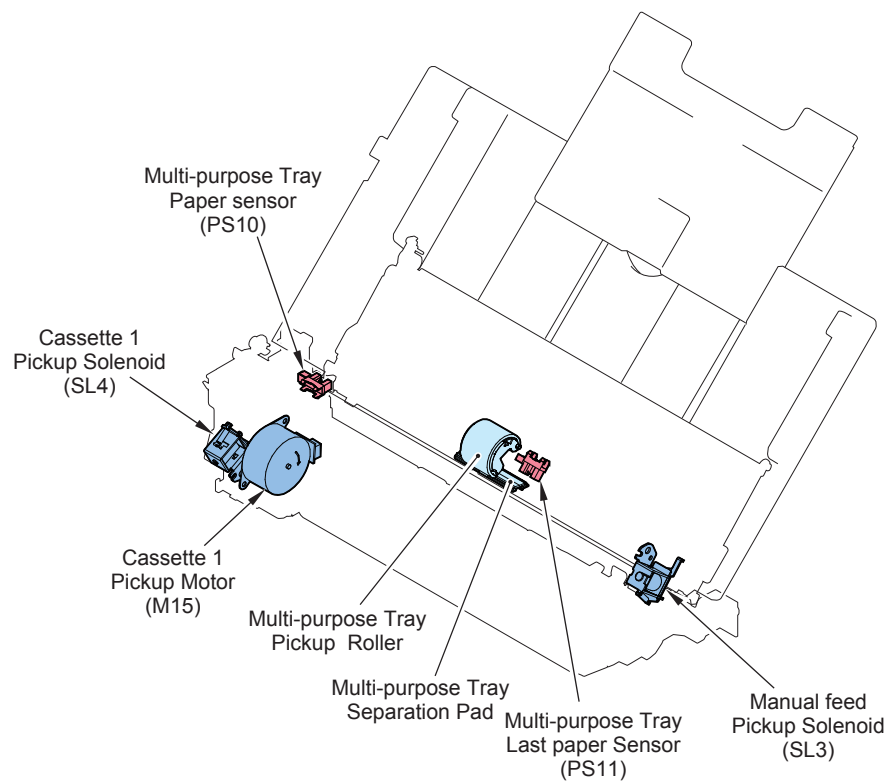
This ""separation"" can avoid troubles.

Paper type	Basis weight/name etc	Main area
Carbonless paper	Overall	-
OHP	Overall	-
Labels	Overall	-
Tub paper	Overall	-
Pre-punched paper	Overall	-
Canon Europe Canon Recycled 80 (Vision Classic White)	Overall	EUR
Canon Europe Canon High Grade (Mondi Business Paper)	Especially heavy paper 220/250 gsm etc.	EUR
Canon Digital Office Colour (Stora Enso MultiCopy Special Colour Laser)	Especially heavy paper 160 gsm etc.	EUR

T-2-57

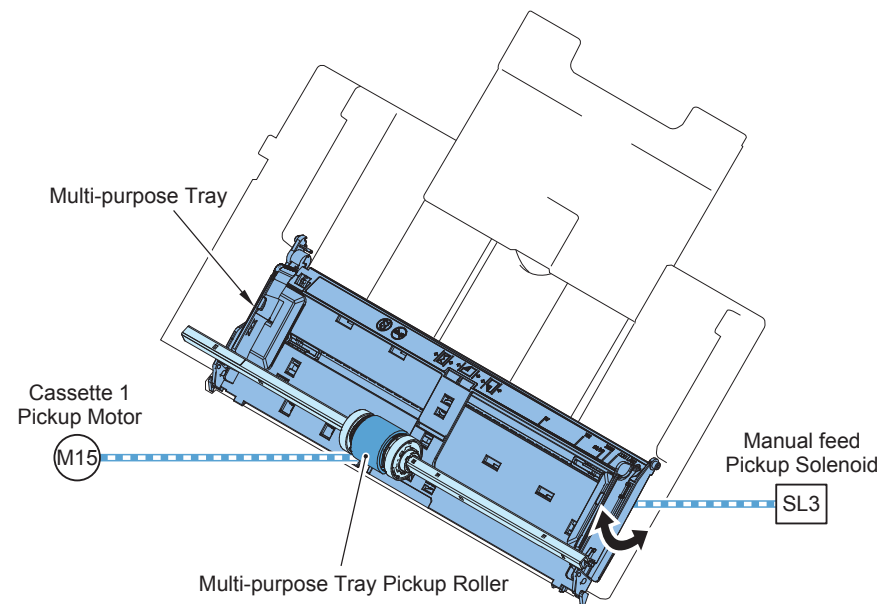
■ Multi-Purpose Tray Pickup Assembly

● Parts Configuration



F-2-133

● Drive Configuration



F-2-134

● Multi-Purpose Tray Paper Presence Detection

Whether there is paper or not in the Multi-purpose Tray is detected by the Multi-purpose Tray Paper Presence Sensor.

If no-paper is detected, no-paper message will be displayed in the status window.

NOTE:

Since a correct sensor status cannot be detected during sleep mode, the paper status before the transition to sleep mode is retained.

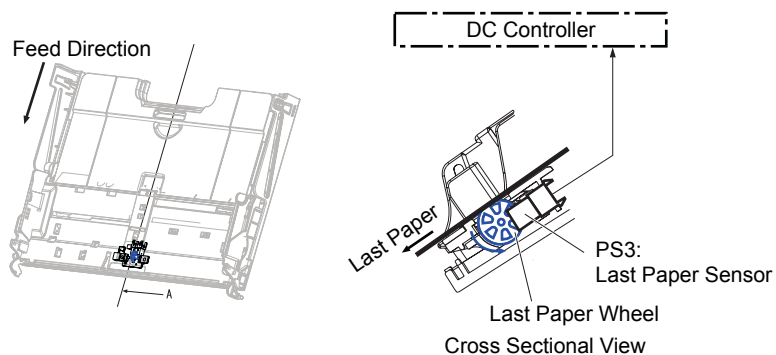
● Multi-Purpose Tray Last Paper Detection

This Host Machine detects whether the paper picked up from the Multi-purpose Tray is the last paper.

When pickup is performed from the Multi-purpose Tray, the feed distance from the Multi-purpose Tray Paper Presence Sensor to the Registration Roller is short, hence before the no-paper in the Multi-purpose Tray is detected, the next image is started to be formed. And to prevent the Photosensitive Drum and ITB from toner soiling, the DC Controller detects the last paper of the Multi-purpose Tray through the Last Paper Sensor.

When the last paper is detected, the message indicating empty paper is displayed in the Control Panel.

The following figure shows last paper detection mechanism.



F-2-135

● Multi-purpose tray pickup 1 sheet feed list

Be sure to set the following paper sheet-by-sheet to the Multi-purpose Tray. If fails to set the paper sheet-by-sheet, it may cause troubles.

Paper Type	Basis weight/name
Glossy paper (coated paper)	Overall
Tracing paper	Overall
Extra long paper (up to 1200mm) Pickup can be enabled at service setting.	Overall

T-2-58

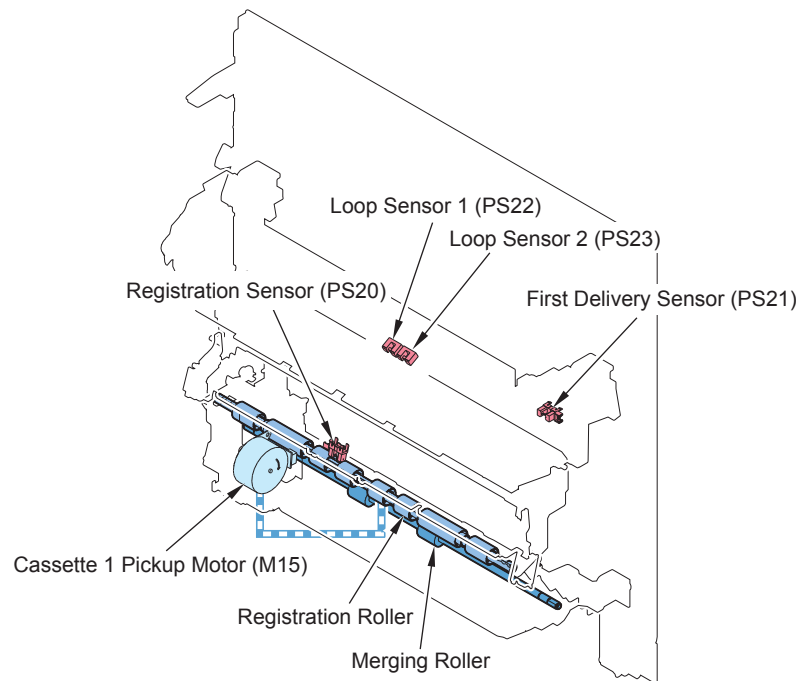
● Paper that requires extra caution at setting

Paper Type	Basis weight/name	Caution
Envelope	Overall	Let out the air of envelope and disperse the glued tabs

T-2-59

■ Fixing/Registration Assembly

● Parts/Drive Configuration



F-2-136

● Registration Control

This is the feed control executed to make the image fit in the paper. Based on the leading edge detection by the Registration Sensor, either non-stop registration control, which increases/decreases the speed without stopping paper feed, or stop registration, which temporarily stops paper feed, is used according to the situation.

	Constant speed		1/2 speed
	1st side	2nd side	
LTR or Smaller	Non-stop registration		Stop registration
Larger than LTR	Stop registration		

T-2-60

Non-stop Registration Control

This control is executed to increase or decrease the feed speed without stopping paper at the registration position to shorten the paper interval and improve productivity.

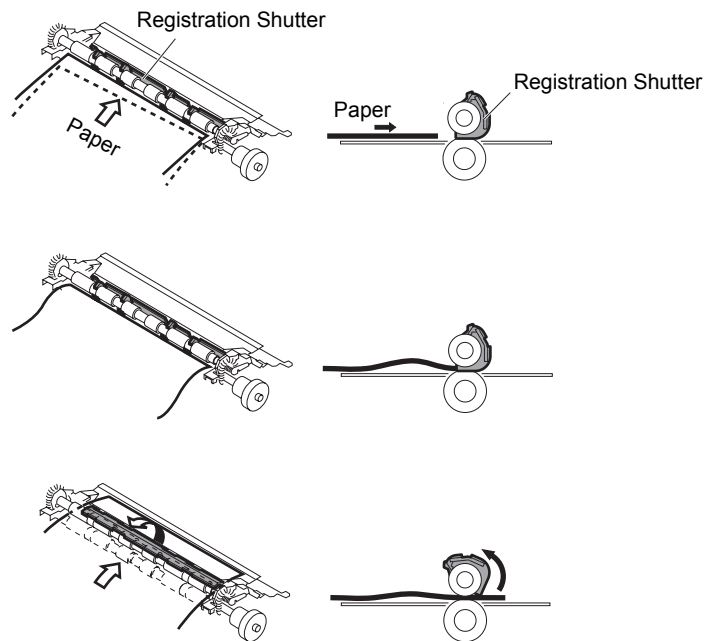
Stop Registration Control

This control is executed to stop paper at the registration position and restart feeding in accordance with the timing when the image reaches the secondary transfer processing.

• Skew Correction Mechanism

This Host Machine can correct the skew of the paper without dropping the throughput. The following figure shows the skew correction mechanism.

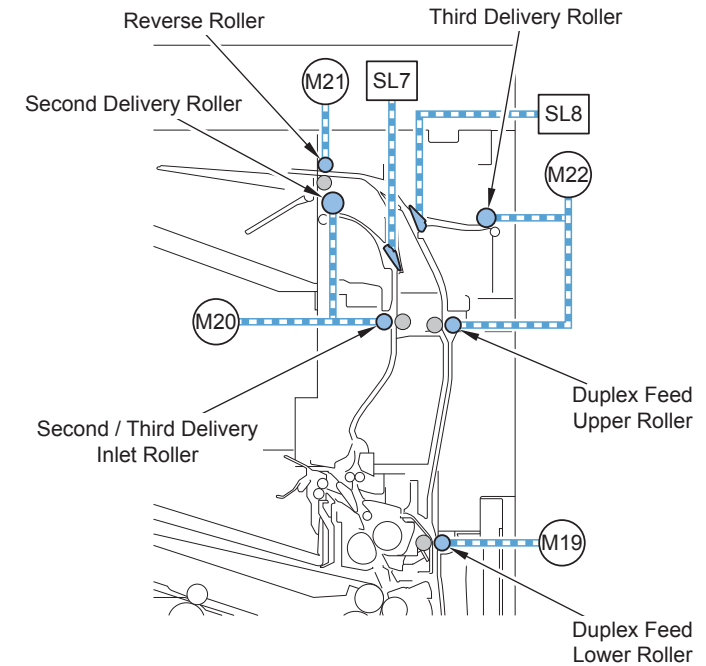
- 1) The paper leading edge hits the Registration Shutter, and the paper leading edge will be aligned.
- 2) When the paper leading edge is aligned, the Registration Shutter will be pushed, the papers whose leading edge are aligned will approach the Registration Roller, and the skew will be corrected.



F-2-137

■ Duplex / Delivery Assembly

• Parts / Drive Configuration



F-2-138

• Duplex Feed Control

This machine reverses paper outside the machine using the Reverse Inlet. The following shows each duplex reverse position and the number of sheets circulated.

When the Expansion Delivery Kit-C1 is installed

	First/Second Delivery	Third Delivery
Small size (LTR or smaller)	5	3
Large size (Larger than LTR)	3	1

T-2-61

When the Expansion Delivery Kit-C1 is not installed

	First Delivery
Small size (LTR or smaller)	3
Large size (Larger than LTR)	1

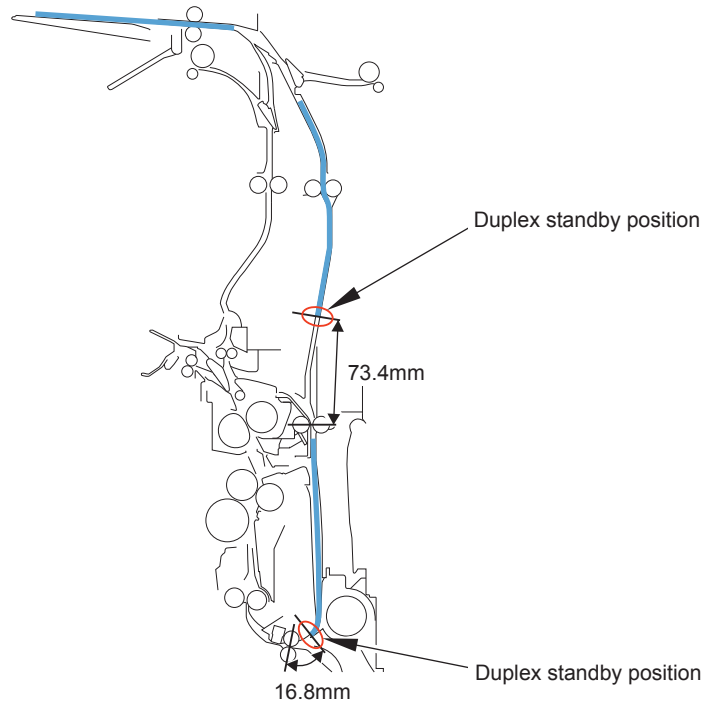
T-2-62

Since the duplex path is the same as the drive in the third delivery, productivity does not reach 100% in either "LTR or smaller" or "Larger than LTR".

• Duplex Wait Control

To realize 5-sheet circulation, there are 2 duplex wait positions. Following is the duplex wait position for small paper.

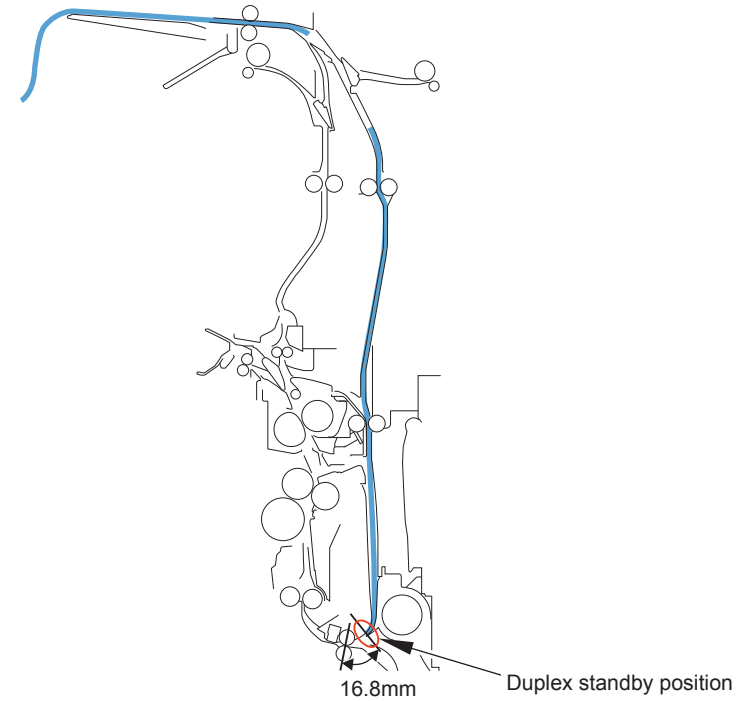
LTR or smaller



F-2-139

The position at 16.8mm upstream of the Merging Roller and that at 73.4mm upstream of the Duplex Feed Lower Roller are considered as the duplex standby position.

Larger than LTR



F-2-140

■ JAM Detection

JAM Code	Sensor		XX			
	Name	Code	01:Delay	02:Stationary	07:Wrap	0A:Power ON
xx02	Cassette 2 Vertical Path Sensor	PS17	○	×	×	○
xx05	Registration Sensor	PS20	○	○	×	○
xx08	Arch Sensor 1	PS22	×	×	×	○
xx09	Arch Sensor 2	PS23	×	×	×	○
xx0A	First Delivery Sensor	PS21	○	○	○	○
xx0B	Second Delivery Sensor	PS27	○	○	×	○
xx0C	Third Delivery Sensor	PS30	○	○	×	○
xx0D	Reverse Sensor	PS29	○	×	×	○
xx0E	Duplex Sensor	PS31	○	×	×	○

T-2-63

○: Detected

×: Not Detected

Service Tasks

■ Periodically replacement parts

N/A

■ Consumables

No.	Parts Name	Parts Number	Number of used part	Replacement timing	Remarks
1	Multi-purpose Tray Pickup Roller	RM1-6177	1	150k	-
2	Multi-purpose Tray Separation Pad	RM1-6178	1	150k	-
3	Cassette 1 Pickup Roller	RM1-6175	1	150k	-
4	Cassette 1 Separation Roller	RM1-6176	1	150k	-
5	Cassette 2 Feed Roller	FC6-7083	1	150k	-
6	Cassette 2 Separation Roller	FC6-6661	1	150k	-
7	Secondary Transfer Outer Roller	RM1-6179	1	150k	-

T-2-64

■ Periodically Service

No.	Parts Name	Execution timing	Work	Remarks
1	Pre-secondary transfer Outer Guide	50k	Cleaning	-
2	Registration Patch Sensor	50k	Cleaning	-
3	Registration Roller	50k	Cleaning	-
4	Pre-registration Guide	50k	Cleaning	-
5	Duplex Feed Upper Roller	50k	Check	-
6	Duplex Feed Lower Roller	50k	Check	-
7	Second / Third Delivery Roller	50k	Check	-
8	Merging Roller	50k	Check	-
9	Cassette 2 Vertical Path Roller	50k	Check	-
10	Fixing Outlet Roller	50k	check	-

T-2-65

External Auxiliary System

Controls

■ Software counter

Count-up timing differs depending on the following conditions:

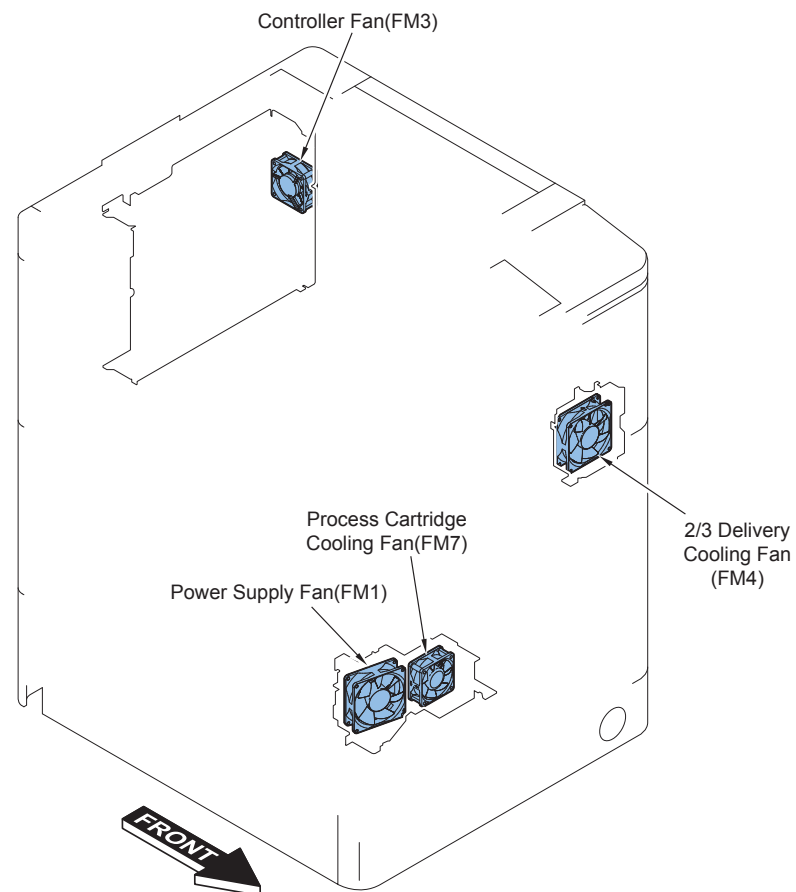
- Print mode (1-sided/ 2nd side of 2-sided/ 1st side of 2-sided)
- Delivery position (Finisher)

Delivery position			Print mode	
			1-sided/ 2nd side of 2-sided	1st side of 2-sided
			Count-up timing	
1	Host Machine	First Delivery Tray	First Delivery Sensor (PS21)	Duplex Paper Sensor (PS31)
		Second Delivery Tray	Second Delivery Sensor (PS27)	
		Third Delivery Tray*	Third Delivery Sensor (PS30)	
2	When the Finisher is installed	Finisher: Inlet Sensor (S1)		

T-2-66

*: In the case of installing 3 Way Unit-C1

- Fan
- Location of Fans

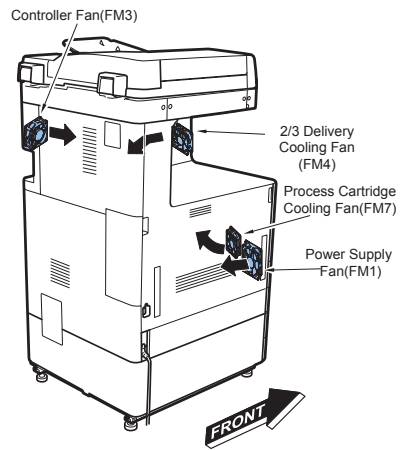


F-2-141

No.	Name	Function	Error codes	Target controller
FM1	Power Supply Fan	Cools the power, the High Voltage PCB and the paper delivered from the First Delivery Outlet.		Main Controller PCB 2 (UN12)
FM3	Controller Fan	Cools the Controller Assembly.		Main Controller PCB 2 (UN12)
FM4	2/3 Delivery Cooling Fan	Cools the paper delivered by 2/3 Delivery Outlet and the paper that is fed for 2-sided.		DC Controller PCB (UN9)
FM7	Drum Unit Cooling Fan	Cools the Drum Units and the Pickup Motor.		DC Controller PCB (UN9)

T-2-67

- Airflow



F-2-142

- Speed Control

Among the fans installed with this equipment, the Power Supply Cooling Fan (FM1), the Controller Fan (FM3) and the Delivery Cooling Fan (FM4) execute speed control. Rotation speed is switched by the Power Voltage Switch Circuit of the Controller Fan to switch voltage.

- Operation Sequence

3 Way Unit-C1	Fan type	Standby	At printing				Sleep		Others	
			1-sided		2-sided		Sleep1	Deep Sleep	ERR / JAM	Reader operation
			1st delivery	2nd/3rd delivery, Finisher	1st delivery	2nd/3rd delivery, Finisher				
Yes	Power Supply Cooling Fan	Half speed	Full speed	Full speed	Full speed	Full speed	Half speed	Stopped	Half speed	Half speed
	Controller Fan	80%	Full speed	Full speed	Full speed	Full speed	80%	Stopped	80%	80%
	Delivery Cooling Fan	Stopped	Stopped	*1 Stopped/Half speed	*2 Stopped/Full speed	*2 Stopped/Full speed	Stopped	Stopped	Stopped	Stopped
	Drum Unit Cooling Fan	Stopped	Full speed	Full speed	Full speed	Full speed	Stopped	Stopped	Stopped	Stopped
No	Power Supply Cooling Fan	Half speed	Full speed	-	Full speed	-	Half speed	Stopped	Half speed	Half speed
	Controller Fan	80%	Full speed	-	Full speed	-	80%	Stopped	80%	80%
	Delivery Cooling Fan	Stopped	Stopped	-	Full speed	-	Stopped	Stopped	Stopped	Stopped
	Drum Unit Cooling Fan	Stopped	Full speed	-	Full speed	-	Stopped	Stopped	Stopped	Stopped

T-2-68

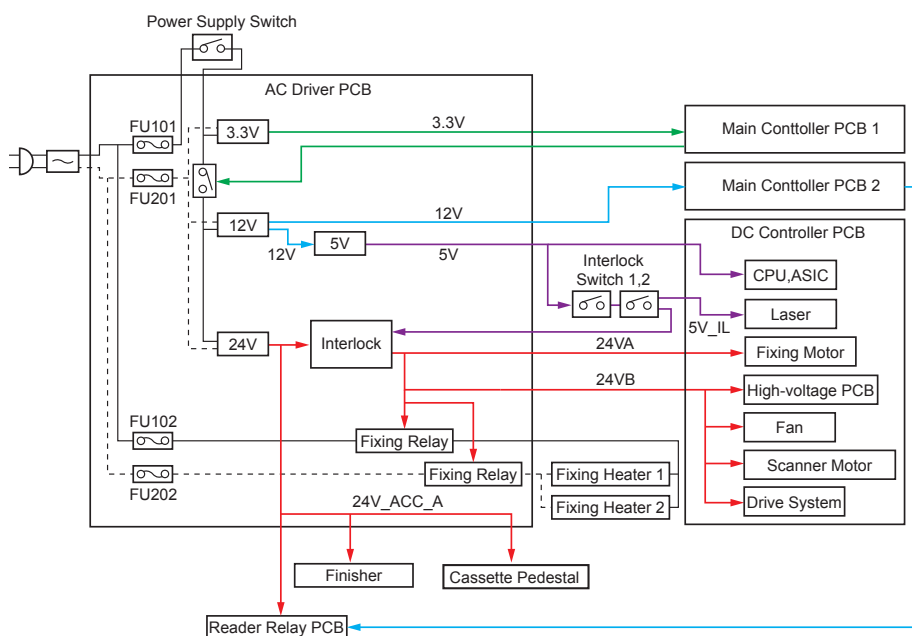
*1: The machine runs at half speed when temperature of the Fixing Assembly gets high. The machine is stopped in any other cases.

*2: The machine runs at full speed when temperature of the Fixing Assembly gets high. The machine is stopped in any other cases.

Although it depends on temperature status of the Fixing Assembly or feeding mode, the machine starts rotation by feeding of 140 sheets with a 1-sided print job using A4 plain paper.

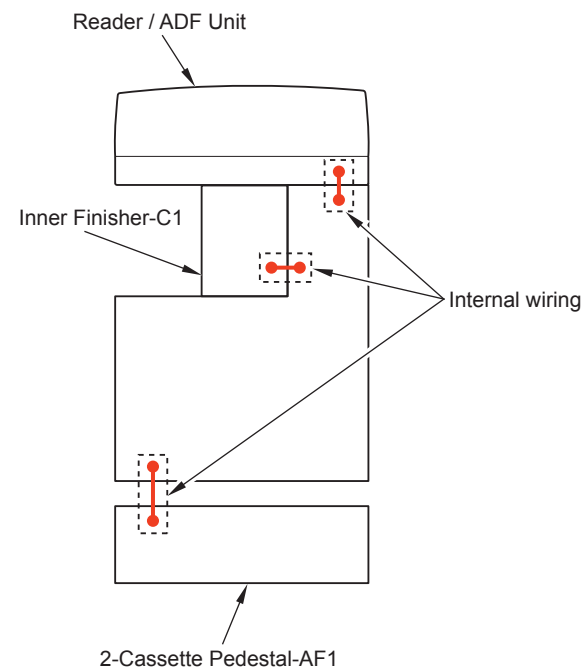
Power Supply Control

Power supply distribution inside the printer



F-2-143

Power supply connection with the options

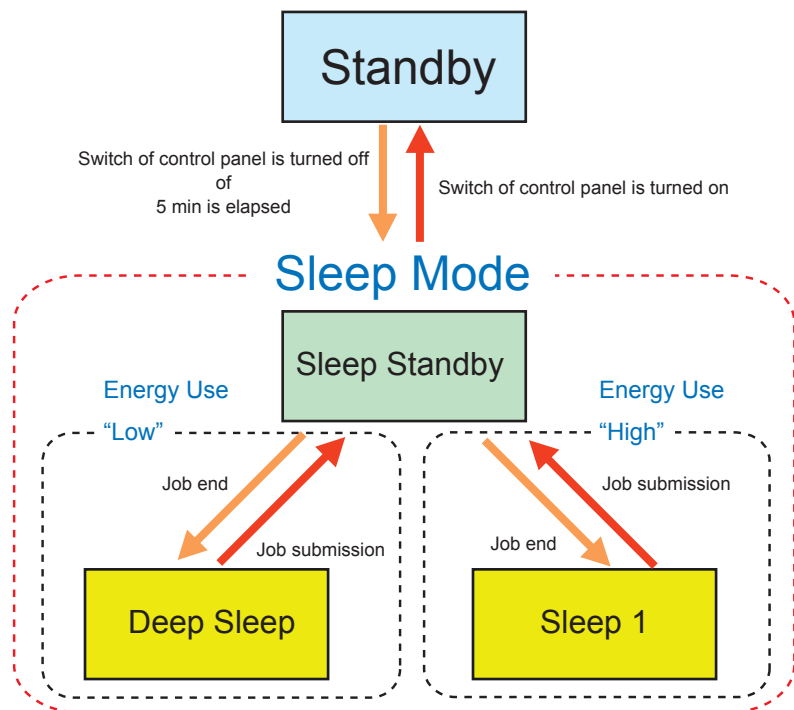


F-2-144

Connection to the option is available by connecting to the Connector inside the Cover.

Energy Saving Function

The power supply mode of this equipment is divided into the “Standby” mode and the “Sleep” mode. In addition to the major modes, there are 3 patterns in “Sleep” mode.



F-2-145

*By default, it takes 5 minutes after completion of printing, scanning or Fax job. It takes 10 minutes after completion of other job cases (such as the job relating to Universal Send (e.g. iFAX) or ping, etc).

Standby

This is the mode that the machine is running or the machine is ready to start operation. All the power is supplied.

Sleep Standby

This mode indicates that only the display is turned off while the power of other parts is all supplied. The machine gets into this state when a PDL job is submitted during sleep.

Sleep 1

In the case of the following:

User Mode > Preferences > Timer/Energy Settings > Sleep Mode Energy Use > “High”
The Control Panel is not active (the light is off) and the 24V power on the DC Controller PCB is not supplied. The 12V power is supplied. The machine gets into the Sleep Standby mode when a print job is submitted and the Standby mode when the power supply switch on the Control Panel is pressed.

In the case of the following, the machine gets into this mode even if “Sleep Mode Energy Use” is set “Low”.

- Expansion Bus-F2 is connected.
- IPsec Board-B2 is connected while the setting is “ON”.
- The device is connected to the USB Device Port-B2.
- Any mode other than “Auto” is specified for fax reception (RX) mode.

Deep Sleep

In the case of the following:

User mode > Preferences > Timer/Energy Settings > Sleep Mode Energy Use > “Low” (Default: “Low”)

Only the 3.3V is supplied. The machine gets into the Sleep Standby mode when a print job is submitted and the Standby mode when the power supply switch on the Control Panel is pressed.

Regardless of the machine condition, the power of the Cassette Heater is always supplied when the Environment switch is turned ON.

The following descriptions are conditions for not entering DEEP SLEEP.

Software status	
Common	<ul style="list-style-type: none"> User Mode > Preferences > Timer/Energy Settings > Sleep Mode Energy Use is set to "High". User Mode > Preferences > Timer/Energy Settings > Sleep Mode Exit Time Settings is set (and not blank).
Network	<ul style="list-style-type: none"> User Mode > Preferences > Network > TCP/IP Settings > BMLinkS Settings > Use BMLinkS is set to "ON". User Mode > Preferences > Network > TCP/IP Settings > IPsec Settings > Use IPsec is set to "ON". User Mode > Preferences > Network > SMB Server Settings > Use SMB Server is set to "ON". User Mode > Preferences > Network > NetWare Settings > Use NetWare is set to "ON". User Mode > Preferences > Network > AppleTalk Settings > Use AppleTalk is set to "ON". User Mode > Preferences > Network > Ethernet Driver Settings > Auto Detect is set to "OFF" and "1000 Base-T" is set for "Ethernet Type". User Mode > Preferences > Network > IEEE802.1X Settings > Use IEEE802.1X is set to "ON".
Fax	<ul style="list-style-type: none"> User Mode > Function Settings > Receive/Forward > Fax Settings > Selecting Reception Mode is not set to "Auto RX". User Mode > Function Settings > Receive/Forward > Fax Settings > Auto Reception Switching is set to "ON". User Mode > Function Settings > Receive/Forward > Fax Settings > Remote Reception is set to "ON". User Mode > Function Settings > Send > Fax Settings > Set Line > Modem Dial in Settings > Line 1 or Line 2 is set to "ON". User Mode > Function Settings > Receive/Forward > Fax Settings > Number Display Settings > Line 1 or Line 2 is set to "ON".

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Hardware status

- The Serial Coin Vendor is connected.
- The EFI (Video Option Board) is installed.
- The G4 Fax Board is installed.
- The iSlot Extension Card is connected.
- The IPsec Board is connected and User Mode > Preferences > Network > TCP/IP Settings > IPsec Settings > Use IPsec is set to "ON".
- The host machine (such as a PC) is connected to the USB Device.
- The HID is connected to the USB host.
- The storage is connected to the USB host.
- The Device Port (Multimedia Card Reader with a card) is connected to the USB host.
- A device (general USB devices such as the IC Card Reader not used by host machine's functions) used by MEAP is connected to the USB host.

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System Performance Status

- A network application is communicating.
- A print job is being processed or waiting.
- A scan job is being processed or waiting.
- A fax communication is in progress.
- A phone communication is in progress.
- An IFAX communication is in progress.
- A job is being processed.
- A report job is being processed.
- A forward send job is in progress.
- A forward receive job is in progress.
- A SEND job is being processed.
- The delivery of device information is in progress.
- RUI is being exported.
- RUI is being imported.
- A VNC connection is in progress.
- A MEAP Application is being executed. (However, when the MEAP Application is scheduling Timer Service Task within the time condition (within 12 minutes) of the Alarm Service not entering DEEP SLEEP, the machine may enter DEEP SLEEP.)
- The Resource Downloader is executing a task (such as downloading a font data and creating a backup).
- The Inbox is being backed up.
- A file in the Super BOX is being opened (reading or writing). (*Common with WebDAV and SMB)
- The printer is in a limited operation.
- The scanner is in a limited operation.
- A store job is being processed. (As with SEND, this include the storage process to Advanced Box or other storage after the scanning is completed.)

The Alarm Service is set to within 12 minutes.

- * When one of the following is being executed, the Alarm Service (Time) is set.
- - Time setting for ON/OFF of the Memory Lock
- User Mode > Function Settings > Receive/Forward > Common Settings > Fax/I-Fax Inbox > Memory Lock Start Time
- User Mode > Function Settings > Receive/Forward > Common Settings > Fax/I-Fax Inbox > Memory Lock End Time
- - Output of the scheduled report
- User Mode > Function Settings > Send > Common Settings > Communication Management Report > Specify Print Time (when not set to "Off")
- User Mode > Function Settings > Send > Fax Settings > Fax Activity Report > Specify Print Time (when not set to "Off")
- User Mode > Management Settings > Device Management > Device Information Delivery Settings > Communication Log > Specify Print Time (when not set to "Off")
- - Scheduled Transmission Setting (Fax, Send)
- - POP settings
- User Mode > Function Settings > Send > E-Mail/I-Fax Settings > Network Settings > Next > POP Issue Interval (when not set to "0")
- DHCP Setting (The interval is specified by the server)
- E-RDS Setting (The interval is specified by the server)
- SNTP Setting (The interval is specified by the server)
- Auto delivery of device information
- Scheduled specified printing of web browser
- Time specified backup of Inbox document
- The auto sleep timer is running (and for the time set by User Mode > Preferences > Timer/Energy Settings > Weekly Timer Settings).
- The sleep mode exit timer is running (for 15 seconds after exiting DEEP SLEEP)."
- The network timer is running (and for the number of seconds set by Service Mode (Level 2) > COPIER > OPTION > NETWORK > WUEN-LIV.)
- The wake up timer is running (for 10 minutes after receiving a wake up packet).
- The hard disk drive protection timer is running (for 12 minutes after exiting from DEEP SLEEP and the HDD is powered ON. However, after a printing, scanning, and fax job is completed, this timer is disabled.)
- The after linkup timer is running (for 1 minute after the machine is powered ON and the communication with the network is started).
- The sleep notification timer is running (for 10 minutes after notifying the network module of entering DEEP SLEEP. However, when the network module responds, this timer is disabled).

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Service Tasks

■ Actions at Parts Replacement

None.

■ Periodically Replaced Parts

None.

■ Consumable Parts

None.

■ Service Notes

None.

MEAP

Changes

Control Panel Display Specifications

- The control panel display specifications were changed in iR-ADV C2030/C2025/C2020 series.

Item	iR device(VGA)	iR-ADV device(SVGA)	iR-ADV device(VGA)
Number of colors	256 colors	Full color (24bits)	Full color (24bits)
Application area (M size)	638 x 388	800 x 498	640 x 400
Authentication application area (L size)	640 x 444	800 x 558	640 x 442
Font size	12, 16	12, 16, 18, 24	12, 16, 18, 22

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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	Windows Internet Explorer 7
Windows Vista SP2	Windows Internet Explorer 8
Windows 7	Windows 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 2000/2003/2008 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	Windows Internet Explorer 7	
Windows Vista SP2	Windows Internet Explorer 8	
Windows 7	Windows Internet Explorer 8	
Windows Server 2003 SP2	Windows Internet Explorer 7	
Windows Server 2003 R2 SP2	Windows Internet Explorer 7	
Windows Server 2008 SP2	Windows Internet Explorer 8	
Windows Server 2008 R2	Windows Internet Explorer 8	
Mac OS X v10.3	Safari 1.3.2	
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	Windows Internet Explorer 8	Sun Java Runtime Environment 1.5 or later
Windows Vista SP2	Windows Internet Explorer 8	
Windows 7	Windows Internet Explorer 8	
Windows Server 2003 SP2	Windows Internet Explorer 7	
Windows Server 2003 R2 SP2	Windows Internet Explorer 7	
Windows Server 2008 SP2	Windows Internet Explorer 8	
Windows Server 2008 R2	Windows 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 (pre-Windows 2000)" 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.

Note:

- 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.
- The user who belongs to the group named "Canon Peripheral Admins" on Active Directory is authenticated as a manager by the domain authentication. Create the group named "Canon Peripheral Admins" according to the manual of Active Directory, and register the manager.

System environments for administrator and ordinary user (when using IPv6 communication)

Operating System	Supported browser	Java Runtime Environment
Windows XP Professional SP3	Windows Internet Explorer 7	Sun Java Runtime Environment 1.5 or later
Windows Vista SP2	Windows Internet Explorer 8	
Windows 7	Windows Internet Explorer 8	
Windows Server 2003 SP2	Windows Internet Explorer 7	
Windows Server 2003 R2 SP2	Windows Internet Explorer 7	
Windows Server 2008 SP2	Windows Internet Explorer 8	
Windows Server 2008 R2	Windows Internet Explorer 8	

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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)

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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.

• 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 Environmen
Windows 2000 Professional SP4	Microsoft Internet Explorer 6 SP1	Sun Java Runtime Environment 1.4 or later
Windows XP Professional SP3	Windows Internet Explorer 7	
Windows Vista SP2	Windows Internet Explorer 8	
Windows 7	Windows Internet Explorer 8	
Windows Server 2003 SP2	Windows Internet Explorer 7	
Windows Server 2003 R2 SP2	Windows Internet Explorer 7	
Windows Server 2008 SP2	Windows Internet Explorer 8	
Windows Server 2008 R2	Windows 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	

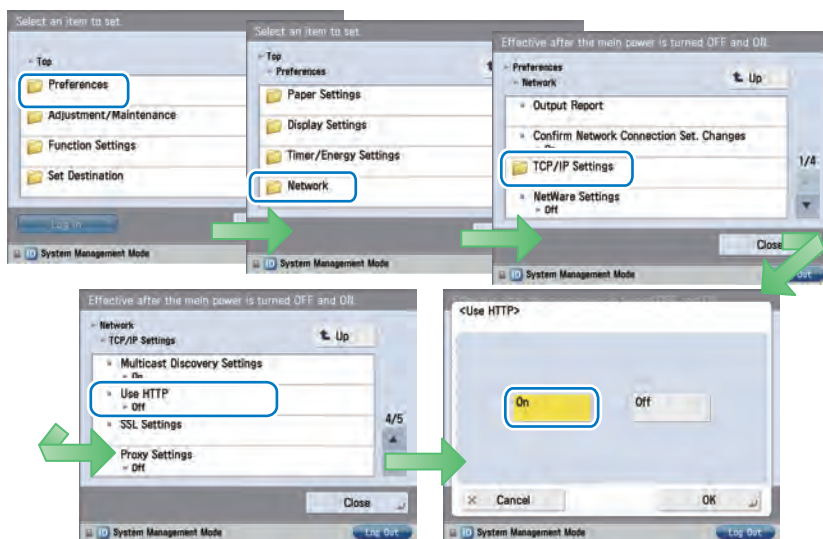
T-2-77

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).

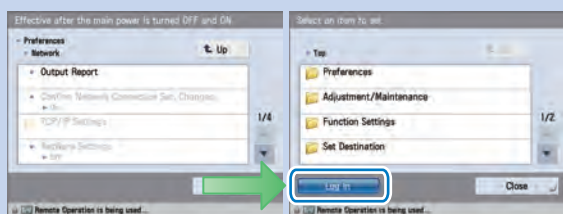
- 1) Press [Settings/Registration] button, select [Preferences] > [Network] > [TCP/IP Settings] > [Use HTTP] and press [On] button.



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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".

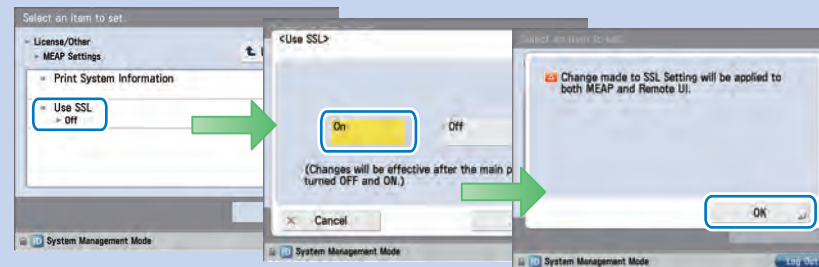


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Note:

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.



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- 2) Press [OK] button to return to Main Menu screen.
- 3) Restart the device.

CAUTION:

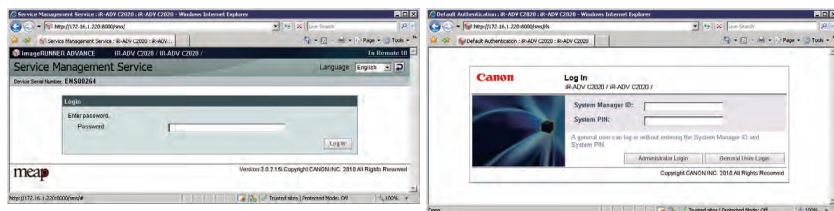
- The setting [Use HTTP] is not actually enabled/disabled until you have restarted the device.
- You cannot make a connection through a proxy server. If a proxy server is in use, enter the IP address of the MEAP device in the Exceptions field for the browser. Open Internet Options dialog of Internet 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)



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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

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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.

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.

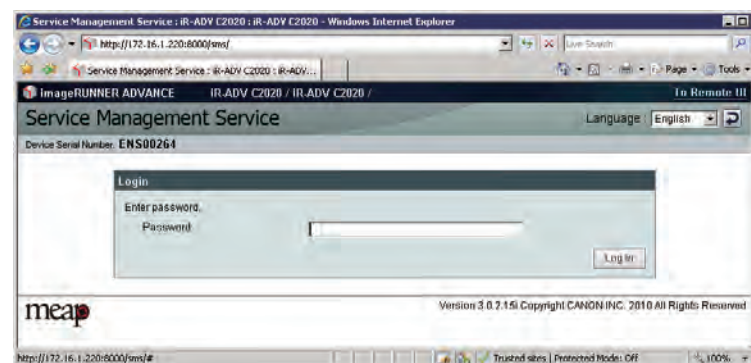
URL: `http://<MEAP Device IP address>:8000/sms/`

Ex.) `http://172.16.188.240:8000/sms/`

Note:

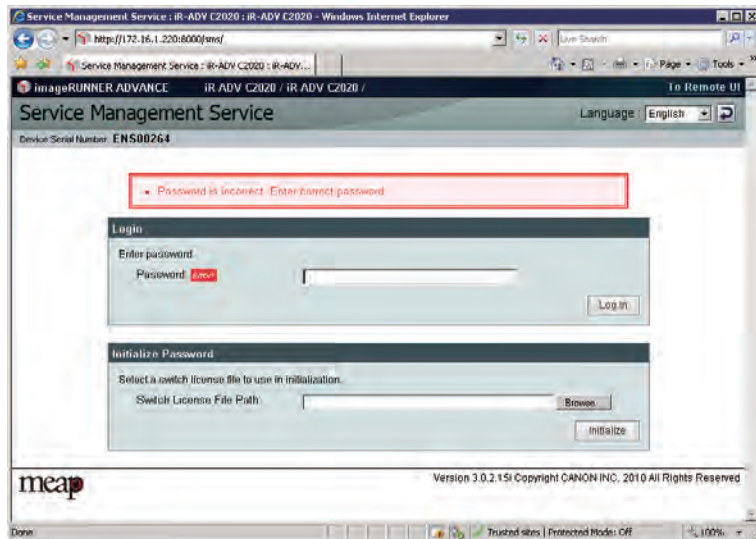
The default password is "MeapSmsLogin." (The password is case-sensitive.) When you want to change the display original language, change in the box in the right of the screen.

This setting is not affect by the setting of the language of the device.



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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.



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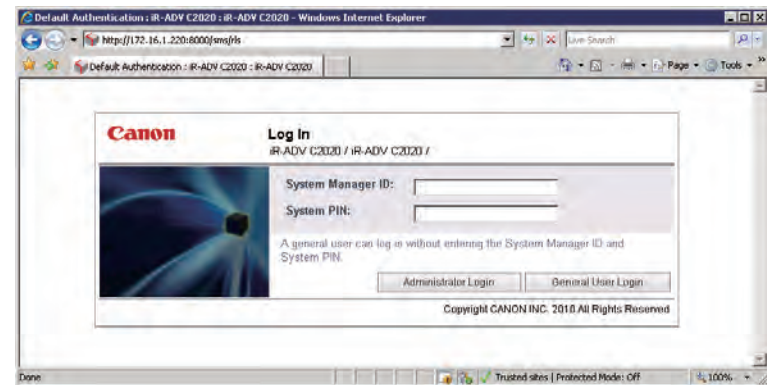
■ Login by RLS Authentication

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: <http://<IP address of MEAP device>:8000/sms/rls/>

Ex.) <http://172.16.188.240:8000/sms/rls/>



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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.

Note:

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.

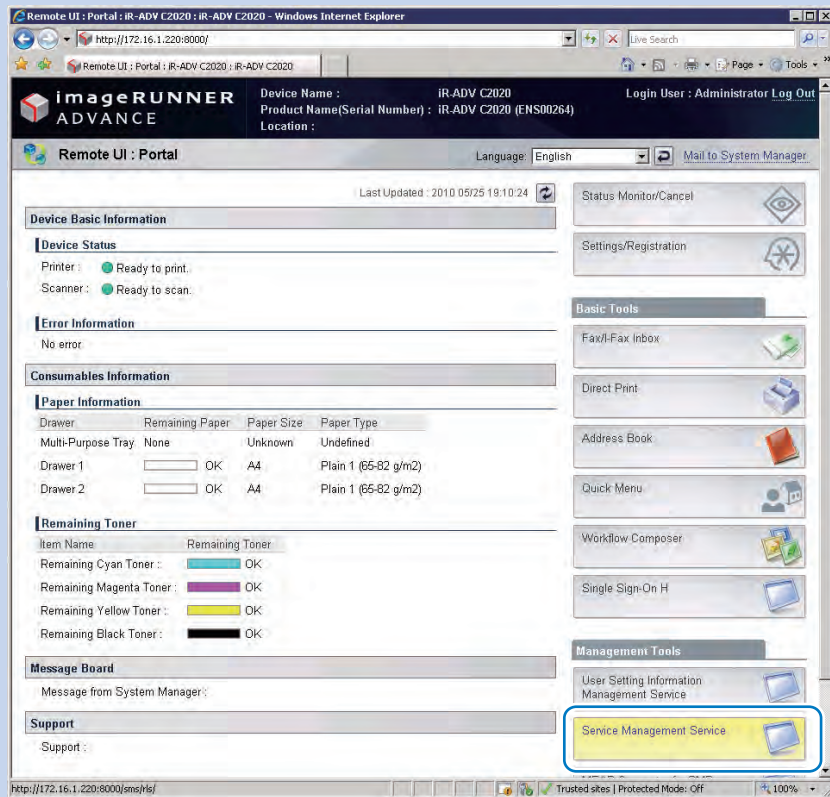
Note:

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.

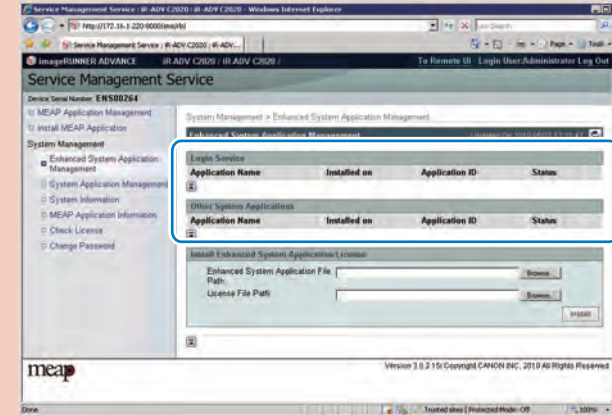
When only the RLS authentication is enabled, no further authentication is needed to access SMS. This is because users have already authorized upon accessing to Remote UI.



F-2-153

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.

Initial Display Languages of SMS

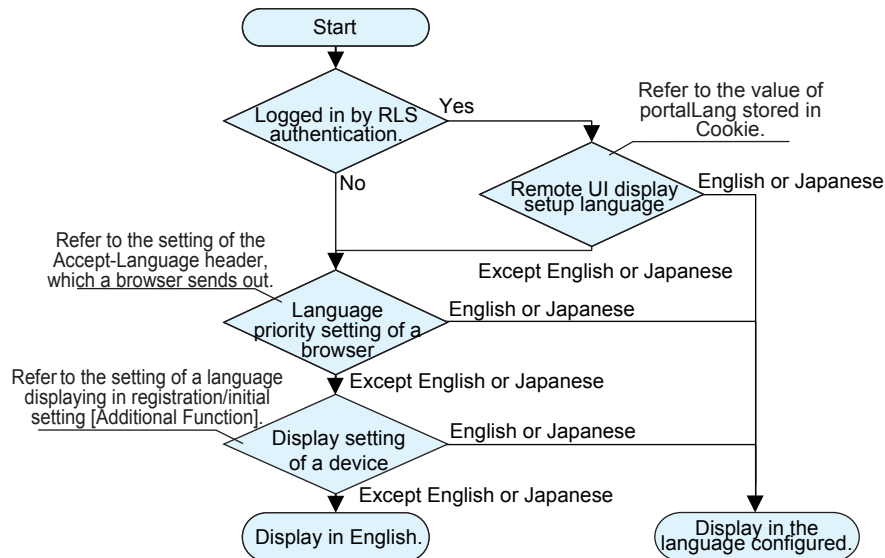
SMS supports English and Japanese. Display language can be changed with selecting by the drop down list on a login page.

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-2-155

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-2-80

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

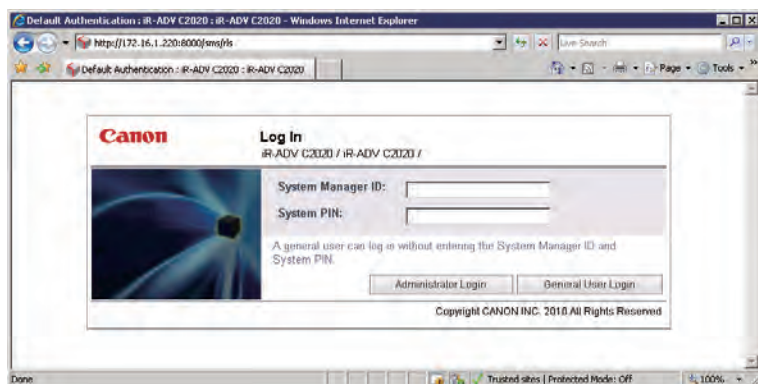
The procedures for changing the password authentication Start/ stop settings are as follows.

1) Access SMS by RLS Authentication from the PC browser on the same network as the MEAP device.

URL: `http://<IP address of MEAP device>:8000/sms/rls/`

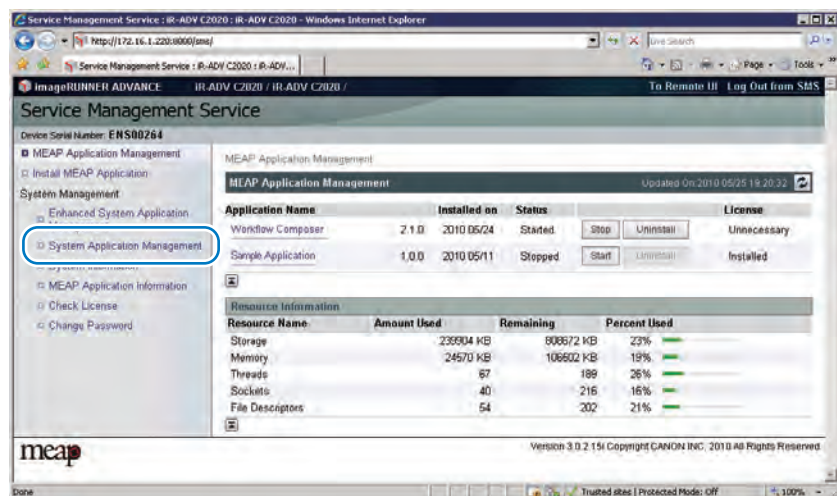
Ex.) `http://172.16.188.240:8000/sms/rls`

Login screen (In case authentication method is SSO-H)



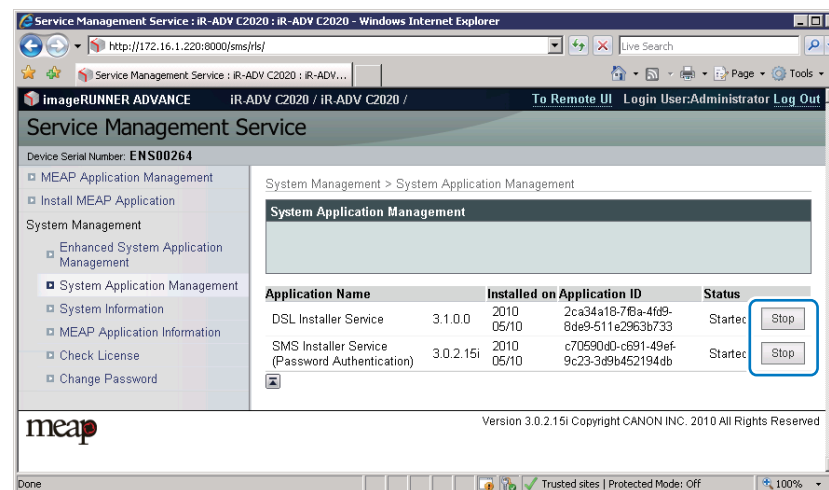
F-2-156

2) Select [System Application Management]



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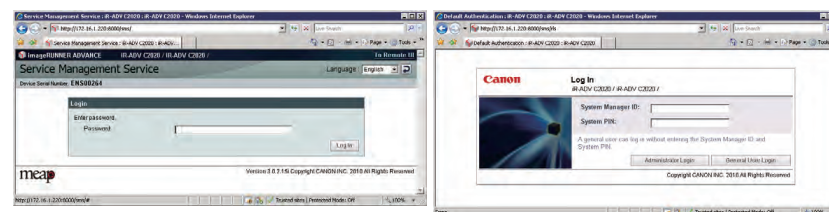
3) Click [Start] or [Stop] button shown in Status field of SMS Installer Service (Password Authentication) to check if the status is changed.



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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

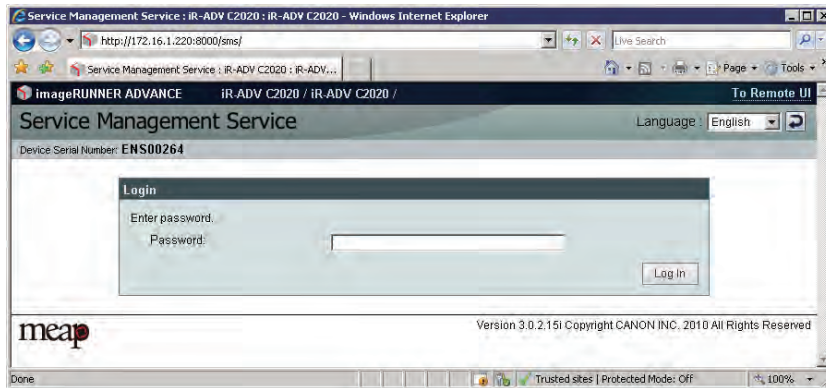
The procedures for changing the RLS authentication Start/ Stop settings are as follows.

1) In order to make a setting for Login by RLS Authentication, you need to Login by Password Authentication.

URL: http://<IP address of MEAP device>:8000/sms/rls/

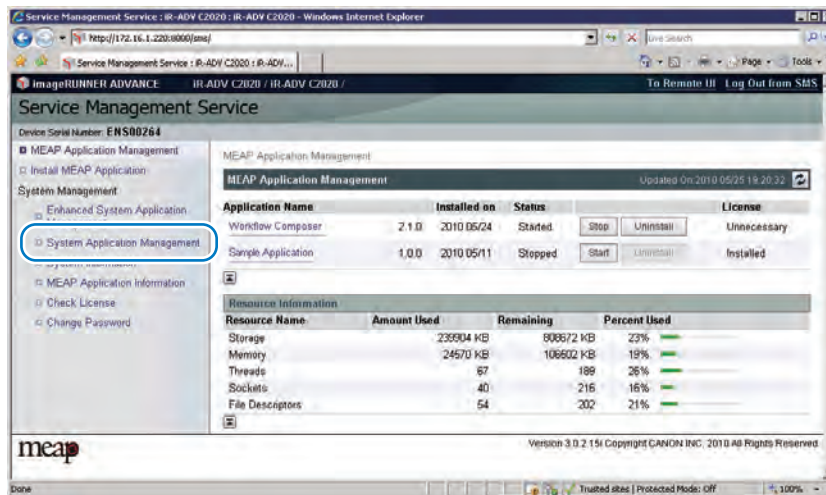
Ex.) http://172.16.188.240:8000/sms/rls

Login screen by Password Authentication



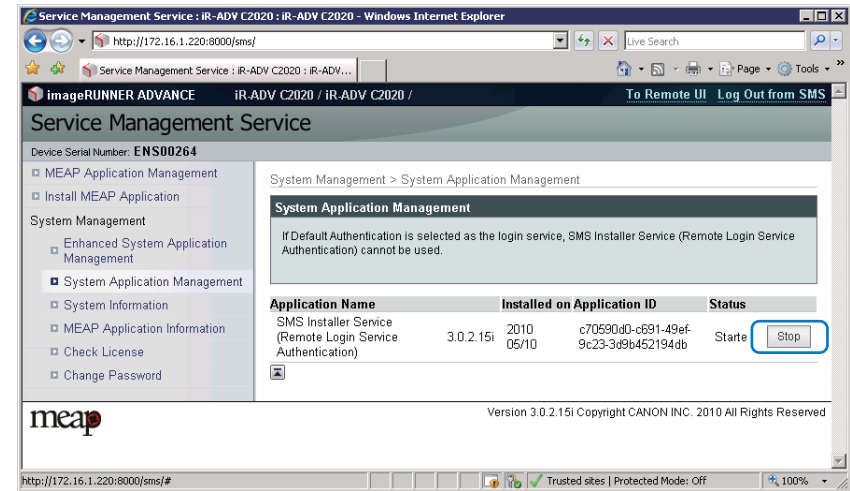
F-2-160

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.

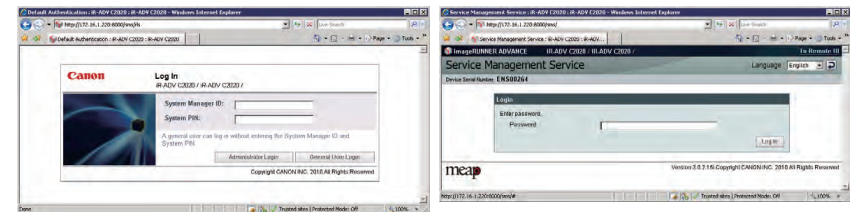


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4) Log out and then log in again and access via the RLS authentication login window.

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.

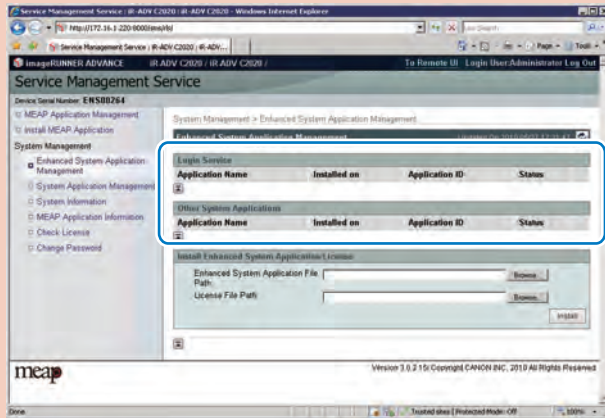
RLS authentication started screen and RLS authentication stopped screen



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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

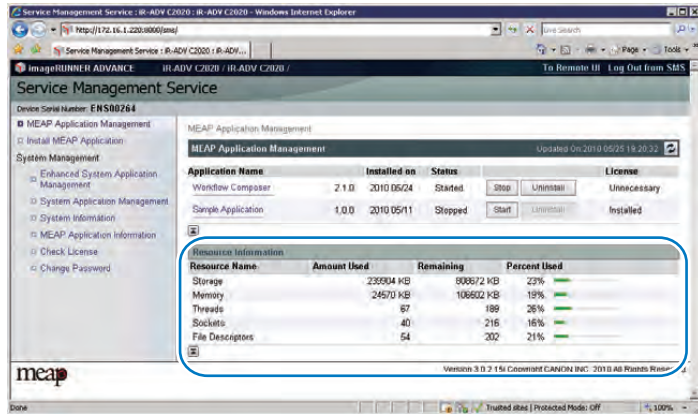
You will not be able to install an application if the size of the remaining Storage falls short of the size declared by the application. Moreover, the specifications have been designed so that an application will not be able to start up if there is a shortage of memory for any of the foregoing items (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



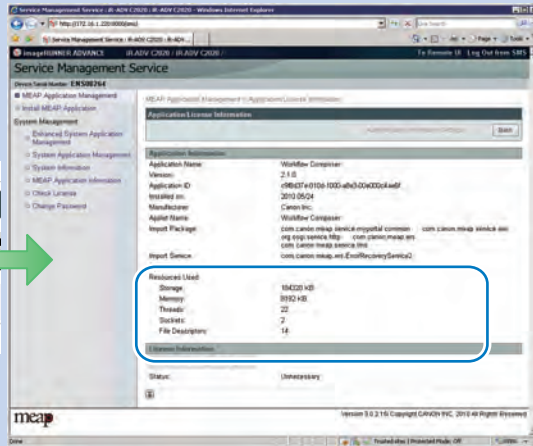
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Note:

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.

MEAP Application Management

Application Name	Installed on	Status	License
Workflow Composer	2.1.0 2010 05/24	Started	Unnecessary
Sample Application	1.0.0 2010 05/11	Stopped	Installed

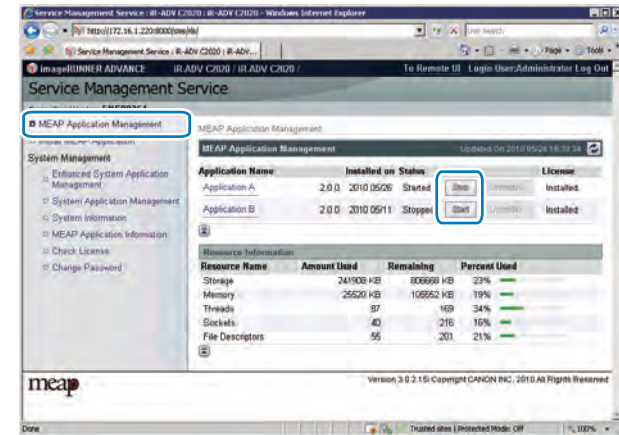


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Starting and Stopping a MEAP Application

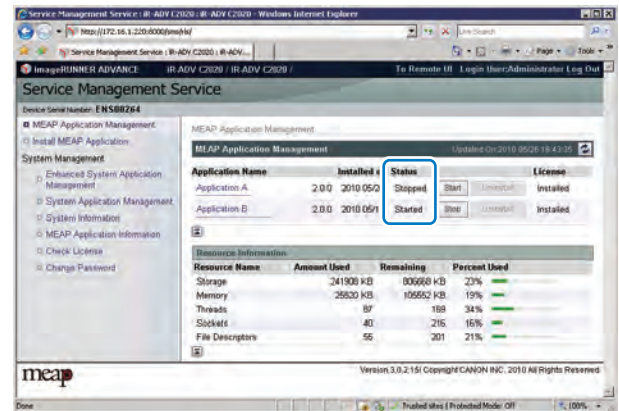
■ Procedure to start and stop a MEAP application

- 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

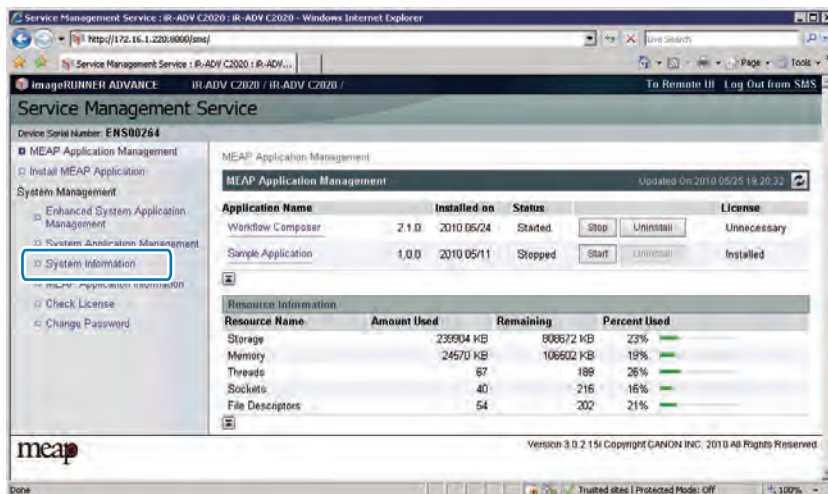
The check procedure of the platform information

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 5,6,7,9,10,11,13,14,15,17,18,19,25,26,27,29,30,31,32,33,34,35,36,37,38,39,40,41,42,44,45,46,47,49,50,51,52,53,54,55,56,57,58,59
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
iR-ADV C2030 iR-ADV C2025 iR-ADV C2020	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	Ver.10.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, 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)
21	Reserved
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
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

Ver	Description
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.

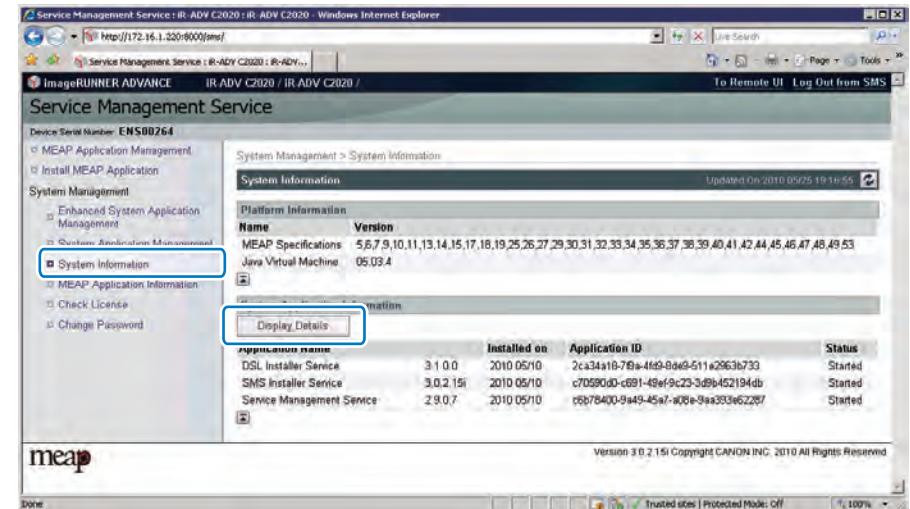
The following sections describe the details of information items. Each item is shown or printed by application.

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.



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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.

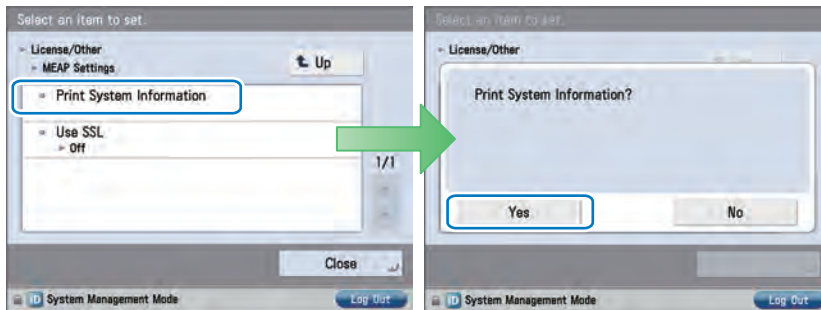
Follow the steps below when confirming information:

- 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.)

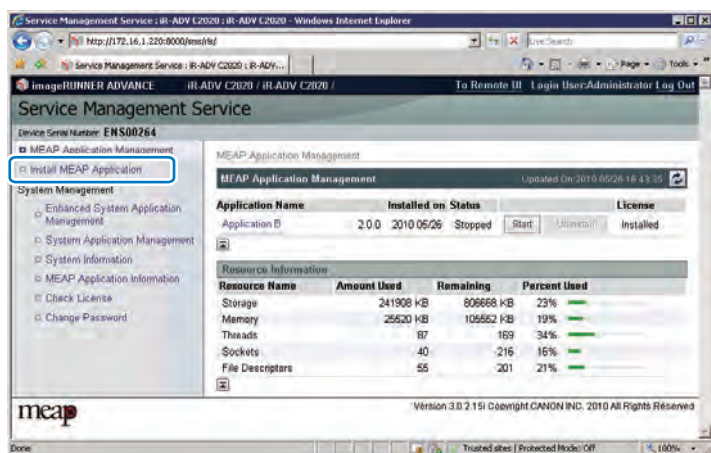
CAUTION:

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

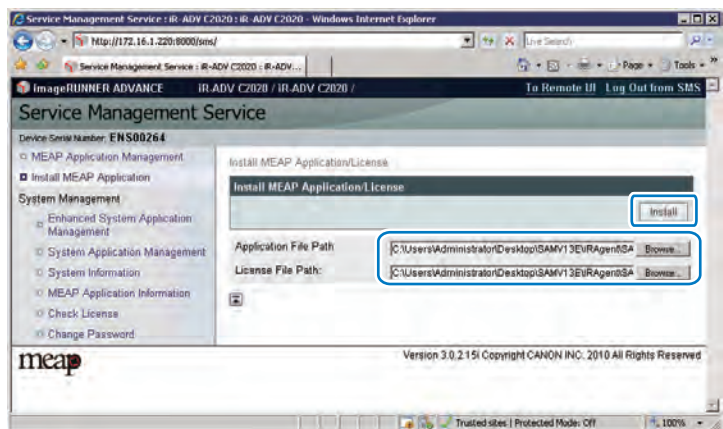
- 1) Long on to SMS.
- 2) Click [Install MEAP Application] on the menu.



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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".

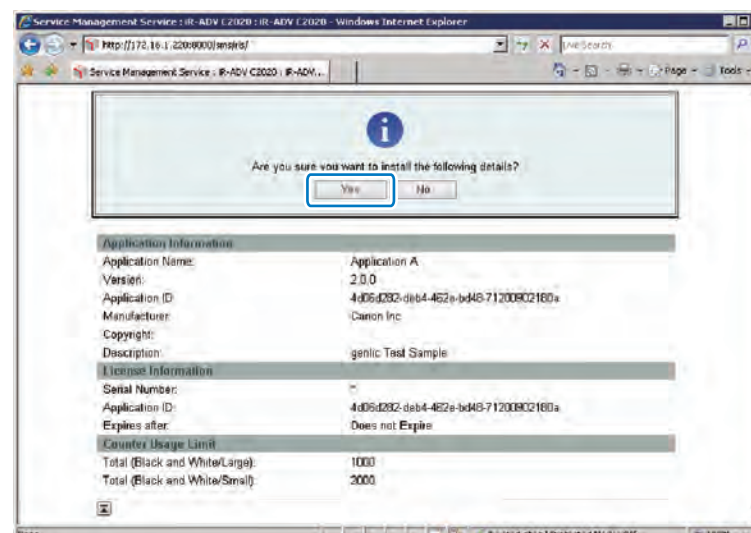


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CAUTION:

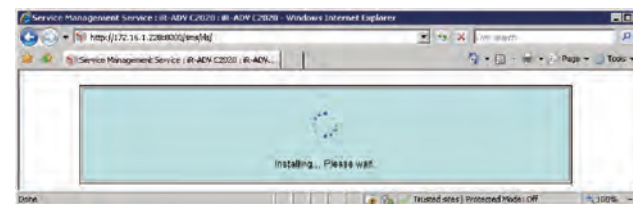
- You cannot install only the license.
- You will not be able to install the application without using the appropriate license. Be sure to select its license file.
- If you are adding a license to an existing application, see "Adding a License File" in this manual.
- If you are updating an existing application, 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.



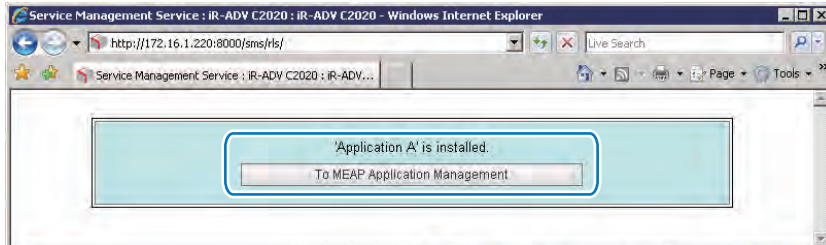
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- 6) Some applications show a screen to indicate the terms of agreement. Read the terms, and click [OK].
- 7) Check the message "Installing...Please wait." appears, beginning the installation.



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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. Care 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/wwLTGmm4vjBT9Itv1q592kLDwPjms+yjw3ATBMT/xpBPKESM11CLPRsgw/yk+
Y27Hy+vvoImXCFn5hqwHqofwJ2a2qg9Pt1CzaE3/wx76Acdy2DnGmt1yb01cqd1
1k/AH-LH3HTc416YRvPLu4vqFznl/3rvj/wdEiygwMa/7iFOImG2aL1Kk01H061
dScd1xxSbwd1p31qi1grFqmxE4b1ZL1HB5mUAhSxynX0FdvXg1g4kv1F67wum
Cuy7Y41bvkkUq8R75f+T1YMYueq6+X7AX9mkVHRR4PDZPZmkpX2f1fZSM506
UwCNHqg5M10Bgg31q2CFXC4063Gj/zw2NOSMzncQ7Bw01wuoa,1Std7vy0Fbz19C
ef0uzR6j11jwxgAwG/mr6w7r1dWLC7MUHOTV/1mN1Z7kF1gvgh2z7dHi6ktvptM
xUwM1vmoEqb8F73k02blghoocXsFgdFKLpsCiwPe1sRkb2QqS644PB0Ecscj1Xcc
dQjsu+dGLtXLRkLFRcd1Bknw1xc6Zi3pCH7b5vH21mQFR6k4rBtcrnhf18Zwut
Q9Y1ur/vv1sbkPafHqjJNW==
  
```

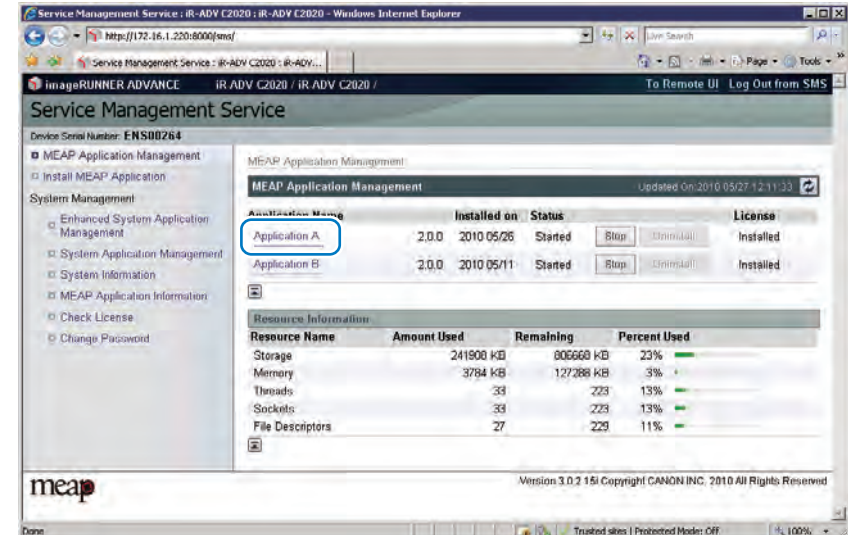
License File ID
Application ID
Serial Number
Validated Period
Counter informations

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Adding a License File

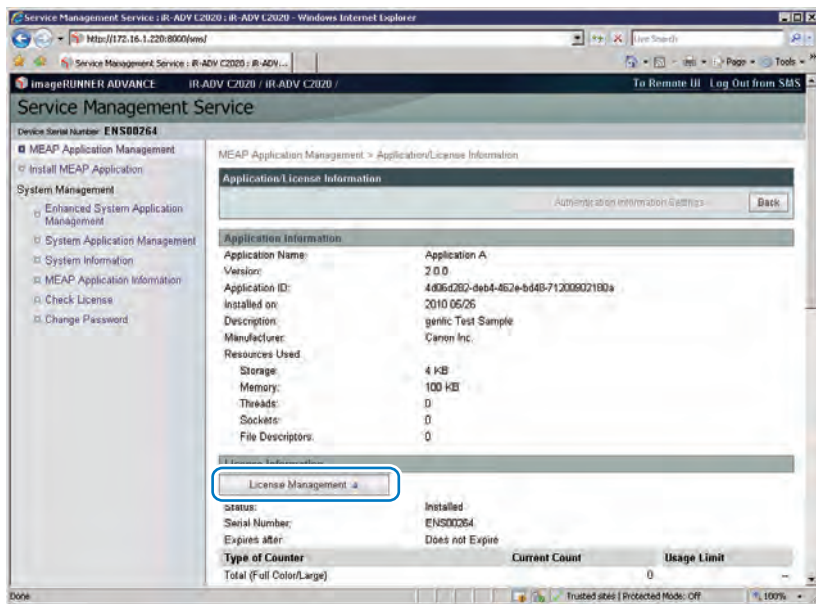
Procedure adding a license file

- 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.



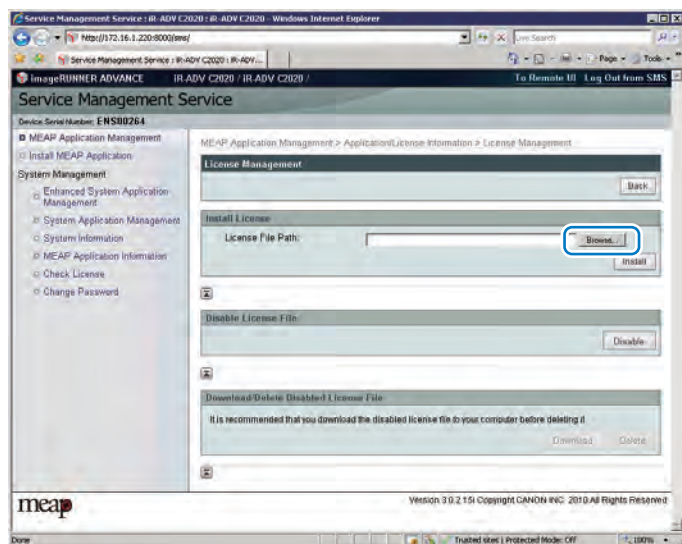
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- 3) In [Application / License Information] page shown on the screen, click [License Management] button.



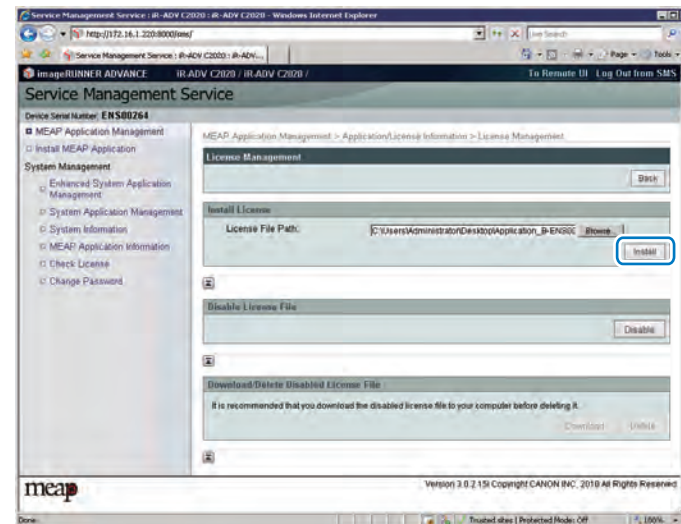
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- 4) Click [Browse] button, and select the license file you want to install.



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- 5) Click [Install] button.



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- 6) Check the content of the confirmation page, and click [OK] button

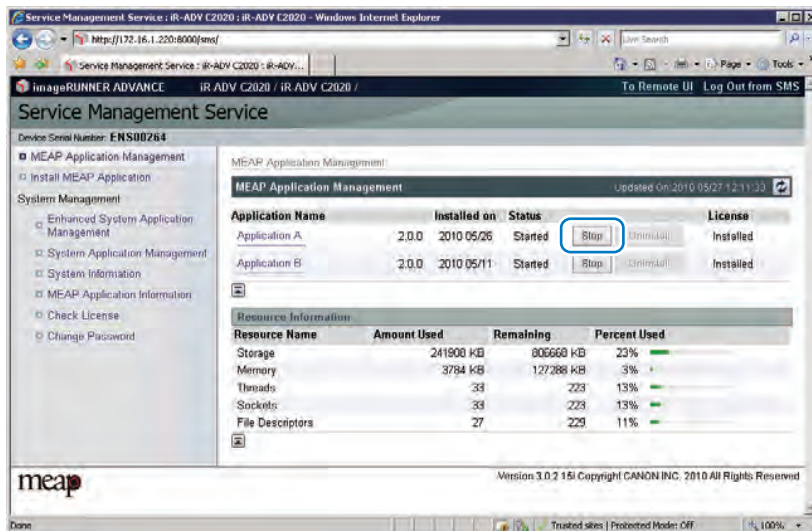
Disabling a License File

■ Procedure disabling a license file (suspending a license)

CAUTION:

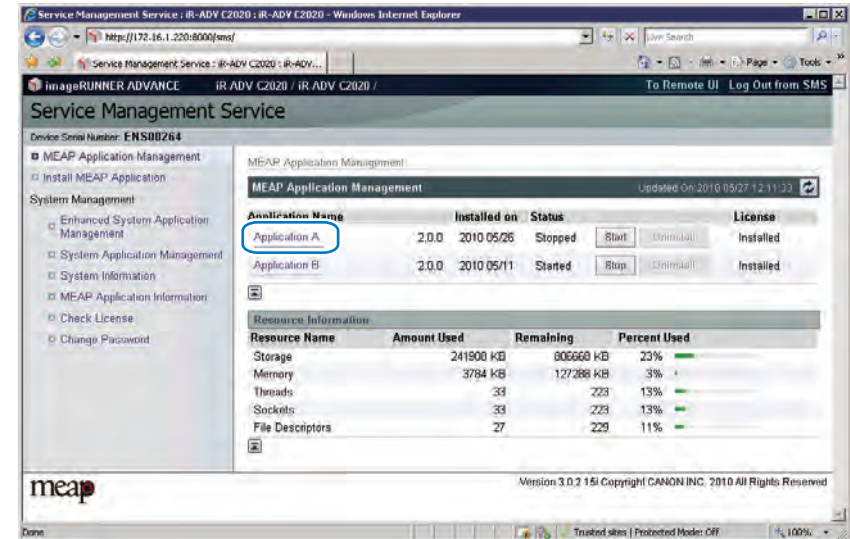
- To invalidate (or suspend) a license, you must first stop the application in question.
- Once suspended, the status of the license will be 'Not Installed', and its application will no longer be available for use.
- You can later restore a suspended license file as long as you are doing so on the same 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 "License for forwarding").

1) Stop the application you want to uninstall on MEAP Application Management page.



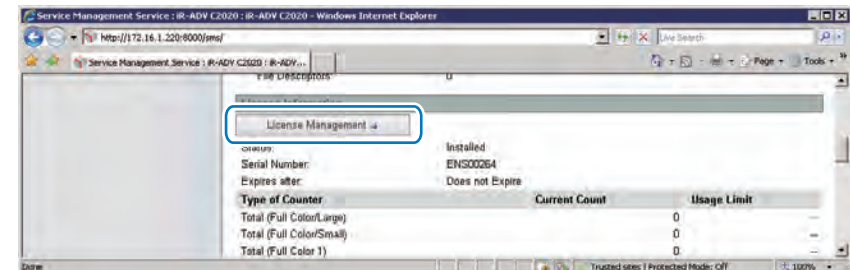
F-2-182

2) Click the name of the application that you want to disable.



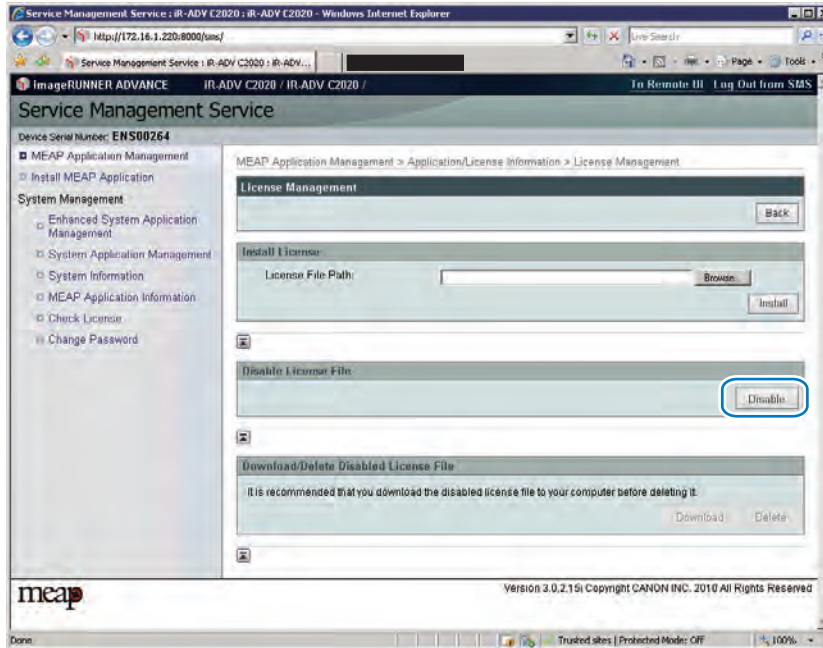
F-2-183

3) On Application/ License Information page, click [License Management] button.



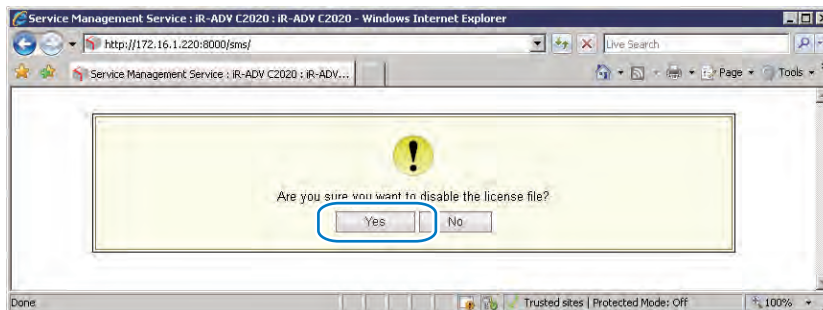
F-2-184

4) License Management page appears. Click [Disable] button.



F-2-185

5) Click [Yes].



F-2-186

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.

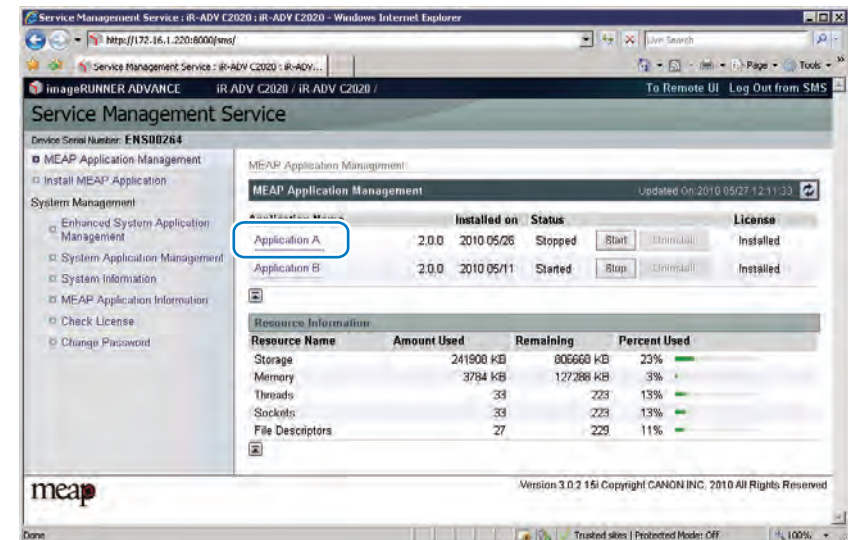
WARNING:

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).

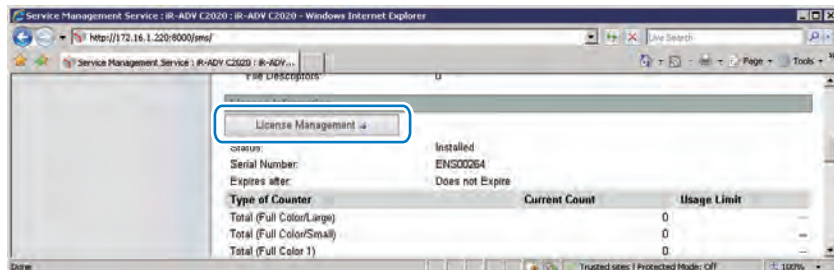
- 1) Login to SMS.
- 2) Application List page appears. On MEAP Application Management page, click the name of the application you want.



F-2-187

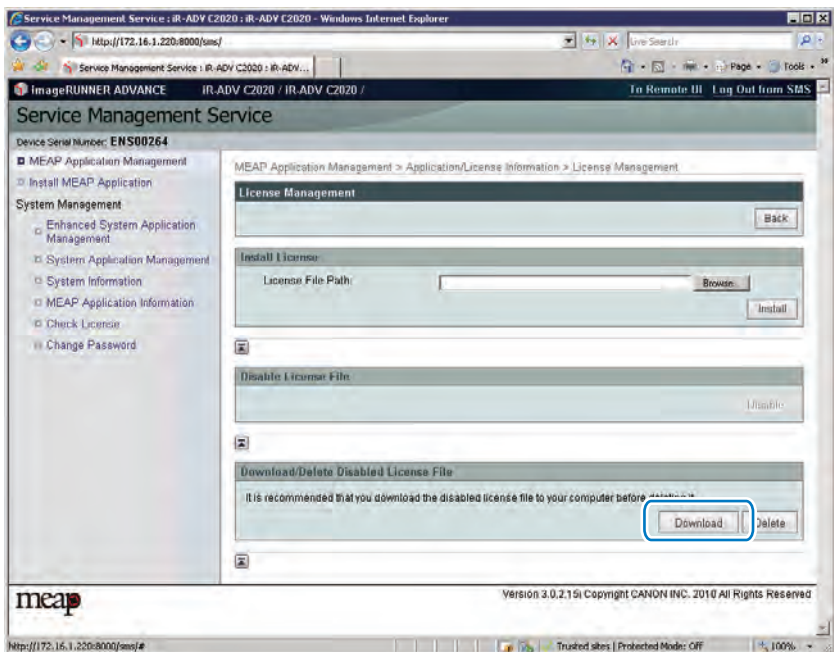
3) Check Application/ License Information page appears.

4) On Application / License Information page, click [License Management] button.



F-2-188

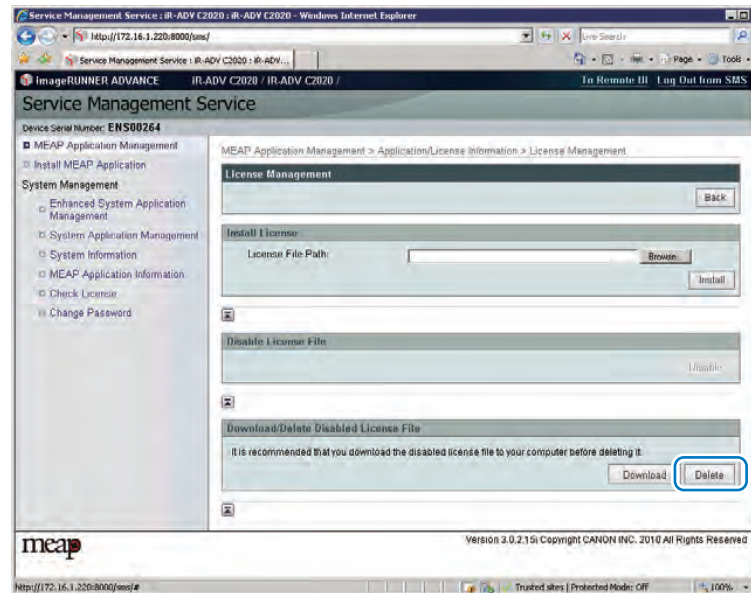
5) License Management page appears. To download, click [Download] button.



F-2-189

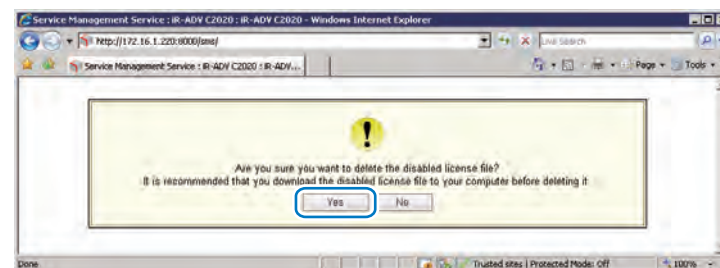
6) When you have selected [Download] button, specify where you want to store the file by following the instructions on the screen.

7) To delete, click [Delete] button.



F-2-190

8) When the dialog to confirm deletion is shown, click [Yes] button.



F-2-191

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 "Disabling a License File" and see "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'.

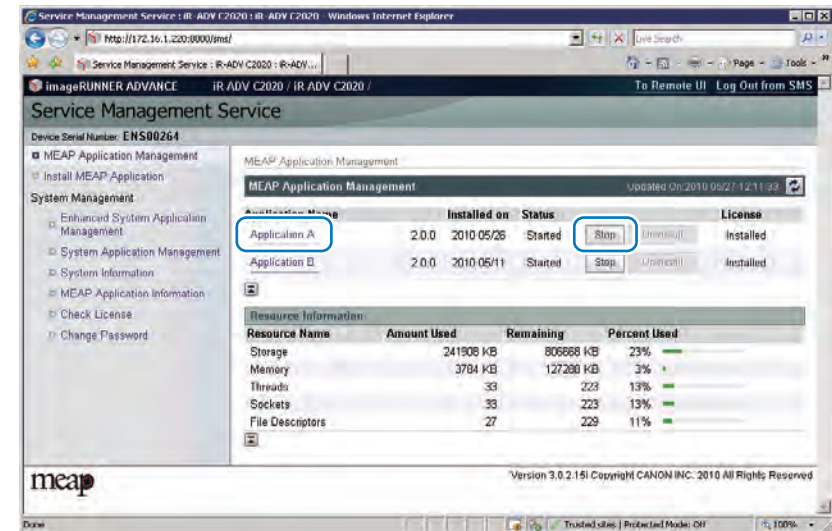
License for forwarding

■ 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 "Starting and Stopping a MEAP Application" in this manual).



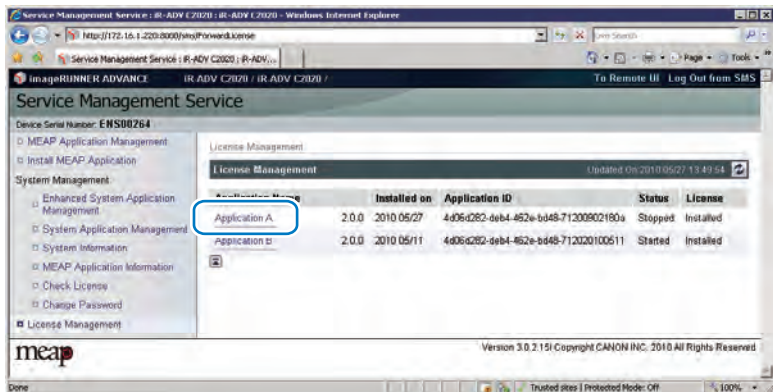
F-2-192

- 2) Move to the download page of license forwarded for the device as sender ([http:// IP address of device: 8000/sms/ForwardLicense](http://IP address of device: 8000/sms/ForwardLicense)).



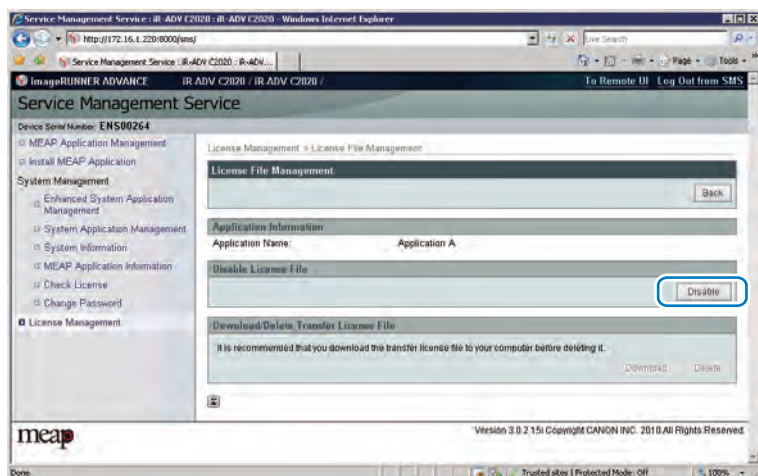
F-2-193

3) Specify the application to be forwarded.



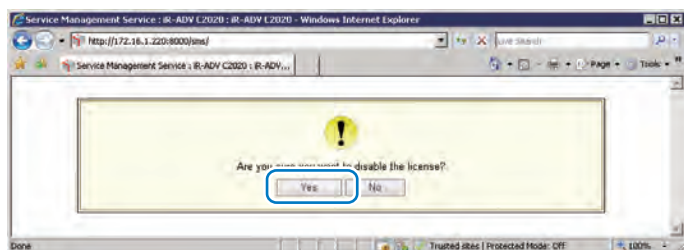
F-2-194

4) Click [Create] at Create Transfer License File.



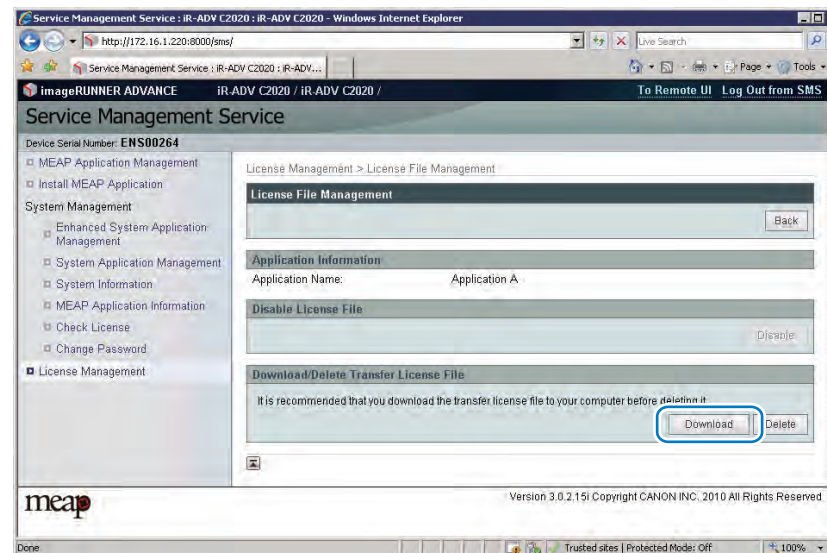
F-2-195

5) The window to confirm whether to create a transfer licence will be displayed. Click [OK].



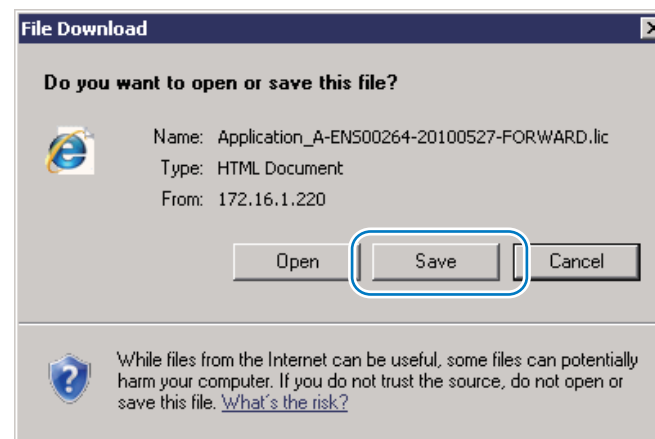
F-2-196

6) Icon of license file for forwarding is displayed in the box of license file downloading. Click [Download].



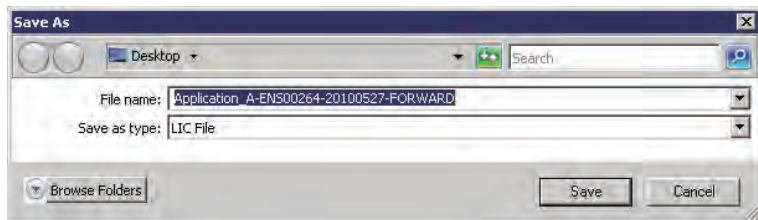
F-2-197

7) The dialogue [File Download] is displayed. Click [Save].



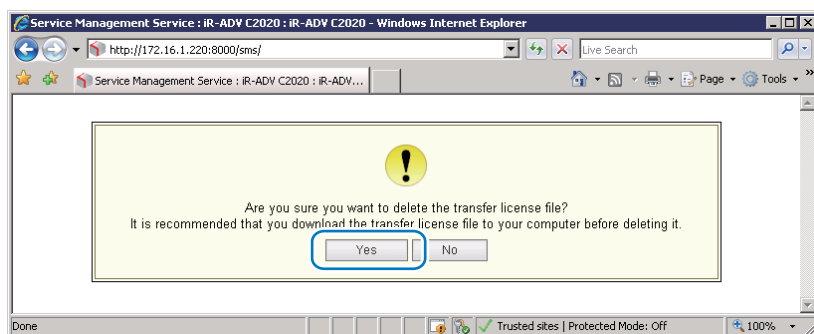
F-2-198

8) Specify the download destination, click [Save].



F-2-199

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).



F-2-200

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.

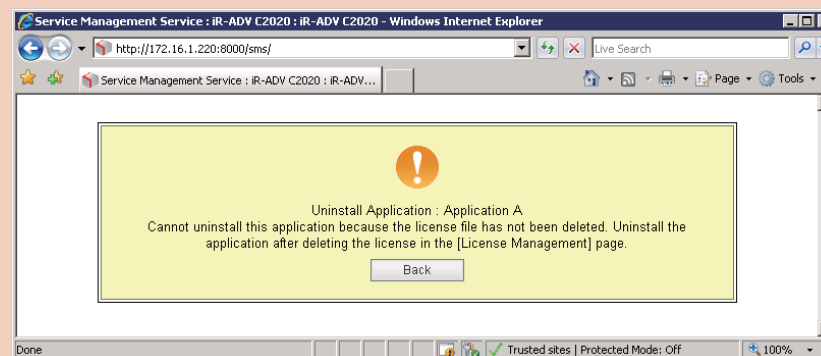
12) Install application using the license for forwarding issued by the sales company.

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.

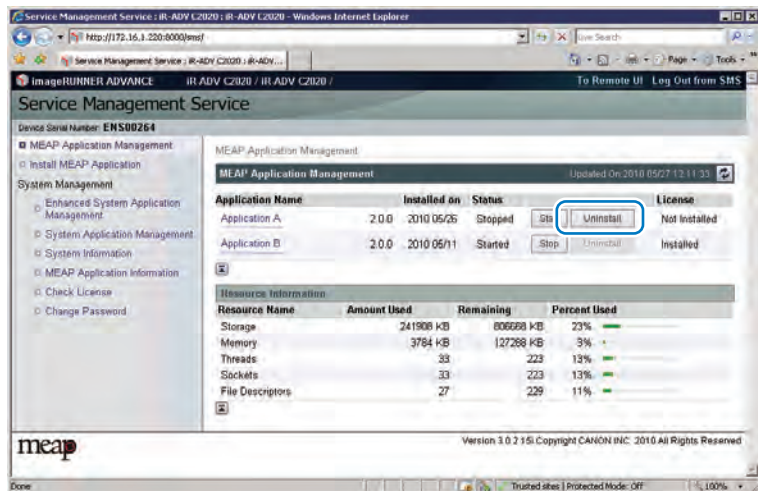


F-2-201

- 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.

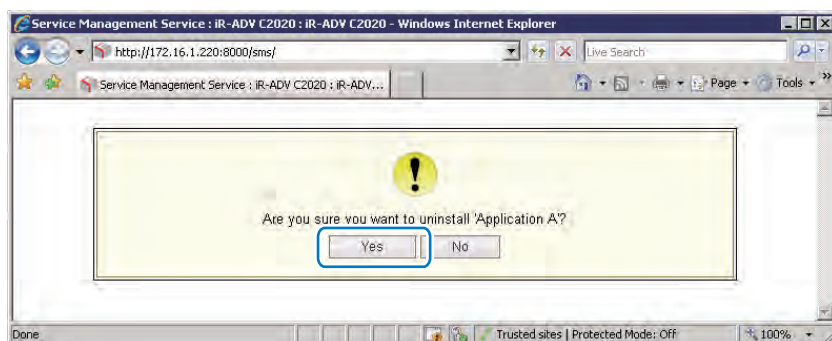
- Log in to SMS to click [MEAP Application Management] on the menu.
- [MEAP Application Management] page is shown.

3) Click [Uninstall] button for the application to be uninstalled.



F-2-202

4) Check the application name to be uninstalled shown on the screen to click [Yes] button. Upon [Yes] button clicked, uninstallation process is started.



F-2-203

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 NTML 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.

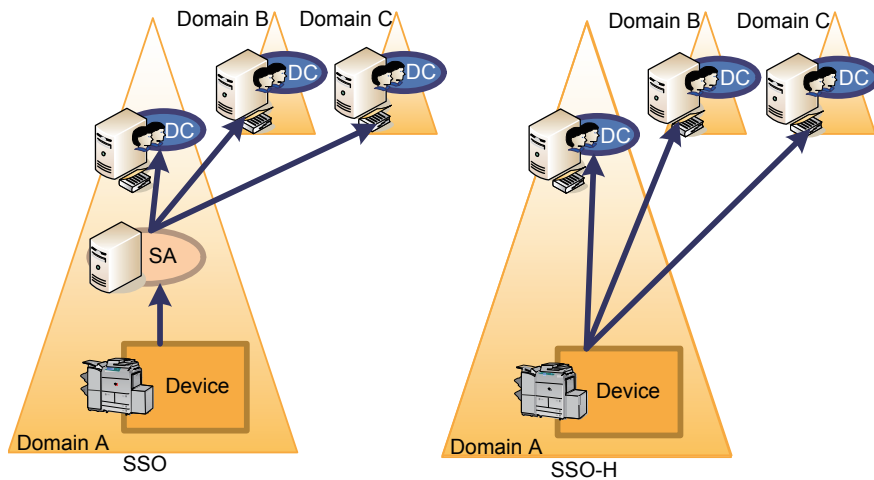
The protocol used is as follows.

- 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

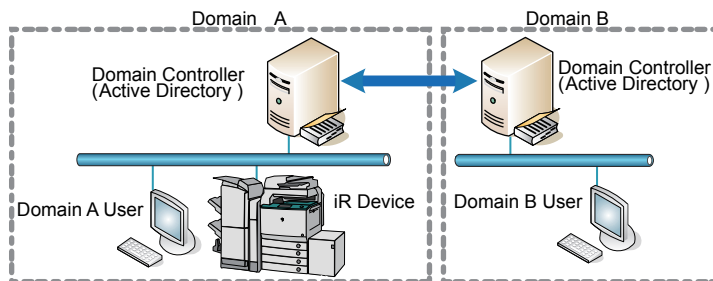


F-2-204

- 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.



F-2-205

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.

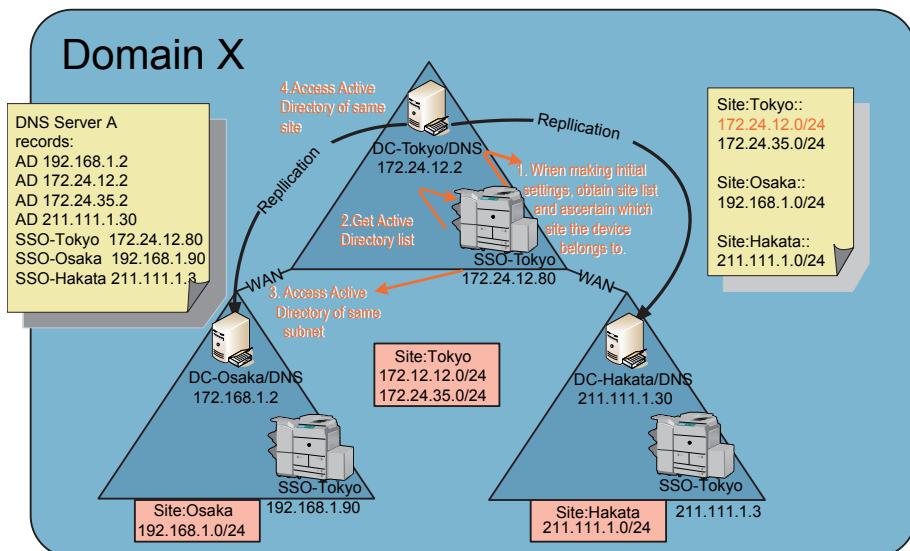
Site internal access mode settings window (DMS)

Access Mode in Sites	
* Effective at the time of domain authentication	
Access Mode in Sites:	<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.
Retrieve Site Information:	<input checked="" 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.
Site Access Range:	<input checked="" 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.

F-2-206

The figure below shows a sample of processing Access Mode in Sites.

Sample of Processing Access Mode in Sites



F-2-207

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-2-84

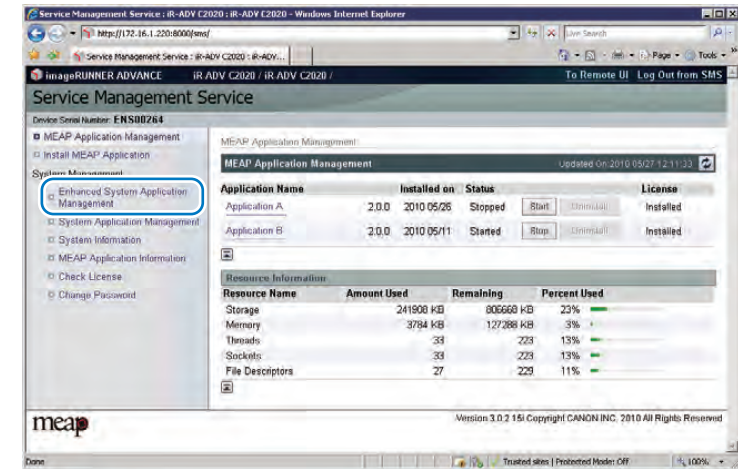
● SSO/SDL handling

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

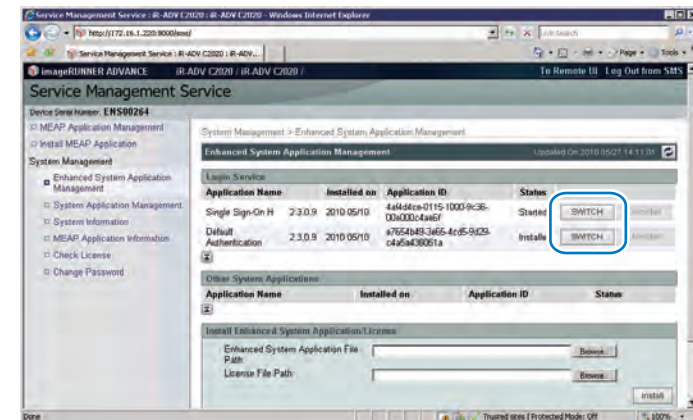
■ Steps to Change Login Services

1) Click [Enhanced System Application Management] on [System Management].



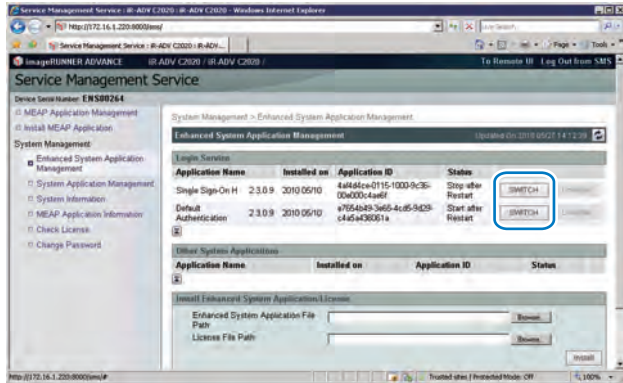
F-2-208

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-2-209

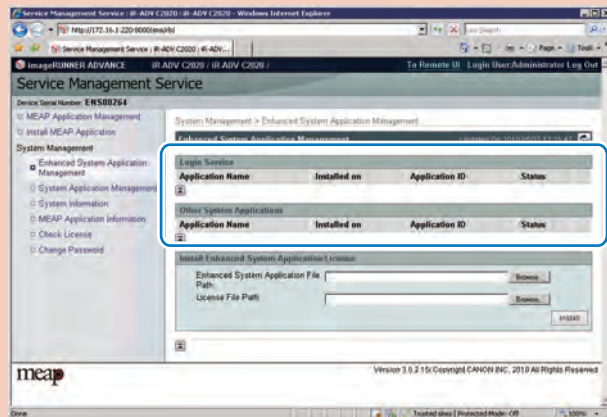
- 3) When login service application you have selected turns to Start after Restart, restart the device.



F-2-210

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-2-211

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.

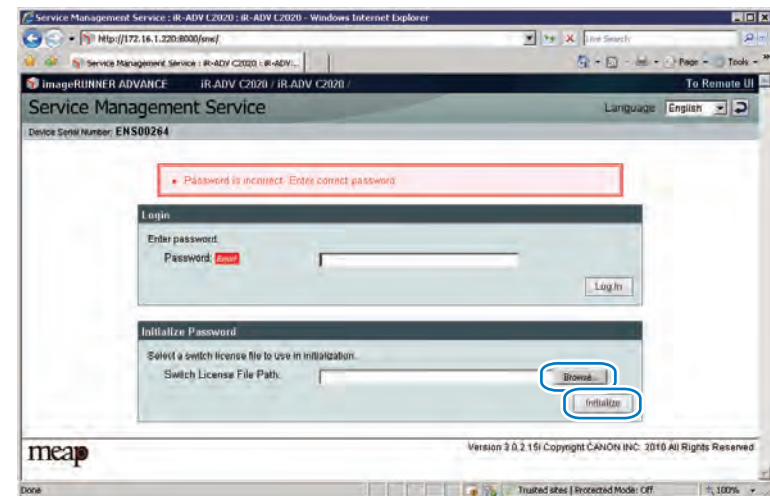
Initializing the Password

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-2-212

- 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 the Flash PCB of Flash model or when replacing or formatting the hard disk of HDD model, 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 the Flash PCB of Flash model or when replacing or formatting the hard disk of HDD model.

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.

Note:
Only HDD can be formatted.

WARNING:

You must not perform any other work (including checking operation) until the HDD/ the Flash PCB has been backed up. This arrangement is to prevent a mismatch of MEAP counter readings and the HDD/ the Flash PCB contents, and any fault in operation arising as the result of failure to observe this will not be covered by the guarantee of operation.

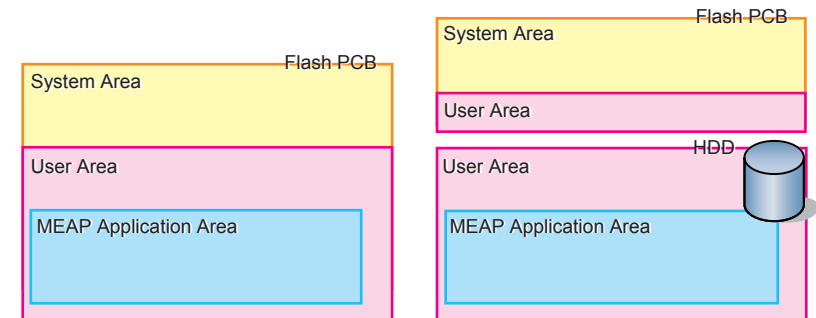
Note:
The application that is installed with a reusable license can be reinstalled by using the same license.

HDD model and Flash model

Data storage area

In the case of iR-ADV C2030/C2020, there are HDD model provided with a Flash PCB and an HDD and Flash model provided with a Flash PCB only.

The System files are stored in the Flash PCB in both models, but the location where the MEAP application area is stored differs according to the model.

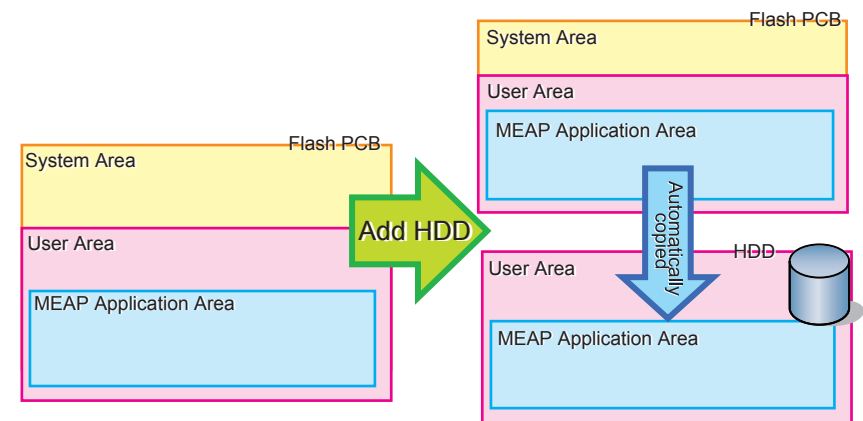


F-2-213

The procedures for backing up and restoring the MEAP application area are the same with conventional devices.

Data storage area when adding an HDD to Flash model

When an HDD is added to Flash model, most of the data on the MEAP application area on the user area that exists on the Flash PCB is automatically copied to the HDD. It is therefore unnecessary to back up/recover the data when adding an HDD.



F-2-214

■ Backup Item Automatically Copied

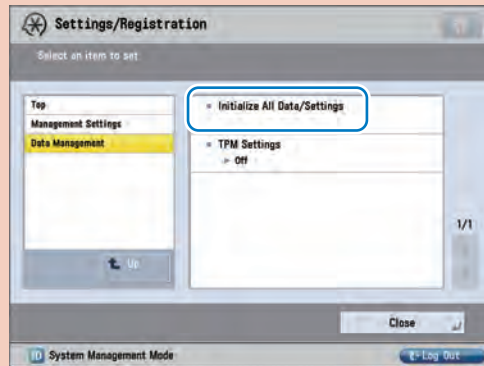
● The following data are backed up using SST:

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-2-215

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-2-85

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/ the Flash PCB 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.

Note:

The backup data of Flash model cannot be recovered in HDD model.
Also, the backup data of HDD model cannot be recovered in Flash model.

■ 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/ssol/").

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

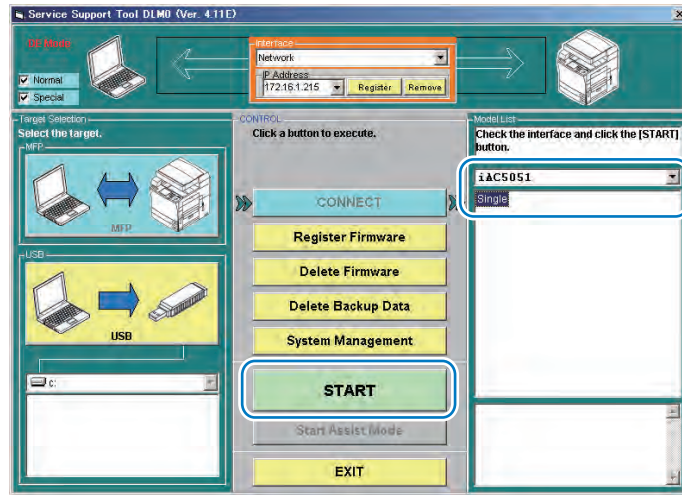
Press [2] and [8] buttons at the same time on the control panel and turn on the main power switch to start the device in Download Mode. Note that SST backup function is enabled only in Download Mode.

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-2-216

5) Generating backup data to transfer it to the PC (uploading)

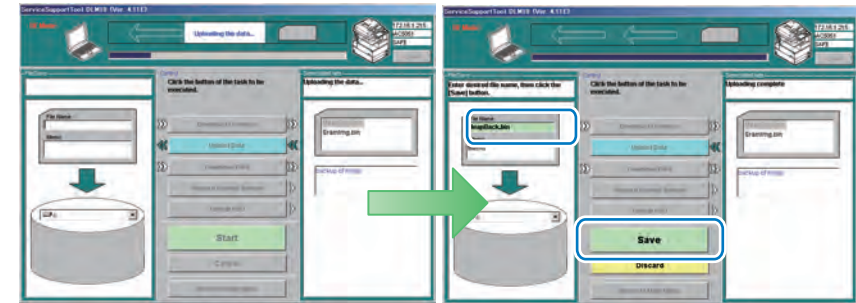
Click [Upload Data] button of SST and select "Meapback.bin" as the item to be backed up to click [Start] button.



F-2-217

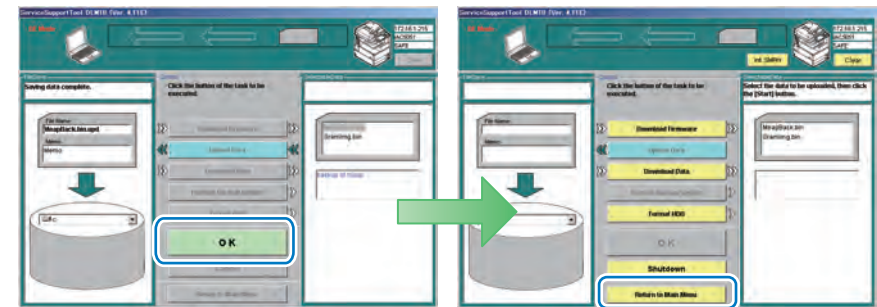
6) Saving backup data

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-2-218

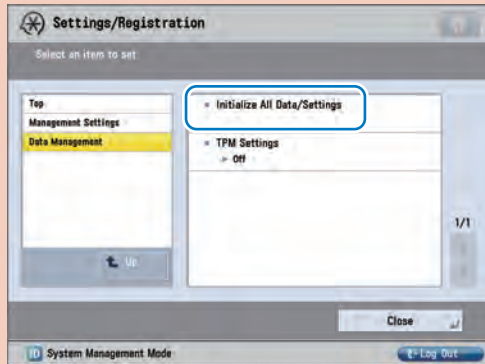
When the file is successfully saved, click [OK] button, and then click [Return to Menu] button.



F-2-219

WARNING:

Do not execute [Initialize All Data/Settings] in user mode during the period from backup using SST to recovery of the data.



F-2-220

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.

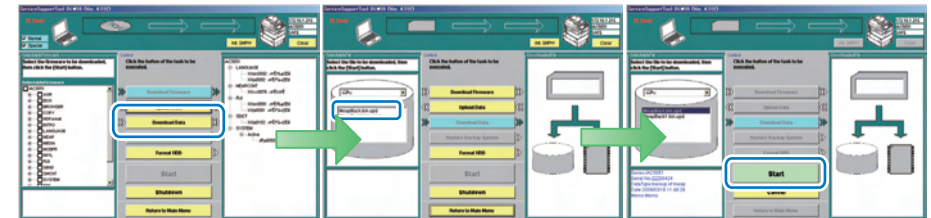
■ Procedures to Restore Backup Data

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

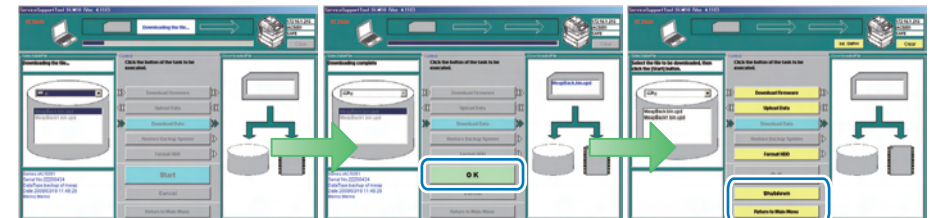
Click [Upload Data] button and select the data backed up in the previous step (Meapback.bin) to click [Start Restoring Data]. Note that the data backed up in a different version cannot be restored.



F-2-221

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-2-222

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/Flash PCB

■ Outline

If the Flash PCB or 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 Flash PCB is replaced or 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/Flash PCB

● 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.

● Formatting the Flash PCB

The Flash PCB is not formatted in service work. If there is a problem in the system, solve the problem by performing a remedy according to the error code or replacing the Flash PCB.

CAUTION:

Flash PCBs rarely need to be replaced because they are more impervious to vibration and shock than hard disks.

Flash PCBs are critical control parts. If it is judged that the Flash PCB needs to be replaced, contact the support department of the sales company.

■ HDD/ Flash PCB replacement procedure

● Outline

The procedure for replacing the HDD or the Flash PCB differs according to whether the HDD or the Flash PCB functions normally or not.

● If the MEAP application area cannot be backed up

If the HDD or the Flash PCB 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.

CAUTION:

Flash PCBs rarely need to be replaced because they are more impervious to vibration and shock than hard disks.

Flash PCBs are critical control parts. If it is judged that the Flash PCB needs to be replaced, contact the support department of the sales company.

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/Flash PCB, and replace the drive.

3)Formatting HDD (If you replace the HDD)

Format the HDD referring to Formatting the HDD.

4)Installing the system files (If you replace the Flash PCB)

As for the installation procedure, contact the support department of the sales company.

5)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.

6)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.

CAUTION:

Flash PCBs rarely need to be replaced because they are more impervious to vibration and shock than hard disks.

Flash PCBs are critical control parts. If it is judged that the Flash PCB needs to be replaced, contact the support department of the sales company.

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/Flash PCB, and replace the drive.

3)Formatting HDD (If you replace the HDD)

Format the HDD referring to Formatting the HDD.

4)Installing the system files (If you replace the Flash PCB)

As for the installation procedure, contact the support department of the sales company.

5)Restorering the backup file

Restore the backup data referring to the Procedures to Restore Backup Data.

6)Importing user information

As necessary, make login service selections and import user information.

MEAP Safe Mode (level 2)

Outline

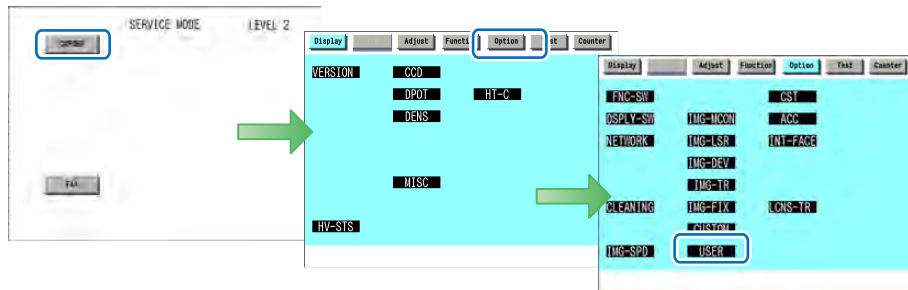
Use safe mode if you need to start up the system without worrying about extra applications. It will start up only those system software files (including SMS) that normally start up as default files while preventing MEAP applications and the like from starting up.

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.

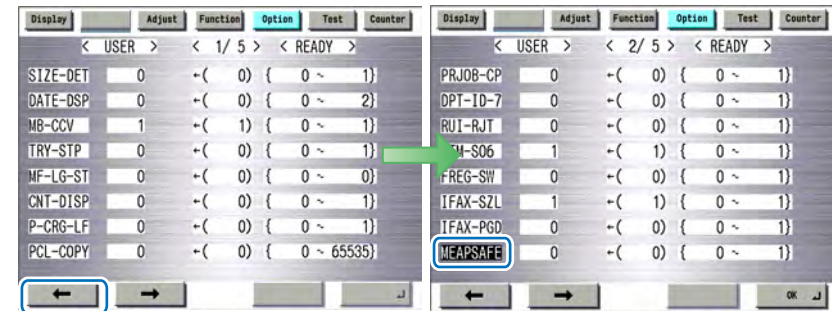
Starting in Safe Mode

- 1) Start [SERVICE MODE] in Level 2.
- 2) Press [COPIER] > [Option] > [USER] buttons.



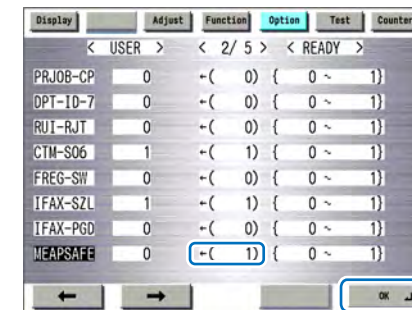
F-2-223

- 3) Press ← or → button for several times until [MEAPSAFE] button is shown. Click [MEAPSAFE] button.



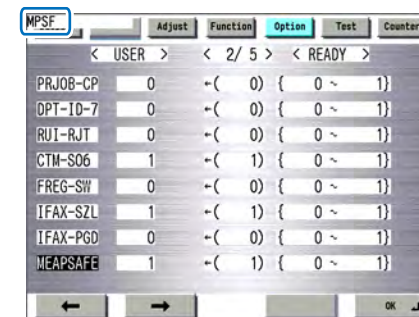
F-2-224

- 4) Press the 1 key on the control panel keypad to change the setting to '1'; then, click [OK] button.



F-2-225

- 5) Check that the notation 'MPSF' has appeared in the upper left corner of the screen; then, restart the device.



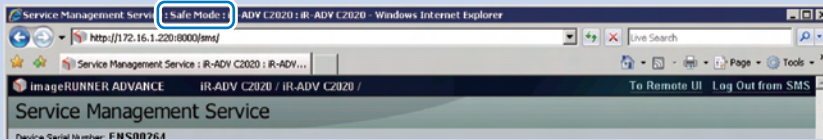
F-2-226

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

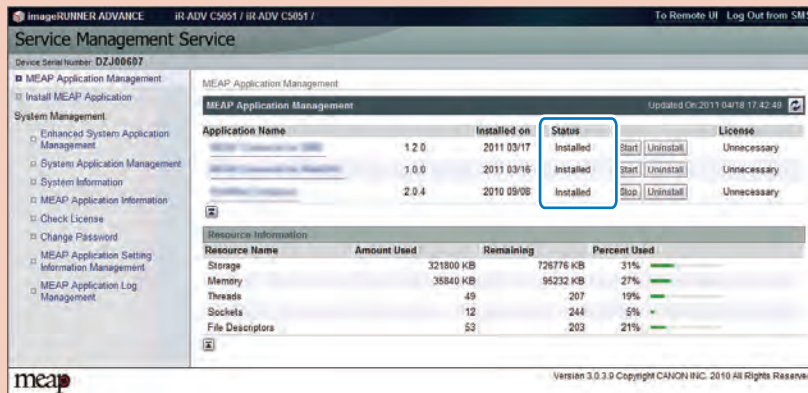


F-2-227

WARNING :

If the device has been started in the MEAP SAFE mode, all MEAP applications stop and the status becomes "Installed".

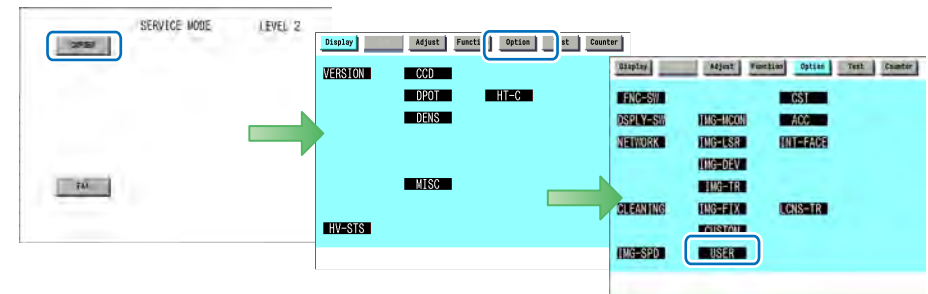
This status remains unchanged even if the MEAP SAFE mode is cancelled and the device is started again in normal mode. It is therefore necessary to access SMS after normal startup, and start the MEAP application.



F-2-228

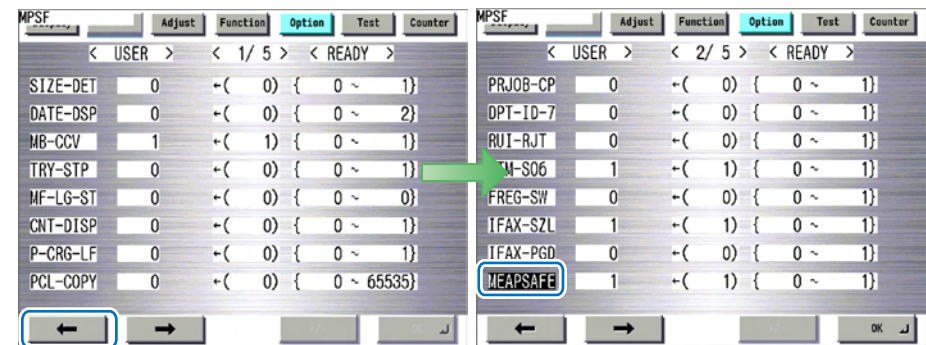
How to cancel MEAP SAFE mode

- 1) Startup level 2 of [SERVICE MODE].
- 2) Press [COPIER] > [Option] > [USER].



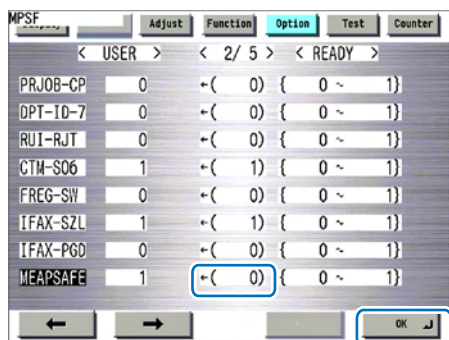
F-2-229

- 3) Press [←] or [→] button for several times until [MEAPSAFE] is shown. Click [MEAPSAFE].



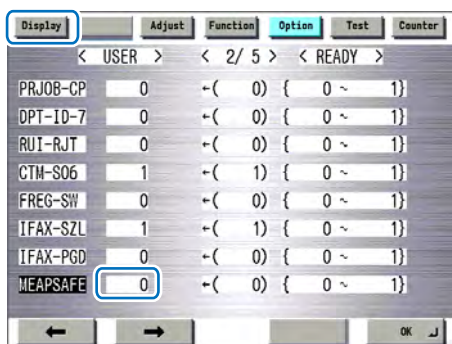
F-2-230

- 4) Press the 0 key on the control panel keypad to change the setting to '0'; then, click [OK] button.



F-2-231

- 5) Check that the notation 'MPSF' has appeared in the upper left corner of the screen; then, restart the device.



F-2-232

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

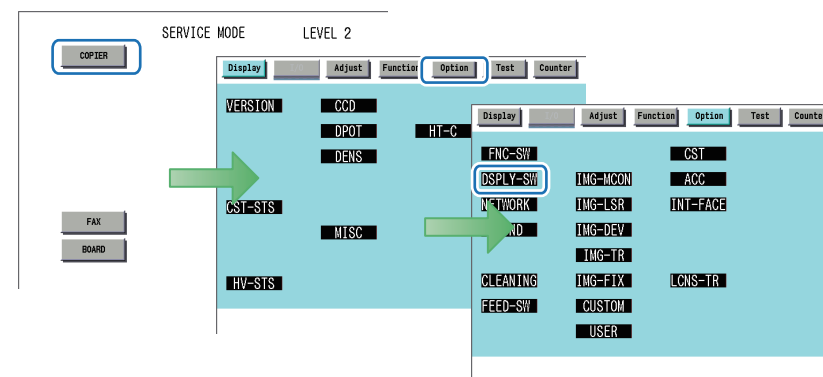
Note:

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-2-233

3) Press [RMT-CNSL] button.



F-2-234

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-2-235

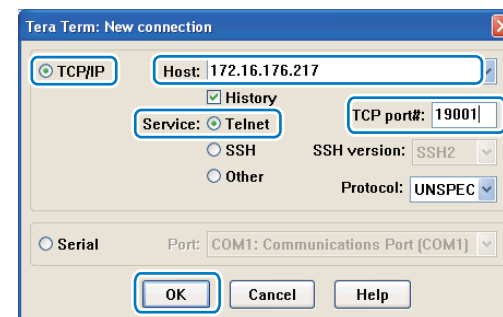
5) Check to see that it is reflected in setting field, and restart the device.



F-2-236

● PC setting procedure (when Tera Term is used)

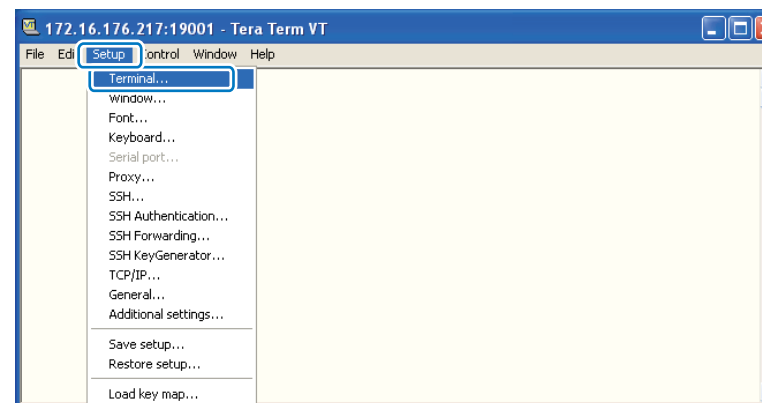
- 1) Install the terminal software on the PC.
- 2) Start the terminal software, make the following settings, and then click the "OK" button.



F-2-237

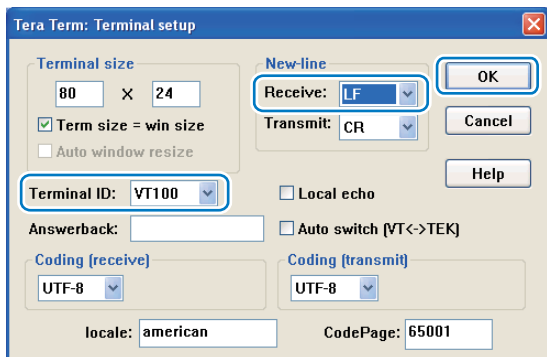
Connection : Select [TCP/IP] (Default)
 Host : Device Host Name or IP Address
 Service : Select "Telnet"
 TCP port# : Enter 19001

3) The connection window will open. Select [Terminal...] from the [Setup] menu.



F-2-238

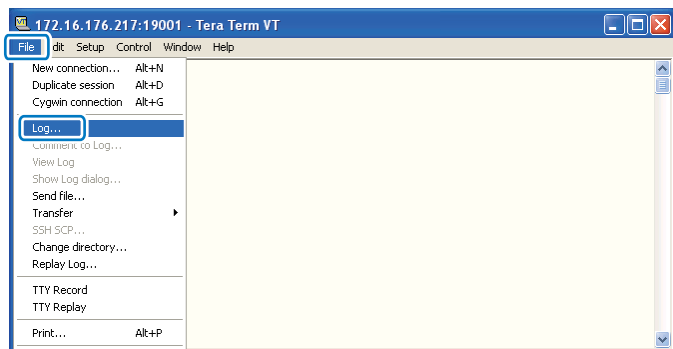
- 4) The terminal setting screen will appear. Make the following settings, and then click the "OK" button.



F-2-239

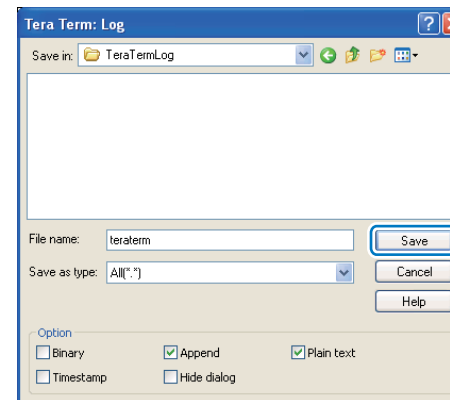
Terminal ID : VT100
New-line Receive : LF

- 5) Select [Log...] from the [File] menu.



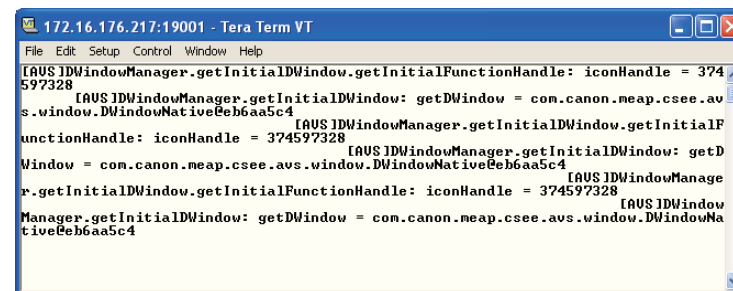
F-2-240

- 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.



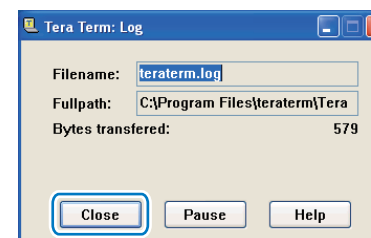
F-2-241

- 7) Perform the operation whose log you want to collect.



F-2-242

- 8) Click the [Close] button in the log dialog.



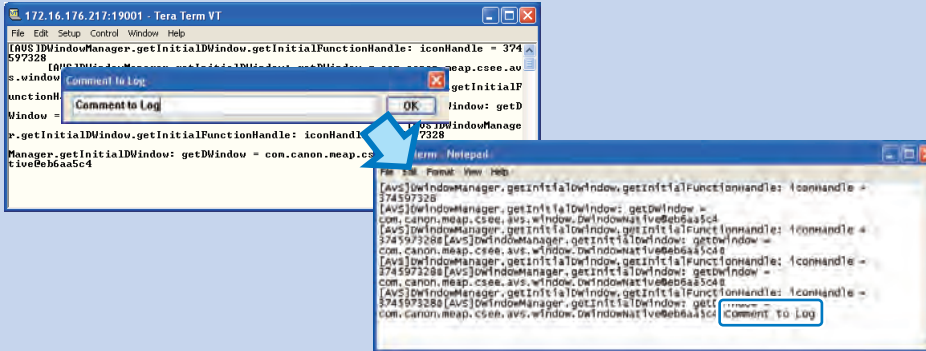
F-2-243

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... :

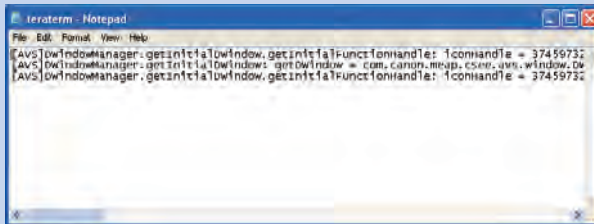
You can add a comment to the log being collected. The added comment is reflected in the log file.



F-2-244

Show Log dialog... :

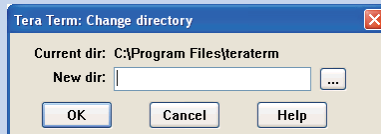
The logs that have been collected are pasted on Notepad and displayed.



F-2-245

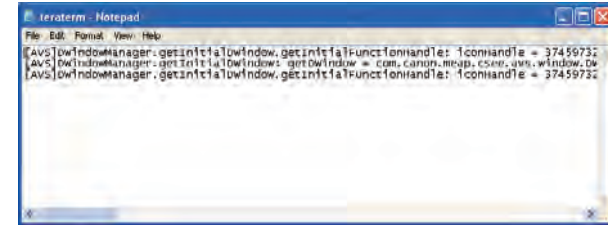
Change directory... :

The preliminarily set save destination of the log file can be changed.



F-2-246

9) Open the file saved in the save destination, and check that the logs are stored correctly.



F-2-247

Note:

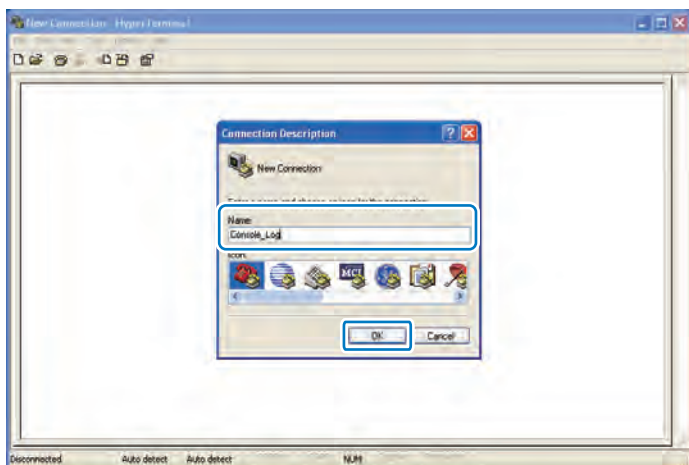
Depending on the MEAP application, the log output setting needs to be made in order to collect logs.

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).

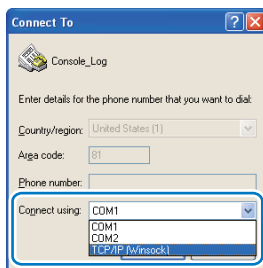
● PC setting procedure (when Hyper Terminal is used)

- 1) Start Hyper Terminal, set the connection name in the [Connect Description] dialog that appears on the screen, and then click the OK button.



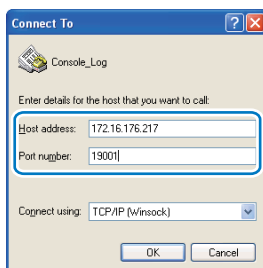
F-2-248

- 2) Set [TCP/IP(Winsock)] for [Connect using].



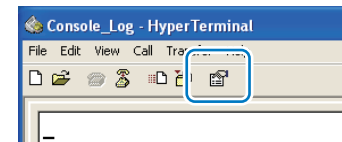
F-2-249

- 3) Enter the IP address of the target device in [Host address], and enter "19001" (fixed) in [Port number].



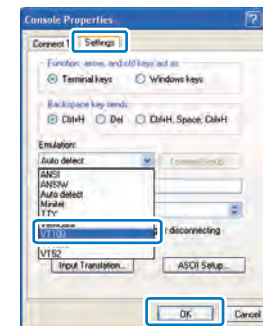
F-2-250

- 4) Click the "Properties" icon on the Hyper Terminal screen.



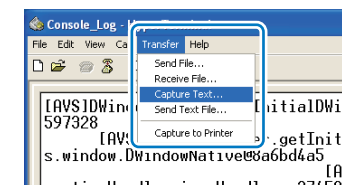
F-2-251

- 5) The [Console Properties] dialog will appear. Select the [Settings] tab, select [VT100] for [Emulation], and then click the [OK] button.



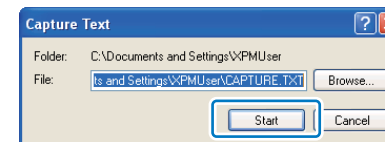
F-2-252

- 6) Return to the Hyper Terminal window, and select [Transfer] > [Capture Text...] from the menu.



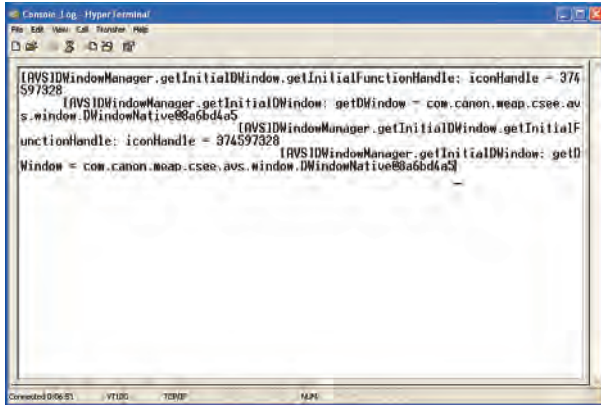
F-2-253

- 7) The dialog for specifying the save destination of the log file will appear. Specify the save destination.



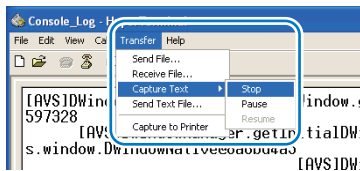
F-2-254

- 8) Perform the operation whose log you want to collect.



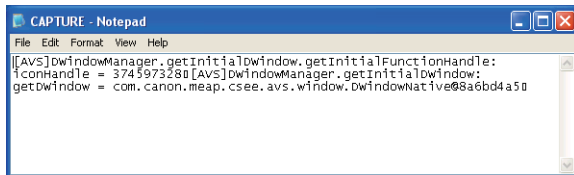
F-2-255

- 9) Select [Transfer] > [Capture Text...] > [Stop] from the menu.



F-2-256

- 10) Open the file saved in the save destination, and check that the logs are stored correctly.



F-2-257

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

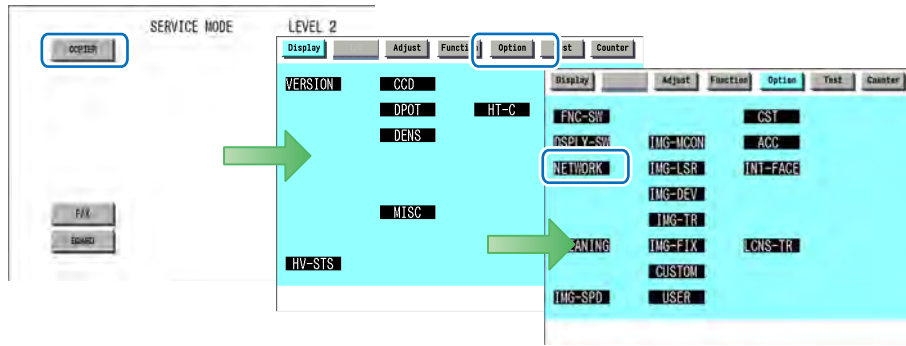
Setting value is 0 through 65535 [the value at factory shipment/after clearing RAM: 8443]

Note:

As for port on HTTPS server, it only applies to the device that supports SSL function.

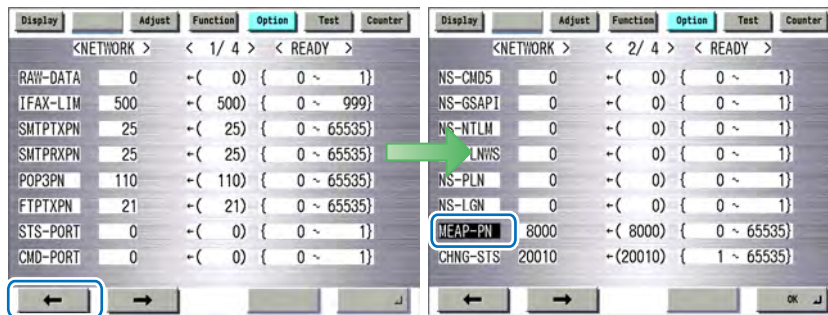
Port setup procedure of HTTP Server

- 1) Start [SERVICE MODE] in Level 2.
- 2) Press [COPIER] > [Option] > [NETWORK] buttons.



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- 3) Press ← or → button until [MEAP-PN] is shown on the screen. Press [MEAP-PN] button.



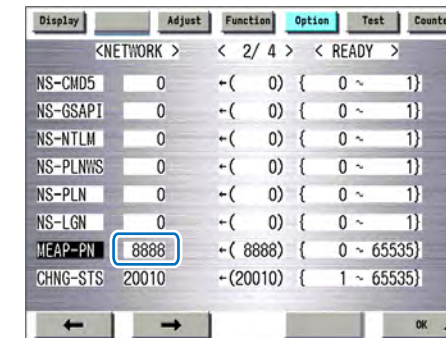
F-2-259

- 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-2-260

- 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.



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- 4) Press the port number to specify on the 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 turn off the main power, and then, restart the device.



F-2-264

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)

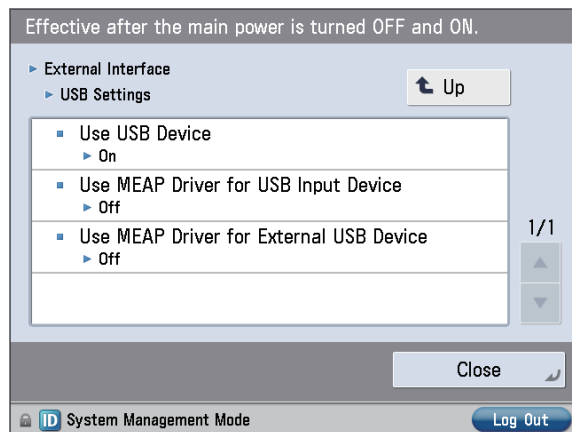
System driver is active by default in iR-ADV series.

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 idProdcut(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

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YES: USB device available NO: USB device not available

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

T-2-88

YES: USB device available NO: USB device not available

• 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.

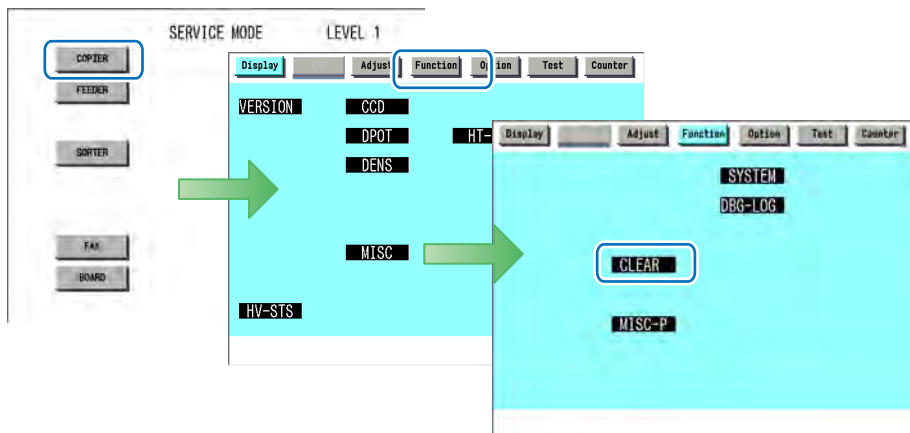
- ON: when using MEAP application keyboard
- OFF: when using native (main unit functionality) keyboard (factory shipment default)

■ 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.

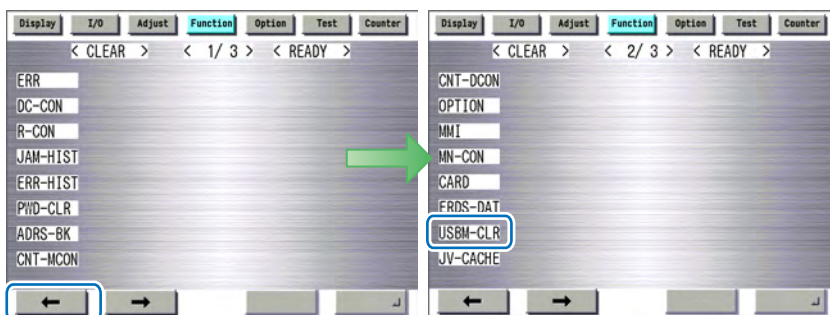
● Steps to initialize preference use registration

- 1) Start [SERVICE MODE] in Level 1.
- 2) Press [COPIER] > [Function] > [CLEAR] > button.



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- 3) Press ← or → button for several times until [USBM-CLR] is shown on the screen. Press [USBM-CLR] button.



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- 4) Press [OK] button to restart this device.



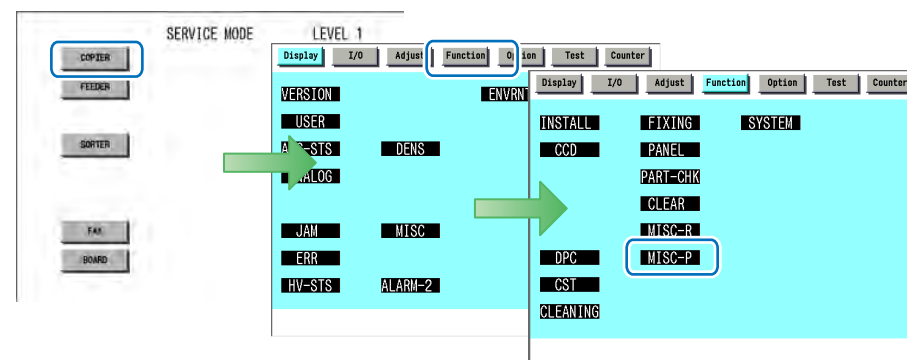
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■ USB Device report print

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.

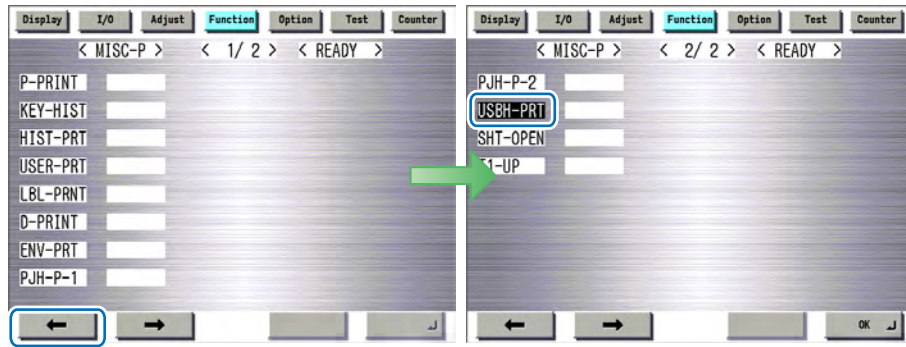
● Steps to output the USB Device report print

- 1) Start [SERVICE MODE] in Level 1.
- 2) Press [COPIER] > [Function] > [MISC-P] > button.



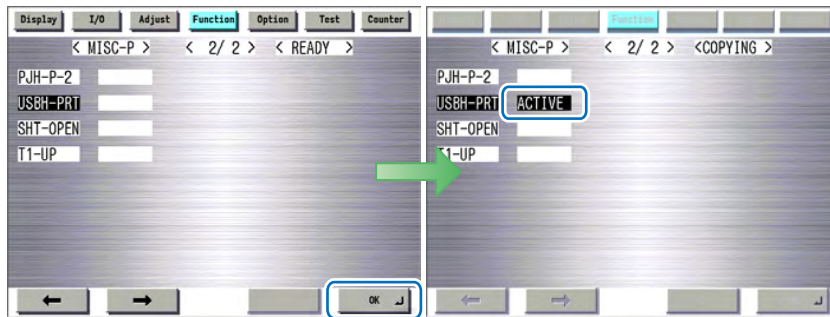
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3) Press **←** or **→** button for several times until [USBH-PRT] is shown. Press [USBH-PRT] button.



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4) When pressing [OK] button, [ACTIVE] blinks on the status field.



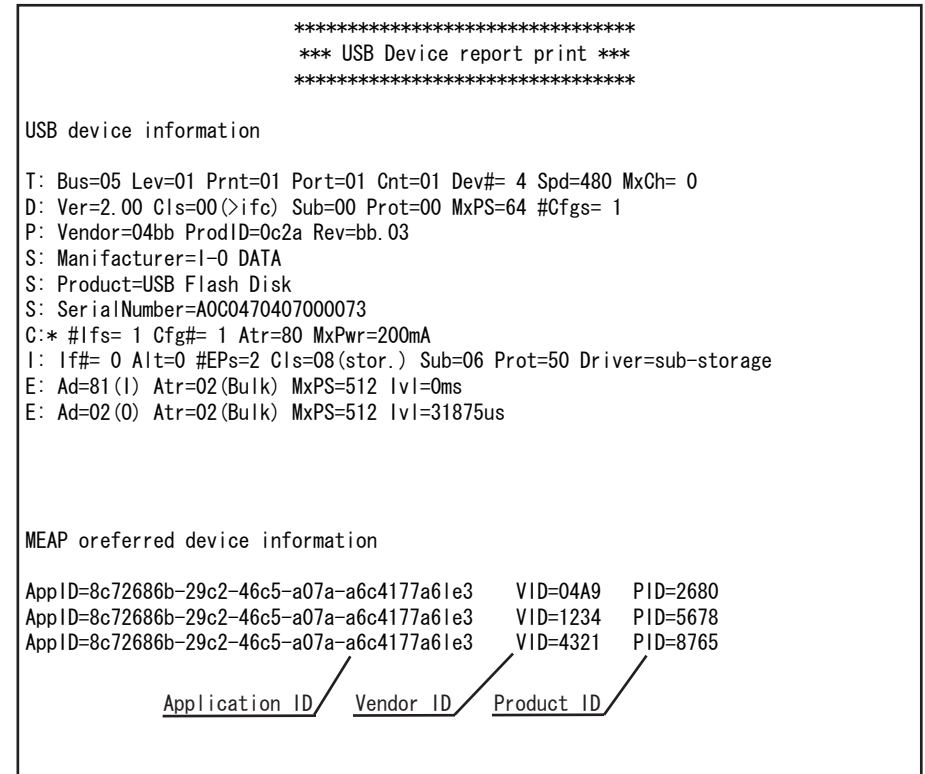
F-2-271

5) When [OK] is shown on the status field, the status print is output. Check the contents of the print.



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Example of output result



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• 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	Yes
	Multimedia Card Reader	Not available	Yes
	IC Card Reader	Not available	Yes
Image Data Analyzer Board-A1		Not available	No
Hub	Internal Hub*	Not available	No
	External Hub	Available	Yes

* USB Device Port-B1 Hub for device ports installed at the introduction

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- 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 Vendor. 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"> • 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. • 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. • 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. • RARP: A communication protocol to request IP address information via the network adaptor address (MAC address) of a client. • IPP: A communication protocol to execute remote printing between the print server and clients via Internet. • TCP/IP: A standard communication protocol required to access to Internet and other large-scale network.
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

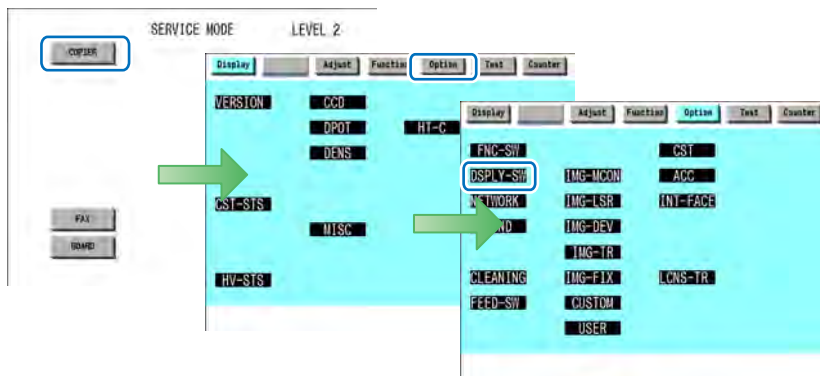
1: display

Setting range, item

0: hide 1: display

● Setting Procedure

- 1) Start [SERVICE MODE] in Level 2.
- 2) Press [COPIER] > [Option] > [DSPLY-SW] button.



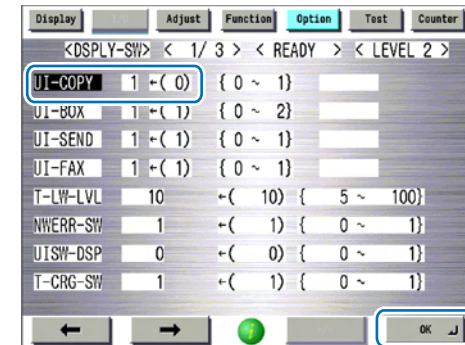
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- 3) Press [UI-COPY].



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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

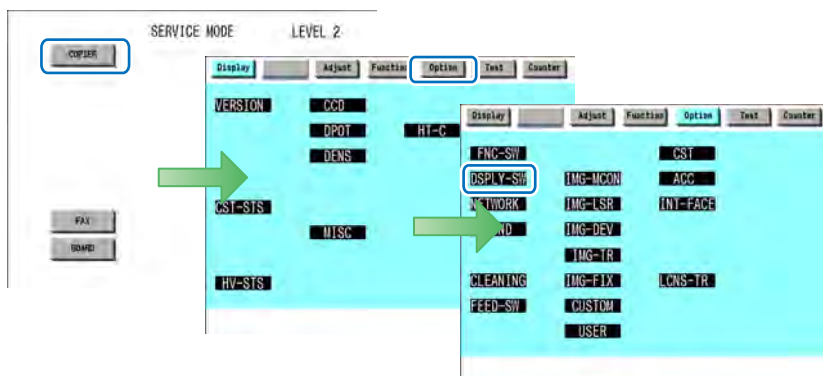
1: No activation of warning display

Setting range, item

0: display warning screen 1: hide warning screen

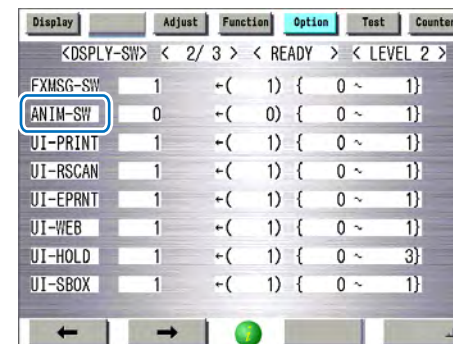
● Setting Procedure

- 1) Start [SERVICE MODE] in Level 2.
- 2) Press [COPIER] > [Option] > [DSPLY-SW] button.



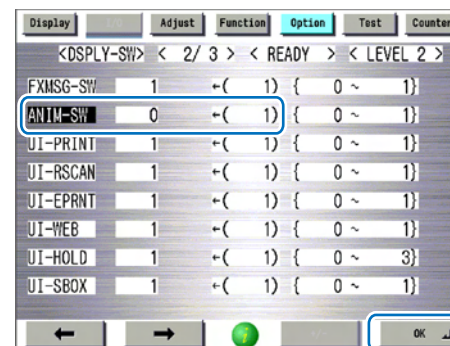
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- 3) Press [ANIM-SW] button.



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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.



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- 5) Check to see that it is reflected in setting field, and restart the device.

Embedded RDS

Product Overview

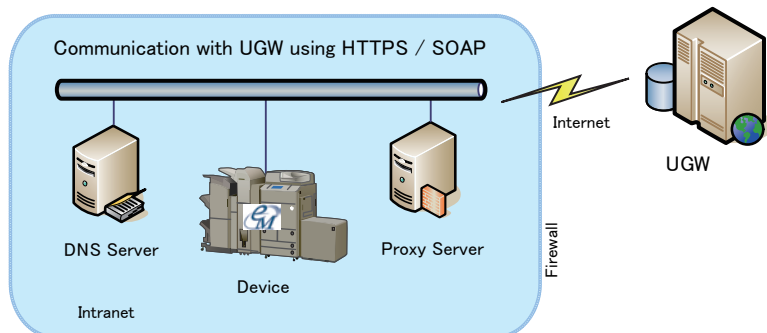
Overview

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 the UGW 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 is changed in service mode

The following shows the transmission timing and the target data for transmission in service mode menu:

Transmission timing	Transmitting data			Error retry
When the following alarm is detected.	COPIER	Display	ANALOG	No
Alarm codes for transmission: 0x060002, // Fixing 0x060004 - 0x069999, // Fixing 0x090005 - 0x099999, // Dram 0x100006 - 0x109999, // Development 0x300001 - 0x309999 // High voltage			HV-STC	
			CCD	
			DPOT	
			DENS	
			FIXING	
			SENSOR	
			MISC	
			HT-C	
			HV-TR	
			P-PASCAL	

Transmission timing	Transmitting data			Error retry
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	
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. (For transmission process, 5 minutes after the execution)	COPIER	Display	ANALOG	Yes
			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.

Limitations

Service Mode Menu Transmission Function

- 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
- 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.
- 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.)
- 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.

Service cautions

1) After performing the following service actions, it is necessary to perform initializing E-RDS settings (ERDS-DAT) and communication test (COM-TEST).

Failure to do so will result that the counter transmitting value to the UGW may become unusual.

- RAM clear of MNCON PCB SRAM Board :
[SERVICE MODE] > [COPIER] > [Function] > [CLEAR] > [MN-CON]

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.

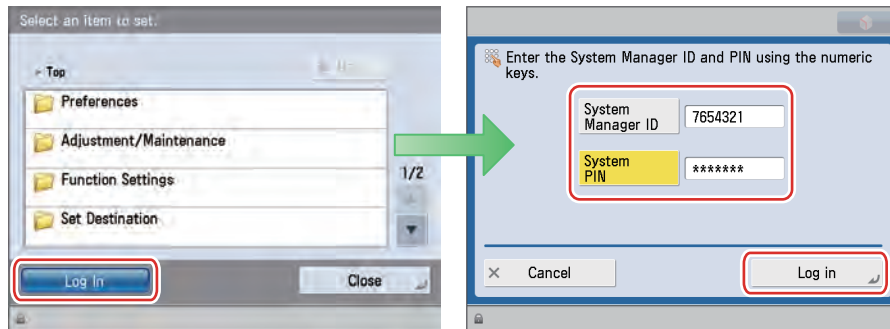
- User name and password required for proxy authentication

(3) Network settings

Based on the results of the information obtained in (2) Advance preparations, make the device network related settings in accordance with the following procedures.

1) Displaying the Settings/ Registration screen

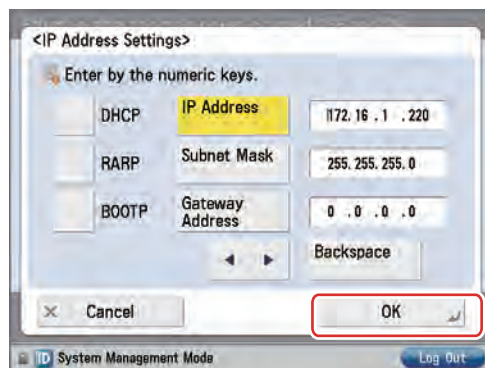
1. Touch the [Settings/Registration (User Mode)] button.
2. When a system management department ID and system management password are set up, touch the [Log In] button and enter the System Management ID and System PIN to perform a log-in.



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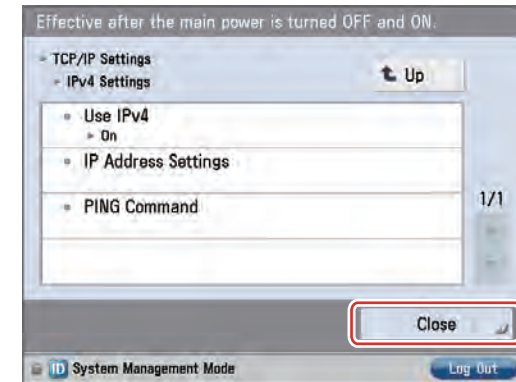
2) Setting IP address-related items

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 “(2) Advance preparations - Information item 1”, 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-2-282

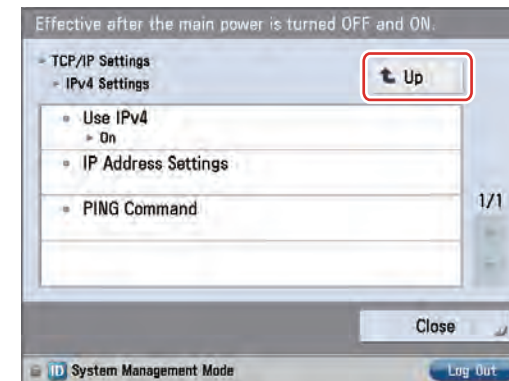
3. When DNS settings and proxy settings are not made, touch the [Close] button to reboot the device.



F-2-283

3) DNS Settings

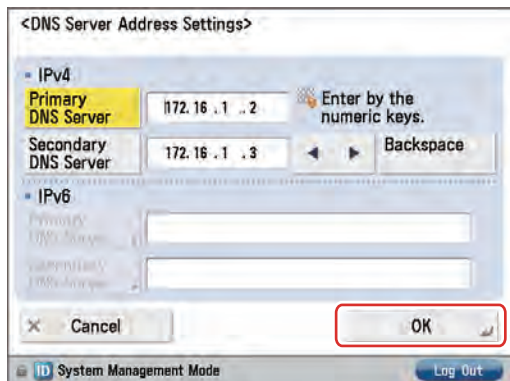
1. Touch the [Up] button.



F-2-284

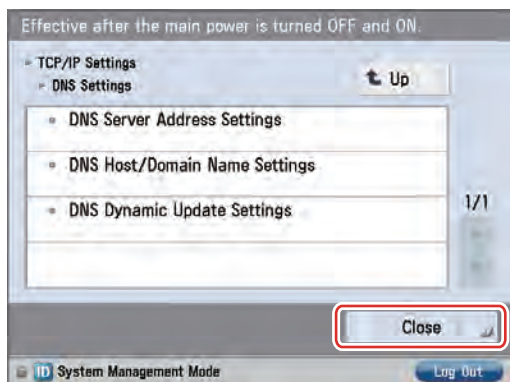
2. Touch the [DNS Settings] > [DNS Server Address Settings] buttons.

3. Set the DNS server address based on the result obtained in “(2) Advance preparations - Information item 2” and touch the [OK] button.
 - Information item 2” 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.



F-2-285

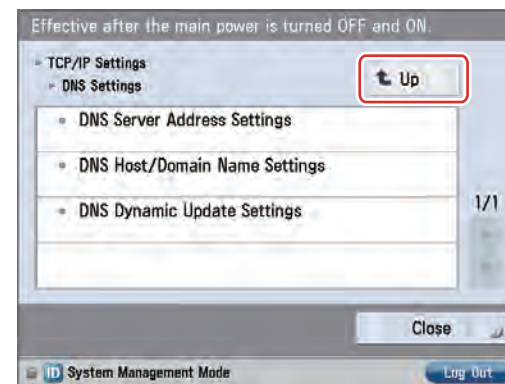
4. When proxy settings are not made, touch the [Close] button to reboot the device.



F-2-286

- 4) Proxy Settings

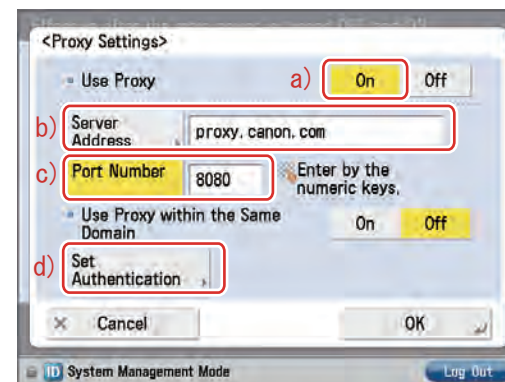
1. Touch the [Up] button.



F-2-287

2. Touch the [Proxy Settings].

3. Set the proxy server based on the result obtained in “(2) Advance preparations - Information item 3”.
 - a) Use Proxy to [On].
 - b) Enter the server address.
 - c) Enter port Number (Validation: 1 to 65,535).



F-2-288

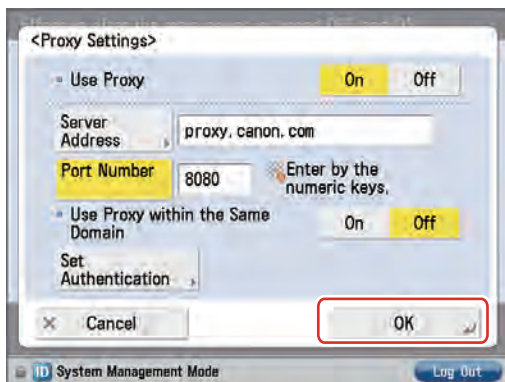
- d) If proxy server authentication is required, Touch [Set Authentication].(see figure above)

- e) Set the following items based on the result obtained in “(2) Advance preparations - Information item 4”.
- Set Use Proxy Authentication to [On].
 - Enter User name and Password, and touch the [OK] button.



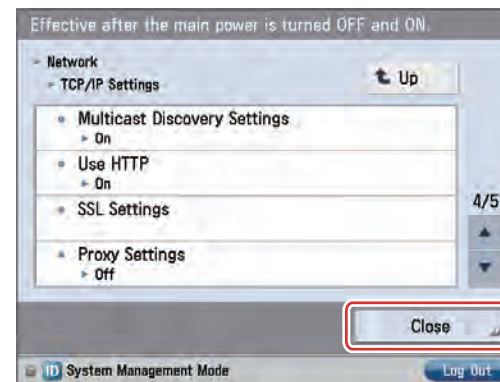
F-2-289

- f) Touch the [OK] button.



F-2-290

4. Touch the [Close] button.



F-2-291

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 (service mode)

● E-RDS setting items

Item	Description
E-RDS ([Lv.1] COPIER > Function > INSTALL)	<p>Set use/ no use of Embedded-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. Note that the operation (such as global click counter, error information, etc.) can be restricted with the server settings. Default : 0 (Function not used)</p>
RGW-ADR ([Lv.1] COPIER > Function > INSTALL)	<p>URL setting of UGW Max 128 characters Default : https://a01.ugwdevice.net/ugw/agentif01</p>
RGW-PORT ([Lv.1] COPIER > Function > INSTALL)	<p>Set port number of UGW Validation : 1 to 65535 Default : 443</p>
COM-TEST ([Lv.1] COPIER > Function > INSTALL)	<p>Execution of a communication test with UGW / Display of the result Perform Communication test with UGW and set "OK!" or "NG!" as the result.</p>
COM-LOG ([Lv.1] COPIER > Function > INSTALL)	<p>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.</p>
ERDS-DAT ([Lv.1] COPIER > Function > CLEAR)	<p>Initialization of E-RDS SRAM data SRAM data of E-RDS is initialized and returned to the factory setting value at shipment.</p>
CA-KEY ([Lv.2] COPIER > Function > CLEAR)	<p>Initialization of CA certificate When the power is turned OFF/ ON after execution, the CA certificate in the factory setting is automatically installed.</p>

T-2-93

● SERVICE CALL BUTTON setting items

Item	Description
SCALL-SW ([Lv.1] COPIER > Option > USER)	<p>Display/ hide of Service Call button 0: Hide / 1: Display To set whether to display or hide the Service Call button on the Control Panel. Default : 0 (Hide)</p>
SCALLCMP ([Lv.1] COPIER > Option > USER)	<p>Set of service call completion notice When this item is set, service call completion is notified to UGW and the service call status retained internally is cleared. Default : 0</p>

T-2-94

● SERVICE BROWSER setting items

Item	Description
BRWS-ACT ([Lv.1] COPIER > Function > INSTALL)	<p>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!".</p>
BRWS-STS ([Lv.1] COPIER > Display > USER)	<p>Display of Service Browser use status 0: OFF / 1: Active / 2: Suspend The status is changed from 0 to 1, from 1 to 2, and from 2 to 1 by execution of BRWS-ACT. Default : 0 (OFF)</p>

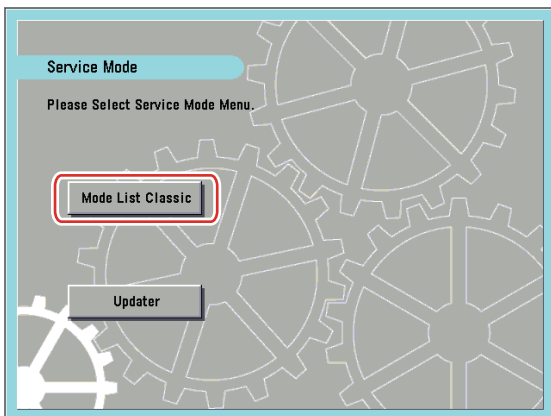
T-2-95

NOTE:

Generally, once service browsing is enabled, it cannot be disabled again.
 To disable service browsing, clear SRAM.

■ Steps to E-RDS settings

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 Classic] button.



F-2-292

2. Select [COPIER] > [Function] > [CLEAR] > [ERDS-DAT] and touch the [OK] button.

NOTE:

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".



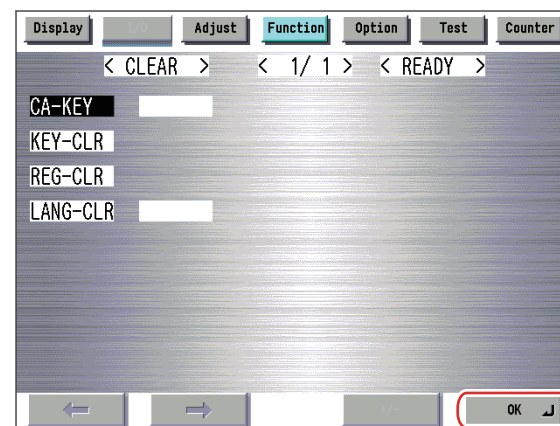
F-2-293

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 Classic] 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-2-294

“OK!” is displayed if the CA certificate is initialized. When “NG!” is displayed, see the section of “Troubleshooting” to execute the remedy, and then perform initialization of the CA certificate again and check to see if the CA certificate is initialized.

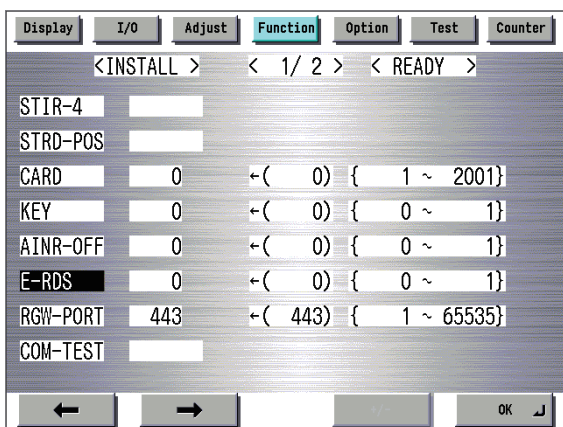


F-2-295

(3) Reboot the device.

4. Activate [SERVICE MODE] in LEVEL 1. (See 1. for the procedure.)

5. Select [COPIER] > [Function] > [INSTALL] > [E-RDS].



F-2-296

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.)

NOTE:

This operation enables the communication function with UGW.

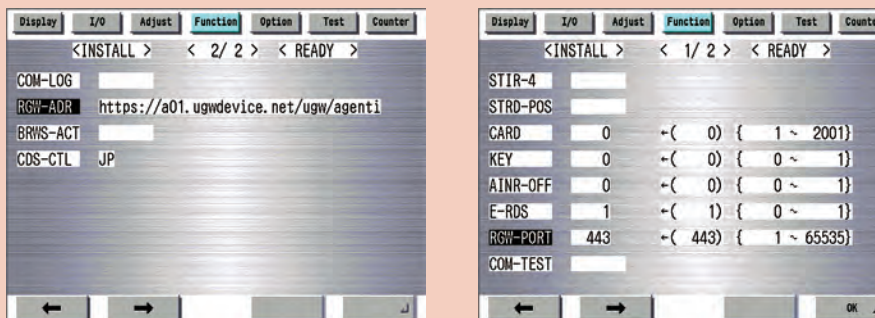


F-2-297

CAUTION:

The following settings i.e. RGW-PORT and RGW-ADR 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.



7. Select [COM-TEST] and then touch [OK].

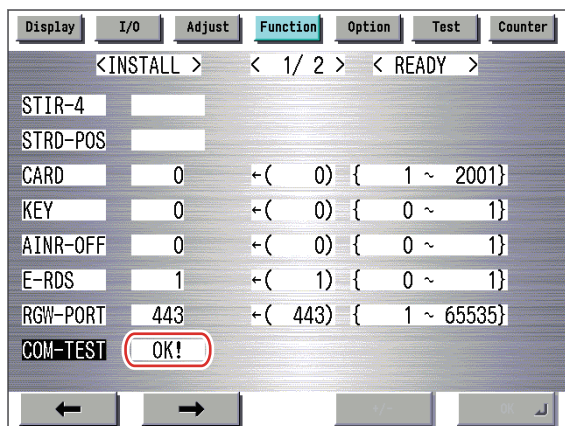
NOTE:

This initiates the communication test between the device and the UGW.



F-2-298

If the communication is successful, "OK!" is displayed. If "NG!" (failed) appears, refer to the "Troubleshooting" and repeat until "OK!" is displayed.



F-2-299

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

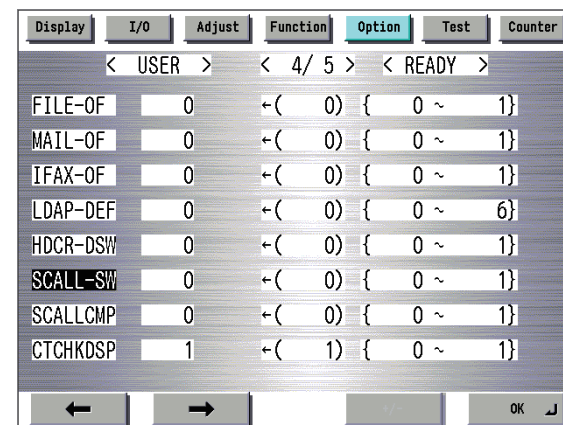
Steps for settings to display the service call button

In the case of supporting a service by the service call button, follow the instructions described below to display the service call button.

1. Start [Service Mode] at Level 1.

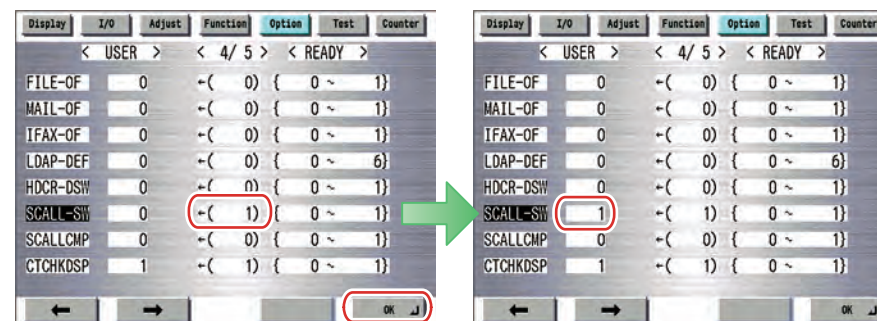
For the procedures, see "Steps to E-RDS settings - step 1."

2. Select [COPIER] > [Option] > [USER] > [SCALL-SW].



F-2-300

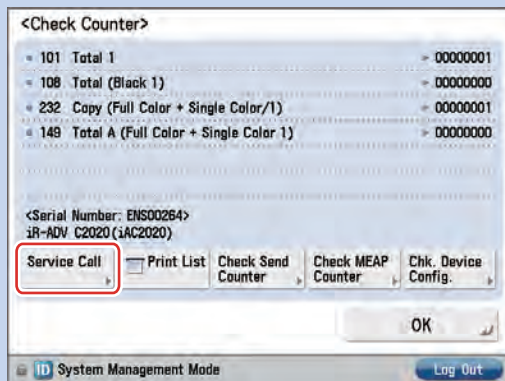
3. Touch the numeric button [1] on the control panel (the setting value is changed to 1) and touch the [OK] button. (The data is reflected to the setting value field.)



F-2-301

NOTE:

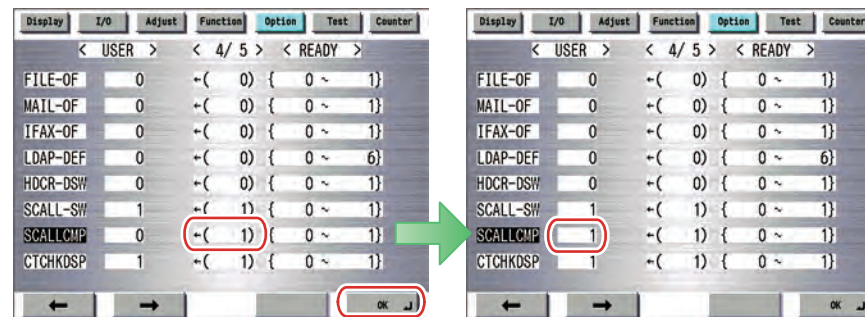
When the function is enabled, the [Service Call] button is displayed on the bottom of the counter check screen (displayed by touching the counter check button).



3. 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-2-303

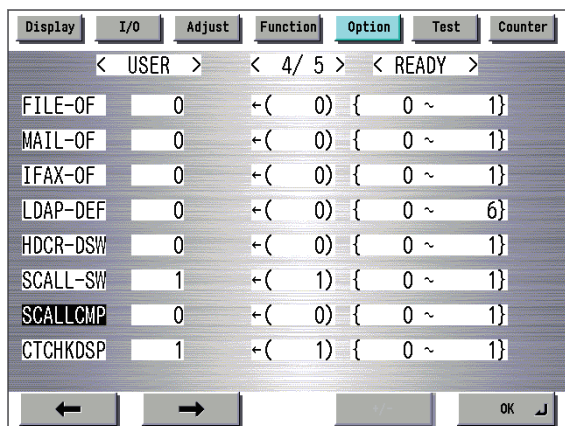
- Steps for settings of service call completion

When the service technician completes the work for the service call, follow the instruction as described below to execute the service call completion work.

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-2-302

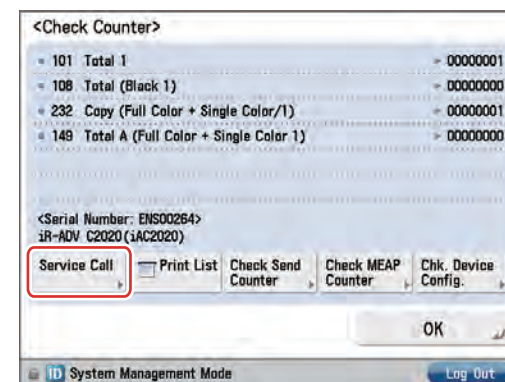
NOTE:

In the current condition, touching the [OK] button completes the service call regardless of whether 0 or 1 is set.

- Steps for service call request

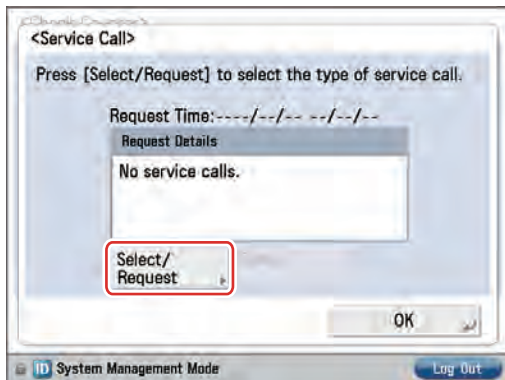
Users should follow the instructions as described below to request a service call.

1. Touch the [Counter Check] button on the control panel to display the counter check screen, and touch the [Service Call] button.



F-2-304

2. Touch the [Select/ Request] button.



F-2-305

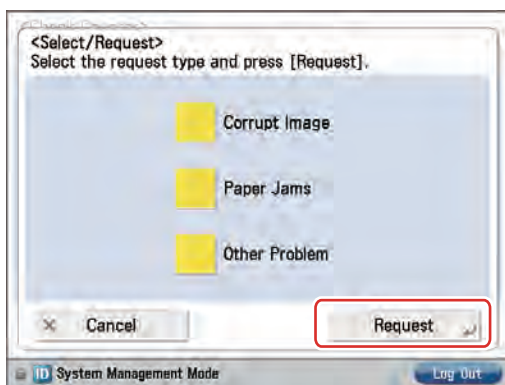
CAUTION:

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.

3. 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.

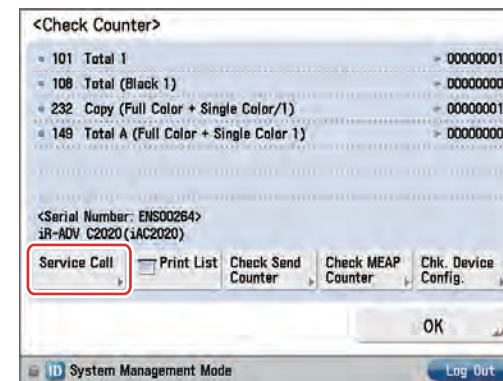


F-2-306

• **Steps for service call cancellation**

To cancel the service call, follow the instructions as described below.

1. Touch the [Counter Check] button on the control panel to display the counter check screen, and touch the [Service Call] button.

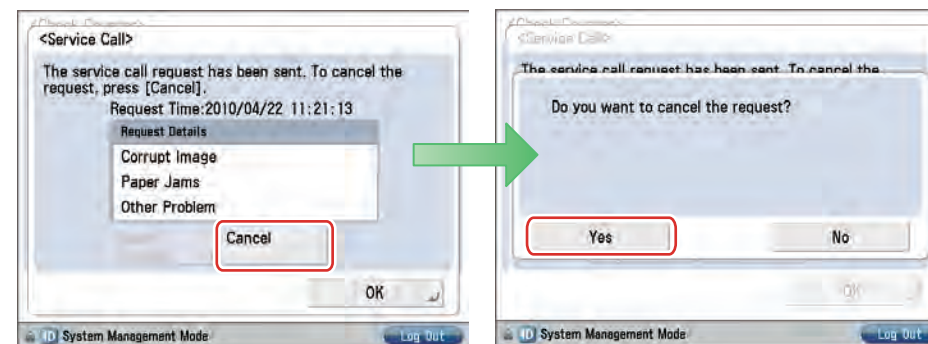


F-2-307

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-2-308

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].

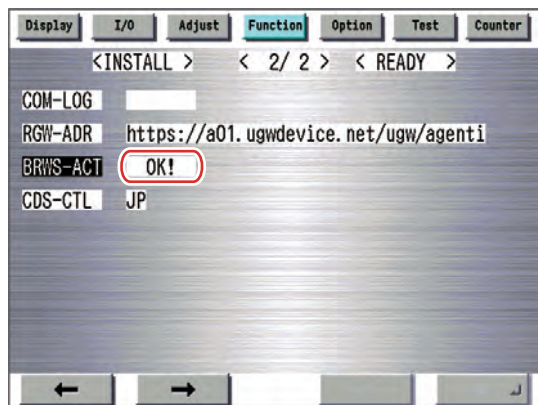
NOTE:

E-RDS sends browser information to UGW at this timing.



F-2-309

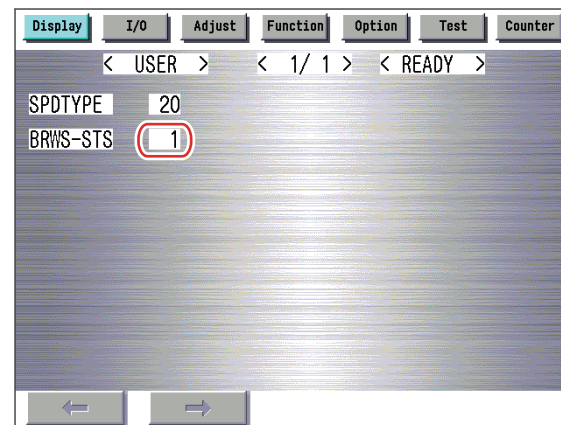
If the connection is established with UGW successfully, "OK!" is displayed. When "NG!" is displayed, perform the steps referring to "Troubleshooting" until connection is established with UGW.



F-2-310

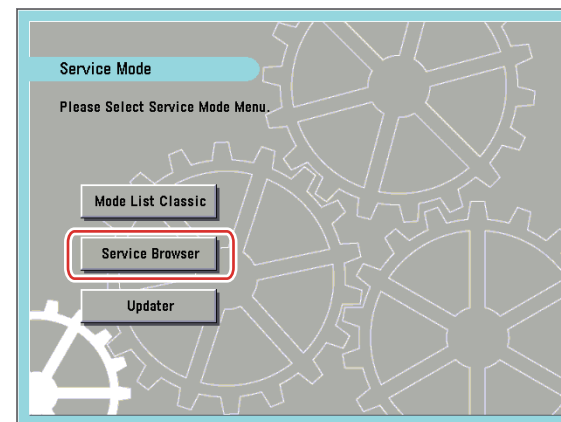
3. Reboot the device.

4. Make sure that "1 (: ACTIVE)" is set under [COPIER] > [Display] > [USER] > [BRWS-ST].



F-2-311

5. When the above-shown setting values are enabled, [Service Browser] is displayed in the Service Mode screen.



F-2-312

■ Initializing E-RDS settings

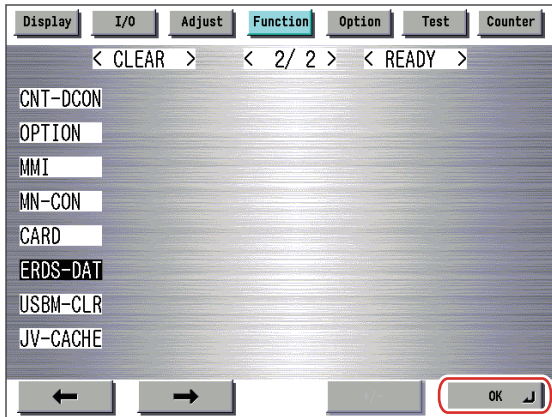
It is possible to return E-RDS Settings to factory-shipments value.

● 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].



F-2-313

● 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 "NG!" 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: I want to 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: Does error-retry carry out at the time of a communication error with the UGW?

A: Retry of SOAP communication is performed as follows.

- In the case of an error in SOAP communication (i.e. a trouble at UGW side) at transmission of the alarm code list and the service mode counter (postAlert) due to change of device status, the data failed in transmission equivalent to 3 retries is to be stored in the HDD. In the case of another transmission error (the 4th error), the oldest data of the stored data is deleted and the newly-generated retry data is stored in the HDD.
- In the case of SOAP transmission errors as described below, the unsent (and remaining) data is sent again depending on the storage status of CPCA data:
 - At transmission of a jam log and service mode counter (postJamLog) when the jam log was obtained from the device.
 - At transmission of a service call log and service mode counter (postServiceCallLog) when the service log was obtained from the device.
 - At transmission of an alarm log and service mode counter (postAlarmLog) when the alarm log was obtained from the device.
- In the case of a SOAP transmission error at transmission of a service mode menu list (postServiceModeMenu) due to change of the setting value in the service mode menu, the service mode data is obtained at every retry to be sent.
- In the case of a SOAP transmission error at transmission of browser information (postBrowserInfo) due to change of the license status of the device's web browser option, the browser information is stored in the retry information to send the stored data again.

In the case that the device is rebooted while the retry information is specified, however, another browser information is obtained to be sent.

NOTE:

The retry data will be sent at interval of 5*n minutes. (n: retries, 5, 10, 15 minutes...up to 30 minutes)

No.4

Q: How many log-data can be stored?

A: Up to 30 log data can be saved. The data size of error information is maximum 128 characters.

No.5

Q: Although Microsoft ISA as a proxy server is introduced, the authentication check is failed.

Can E-RDS adopt with Microsoft ISA?

A: E-RDS must comply with "Basic" while "Integrated" authentication is used for Microsoft ISA (as default); therefore, authentication with E-RDS is available if you change the setting to "Basic" authentication on the server.

No.6

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.7

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.8

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.9

Q: Is E-RDS compatible with Section counter (Department counter)?

A: No, E-RDS does not support Section counter.

No.10

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. As for the data that applies to transmission of the service mode, see the "Service mode menu Transmission".

No.11

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 the service browser is enabled from the disabled state [OFF]	1) Specify the service browser setting in the service mode menu. 2) Send browser information to UGW. 3) Once obtaining OK response from UGW, enable the service browser mode [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. ("Disabling [OFF]" continues to be set.)

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No.12

Q: Can I make another service call request when I have already requested a service call?

A: No, you cannot make another service call request if you have already made a service call request.

Touch the [Cancel] button to cancel the service call which you'd made. Or the service technician performs a service call request completion process.

No.13

Q: Is the "Requesting" status cancelled when the device is rebooted?

A: The requesting status is not cancelled even if the device is rebooted. The information of the notified service call request (the time that the request was made, the service call request description) is also retained during the "Requesting" status.

Troubleshooting

No.1

Symptom: A communication test (COM-TEST) results NG!

Cause: Initial settings or network conditions is incomplete.

Remedy 1: Check and take actions mentioned below.

1) Check network connections

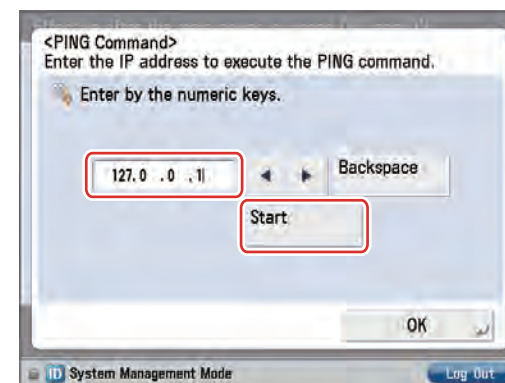
Is the status indicator LED for the HUB port to which the main unit is connected ON?

YES: Proceed to Step 2).

NO: Check that the network cable is properly connected.

2) Confirm loop back address

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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Does the screen display "Response from the host."? (See the next figure.)

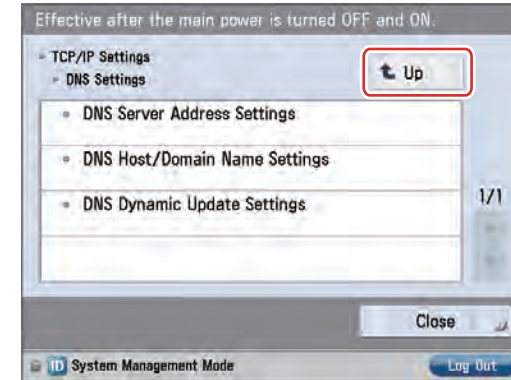
YES: Proceed to Step 3).

NO: There is a possibility that the main unit's network settings are wrong. Check the details of the IPv4 settings once more.



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(b) Touch the [Up] button.



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3) Confirmation from another PC connected to same network.

Request the user to ping the main unit from a PC connected to same network.

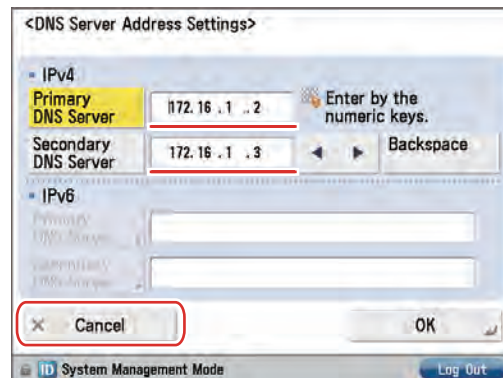
Does the main unit respond?

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 [IPv4 Settings] > [PING Command], enter the primary DNS server noted down in step a) as the IP address, and touch the [Start] button.

Does the screen display "Response from the host."?

YES: Proceed to Remedy 2.

NO: Enter the secondary DNS server noted down in step a) as the IP address, and then touch Start.

Does the screen display "Response from the host."?

YES: Proceed to Remedy 2.

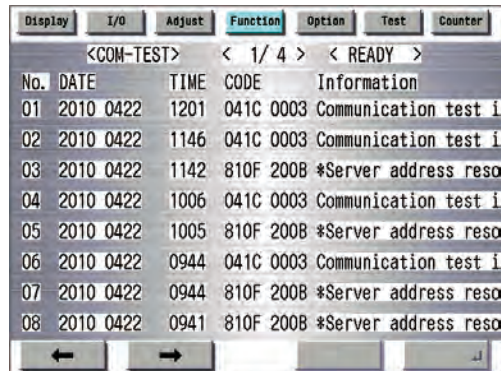
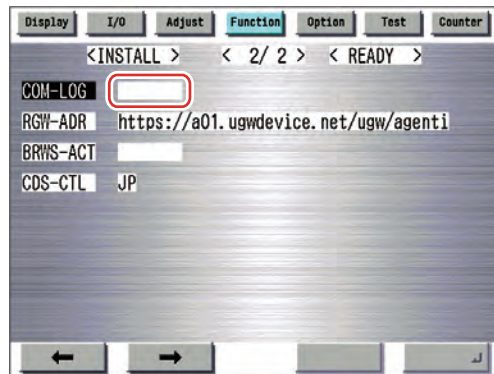
NO: There is a possibility that the DNS server address is wrong. Reconfirm the address with the user's system administrator.

Remedy 2: Troubleshooting using communication log (COM-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 Classic] button.

2) Select [COPIER] > [Function] > [INSTALL] > [COM-LOG] and touch the blank field on the right side. The communication log list screen is displayed.

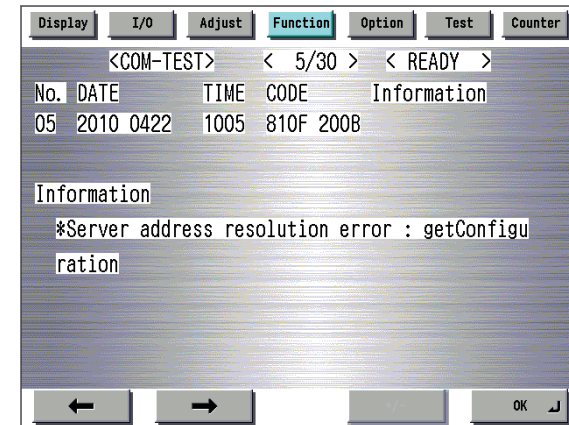


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NOTE:

- Only the initial part of error information is displayed in the communication log list screen.
- "*" is added to the top of the error text in the case of an error in communication test (method name: getConfiguration or communicationTest) only.

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-RDS 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 about 60 seconds later.

No.5

Symptom: "Unknown error" is displayed though a communication test (COM-TEST) has done successfully.

Cause: It could be a problem at the server side or the network load is temporarily faulty.

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, and check that the test with UGW finishes successfully.

No.7

Symptom: I cannot make a service call request.

Cause: There has been already a service call request.

Remedy: Perform either of the following remedy works:

- Touch the [Cancel] button to cancel the service call request that has been made.
- A service technician performs a complete processing for the service call request that has been made.

No.8

Symptom: Initializing the CA certificate (CA-KEY) results in NG!

Cause: Initialization process of the CA certificate has completed abnormally.

Remedy: Initialize the HDD.

Error code and strings

The following error information is output in the communication error log details display screen. (Here, "a server" means UGW.)

- The error information are displayed in the following form.

[*] [Error strings] [Method name] [Error details provided by UGW]

NOTE:

"*" is added to the top of the error text in the case of an error in communication test (method name: getConfiguration or communicationTest) only.

No.	Code	Error strings	Cause	Remedy
1	0500 0003	SUSPEND: Communication test is not performed.	Rebooting the device while the communication test had not been performed although E-RDS is enabled.	Perform a communication test (COM-TEST).
2	0xxx 0003	E-RDS switch is setted 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).
3	0xxx 0003	Server schedule is not exist	Blank schedule data have been received from UGW.	Check the device settings status with the UGW administrator.
4	0xxx 0003	Communication test is not performed	Communication test has not completed.	Perform and complete a communication test (COM-TEST).
5	8000 0002 8000 0003 8000 0101 8000 0201 8000 0305 8000 0306 8000 0401 8000 0403 8000 0414 8000 0415	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)
6	8000 0101	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.

No.	Code	Error strings	Cause	Remedy
7	8300 0306	SRAM version unmatch!	Improper value is written in at the head of the Main Controller PCB 2 SRAM domain of E-RDS.	Turn the device OFF/ ON.
8	8300 0306	SRAM AeRDS version unmatch!	Improper value is written in at the head of the Main Controller PCB 2 SRAM domain of Ae-RDS.	Turn the device OFF/ ON.
9	8xxx 0004	Operation is not supported	Method which E-RDS is not supporting attempted.	Contact help desk
10	8xxx 0201 8xxx 0202 8xxx 0203 8xxx 0204 8xxx 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.
11	8xxx 0207 8xxx 0208	Internal Schedule is broken	The schedule data in the inside of E-RDS is not right.	Perform a communication test (COM-TEST).
12	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.	Specify the number of elements of alert filtering correctly. (Alarm filtering is not supported)
13	8xxx 0222	Server specified list is wrong	Alert filtering error: Unjust value is included in the element of the list specified by the server.	Specify the element of alert filtering with the right value. (Alarm filtering is not supported)
14	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.
15	8xxx 0709	Tracking ID is not match	When upgrading firmware, the Tracking ID notified by Updater differs from the thing of UGW designates.	Contact help desk
16	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.
17	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.
18	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.

No.	Code	Error strings	Cause	Remedy
19	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.
20	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) and [Error details in UGW] from UGW displayed after the message.
21	8xxx 200A	Server connection error	<ul style="list-style-type: none"> TCP/IP communication fault The IP address of device is not set. 	Check the network connection, as per the initial procedures described in the troubleshooting.
22	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 .
23	8xxx 2014	Proxy connection error	Could not connect to proxy server due to improper address.	Check proxy server address and re-enter as needed.
24	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.
25	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.
26	8xxx 2028	Server certificate error	<ul style="list-style-type: none"> No route certificate installed in device. Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device. 	Install the latest device system software. (Upgrade)
27	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 .

No.	Code	Error strings	Cause	Remedy
28	8xxx 2046	Server certificate expired	<ul style="list-style-type: none"> The route certificate registered with the device has expired. Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device. The device time and date is outside of the certificated period. 	Check that the device time and date are correctly set. If the device time and date are correct, upgrade to the latest system software.
29	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.
30	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 .
31	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 .
32	8xxx 2063	SOAP Fault	SOAP communication error has occurred.	Check that the value of port number of UGW (RGW-PORT) is 443.
33	xxxx xxxx	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)
34	xxxx xxxx	SUSPEND: Initialize Failure!	Internal error occurred at the initiating E-RDS.	Turn the device OFF/ ON.

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*1) [Hexadecimal]: indicates an error code returned from UGW.
[Error details in UGW]: indicates error details returned from UGW.

Updater

Functional Overview

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.

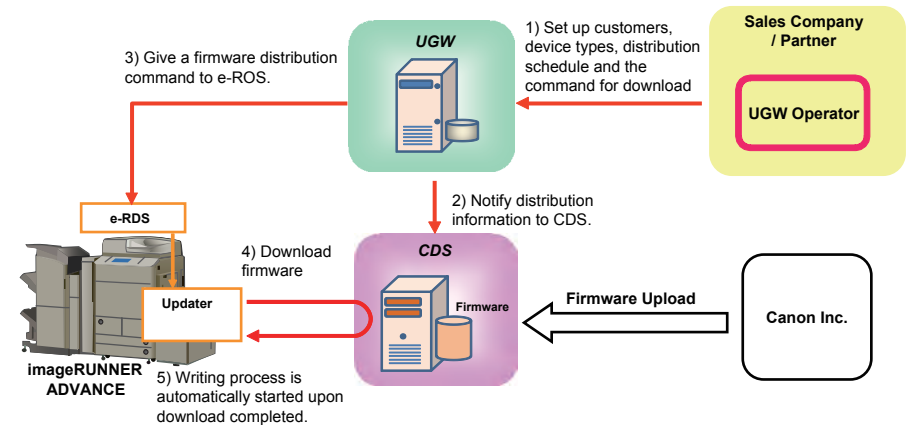
Distribution Method	Download Commanded by:	Update Timing	Downloadable Firmware Versions		
			Previous Ver	Current Ver	Newer Ver
a. UGW-linked Download / Update (Full-remote update)	UGW	Auto	No	Yes	Yes*1
b. UGW-linked Download (Remote Distribution / Update)	UGW	Manual	Yes	Yes	Yes
c. Manual Download / 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)

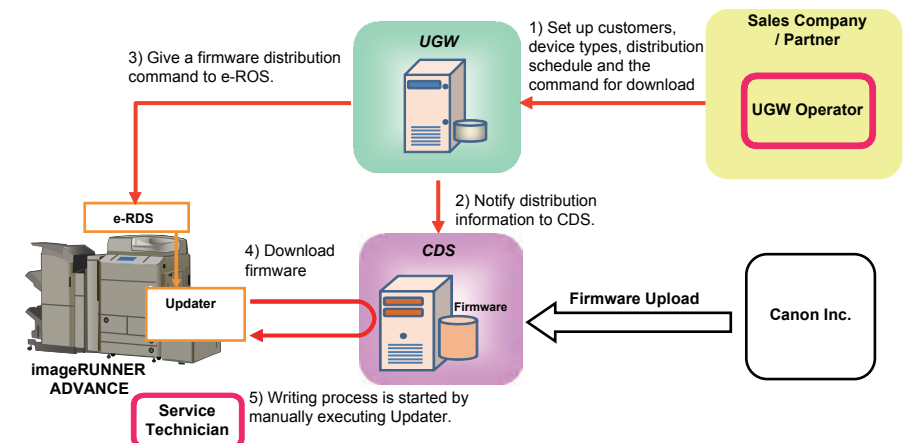
If the device is linked to UGW and the distribution schedule and update setting are registered on UGW in advance, full remote firmware update is available on an imageRUNNER ADVANCE-series device. Upon downloaded from CDS, the firmware is updated on the device.



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b. UGW-linked Download (Remote Distribution / Update)

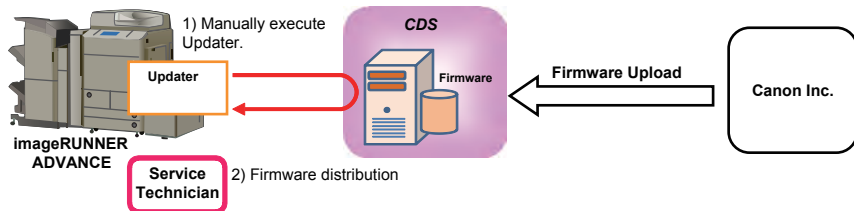
If the device is linked to UGW and the distribution schedule is registered on UGW in advance, firmware can be distributed to an imageRUNNER ADVANCE-series device before a service technician actually visits the customer site. This allows the service technician to update the firmware manually immediately after completing device inspection.



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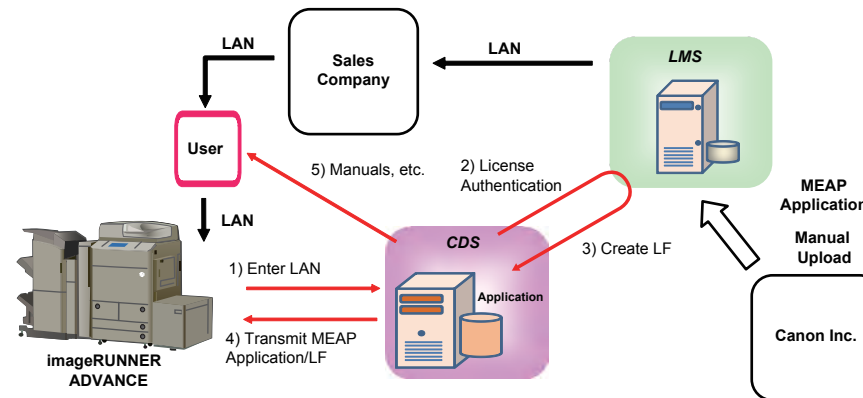
c. Manual Download and Update (On-site Update via Service Mode)

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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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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NOTE:

“External network” here means the network connecting the device to CDS via Internet.

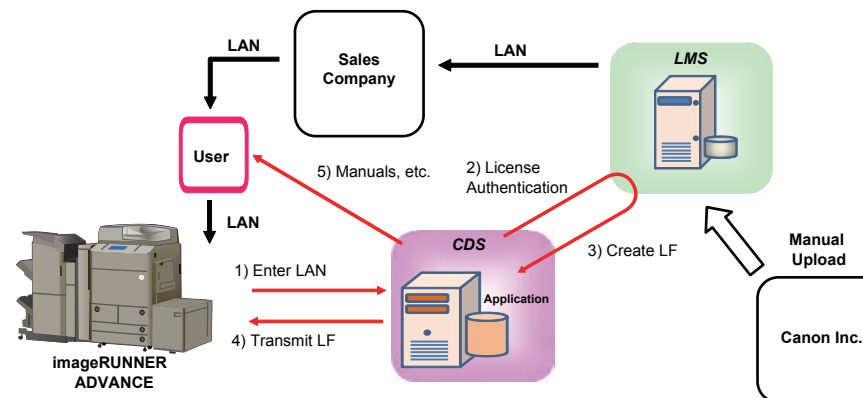
NOTE:

Users are able to gain firmware distribution in the following 3 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)		

*1: Only the latest version of Remote update-enabled version is downloadable.

Installing System Option



If a customer enters LAN purchased from the sales company to an imageRUNNERADVANCE-series device, a 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 MEAP Application/System Option

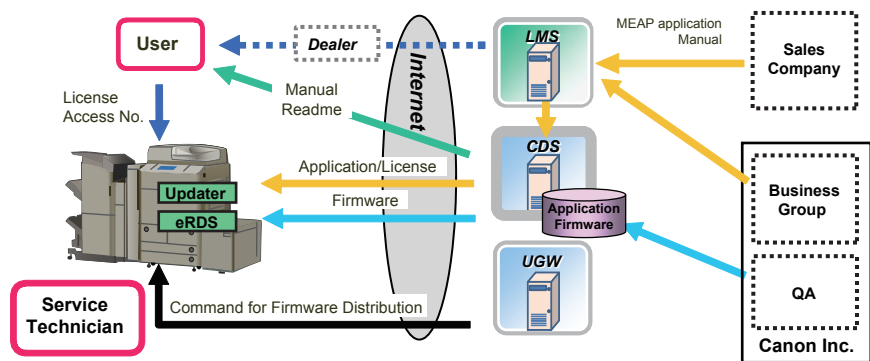
The following is the installation method of MEAP application/system option which is enabled by applying CDS.

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.

System Configuration

The figure below schematically shows the system configuration.



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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
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

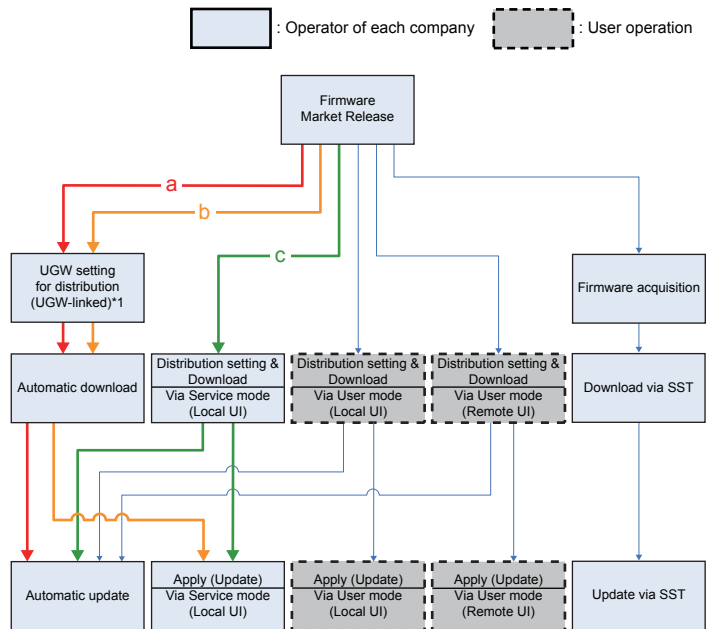
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■ Distribution Flow

● Firmware Installation Flow

Service technicians provide firmware install services in the following 3 methods.

- a: UGW-linked download and update
- b: UGW-linked download
- c: Manual download and update

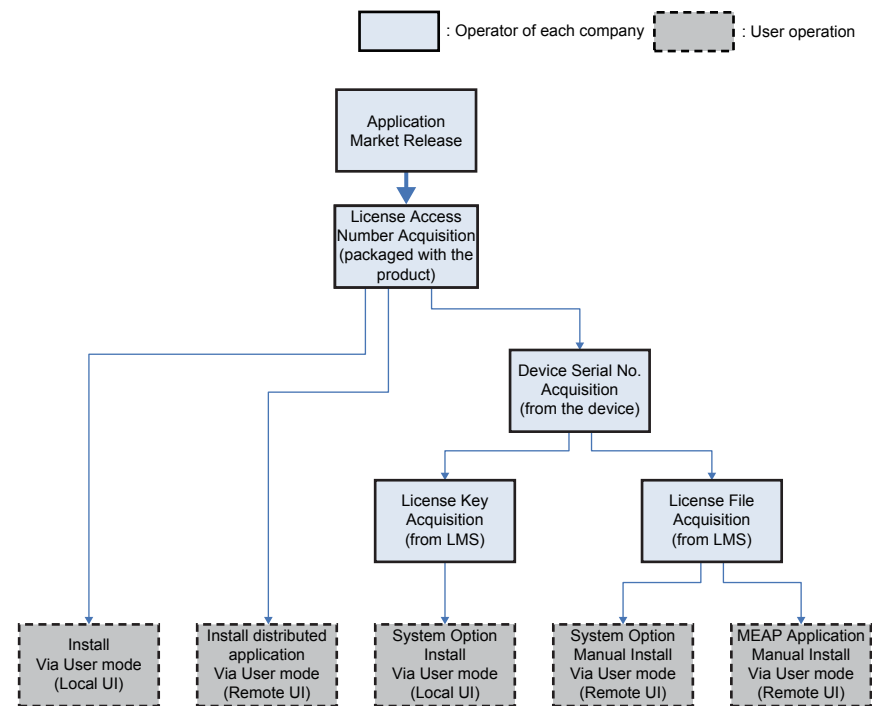


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*1: Schedules for UGW-linked distribution are maintained on CDS.

● 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.



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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 *

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*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.

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)
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

T-2-101

- 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-2-102

■ 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-2-103

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"

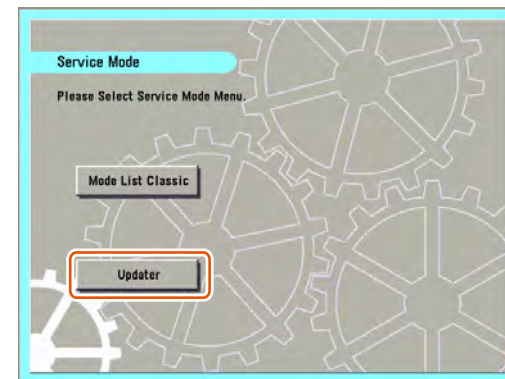
NOTE:

"External Network" here means the network connecting the device to CDS via Internet.

● Confirming URL Setting of Distribution Server

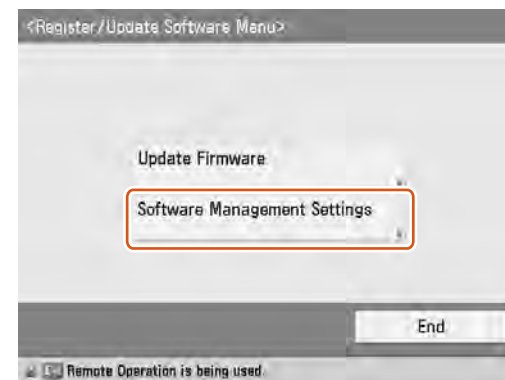
This section describes how to confirm the URL setting of the distribution server.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.



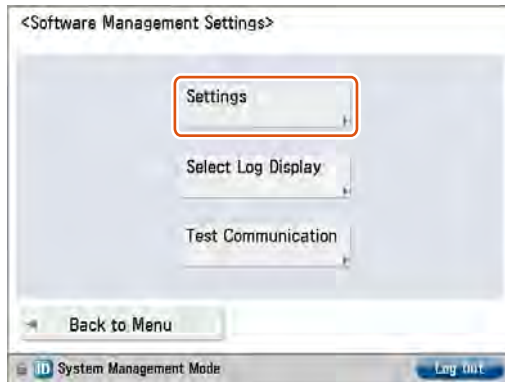
F-2-328

3. Press [Software Management Settings] button.



F-2-329

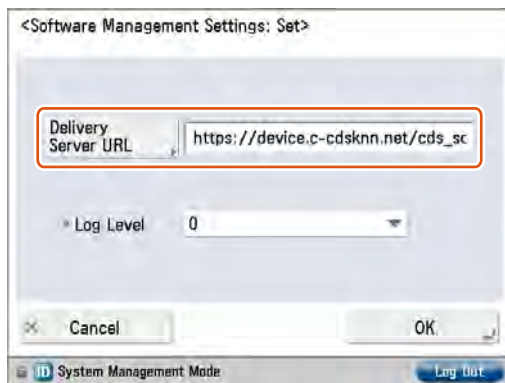
4. Press [Settings] button.



F-2-330

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-2-331

6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

• Communication Test

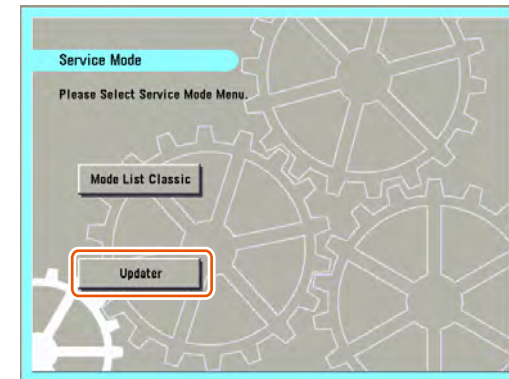
This section describes how to check if the communication is normally done to the distribution server and/or the file server.

NOTE:

Carry out the communication test with both Embedded RDS and CDS.

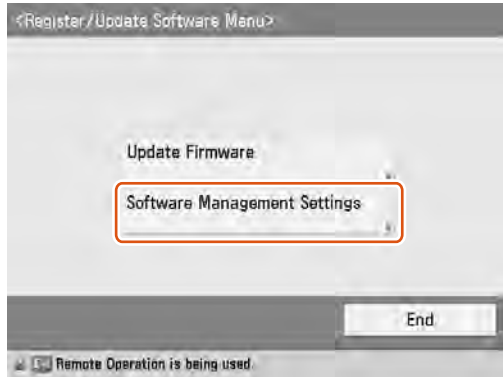
1. Start [Service Mode] at Level 1.

2. Press [Updater] button.



F-2-332

3. Press [Software Management Settings] button.



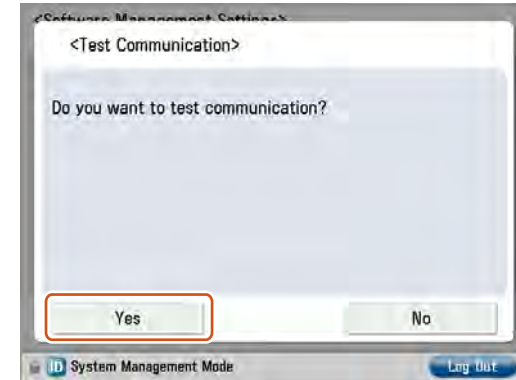
F-2-333

4. Press [Test Communication] button.



F-2-334

5. Press [Yes] button.

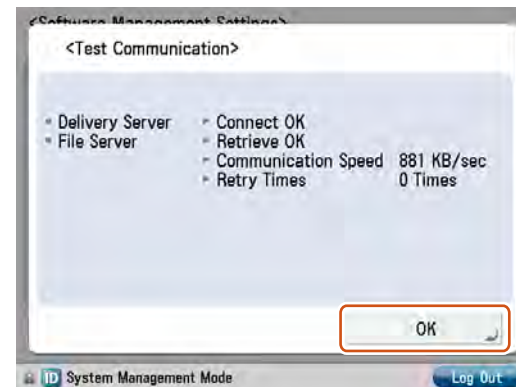


F-2-335

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-2-336

■ 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-2-337

- User Mode screen for Updater when the setting is enabled (CDS-FIRM(1)):



F-2-338

■ 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-2-339

- User Mode screen of Updater when the setting is enabled (CDS-MEAP(1)):



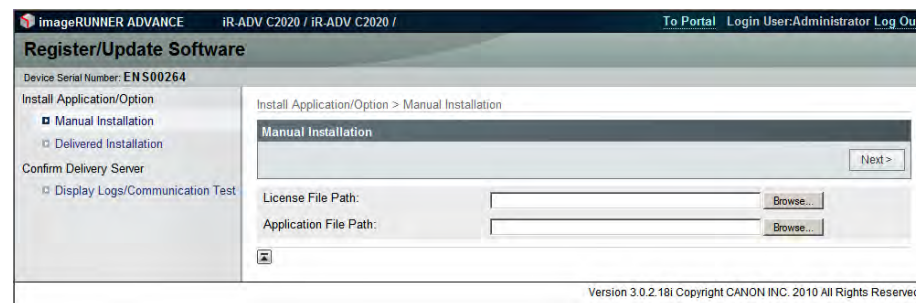
F-2-340

■ 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)):



F-2-341

- Remote UI screen of Updater when the setting is enabled (LOCLFIRM (1)):



F-2-342

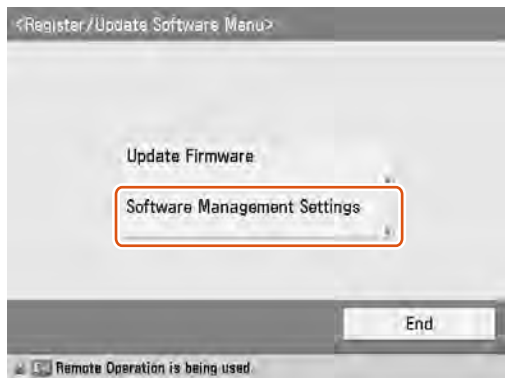
System Management Operations

Various Setting

Setting URL of Distribution Server

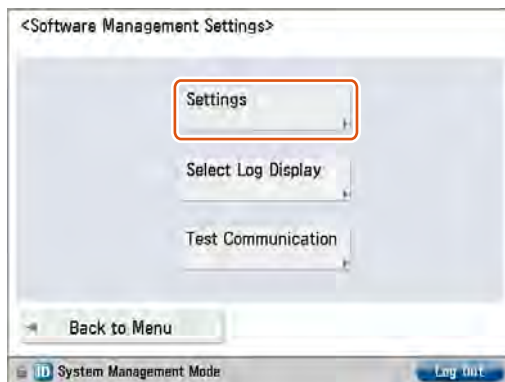
This section describes how to set URL of the distribution server.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



F-2-343

4. Press [Settings] button.



F-2-344

5. Press [Delivery Server URL] to show the virtual keypad. Enter the URL.



F-2-345

- [Delivery Server URL]:

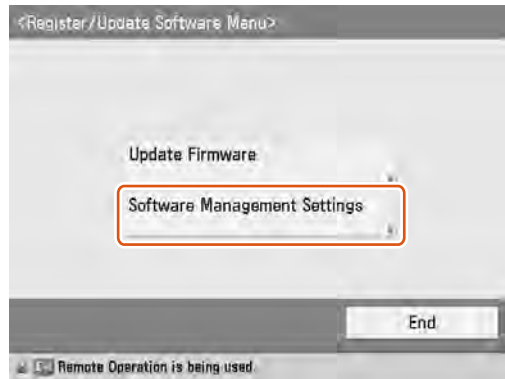
Enter the "https://device.c-cdsknn.net/cds_soap/updaterif".

6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

● Setting Log Level

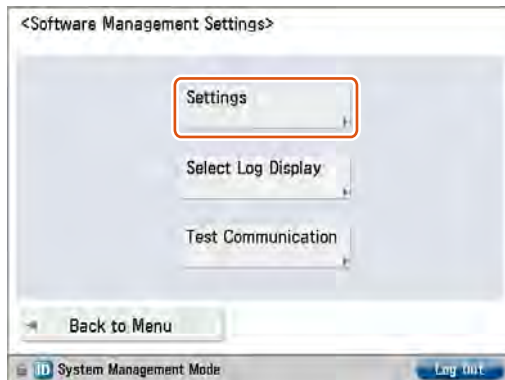
This section describes how to set system log levels.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



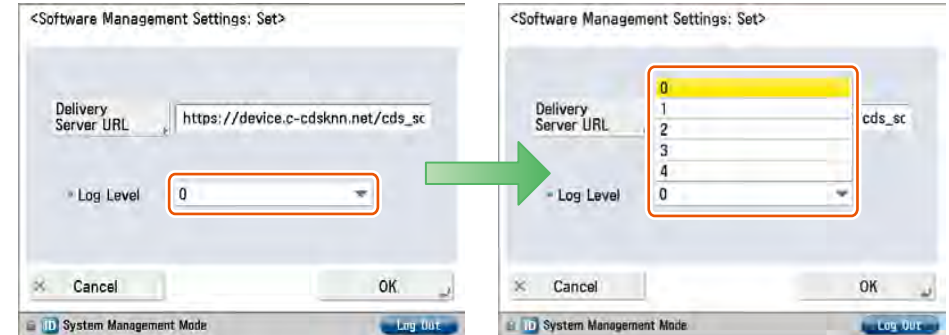
F-2-346

4. Press [Settings] button.



F-2-347

5. Select a log level from [Log Level] dropdown list.



F-2-348

- [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

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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

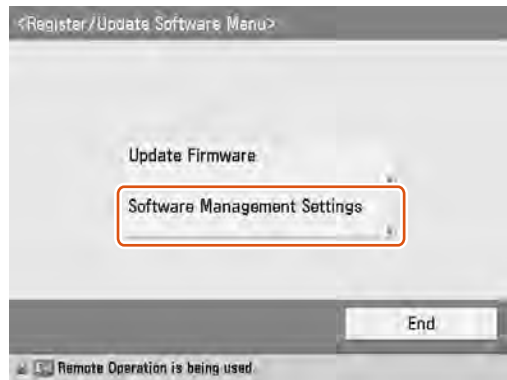
6. Press [OK] button to set the selected log level. Now the log level is successfully set.

■ Displaying Logs

● Update Logs

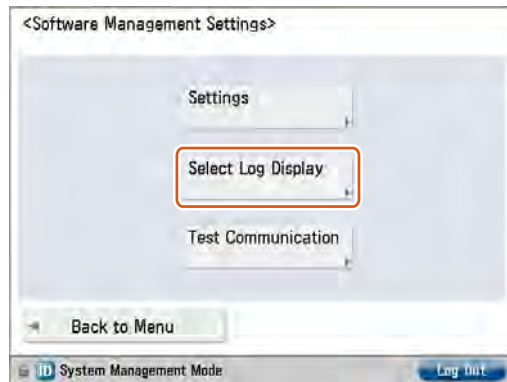
This section describes how to confirm System Option/MEAP Application Installation Logs and Firmware Update Logs.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



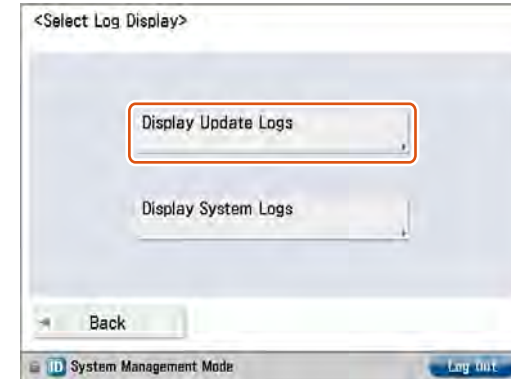
F-2-349

4. Press [Select Log Display] button.



F-2-350

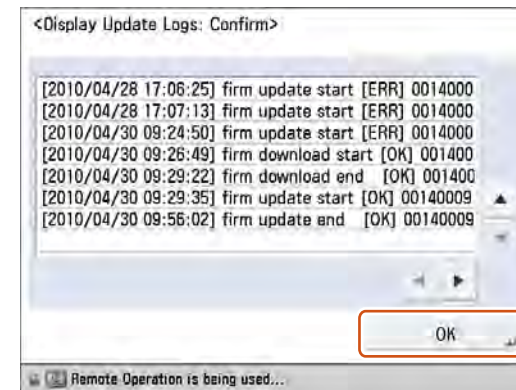
5. Press [Display Update Logs] button.



F-2-351

6. System Option/MEAP Application Installation Logs and Firmware Update Logs are shown.

Press [OK] button to exit this operation.

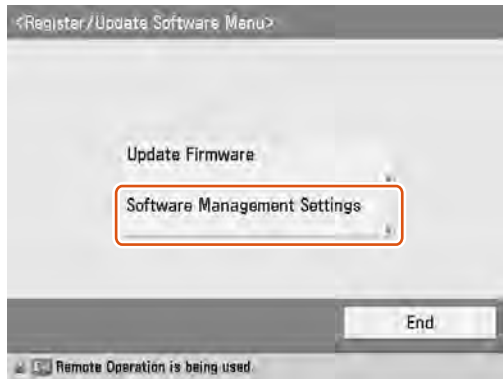


F-2-352

• System Logs

This section describes how to confirm System Logs.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



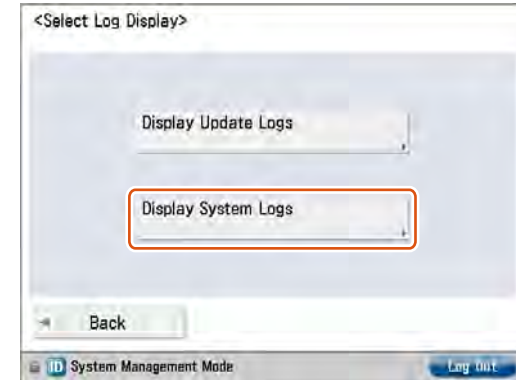
F-2-353

4. Press [Select Log Display] button.



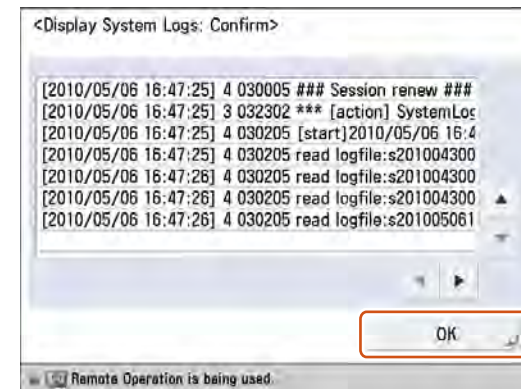
F-2-354

5. Press [Display System Logs] button.



F-2-355

6. Updater internal logs are displayed.
Press [OK] button to exit this operation



F-2-356

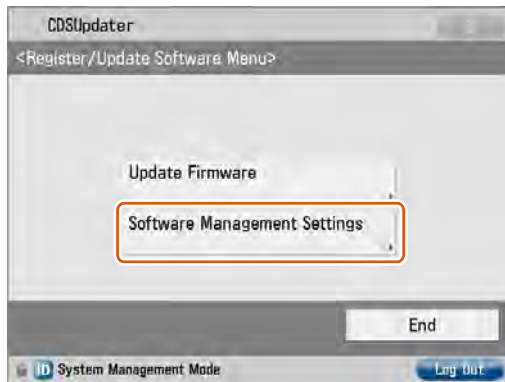
NOTE:

See the section of "Debug Logs" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual for more detailed information.

• 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.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



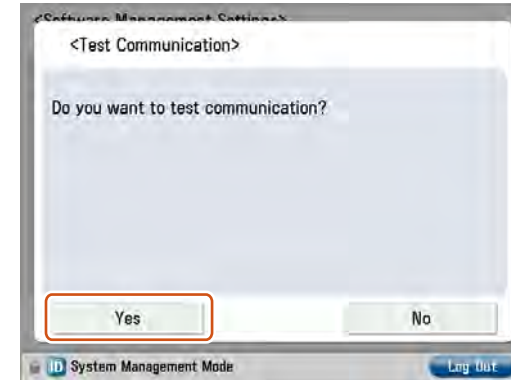
F-2-357

4. Press [Test Communication] button.



F-2-358

5. Press [Yes] button.

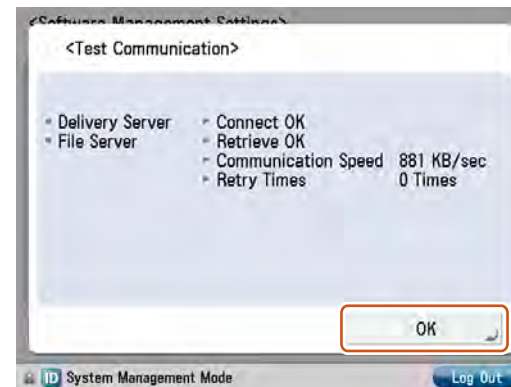


F-2-359

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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NOTE:
Carry out the communication test with both Embedded RDS and CDS.

Maintenance

■ Upgrading Updater

The firmware installed in the device should be also upgraded when upgrading Updater. See the section of "Version Upgrade", Chapter 6 "Troubleshooting" of this manual for more detailed information.

■ 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 the section of "Preparation", "Updater" of Chapter 2 "Technology" of this manual for more detailed information.

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 the section of "Preparation", "Updater" of Chapter 2 "Technology" of this manual for more detailed information.

■ How to Replace Devices

All settings should be set again because no data are inherited. See the section of "Preparation", "Updater" of Chapter 2 "Technology" of this manual for more detailed information.



FAQ

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.

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 the section of “Troubleshooting on Firmware Installation” under “Version Upgrade via CDS”, “Version Upgrade” of Chapter 6 “Troubleshooting” of this manual for more detailed information.

No.8

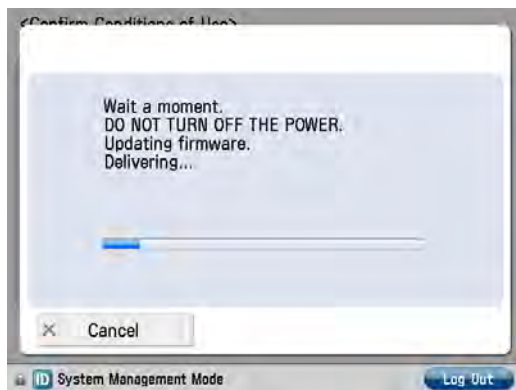
Q: If the device is down during firmware download, is it possible to download the firmware again?

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)
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

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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.



Consumable Parts and Cleaning Parts

- Consumable Parts and
Cleaning Parts
- Cleaning Parts

Consumable Parts and Cleaning Parts

●: Replacement (Consumable parts) Δ: Cleaning ■: Inspection

No.	Category	Part Name	Part No	Number	Interval				Counter		Adjustment (Yes/No)	Remark	
					At installation	50K	150K	500K					Other
1	Body	Dust-blocking glass	-	1		Δ				-	-	Cleaning with Dust-blocking glass Cleaning tool	
2	Fixing System	Fixing Assembly	FM1-B289 FM1-B290 FM1-B291	1			●			DRBL-1	FX-UNIT	-	
3		ITB Unit	FM3-8240	1			●			DRBL-1	TR-BLT	-	
4	Image Formation System	Registration Patch Sensor	FK2-7316	1		Δ				-	-	-	
5		Secondary Transfer Outer Rolelr	RM1-7928	1		■	●			DRBL-1	2TR-ROLL	-	
6		Pre-Secondary Transfer Outer Guide	-	1		Δ				-	-	-	
7	-	Waste Toner Container	FM3-8137	1					●	DRBL-1	WST-TNR	-	Plain paper, Intermittent printing of 2 sheets per job, Bk color, image ratio at 5% (60k sheets) If service engineer removes the waste toner from the Waste Toner Container, the Waste Toner Container can be reused.
8	Pickup Feed System	Registration Roller	-	1		Δ				-	-	-	
9		Pre-Registration Guide	-	1		Δ				-	-	-	
10		Merging Roller	-	1		■				-	-	-	
11		Duplex Feed Upper Roller	-	1		■				-	-	-	
12		Duplex Feed Lower Roller	-	1		■				-	-	-	
13		Cassette 1 Pickup Roller	RM1-6175	1				●		DRBL-1	C1-PU-RL	-	
14		Cassette 1 Separation Roller	RM1-6176	1				●		DRBL-1	C1-SP-RL	-	
15		Cassette 2 Feed Roller	FC6-7083	1				●		DRBL-1	C2-FD-RL	-	
16		Cassette 2 Separation Roller	FC6-6661	1				●		DRBL-1	C2-SP-RL	-	
17		Cassette 2 Vertical Path roller	FC6-6661	1			■			-	-	-	
18		Pickup Assembly Idler Gear	FU3-0280	1				●		-	-	-	China only
19		Multi-purpose Tray Pickup Roller	RM1-6177	1				●		DRBL-1	MP-PU-RL	-	
20		Multi-purpose Tray Separation Roller	RM1-6178	1				●		DRBL-1	MP-SP-PD	-	
21		Second Delivery roller	-	1			■			-	-	-	
22	Third Delivery Roller	-	1			■			-	-	-		

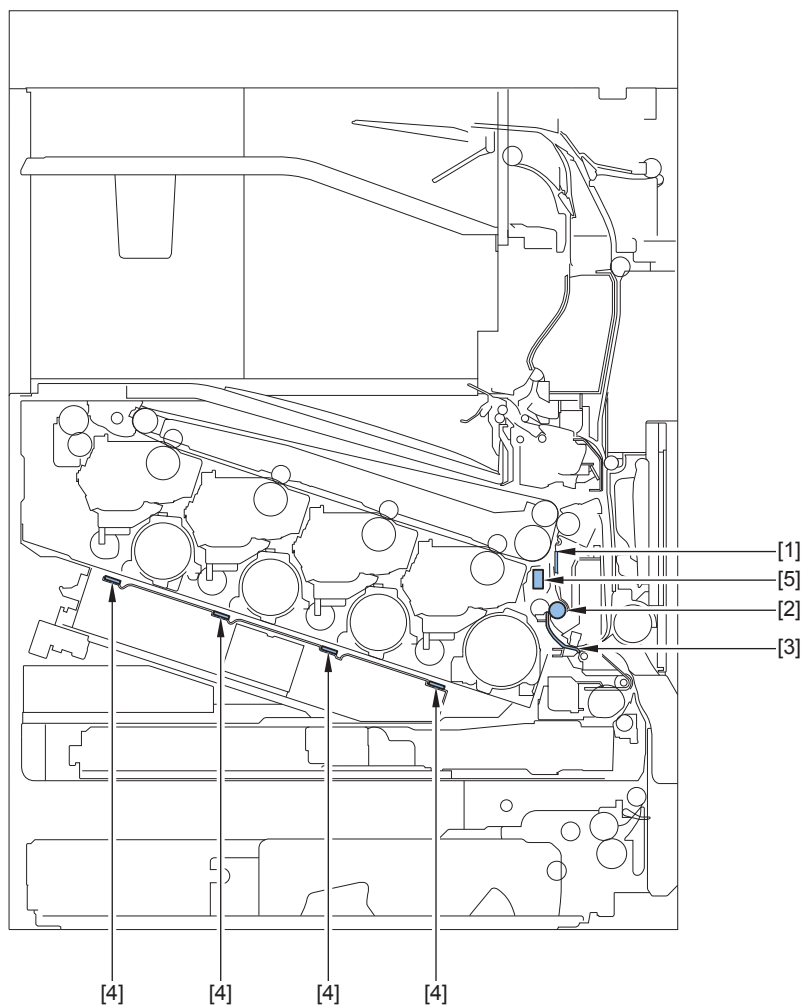
■ Drum Unit

T-3-1

Model	Drum Life		
	Bk	YMC	
iR ADVANCE C2020	USA	43k	36k
	Europe	43k	36k
	Other area	43k	36k
iR ADVANCE C2025	Other area	49k	41k
iR ADVANCE C2030	USA	60k	51k
	Europe	60k	51k
	Other area	55k	46k

T-3-2

Cleaning Parts



- [1] Pre-Secondary Transfer Outer Guide
- [2] Pre-registration Guide
- [3] Registration Roller
- [4] Dust-blocking Glass
- [5] Registration Patch Sensor

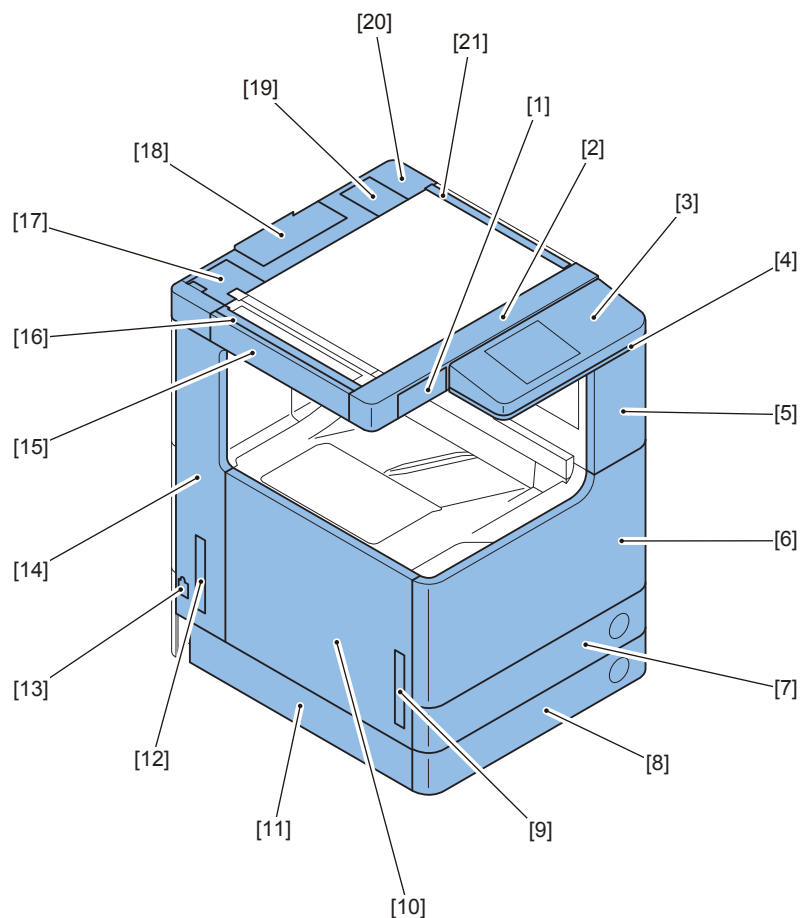
4

Parts Replacement and Cleaning

- List of Parts
- Disassembly/Assembly- Main Controller system -
- Disassembly/Assembly - Laser Control System -
- Disassembly/Assembly - Image Formation System -
- Disassembly/Assembly - Fixing System -
- Disassembly/Assembly - Pickup Feed System -
- Disassembly/Assembly - External Auxiliary System -

List of Parts

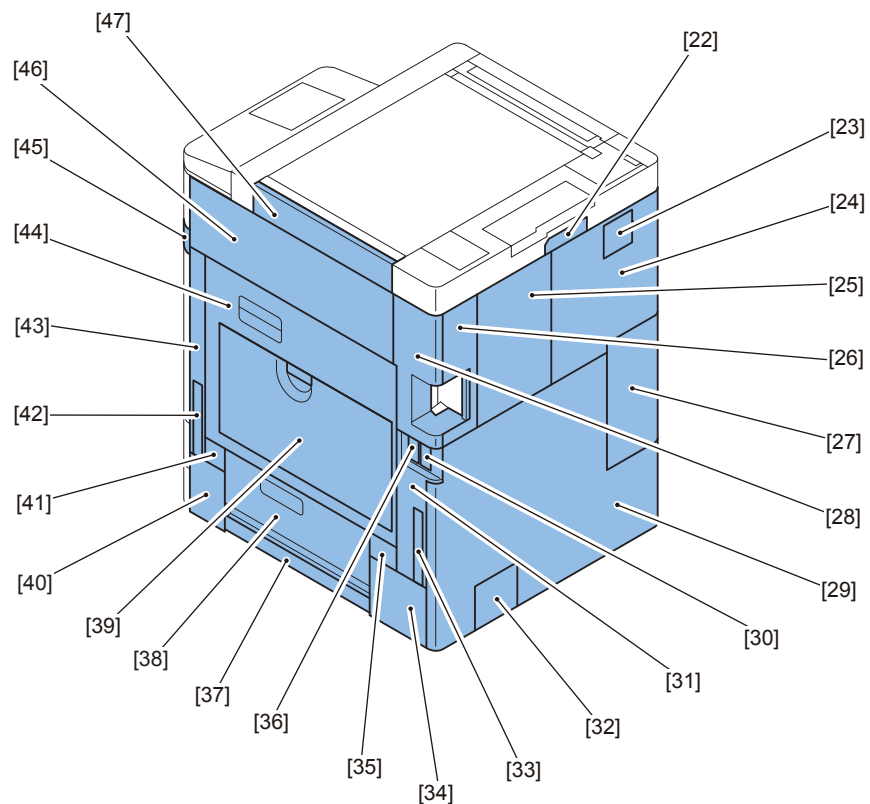
List of Cover



F-4-1

No.	Name	Service Parts No.	Reference
[1]	Reader Front Sub Cover	FC9-7301	
[2]	Reader Front Cover	FC9-7299	
[3]	Control Panel Upper Cover	FC9-5283	
[4]	Control Panel Lower Cover	FC9-5304	
[5]	Front Upper Cover	FC8-8188	
[6]	Front Cover	FC8-8194	
[7]	Cassette 1 Front Cover	FC8-8181	
[8]	Cassette 2 Front Cover	FC8-8181	
[9]	Right grip cover 1	FC8-8201	
[10]	Left Cover	FC8-8197	
[11]	Left Lower Cover	FC8-8198	
[12]	Left Grip Cover 2	FC8-8201	
[13]	Environment Heater Switch Cover	FC7-7394	
[14]	Left Rear Cover	FM3-8079	
[15]	Reader Left DCover	FC9-7295	
[16]	Reader Left Retaining Cover	FC9-7288	
[17]	DF Base Left Cover	FL3-5465	
[18]	Reader Cable Cover	FC9-7298	
[19]	DF Base Right Cover	FL3-5464	
[20]	Reader Rear Cover	FC9-7294	
[21]	Reader Right Retaining Cover	FC9-7288	

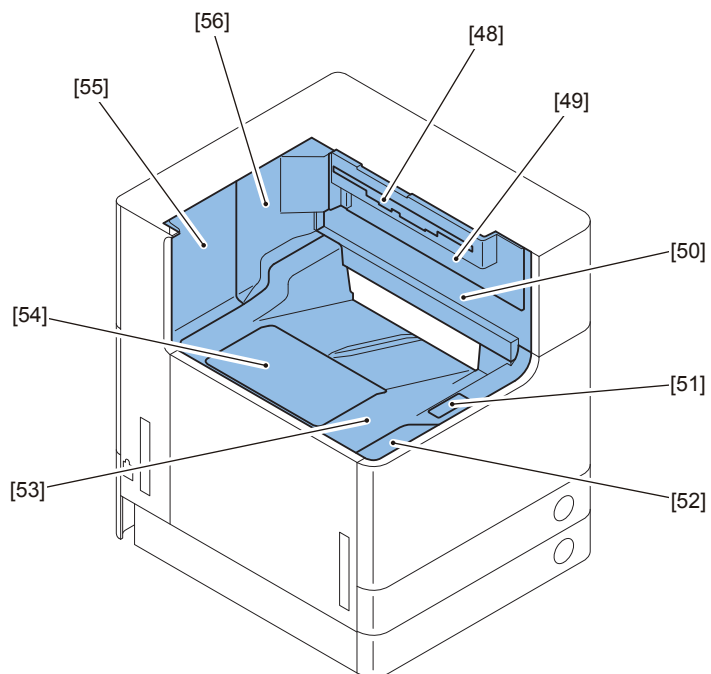
T-4-1



F-4-2

No.	Name	Service Parts No.	Reference
[22]	Reader Rear Sub Cover	FC9-7550	
[23]	Rear Upper Cover 3	FC8-8286	
[24]	Rear Upper Cover 1	FC8-8192	
[25]	Rear Upper Cover 2	FC8-8631	
[26]	Right Upper Sub Cover 2	FC8-8345	
[27]	Waste Toner Cover	FC8-8341	
[28]	Right Upper Sub Cover	FC8-8200	
[29]	Rear Cover	FC8-8196	
[30]	FAX Connector Cover 2	FC8-8346	
[31]	Right Rear Cover	FC8-8444	
[32]	Connector Cover	FC8-8344	
[33]	Right Grip Cover 2	FC8-8201	
[34]	Cassette Right Upper Sub Cover 2	FC8-8190	
[35]	Right Lower Sub Cover 2	FC8-8516	
[36]	FAX Connector Cover 1	FC8-8346	
[37]	Cassette Right Upper Sub Cover 3	FC8-8617	
[38]	Cassette Right Upper Cover	FC9-5722	
[39]	Multi-purpose Tray	FC8-8129	
[40]	Cassette Right Upper Sub Cover 1	FC8-8191	
[41]	Right Lower Sub Cover 1	FC8-8515	
[42]	Right Grip Cover 1	FC8-8201	
[43]	Right Gront Sub Cover	FC8-8443	
[44]	Right Lower Cover	FC8-8130	
[45]	Power Supply Cover	FC8-4000	
[46]	Right Upper Cover	FC8-8291	
[47]	Reader Right Cover	FL3-3692	

T-4-2



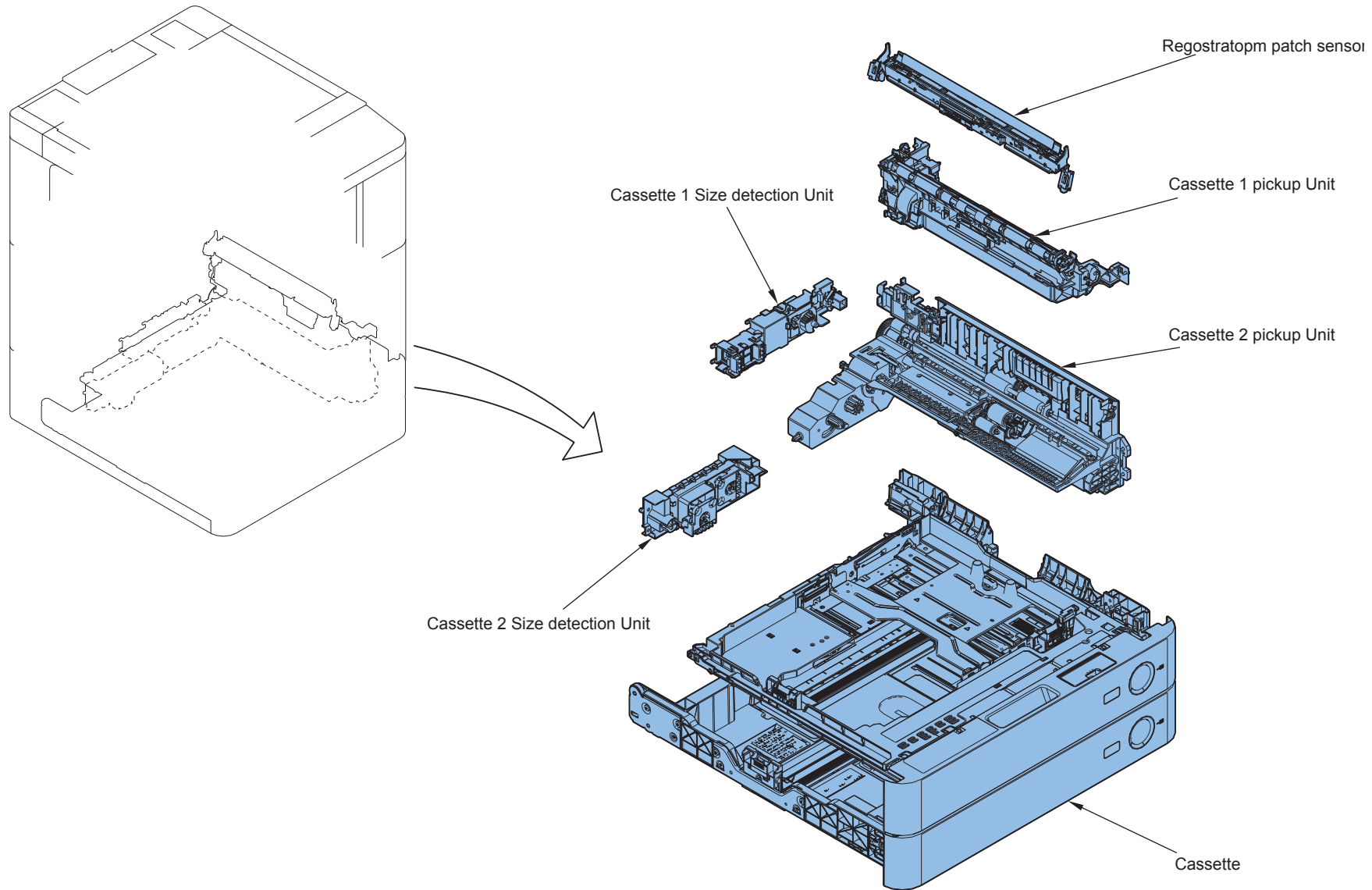
F-4-3

No.	Name	Service Parts No.	Reference
[48]	Second Delivery Outlet Cover	FC8-8544	
[49]	Second Delivery Cover	FC8-8543	
[50]	First Delivery Cover	FC8-8187	
[51]	Inner Sub Cover 1	FC8-8186	
[52]	Inner Sub Cover 2	FC8-8290	
[53]	Inner Bottom Cover	FC8-8445	
[54]	First Delivery Tray	FC8-8189	
[55]	Inner Rear Cover 1	FC8-8207	
[56]	Inner Rear Cover 2	FC8-8193	

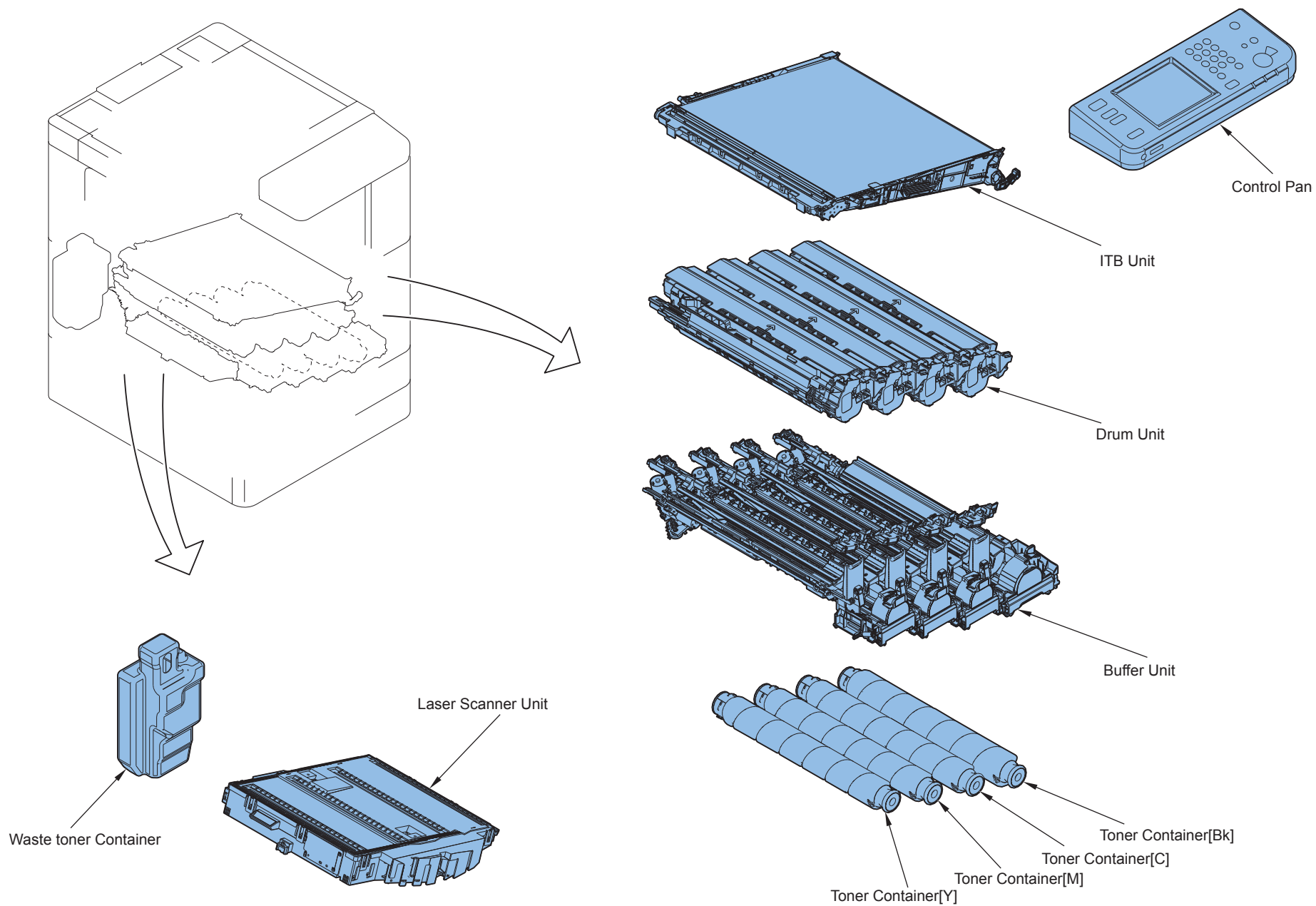
T-4-3

List of Main Unit

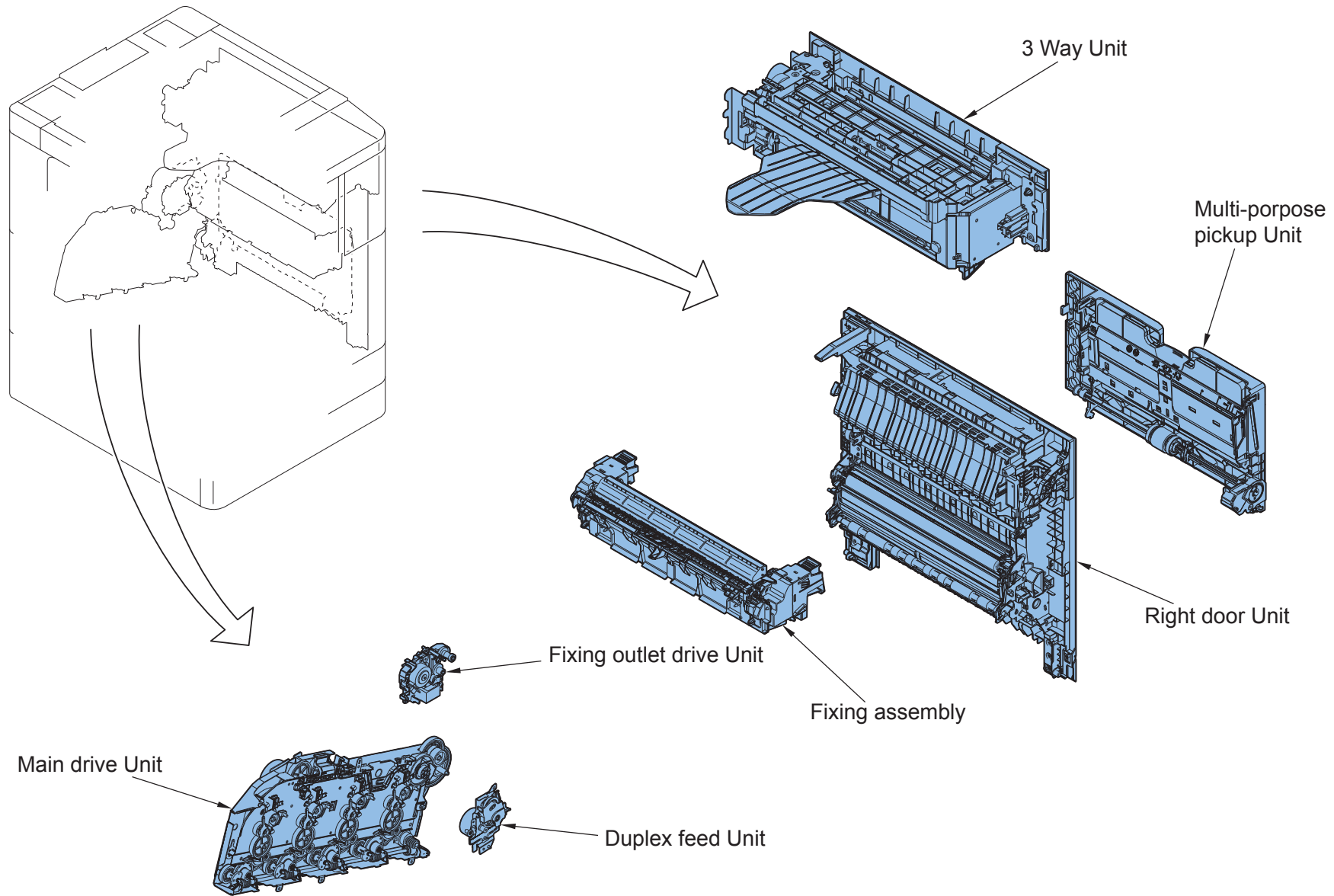
Unit Layout



F-4-4



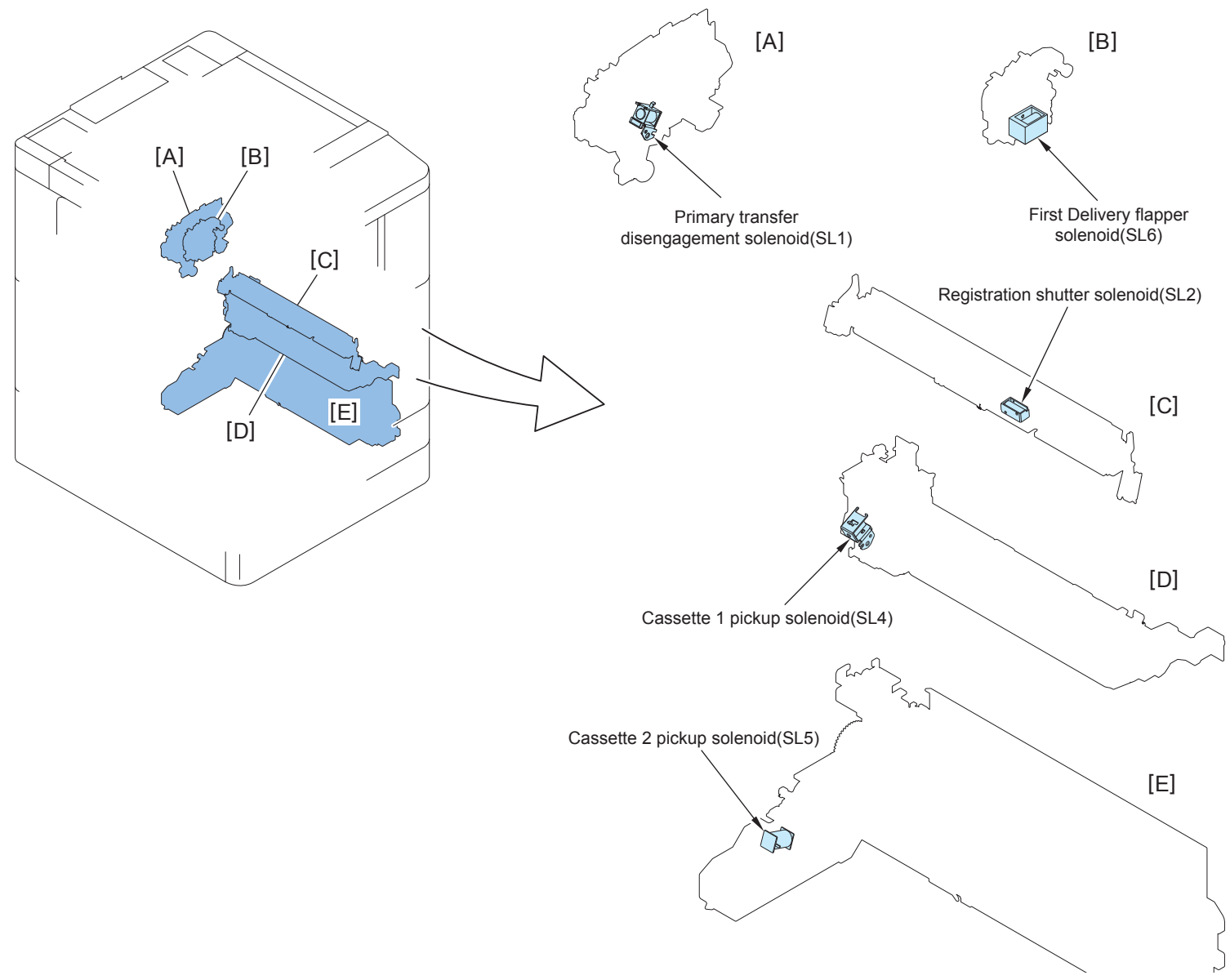
F-4-5



No.	Name	Service Parts No.	Reference
[1]	Registration Patch Sensor	FM3-8117	
[2]	Cassette 1 Pickup Unit	RM1-6106	
[3]	Cassette 2 Pickup Unit	FM3-8255	
[4]	Cassette 1 Size Detection Unit	FM3-8034	
[5]	Cassette 2 Size Detection Unit	FM3-5933	
[6]	Cassette		
[7]	Control Panel	FM4-2184	
[8]	ITB Unit	FM3-8240	
[9]	Drum Unit (Y)		
[10]	Drum Unit (M)		
[11]	Drum Unit (C)		
[12]	Drum Unit (Bk)		
[13]	Toner Buffer Unit		
[14]	Toner Container (Y)	-	
[15]	Toner Container (M)	-	
[16]	Toner Container (C)	-	
[17]	Toner Container (Bk)	-	
[18]	Laser Scanner Unit	FM3-8074	
[19]	Waste Toner Container	FM3-8137	
[20]	3 Way Unit	FM3-8050	
[21]	Multi-purpose Tray Pickup Unit		
[22]	Right Door Unit	FM3-8036	
[23]	Fixing Assembly	FM4-6226(100V) FM4-6227(120V) FM4-6228(230V)	
[24]	Fixing Outlet Drive Unit	RM1-6005	
[25]	2-side Drive Unit		
[26]	Main Drive Unit	FM4-7716	

T-44

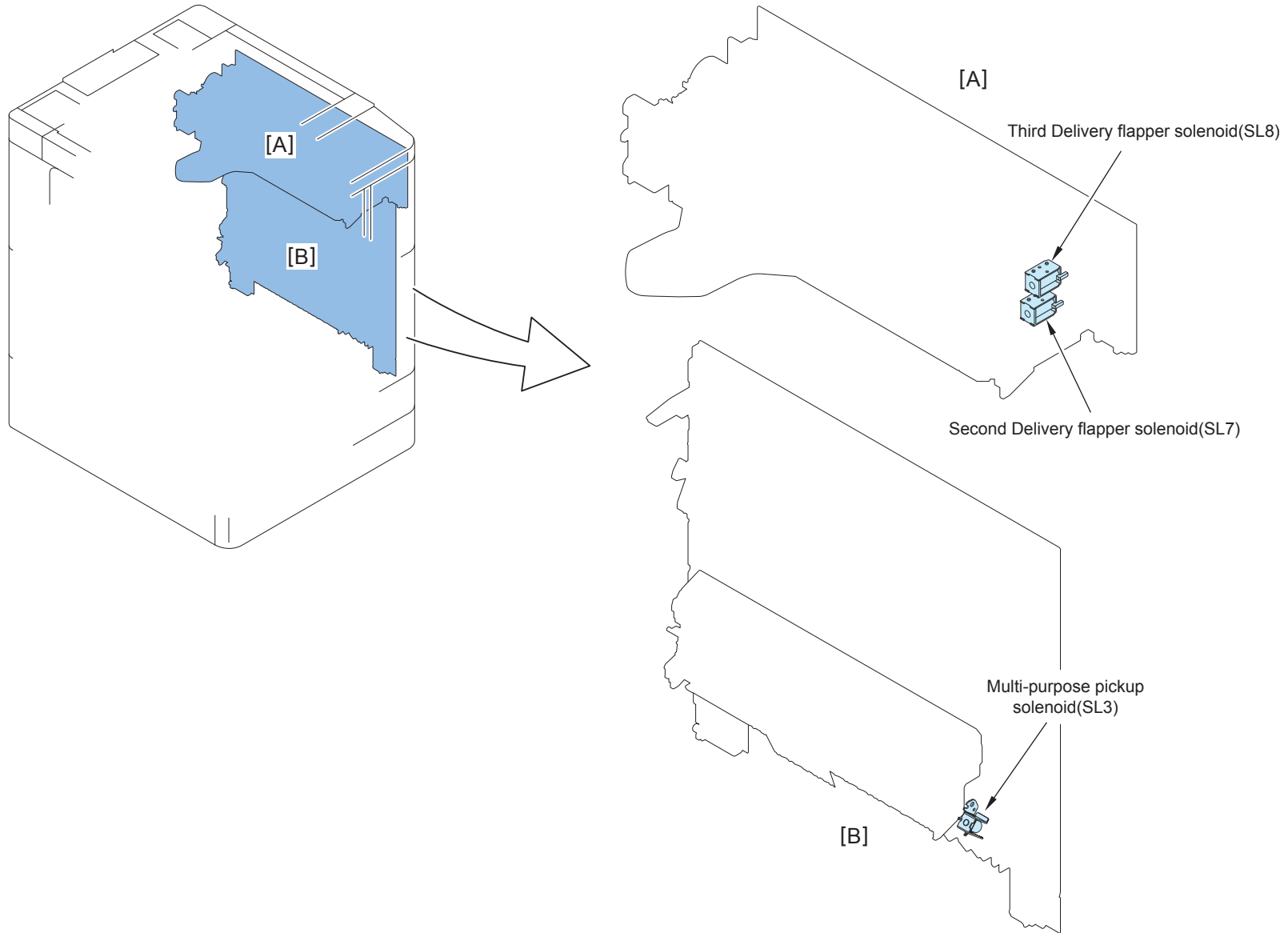
Solenoid



F-4-7

No.	Name	Main Unit	Service Parts No.	Reference
SL1	Primary Transfer Disengagement Solenoid	ITB Unit	FM3-8240	
SL2	Registration Shutter Solenoid	Registration Patch Sensor	FM3-8117	
SL4	Cassette 1 Pickup Solenoid	Cassette 1 Pickup Unit	RM1-6789	
SL5	Cassette 2 Pickup Solenoid	Cassette 2 Pickup Unit	FK2-0408	
SL6	First Delivery Flapper Solenoid	Fixing Outlet Drive Unit	RM1-6005	

T-4-5

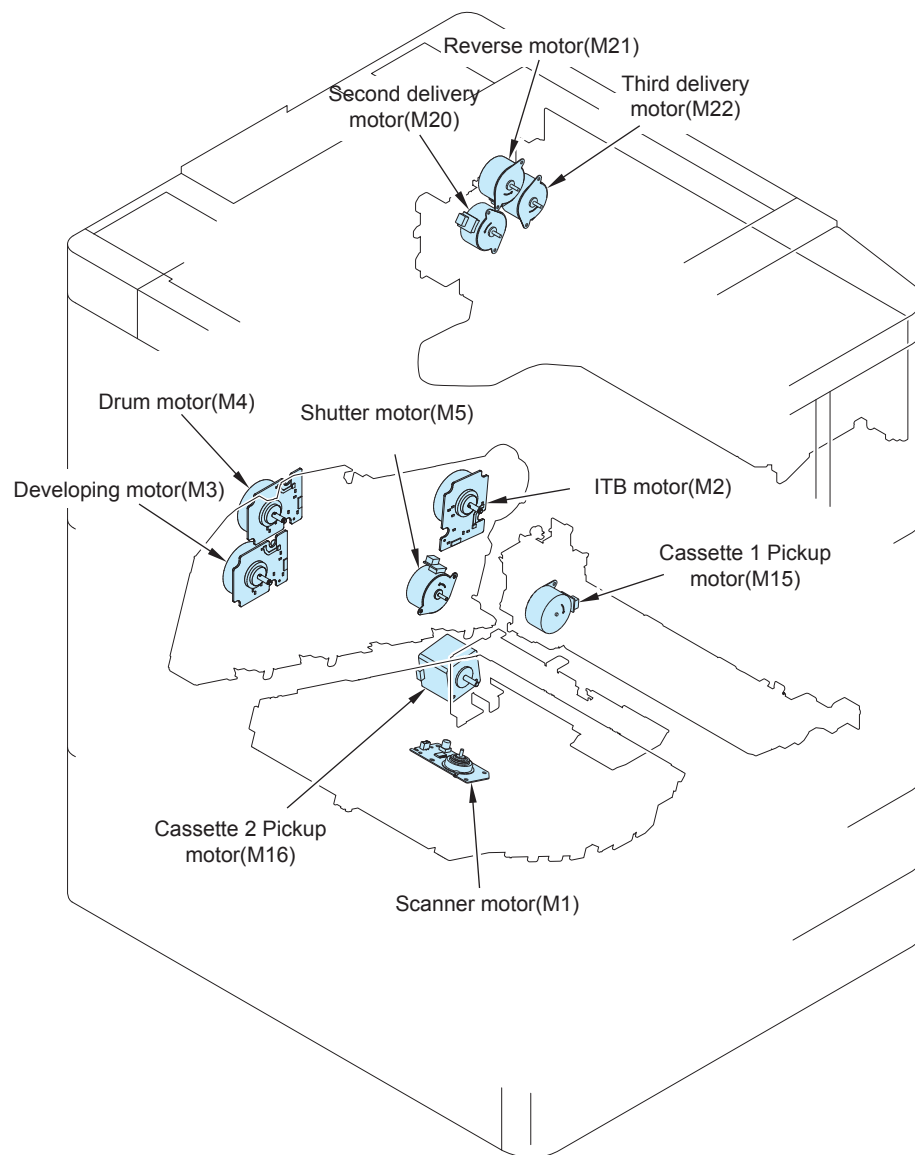


No.	Name	Main Unit	Service Parts No.	Reference
SL3	Multi-purpsoe Tray Pickup Solenoid	Multi-purpose Tray Pickup Unit	RM1-6790	
SL7	Second Delivery Flapper Solenoid	3 Way Unit	RM3-8056	
SL8	Third Delivery Flapper Solenoid	3 Way Unit	RM3-8057	

F-4-8

T-4-6

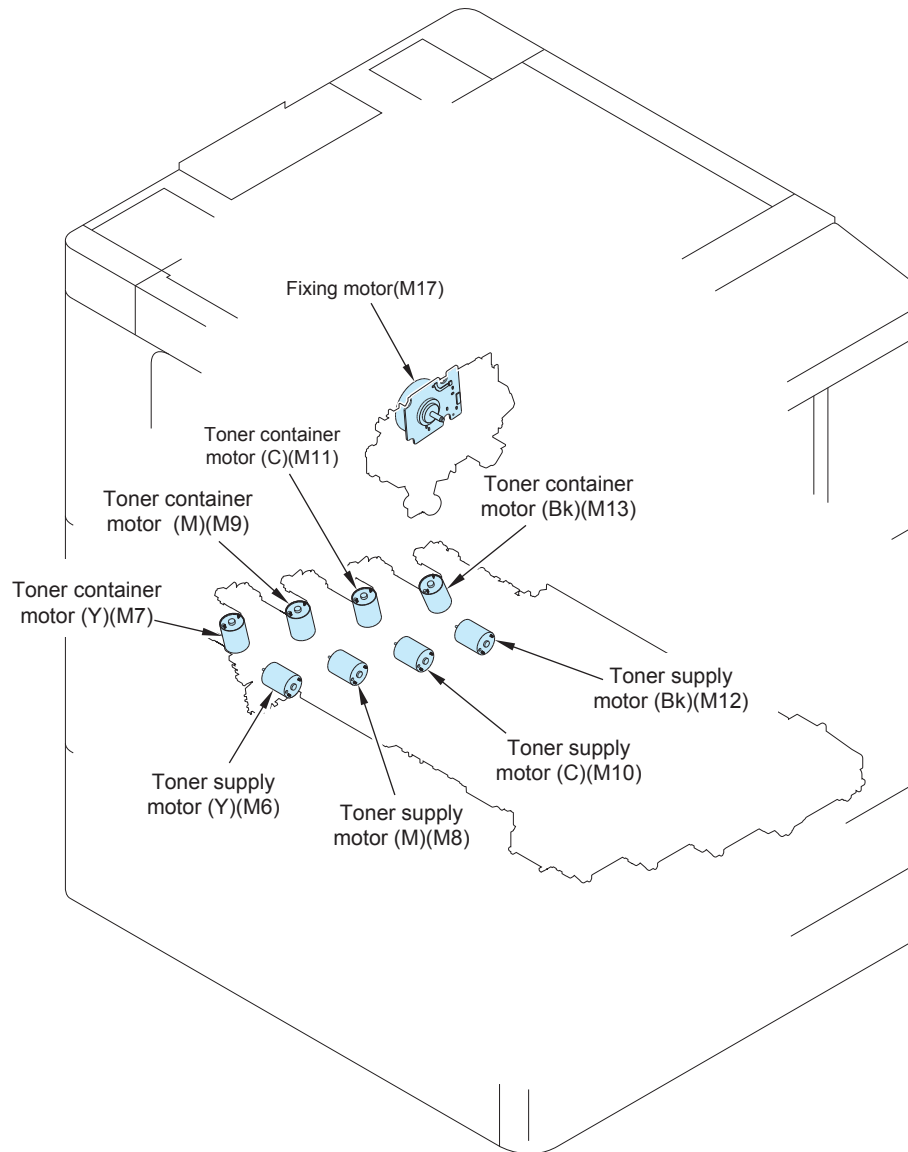
Motor



F-4-9

No.	Name	Main Unit	Service Parts No.	Reference
M1	Scanner Motor	Laser Scanner Unit	FM3-8074	
M2	ITB Motor	Main Drive Unit	FM4-7716	
M3	Developing Motor	Main Drive Unit	FM4-7716	
M4	Drum Motor	Main Drive Unit	FM4-7716	
M5	Shutter Motor	Main Drive Unit	FM4-7716	
M15	Cassette 1 Pickup Motor	Cassette 1 Pickup Unit	RM1-6106	
M16	Cassette 2 Pickup Motor	Cassette 2 Pickup Unit	FK2-7586	
M20	Second Delivery Motor	3 Way Unit	RK2-0997	
M21	Reverse Motor	3 Way Unit	RK2-0997	
M22	Third Delivery Motor	3 Way Unit	RK2-0997	

T-4-7



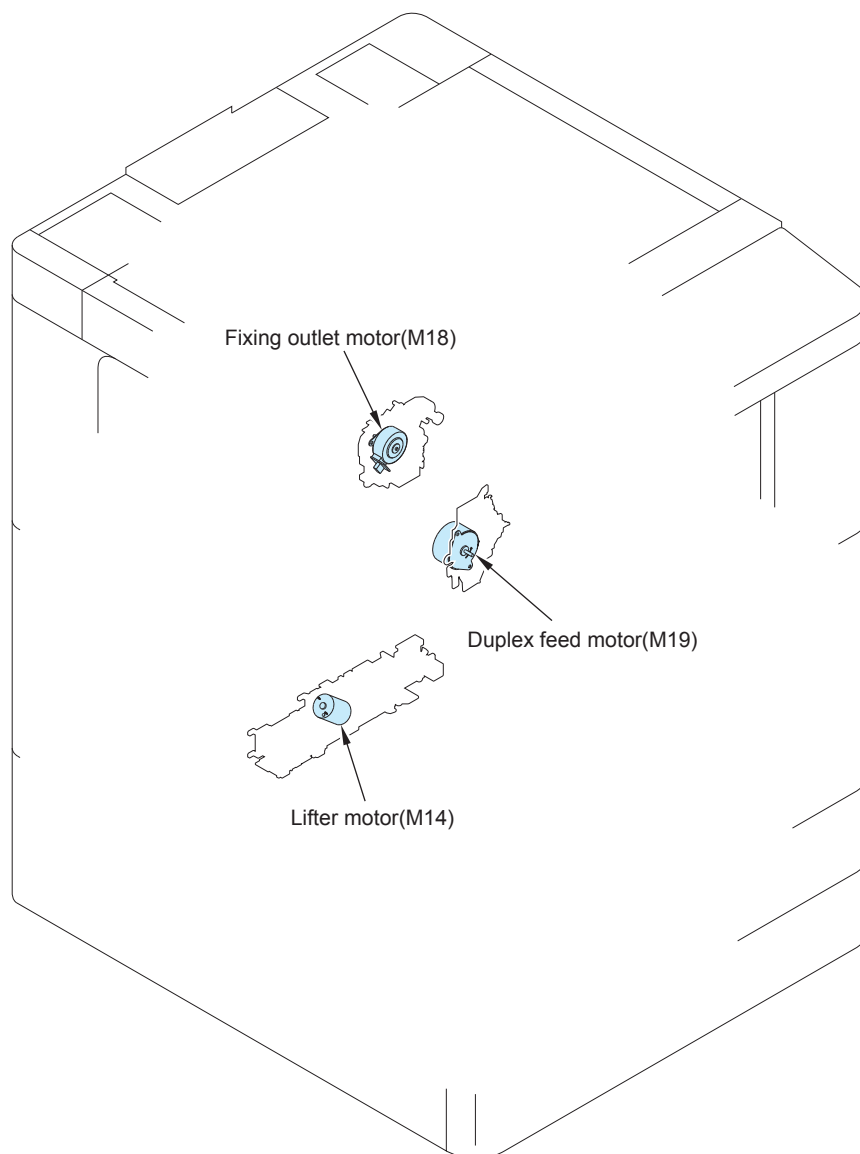
F-4-10

No.	Name	Main Unit	Service Parts No.	Reference
M6	Toner Supply Motor (Y)	Toner Buffer Unit	FM3-8085	
M7	Toner Container Motor (Y)	Toner Buffer Unit	FM3-8085	
M8	Toner Supply Motor (M)	Toner Buffer Unit	FM3-8085	
M9	Toner Container Motor (M)	Toner Buffer Unit	FM3-8085	
M10	Toner Supply Motor (C)	Toner Buffer Unit	FM3-8085	
M11	Toner Container Motor (C)	Toner Buffer Unit	FM3-8085	
M12	Toner Supply Motor (Bk)	Toner Buffer Unit	FM3-8084	
M13	Toner Container Motor (Bk)	Toner Buffer Unit	FM3-8084	
M17	Fixing Motor	Fixing Drive Unit	RM1-5995	

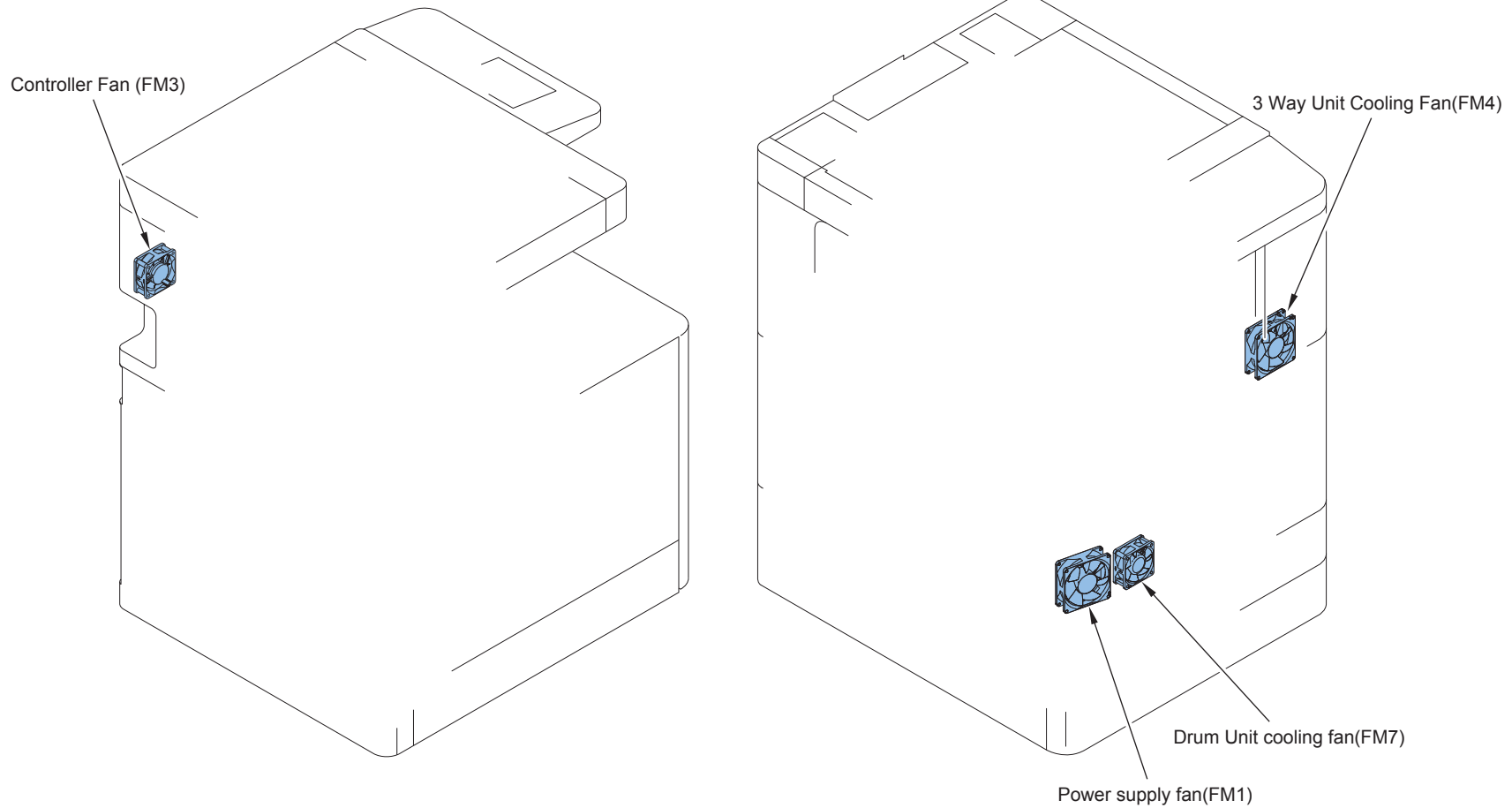
T-4-8

No.	Name	Main Unit	Service Parts No.	Reference
M14	Cassette 1 Lifter Motor	Cassette 1 Pickup Unit	RM4-1915	
M18	Fixing Outlet Motor	Fixing Outlet Drive Motor	RM1-6005	
M19	Duplexing Feed Motor	Duplexing Drive Motor	RK2-3298	

T-4-9



Fan

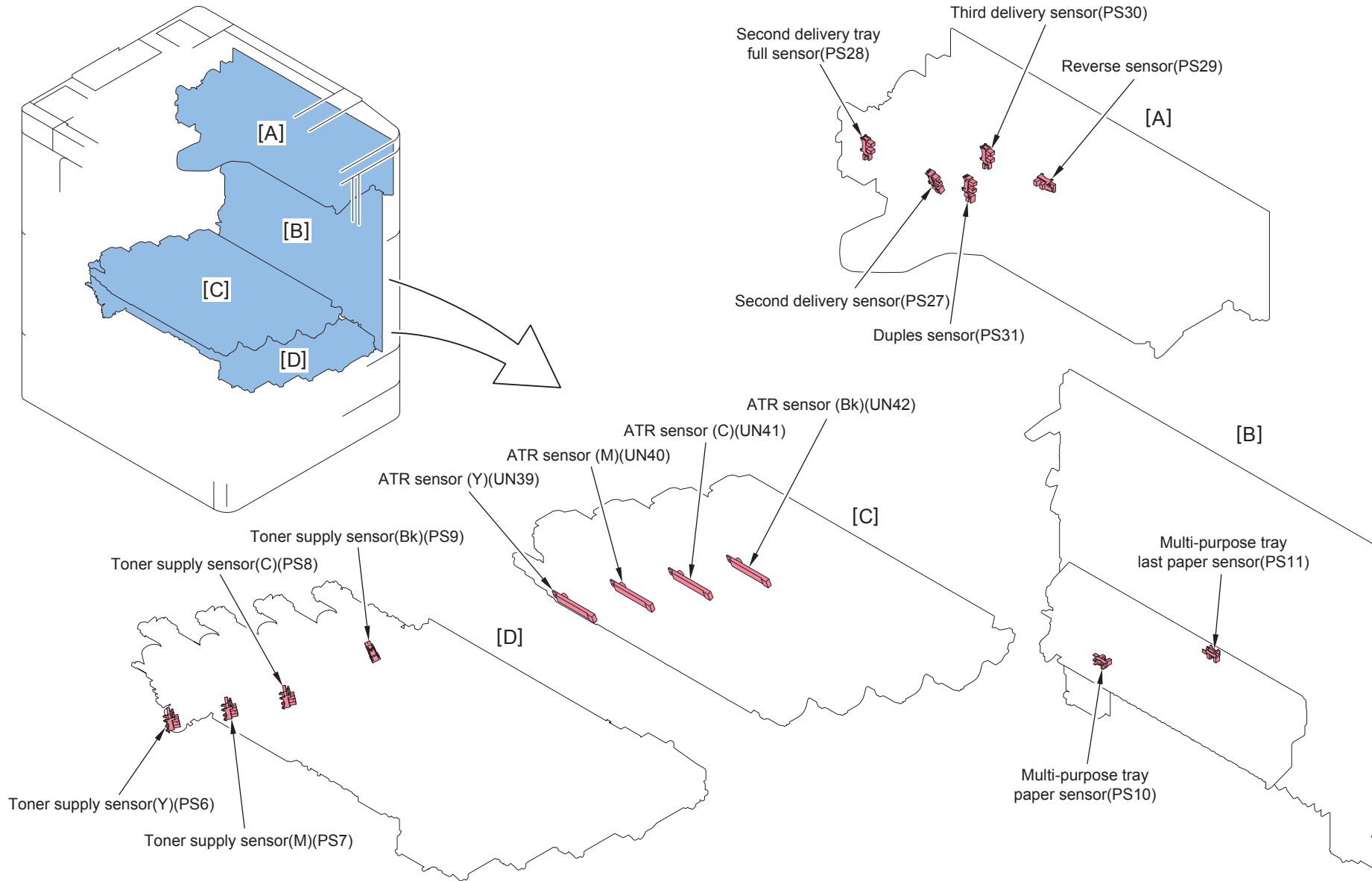


No.	Name	Main Unit	Service Parts No.	Reference
FM1	Power Supply Fan		FK2-0360	
FM3	Controller Fan		FK2-9244	
FM4	3 Way Unit Cooling Fan		FK2-0360	
FM7	Drum Unit Cooling Fan		FK2-2064	

T-4-10

F-4-11

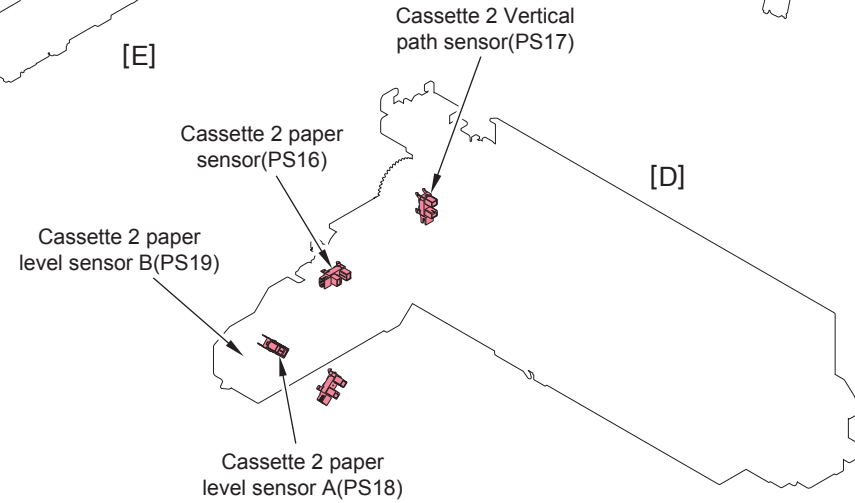
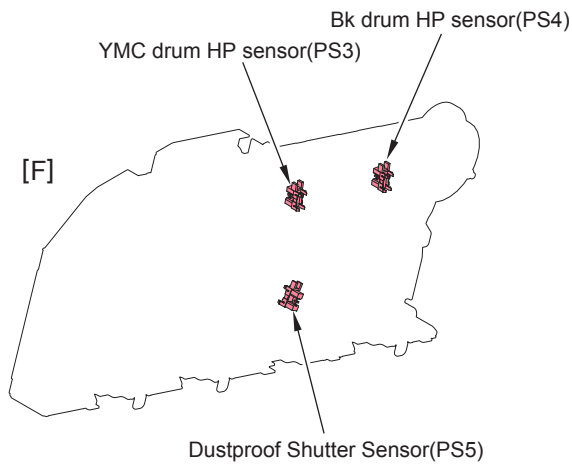
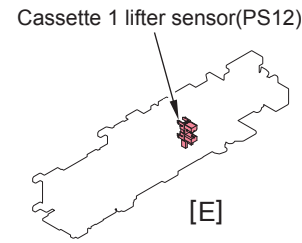
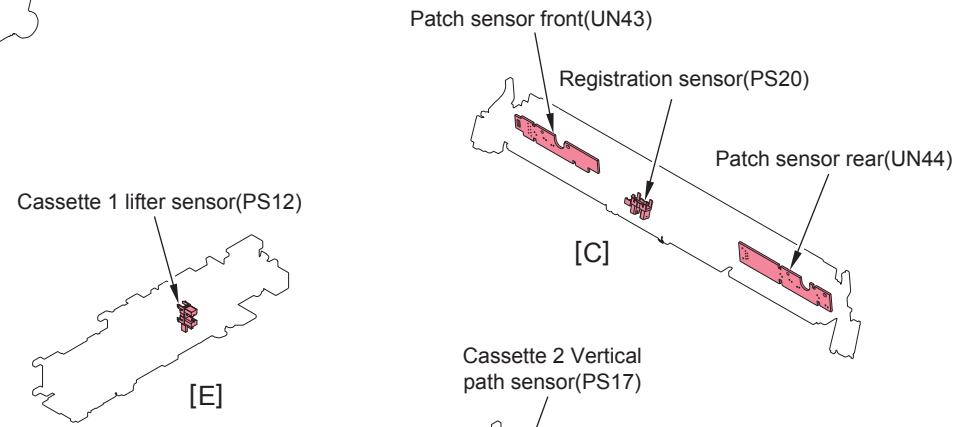
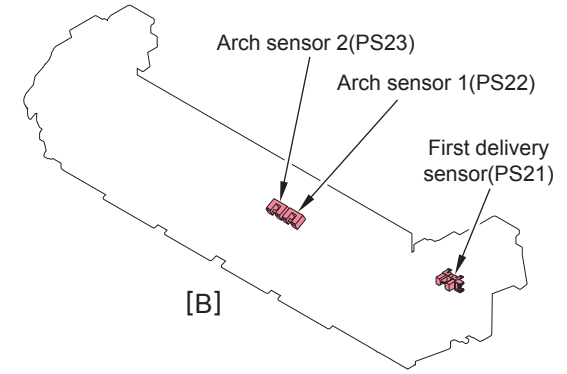
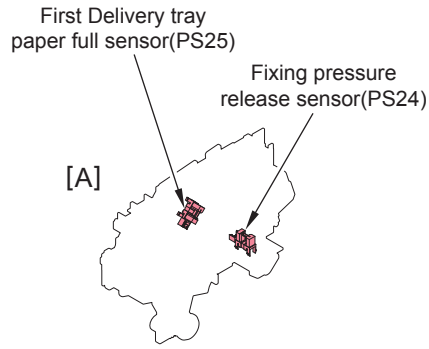
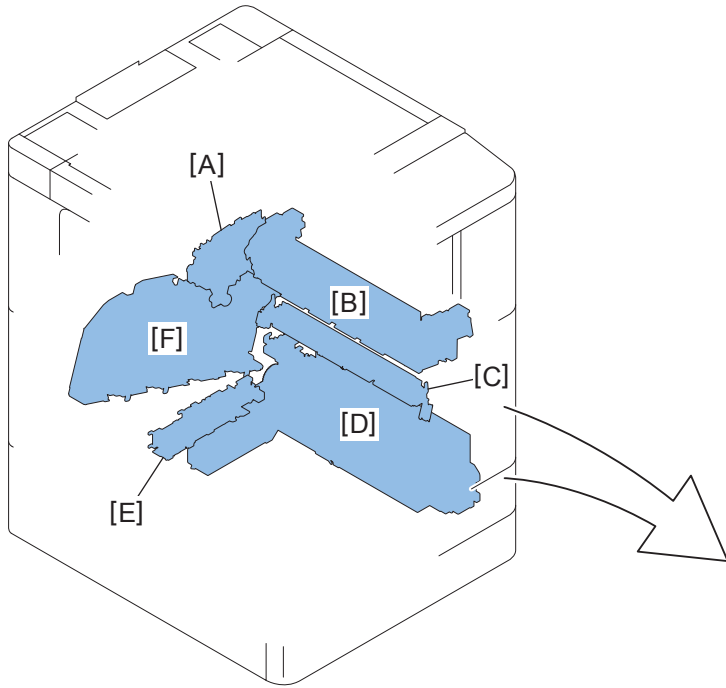
Sensor



F-4-12

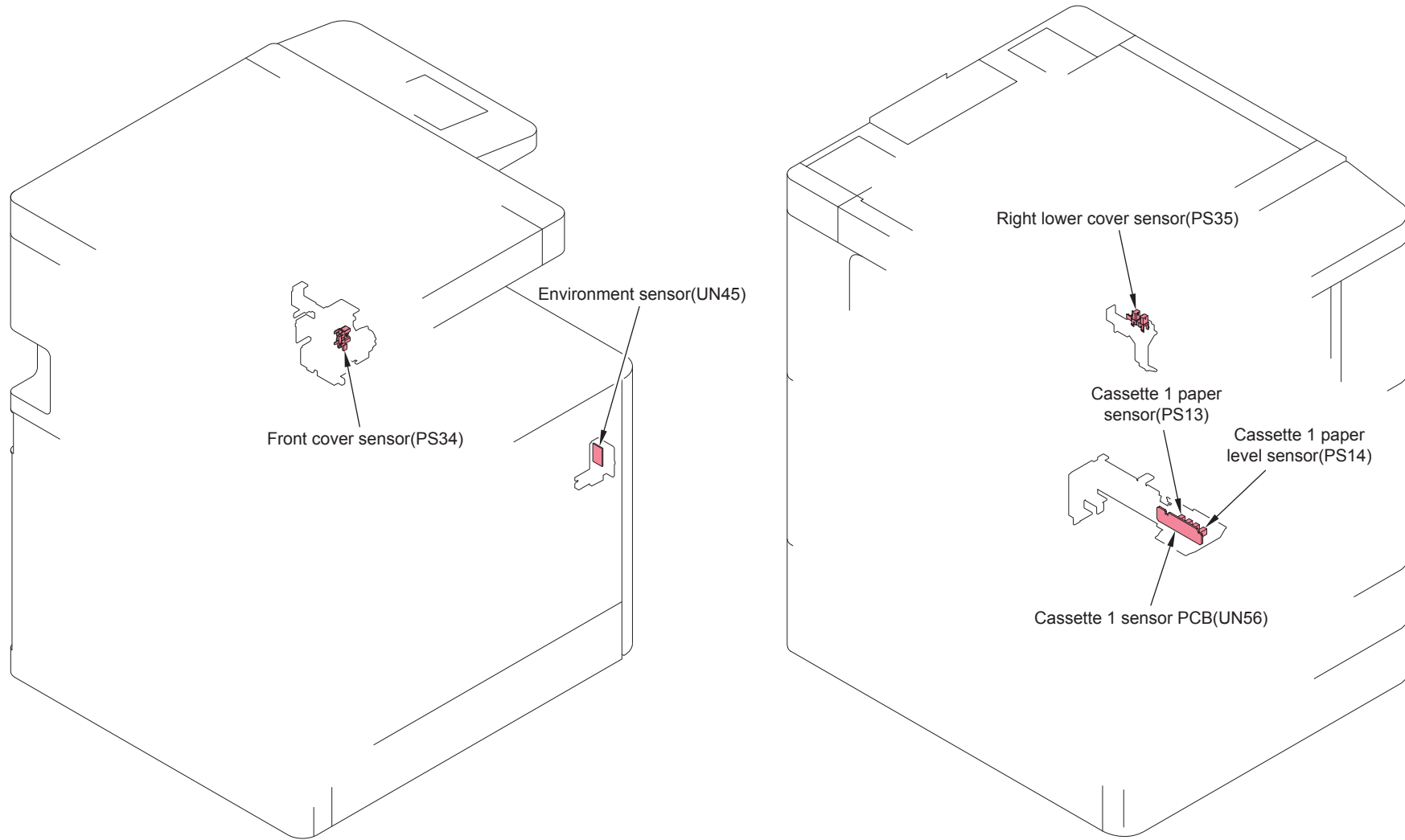
No.	Name	Main Unit	Service Parts No.	Reference
PS6	Toner Supply Sensor (Y)	Toner Buffer Unit	FM3-8085	
PS7	Toner Supply Sensor (M)	Toner Buffer Unit	FM3-8085	
PS8	Toner Supply Sensor (C)	Toner Buffer Unit	FM3-8085	
PS9	Toner Supply Sensor (Bk)	Toner Buffer Unit	FM3-8084	
PS10	Multi-purpose Tray Paper Sensor	Multi-purpose Tray Pickup Unit	WG8-5696	
PS11	Multi-purpose Tray Last Paper Sensor	Multi-purpose Tray Pickup Unit	WG8-5696	
PS27	Second Delivery Sensor	3 Way Unit	WG8-5783	
PS28	Second Delivery Tray Full Sensor	3 Way Unit	WG8-5783	
PS29	Reverse Sensor	3 Way Unit	WG8-5783	
PS30	Third Delivery Sensor	3 Way Unit	WG8-5783	
PS31	Duplex Sensor	3 Way Unit	WG8-5783	
PS39	ATR Sensor (Y)	Drum Unit	-	
PS40	ATR Sensor (M)	Drum Unit	-	
PS41	ATR Sensor (C)	Drum Unit	-	
PS42	ATR Sensor (Bk)	Drum Unit	-	

T-4-11



No.	Name	Main Unit	Service Parts No.	Reference
PS3	Color Drum HP Sensor	Main Drive Unit	FM4-7716	
PS4	Bk Drum HP Sensor	Main Drive Unit	FM4-7716	
PS5	Dustproof Shutter Sensor	Main Drive Unit	FM4-7716	
PS12	Cassette 1 Lifter Sensor	Cassette 1 Pickup Unit	WG8-5696	
PS16	Cassette 2 Paper Sensor	Cassette 2 Pickup Unit	WG8-5848	
PS17	Cassette 2 Vertical Path Sensor	Cassette 2 Pickup Unit	WG8-5848	
PS18	Cassette 2 Paper Level Sensor A	Cassette 2 Pickup Unit	WG8-5848	
PS19	Cassette 2 Paper Level Sensor B	Cassette 2 Pickup Unit	WG8-5848	
PS20	Registration Sensor	Registration Patch Sensor	FM3-8117	
PS21	First Delivery Sensor	Fixing Assembly	RM4-6226(100V) RM4-6227(120V) RM4-6228(230V)	
PS22	Arch Sensor 1	Fixing Assembly	RM4-6226(100V) RM4-6227(120V) RM4-6228(230V)	
PS23	Arch Sensor 2	Fixing Assembly	RM4-6226(100V) RM4-6227(120V) RM4-6228(230V)	
PS24	Fixing Pressure Release Sensor	Fixing Drive Unit	WG8-5696	
PS25	First Delivery Tray Paper Full Sensor	Fixing Drive Unit	WG8-5696	
UN43	Patch Sensor (Front)	Registration Patch Sensor	FM3-8117	
UN44	Patch Sensor (Rear)	Registration Patch Sensor	FM3-8117	

T-4-12

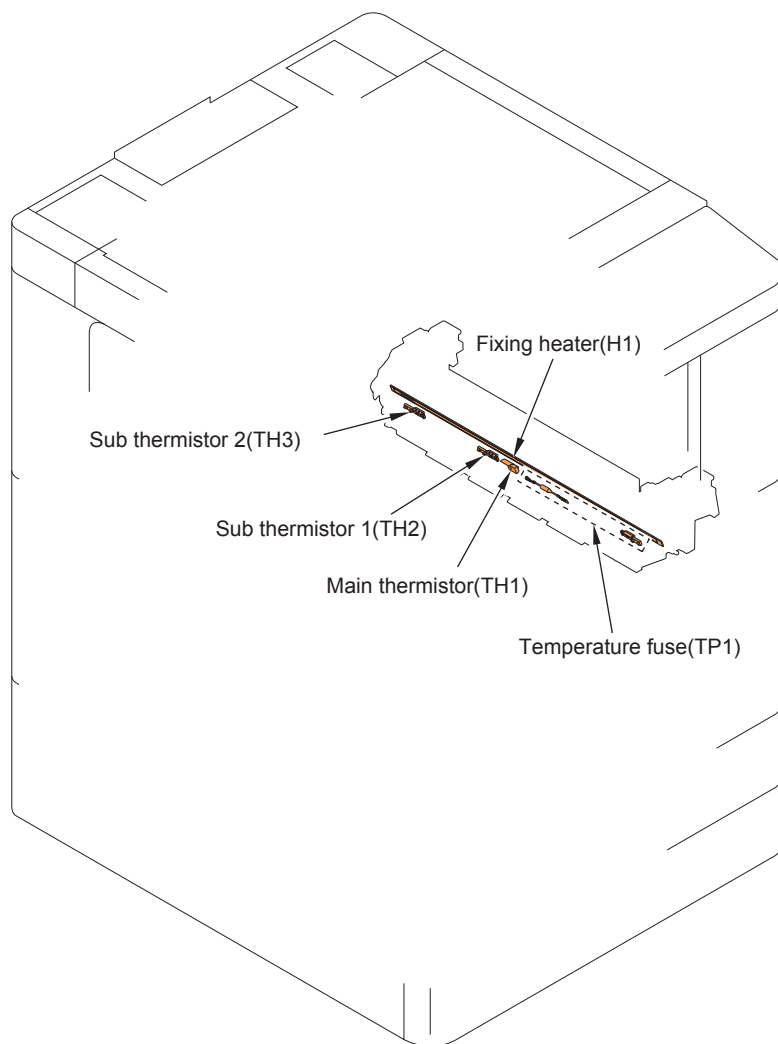


F-4-14

No.	Name	Main Unit	Service Parts No.	Reference
PS13	Cassette 1 Paper Sensor	Cassette 1 Pickup Unit	FM3-8607	
PS14	Cassette 1 Paper Level Sensor	Cassette 1 Pickup Unit	FM3-8607	
PS34	Front Cover Sensor		WG8-5696	
PS35	Right Lower Cover Sensor	Right Door Unit	WG8-5696	
UN45	Environment Sensor	-	RK2-2884	
UN56	Cassette 1 Sensor PCB	Cassette 1 Pickup Unit	FM3-8607	

T-4-13

■ Heater / Other

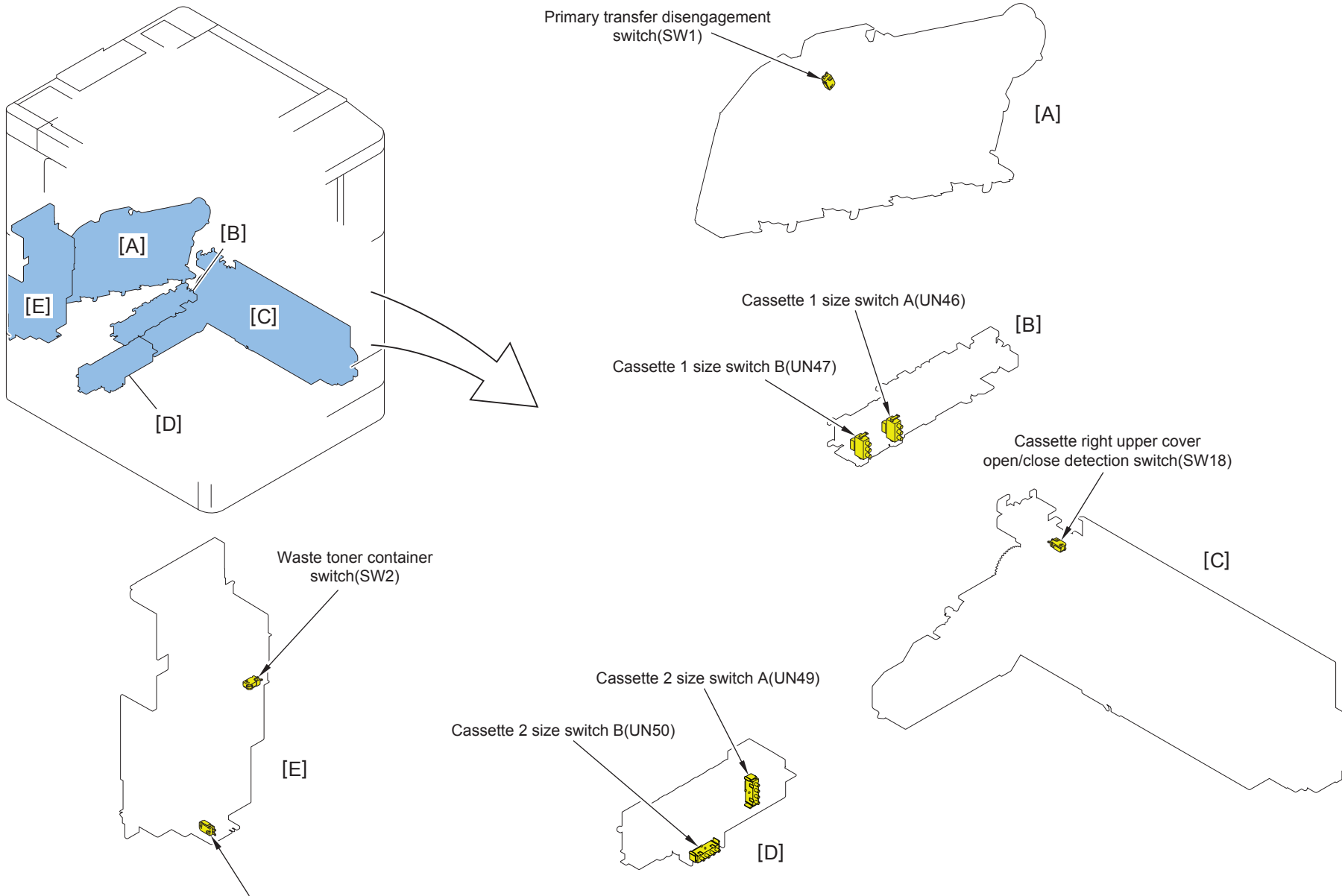


F-4-15

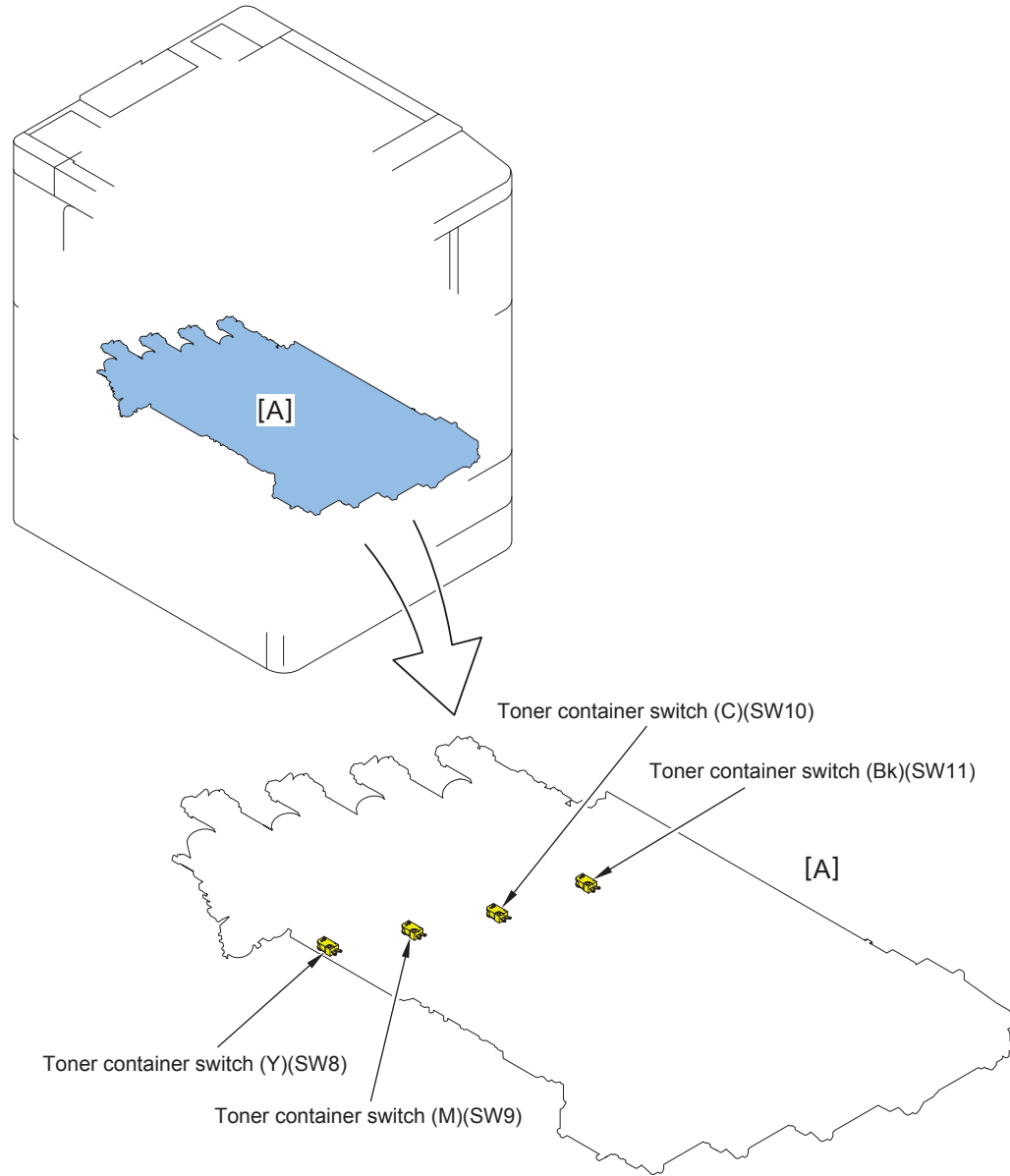
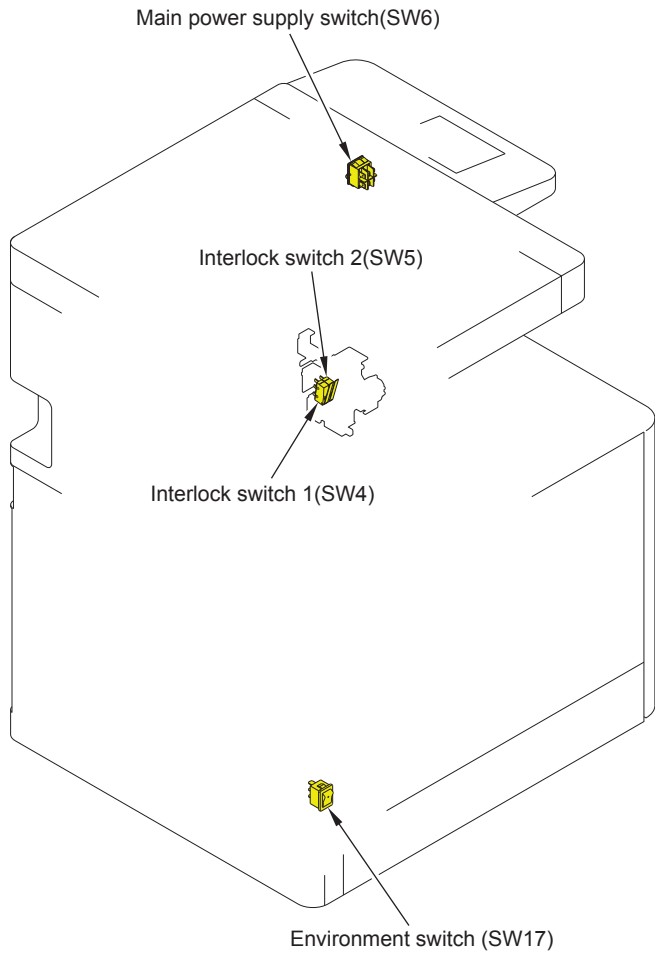
No.	Name	Main Unit	Service Parts No.	Reference
H1	Fixing Heater	Fixing Assembly	RM4-6226(100V) RM4-6227(120V) RM4-6228(230V)	
TH1	Main Thermistor	Fixing Assembly	RM4-6226(100V) RM4-6227(120V) RM4-6228(230V)	
TH2	Sub Thermistor 1	Fixing Assembly	RM4-6226(100V) RM4-6227(120V) RM4-6228(230V)	
TH3	Sub Thermistor 2	Fixing Assembly	RM4-6226(100V) RM4-6227(120V) RM4-6228(230V)	
TP1	Temperature Fuse	Fixing Assembly	RM4-6226(100V) RM4-6227(120V) RM4-6228(230V)	

T-4-14

Switch



F-4-16

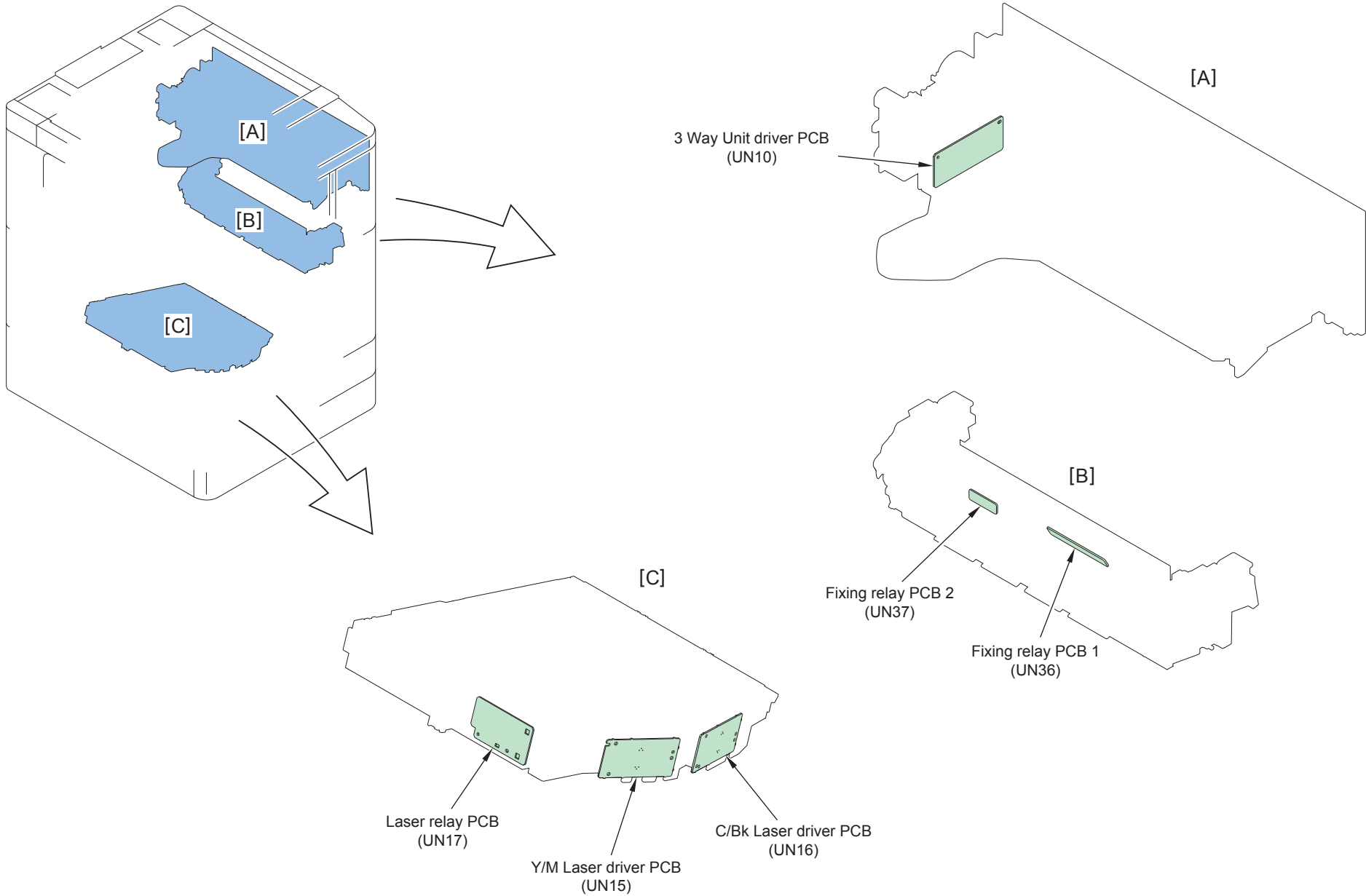


F-4-17

No.	Name	Main Unit	Service Parts No.	Reference
SW1	Primary Transfer Disengagement Switch	Main Drive Unit	FM4-7716	
SW2	Waste toner container switch		FM4-1894	
SW4	Interlock Switch 1	Electric	FM4-1895	
SW5	Interlock switch 2	Electric	FM4-1895	
SW6	Main Power Supply Switch	Electric	FK2-7264	
SW8	Toner Container Switch (Y)	Toner Buffer Unit	FM3-8636	
SW9	Toner Container Switch (M)	Toner Buffer Unit	FM3-8636	
SW10	Toner Container Switch (C)	Toner Buffer Unit	FM3-8636	
SW11	Toner Container Switch (Bk)	Toner Buffer Unit	FM3-8636	
SW16	Waste Toner Full Sensor		FM4-1894	
SW18	Cassette Right Upper Cover Open/ Close Detection Switch		FM3-8647	
UN46	Cassette 1 Size Switch A	Cassette	RM1-5058	
UN47	Cassette 1 Size Switch B	Cassette	RM1-5058	
UN49	Cassette 2 Size Switch A	Cassette	FM3-5933	
UN50	Cassette 2 Size Switch B	Cassette	FM3-5933	

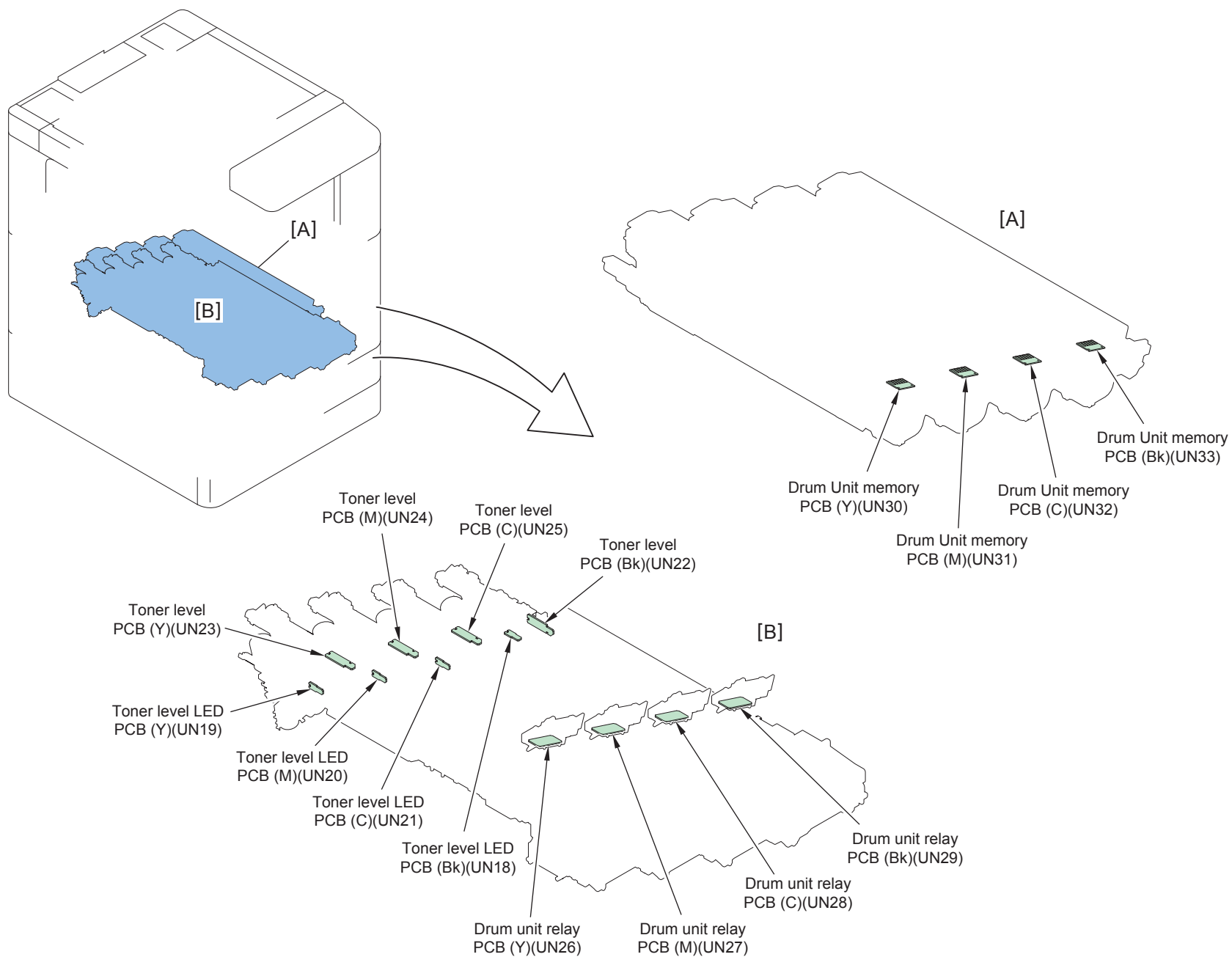
T-4-15

PCBs



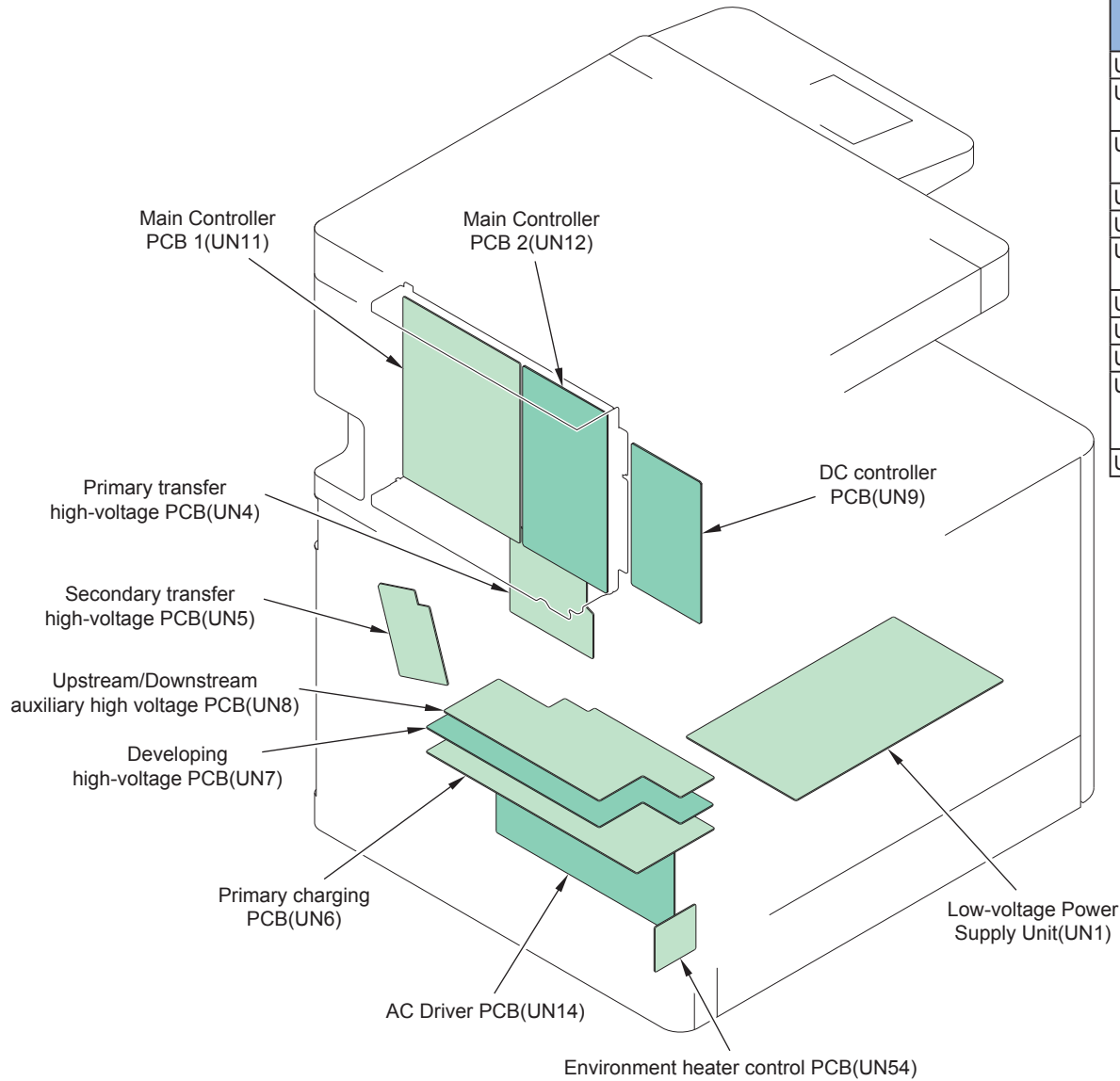
No.	Name	Main Unit	Service Parts No.	Reference
UN10	3 Way Unit Driver PCB	3 Way Unit	FM3-8601	
UN15	Y/M Laser Driver PCB	Laser Scanner Unit	FM3-8074	
UN16	C/Bk Laser Driver PCB	Laser Scanner Unit	FM3-8074	
UN17	Laser relay PCB	Laser Scanner Unit	FM3-8074	
UN36	Fixing Relay PCB 1	Fixing Assembly	RM4-6226(100V) RM4-6227(120V) RM4-6228(230V)	
UN37	Fixing Relay PCB 2	Fixing Assembly	RM4-6226(100V) RM4-6227(120V) RM4-6228(230V)	

T-4-16



No.	Name	Main Unit	Service Parts No.	Reference
UN18	Toner Level LED PCB (Bk)	Hopper Unit	FM3-8084	
UN19	Toner Level LED PCB (Y)	Hopper Unit	FM3-8085	
UN20	Toner Level LED PCB (M)	Hopper Unit	FM3-8085	
UN21	Toner Level LED PCB (C)	Hopper Unit	FM3-8085	
UN22	Toner Level PCB (Bk)	Hopper Unit	FM3-8084	
UN23	Toner Level PCB (Y)	Hopper Unit	FM3-8085	
UN24	Toner Level PCB (M)	Hopper Unit	FM3-8085	
UN25	Toner Level PCB (C)	Hopper Unit	FM3-8085	
UN26	Drum Unit Relay PCB (Y)	Electric (Front)	FM3-8111	
UN27	Drum Unit Relay PCB (M)	Electric (Front)	FM3-8111	
UN28	Drum Unit Relay PCB (C)	Electric (Front)	FM3-8111	
UN29	Drum Unit Relay PCB (Bk)	Electric (Front)	FM3-8111	
UN30	Drum Unit Memory PCB (Y)	Drum Unit	FM3-8616	
UN31	Drum Unit Memory PCB (M)	Drum Unit	FM3-8617	
UN32	Drum Unit Memory PCB (C)	Drum Unit	FM3-8618	
UN33	Drum Unit Memory PCB (Bk)	Drum Unit	FM3-8619	

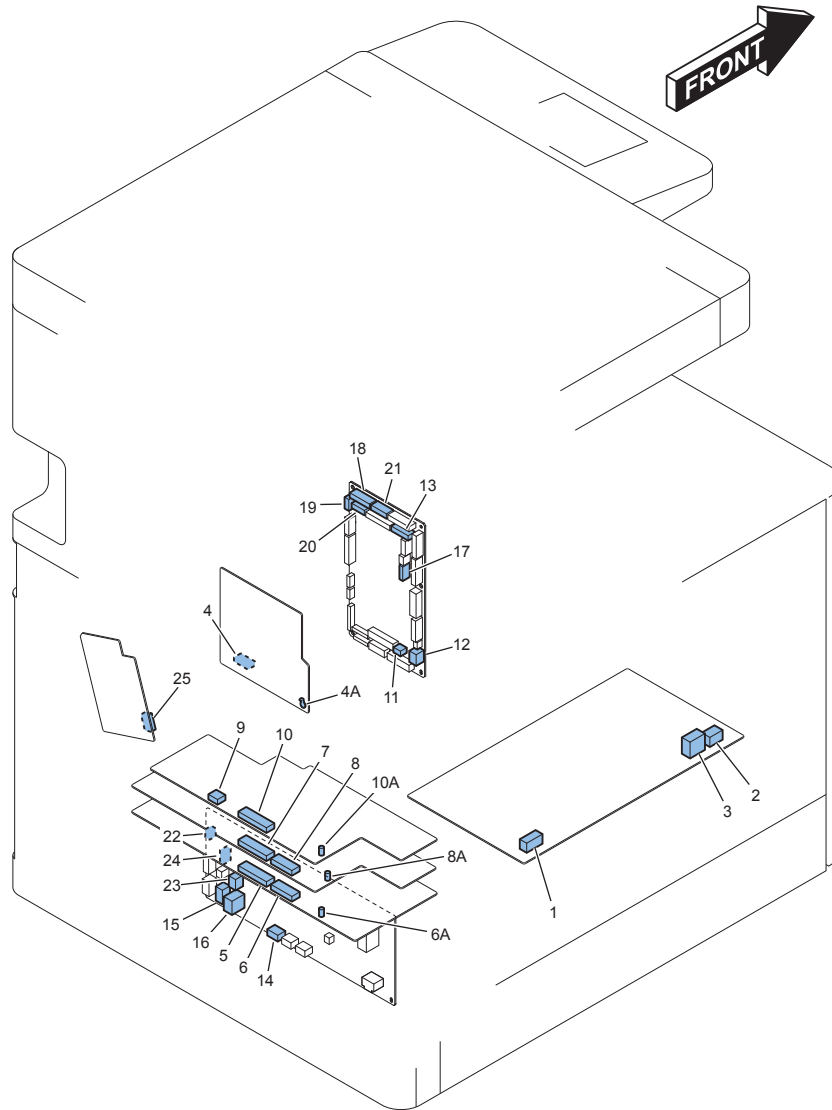
T-4-17



No.	Name	Main Unit	Service Parts No.	Reference
UN1	Low-voltage Power Supply Unit	Electric	FM3-8179	
UN4	Primary Transfer High-voltage PCB	Electric	FM3-8599	
UN5	Secondary Transfer High-voltage PCB	Electric	FM3-8610	
UN6	Primary Charging PCB	Electric	FM3-8611	
UN7	Developing High-voltage PCB	Electric	FM3-8612	
UN8	Upstream / Downstream Auxiliary High voltage PCB	Electric	FM3-8613	
UN9	DC Controller PCB	Controller	FM3-8600	
UN11	Main Controller PCB 1	Controller	FM4-3141	
UN12	Main Controller PCB 2	Controller	FM4-3138	
UN14	AC Driver PCB	Electric	FM3-8602(100V) FM3-8606(120V) FM3-8614(230V)	
UN54	Environment Heater Control PCB	Electric	FM3-8187	

T-4-18

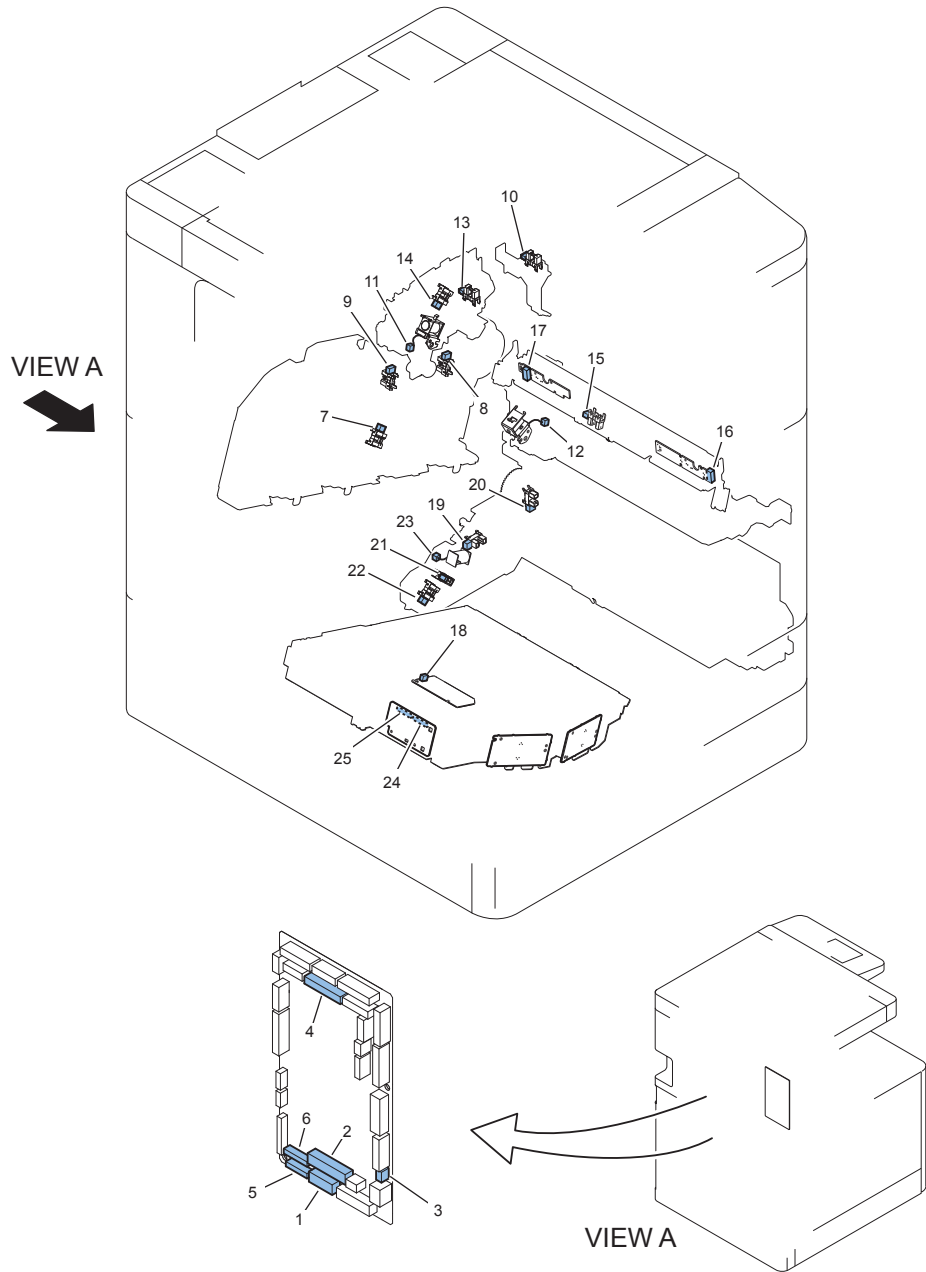
Conector



F-4-20

Key No.	J No.	Symbol	Parts Name	Intermediate Connector	Key No.	J No.	Symbol	Parts Name
1	J1	UN01	Low-voltage Power Supply Unit		14	J102	UN14	AC driver PCB
2	J11	UN01	Low-voltage Power Supply Unit		15	J110	UN14	AC driver PCB
3	J12	UN01	Low-voltage Power Supply Unit		16	J111	UN14	AC driver PCB
4	J1001A	UN04	Primary transfer high-voltage PCB		17	J205	UN09	DC controller PCB
4A	J1010	UN04	Primary transfer high-voltage PCB		-	-		DC controller PCB
5	J441	UN06	Primary charging PCB		18	J21	UN09	DC controller PCB
6	J442	UN06	Primary charging PCB		18	J21	UN09	DC controller PCB
6A	J1	UN06	Primary charging PCB		-	-	UN09	DC controller PCB
7	J451	UN07	Developing high-voltage PCB		19	J20	UN09	DC controller PCB
8	J452	UN07	Developing high-voltage PCB		20	J22	UN09	DC controller PCB
8A	J501	UN07	Developing high-voltage PCB		-	-		DC controller PCB
9	J461	UN08	Upstream/downstream auxiliary high voltage PCB		21	J19	UN09	DC controller PCB
10	J462	UN08	Upstream/downstream auxiliary high voltage PCB		21	J19	UN09	DC controller PCB
10A	J1	UN08	Upstream/downstream auxiliary high voltage PCB		-	-		DC controller PCB
11	J1	UN09	DC controller PCB		22	J114	UN14	AC driver PCB
12	J2	UN09	DC controller PCB		23	J115	UN14	AC driver PCB
13	J10	UN09	DC controller PCB		24	J122	UN14	AC driver PCB
13	J10	UN09	DC controller PCB	J818	25	J201	UN05	Secondary transfer high-voltage PCB

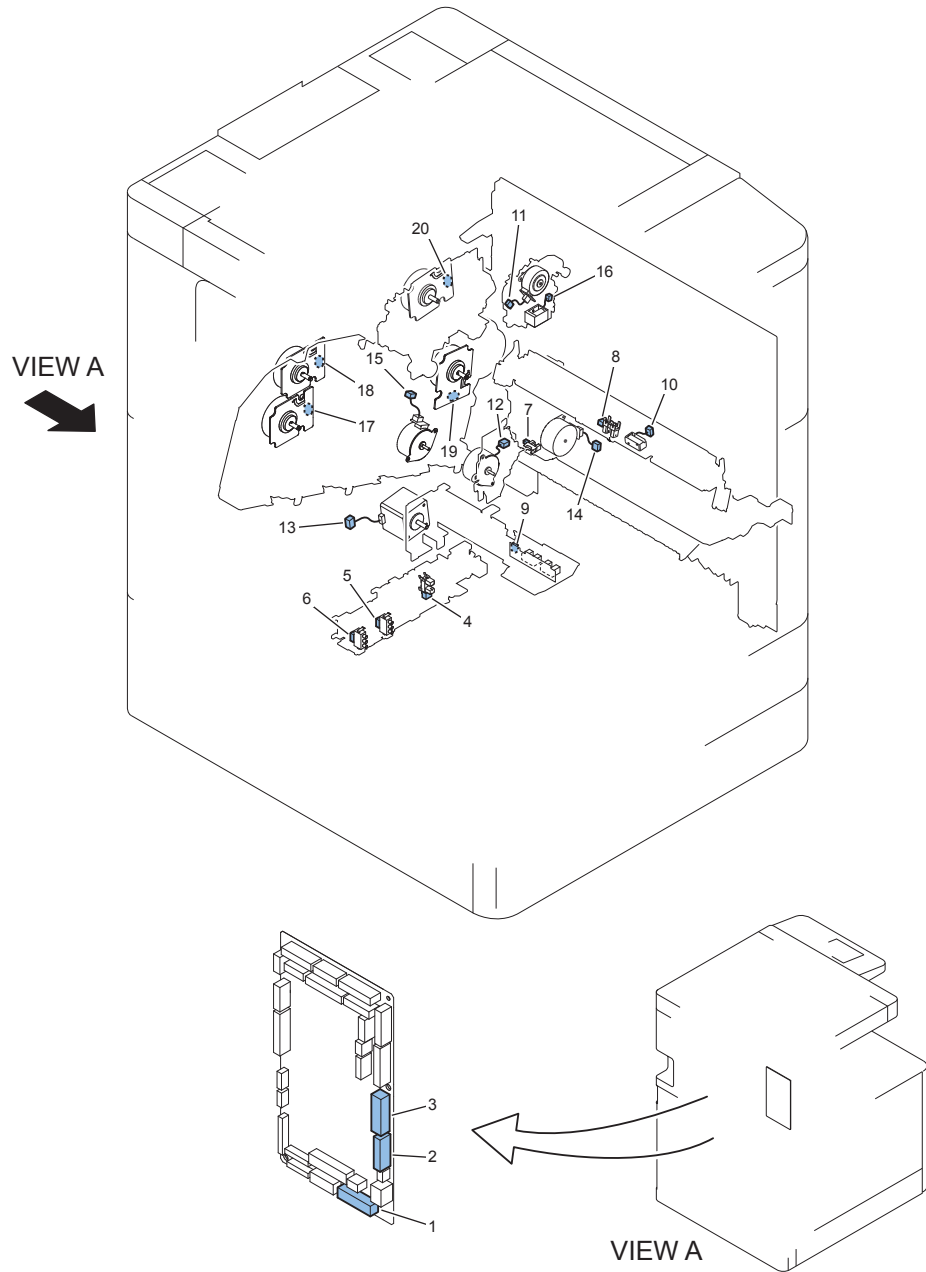
T-4-19



F-4-21

Key No.	J No.	Symbol	Parts Name	Intermediate Connector	Key No.	J No.	Symbol	Parts Name
1	J11	UN09	DC controller PCB	J821	7	J6004	PS05	Laser Shutter Sensor
1	J11	UN09	DC controller PCB	J822	8	J6005	PS04	Bk drum HP sensor
1	J11	UN09	DC controller PCB	J822	9	J6006	PS03	YMC drum HP sensor
1	J11	UN09	DC controller PCB	J822	-	-	SW01	Primary transfer disengagement switch
1	J11	UN09	DC controller PCB	J824	-	-	SW18	Right lower cover open/close detection switch
1	J11	UN09	DC controller PCB	J823	10	J6009	PS35	Right lower cover sensor
1	J11	UN09	DC controller PCB		11	J6008	SL01	Primary transfer disengagement solenoid
1	J11	UN09	DC controller PCB		12	J6007	SL04	Cassette 1 pickup solenoid
2	J12	UN09	DC controller PCB	J738	13	J510	PS24	Fixing pressure release sensor
2	J12	UN09	DC controller PCB	J743	14	J513	PS25	First Delivery tray paper full sensor
2	J12	UN09	DC controller PCB	J813 J814	15	J6001	PS20	Registration sensor
2	J12	UN09	DC controller PCB	J813 J814	16	J4006	UN44	Patch sensor front
2	J12	UN09	DC controller PCB	J813 J814	17	J4007	UN43	Patch sensor rear
3	J15	UN09	DC controller PCB	J714	18	J529	M01	Scanner motor
4	J28	UN09	DC controller PCB	J825 J826	19	J6011	PS16	Cassette 2 paper sensor
4	J28	UN09	DC controller PCB	J825 J826	20	J6014	PS17	Cassette 2 Vertical path sensor
4	J28	UN09	DC controller PCB	J825 J826	21	J6012	PS18	Cassette 2 paper level sensor A
4	J28	UN09	DC controller PCB	J825 J826	22	J6013	PS19	Cassette 2 paper level sensor B
4	J28	UN09	DC controller PCB	J825 J826	23	J6015	SL05	Cassette 2 pickup solenoid
4	J28	UN09	DC controller PCB		-	-	-	CASSETTE FEEDING UNIT
5	J61	UN09	DC controller PCB		24	J831	UN17	Laser relay PCB
6	J62	UN09	DC controller PCB		25	J832	UN17	Laser relay PCB

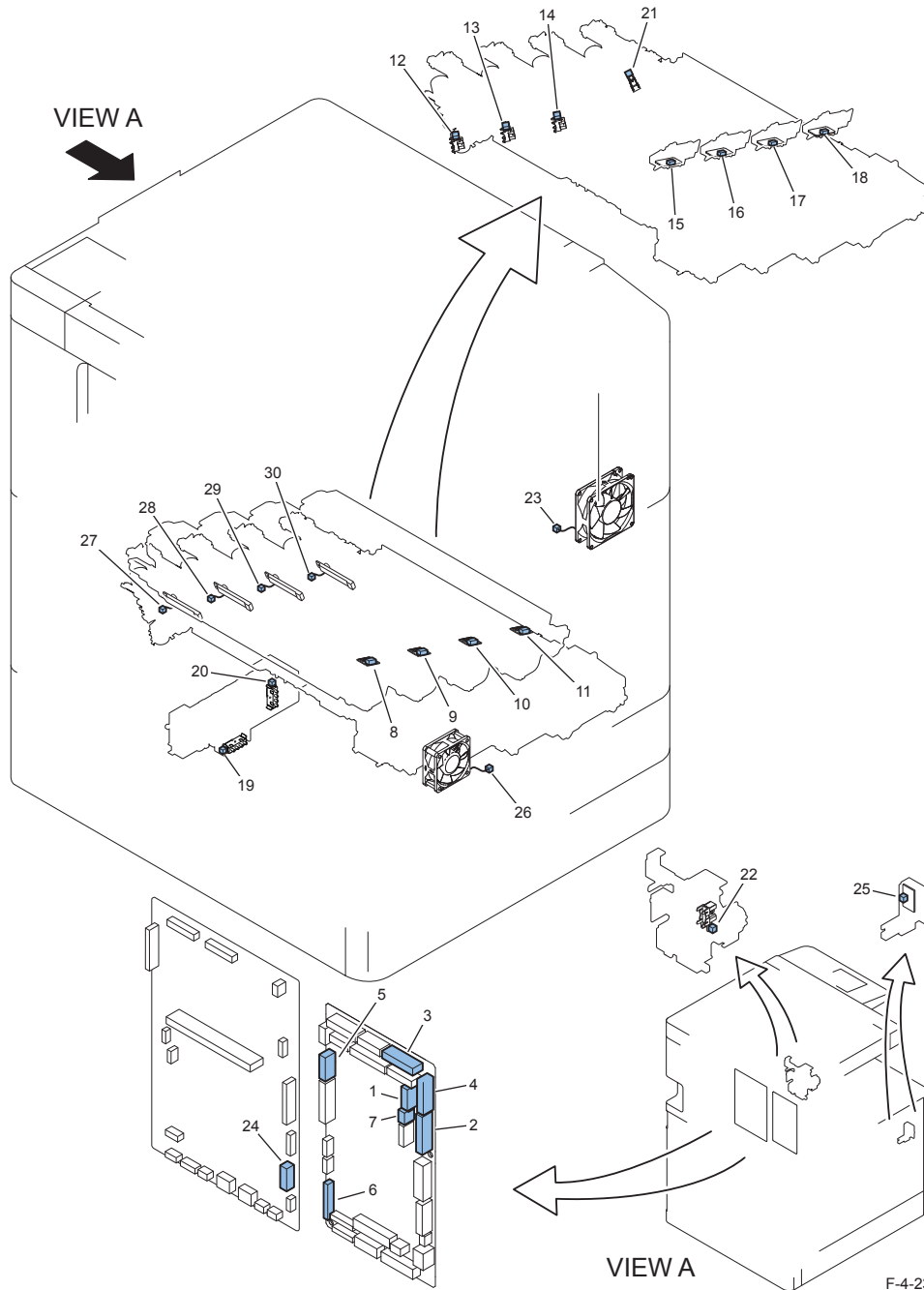
T-4-20



F-4-22

Key No.	J No.	Symbol	Parts Name	Intermediate Connector	Key No.	J No.	Symbol	Parts Name
1	J13	UN09	DC controller PCB	J840	4	J6020	PS12	Cassette 1 lifter sensor
1	J13	UN09	DC controller PCB	J840	5	J6018	UN46	Cassette 1 size switch A
1	J13	UN09	DC controller PCB	J840	6	J6019	UN47	Cassette 1 size switch B
1	J13	UN09	DC controller PCB	J828	-	-	SW16	Waste toner full sensor
1	J13	UN09	DC controller PCB	J828	-	-	SW02	Waste toner container switch
1	J13	UN09	DC controller PCB	J840	-	-	M14	Lifter motor
1	J13	UN09	DC controller PCB	J736	7	J527	PS10	Multi-purpose tray paper sensor
1	J13	UN09	DC controller PCB	J827 J114 J561	8	J528	PS11	Multi-purpose tray last paper sensor
1	J13	UN09	DC controller PCB	J840 J842	9	J543	PS13	Cassette 1 paper sensor
1	J13	UN09	DC controller PCB	J840 J842	9	J543	PS14	Cassette 1 paper level sensor
1	J13	UN09	DC controller PCB	J840 J842	9	J543	UN56	Cassette 1 sensor PCB
1	J13	UN09	DC controller PCB	J827 J114 J530	-	-	SL03	Multi-purpose pickup solenoid
1	J13	UN09	DC controller PCB	J829 J830	10	J6017	SL02	Registration shutter solenoid
2	J31	UN09	DC controller PCB	J833 J552	11	J520	M18	Fixing outlet motor
2	J31	UN09	DC controller PCB		12	J6024	M19	Duplexing feed motor
2	J31	UN09	DC controller PCB	J834	13	J6022	M16	Cassette 2 pickup motor
2	J31	UN09	DC controller PCB	J535	14	J523	M15	Cassette 1 pickup motor
2	J31	UN09	DC controller PCB		15	J6023	M05	Shutter motor
2	J31	UN09	DC controller PCB	J833	16	J6021	SL06	First Delivery flapper solenoid
3	J210	UN09	DC controller PCB		17	J6025	M04	Drum motor
3	J210	UN09	DC controller PCB		18	J6026	M03	Developing motor
3	J210	UN09	DC controller PCB		19	J6027	M02	ITB motor
3	J210	UN09	DC controller PCB		20	J6028	M17	Fixing motor

T-4-21

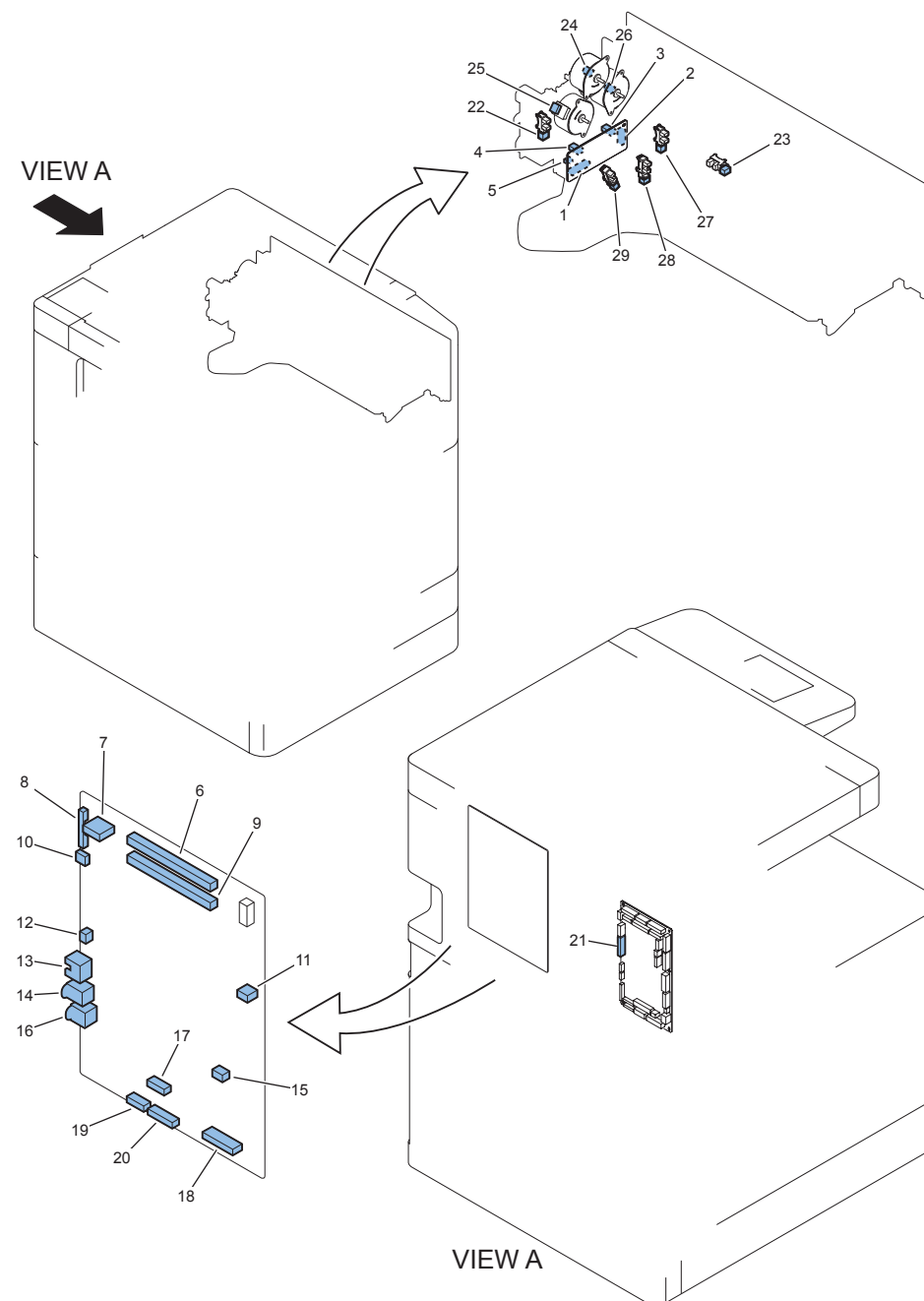


Key No.	J No.	Symbol	Parts Name	Intermediate Connector	Key No.	J No.	Symbol	Parts Name
1	J23	UN09	DC controller PCB	J853	-	-	SW08	Toner container switch(Y)
1	J23	UN09	DC controller PCB	J852	-	-	UN19	Toner level LED PCB(Y)
1	J23	UN09	DC controller PCB	J852	-	-	UN23	Toner level PCB(Y)
1	J23	UN09	DC controller PCB	J850	-	-	M07	Toner container motor (Y)
1	J23	UN09	DC controller PCB	J851	-	-	M06	Toner supply motor (Y)
1	J23	UN09	DC controller PCB	J850	12	J6044	PS06	Toner supply sensor (Y)
2	J24	UN09	DC controller PCB	J815 J860	13	J6045	PS07	Toner supply sensor (M)
2	J24	UN09	DC controller PCB	J815 J870	14	J6046	PS08	Toner supply sensor (C)
2	J24	UN09	DC controller PCB	J815 J863	-	-	SW09	Toner container switch(M)
2	J24	UN09	DC controller PCB	J815 J873	-	-	SW10	Toner container switch(C)
2	J24	UN09	DC controller PCB	J815 J862	-	-	UN20	Toner level LED PCB(M)
2	J24	UN09	DC controller PCB	J815 J862	-	-	UN24	Toner level PCB(M)
2	J24	UN09	DC controller PCB	J815 J872	-	-	UN21	Toner level LED PCB(C)
2	J24	UN09	DC controller PCB	J815 J872	-	-	UN25	Toner level PCB(C)
2	J24	UN09	DC controller PCB	J815 J860	-	-	M09	Toner container motor (M)
2	J24	UN09	DC controller PCB	J815 J861	-	-	M08	Toner supply motor (M)
2	J24	UN09	DC controller PCB	J815 J870	-	-	M11	Toner container motor (C)
2	J24	UN09	DC controller PCB	J815 J871	-	-	M10	Toner supply motor (C)
3	J25	UN09	DC controller PCB	J820	15	J4011	UN26	Drum unit relay PCB (Y)
3	J25	UN09	DC controller PCB	J820	16	J4014	UN27	Drum Unit relay PCB (M)
3	J25	UN09	DC controller PCB	J820	17	J4017	UN28	Drum Unit relay PCB ©
3	J25	UN09	DC controller PCB	J820	18	J4020	UN29	Drum Unit relay PCB (Bk)

F-4-23

Key No.	J No.	Symbol	Parts Name	Intermediate Connector	Key No.	J No.	Symbol	Parts Name
4	J26	UN09	DC controller PCB	J816 J883	-	-	SW11	Toner container switch(Bk)
4	J26	UN09	DC controller PCB	J816 J882	-	-	UN18	Toner level LED PCB(Bk)
4	J26	UN09	DC controller PCB	J816 J882	-	-	UN22	Toner level PCB(Bk)
4	J26	UN09	DC controller PCB	J817	19	J4008	UN50	Cassette 2 size switch B
4	J26	UN09	DC controller PCB	J817	20	J4009	UN49	Cassette 2 size switch A
4	J26	UN09	DC controller PCB	J816 J880	-	-	M13	Toner container motor (Bk)
4	J26	UN09	DC controller PCB	J816 J881	-	-	M12	Toner supply motor (Bk)
4	J26	UN09	DC controller PCB	J816 J880	21	J6047	PS09	Toner supply sensor (Bk)
5	J35	UN09	DC controller PCB	J837 J838	22	J6030	PS34	Front cover sensor
5	J35	UN09	DC controller PCB	J837	23	J6031	FM04	3 Way Unit Cooling Fan
5	J35	UN09	DC controller PCB	J837	-	-	-	FINISHER
6	J51	UN09	DC controller PCB		24	J1	UN12	Main Controller PCB 2
7	J206	UN09	DC controller PCB	J819	25	J4010	UN45	Environment sensor
7	J206	UN09	DC controller PCB		26	J6002	FM07	Drum Unit cooling fan
8	J1	UN30	Drum unit memory PCB(Y)		27	J4013	UN39	ATR sensor (Y)
9	J1	UN31	Drum unit memory PCB(M)		28	J4016	UN40	ATR sensor (M)
10	J1	UN32	Drum unit memory PCB (C)		29	J4019	UN41	ATR sensor (C)
11	J1	UN33	Drum unit memory PCB(Bk)		30	J4022	UN42	ATR sensor (Bk)

T-4-22

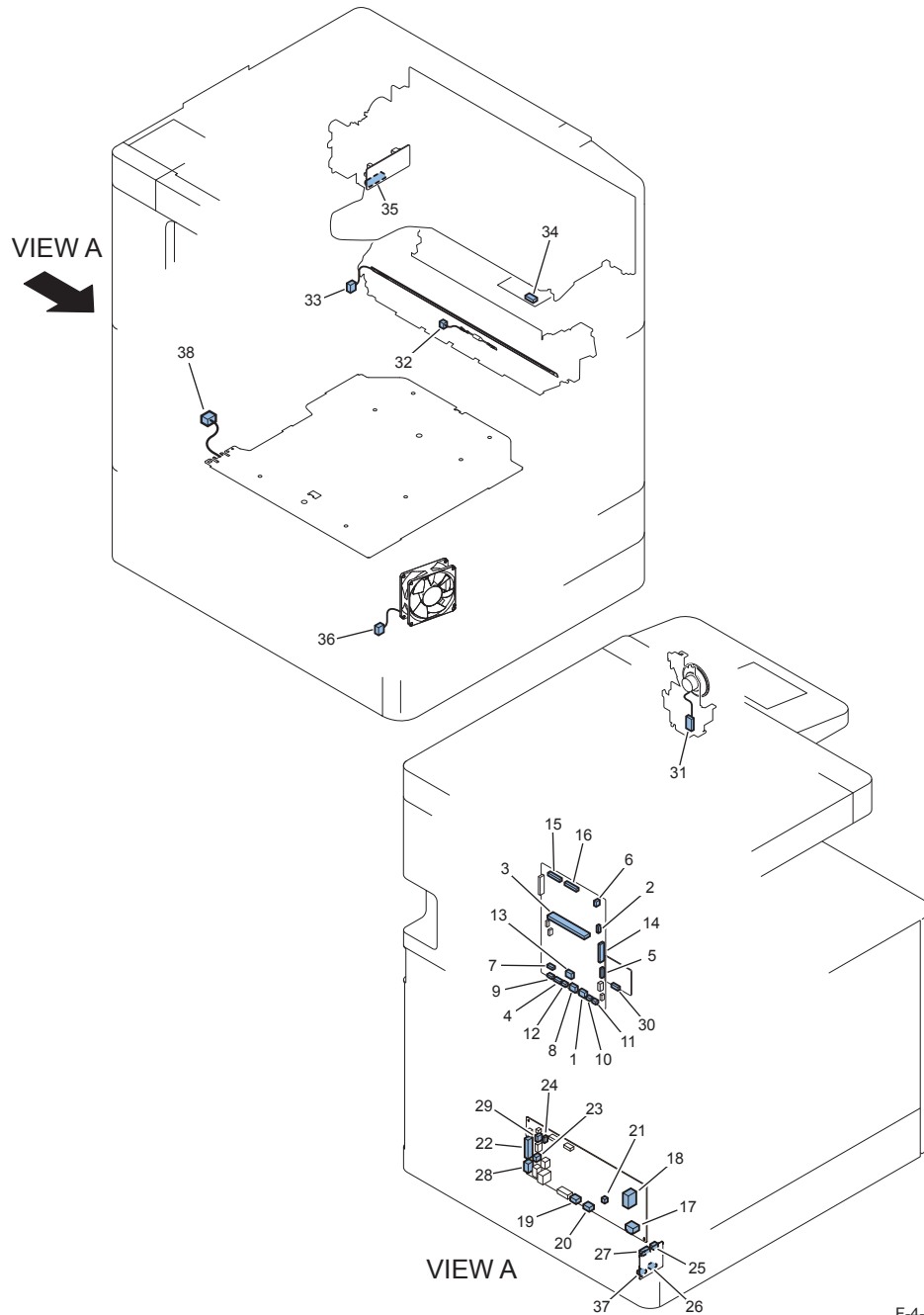


F-4-24

Key No.	J No.	Symbol	Parts Name	Intermediate Connector	Key No.	J No.	Symbol	Parts Name
1	J212	UN10	3 Way Unit driver PCB	J839	21	J33	UN09	DC controller PCB
2	J213	UN10	3 Way Unit driver PCB		22	J6034	PS28	Second delivery tray full sensor
2	J213	UN10	3 Way Unit driver PCB		23	J6035	PS29	Reverse sensor
2	J213	UN10	3 Way Unit driver PCB		24	J6036	M21	Reverce motor
2	J213	UN10	3 Way Unit driver PCB		25	J6037	M20	Second delivery motor
2	J213	UN10	3 Way Unit driver PCB		26	J6038	M22	Third delivery motor
3	J214	UN10	3 Way Unit driver PCB		27	J6039	PS30	Third delivery sensor
3	J214	UN10	3 Way Unit driver PCB	J6040	-	-	SL07	Second Delivery flapper solenoid
3	J214	UN10	3 Way Unit driver PCB	J6041	-	-	SL08	Third Delivery flapper solenoid
4	J215	UN10	3 Way Unit driver PCB		28	J6042	PS31	Duplex sensor
5	J216	UN10	3 Way Unit driver PCB		29	J6043	PS27	Second delivery sensor
6	J1000	UN11	Main Controller PCB 1		-	-	-	DDR2 DIMM2
7	J1002	UN11	Main Controller PCB 1		-	-	-	VOICE-OPERATION-BOARD
7	J1002	UN11	Main Controller PCB 1		-	-	-	VOICE-GUIDANCE-BOARD
8	J1003	UN11	Main Controller PCB 1		-	-	-	UI PCU (A515)
9	J1004	UN11	Main Controller PCB 1		-	-	-	DDR2 DIMM1
10	J1007	UN11	Main Controller PCB 1		-	-	-	DEVECE PORT HUB
11	J1013	UN11	Main Controller PCB 1		-	-	-	POSTPONE I/F
12	J1015	UN11	Main Controller PCB 1		-	-	FM03	Controller fan
13	J1017	UN11	Main Controller PCB 1		-	-	-	ETHERNET
14	J1018	UN11	Main Controller PCB 1		-	-	-	USB(D)
15	J1020	UN11	Main Controller PCB 1		-	-	-	SATA-FLASH

Key No.	J No.	Symbol	Parts Name	Intermediate Connector	Key No.	J No.	Symbol	Parts Name
16	J1021	UN11	Main Controller PCB 1		-	-	-	USB(H)
17	J1022	UN11	Main Controller PCB 1		-	-	-	TPM
18	J1025	UN11	Main Controller PCB 1		-	-	-	YON-RISER
19	J1026	UN11	Main Controller PCB 1		-	J5500	-	CC-VI
20	J1027	UN11	Main Controller PCB 1	J5502 J5503	-	J5504	-	CARD READER
20	J1027	UN11	Main Controller PCB 1		-	J5502	-	SRIAL-RS CONV_ BOARD
20	J1027	UN11	Main Controller PCB 1		-	J5502	-	COIN VENDER

T-4-23



Key No.	J No.	Symbol	Parts Name	Intermediate Connector			Key No.	J No.	Symbol	Parts Name
1	J4	UN12	Main Controller PCB 2				28	J113	UN14	AC driver PCB
2	J17	UN12	Main Controller PCB 2				-	-	-	DEBUG SRAM
3	J11	UN12	Main Controller PCB 2				-	-	-	DDR2 DIMM
4	J12	UN12	Main Controller PCB 2				-	-	-	HDD
5	J14	UN12	Main Controller PCB 2				-	-	-	FRAM COUNTER
6	J16	UN12	Main Controller PCB 2				29	J1010	UN14	AC driver PCB
7	J18	UN12	Main Controller PCB 2				30	J922	UN13	ECO PCB
8	J20	UN12	Main Controller PCB 2				-	-	-	FAX
9	J21	UN12	Main Controller PCB 2				-	-	-	L2FAX
10	J22	UN12	Main Controller PCB 2				28	J113	UN14	AC driver PCB
11	J23	UN12	Main Controller PCB 2	J835			31	J6029	SP01	Speaker
12	J2017	UN12	Main Controller PCB 2				-	-	-	MINERVA (MDS)
13	J2026	UN12	Main Controller PCB 2				-	-	-	HDD
14	J2083	UN12	Main Controller PCB 2				-	-	-	L1FAX
15	J8113	UN12	Main Controller PCB 2				-	-	-	Reader
16	J8141	UN12	Main Controller PCB 2				-	-	-	Reader
17	J101	UN14	AC driver PCB				-	-	PLG1	Power supply cord
17	J101A	UN14	AC driver PCB				-	-	PLG1A	Power supply cord
17	J101B	UN14	AC driver PCB				-	-	PLG1B	Power supply cord
18	J103	UN14	AC driver PCB	J109	J704	J5002	32	J5003	TP01	Temperature fuse
18	J103	UN14	AC driver PCB	J109	J704		33	J5001	H01	Fixing heater
19	J104	UN14	AC driver PCB	J811			-	-	SW06	Main power supply switch
19	J104	UN14	AC driver PCB	J811			-	J4002	-	Reader Heater

F-4-25

Key No.	J No.	Symbol	Parts Name	Intermediate Connector			Key No.	J No.	Symbol	Parts Name
20	J105	UN14	AC driver PCB				-	-	UN54	Environment heater control PCB
20	J105B	UN14	AC driver PCB				-	-	UN54	Environment heater control PCB
21	J107	UN14	AC driver PCB				-	J1002	-	FAX
22	J116	UN14	AC driver PCB	J803			34	J4001	UN38	Operation panel Unit
22	J116	UN14	AC driver PCB	J803	J808		-	-	SW04	Interlock switch 1
22	J116	UN14	AC driver PCB	J803	J808		-	-	SW05	Interlock switch 2
22	J116	UN14	AC driver PCB	J810			35	J211	UN10	3 Way Unit driver PCB
22	J116	UN14	AC driver PCB	J803	J806		-	J4000	-	Devide Unit
22	J116	UN14	AC driver PCB	J803	J807		-	-	-	FINISHER
22	J116	UN14	AC driver PCB				-	-	-	Reader
23	J117	UN14	AC driver PCB				-	J4005	-	Cassette Pedestal
24	J120	UN14	AC driver PCB				36	J6000	FM01	Power supply fan
24	J120	UN14	AC driver PCB				37	J420	UN54	Environment heater control PCB
25	J416	UN54	Environment heater control PCB				-	-	SW17	Environment switch
26	J418	UN54	Environment heater control PCB				-	J4003	-	Cassette Pedestal Heater
27	J419	UN54	Environment heater control PCB	J811			-	J4002	-	Reader Heater
	-	UN54	Environment heater control PCB				38	J4004	H01	Cassette heater

T-4-24

Disassembly/Assembly- Main Controller system -

Removing the Controller Cover

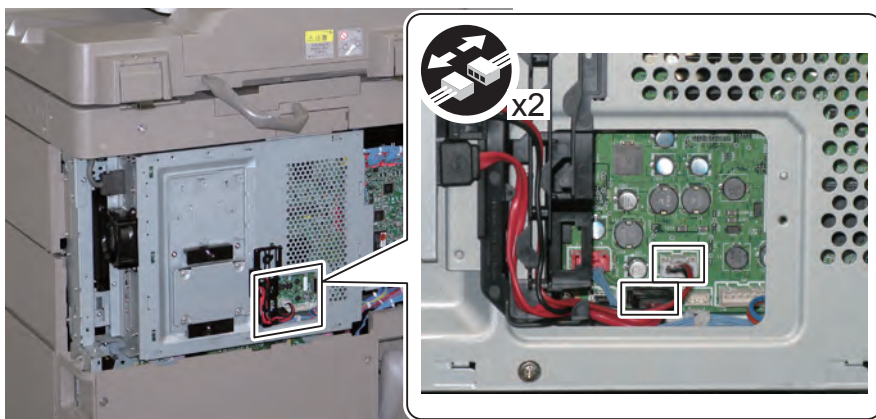
Preparation

- 1) Remove the Rear Upper Cover.
- 2) Remove the Right Upper Sub Cover.

Procedure

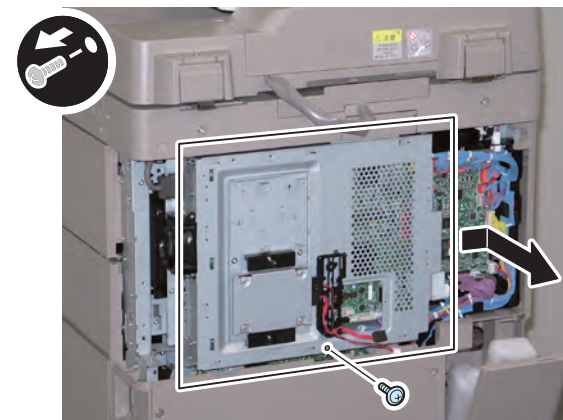
NOTE:
The following describes the procedure for the HDD model. For the models without the HDD, start from step 2.

- 1) Remove the HDD Power Cable when the HDD is installed.
- 2 Connectors



F-4-26

- 2) Remove the Controller Cover in the direction of the arrow.
- 1 Screw



F-4-27

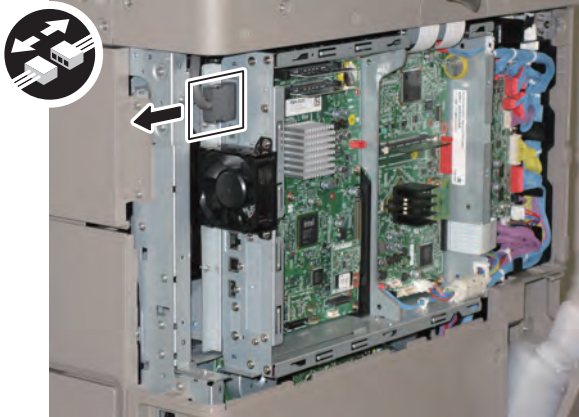
Removing the Main Controller PCB 1

Preparation

- 1) Remove the Rear Upper Cover.
- 2) Remove the Right Upper Sub Cover.
- 3) Remove the Controller Cover.

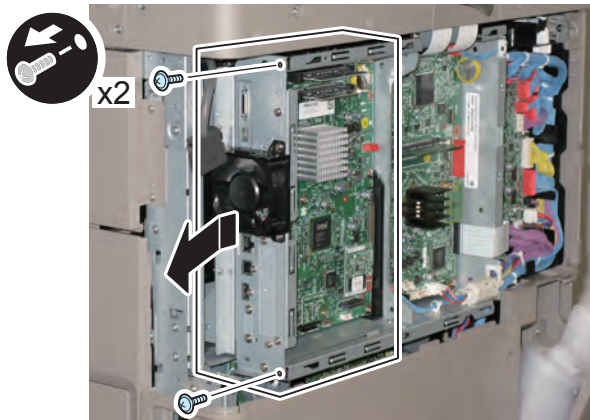
Procedure

- 1) Disconnect the Control Panel Communication Cable.



F-4-28

- 2) Remove Main Controller 1 in the direction of the arrow.



F-4-29

Removing the Main Controller 2

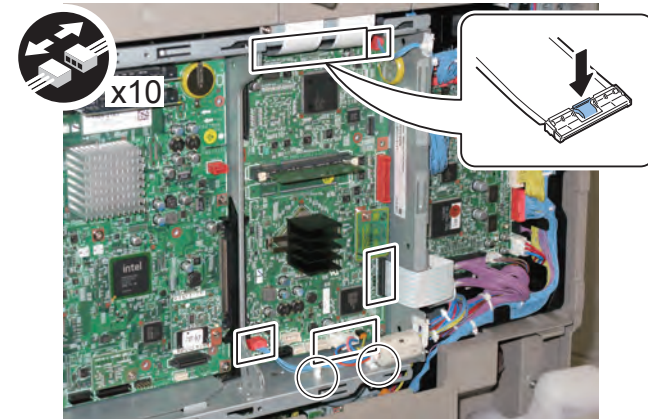
Preparation

- 1) Remove the Rear Upper Cover.
- 2) Remove the Right Upper Sub Cover.
- 3) Remove the Controller Cover.

Procedure

- 1) Remove the 5 Connectors, 3 Flat Cables and 2 Wire Saddles.

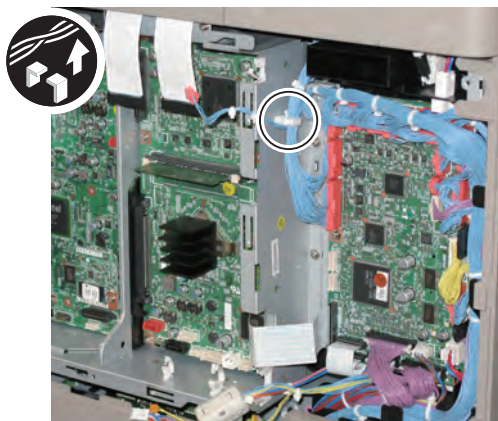
- Wire Saddle
- Edge Saddle



F-4-30

2) Remove the Harness.

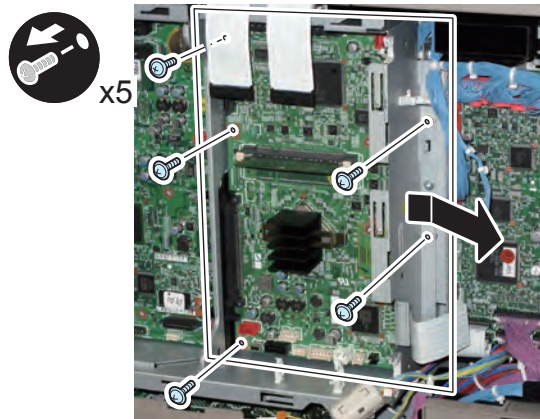
- Wire Saddle



F-4-31

3) Remove Main Controller PCB 2 in the direction of the arrow.

- 5 Screws



F-4-32

Removing the DC Controller PCB

Preparation

At replacement:

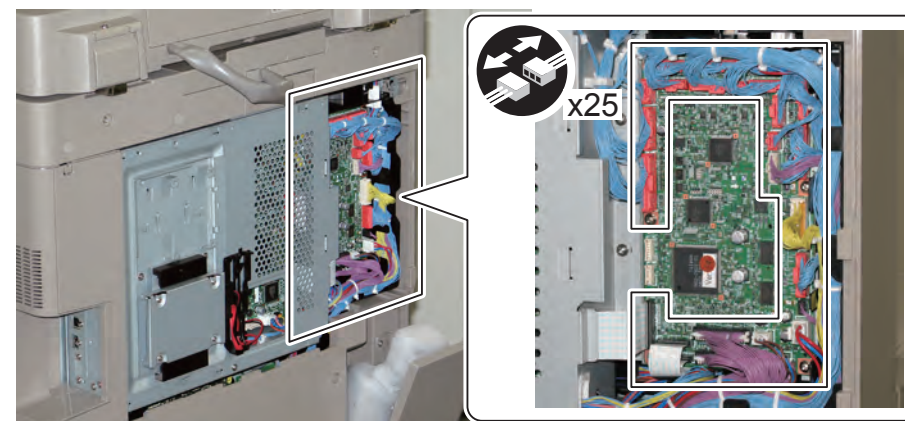
Before replacing the DC Controller PCB, execute the following service mode to perform backup of the DC Controller PCB SRAM:
 COPIER > FUNCTION > SYSTEM > DSRAMBUP (LEVEL2)
 "ACTIVE" is displayed and then "OK!" is displayed about 2 minutes later.
 Turn OFF the main power when the above work is complete.

1) Remove the Rear Upper Cover.

Procedure

1) Disconnect all of the Connectors on the DC Controller PCB.

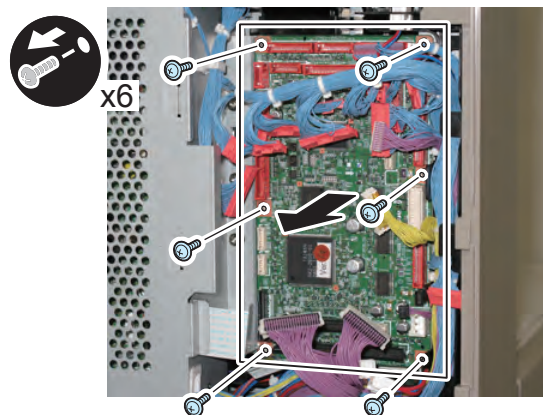
- 22 Connectors
- 3 Flat Cables



F-4-33

2) Remove the DC Controller PCB.

- 6 Screws



F-4-34

After replacement:

Turn ON the power and execute the following service mode to restore DC Controller PCB SRAM.

COPIER > FUNCTION > SYSTEM > DSRAMRES (LEVEL2)

“ACTIVE” is displayed at execution and then “OK!” is displayed about 2 minutes later. Restoration is complete.

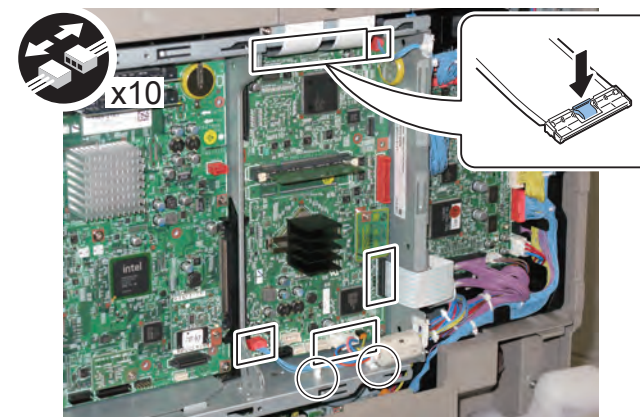
Removing the Controller Box

Preparation

- 1) Remove the Rear Upper Cover.
- 2) Remove the Right Upper Sub Cover.
- 3) Remove the Controller Cover.

Procedure

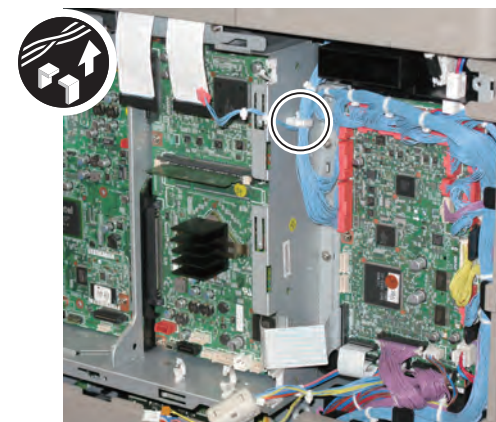
- 1) Remove the 5 Connectors, 3 Flat Cables and 2 Wire Saddles.
 - Wire Saddle
 - Edge Saddle



F-4-35

2) Remove the Harness.

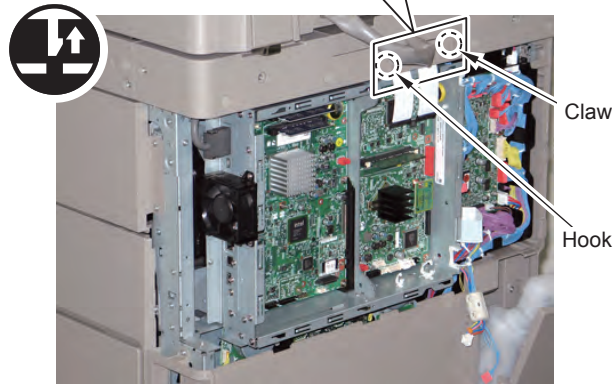
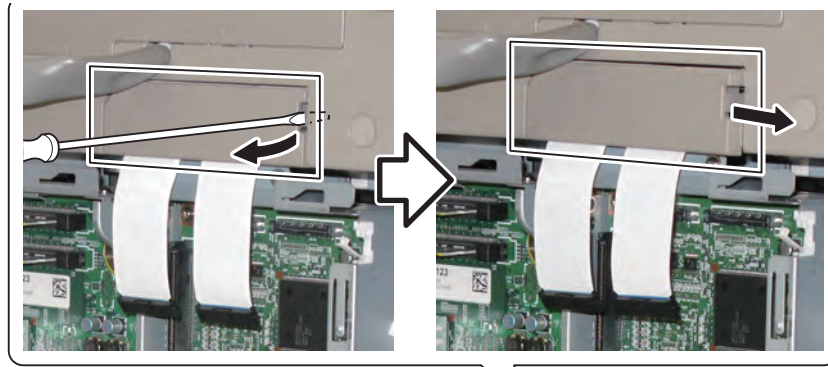
- Wire Saddle



F-4-36

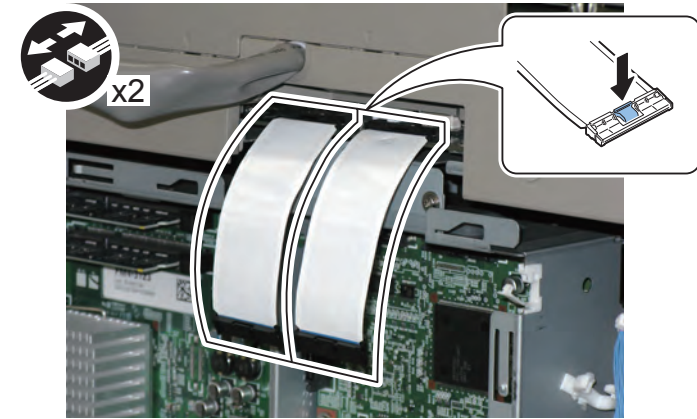
3) Remove the Cover.

- 1 Claw
- 1 Hook



F-4-37

4) Disconnect the 2 Flat Cables.



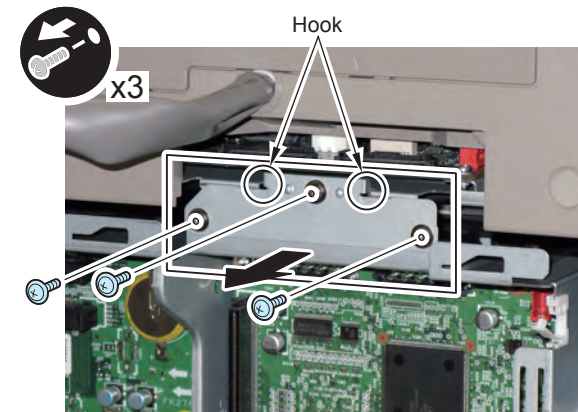
F-4-38

NOTE:

When installing the Flat Cable, it makes no difference if you install the Flat Cable to the left connector or the right connector.

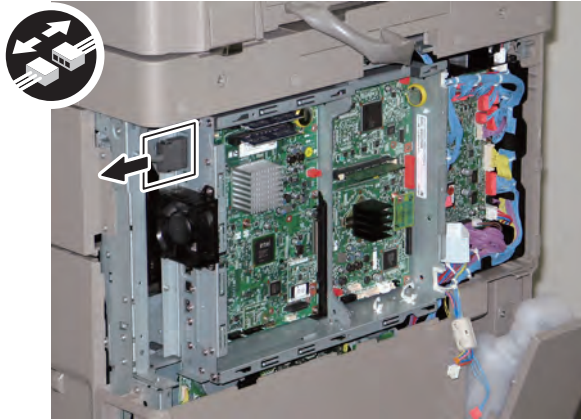
5) Remove the Fixing Plate.

- 3 Screws
- 2 Hooks



F-4-39

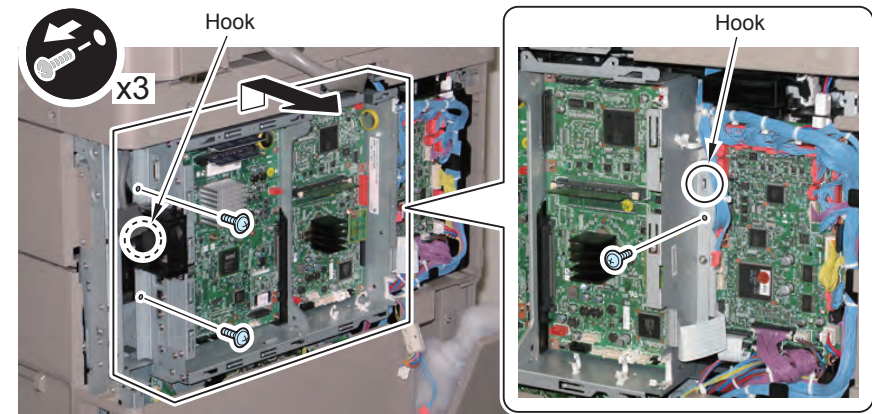
6) Disconnect the Control Panel Communication Cable.



F-4-40

7) Remove the Controller Box in the direction of the arrow.

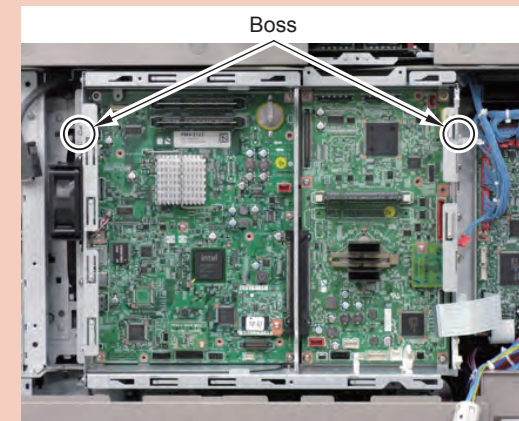
- 3 Screws
- 2 Hooks



F-4-41

CAUTION:

Be sure to fit the 2 bosses when installing the Controller Box.



F-4-42

Disassembly/Assembly - Laser Control System -

Cleaning the Dustproof Glass

Preparation

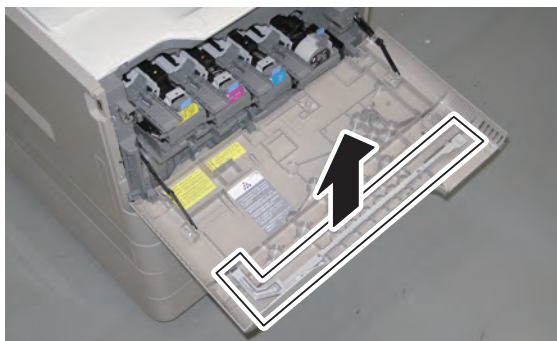
- 1) Open the shutter of the Dustproof Glass.
Service Mode: COPIER > FUNCTION > MISC-P > SHT-OPEN
- 2) Pull out the Drum Unit.

Procedure

NOTE:

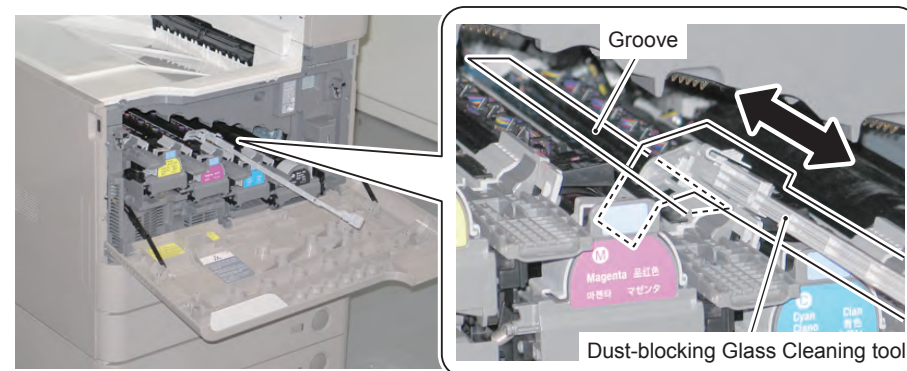
In this procedure, procedure for (C) is described. Be sure to perform the same procedure for (Bk), (M), and (Y).

- 1) Remove the Dustproof Glass cleaning tool from the Front Cover.



F-4-43

- 2) Insert the Dustproof Glass cleaning tool into the groove, and clean the Dustproof Glass.



F-4-44

CAUTION:

When pulling the Dustproof Glass cleaning tool out, be sure to pull it out while pushing the lever toward right direction.

If it is pulled out abruptly, it may come in contact with the ITB.

Removing the Laser Scanner Unit

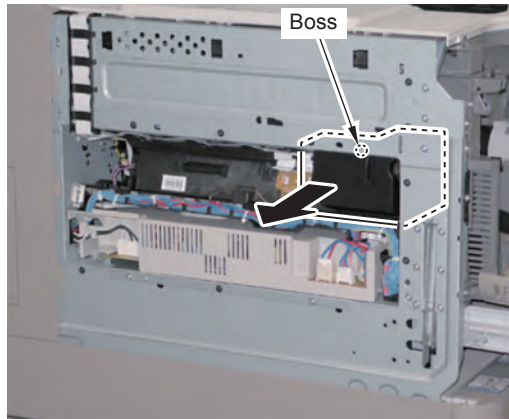
Preparation

1) Remove the Left Cover.

Procedure

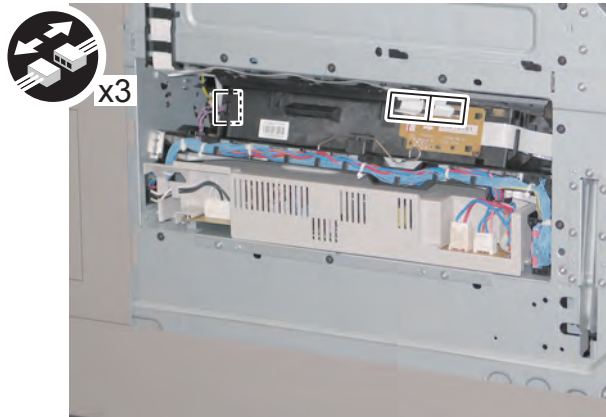
1) Remove the Fan Duct in the direction of the arrow.

- 1 Boss



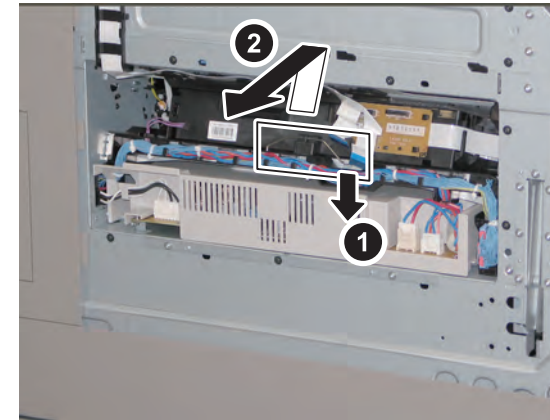
F-4-45

2) Disconnect the 2 Flat Cables and the connector.



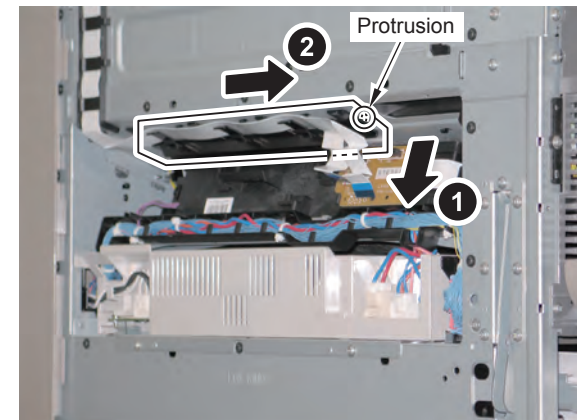
F-4-46

3) Remove the Scanner Retaining Spring.



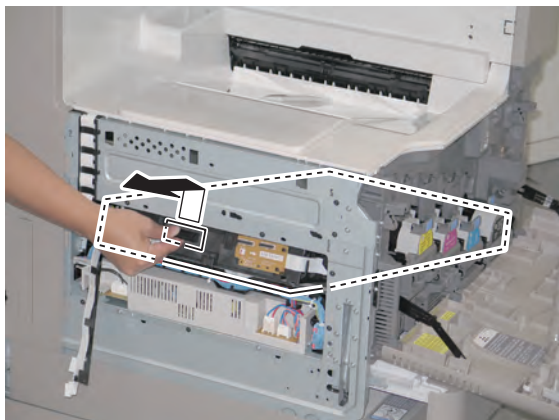
F-4-47

4) Unlock the protrusion, release the Harness Guide and disconnect the Flat Cable in the direction of the arrow.



F-4-48

5) Lift the grip, and pull out the Laser Scanner Unit.



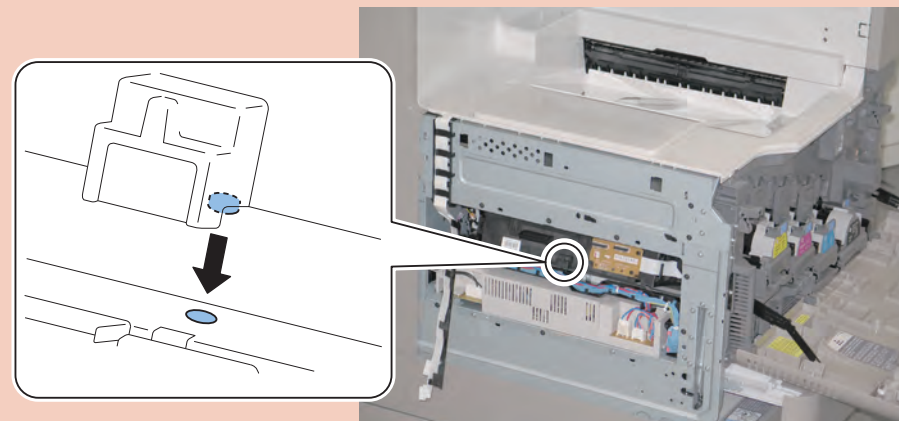
F-4-49

CAUTION:

Be sure not to disassemble the Laser Scanner Unit because it requires adjustment.

Points to Note at Installation:

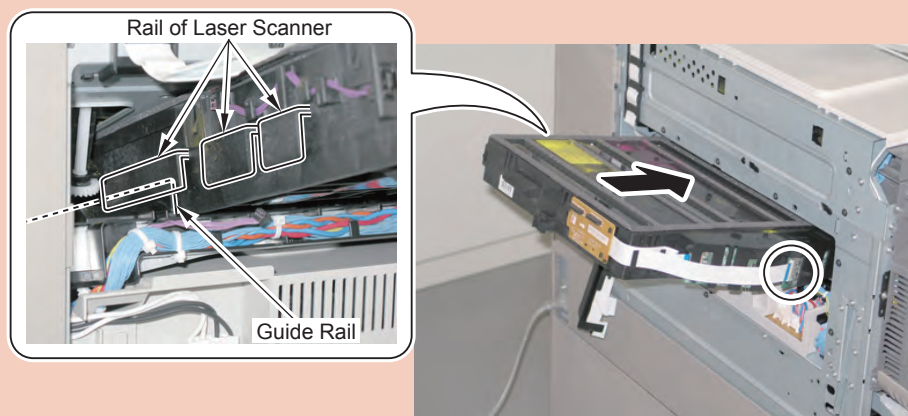
When installing, be sure to fit the protrusion of the Laser Scanner Unit with a hole on the plate.



F-4-51

Points to Note at Installation:

Be sure to hook the rail on the Laser Scanner to the rail on the host machine to install.
Be careful that the Flat Cable on the side of the Laser Scanner Unit is not disconnected.



F-4-50

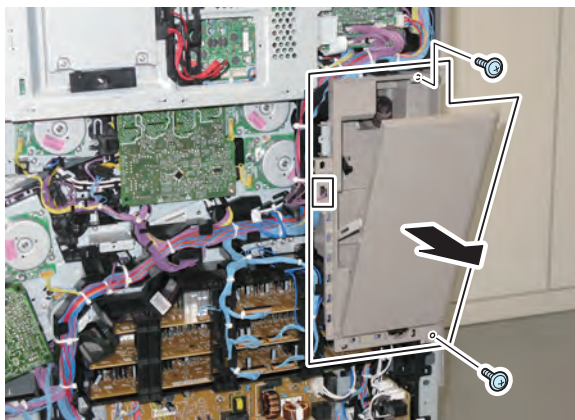
Removing the Main Drive Unit

Preparation

- 1) Remove the all Drum Units.
- 2) Remove the ITB Unit.
- 3) Turn OFF the power.
- 4) Remove the Rear Cover.
- 5) Remove the Waste Toner Container.

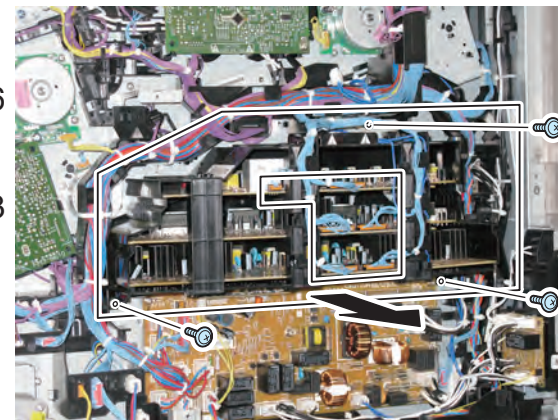
Procedure

- 1) Close the Right Door.
- 2) Remove the Waste Toner Box.
 - 1 Connector
 - 2 Screws



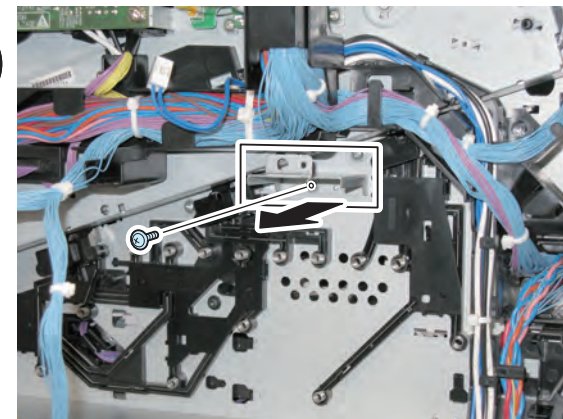
F-4-52

- 3) Remove the Developing High Voltage Box.
 - 6 Connectors
 - 3 Screws



F-4-53

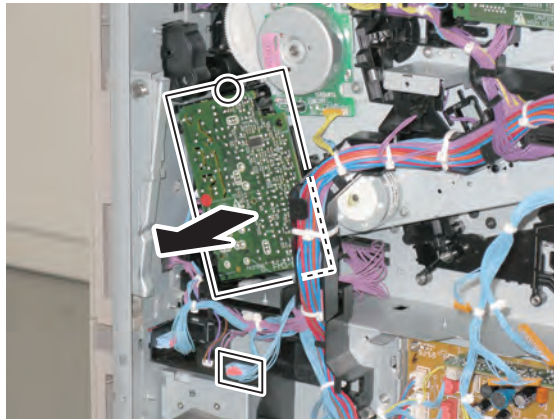
- 4) Remove the Developing High Voltage Box Support Plate.
 - 1 Screw



F-4-54

5) Remove the Secondary Transfer High-voltage Power Supply PCB.

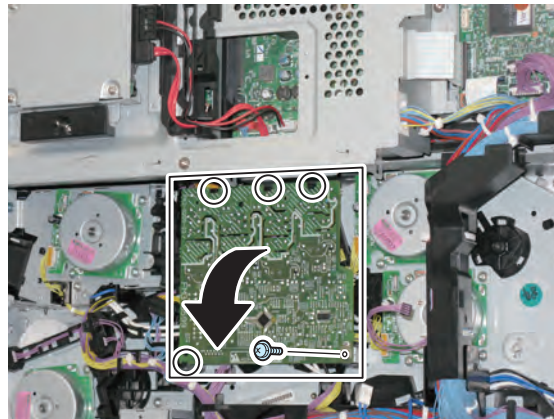
- 1 Connector
- 1 Claw



F-4-55

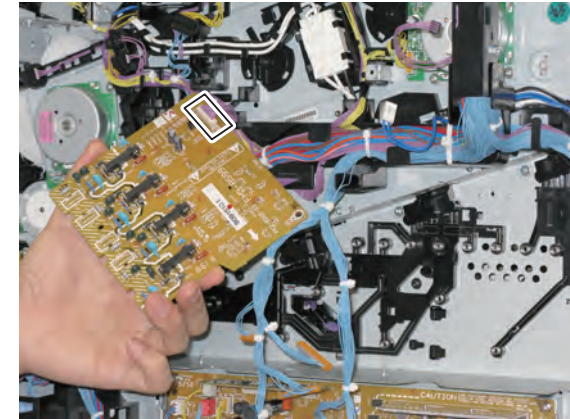
6) Remove the Primary Transfer High-voltage Power Supply PCB.

- 1 Screw
- 4 Claws



F-4-56

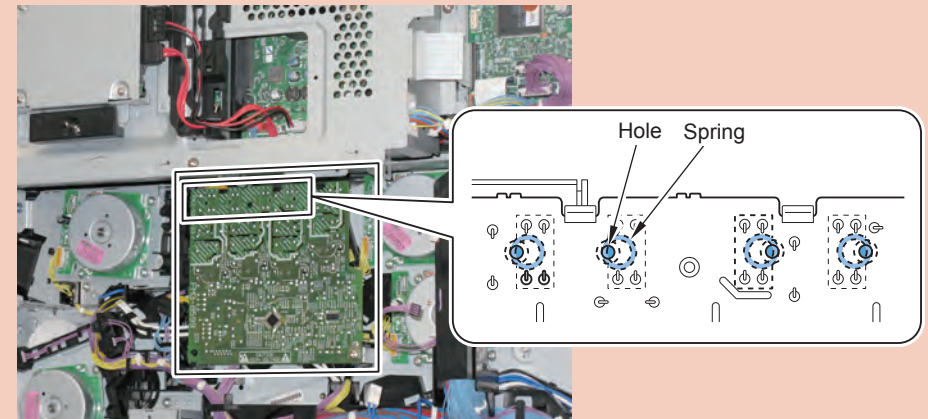
7) Disconnect the connector from the Primary Transfer High-voltage Power Supply PCB.



F-4-57

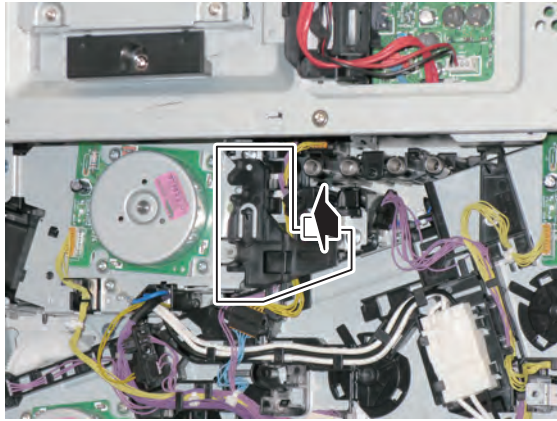
CAUTION:

When installing the Primary Transfer High-voltage Power Supply PCB to the host machine, be sure to check that the Contact Springs are in contact from the 4 round holes.



F-4-58

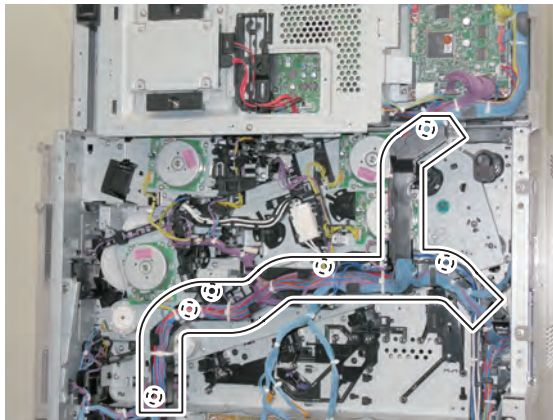
8) Remove the Harness Cover.



F-4-59

9) Remove the guide from the Main Drive Assembly.

- 6 Claws



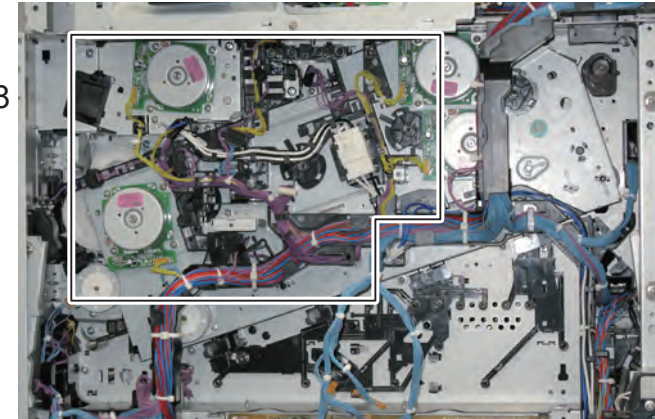
F-4-60

CAUTION:

When installing the guide to the host machine, be sure to check that the claws are locked.

10) Disconnect the harness connected to the Main Drive Assembly.

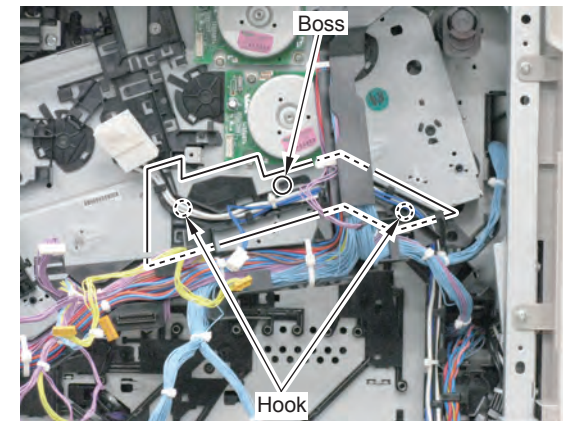
- 18 Connectors



F-4-61

11) Remove the guide at the rear side.

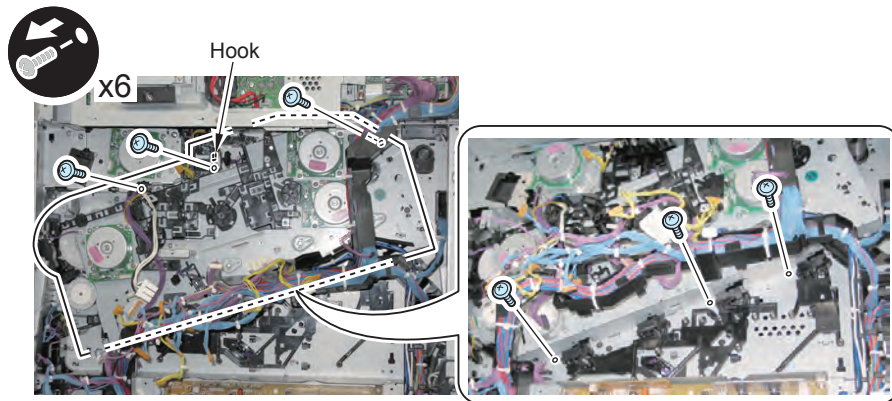
- 2 Hooks
- 1 Boss



F-4-62

12) Remove the Main Drive Unit.

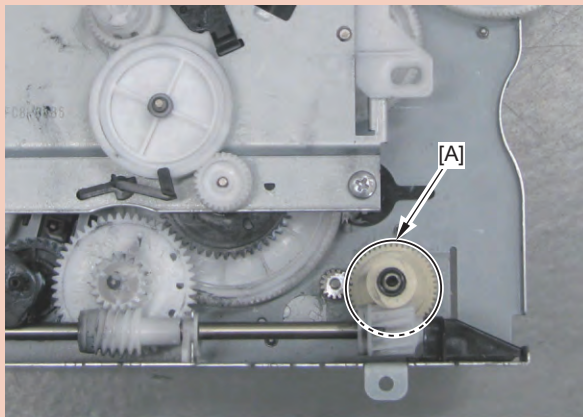
- 6 Screws
- 1 Hook



F-4-63

CAUTION:

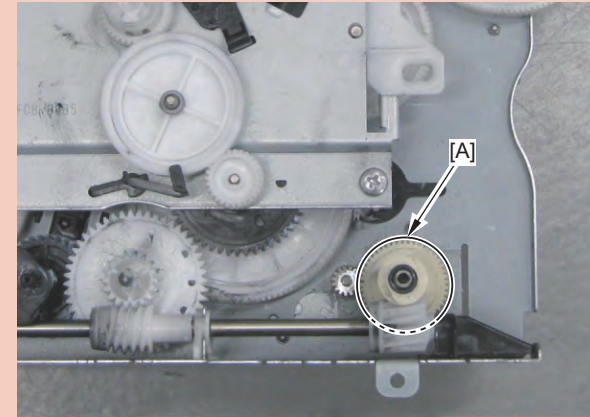
- Be sure not to disassemble the Main Drive Unit because it requires adjustment.
- Since the gear [A] comes off easily, be careful when removing the unit.



■ Installing the Main Drive Unit

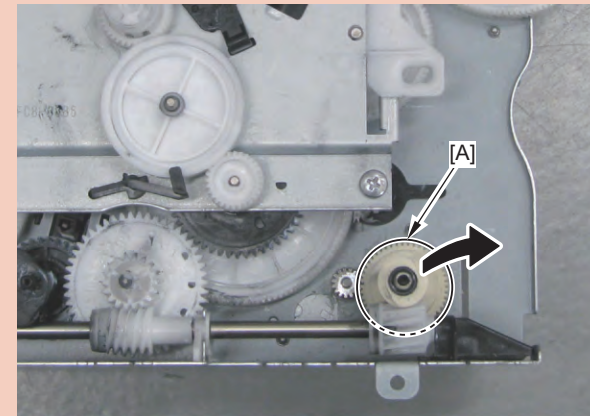
CAUTION

- Check that the Right Lower Cover is closed.
- Since the gear [A] comes off easily, be careful when installing the unit.

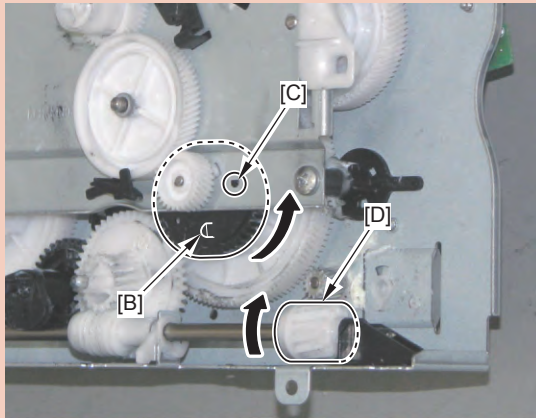


- When installing the Main Drive Unit other than a new one, be sure to align gear phase.

1) Remove the gear [a]



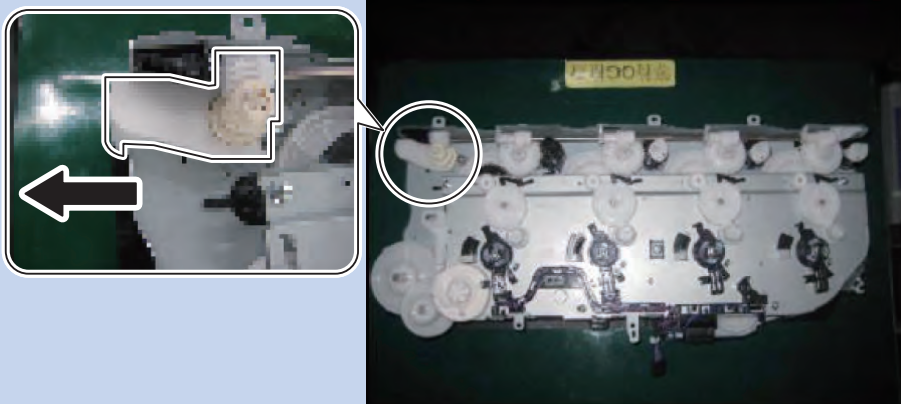
2) Turn the gear [D] by hand, and move the hole [B] to align with [C].



3) Install the gear [A] removed in step 1).

NOTE

When installing anew Main Drive, be sure to remove the Fixation Member 1 before installing it to the host machine.

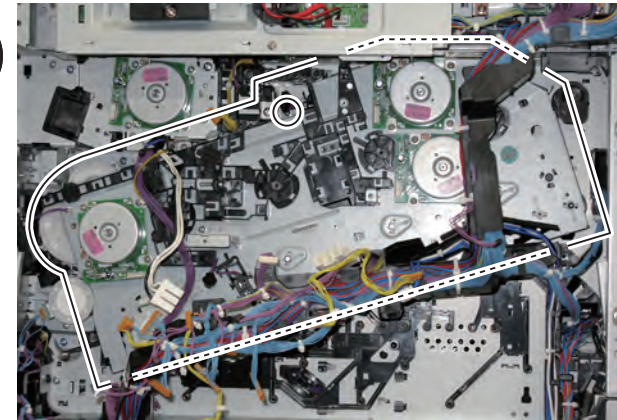


F-4-64

CAUTION:

Check that the Right Lower Cover is closed.

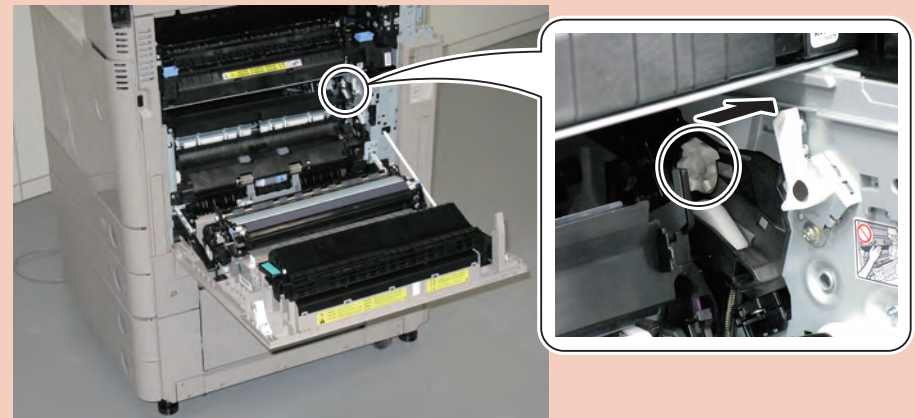
1) Install the Main Drive Unit, and tighten the screw temporarily.



F-4-65

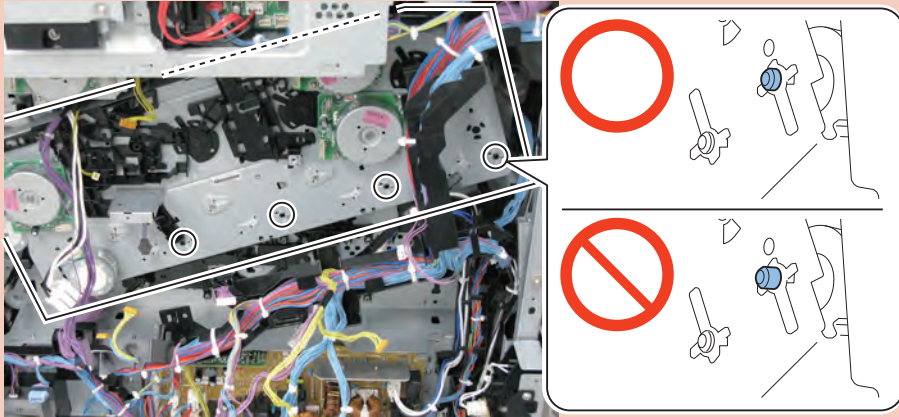
CAUTION:

- By opening and closing the Right Lower Cover, check that coupling of the ITB moves in the direction of the arrow.



CAUTION:

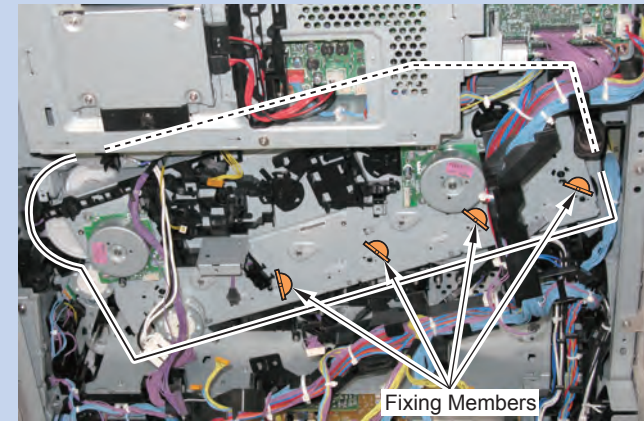
- Be sure to check that the 8 shafts are aligned with the shaft holes on the host machine correctly.



F-4-66

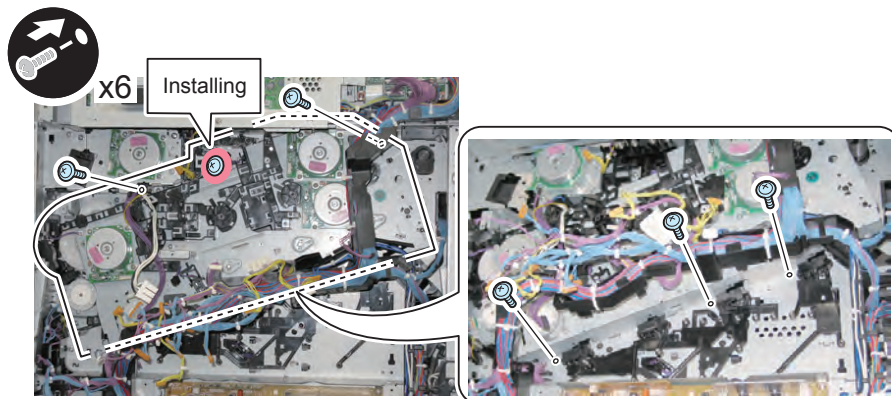
NOTE:

When installing a new Main Drive Unit, be sure to remove the 4 Fixation Members 2.



F-4-68

2) Check that the Main Drive Unit is installed correctly, and tighten the 6 screws.



F-4-67

Disassembly/Assembly - Image Formation System -

Removing the Waste Toner Container

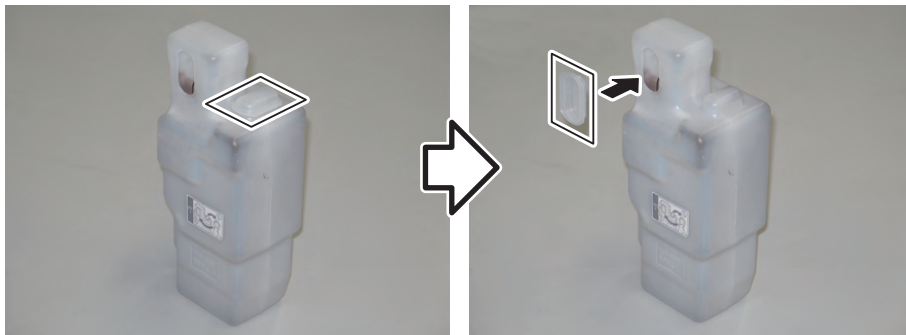
Procedure

- 1) Open the Waste Toner Cover.
- 2) Remove the Waste Toner Container.



F-4-69

- 3) Remove the attached cap to install to the Waste Toner Container.



F-4-70

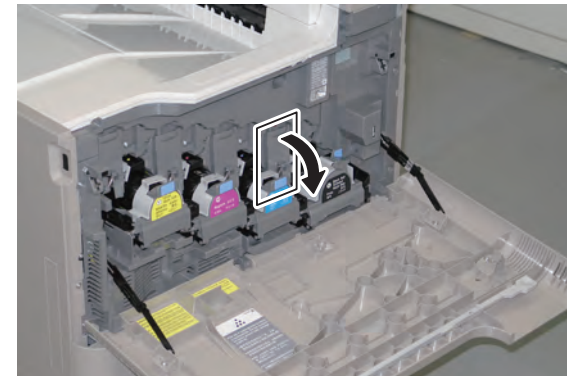
Removing the Drum Unit

Procedure

NOTE:

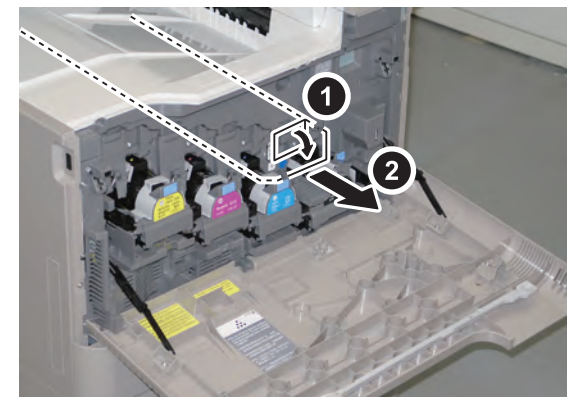
In this procedure, procedure for (Bk) is described. Be sure to perform the same procedure for (C), (M), and (Y).

- 1) Open the Front Cover.
- 2) Open the Drum Unit retaining cover.



F-4-71

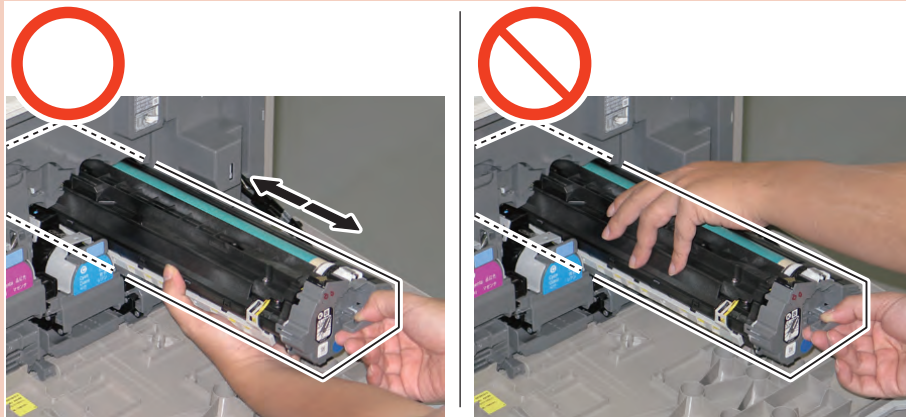
- 3) Open the handle and pull out the Drum Unit.



F-4-72

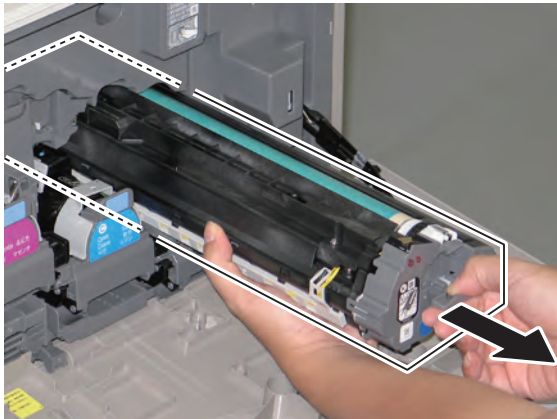
CAUTION:

Do not touch the surface of the Photosensitive Drum.



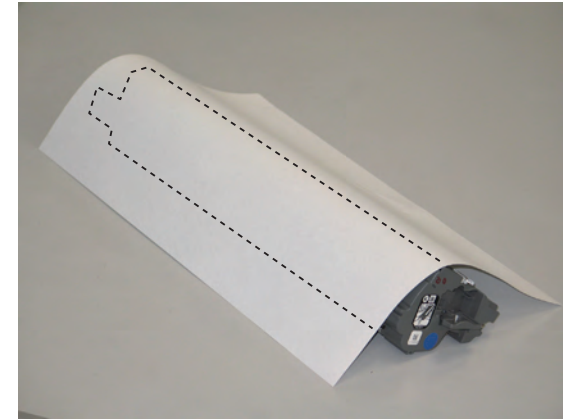
F-4-73

4) Hold the Drum Unit with both hands, and pull it out horizontally.



F-4-74

5) Block light with paper etc. to the removed Drum Unit.



F-4-75

CAUTION:

Be sure to insert the Drum Unit until it stops before closing the Retaining Cover.

Removing the ITB Unit

Preparation

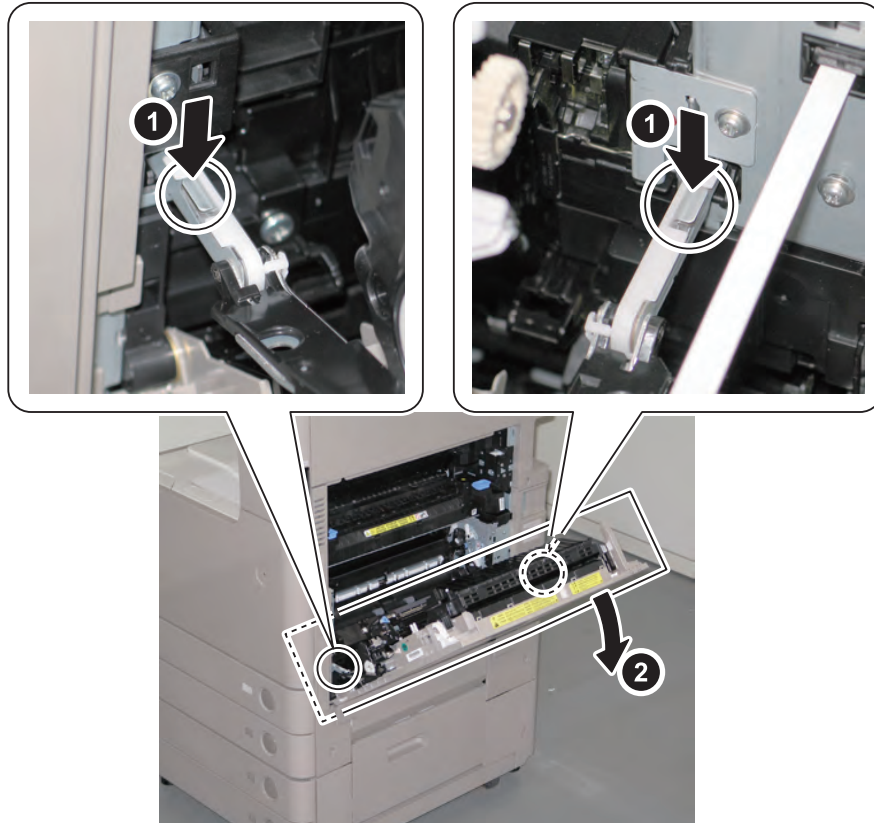
1) Remove the Drum Unit.

Procedure

1) Turn OFF the power.

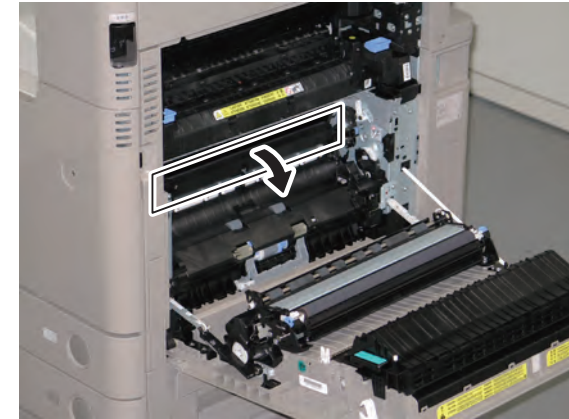
2) Open the Right Lower Cover.

3) Release the lock by pushing the [1] part to open fully.



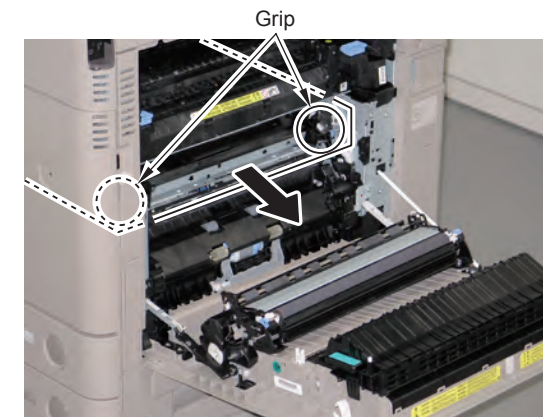
F-4-76

4) Open the Registration Patch Sensor.



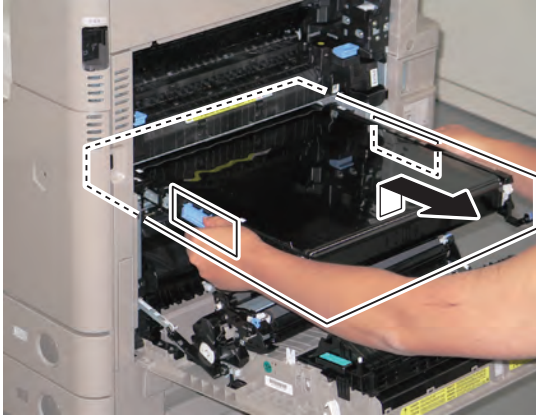
F-4-77

5) Hold the handle and pull out the ITB Unit in the obliquely downward direction along with the guide.



F-4-78

6) Hold the left and right handles, and remove the ITB Unit.



F-4-79

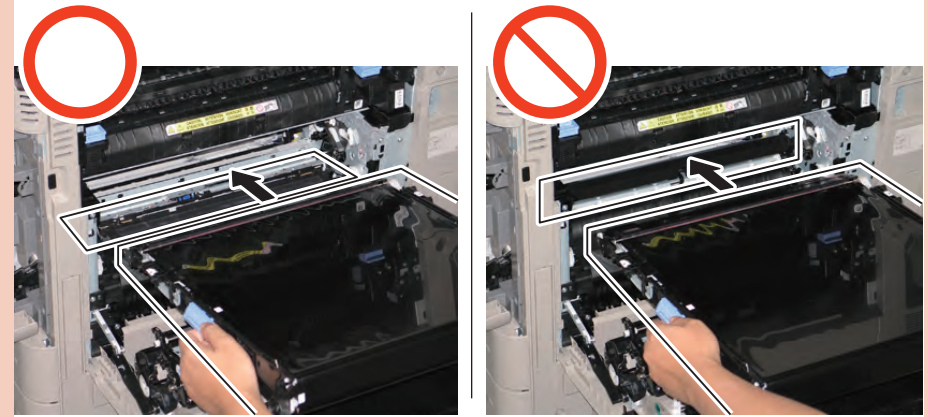
CAUTION:

Do not touch the surface of the ITB.



Points to Note at Installation:

- To perform image stabilization control (ATVC control) when replacing the ITB Unit, turn ON the main power switch once and then execute auto gradation adjustment (either one of the followings: quick adjustment or full adjustment).
- Check that the Registration Patch Sensor is open, and then install the ITB.



F-4-80

Removing the Front Cover

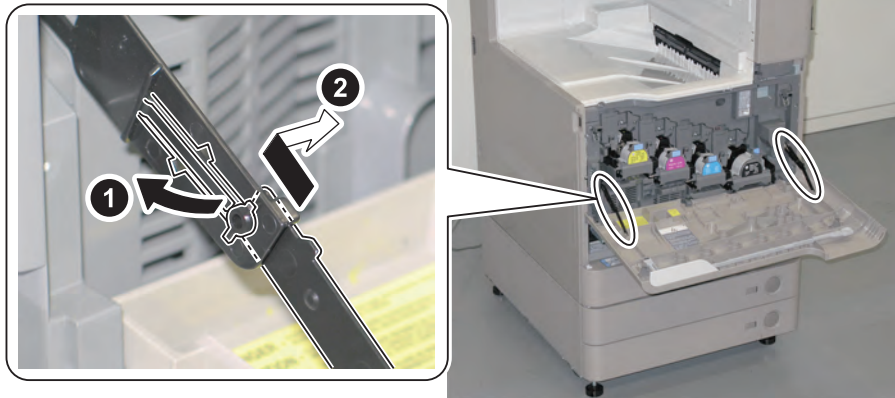
Preparation

1) Remove the Cassette 1.

Procedure

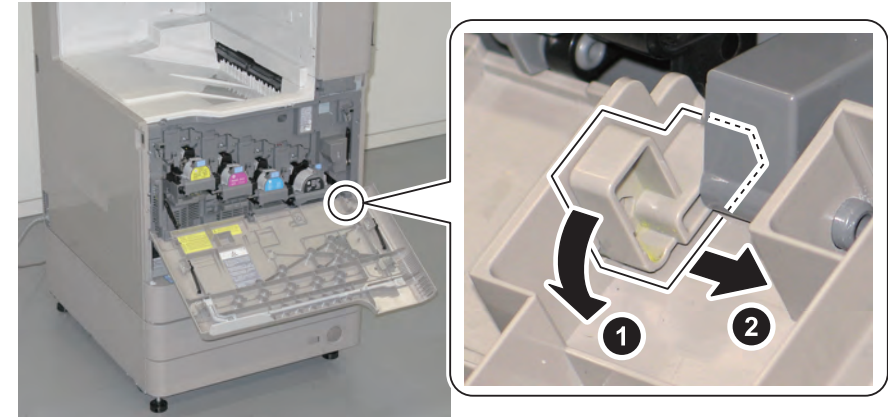
1) Open the Front Cover.

2) Remove the 2 link arms.



F-4-81

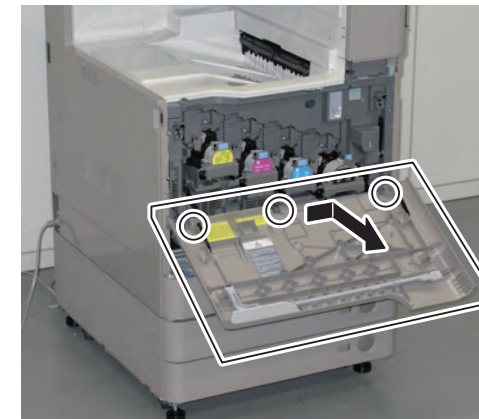
3) Remove the Stopper.



F-4-82

4) Remove the Front Cover in the direction of the arrow.

• 3 shafts



F-4-83

Removing the Toner Bottle Mount (CL)

Preparation

- 1) Remove the all Drum Units.
- 2) Remove the ITB Unit.
- 3) Turn OFF the power.
- 4) Remove the Cassette 1.
- 5) Remove the Front Cover.
- 6) Remove the Left Cover.
- 7) Remove the First Delivery Tray.

Procedure

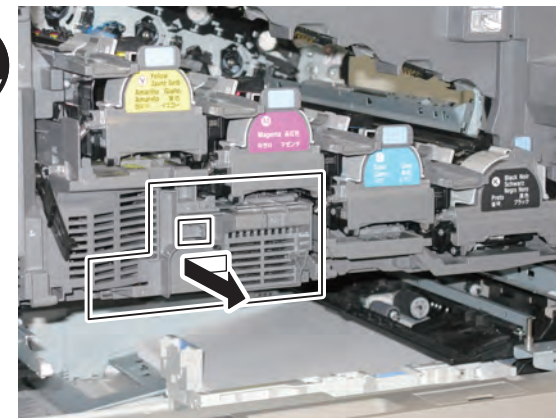
NOTE:

In this procedure, procedure for the Toner Bottle Mount (M) is described. Be sure to perform the same procedure for (Y) and (C).

CAUTION:

If there is any toner scattering, wipe off the toner.

- 1) Remove the Toner Cartridge.
- 2) Remove the Fan Holder Cover.
 - 1 Claw

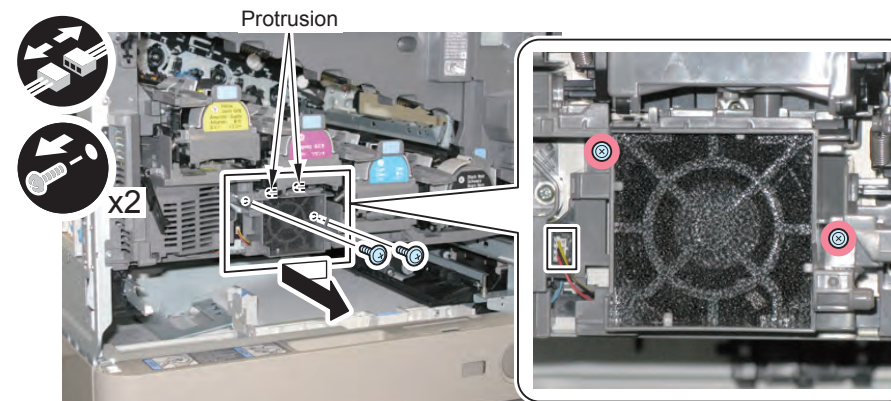


F-4-84

NOTE:

Skip step 2 in the case of the Toner Bottle Mount (C).

- 3) Remove the Fan Duct 2 in the direction of the arrow.
 - 1 Connector
 - 2 Screws
 - 2 Protrusions

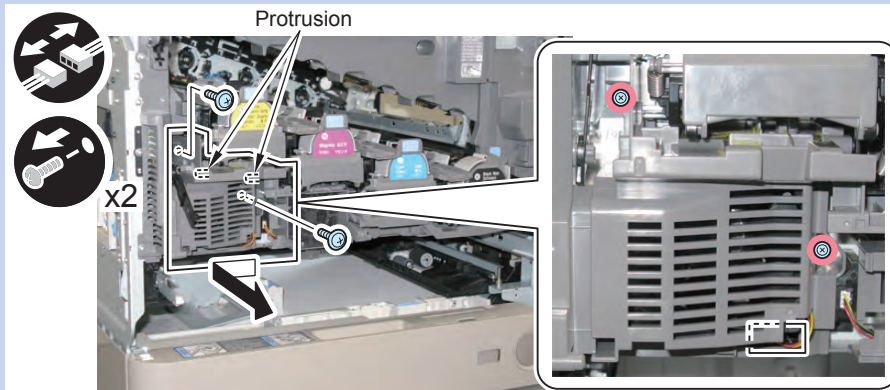


F-4-85

NOTE:

1) In the case of the Toner Bottle Mount (Y), remove the Fan Duct 1 in the direction of the arrow.

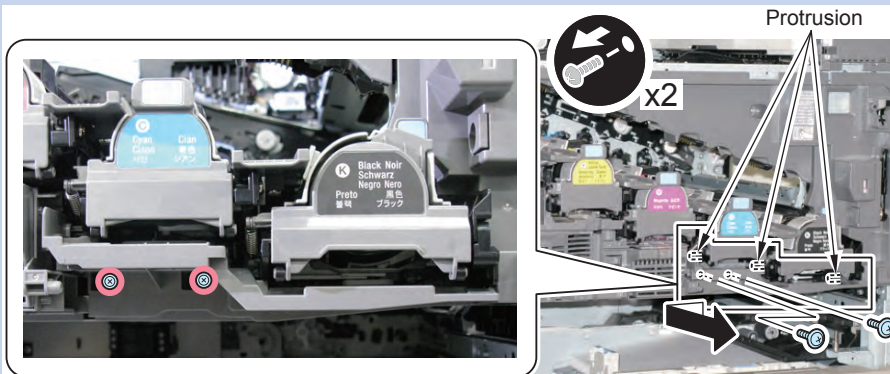
- 1 Connector
- 2 Screws
- 2 Protrusions



F-4-86

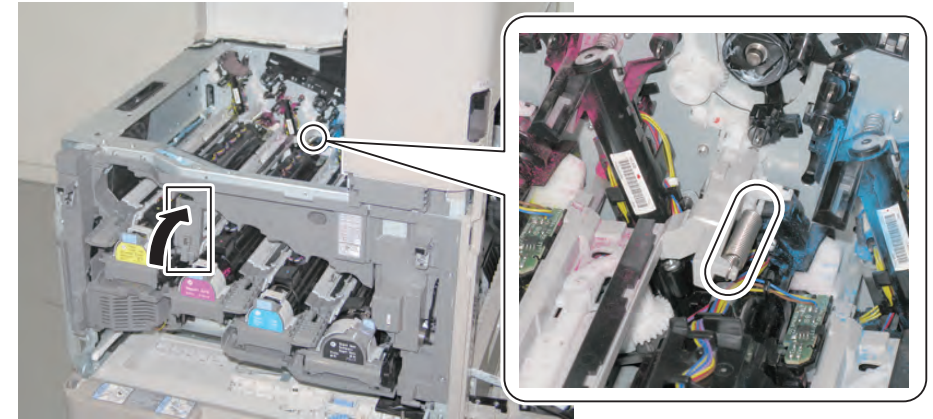
2) In the case of the Toner Bottle Mount (C), remove the Fan Duct 3 in the direction of the arrow.

- 1 Connector
- 2 Screws
- 2 Protrusions



F-4-87

4) Put the cover of Drum Unit back and remove the spring.



F-4-88

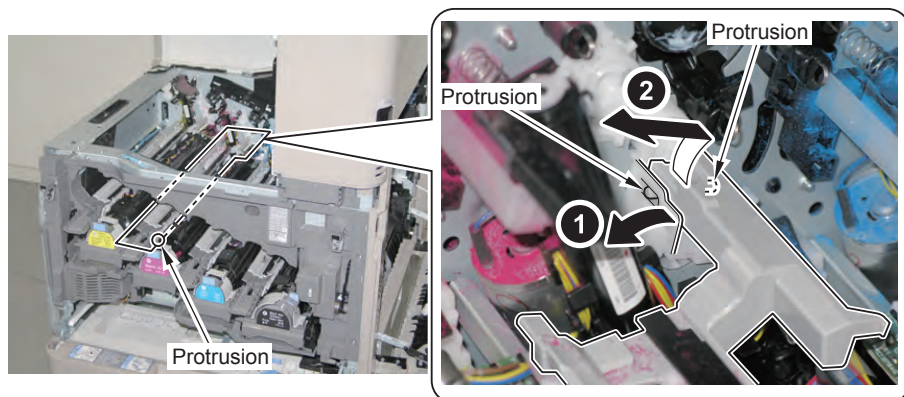
5) Remove the screw of the Toner Guide Rail Reinforcing Member.



F-4-89

6) Remove the Toner Guide Rail.

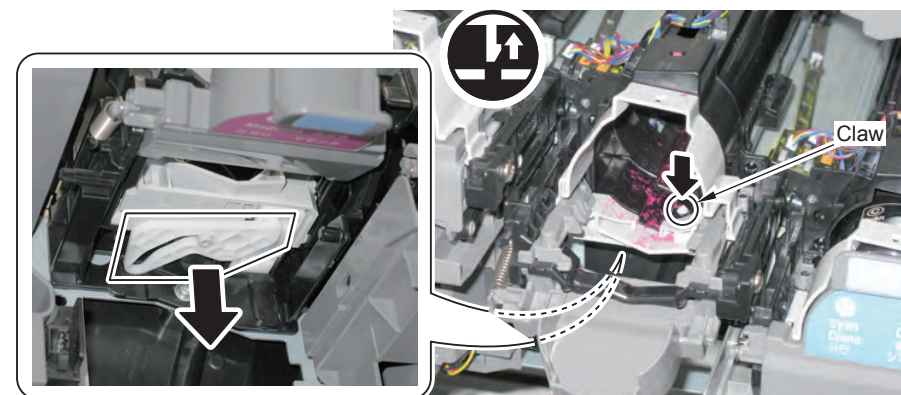
- 3 Protrusions



F-4-90

9) Remove the Link Lever.

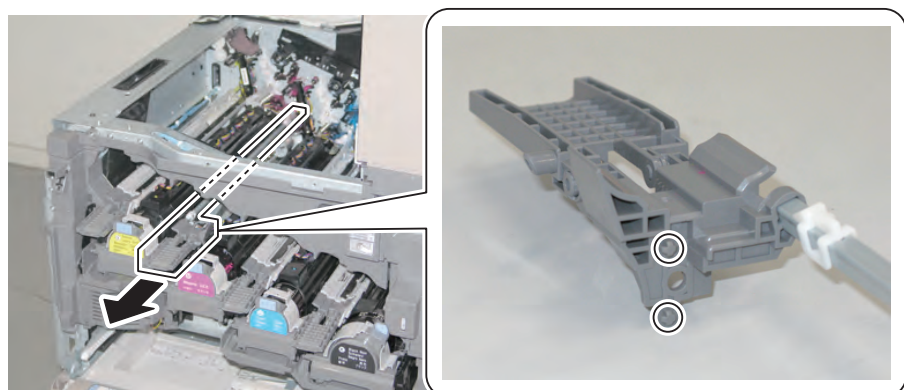
- 1 Claw



F-4-92

7) Remove the Toner Guide Rail Reinforcing Member.

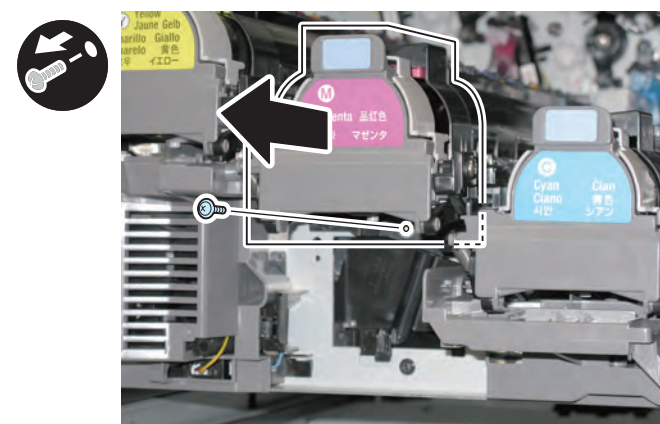
- 2 Bosses



F-4-91

10) Remove the Toner Bottle Door Unit.

- 1 Screw



F-4-93

8) Perform step 4 to 6 to the unit on the right of the target Toner Bottle Mount.

NOTE:

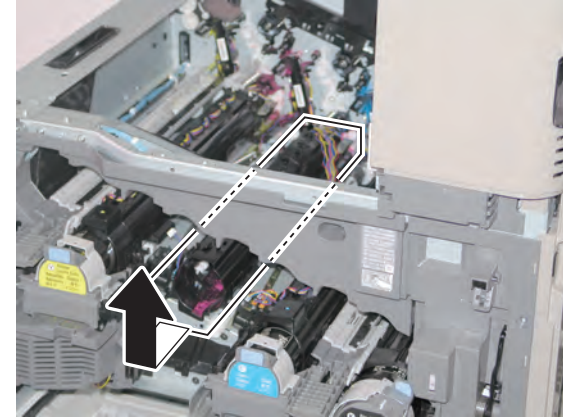
- In the case of the Toner Bottle Mount (Y), perform the work with the Toner Bottle Mount (M).
- In the case of the Toner Bottle Mount (M), perform the work with the Toner Bottle Mount (C).
- In the case of the Toner Bottle Mount (C), perform the work with the Toner Bottle Mount (Bk).

- 11) Disconnect the 4 connectors.



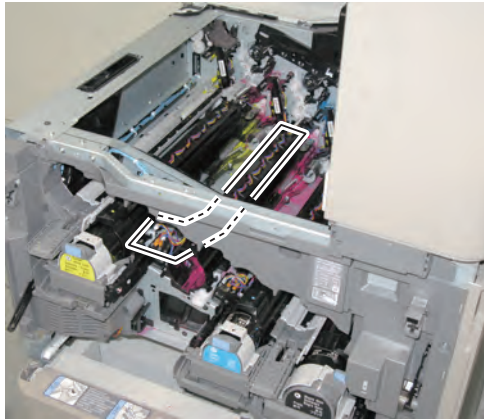
F-4-94

- 13) Remove the Toner Bottle Mount in the direction of the arrow.



F-4-96

- 12) Free the harness from the Upper Guide of the Toner Bottle Mount.

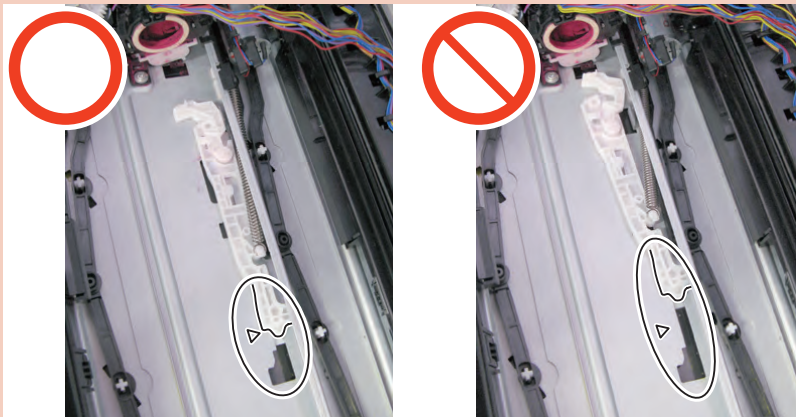


F-4-95

Points to Note at Installation:

1) Be sure to check the position of the Toggle Lever when installing the Toner Bottle Mount.

(If the Toggle Lever is not in the correct position, the Toner Bottle cannot be installed.)



F-4-97

2) Be sure to route the harness along the Upper Guide of the Toner Bottle Mount without slack.

3) After installing the Link Lever, check that the Toner Bottle Door Unit opens and closes smoothly.

4) After installation, check if the cover of Drum Unit opens and closes.

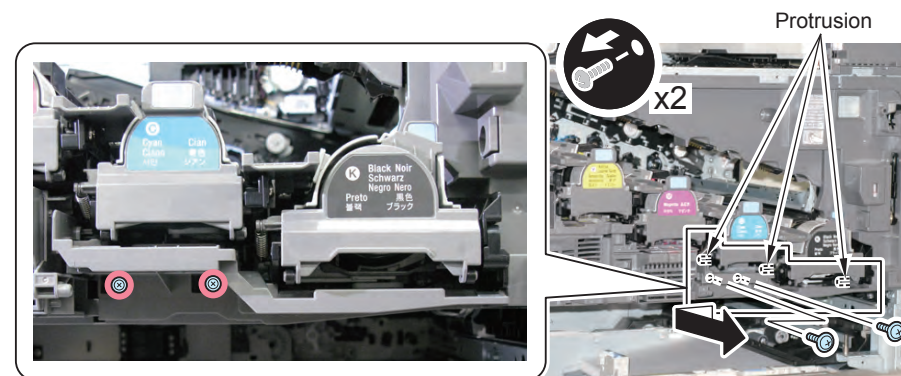
Removing the Toner Bottle Mount (Bk)

Preparation

- 1) Remove the all Drum Units.
- 2) Remove the ITB Unit.
- 3) Turn OFF the power.
- 4) Remove the Cassette 1.
- 5) Remove the Front Cover.
- 6) Remove the Left Cover.
- 7) Remove the First Delivery Tray.

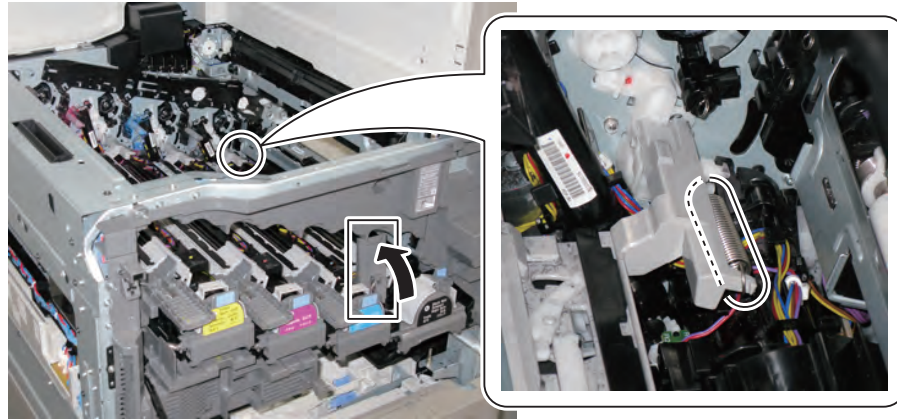
Procedure

- 1) Remove the Toner Cartridge (Bk).
- 2) Remove the Duct Cover in the direction of the arrow.
 - 2 Screws
 - 3 Protrusions



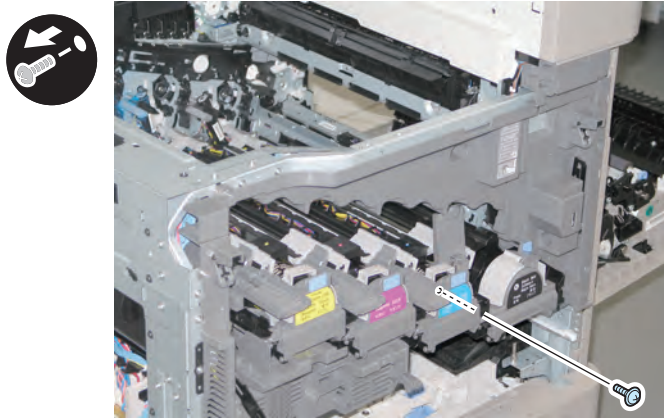
F-4-98

3) Put the cover of Drum Unit back and remove the spring.



F-4-99

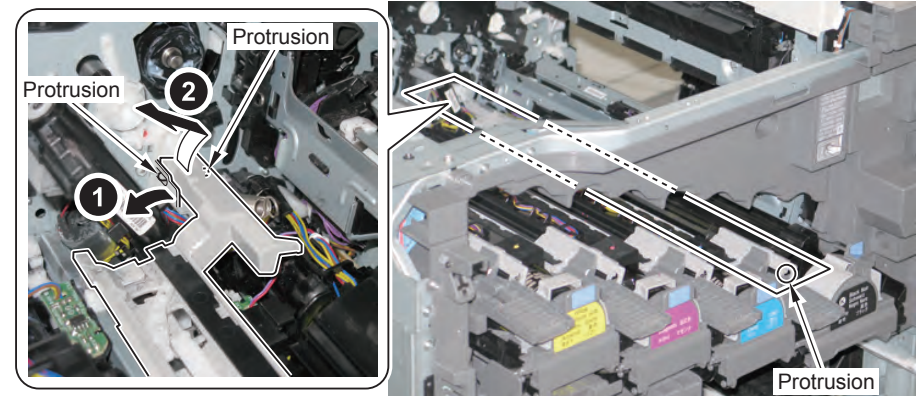
4) Remove the screw of the Toner Guide Rail Reinforcing Member.



F-4-100

5) Remove the Toner Guide Rail.

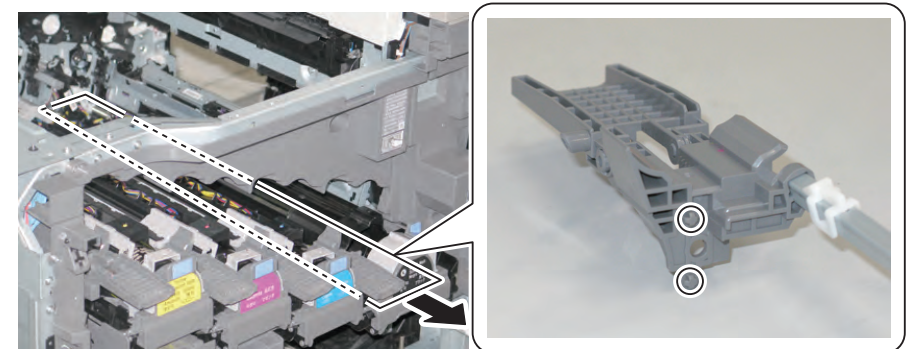
- 1 Screw
- 3 Protrusions



F-4-101

6) Remove the Toner Guide Rail Reinforcing Member.

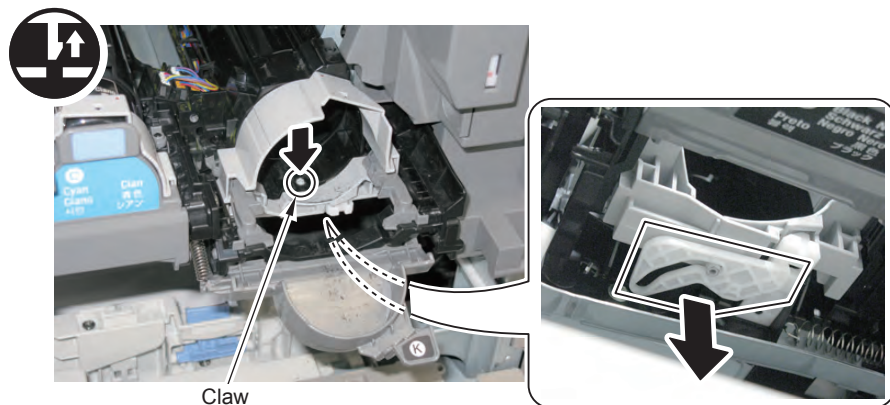
- 2 Bosses



F-4-102

7) Remove the Link Lever.

- 1 Claw

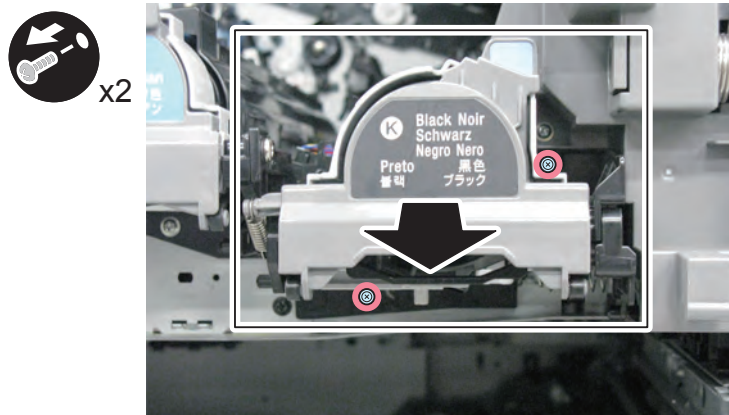


Claw

F-4-103

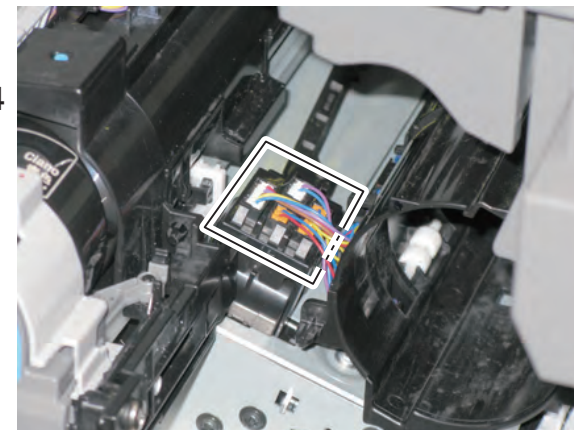
8) Remove the Toner Bottle Door Unit.

- 1 Screw



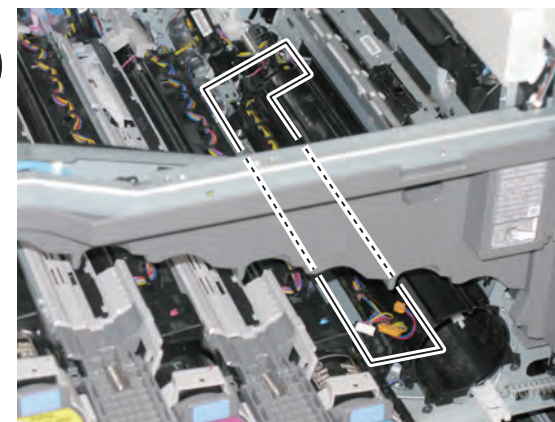
F-4-104

9) Disconnect the 4 connectors.



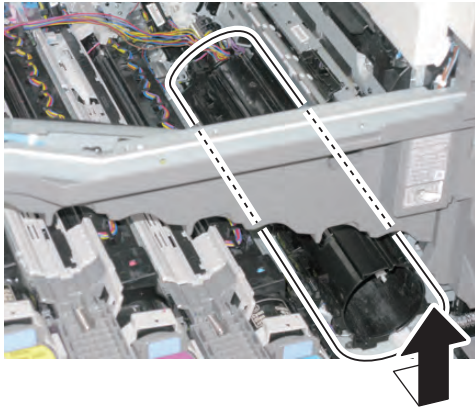
F-4-105

10) Free the Harness from the Guide of the Toner Bottle Mount.



F-4-106

11) Remove the Toner Bottle Mount in the direction of the arrow.

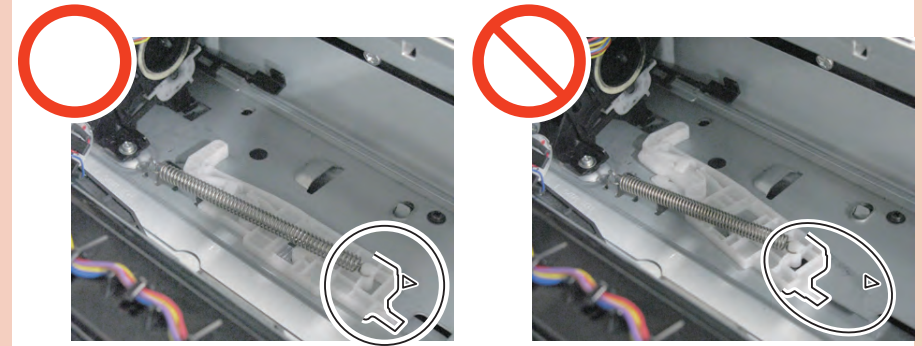


F-4-107

Points to Note at Installation:

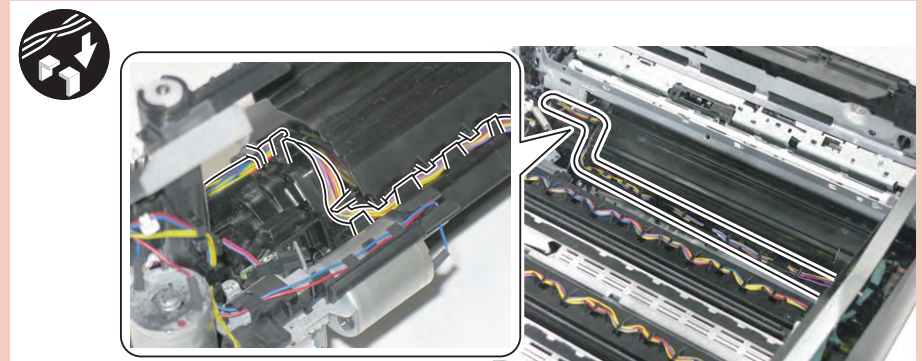
1) Be sure to check the position of the Toggle Lever when installing the Toner Bottle Mount.

(If the Toggle Lever is not in the correct position, the Toner Bottle cannot be installed.)



F-4-108

2) Be sure to route the harness along the guide of the Toner Bottle Mount without slack for not blocking the laser light path.



F-4-109

3) After installing the Link Lever, check that the Toner Bottle Door Unit opens and closes smoothly.

4) After installation, check if the cover of Drum Unit opens and closes.

Removing the Hopper Unit (CL)

Preparation

- 1) Remove the all Drum Units.
- 2) Remove the ITB Unit.
- 3) Turn OFF the power.
- 4) Remove the Cassette 1.
- 5) Remove the Front Cover.
- 6) Remove the Left Cover.
- 7) Remove the First Delivery Tray.
- 8) Remove the Toner Bottle Mount of the target color.

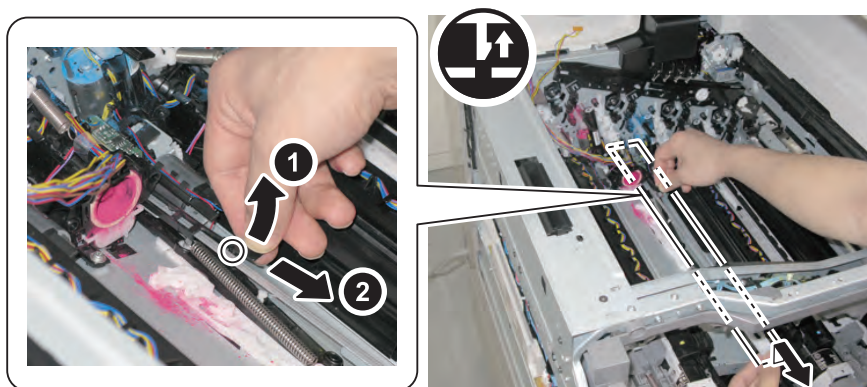
Procedure

NOTE:

In this procedure, procedure for the Hopper Unit (M) is described. Be sure to perform the same procedure for (Y) and (C).

- 1) Remove the stopper and remove the Link Stick in the direction of the arrow.

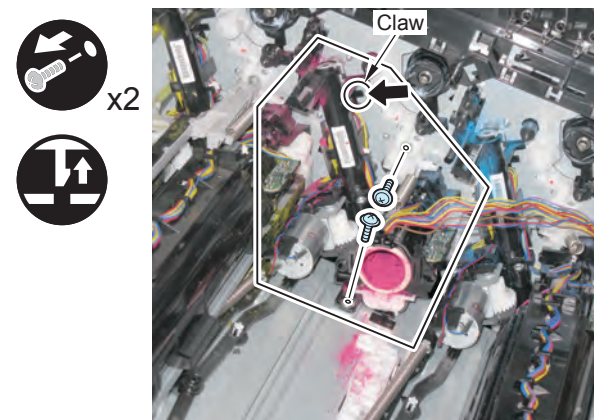
- 1 Claw



F-4-110

- 2) Remove the Reinforcing Member.

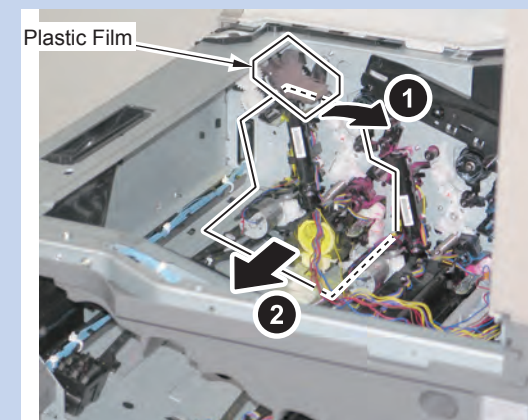
- 2 Screws
- 1 Claw



F-4-111

NOTE:

In the case of the Toner Supply Assembly (Y), avoid the plastic film of the Waste Toner Feed Unit to remove.



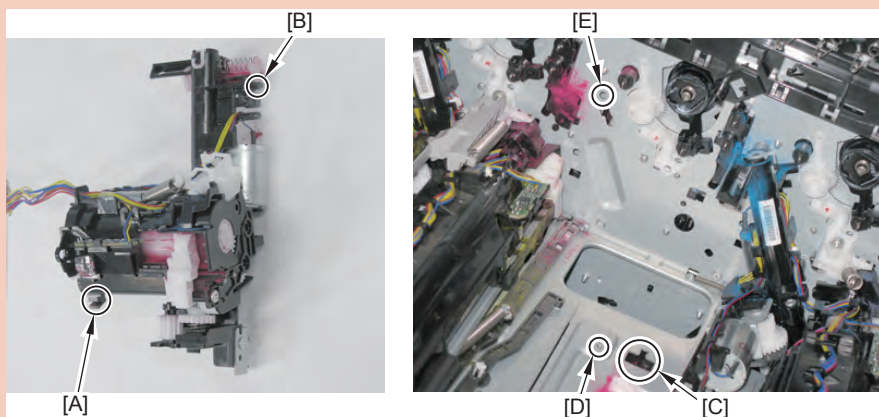
F-4-112

CAUTION:

When removing the Toner Supply Assembly, be careful not to spill the toner.

Points to Note at Installation:

1) Fit the hook [A] to [C] part and also fit the boss [B] to [E] part to adjust the position so that the Toner Supply Assembly is installed while fitting into the screw hole [D].



F-4-113

2) After installing the Link Stick, move it back and forth to check that it is secured.

3) After replacing the Hopper Unit, start the host machine.

Execute service mode: COPIER > FUNCTION > INSTALL > SPLY-H-Y/M/C.

After execution, toner is supplied to the Hopper Unit when warm-up rotation is performed.

(Warm-up rotation is performed by opening and closing the Front Door or turning OFF and then ON the power.)

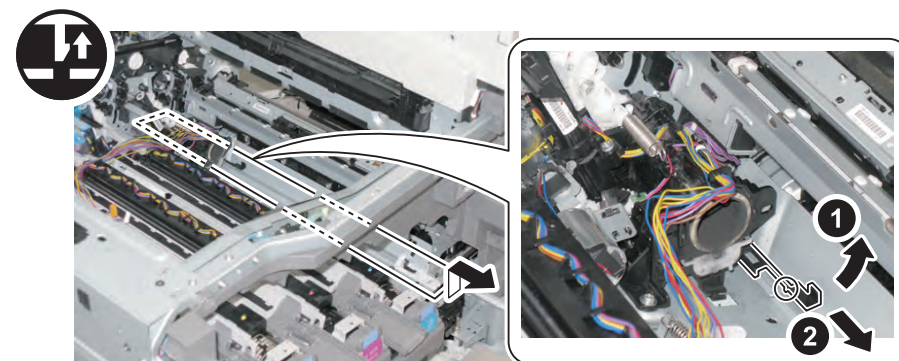
Removing the Hopper Unit (Bk)

Preparation

- 1) Remove the all Drum Units.
- 2) Remove the ITB Unit.
- 3) Turn OFF the power.
- 4) Remove the Cassette 1.
- 5) Remove the Front Cover.
- 6) Remove the Left Cover.
- 7) Remove the First Delivery Tray.
- 8) Remove the Toner Bottle Mount (Bk).

Procedure

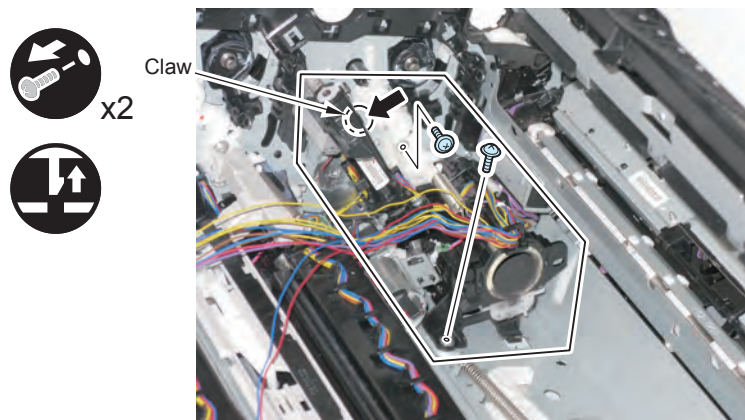
- 1) Remove the stopper and remove the Link Stick in the direction of the arrow.
 - 1 Claw



F-4-114

2) Remove the Reinforcing Member.

- 2 Screws
- 1 Claw



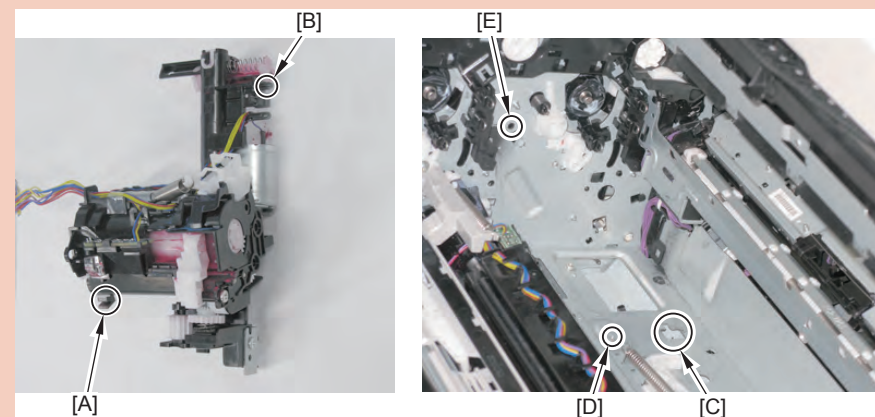
F-4-115

CAUTION:

When removing the Toner Supply Assembly, be careful not to spill the toner.

Points to Note at Installation:

1) Fit the hook [A] to [C] part and also fit the boss [B] to [E] part to adjust the position so that the Toner Supply Assembly is installed while fitting into the screw hole [D].



F-4-116

2) After installing the Link Stick, move it back and forth to check that it is secured.

3) After replacing the Hopper Unit, start the host machine.

Execute service mode: COPIER > FUNCTION > INSTALL > SPLY-H-K.

After execution, toner is supplied to the Hopper Unit when warm-up rotation is performed.

(Warm-up rotation is performed by opening and closing the Front Door or turning OFF and then ON the power.)

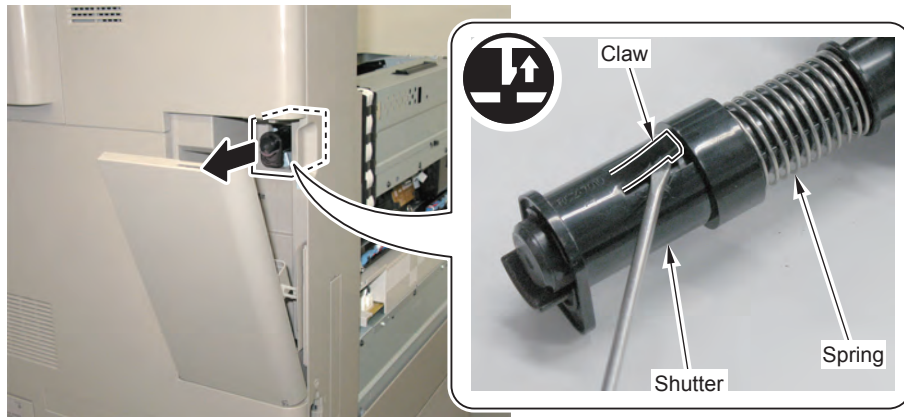
Removing the Waste Toner Feed Assembly

Preparation

- 1) Remove the all Drum Units.
- 2) Remove the ITB Unit.
- 3) Turn OFF the power.
- 4) Remove the Cassette 1.
- 5) Remove the Front Cover.
- 6) Remove the Left Cover.
- 7) Remove the First Delivery Tray.
- 8) Remove the Waste Toner Container.

Procedure

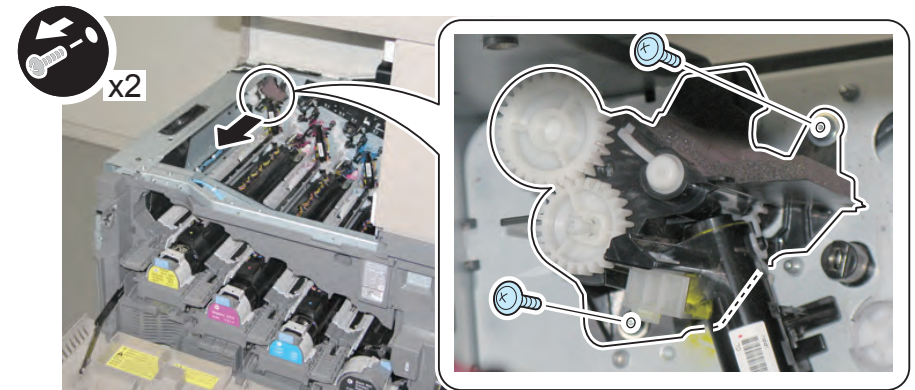
- 1) Remove the shutter and the spring.
 - 1 Claw



F-4-117

- 2) Remove the Waste Toner Feed Unit.

- 2 Screws



F-4-118

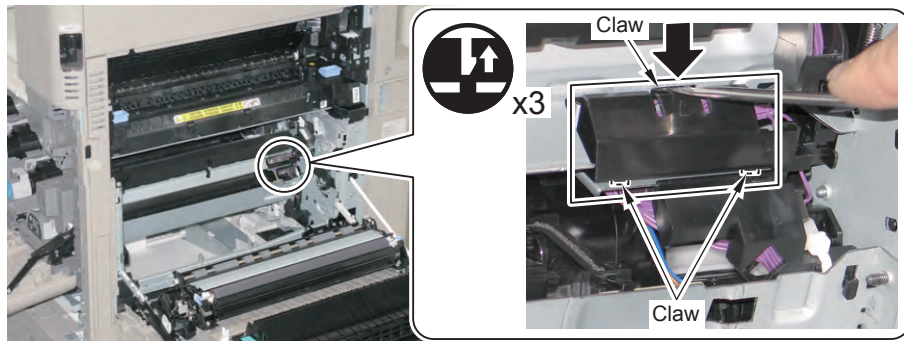
Removing the Registration Patch Sensor

Preparation

- 1) Remove the all Drum Units.
- 2) Remove the ITB Unit.
- 3) Turn OFF the power.
- 4) Remove the Cassette 1 Separation Roller Unit.
- 5) Remove the Cassette 1 Pickup Unit.

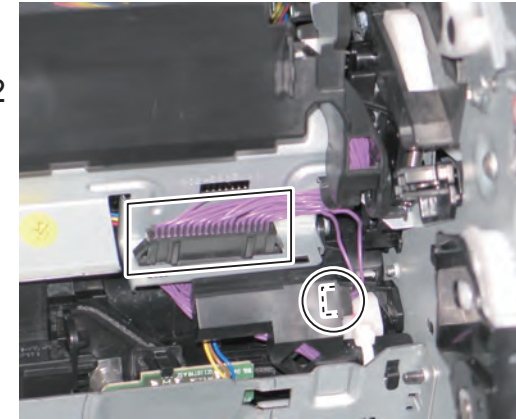
Procedure

- 1) Remove the Connector Cover.
 - 3 Claws



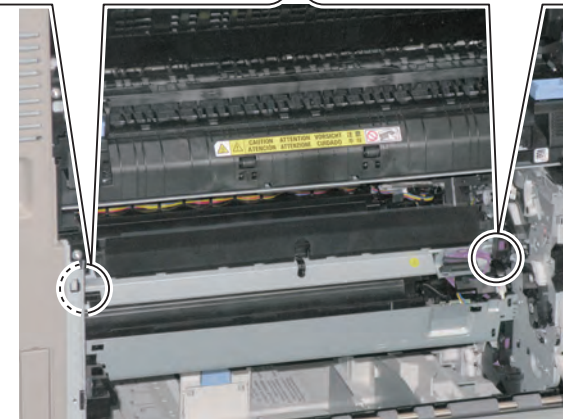
F-4-119

- 2) Disconnect the 2 connectors.



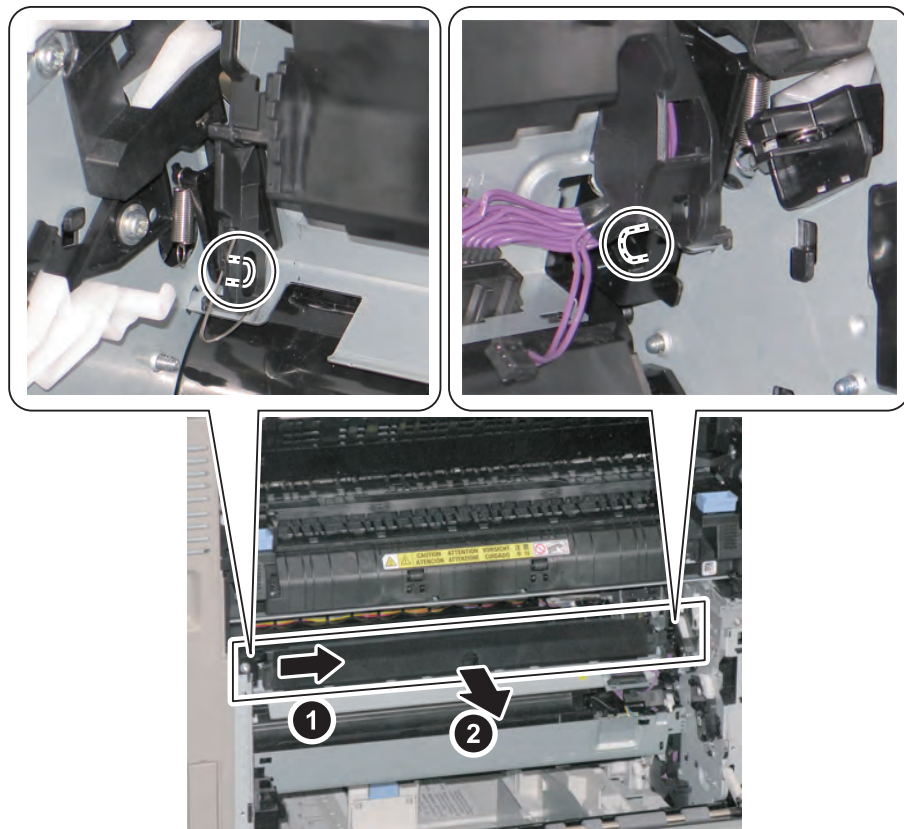
F-4-120

- 3) Remove the 2 springs (right and left).



F-4-121

4) Remove the Left Shaft in the direction of the arrow to remove the Registration Patch Sensor.



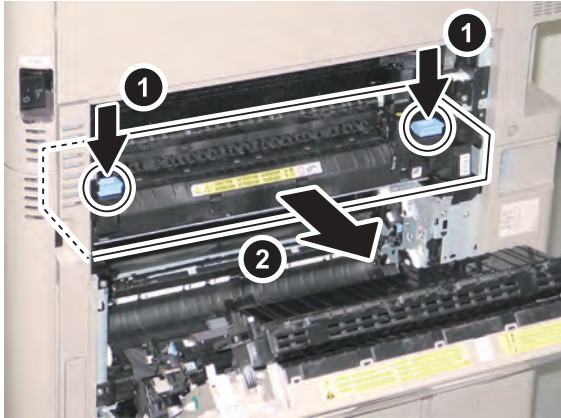
F-4-122

Disassembly/Assembly - Fixing System -

Removing the Fixing Assembly

Procedure

- 1) Open the Right Lower Cover.
- 2) Hold the right and left grips and pull out the Fixing Assembly to the direction of the arrow.

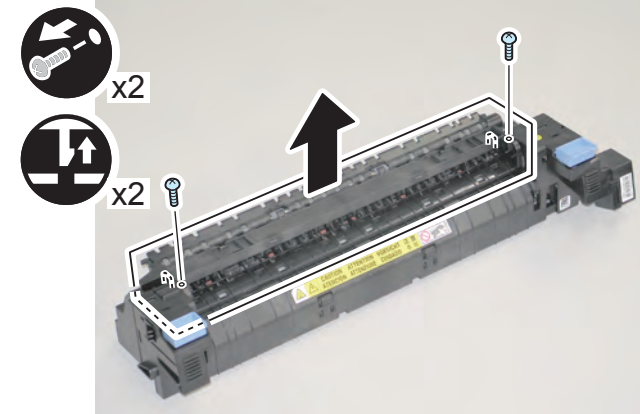


F-4-123

CAUTION:

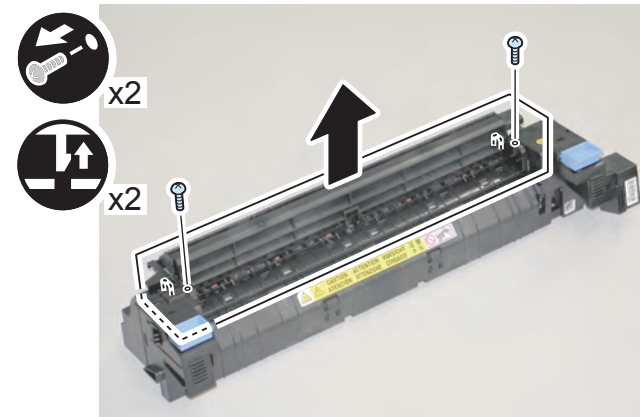
- Be careful when removing the Fixing Assembly because it is hot immediately after the power is turned OFF.
- Do not discard the assembly with the Delivery Guide attached.

- 3) Remove the 2 screws securing the Fixing Delivery Upper Guide.



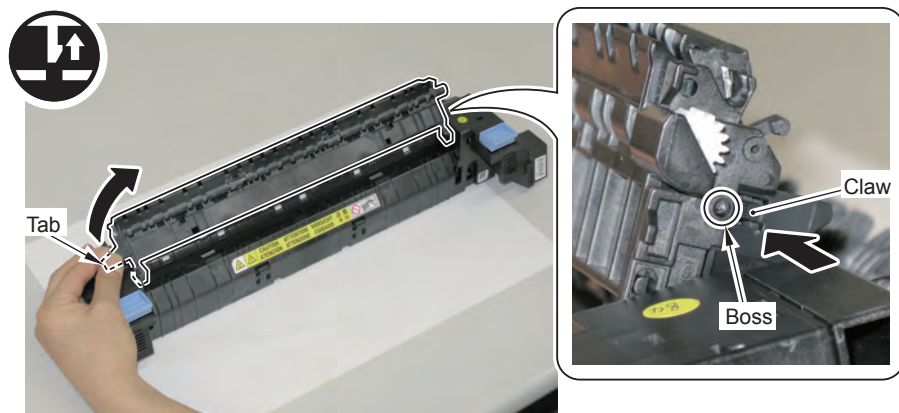
F-4-124

<When installing the Expansion Delivery Kit-C1>



F-4-125

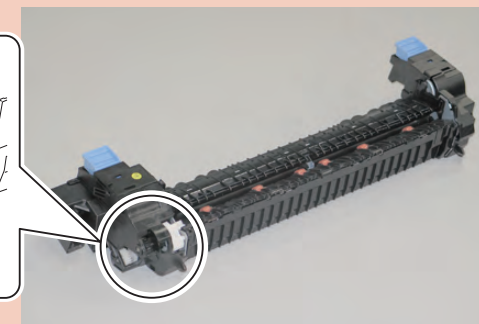
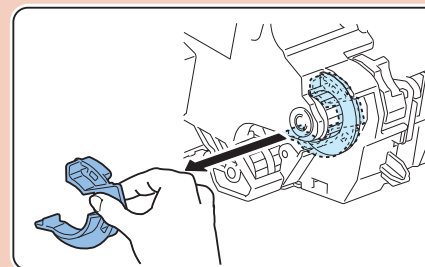
4) Lift the tab, push the claw to free the boss, and remove the Fixing Delivery Upper Guide.



F-4-126

CAUTION:

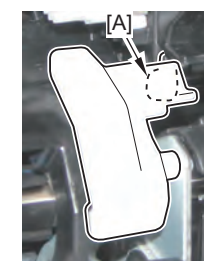
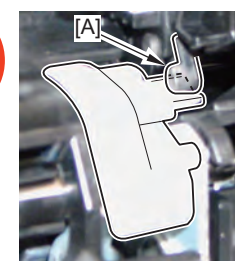
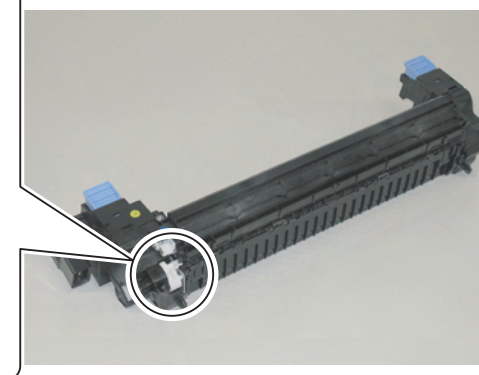
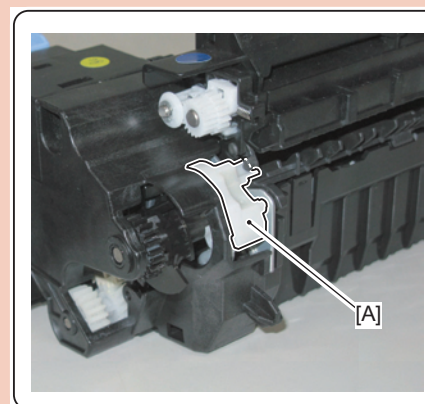
1) When attaching a new Fixing Assembly, remove the fixation member.



2) After installing the Fixing Delivery Guide, check that [A] moves.

F-4-127

(If it doesn't move, the Flapper will not operate properly and jam will occur.)

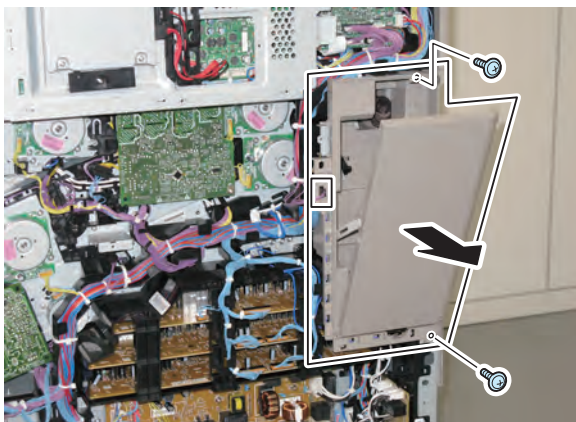


Removing the Fixing Drive Unit

Preparation

- 1) Remove the Rear Upper Cover.
- 2) Remove the Connector Cover.
- 3) Remove the Rear Cover.
- 4) Open the Right lower Cover.
- 5) Remove the Fixing Assembly.
- 6) Remove the Waste Toner Container.
- 7) Remove the Waste Toner Storage Box.

- 1 Connector
- 2 Screws



F-4-128

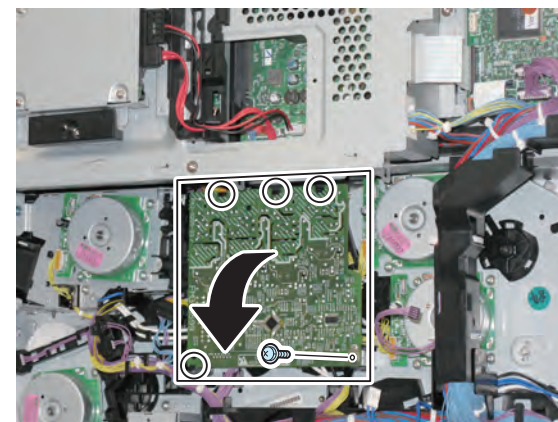
CAUTION:

In case of the FAX model, be sure to remove the FAX

Procedure

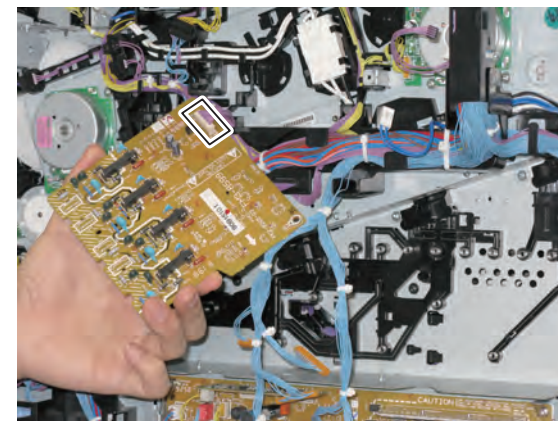
- 1) Remove the Primary Transfer High-voltage Power Supply PCB.

- 1 Screw
- 4 Claws



- 2) Disconnect the connector from the Primary Transfer High-voltage Power Supply PCB.

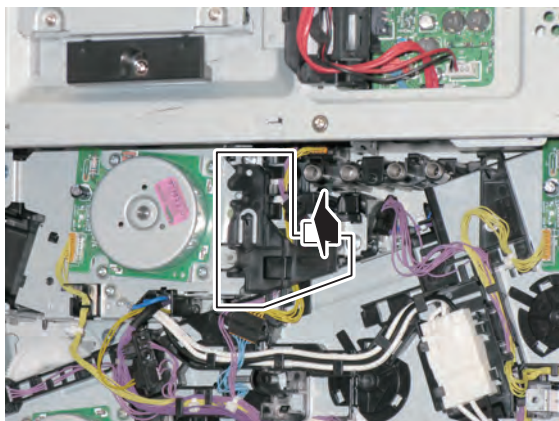
- 1 Connector



F-4-130

3) Remove the Harness Cover.

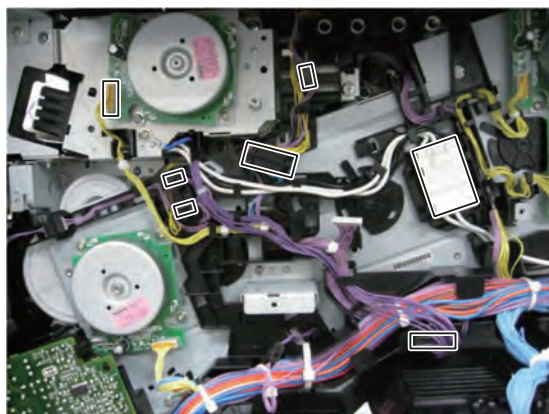
- 1 Claw



F-4-131

4) Disconnect the connectors.

- 7 Connectors



F-4-132

5) Remove the connectors in step 4 from the guides.

6) Remove the Right Rear Sub Cover.

- 1 Screw



F-4-133

7) Remove the Inner Guide 1.

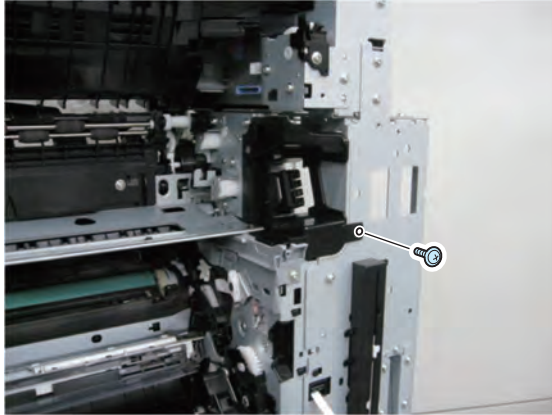
- 1 Screw



F-4-134

8) Remove the Inner Guide 2.

- 1 Screw



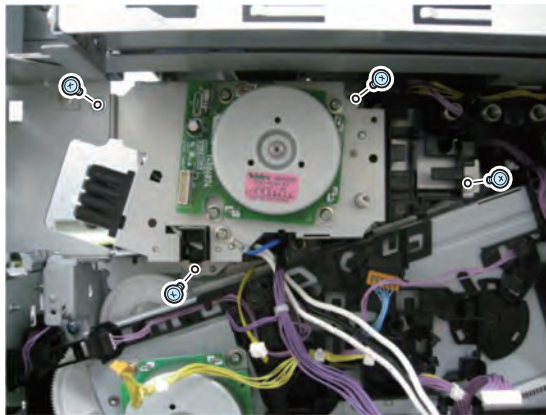
F-4-135

9) Remove the Fixing Drive Unit.

- 4 Screws



x4



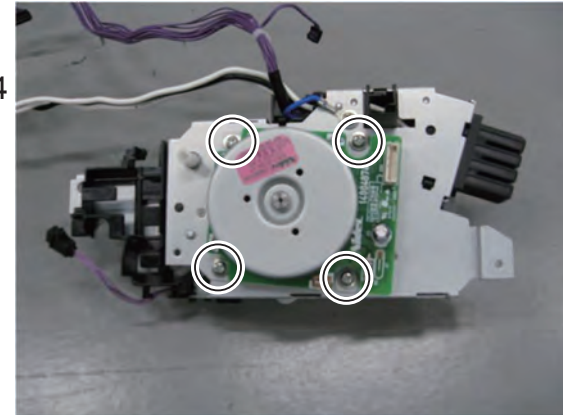
F-4-136

10) Remove the Fixing Motor.

- 4 Screws



x4



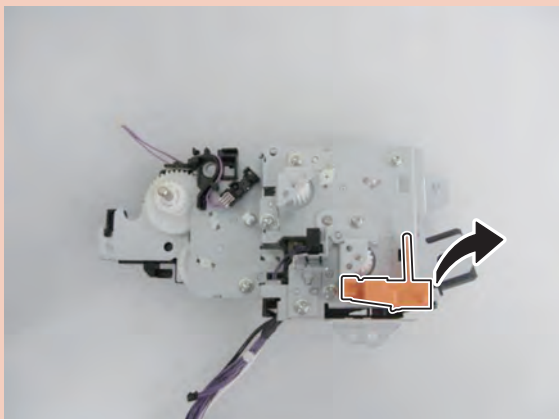
F-4-137

CAUTION:

Be careful not to dispose of the Fixing Motor together with the old Fixing Drive Unit since it is a different part from the new Fixing Drive Unit.

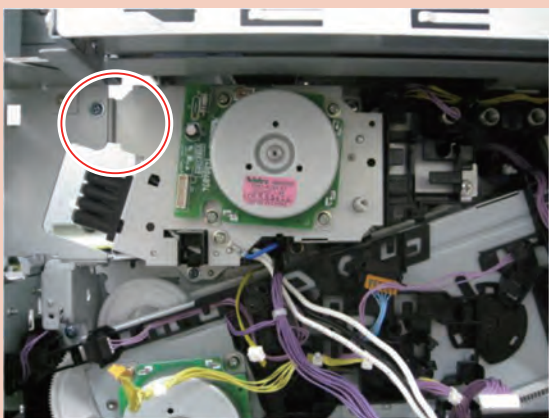
Points to Note at Installation:

1) When installing a new Fixing Drive, remove the positioning member



2) Be sure to pay attention to the positional relation of the plate in the figure when assembling.

Be sure that the plate in the Fixing Drive side is located inside the frame body of the host machine.

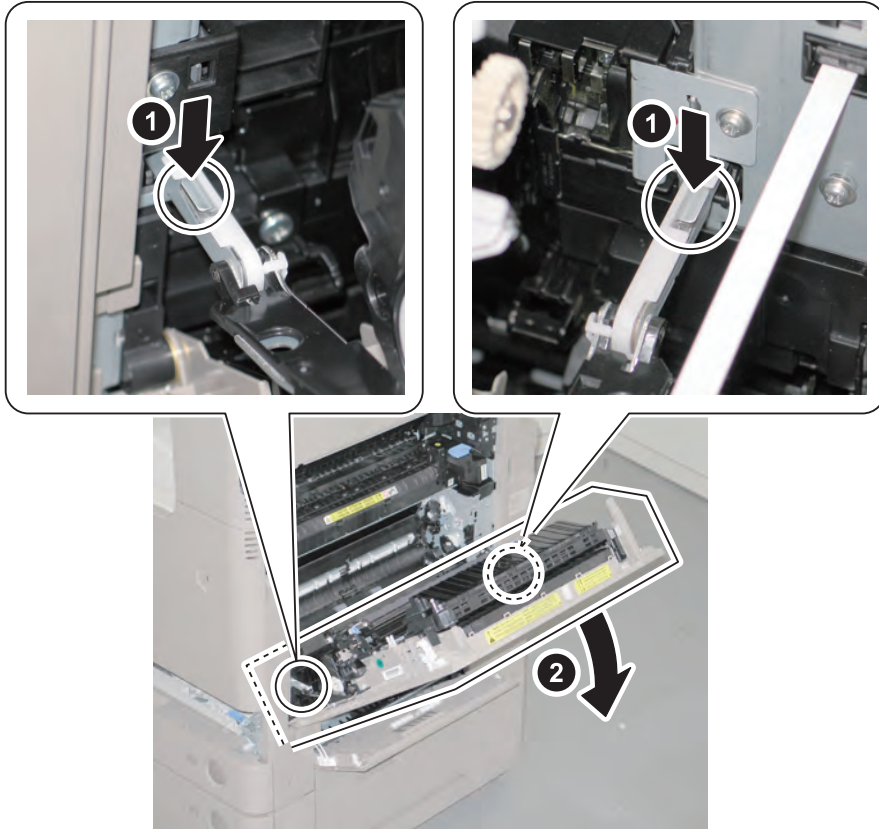


Disassembly/Assembly - Pickup Feed System -

Opening the Right Lower Cover Fully

Procedure

- 1) Open the Right Lower Cover.
- 2) Release the lock by pushing the [1] part to open fully.

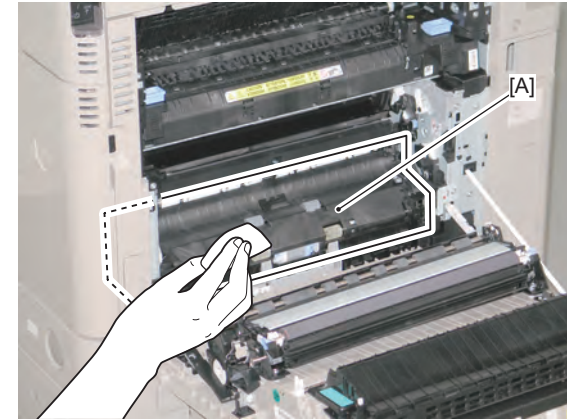


F-4-138

Cleaning the Pre-registration Guide

Procedure

- 1) Open the Right Lower Cover fully.
- 2) Clean the Pre-registration Guide area [A] with lint-free paper moistened with alcohol.

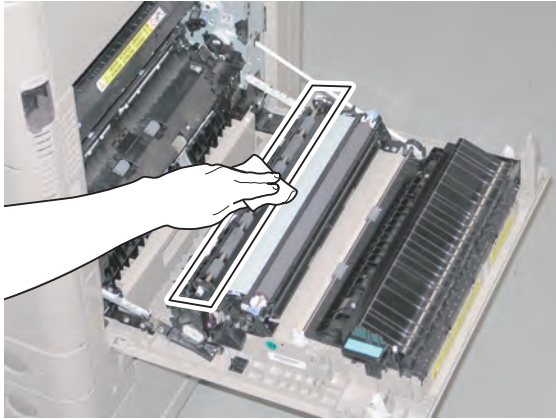


F-4-139

Cleaning the Registration Roller

Procedure

- 1) Open the Right Lower Cover fully.
- 2) Clean a whole circumference of the Registration Roller with lint-free paper moistened with alcohol.

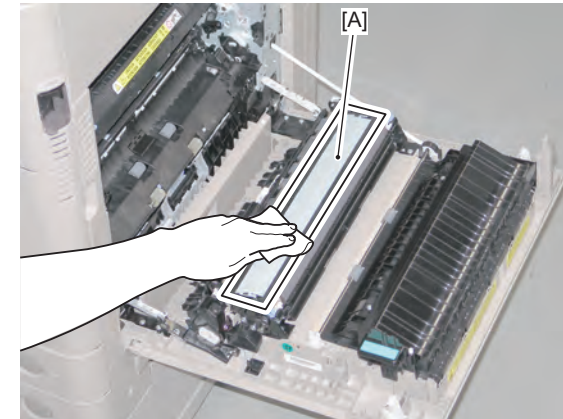


F-4-140

Cleaning the Pre-secondary Transfer Outer Guide

Procedure

- 1) Open the Right Lower Cover fully.
- 2) Clean the Pre-secondary Transfer Outer Guide area [A] with lint-free paper moistened with alcohol.

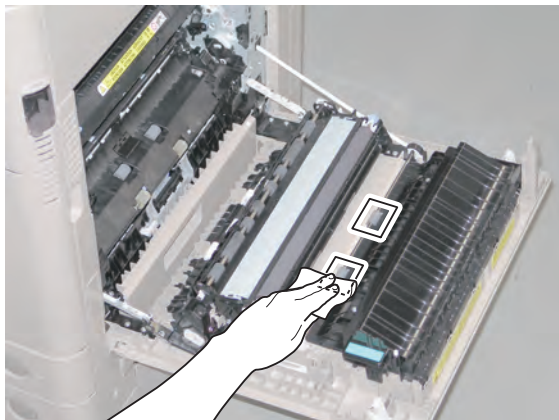


F-4-141

Cleaning Duplex Feed Lower Roller

Procedure

- 1) Open the Right Lower Cover fully.
- 2) Clean a whole circumference of the Duplex Feed Lower Roller with lint-free paper moistened with alcohol.



F-4-142

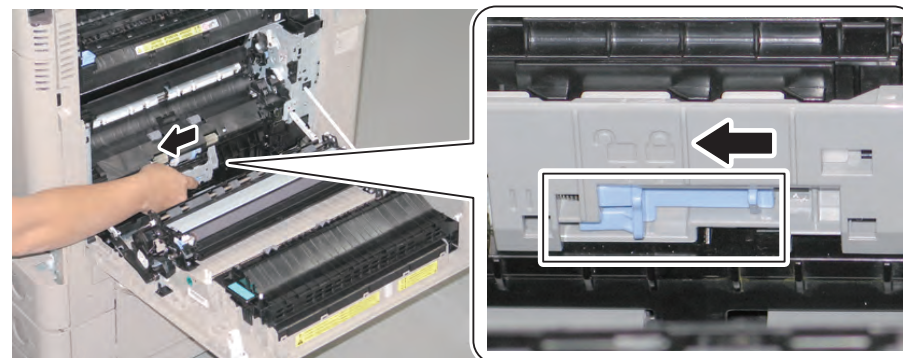
Removing the Cassette 1 Separation Roller Unit

CAUTION:

Do not touch the roller surface of the Cassette 1 Separation Roller Unit, Secondary Transfer Outer Roller, and the Registration Roller.

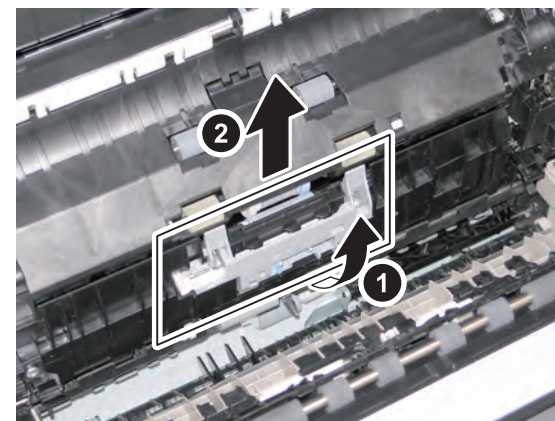
Procedure

- 1) Pull out the Cassette 1.
- 2) Open the Cassette Right Upper Cover.
- 3) Open the Right Lower Cover fully.
- 4) Move the Lock Lever in the direction of the arrow.



F-4-143

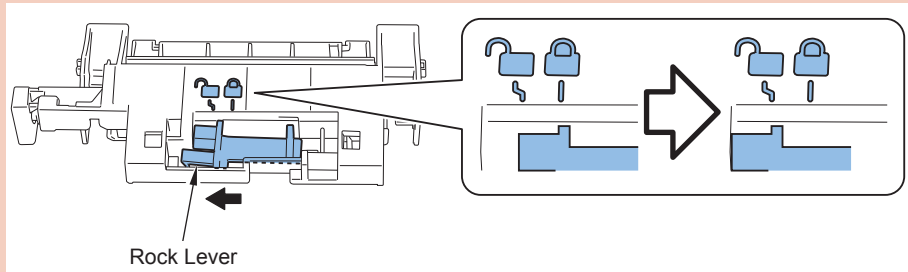
- 5) Remove the Cassette 1 Separation Roller Unit in the direction of the arrow.



F-4-144

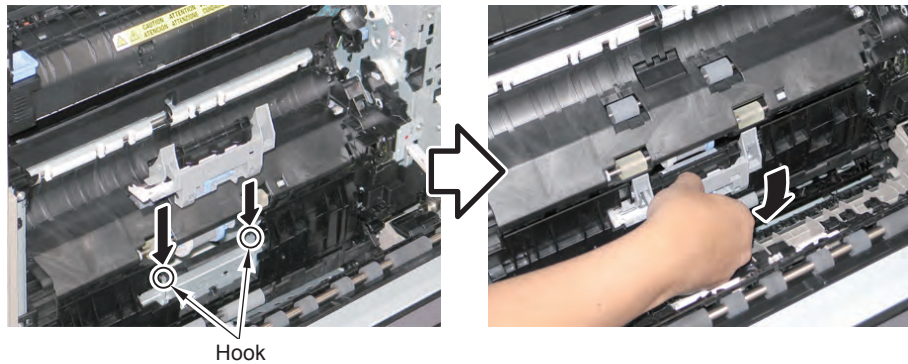
CAUTION:

When installing the Cassette 1 Separation Roller Unit, be sure that the Lock Lever is released.



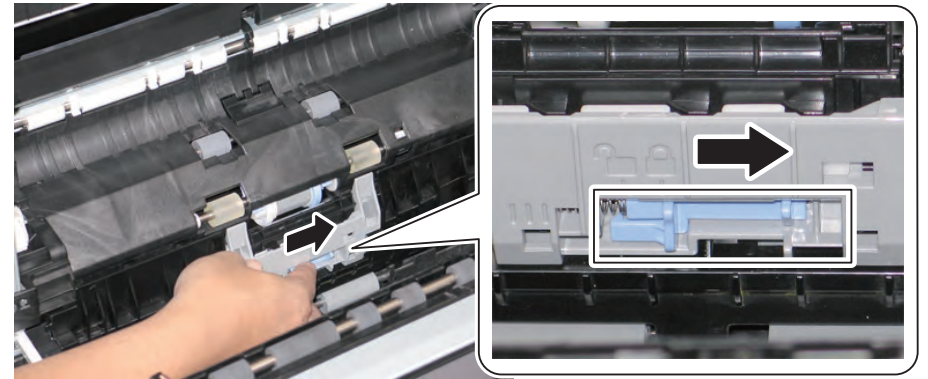
F-4-145

6) Hook to the hooks, and install the unit in the direction of the arrow.



F-4-146

7) Lock the Lock Lever in the direction of the arrow.



F-4-147

8) Check that the Cassette 1 Separation Roller Unit is secured.

Removing the Cassette 1 Pickup Roller

CAUTION:

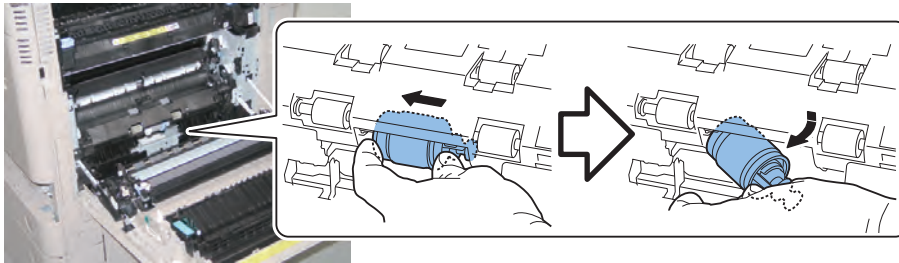
Do not touch the roller surface of the Cassette 1 Separation Roller Unit, Secondary Transfer Outer Roller, and the Registration Roller.

Preparation

1) Remove the Cassette 1 Separation Roller Unit.

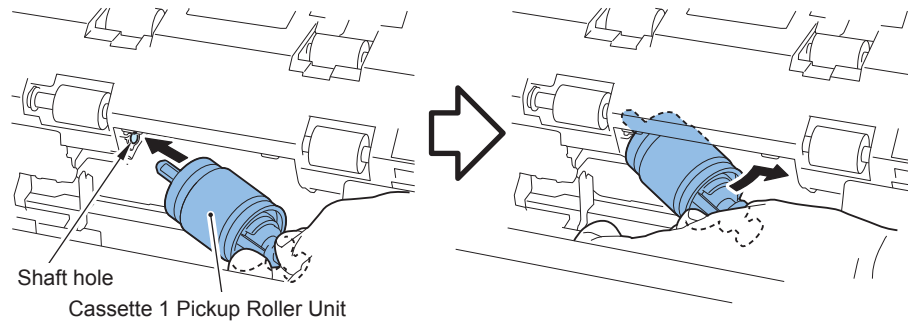
Procedure

1) Remove the Cassette 1 Pickup Roller in the direction of the arrow.



F-4-148

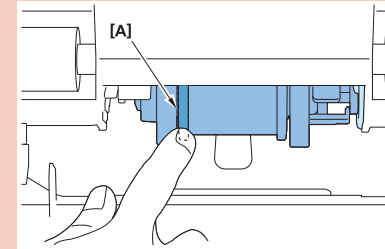
2) Align the Cassette 1 Pickup Roller with a shaft hole, and install it in the direction of the arrow.



F-4-149

CAUTION:

Be sure that there is no gap at [A] part of the Cassette 1 Pickup Roller after installation. By turning [B] part, the roller is fit into the installation position.



F-4-150

Removing the Cassette 1 Pickup Unit

CAUTION:

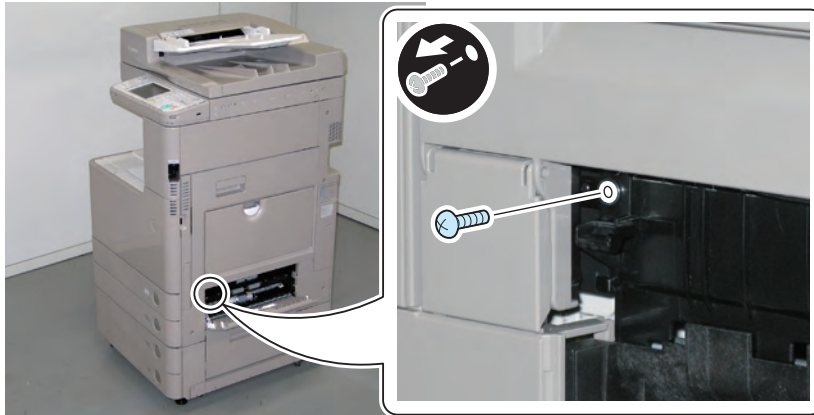
Do not touch the roller surface of the Cassette 1 Separation Roller Unit, Secondary Transfer Outer Roller, and the Registration Roller.

Preparation

- 1) Remove the Cassette 1 Separation Roller Unit.
- 2) Remove the ITB Unit.

Procedure

- 1) Close the Right Lower Cover, and remove the screw of the Pickup Guide.

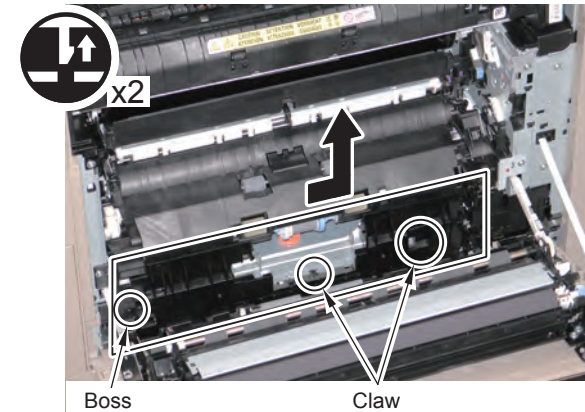


F-4-151

- 2) Open the Right Lower Cover fully.

- 3) Remove the Pickup Guide in the direction of the arrow.

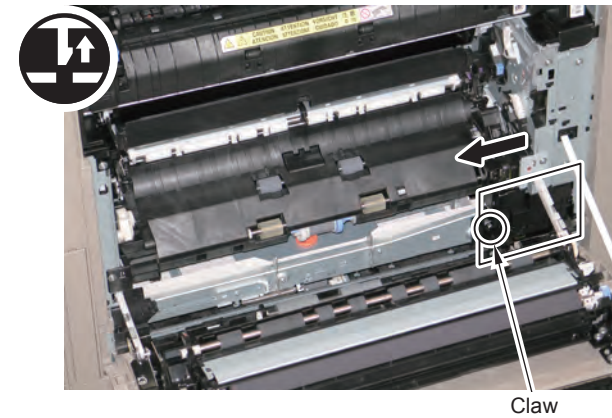
- 1 Boss
- 2 Claws



F-4-152

- 4) Remove the Cable Cover.

- 1 Claw



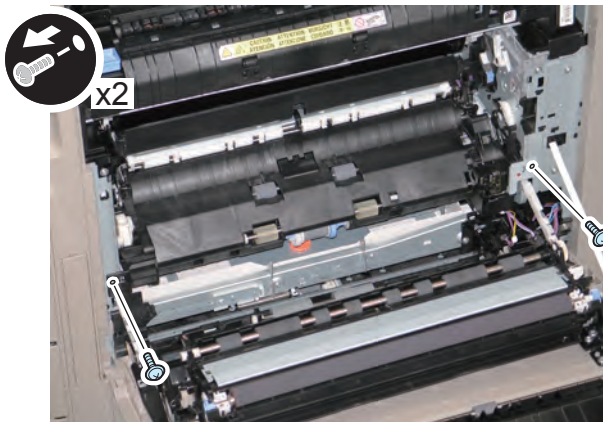
F-4-153

6) Disconnect the 3 connectors.



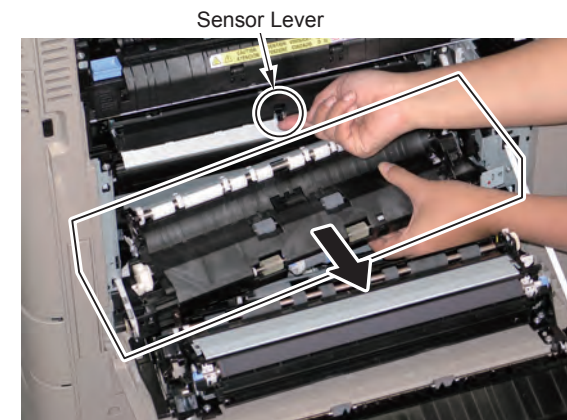
F-4-154

7) Remove the 2 screws.



F-4-155

8) While lifting up the Sensor Lever, pull out the Cassette 1 Pickup Unit toward the front.



F-4-156

CAUTION:

At installation, be sure to install the unit while lifting up the Sensor Lever, and check that it moves correctly.

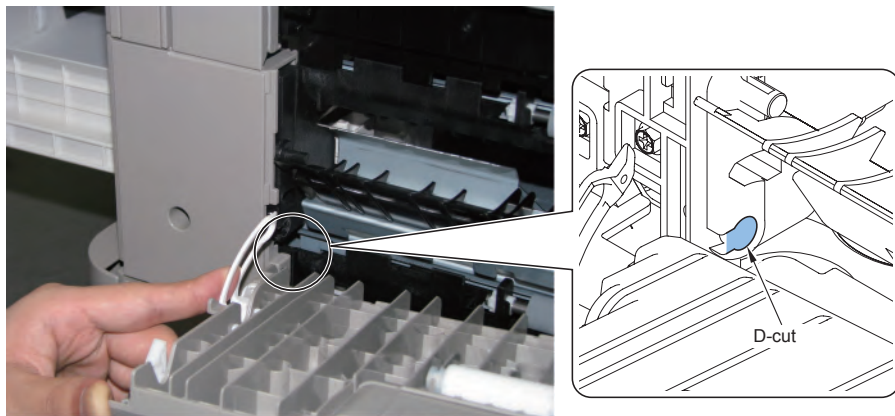
Removing the Cassette 2 Pickup Unit

CAUTION:

Do not touch the roller surface of the Cassette 1 Separation Roller Unit, Secondary Transfer Outer Roller, and the Registration Roller.

Procedure

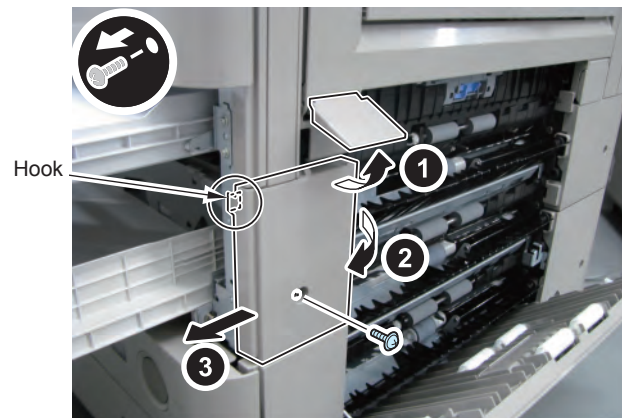
- 1) Pull out the Cassette 1 and 2.
- 2) Open the Pedestal Right Cover and the Cassette Right Upper Cover.
- 3) Remove the Cassette Right Upper Cover.



F-4-157

- 4) Remove the Cassette Right Upper Sub Cover 1.

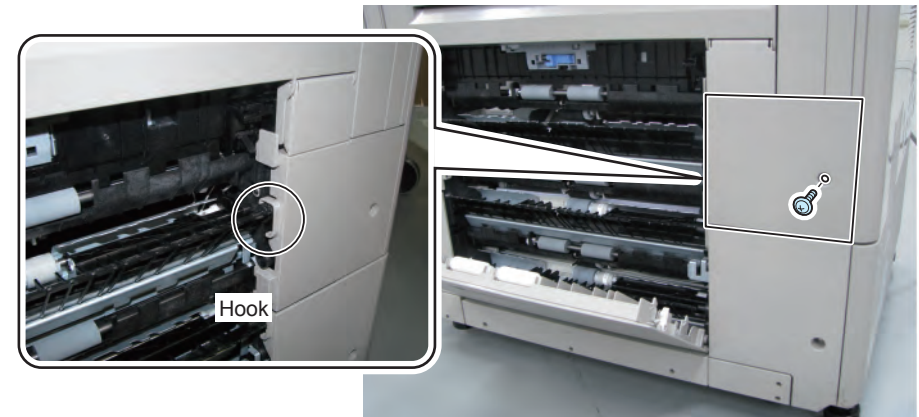
- 1 Claw



F-4-158

- 5) Remove the Cassette Right Upper Sub Cover 2.

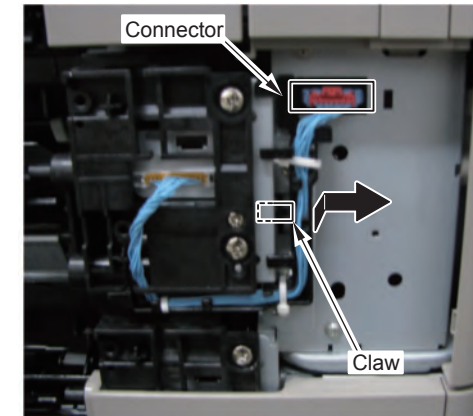
- 1 Claw
- 1 Hook



F-4-159

- 6) Remove the Connector and Connector Guide.

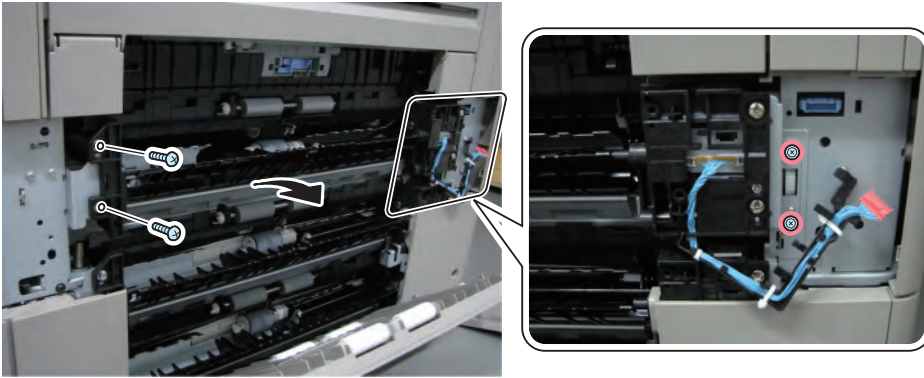
- 1 Claw
- 1 Connector



F-4-160

7) Remove the Cassette 2 Pickup Unit.

- 4 Screw



F-4-161

Removing the Cassette 2 Pickup Roller

CAUTION:

Do not touch the roller surface of the Pickup Roller, Feed Roller, and Separation Roller.

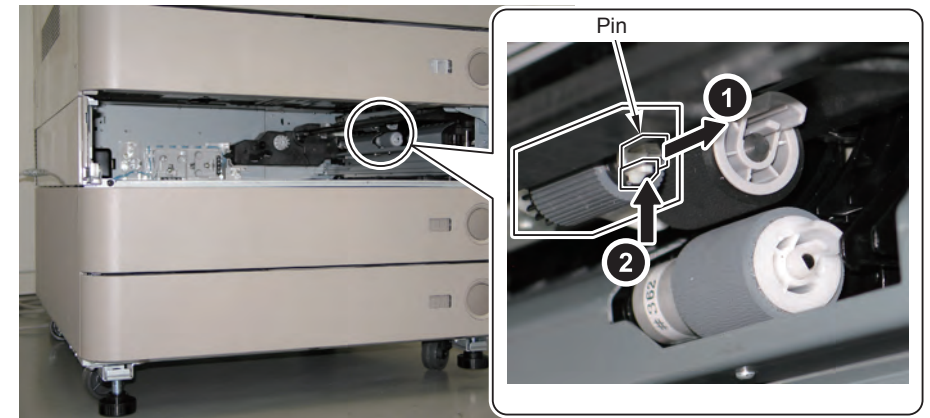
Preparation

- Remove the Cassette 2.

Procedure

1) Remove the Cassette 2 Pickup Roller.

- 1 Pin
- 1 Tab



F-4-162

Removing the Cassette 2 Feed Roller

CAUTION:

Do not touch the roller surface of the Pickup Roller, Feed Roller, and Separation Roller.

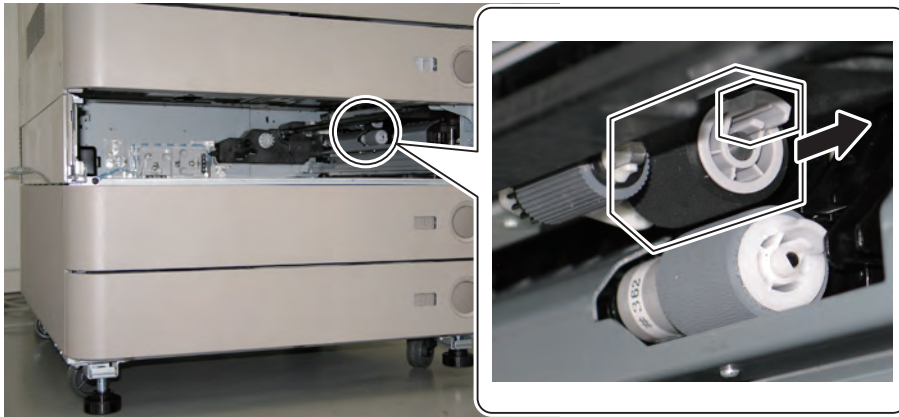
Preparation

- Remove the Cassette 2.

Procedure

1) Remove the Cassette 2 Feed Roller.

- 1 Tab



F-4-163

Removing the Cassette 2 Separation Roller

CAUTION:

Do not touch the roller surface of the Pickup Roller, Feed Roller, and Separation Roller.

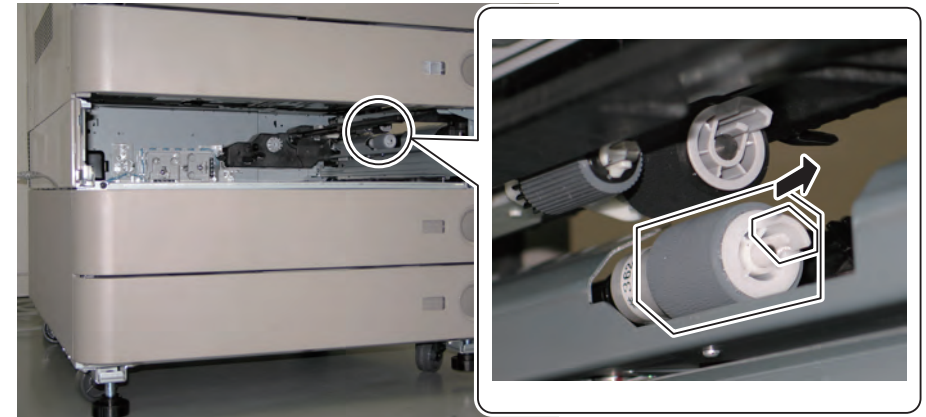
Preparation

- Remove the Cassette 2.

Procedure

1) Remove the Cassette 2 Separation Roller.

- 1 Tab



F-4-164

Removing the Pickup Assembly Idler Gear

CAUTION:

Do not touch the roller surface of the Pickup Roller, Feed Roller, and Separation Roller.

Preparation

- Remove the Cassette 2.
- Remove the Cassette 2 Pickup Roller.
- Remove the Cassette 2 Feed Roller.

Procedure

1) Remove the Cassette 2 Pickup Assembly Idler Gear.

- 1 Pin
- 1 Tab

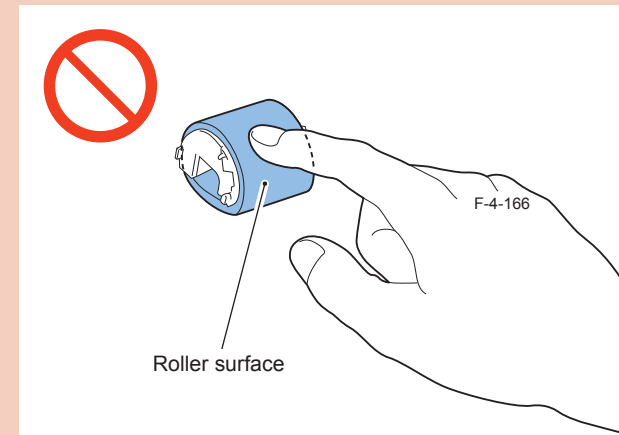


F-4-165

Removing the Multi-purpose Tray Pickup Roller

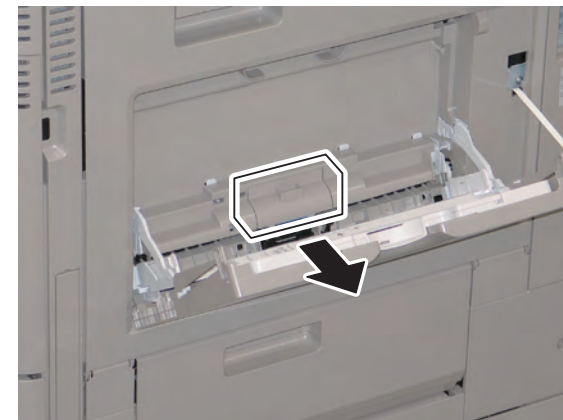
CAUTION:

Do not touch the surface of the Multi-purpose Tray Pickup Roller.



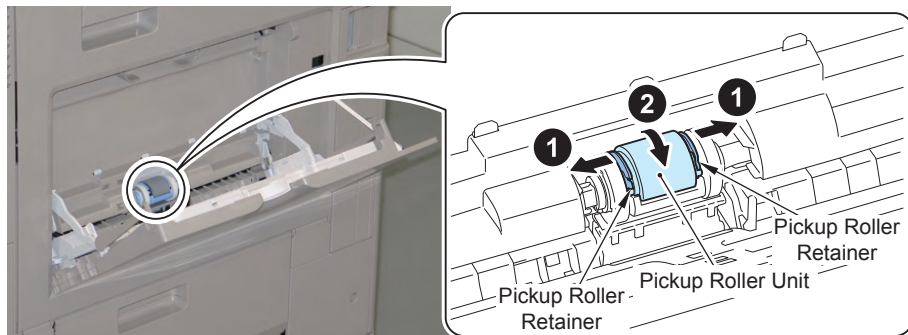
Procedure

- 1) Open the Multi-purpose Tray.
- 2) Remove the Multi-purpose Tray Pickup Roller Cover.



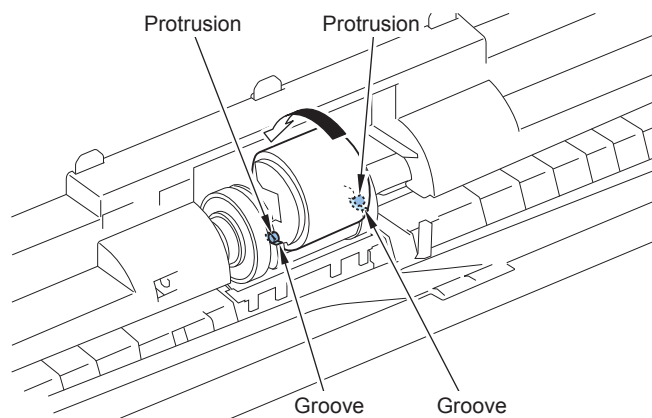
F-4-167

3) Open the Pickup Roller Retainer to right and left, and remove it in the direction of the arrow.



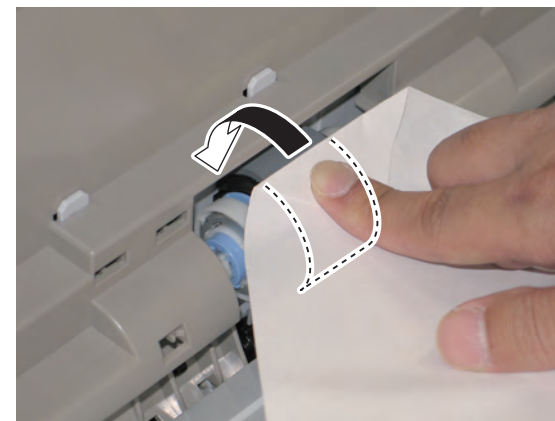
F-4-168

4) Fit the 2 protrusions on a new Pickup Roller into the groove, and install it in the direction of the arrow.



F-4-169

5) Place a paper onto the Multi-purpose Tray Pickup Roller, and install the roller by pushing it in.



F-4-170

CAUTION:

Check that the Multi-purpose Tray Pickup Roller is secured.

6) Install the Multi-purpose Tray Pickup Roller Cover.

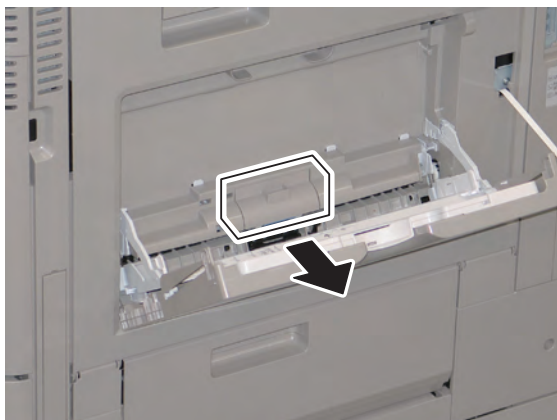
Removing the Multi-purpose Tray Separation Pad

CAUTION:

Do not touch the surface of the Multi-purpose Tray Separation Pad.

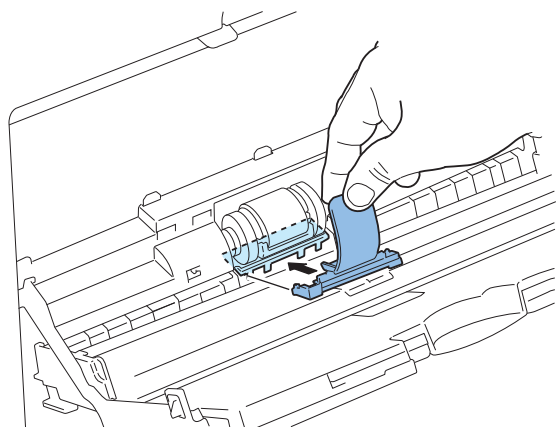
Procedure

- 1) Open the Multi-purpose Tray.
- 2) Remove the Multi-purpose Tray Pickup Roller Cover.



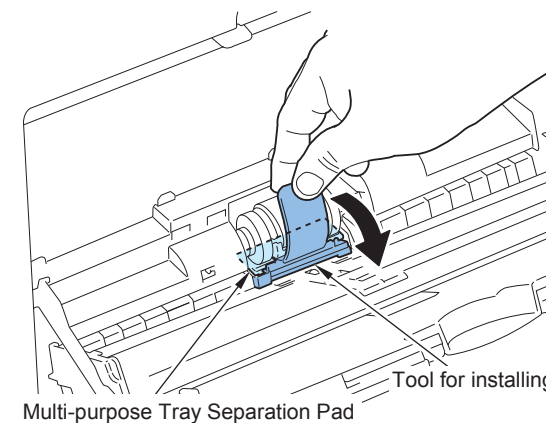
F-4-171

- 3) Insert the tool for installing included in the package in the direction of the arrow.



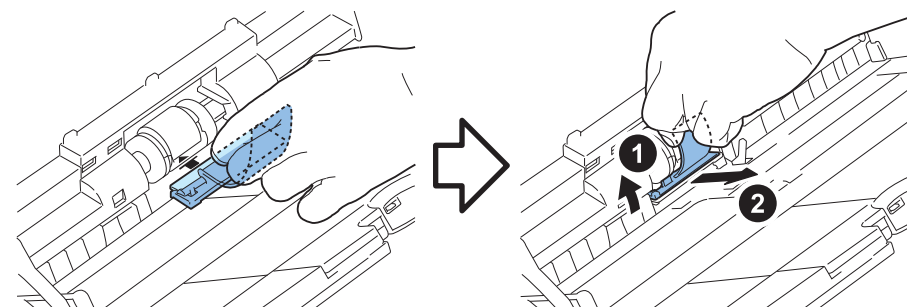
F-4-172

- 4) Move the tool for installing in the direction of the arrow to remove the Multi-purpose Tray Separation Pad.



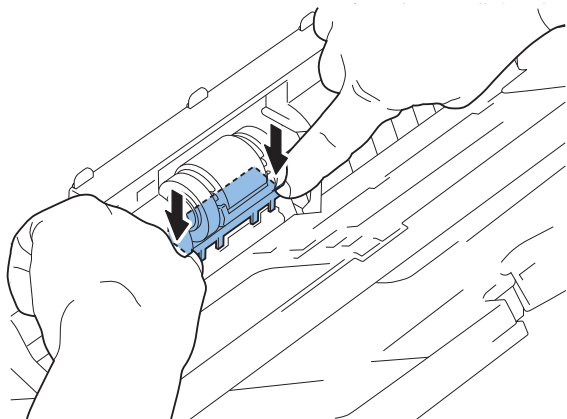
F-4-173

- 5) Insert a new Multi-purpose Tray Separation Pad in the direction of the arrow with the tool for installing, and pull out the tool.



F-4-174

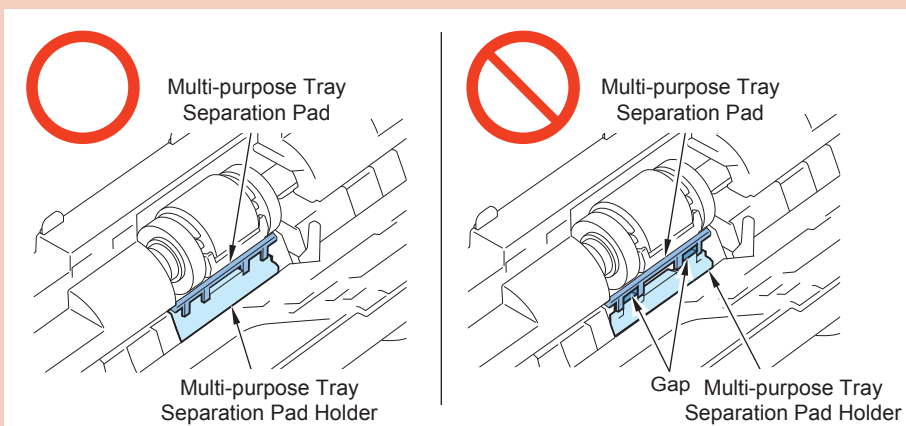
6) Push the Multi-purpose Tray Separation Pad in the direction of the arrow to secure it.



F-4-175

CAUTION:

Check that there is no gap between the Multi-purpose Tray Separation Pad and the Multi-purpose Tray Separation Pad Holder.



F-4-176

7) Install the Multi-purpose Tray Pickup Roller Cover.

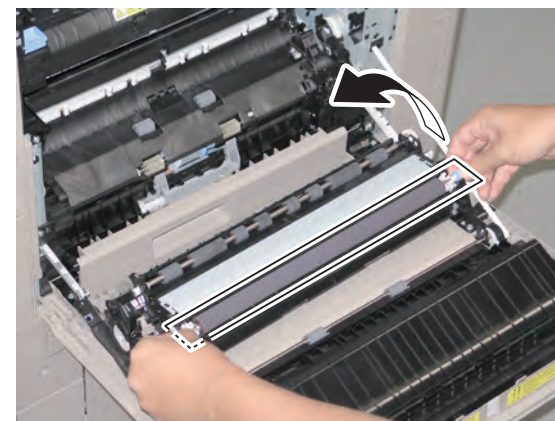
Removing the Secondary Transfer Outer Roller

CAUTION:

Do not touch the surface of the Secondary Transfer Outer Roller.

Procedure

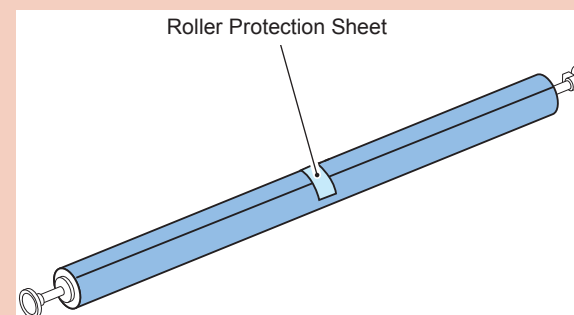
- 1) Open the Right Lower Cover fully.
- 2) Hold the both edges of the Secondary Transfer Outer Roller, and remove it in the direction of the arrow.



F-4-177

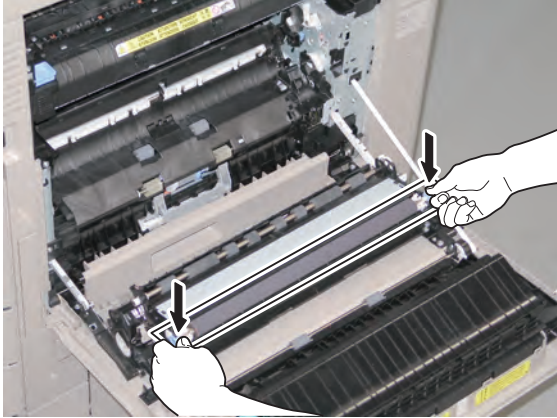
Points to Note at Installation:

Be sure not to remove the Protection Sheet on a new Secondary Transfer Outer Roller.



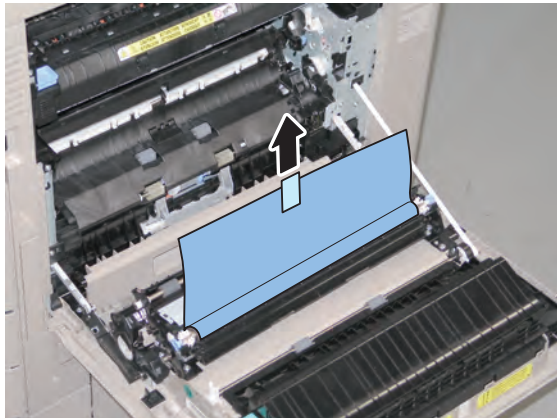
F-4-178

- 3) Hold the both edges of the Secondary Transfer Outer Roller, and install it by pushing the shafts at right and left sides.



F-4-179

- 4) Pull the tape on the Protection Sheet in the direction of the arrow to remove the sheet.



F-4-180

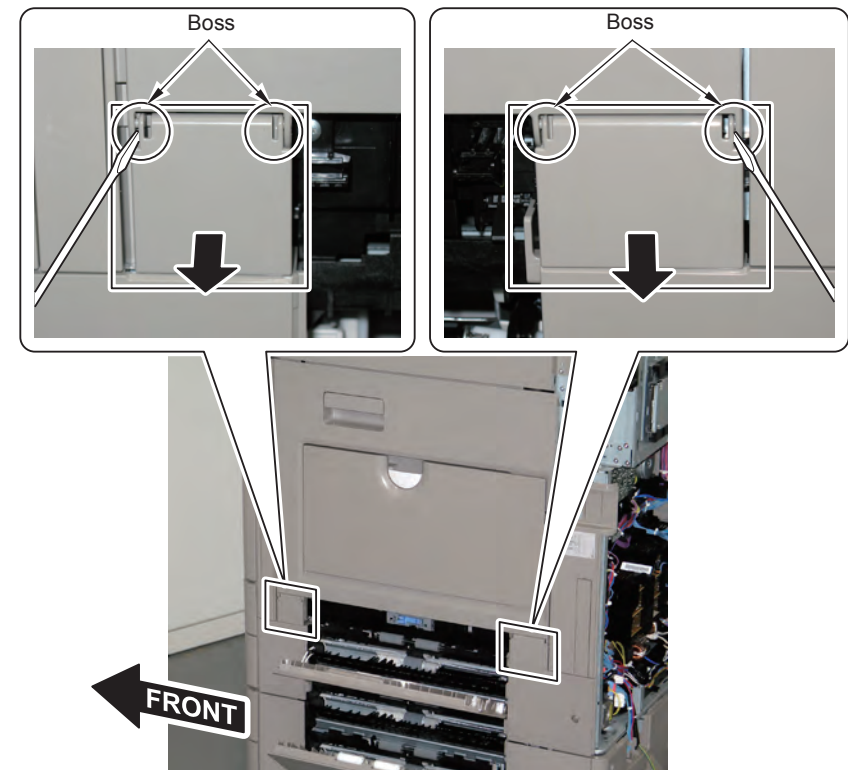
Removing the Right Door Unit

Preparation

- 1) Remove the Rear Upper Cover.
- 2) Remove the Right Upper Sub Cover.
- 3) Remove the Rear Cover.

Procedure

- 1) Open the Cassette Right Upper Cover and the Cassette Right Lower Cover.
- 2) Remove the Cassette Right Upper Sub Cover 1 and the Cassette Right Upper Sub Cover 2.
 - 2 Bosses each



F-4-181

3) Remove the Right Lower Sub Cover 2.

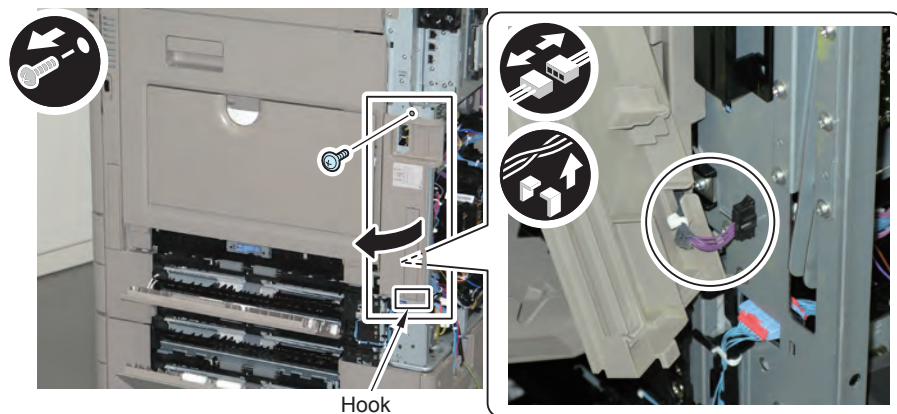
- 1 Screw
- 1 Hook



F-4-182

4) Remove the Right Rear Sub Cover.

- 1 Screw
- 1 Hook
- 1 Connector
- 1 Harness

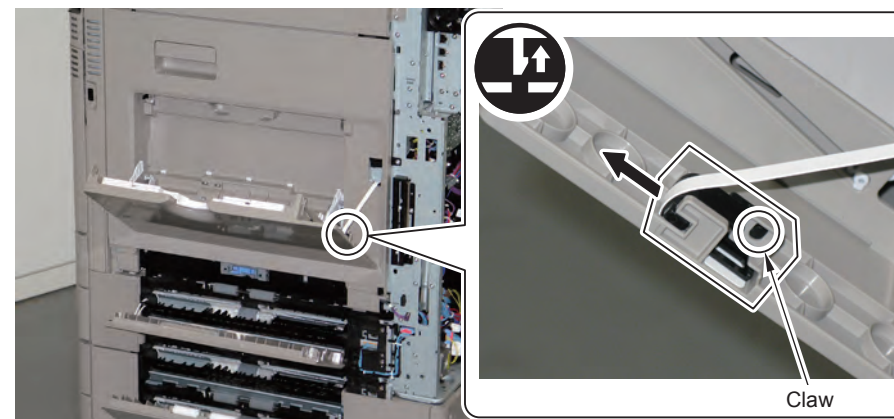


F-4-183

5) Open the Multi-purpose Tray.

6) Release the Stopper Retainer, remove the Stopper.

- 1 Claw



F-4-184

7) Close the Multi-purpose Tray.

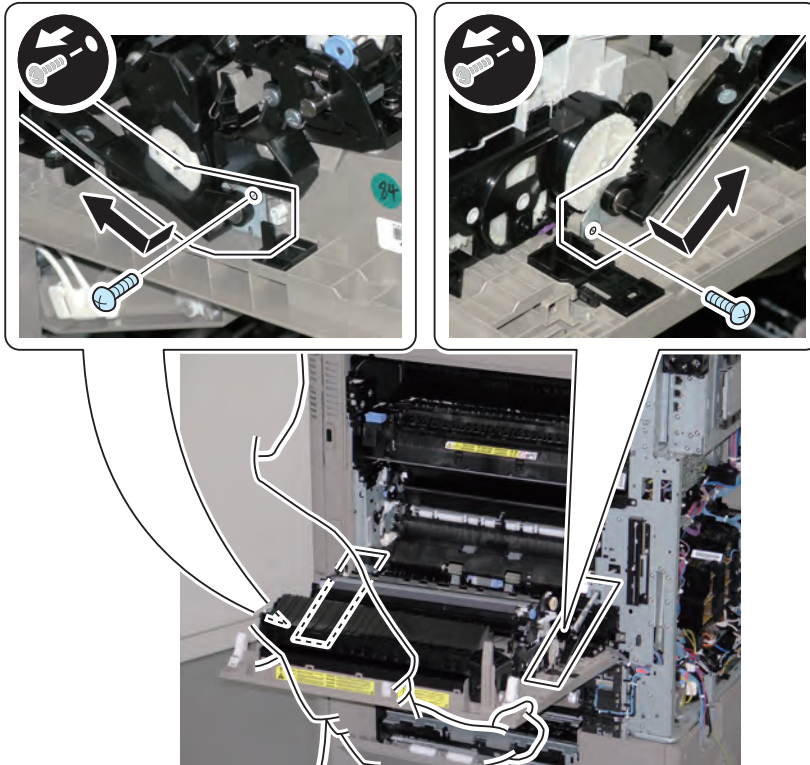
8) Open the Right Lower Cover fully.

9) Remove the Link Arms at right and left sides.

- 2 Screws

CAUTION:

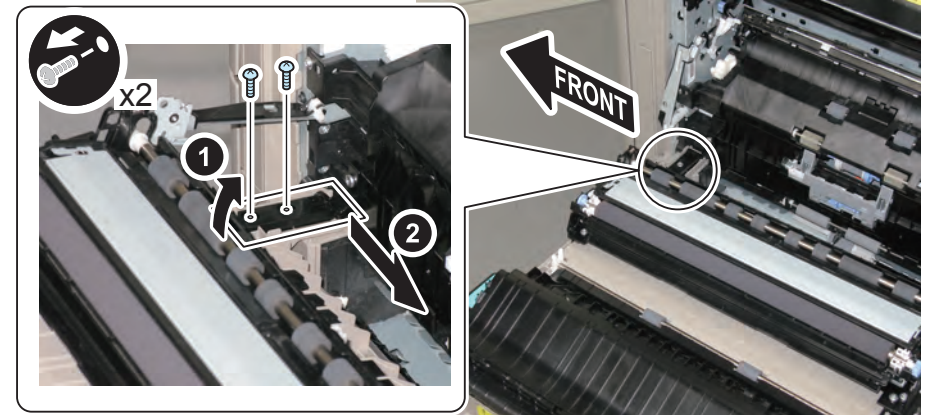
When removing the Link Arms, be sure to support the Right Door Unit.



F-4-185

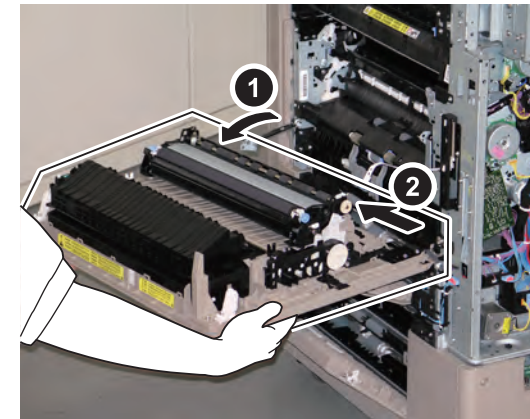
10) Remove the hinge at front side.

- 2 Screws



F-4-186

11) Remove the Right Door Unit in the direction of the arrow.



F-4-187

Disassembly/Assembly - External Auxiliary System -

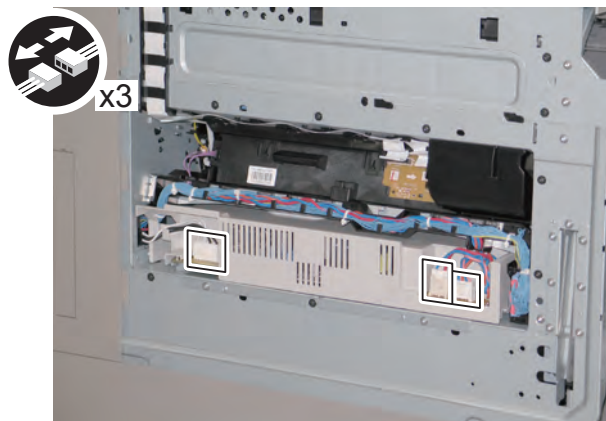
Removing the Low-voltage Power Supply Unit

Preparation

- 1) Open the Left Cover

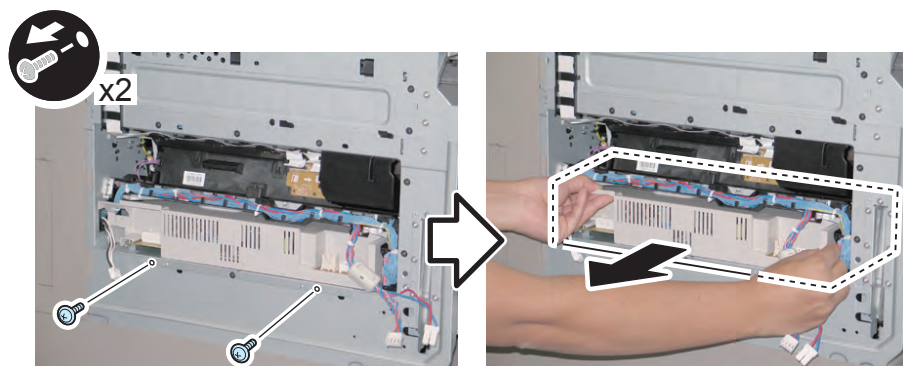
Procedure

- 1) Disconnect the 3 connectors.



- 2) Pull out the Low-voltage Power Supply Unit.

F-4-188



F-4-189



Adjustment

- Main Controller
- Pickup Feed System

Main Controller

HDD

Before Replacing	<p>1) Backup of the set/registered data Use the Remote UI. Management Settings > Data Management > Import/Export Target data:</p> <ul style="list-style-type: none"> • Address List • Forwarding Settings • Web Access Favorites <p>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."</p>
After Replacing	<p>1) HDD format</p> <p>1-1) Start with the safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main power switch.)</p> <p>1-2) Use SST to format all partitions.</p> <p>2) Downloading system software</p> <p>2-1) Use SST to download the system software (System, LANG, RUI and others).</p> <p>3) Initializing the key, certificate and CA certificate (Lv.2) COPIER > FUNCTION > CLEAR > CA-KEY</p> <p>4) Turning OFF and ON the main power switch</p> <p>5) Restoring the backup data Use the Remote UI. Management Settings > Data Management > Import/Export</p> <p>6) Resetting/registering the data While referring to the list of set/registered data which was printed before replacement, reset/register the data.</p> <p>7) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again.</p>
Points to Note when Using the HDD	<p>When using the HDD 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.</p>

T-5-1

Main controller PCB 1

Operation at Replacement	<p>Transferring the parts from old PCB to new PCB</p> <ul style="list-style-type: none"> • DDR2-SDRAM (2 pc.) • Flash PCB • TPM PCB <p>Resetting/registering the data is not necessary after Main Controller PCB 1 is replaced.</p>
Prohibited Operation	<p>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.</p> <ul style="list-style-type: none"> • Main Controller PCB 1 • Flash PCB

T-5-2

Main controller PCB 2

Before Replacing	<p>1) Backup of the set/registered data Use the Remote UI. Management Settings > Data Management > Import/Export Target data:</p> <ul style="list-style-type: none"> • Address List • Forwarding Settings <p>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</p>
Replacement	<p>Transferring the parts from old PCB to new PCB</p> <ul style="list-style-type: none"> • DDR2-SDRAM (1 pc.) • Memory PCB
After Replacing	<p>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.</p>
Prohibited Operation	<p>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.</p> <ul style="list-style-type: none"> • Main Controller PCB 2 • Memory PCB

T-5-3

DC controller PCB

Before Replacing	<p>Execute the following Service Mode to backup the DC Controller PCB SRAM. Execute COPIER > FUNCTION > SYSTEM > DSRAMBUP (LEVEL2). After "ACTIVE" is displayed for approx. 2 minutes, "OK!" is displayed. After the above execution is completed, turn OFF the main power supply.</p>
After Replacing	<p>1) Upgrade of DC Controller PCB To ensure correct behavior, upgrade the firmware to the latest firmware combination.</p> <ul style="list-style-type: none"> • When SST is used to upgrade the version, the upgrade needs to be performed in simple mode. • When download menu (USB) is used to upgrade the version, select service mode > COPIER > FUNCTION > SYSTEM > DOWNLOAD, and then press [OK]. Select Root Menu (USB) > [1]: Select Version > [1]: Upgrade (Auto) to upgrade the version. <p>2) Restore of the Service Mode data. (Lv.2) COPIER> FUNCTION> SYSTEM> DSRAMRES</p> <p>3) If uploading of backup data fails before replacement due to the damage to the DC Controller PCB, enter the values of service mode items recorded on the service label or P-PRINT.</p> <p>4) Turn OFF and then ON the main power switch. (Turning OFF/ON the main power switch allows the values entered for the service mode items to take effect.)</p>

T-5-4

Pickup Feed System

Method of Setting Special Paper

- Service mode

COPIER > OPTION > CST > CSTX-UY > Setting number

X: Cassette number, Y: Size category (X: 1 to 4, Y: 1 to 4)

CAUTION:

The size category of Cassette 1 is different from that of Cassette 2/3/4.

Size category	Size	
	Cassette 1	Cassette 2,3,4
U1	FLSP, A-FLSP, OFI, A-OFI, B-OFI, E-OFI, M-OFI, G-LGL	FLSP, A-FLSP, OFI, A-OFI, M-OFI, FA4, G-LGL, A-LTRR, FA4
U2	A-LTRR, G-LTRR	G-LTRR
U3	A-LTR	A-LTR, G-LTR
U4	G-LTR	B-OFI

T-5-5

Setting No.	Size
22	K-LGL
23	K-LGLR
24	FLSC
25	A-FLS
27	E-OFI
28	B-OFI
29	A-LTR
30	A-LTRR
31	G-LTR
32	G-LTRR
33	A-LGL
34	G-LGL
36	A-OFI
37	M-OFI
42	FA4

T-5-6

Example: When setting G-LTR to Cassette 2

COPIER> OPTION> CST> CST2-U3> 31

Method of Setting 8K and 16K (Chinese Paper)

- 1) Set the original detection size to AB configuration.r
(Lv.1) COPIER > OPTION > FNC-SW > MODEL-SZ = 0
- 2) Enable detection and display of Chinese paper (K size paper: 8K and 16K).
(Lv.2) COPIER > OPTION > FNC-SW > KSIZE-SW = 1
- 3) Change the setting of Cassette 1 from EXEC to 16K.
(Lv.2) COPIER > OPTION > CST > CST-K-SW = 1
- 4) (Lv.2) COPIER > OPTION > FNC-SW > MODELSZ2 = 0.
- 5) Turn OFF and then ON the main power.

6

Troubleshooting

- Initial Check
- Test Print
- Troubleshooting Items
- Version upgrade

Initial Check

Initial check items list

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-6-1

Test Print

Overview

This machine have the following test print TYPE and you can judge the image failure that is checked as “Yes” in the following image check items with each test print. If the image failure occurred on normal output does not reappear on the test print, it may be caused by the PDL input or reader side.

PG TYPE	TYPE Pattern	Items										Originator
		Gradation	Fogging	Transfer Fault	Black line (Color line)	White line	Uneven Density	Uneven Density at the Front / Rea	Right Angle	Straight Lines	Color displacement,	
0	Normal copy / print											----
1to3	---(For R&D)											----
4	16 gradations	Yes	Yes			Yes		Yes				Main controller PCB 2
5	Full half-tone			Yes	Yes	Yes	Yes	Yes				Main controller PCB 2
6	Grid								Yes	Yes	Yes	Main controller PCB 2
7to9	---(For R&D)											----
10	MCYBk horizontal stripes (sub scanning direction)				Yes	Yes		Yes				Main controller PCB 2
11	---(For R&D)											----
12	64-gradation	Yes	Yes			Yes						Main controller PCB 2
13	---(For R&D)											----
14	Full color 16-gradation	Yes	Yes									Main controller PCB 2
15to100	---(For R&D)											----

T-6-2

Steps to select the test print TYPE

- 1) Set the number of print, paper size etc.
- 2) Select: COPIER > TEST > PG.
- 3) Select: COPIER > TEST > PG > TYPE.
- 4) Enter the desired TYPE number and press OK key.
- 5) Select the corresponding color (setting 1 means output) in COLOR-Y/M/C/K.
- 6) Set the density in DENS-Y/M/C/K (this is enabled for TYPE=5 only).
- 7) Press start key.

How to use the test print

16 gradations (TYPE=4)



This test print is for mainly checking the gradation, fogging, white line and uneven density at front & rear.

F-6-1

Check item	Check method	Assumed cause
Gradation	Check that 16 density gradation is properly reproduced.	Failure of Drum Unit
		Failure of Laser Scanner Unit
Fogging	Check that fogging occurs on white image area only.	Failure of Drum Unit
		Failure of Laser Scanner Unit
White line	Check that white line does not appear on entire image.	Failure of Drum Unit
Uneven density at front & rear	Check that uneven density does not appear at front & rear.	Failure of Drum Unit

T-6-3

■ Full half tone (TYPE=5)



This test print is for mainly checking the black line, white line and uneven density.

F-6-2

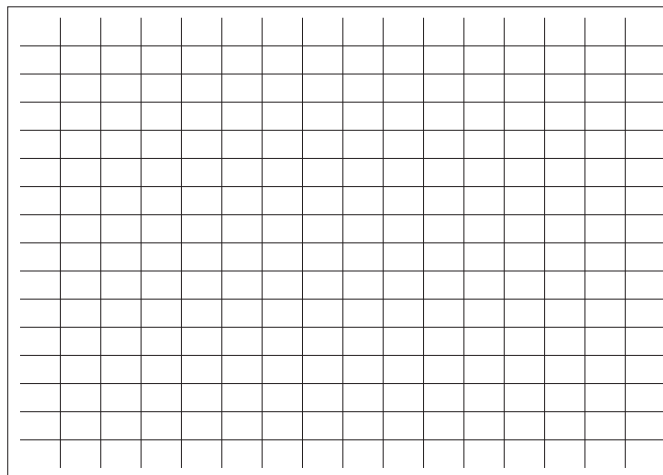
MEMO:

1. Select: service mode > COPIER > TEST > PG and specify developing color "COLOR-Y/M/C/K" to output the print by developing color.
2. To change the density of test print, select: service mode > TEST > PG > DENS-Y/M/C/K and set the density.

Check item	Check method	Assumed cause
Transfer failure	Check that the transfer failure does not appear on entire image.	Failure of ITB (scratch, dirt)
		Failure of Primary Transfer Roller (scratch, dirt)
		Failure of Secondary Transfer Roller (scratch, dirt)
Black line (color line)	Check that black line does not appear on entire image.	Scratch on Photosensitive Drum
		Dirt on Primary Charging Roller
White line	Check that white line does not appear on entire image.	Failure of ITB Unit
		Failure of Secondary Transfer Outer Roller
		Dirt on laser light path
Uneven pitch	Check that uneven pitch does not appear on entire image.	Failure of Drum Unit
Uneven density	Check that uneven density does not appear on entire image.	Dirt on Dustproof Glass
		Deterioration of ITB

T-6-4

■ Grid (TYPE=6)



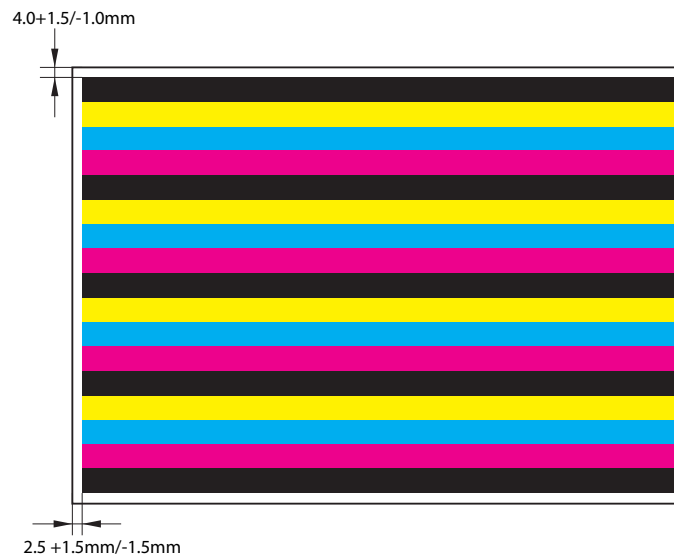
This test print is for mainly checking the color displacement, right angle accuracy and straight line accuracy.

F-6-3

Check items	Check method	Assumed cause
Uneven density	Check that uneven density does not appear on solid area of each color	Failure of Laser Scanner Unit
		Failure of developer in Drum Unit
		Failure of Primary Transfer Roller
Black line (color line)	Check that black line (color line) does not appear on solid area of each color	Scratch on Photosensitive Drum
		Dirt on Primary Charging Roller
White line	Check that white line does not appear on solid area of each color	Failure of ITB Unit
		Failure of Secondary Transfer Outer Roller
		Dirt on Laser Light Path

T-6-5

■ MCYBk horizontal stripe (TYPE=10)



This test print is for mainly checking the dark area density of each color, each color balance and white line on development.

F-6-4

Check items	Check method	Assumed cause
Uneven density	Check that uneven density does not appear on solid area of each color	Failure of Laser Scanner Unit
		Failure of developer in Drum Unit
		Failure of Primary Transfer Roller
Black line (color line)	Check that black line (color line) does not appear on solid area of each color	Scratch on Photosensitive Drum
		Dirt on Primary Charging Roller
White line	Check that white line does not appear on solid area of each color	Failure of ITB Unit
		Failure of Secondary Transfer Outer Roller
		Dirt on Laser Light Path

T-6-6

■ 64-gradations (TYPE=12)



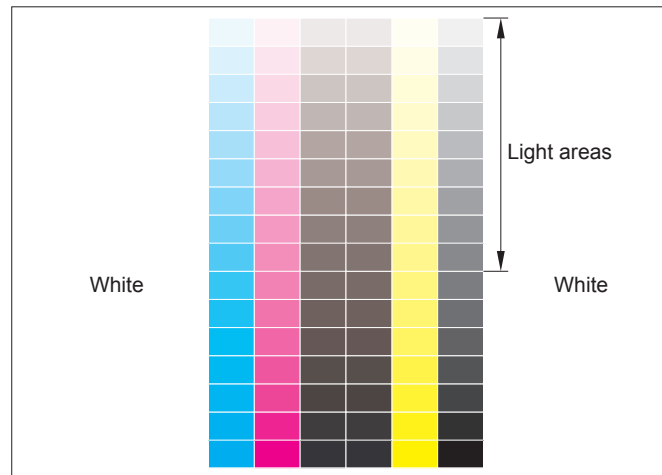
This test print is for mainly checking the gradations of YMCBk single color at one time.

F-6-5

Check item	Check method	Assumed cause
Gradation	Check that 64 gradations density is properly reproduced.	Failure of Drum Unit
		Failure of Laser Scanner Unit
Fogging	Check that fogging appears on white image area only.	Failure of Drum Unit
		Failure of Laser Scanner Unit
White line	Check that there is no white line on entire image.	Failure of Drum Unit

T-6-7

■ Full color 16-gradations (TYPE=14)



This test print is for mainly checking the gray balance, gradations of YMCBk single color and fogging.

F-6-6

Check item	Check method	Assumed cause
Gradation	Check that 64 gradations density is properly reproduced in each color.	Failure of Drum Unit
		Failure of Laser Scanner Unit
Fogging	Check that fogging appears on white image area only.	Failure of Drum Unit
		Failure of Laser Scanner Unit
Gray balance	Check that density is even in each color on gray scale area.	Failure of Drum Unit

T-6-8

Troubleshooting Items

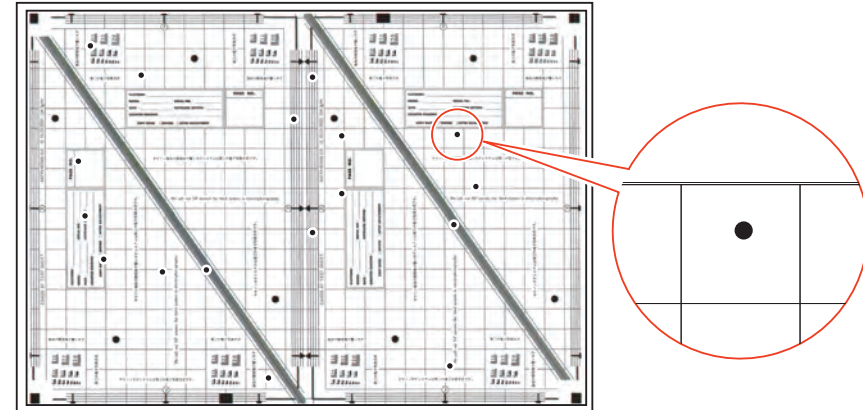
Troubleshooting Items List

Category	Item	Reference	
Image failure	Soil/spots	Dots image in whole	6-10
		White dots/spots image in whole	6-11
		Solid image on the 2nd side and magenta spots on the trailing edge of paper	6-12
		Trace of Upstream Brush	6-13
		Drum Ghost	6-14
		Fogging on Bk-color	6-15
		Actions to be taken when image smear due to condensation occurred	6-17
		Actions to be taken when water drop marks appear on the 2nd side	6-16
		Actions to be taken when image smear due to condensation occurred	6-17
		Soil/lines	Roller trace on transparency
	distortion	Image distortion	6-18
Operation failure	Abnormal noise during pickup from Cassette 2	6-19	
	Second Delivery Tray full detection error (020A jam occurrence)	6-19	
	Document falling from Inner Finisher	6-20	
	Frequent occurrence of E040-0002	6-20	
	Waste toner leak	6-21	
	Alignment error in Inner Finisher	6-23	
	JAM "0d91" during the PG print	6-23	

T-6-9

Image Failure

Dots image in whole



F-6-7

[Location]

Developing Assembly or Upstream/Downstream Auxiliary Roller, and Drum

[Cause]

This failure occurs because toner aggregate inside the machine is adhered on the drum through the Developing Cylinder or Upstream/Downstream Auxiliary Roller at the time of delivery.

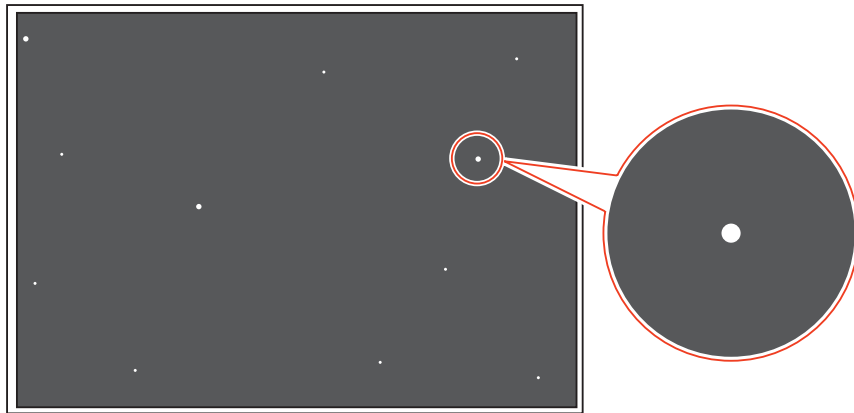
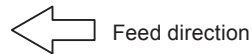
[Condition]

This failure occurs when the machine is moved (vibrated) while the life of the Drum Unit is close to the end and toner aggregate exists inside the machine

[Field Remedy]

It can be alleviated by opening and closing the Front Door and performing warm-up rotation. Perform the operation 1 to 3 times. (When performing the operation 3 times, degree of alleviation increases.)

White dots/spots image in whole



[Location]

Primary Charging Roller

F-6-8

[Cause]

1. This failure occurs because toner aggregate inside the machine is adhered on the Primary Transfer Roller at the time of delivery.
2. This failure occurs because transfer efficiency is decreased if the machine is used with high CV (1,000 sheets or more per day) every day.

[Condition]

1. This failure occurs when the machine is moved (vibrated) while the life of the Drum Unit is close to the end and toner aggregate exists inside the machine
2. This failure occurs on solid black when the machine is used with high CV (1,000 sheets or more per day) every day.

[Field Remedy]

When this failure occurs at the time of delivery

Execute the following service mode to eject the deteriorated toner.

COPIER > FUNCTION > CLEANING > TBLT-CLN <LEVEL1>

If a user moves the machine by himself/herself and inquires regarding the image failure, this symptom can be solved by copying a blank image on approx. 10 sheets of paper.

When this failure occurs with high CV environment

Execute the following service mode to eject the deteriorated toner.

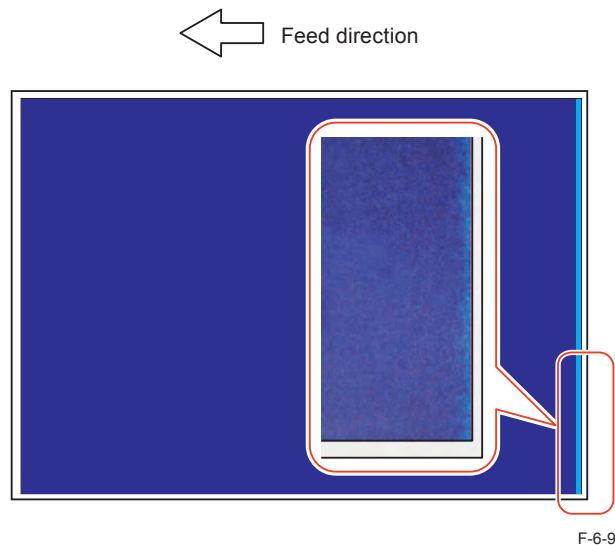
COPIER > FUNCTION > CLEANING > TBLT-CLN <LEVEL1>

This failure can be prevented by checking the frequency of user usage and then changing the following service mode to change the interval of brush discharge control. However, be sure to get approval from the user in advance that productivity is decreased when executing this service mode.

COPIER > OPTION > IMG-LSR > PR-SUBBR <LEVEL2>

■ Solid image on the 2nd side and magenta spots on the trailing edge of paper

(As this service mode is increased by 1, the margin on the trailing edge of paper changes by 0.0423mm. Be sure to have 1.5mm or longer margin on the trailing edge.)
If the symptom still occurs, increase the setting value by 1 and check the image.



[Location]

Secondary Transfer Roller

[Cause]

When the trailing edge of paper passes through the Secondary Transfer Roller, the contact point with the roller has the following 2 areas: paper presence and paper absence. In dry environment, a resistance difference occurs between these 2 areas (paper presence and paper absence), and a current is more likely to flow to the area of paper absence. Usually, if there is an enough margin on the trailing edge of paper, the current difference does not affect on the image, but if the margin is extremely narrow (1.0 to 1.2mm), a transfer failure may occur.

[Condition]

This failure occurs when printing a solid image on both sides including magenta in the normal temperature and low humidity environment.

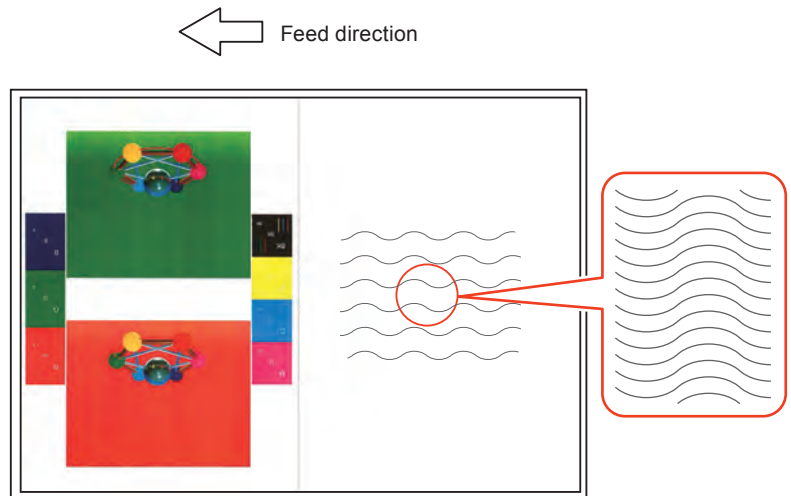
This failure occurs when the setting value of margin is extremely narrow (1.0 to 1.2mm).

[Field Remedy]

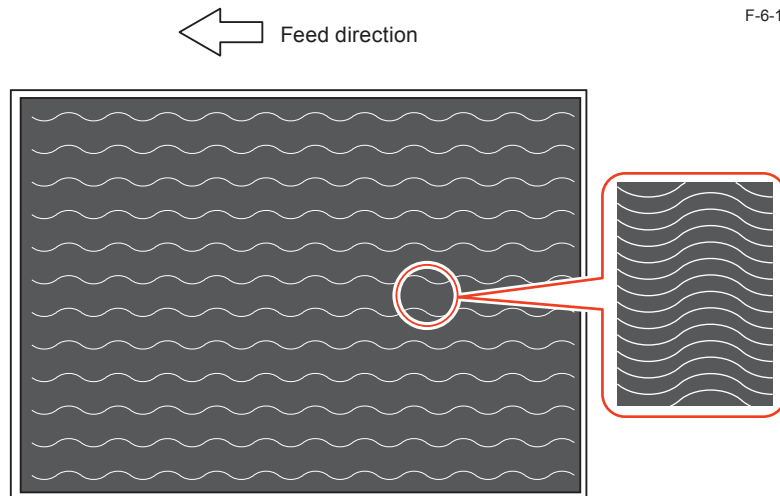
Adjust the margin on the trailing edge of paper. (COPIER>Adjust>BLANK>BLANK-B)<Level1>

Set the service mode setting value to "36" or higher.

Trace of Upstream Brush



F-6-10



F-6-11

[Cause]

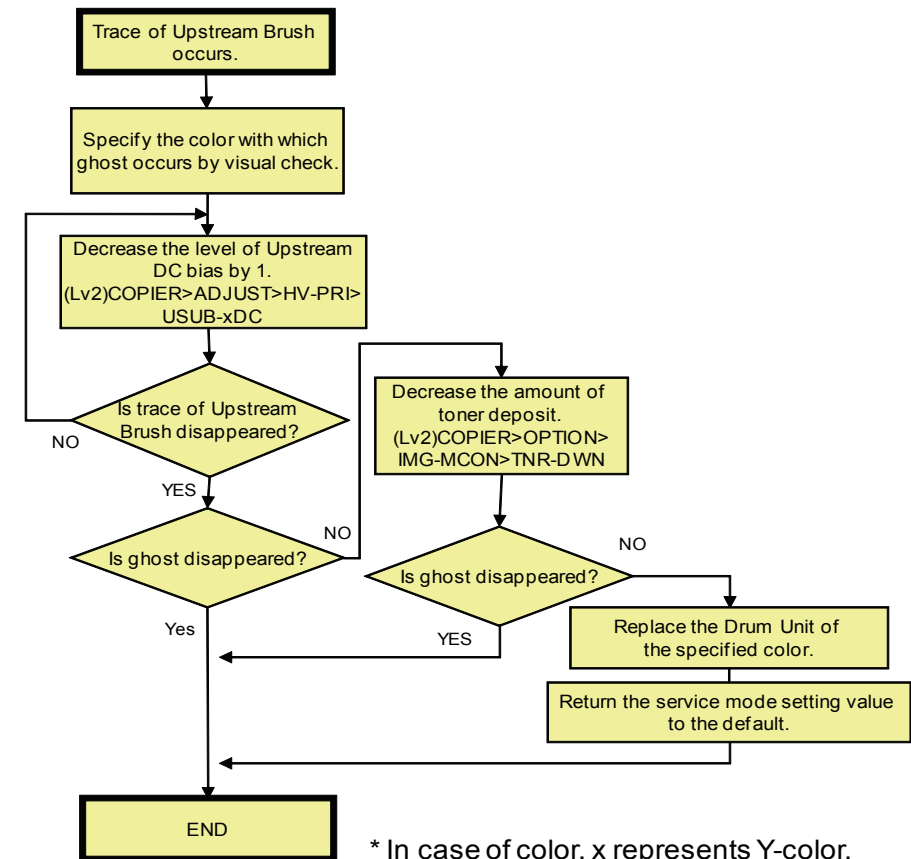
As the residual toner accumulated on the Upstream Brush increases, uneven potential occurs between the Upstream Brush and the Drum due to partial discharge so that the drum cannot be charged evenly. For this reason, toner adhesion occurs at blank area.

[Condition]

It occurs when the life of the Drum Unit is advanced in a high duty/high CV environment.

[Field Remedy]

Perform the field remedy by referring to the following flow chart.



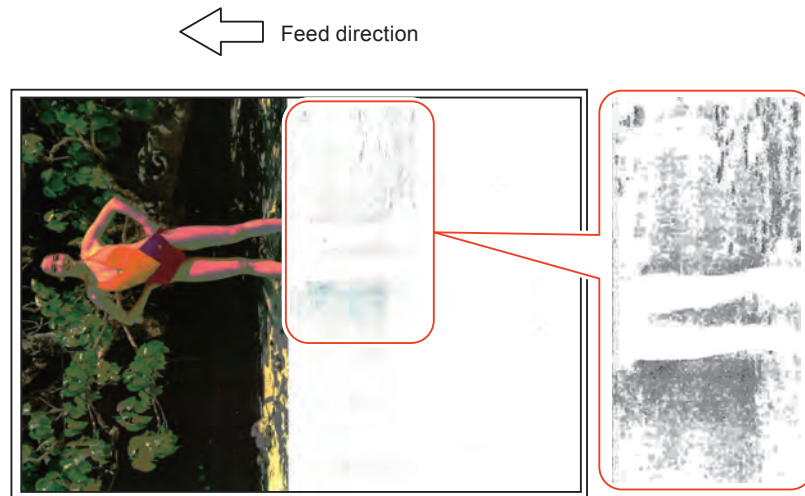
* In case of color, x represents Y-color.
In case of Bk, it represents K-color.

F-6-12

CAUTION

In case that the Drum Unit is replaced, return the setting value to the default.

Drum Ghost



F-6-13

[Cause]

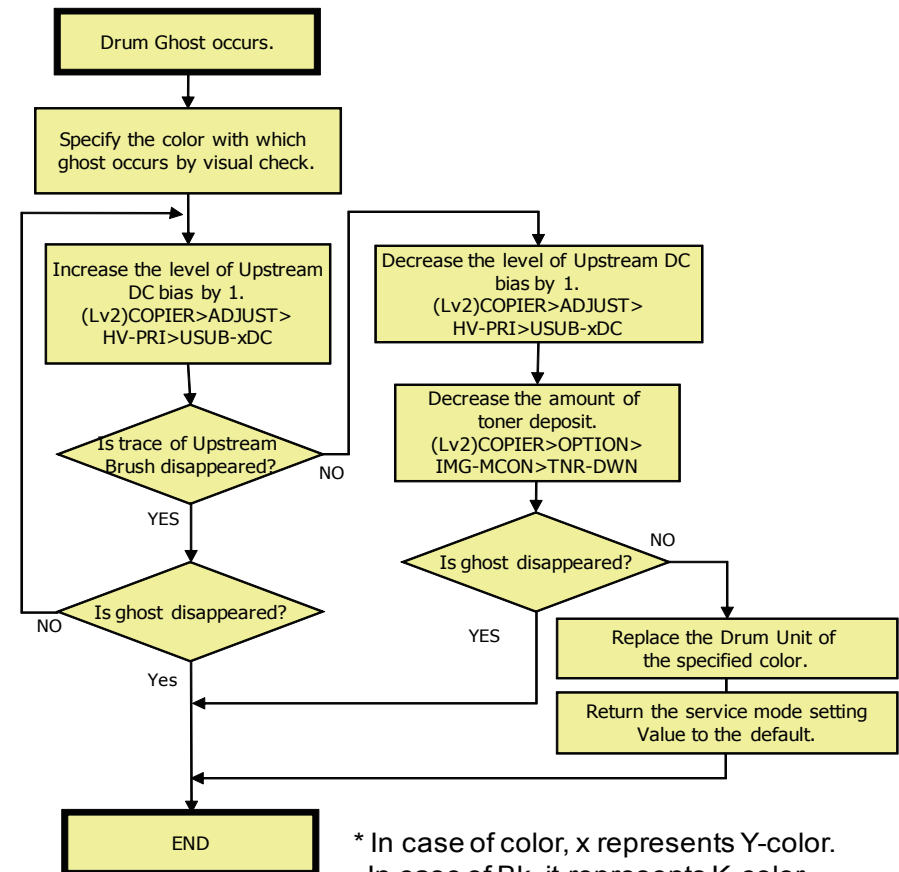
As the residual toner accumulated on the Upstream Brush increases, potential cannot be equalized when outputting solid white and solid black after transferring to the ITB so that the failure occurs.

[Condition]

It occurs when the life of the Drum Unit is advanced in a high duty/high CV environment.

[Field Remedy]

Perform the field remedy by referring to the following flow chart.

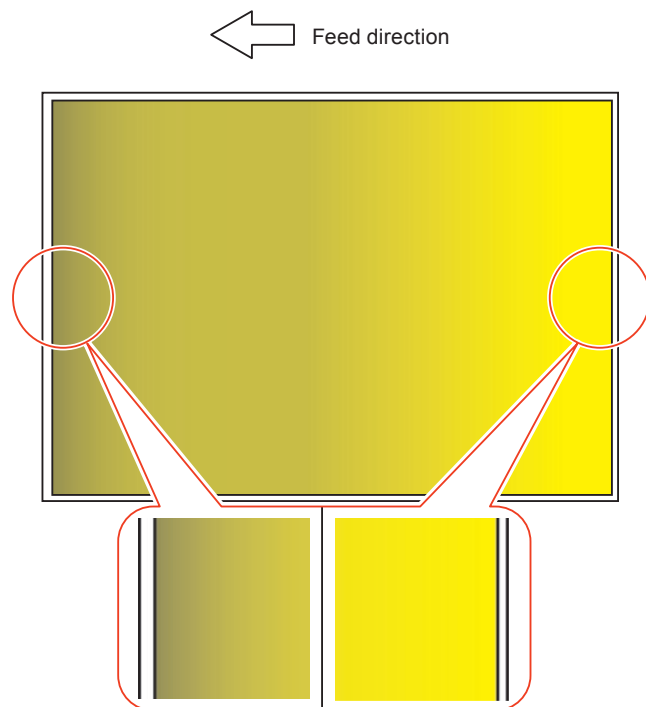


F-6-14

CAUTION

In case that the Drum Unit is replaced, return the setting value to the default.

Fogging on Bk-color



F-6-15

[Cause]

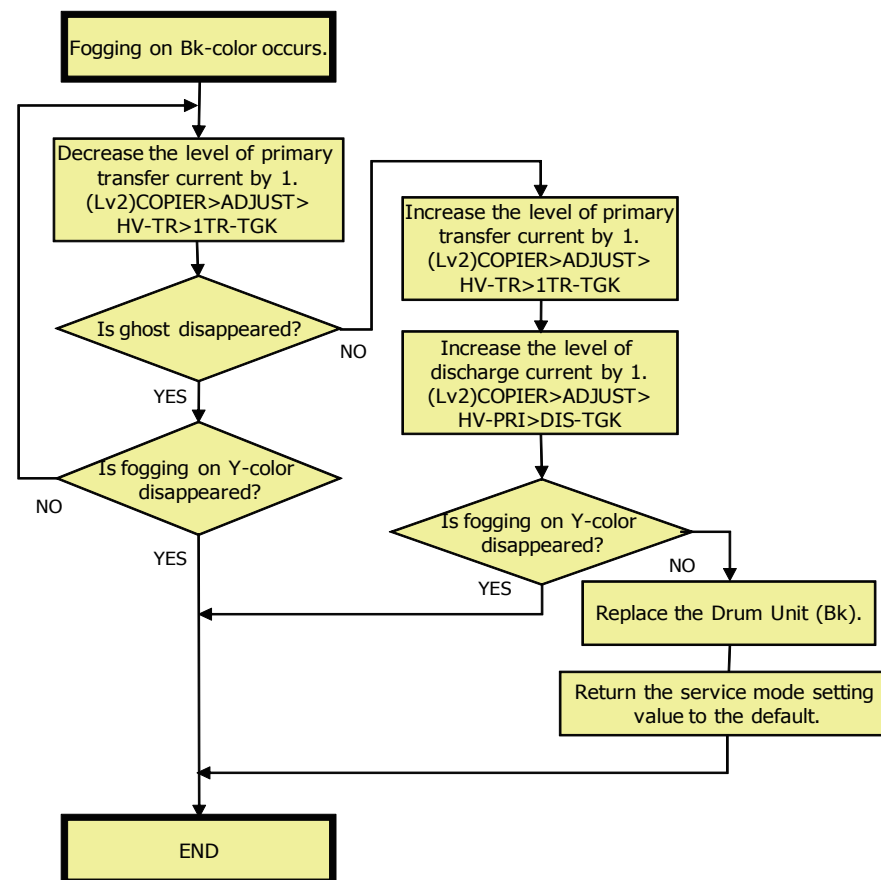
As the duty ratio changes to the upper limit at the time of high CV, the failure occurs. Because of deterioration of transfer efficiency, adhesion of residual toner increases so that it occurs.

[Condition]

It occurs when the life of the Drum Unit is advanced in a high duty/high CV environment.

[Field Remedy]

Perform the field remedy by referring to the following flow chart.

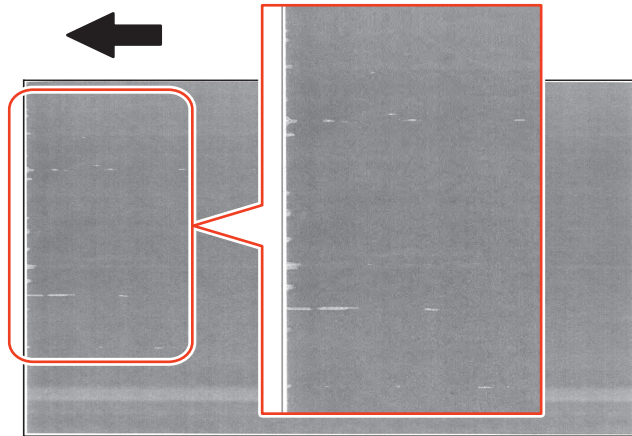


F-6-16

CAUTION

In case that the Drum Unit is replaced, return the setting value to the default.

■ Actions to be taken when water drop marks appear on the 2nd side



F-6-17

[Cause]

After paper passes through the Fixing Assembly, water contained in the paper evaporates, and the water is accumulated in the Paper Path Guide.

If the accumulated water attaches to the back (2nd side) of the 1st side when the 1st side passes, the water corrupts the image when the 2nd side is transferred and appears as water drop marks on the image.

[Condition]

When the 3-Way Unit is installed, in a high temperature and high humidity environment, and when acclimatized paper (completely hygroscopic paper) is used, the symptom occurs on the 2nd side of 2-sided printing of the first several sheets immediately after continuous paper feed of 1-sided 30 sheets.

[Field Remedy]

Select COPIER > OPTION > CUSTOM, and change the value of FAN-POST from 0 to 1, 2, or 3

The fan is driven and the water drop marks are resolved by configuring this setting.

However, jobs cannot be executed while the fan is driven. ("Printing..." is displayed on the LUI.)

FAN-POST	Downtime at execution	Effect
0	None	
1	Approx. 15 sec	Small
2	Approx. 30 sec	Medium
3	Approx. 60 sec	Large

T-6-10

CAUTION

- High waterdrop alleviation effect can be obtained when 2 or higher is set. Talk with the user about the down time before deciding the value to be set.
- The down time is the time required after auto adjustment.

■ Actions to be taken when image smear due to condensation occurred

[Cause]

Image smear occurs because of water drops attached to the Drum due to condensation in the machine caused by abrupt change in temperature and humidity.

[Condition]

A low temperature and high humidity environment or a high humidity environment with large temperature difference

[Field Remedy]

- 1) Turn ON the Environment Switch.
- 2) Select COPIER > OPTION > USER, and change the value of CSTHT-SW from 0 to 1.
- 3) Select COPIER > OPTION > CUSTOM, and change the value of FAN-ROT from 0 to 1.
- 4) Select COPIER > OPTION > DSPLY-SW, and change the value of CLN-SEL from 0 to 1, 2, or 3.
- 5) Execute Settings/Registration > Adjustment/Maintenance > Maintenance > Clean Condensation that appears on the LUI by executing step 4.

CLN-SEL	Downtime at execution	Effect
0	None	
1	Approx. 40 to 60 sec	Small
2	Approx. 2 min. to 3 min	Medium
3	Approx. 4 min. to 5 min.	Large

T-6-11

CAUTION

- When the setting value is higher, the effect becomes higher. However, the number of times of cleaning increases, so the toner consumption and drum consumption are also increased.
- When deciding the values to be set, gain agreement with the user.
- Explain the user that Settings/Registration > Adjustment/Maintenance > Maintenance > Clean Condensation needs to be executed when condensation occurs.

■ Roller trace on transparency

[Location]

First Delivery Roller

[Cause]

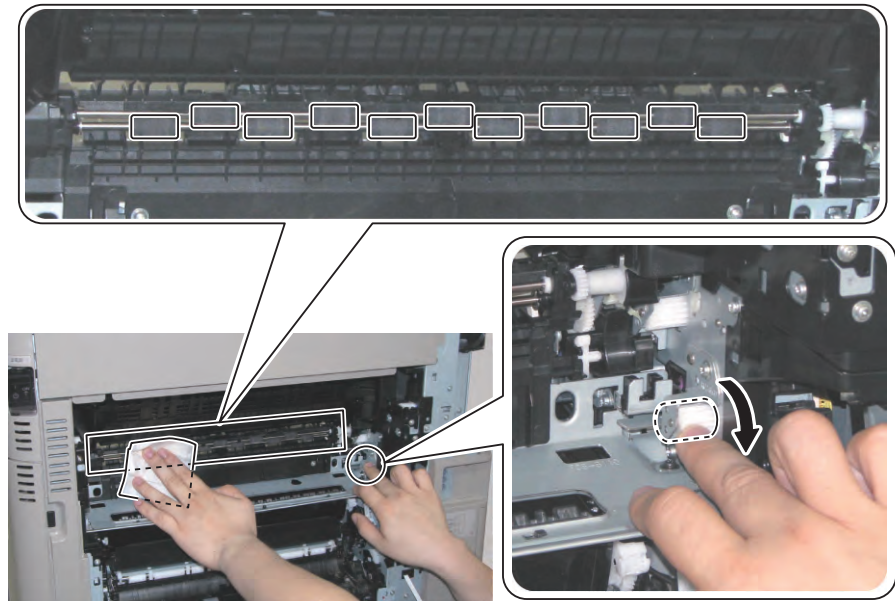
As the number of fed sheets is increased, the First Delivery Roller is soiled. With the normal paper, any problem does not occur, but when transparency is used, its soil may be adhered on the roller.

[Condition]

This failure occurs when the number of fed sheets is increased, the First Delivery Roller is soiled, and transparency is fed.

[Field Remedy]

Change to the Delivery Tray other than First Delivery Tray. Clean the First Delivery Roller with lint-free paper moistened with alcohol.

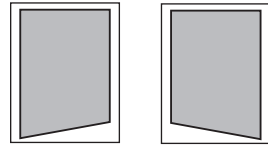


F-6-18

Image distortion

[Field Remedy]

In case that distortion occurs on the trailing edge of image as shown below, execute procedure A and B, Only if it is not solved with these measures, execute procedure C.



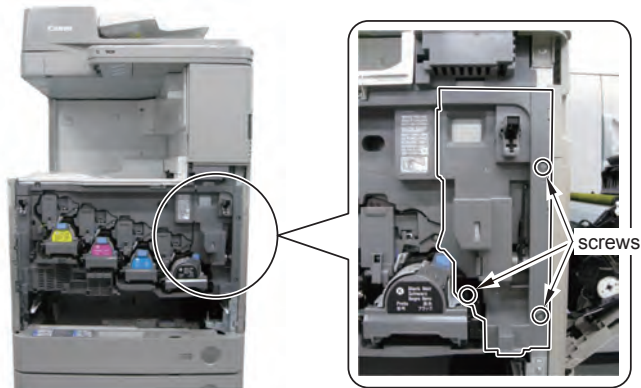
F-6-19

- Check that the paper in the cassette is positioned correctly.
- Check for any damaged parts.
- Execute alignment adjustment of the Fixing Assembly

[Fixing alignment adjustment procedure]

- Open the Right Door.
- Remove the Fixing Assembly.
- Open the Front Cover.
- Remove the Front Cover.
- Remove the Front Inner Cover.

- 3 screws



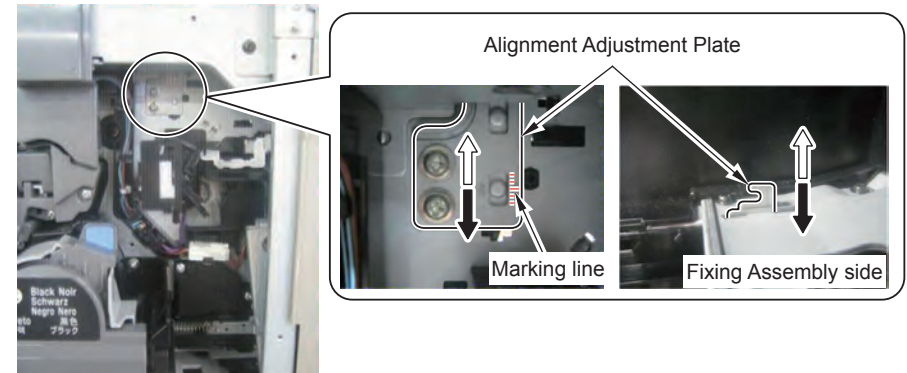
F-6-20

CAUTION

Be careful not to free the interlock when removing the Front Inner Cover.

- Vertically adjust the Adjustment Plate, using the marking line as a target for adjustment.

- 2 screws

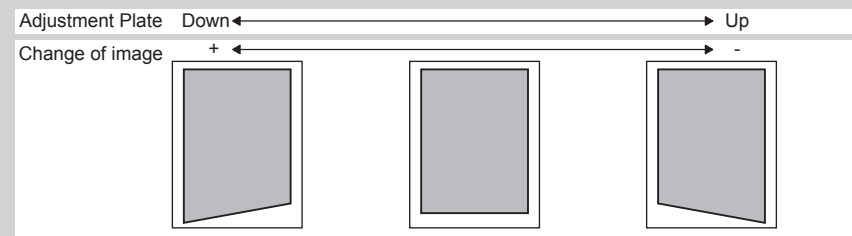


Adjustment width	
Unit of 1 scale	0.5mm
Max. adjustment width	Adjustable up to +/-1.0mm

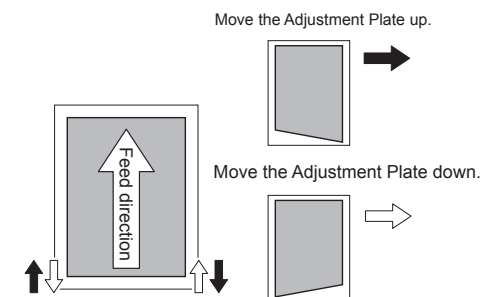
F-6-21

T-6-12

The adjustment direction and the direction of change of the image



F-6-22



F-6-23

Operation failure

Abnormal noise during pickup from Cassette 2

[Location]

Cassette 2 Pickup Unit

[Cause]

Grove and claw of the Separation Roller Shaft are not properly engaged.

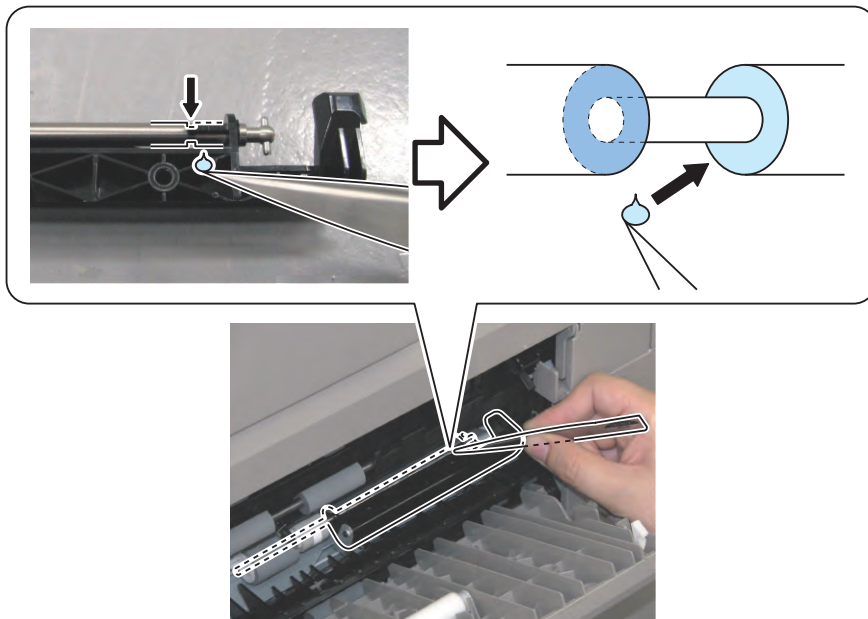
[Condition]

In rare cases, this failure occurs when grove and claw of the Separation Roller Shaft are not properly engaged.

[Field Remedy]

Follow the following procedure to apply grease to the groove and claw engagement area of the Separation Roller Shaft.

- 1) Open the Right Lower Cover.
- 2) Put rice-grain sized grease on the leading end of tweezers.
- 3) Apply grease to the area in the following figure.



F-6-24

Second Delivery Tray full detection error

[Location]

Second Delivery Tray (when installing the 3 Way Unit)

[Cause]

Level of paper curl is large, so the Full Detection Sensor cannot detect full level.

Jam code 020A occurs.

[Condition]

The occurrence of this failure differs according to paper type and size. The smaller the paper weight is, the more the paper curl occurs.

[Field Remedy]

By executing the following service mode, the fixing temperature control can be decreased by 3 deg C. However, be careful when using this mode because if the temperature is decreased too much, a fixing failure may occur.

Be careful when using the service mode because it is different according to the paper speed and weight.

In case of full speed and plain paper (60 to 105g/m²)

COPIER > OPTION > CUSTOM > TMP-TBL <Level1>

In case of half speed and plain paper (60 to 105g/m²)

COPIER > OPTION > IMG-FIX > TMP-TBL4 <Level1>

In case of half speed and heavy paper (106 to 220g/m²)

COPIER > OPTION > IMG-FIX > TMP-TBL2 <Level1>

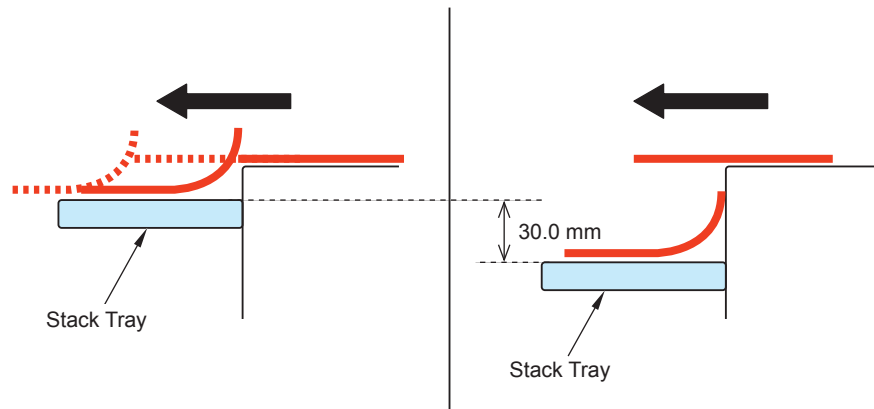
In case of half speed and transparency

COPIER > OPTION > IMG-FIX > TMP-TBL5 <Level1>

In case of half speed and envelope

COPIER > OPTION > IMG-FIX > TMP-TBL6 <Level1>

Document falling from Inner Finisher



F-6-25

[Location]
Delivery Outlet of Inner Finisher

[Cause]
Level of paper curl is large, so the preceding paper is pushed out by the succeeding paper delivered next.

[Condition]
When delivering heavy paper (106g/m² or more) or coated paper continuously in a high temperature and humidity environment

[Field Remedy]
Execute the following 2 service modes. However, when executing these service modes, productivity decreases by approx. 20% with all paper types. Therefore, be sure to explain to and get approval from the user in advance when executing them.

- Service mode for fixing temperature control
Select the following: COPIER > OPTION > IMG-FIX > TMP-TBL 2<Level1>, and set -2.
- Service mode to increase the distance from the Delivery Outlet to the Stack Tray
Select the following: SORTER > OPTION > CURL-HVY <Level1>, and set 1.

If the measure above does not solve the problem, execute the following service mode to prevent papers from being pushed out. However, when executing this service mode, productivity decreases by half with all paper types. Therefore, be sure not to execute it without a strong request from the user.

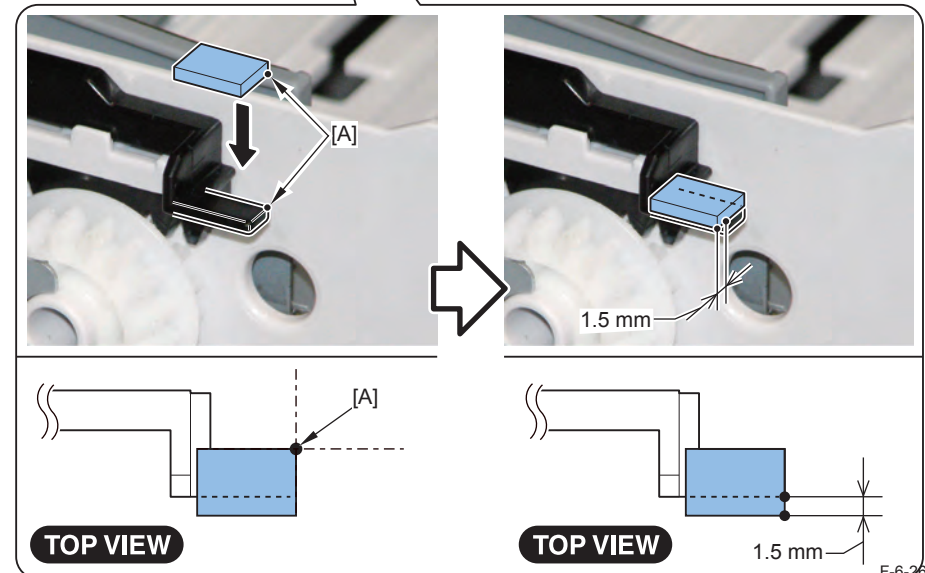
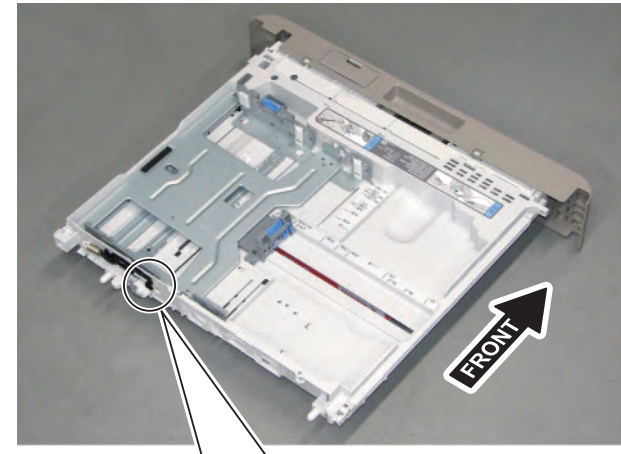
COPIER > OPTION > FNC-SW > PRE-CURL <Level1>

Frequent occurrence of E040-0002

[Cause]
The error occurs because the position of the Cassette 1 is displaced so that the sensor does not work properly.

[Field Remedy]
By extending the Sensor Flag of the Cassette 1 Lifter Sensor by approx. 1.5mm, the sensor can work properly.

Affix the Plastic Film (parts number: FC0-6709) as shown in the figure below



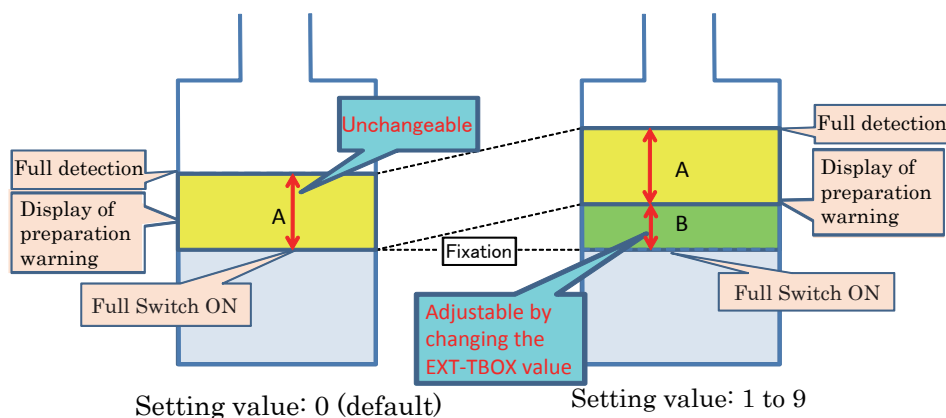
F-6-26

Waste toner leak

Adjustment mode of Waste Toner Container preparation warning timing (Setting of service mode > COPIER > OPTION > CUSTOM > EXT-TBOX : Before Cont v35.02, Dcon v62.02)

By setting this service mode, the number of pages from when the full level switch is turned on until the machine stops can be set.

(0: 0 pages (default value), 1: 1000 pages, ...9: 9000 pages)



F-6-27

A: Unchangeable

Below (1) or (2), whichever is earlier after the display timing of the Waste Toner Container preparation warning.

- (1) Count of the number of sheets: 1000 counts (1-sided: 1, 2-sided: 2, small size: 1, large size: 2)
- (2) Developing supply count: Supply amount equivalent to approx. 1000 counts at 5% image ratio

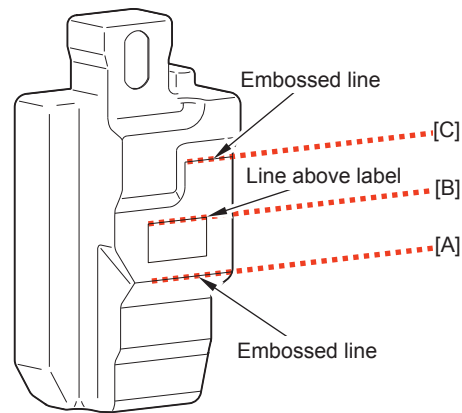
* This number of sheets decreases as the image ratio increases.

B: Varies according to the EXT-TBOX value

Service mode setting value	Display timing of Waste Toner Container preparation warning
"0" (Default setting)	When Waste Toner Full Sensor is turned ON
"1"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 1000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 1000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.
"2"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 2000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 2000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.
---	---- Count of the number of sheets: Added in increments of 1000 Developing supply count: Added in increments of approx. 1000 sheets at 5% image ratio
"9"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 9000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 9000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.

T-6-13

By using this service mode, the Waste Toner Container can be used effectively, but waste toner may overflow depending on the environment or status of usage. Therefore, the value must be set carefully. Following shows the reference for setting.



F-6-28

When toner level in the Waste Toner Container at previous replacement is less than A	+5
When toner level in the Waste Toner Container at previous replacement is over A but less than B	+1
When toner level in the Waste Toner Container at previous replacement is over B but less than C	Do not change the value
When toner level in the Waste Toner Container at previous replacement is over C	-1

T-6-14

CAUTION:

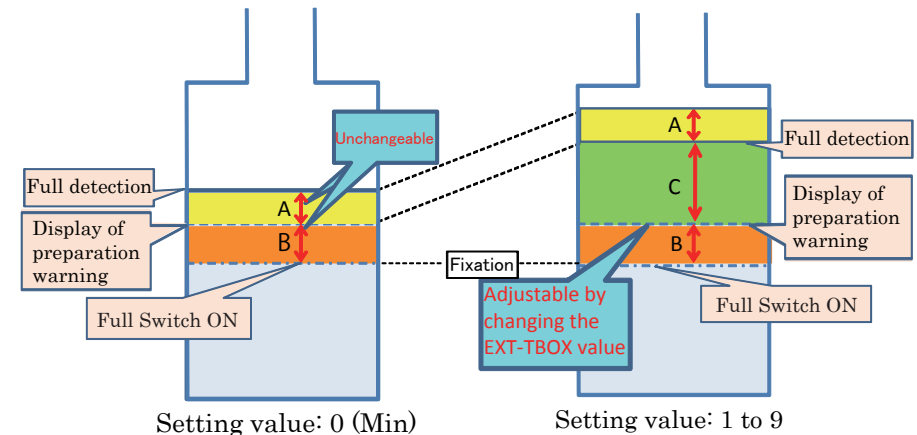
Even setting the service mode as above, waste toner leak may occur depending on usage of the user. (If a user prints a large volume of solid images in color, it may overflow.) Therefore, when changing the value, be sure to check the status of usage to confirm that not so many solid images in color have been output, and do not set a large value at once.

For the user who output a large volume of solid images in color, do not use this service mode. In summer, volume of waste toner tends to increase. Be careful not to increase the value too much before summer.

● Adjustment mode of Waste Toner Container preparation warning timing (Setting of service mode > COPIER > OPTION > CUSTOM > EXT-TBOX : Cont v35.02, Dcon v62.02 and later).

By setting this service mode, the number of pages from when the full level switch is turned on until the machine stops can be set.

(0: 5000 pages, 1: 6000 pages, ..., 4: 9000 pages (default value), ...9: 14000 pages)



F-6-29

A: Unchangeable

Below (1) or (2), whichever is earlier after the display timing of the Waste Toner Container preparation warning.

(1) Count of the number of sheets: 1000 counts (1-sided: 1, 2-sided: 2, small size: 1, large size: 2)

(2) Developing supply count: Supply amount equivalent to approx. 1000 counts at 5% image ratio

* This number of sheets decreases as the image ratio increases.

B: Unchangeable

Below (1) or (2), whichever is earlier after the display timing of the Waste Toner Container preparation warning.

(1) Count of the number of sheets: 5000 counts (1-sided: 1, 2-sided: 2, small size: 1, large size: 2)

(2) Developing supply count: Supply amount equivalent to approx. 5000 counts at 5% image ratio

* This number of sheets decreases as the image ratio increases.

C: Varies according to the EXT-TBOX value

Service mode setting value	Display timing of Waste Toner Container preparation warning
"0"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 5000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 5000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.
"1"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 6000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 6000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.
---	----
"4"(Default setting)	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 9000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 9000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.
---	----
"9"	Below (1) or (2), whichever is earlier after the Waste Toner Full Sensor is ON. (1) Count of the number of sheets: 14000 (1-sided: 1, 2-sided: 2, small size: 1, large size: 2) (2) Developing supply count: Supply amount equivalent to approx. 14000 counts at 5% image ratio * This number of sheets decreases as the image ratio increases.

T-6-15

By using this service mode, the Waste Toner Container can be used effectively, but waste toner may overflow depending on the environment or status of usage. Therefore, the value must be set carefully. Following shows the reference for setting.

CAUTION:

Even setting the service mode as above, waste toner leak may occur depending on usage of the user. (If a user prints a large volume of solid images in color, it may overflow.) Therefore, when changing the value, be sure to check the status of usage to confirm that not so many solid images in color have been output, and do not set a large value at once.

For the user who output a large volume of solid images in color, do not use this service mode. In summer, volume of waste toner tends to increase. Be careful not to increase the value too much before summer.

■ Alignment error in Inner Finisher

[Location]

Delivery Outlet of Inner Finisher

[Cause]

Alignment error due to occurrence of unexpected curl.

[Condition]

Because it occurs unexpectedly, it may occur in all environments although the possibility is low. In a high temperature and humidity environment, the problem is likely to occur.

[Field Remedy]

Execute the following service mode for fixing temperature control. Recommended setting value is -2. If the value is decreased too much, a fixing failure may occur; thus, be careful when using this mode.

COPIER > OPTION > CUSTOM > TMP-TBL <Level1>

■ JAM "0d91" during the PG print

[Location]

Multi-purpose Tray

[Cause]

The Multi-purpose Tray paper setting is not appropriate.

[Condition]

When the service mode "COPIER>TEST>PG>PG-PICK " is set to 6(Multi-purpose Tray) and the paper size selection is incorrect.

[Remedy]

After removing the jam papers, turn OFF and ON the main power SW.

In case of re-printing the PG print, set the paper size to a correct size or set the service mode "COPIER>TEST>PG>PG-PICK" to any value other than 6.

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 referred to as "SST")

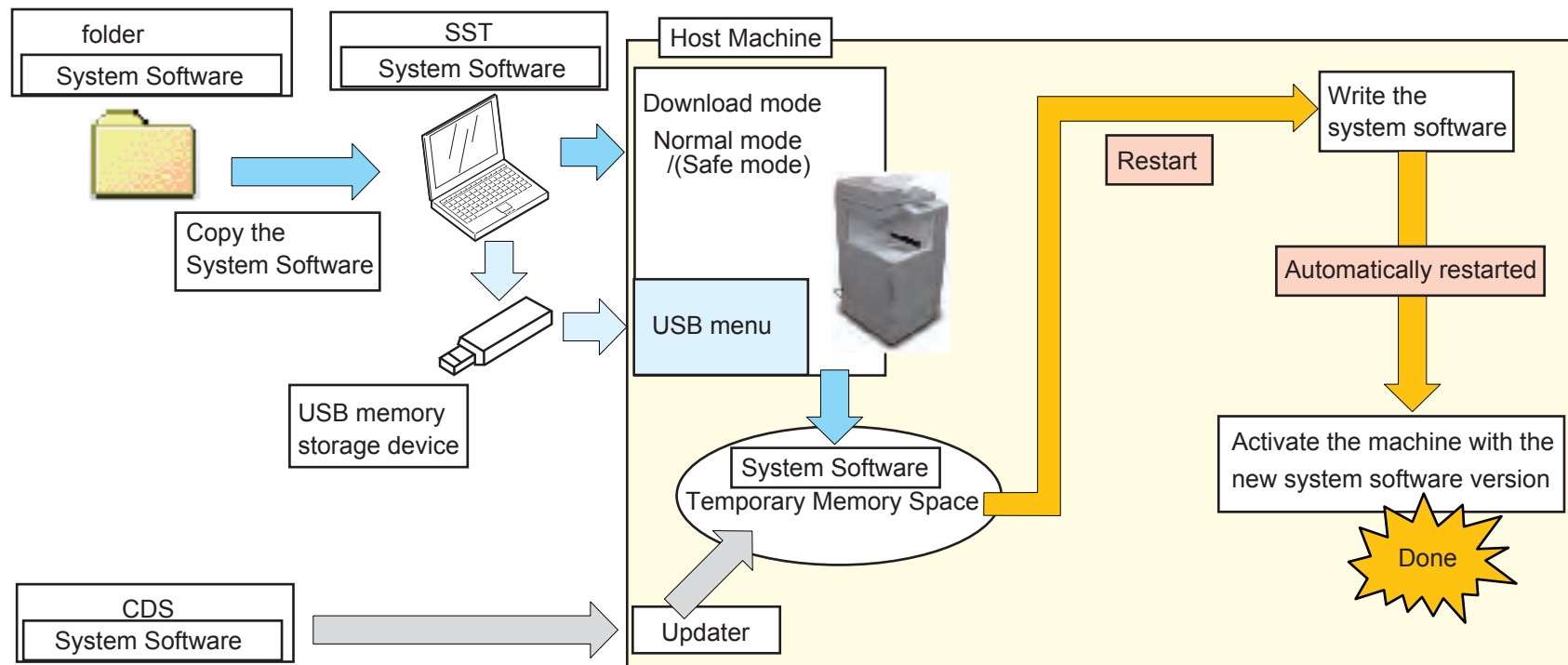
Connect the machine to the PC by the cross cable to download the system software using SST installed in the PC.

2. Download using the USB memory storage device

Insert the USB memory storage device to the slot of the machine and download the system software stored in the device.

3. Download via Contents Delivery System (hereinafter referred to as "CDS")

Download the system software directly to the machine from CDS via Internet.



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■ Download mode

When upgrading the version using SST or USB memory storage device, it is necessary to enter download mode.

● Starting the download mode

Enter download mode by selecting Copier > FUNCTION > SYSTEM > DOWNLOAD in service mode (recommended).

Press and hold 2 and 8 keys simultaneously on the numeric keypad, and turn ON the power switch.

The above operation makes this machine to be in static IP address automatically and recovers to enable the download in the same way as before.

■ Writing System Software

The system software downloaded in either of the abovementioned methods is stored in the temporary storage space of the FLASH PCB.

After the system software is successfully downloaded and this machine is restarted, writing process to the system area of the FLASH PCB is started.

When the main power switch of this machine is turned OFF during the writing process, it may render the machine unable to start.

This machine supports the remote version upgrade via CDS. When upgrading the system software via CDS, a warning message is shown on the control panel to alert the user not to turn OFF the power switch.

When the system software is successfully written, the machine is automatically restarted with the downloaded system software.

If any error occurs during the writing process, the machine is restarted with the previous firmware (the version before upgrade). Therefore, after version upgrade, be sure to check in service mode by following COPIER > DISPLAY > VERSION if version upgrade has been properly completed.

■ System Software Configuration

The table below shows the system software configuration 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	CDS	
Host Machine	SafeCont	iAC2030	SYSTEM	yes	yes	yes	
	StdCont			yes	yes	yes	
	Language Module		LANGUAGE	yes	yes	yes	
	Printer Controller		DCON	yes	yes	yes	
	FAX Board Boot Program		G3CCB	yes	yes	yes	Super G3FAX Board - AH1
	FAX Board Main Program		G3CCM	yes	yes	yes	Super 3FAX Board - AH1
Inner Finisher - C1	Finisher Controller	IFN_C1	FIN_CON	yes	yes	yes	Inner Finisher - C1

The finisher of this machine supports version upgrade via the host machine in any of the abovementioned methods, i.e., via SST, USB memory storage device or CDS.

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Note on download process

CAUTION: Never turn OFF the power during the download/ writing process

Turning OFF the power during the download/ writing process of the system software may cause a failure of machine startup at power-on.

When the machine fails to be started after turning the power ON, be sure to start in safe mode (by pressing 2 and 8 keys simultaneously on the numeric keypad).

CAUTION: Note on version upgrade completion

Even if the version upgrade is failed, the machine is properly restarted with the previous version; therefore, be sure to execute the following after completion of version upgrade to see if version upgrade has been properly completed

COPIER > DISPLAY >VERSION

NOTE:

With the previous models, the error code of E753-0001 occurs when downloading the system software for the option that is not installed. With this machine, however, no error occurs even if downloading the system software for the option that is not installed.

Version Upgrade via SST

Overview

The system software can be downloaded via SST in either of the two modes below.

- Assist mode (recommended)
- Single mode

The assist mode has the following features:

- Automatically identifies the connecting model
- Automatically searches the new version of the system software for the connecting model
- Automatically downloads the system software in the combination of the versions, which the operation has been checked.

This machine consists of multiple system software that mutually interacts during operation; therefore, it is necessary to download all the system software in the combination of the versions, which the operation has been checked. Basically, use the assist mode to download the system software of this machine.

NOTE:

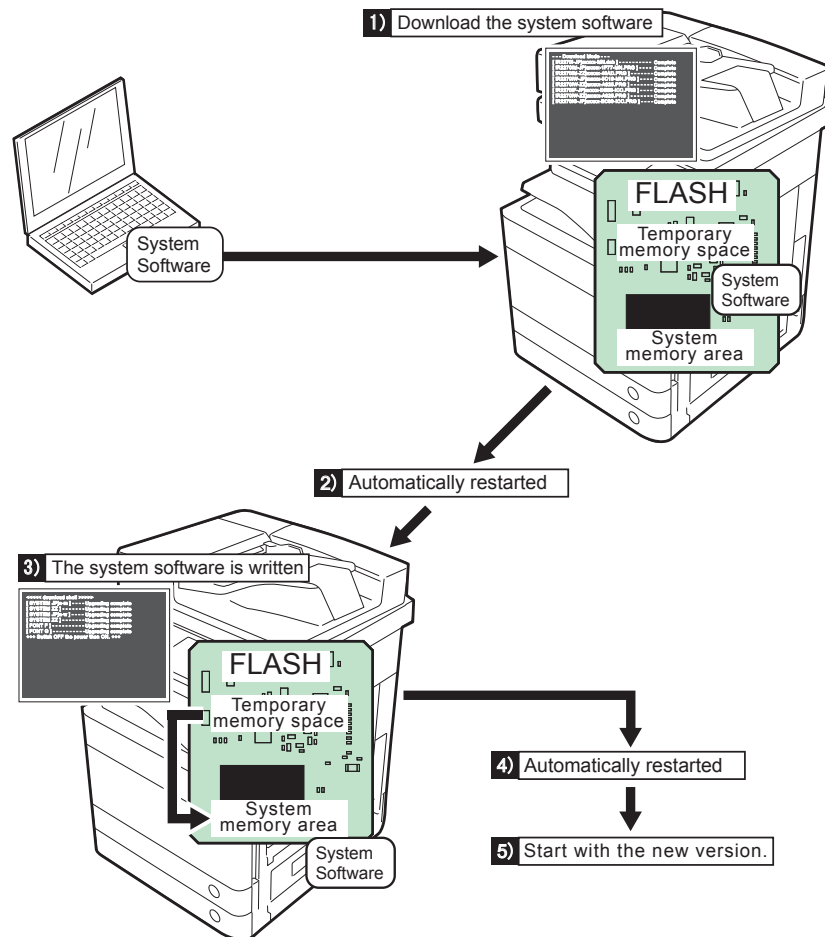
Use the single mode only in the following cases:

- When downloading a part of system software such as the DCON or an option.
- When uploading/ downloading the backup data.

● Downloading System Software

The system software is stored in the temporary storage space of the FLASH PCB immediately after downloading from the PC. When this machine is restarted after the download process, the system software is written in the system area of the FLASH PCB and the data in the temporary storage space is deleted.

This machine is automatically restarted after the writing process is completed. When the writing process is successfully completed, the machine is restarted with the new version of the system software. When an error occurs, the machine restarted with previous version of the system software.



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■ Registering System Software

● System file storage folder to SST

Register the system software stored in the system file storage folder to SST.

NOTE:

When the system software has been compressed, decompress the compression file and then register the file to SST.

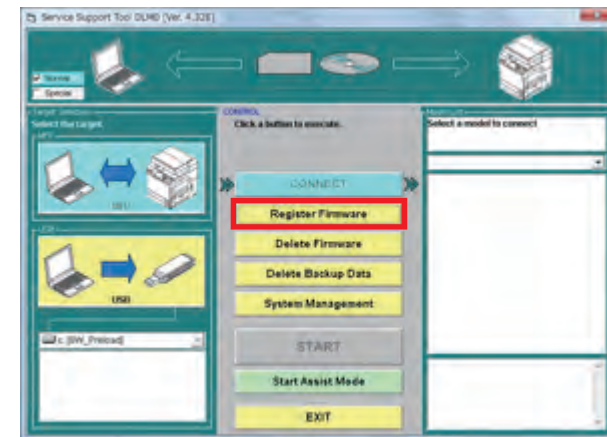
Preparation

Requirements:

- PC with SST Ver.4.31 or later installed
- The system software for this machine

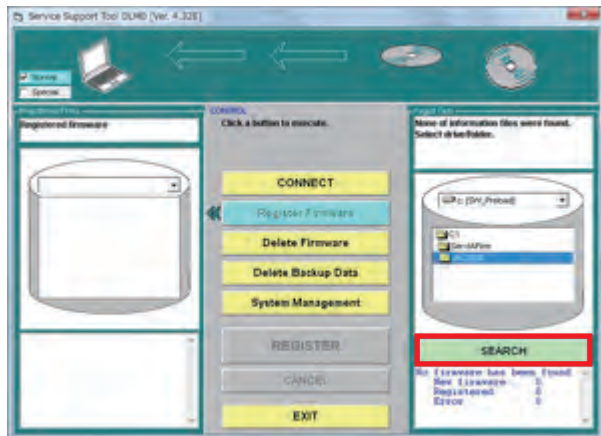
Steps to register the system software

- 1) Start the PC.
- 2) Start SST.
- 3) Click the "Register System Software" button.



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4) Select the folder containing the system software and click the “Search” button.



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NOTE:

“XXXX” in the figure describes the version of system software.

5) A list of system software in the folder is displayed.

Deselect the checkbox of unnecessary folder(s) and/or system software and click the “Register” button.

6) Click the “OK” button after the message telling completion of system software registration is displayed.



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Connection

The following IP address is automatically assigned for this machine at startup 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 as follows:

- IP address: 172.16.1.160
- Subnet mask: 255.255.255.0
- Default gateway: arbitrary

CAUTION:

While the PC is connected to the network, changing to the abovementioned settings may cause network failures due to an IP address conflict, etc. Ensure that the PC is disconnected from the network when you change the PC network settings. Alternatively use the cross cable to connect to this machine.

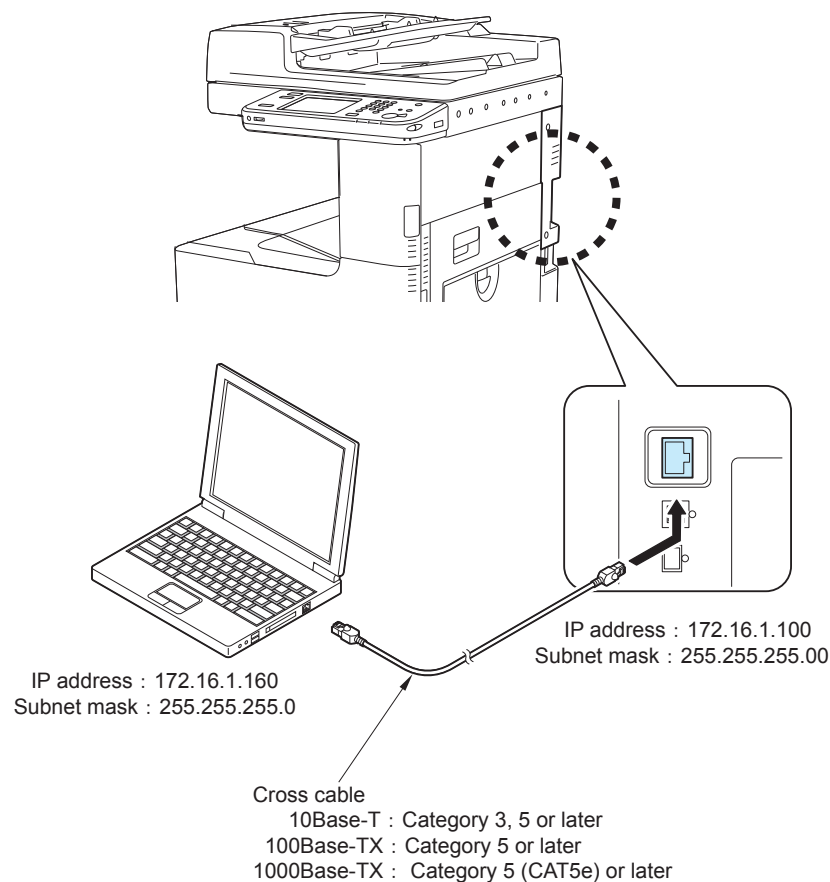
Preparation**Requirements**

- PC with SST Ver.4.31 or later installed and the system software for this machine is registered.
- 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 devices if connected.

This machine disables the communication to SST if any USB memory storage device is recognized. SST and the USB memory storage device cannot be used concurrently.



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Procedure

- 1) Connect this machine and the PC with SST installed with the cross cable.
- 2) Turn ON the main power switch of this machine.
- 3) Enter service mode to start the machine in download mode.
COPIER > FUNCTION > SYSTEM > DOWNLOAD; and press [OK].

- 4) Check the IP address of the PC.

Go to Start menu to select the following: Program > Accessory > Command Prompt.
Type IPCONFIG and press the [Return] key 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.

```

コマンド プロンプト
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-1999 Microsoft Corp.

C:\>ipconfig

Windows 2000 IP Configuration

Ethernet adapter ローカル エリア接続:

    Connection-specific DNS Suffix . . . :
    IP Address. . . . . : 172.16.1.160
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :

C:\>

```

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CAUTION:

The network settings cannot be shown with IPCONFIG if the PC is disconnected from the network. To check the settings, ensure that this machine is turned ON, and connect the PC and this machine with 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 the “Start Assist Mode” button.
Skip this step when starting SST in assist mode.



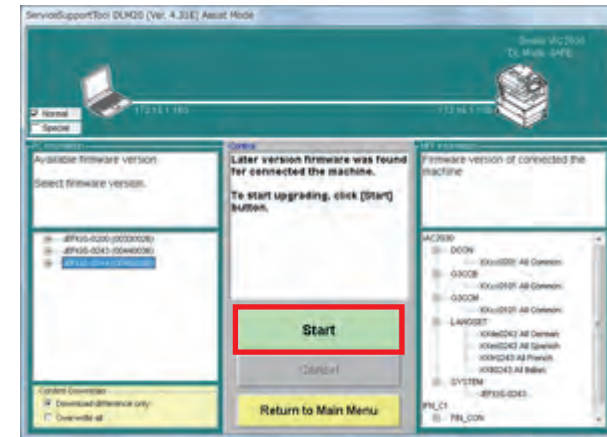
F-6-37

If newer combination of the system software is stored in SST, the new combination is automatically selected.

NOTE:

If only the existing system software combination is stored, none of them are selected. Any versions of the existing system software can be downloaded by manual selection.

- 4) Click the “Start” button.



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Writing process is started when download is completed.

The machine is restarted twice during the writing process (at completion of writing processes other than SafeCont and at completion of writing process of SafeCont).

Upon completion of the writing process, the main menu is displayed.

NOTE: Download confirmation modes

Download is confirmed in any of the following 2 modes:

Downloading of the difference only: “Skip the existing versions and confirm whether to download the downgraded versions”

Downloading of the system software in the version that is not installed in the machine: “Confirm whether to download the existing versions/ downgraded versions”

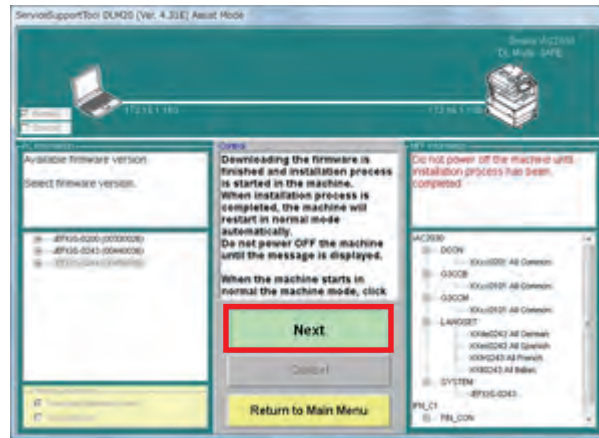
Download is not executed when the target software is in the same version.

Overwrite all versions

Regardless of version upgrade or downgrade, all versions of the system software are downloaded without the confirmation message.

By default, “Skip the existing versions and confirm whether to download the downgraded versions” is selected.

5) Click the “Next” button.



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6) Disconnect the cross cable from the machine.

7) Enter service mode to check the version of the system software.

8) Click the “OK” button.

The main menu is displayed.

NOTE:

When an error occurs during version upgrade, the machine is normally started with the previous version of the system software (the version before the upgrade). After version upgrade, be sure to check if the version of the system software is changed to the version you downloaded.

■ Downloading System Software (in single mode)

The following is the sample steps to download the DCON (the other components of the system software can be downloaded similarly)

1) Start the machine in download mode.

2) Connect the PC to this machine and start SST.

3) Select the model to be connected and “Single”, check the network settings. Click the “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 the “Start” button.
Multiple files of system software can be selected in this step. Selecting SYSTEM automatically selects the language software that supports the selected system.



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NOTE: Download confirmation modes

Download is confirmed in any of the following 2 modes:

- Downloading of the difference only: “Skip the existing versions and confirm whether to download the downgraded versions”
- Overwrite all versions
Regardless of version upgrade or downgrade, all versions of the system software are downloaded without the confirmation message.

“Skip the existing versions and confirm whether to download the downgraded versions” can be selected when the checkbox for SYSTEM is selected. There is no choice but to select “Overwrite all versions” when the checkbox for SYSTEM is not selected.

NOTE: Checking execution status for download

Once download is started, the process up to the writing process is automatically executed. You cannot interrupt or add the process in the middle of the operation. The following confirmation message is displayed when downloading is executed.



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- 5) When download is completed, click the “OK” button.
Return to the main menu screen.
This machine is automatically restarted.
The downloaded system software is written on the FLASH PCB.
- 6) Enter service mode to check the version.

■ Formatting HDD

NOTE:

This function can be selected only when the HDD is installed to the machine.
This function is not selectable if there is no HDD in the machine.

● Overview

Only HDD formatting is available on this machine. HDD formatting can be executed in the following cases:

- When installing the HDD from other machine installed
- When the HDD seems to be faulty and it is highly possible to solve the problem by formatting.

Executing Format ALL on the machine in use deletes all the user data in the HDD as well as the MEAP application; therefore, be sure to gain agreement with the user.

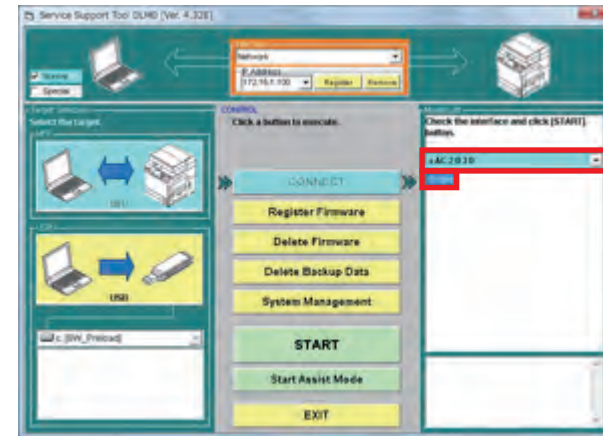
For normal version update, there is no need to format the HDD.

HDD can be formatted only in single mode.

When the HDD format is initiated, the formatting is executed at next start-up. In such cases, startup time will take longer than normal.

● Steps of Formatting

- 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 settings and click the “Start” button.



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- 4) Click the “Format HDD” button.



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5) Click the “Execute Format” button.



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HDD is formatted at next startup.

The startup will take longer than normal for the HDD format.

Backup

Overview

When replacing the Controller PCB, the data stored in the PCB can be temporary saved and migrated to the new PCB by using the backup function.

- Backup via SST

Backup data	File name to be downloaded/ uploaded
Backup RAM	SramImg.bin (to be saved in the FLASH PCB. Backup and restoration to the FLASH PCB is available)
MEAP application	MeapBack.bin (available to upload/ download)
For R&D use	Sublog.bin (Do not select this file)

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- Although backup of SramImg.bin can be executed with SST, the file is actually saved in the FLASH PCB.
- MeapBack is the MEAP application and its data stored in the FLASH/HDD. (MeapBack is saved in the FLASH PCB for a FLASH (memory) model while it is saved in the HDD for a HDD model)

- Backup via service mode

Backup data	Service mode
Backup of DC Controller PCB	COPIER > FUNCTION > SYSTEM DSRAMBUP (backup) COPIER > FUNCTION > SYSTEM DSRAMRES (restoration)

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- Data is saved in the FLASH PCB.

NOTE:

Before replacing the DC Controller PCB, backup the data in service mode. The backup data can be restored in service mode after replacing the DC Controller PCB. This enables to maintain the setting data including service mode stored in the old DC Controller PCB.

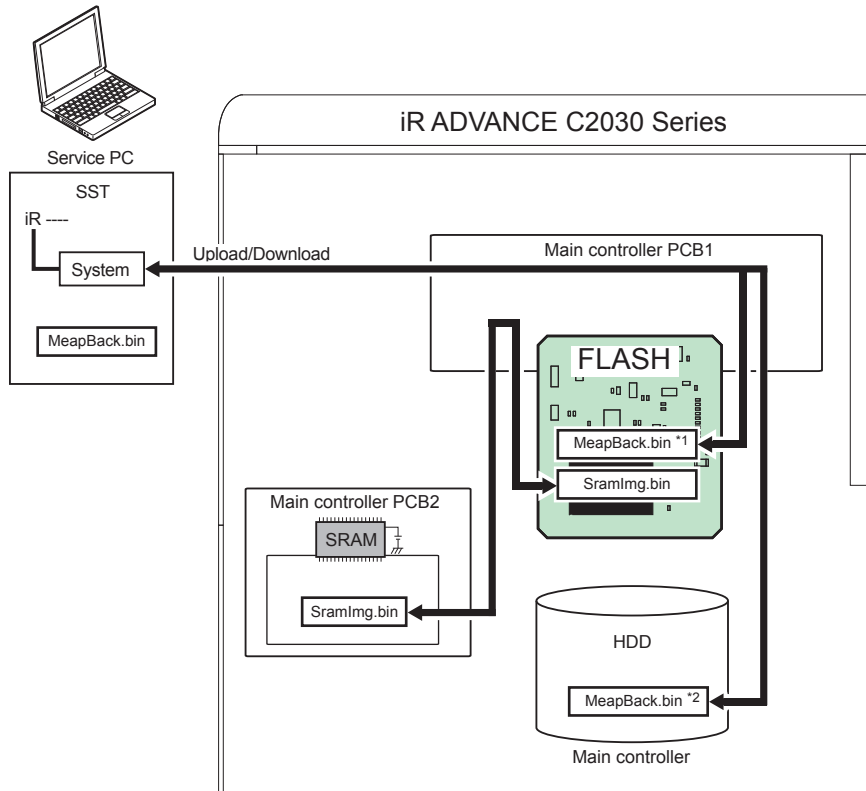
Before replacing Main Controller PCB 2, backup the data of SramImg.bin. The backup data can be restored after replacing Main Controller PCB 2. This enables to maintain the setting data including service mode stored in Main Controller PCB 2.

Steps to Upload Data

CAUTION:

Do not select Sublog.bin

The backup data can be downloaded only on the machine from which the data was uploaded.



*1: For a FLASH (memory) model

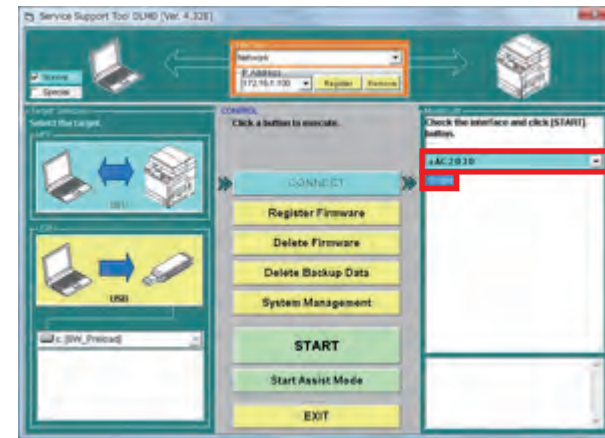
*2: For a HDD model

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Listed below are the sample steps to upload 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 settings and click the "Start" button.



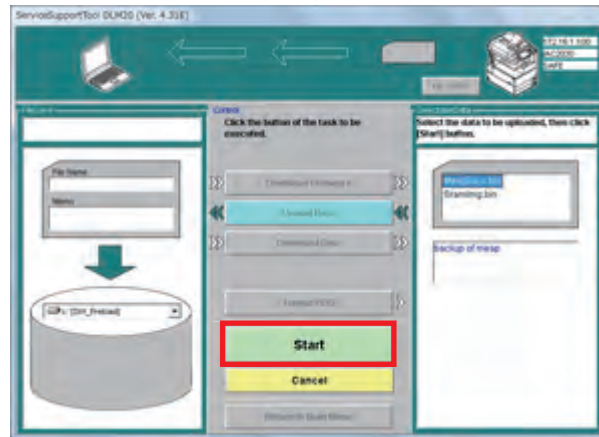
F-6-48

- 4) Click the "Upload Data" button.



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5) Select “MeapBack.bin” and click the “Start” button.



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6) Enter the file name to be saved and comments when necessary. Click the “Save” button.



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7) Click the “OK” button.

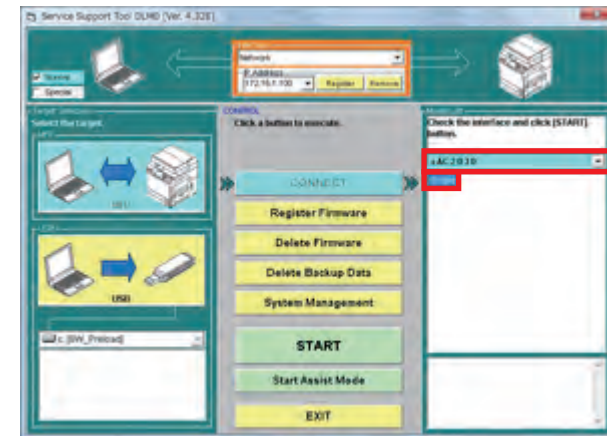
Steps to Download Data

CAUTION:

The backup data can be downloaded to the machine from which the data was uploaded.

Listed below are 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 the “Start” button.



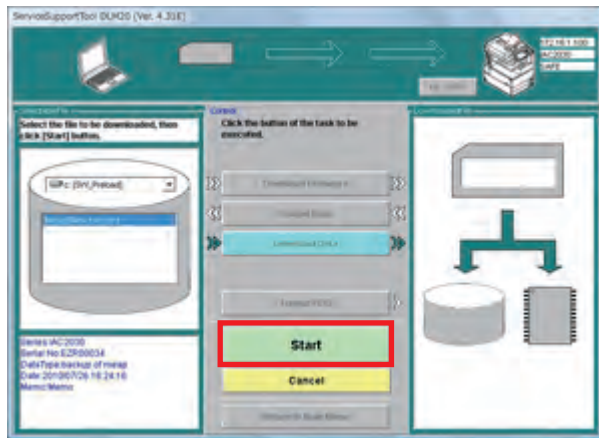
F-6-52

4) Click the “Download Data” button.



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5) Select the data to be downloaded and click the “Start” button.



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6) When the data is successfully downloaded, click the “OK” button.

7) Restart the machine.

Optional language support

This is the explanation on how to download optional language firmware prepared locally by sales company.

The following basic languages and a normal languages are installed in this machine at the time of factory shipment.

General area	
Basic languages	English, Japanese
Normal languages	German, French, Italy, Spanish

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Asian area	
Basic languages	English, Japanese
Normal languages	Simplified Chinese, Traditional Chinese, Korean

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Besides these languages, you can install optional languages for which sales company prepared.

You can install basic languages, normal languages, optional languages, collectively 8 languages. The optional languages are prepared for in European area and Asian area. The optional languages are shown below:

- European area
 - Bulgarian, Catalan, Czech, Danish, Greek, Estonian, Finnish, Croatian, Hungarian, Dutch, Norwegian, Polish, Portuguese, Romanian, Russian, Slovak, Slovenian, Swedish, Turkish,
- Asian area
 - Vietnamese and Thai.

The number of the installable languages

The number of the installable languages in this machine which are basic languages, normal languages, optional languages, collectively 8 languages. 2 basic languages and 4 normal languages are already installed. So you can install only 2 optional languages.

First, select the optional language to be downloaded in the Assist Mode and exported to the USB memory.

Optional language confirmation message appears in the Assist Mode.

The firmware of the selected optional language is exported to the USB memory.

The elimination of normal languages and optional languages

There are 2 kinds of language modules. One is the basic module which saved in system area, the other is the indication module which saved in other area.

Usually the indication module is used in UI. If there is not the indication module, it is made from the basic module.

If you want to eliminate languages from this machine, you have to delete both of the basic module and the indication module.

You can delete the indication module only in the normal mode. The deletion of the basic module is only in the download mode.

To eliminate normal languages and optional languages, you select following service mode.

Copier > FUNCTION > CLEAR > LANG-CLR (Level-2)

By selecting this service mode, the indication module of normal languages and optional languages are deleted, then the download mode is activated automatically.

At this time, installing firmware set(including SYSTEM) without the deletion languages by SST or USB memory, the basic module is deleted.

The basic languages(English and Japanese) are included in SYSTEM and these languages cannot be deleted.

The use case and execution methods

Work contents	SST	USB	CDS
Installing the optional languages to the machine of the normal languages.	Available	Available	Available
Eliminating the optional languages and restore to the normal languages	Available	Available	N/A
Interchanging the optional languages	Available	Available	N/A
Installing the more than 3 optional languages after eliminating the normal languages	Available	Available	N/A
Updating the machine of the optional languages	Available	Available	Available

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Optional language selection

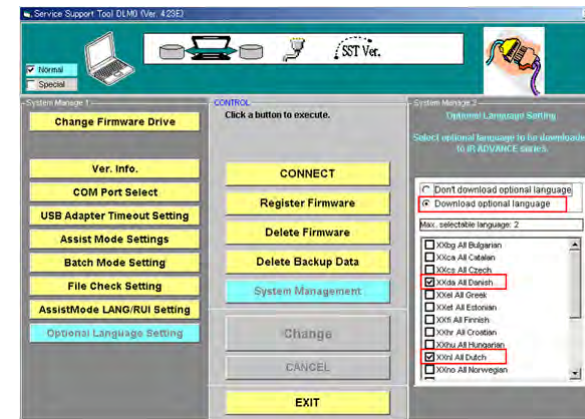
"Optional Language Setting" is added to "System Management".

By default, "Don't download optional language" is selected.

When "Download optional language" is selected, up to two optional languages can be selected.

The firmware of the optional languages on the list are excluded from Assist Mode necessary firmware.

Assist Mode can be executed without registering the optional language firmware to SST.



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Optional language confirmation

When either of the following conditions is satisfied, the optional language confirmation message appears when "Start" button is clicked.

Optional language is selected in the "Optional Language Setting" of "System Management". Any optional language is installed to the connected machine.

Maximum number of the optional languages installed to the machine is two.

The optional language already installed to the connected machine is always selected, and it cannot be removed from the machine with SST.

Even if the firmware of the installed optional language is not registered to SST, it is counted as the installed optional language.

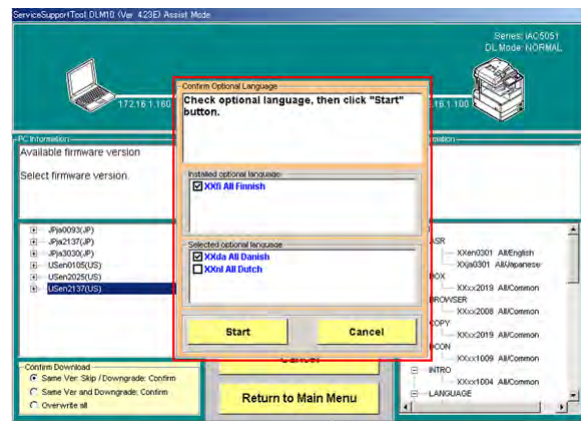
The number of the selectable optional languages in the "Optional Language Setting" is equivalent to the maximum number of optional languages.

The number of the optional languages to be added to the machine is equivalent to the maximum number of optional languages minus the number of the optional languages installed to the machine.

Error will not occur even the number of the installed optional languages is greater than the maximum number of the optional languages.

In such a case, any new optional language cannot be added, but the firmware of the installed optional language is downloaded in the Assist Mode.

The picture shown below is the example of the case that Finnish is installed to the machine, and Danish and Dutch are selected in the "Optional Language Setting". Only two optional languages can be installed to the machine and Finnish is already installed. Therefore, either Danish or Dutch can be installed to the machine.

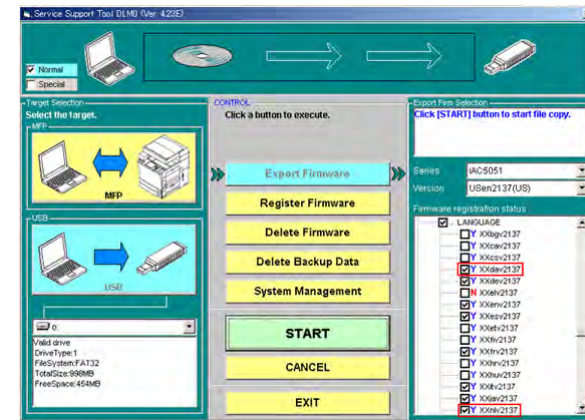


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● Firmware to be exported to USB memory

When the firmware of the selected optional language in "Optional Language Setting" is installed to SST, it is exported to the USB memory.

The firmware of the other optional languages are not exported to the USB memory. When Danish and Dutch are selected in the "Optional Language Setting", the firmware of these languages are exported to the USB memory as shown below.



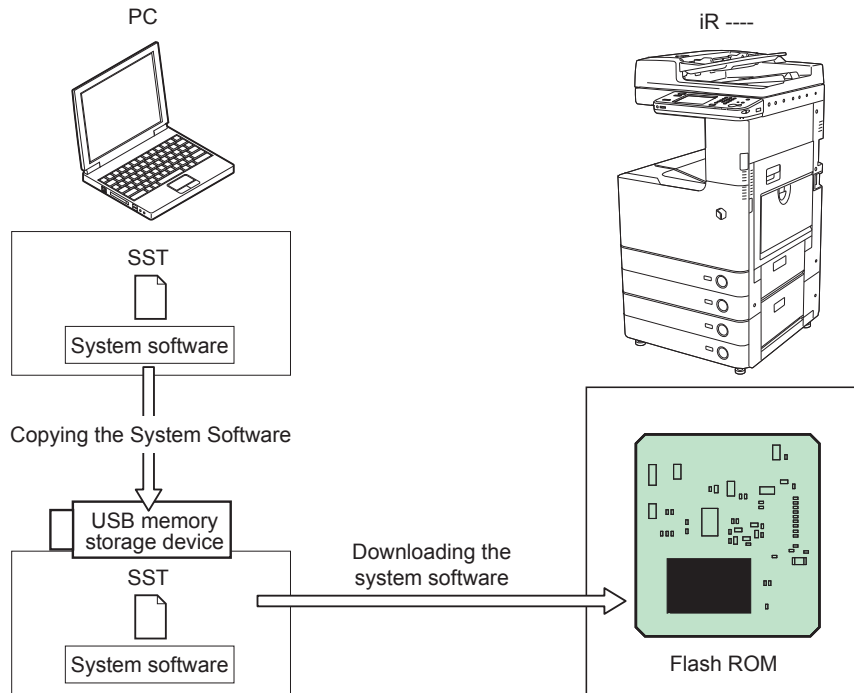
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Version Upgrade using USB Memory Storage Device

Relation between SST and USB memory storage device

When using the USB memory storage device for version upgrade, the system software should be copied to the USB memory storage device. By inserting the USB memory 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.



When downloading the system software, enter download mode by any of the following methods.

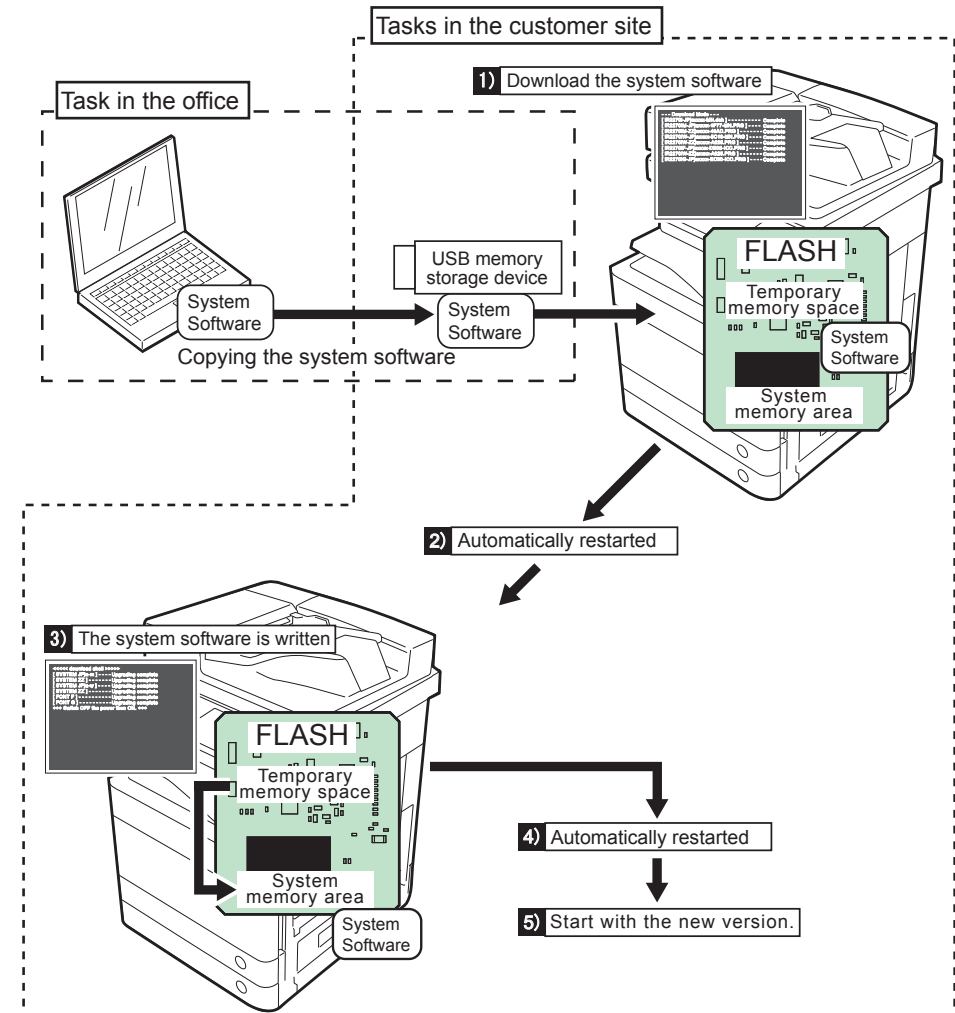
- Select the following in service mode (recommended):
COPIER > FUNCTION > SYSTEM > DOWNLOAD; and click [OK].
- Press and hold 2 and 8 keys simultaneously on the numeric keypad when turning ON the power switch.

NOTE:

It takes 2 to 3 minutes to enter the download mode from the service mode because the machine is restarted. Do not turn OFF the power during that time.

Downloading System Software

The system software is updated according to the set of versions selected from the USB menu. The system software is stored in the temporary storage space on the FLASH PCB immediately after the system software is downloaded. After the download process, the system software is written in the system area on the FLASH PCB and the data saved in the temporary storage space is deleted. This machine is automatically restarted when the writing process is completed. When writing process is successfully completed, the machine is restarted with the new version of the system software. When an error occurs, the machine is restarted with the previous version of the system software.



■ Registering System Software

● System software storage folder to SST

Register the system software stored in the folder to SST.

NOTE:

When the system software has been compressed, decompress the compression file and then register to SST.

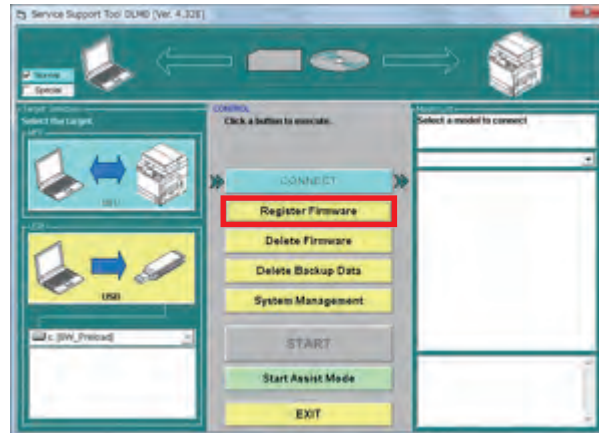
Preparation

Requirements:

- PC with SST Ver.4.31 or later installed
- The system software for this machine

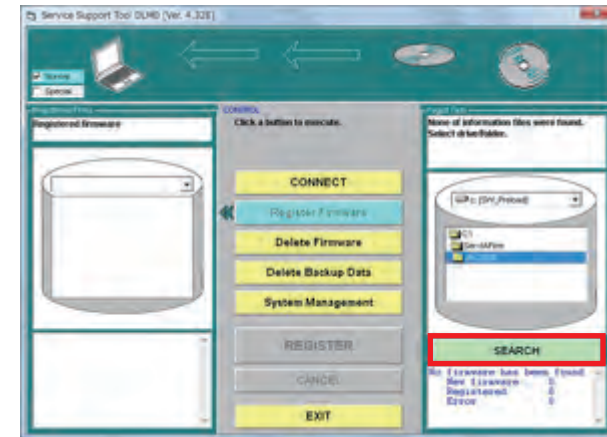
Steps to register the system software

- 1) Start the PC.
- 2) Start SST.
- 3) Click the “Register System Software” button.



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- 4) Select the folder in which the system software is saved and click the “Search” button.



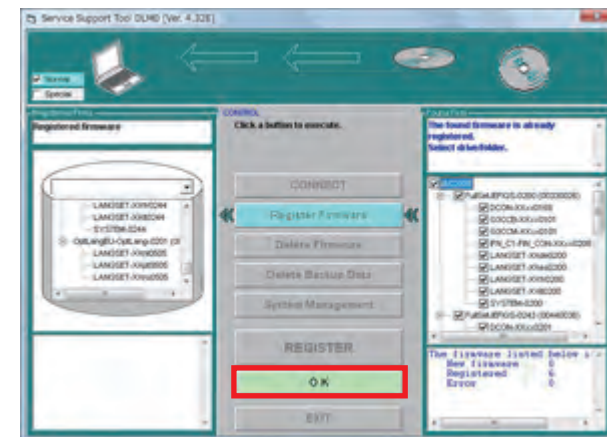
F-6-59

NOTE:

“XXXX” in the figure describes the version of system software.

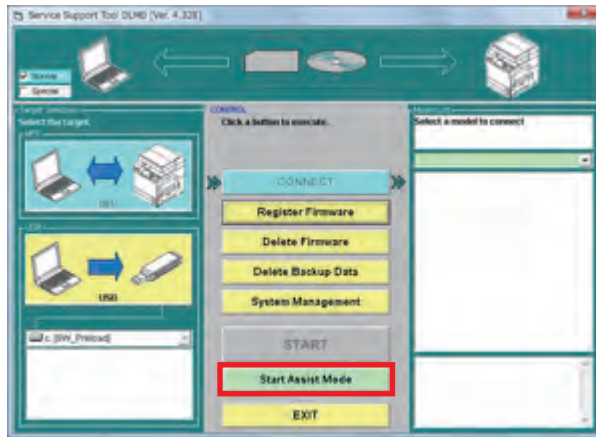
- 5) A list of system software in the folder is displayed.

Deselect the checkbox of unnecessary folder(s) and/or system software and click the “Register” button.



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- 6) Click the “OK” button when the message telling completion of system software registration is displayed.



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● SST to USB memory storage device

Register the system software registered in SST to the USB memory storage device.

NOTE:

Although only one version of software can be saved with the existing machines, multiple versions of software can be saved simultaneously in the USB memory storage device with this machine (up to 9 versions of software can be saved)

Preparation

Requirements:

- PC with SST Ver.4.31 or later installed
- USB memory storage device (*)

*: Requirements for USB memory storage devices

Interface: USB1.1 or later (USB2.0 is recommended)

Memory capacity: 1GB or more is recommended (the total file size of the system software is approx. 350MB)

Format: FAT (FAT16), FAT32 (NTFS and HFS are not supported). The memory is formatted in a partition (multiple partitions are not supported)

Unusable USB memory storage device: the memory that is protected by a password or the encryption technology.

Steps to register the system software

- 1) Start the PC.
- 2) Insert the USB memory storage device to the USB port of the PC.
- 3) Start SST.

4) Click the USB icon shown in “Select the target” screen.



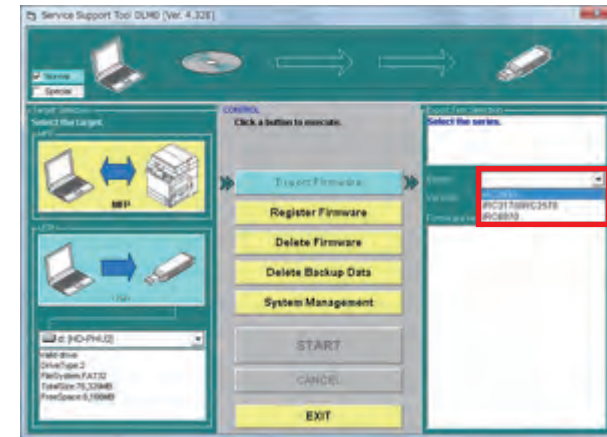
F-6-62

5) Select the drive (removable disk) where the USB memory storage device is inserted.



F-6-63

6) Select the “Series” (iRAC2030).

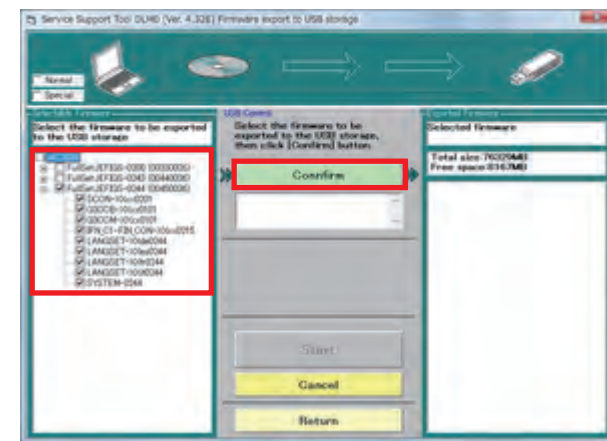


F-6-64

7) Select the version to register. After selecting the version, click confirm button.

NOTE:

Only one version can be registered at once. In addition, a single system software can be registered.



F-6-65

- 8) Wait for approx. 1 minute so the firmware to be written is displayed. When the following screen is displayed, click start button.



F-6-66

NOTE:

In the case of using USB1.1, it takes approx. up to 10 minutes for writing. In the case of using USB2.0, it takes approx. up to 3minutes so it is recommended to use USB memory supporting USB2.0.

- 9) When the system software is successfully registered to the USB memory storage device, click the "OK" button.



F-6-67

■ Connection

CAUTION:

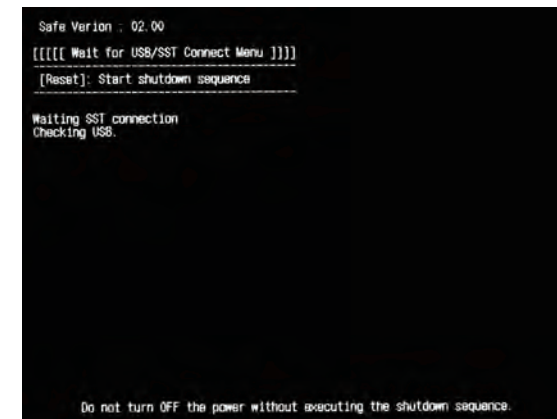
This machine does not communicate with SST once it recognizes a USB memory storage device. Therefore, SST and a USB memory device cannot be used at the same time.

Preparation

Requirements: a USB memory storage device, which the system software for this machine is registered.

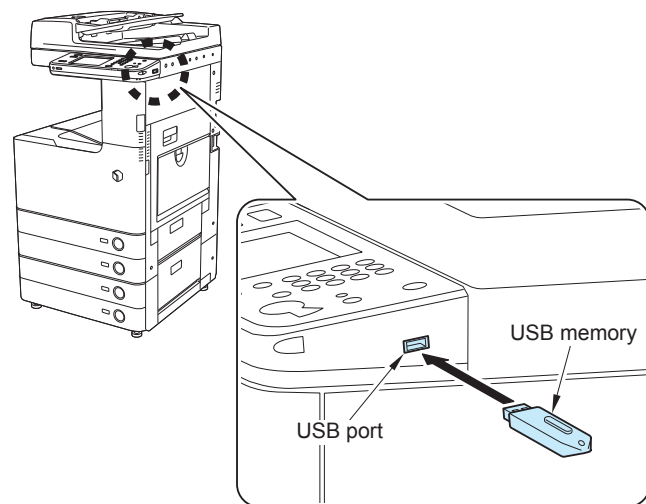
Procedure

- 1) Remove the network cable if any network cable is connected to this machine.
- 2) Turn ON the power of the machine and enter download mode from the service mode. Select the following in service mode: COPIER > FUNCTION > SYSTEM > DOWNLOAD; and click [OK].
- 3) The following screen is displayed.



F-6-68

4) Connect the USB memory storage device to the USB port.

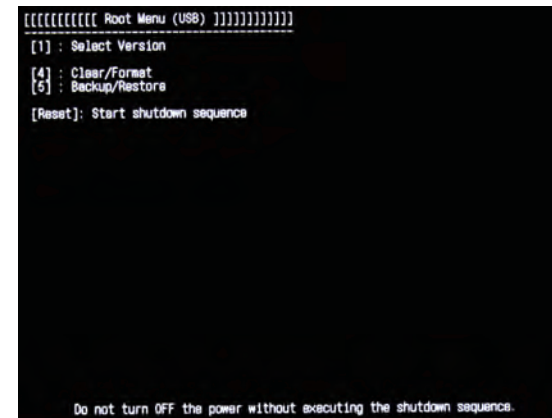


F-6-69

NOTE:

The USB port at the back of the device can be used as well.

5) When the machine recognizes the USB memory storage device, the following menu is displayed on the control panel.



F-6-70

CAUTION:

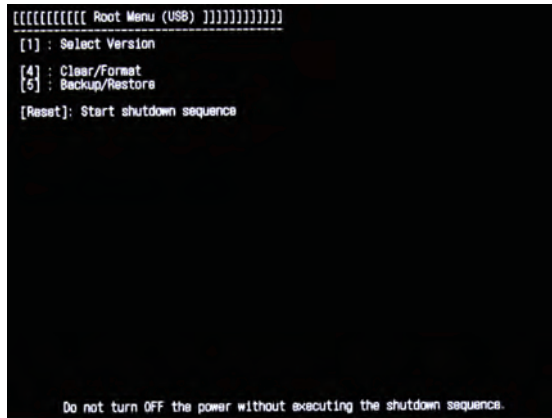
Depending on the manufacturer or the model, this machine may fail to recognize the USB memory storage device.

This machine retries recognition of a USB memory storage device for up to 60 seconds after power-ON. The above menu is not displayed if the machine fails to recognize a USB memory storage device within the time period.

In such a case, use another USB memory storage device.

■ Upgrading System Software

● Menu/ Function Overview



```

[[[[[[[[[[ Root Menu (USB )]]]]]]]]]]
[1] : Select Version
[4] : Clear/Format
[5] : Backup/Restore
[Reset]: Start shutdown sequence

Do not turn OFF the power without executing the shutdown sequence.
  
```

F-6-71

Downloading System Software

[1]: Select Version

To select system software (to be downloaded after the selection)

[4]: Clear/Format

To delete or format all the data in the FLASH PCB/HDD

[5]: Backup/Restore

To backup or restore the data in SRAM

[Reset]: Shutdown

To execute shutdown sequence

Press the key on the control panel to select or execute the functions.

● Points to Note When Operating/ Using System Software

NOTE:

For normal download of system software, it is recommended to execute from the download menu --- [1]: Upgrade (Auto).

CAUTION: Do not turn OFF the power during the download/writing process

To prevent unnecessary error, do not turn OFF the power during downloading or writing of the system software although the machine can be normally started using the previous version thanks to the recovery mechanism when an error occurs.

CAUTION: Note when the power is turned OFF

Be sure to execute the following procedure to quit download mode.

Pressing the [Reset] key and then the [0] key on the menu screen initiates the shutdown sequence. Once the message on the touch panel disappears, turn OFF the main power switch.

■ Selecting System Software

● [1]: Select Version

Select the version to be used (from the system software versions saved in the USB memory).

```

[[[[[[[[ Select Version (USB) ]]]]]]]]]
[1] : IAC2030-JEF108-0243
[C] : Return to Root Menu

Do not turn OFF the power without executing the shutdown sequence.

```

F-6-72

Selecting version gets into the download menu.

■ Downloading/ Writing System Software (Automatic)

● [1]: Upgrade (Auto)

The versions are compared among the host machine, options and the system software in the USB memory storage device, and only the newest version of the system software in the USB memory is downloaded to the temporary storage space in the FLASH PCB.

This machine is automatically restarted after the writing process is completed. When the writing process is successfully completed, the machine is restarted with the new version of the system software. When an error occurs, the machine is restarted with the previous version of the system software.

Procedure

- 1) Enter download mode.
 - 2) Connect the USB memory storage device to the USB port.
 - 3) Press [1] and select the version of system software to be used on the screen for selecting version.
 - 4) Select [1]: Update (Auto) to start download.
- [1] to [0]: Execute download/ any key other than [0]: Return to the menu screen

```

[[[[ Normal Update Main Menu (USB) ]]]]
Ver: IAC2030-JEF108-0243
[1] : Update (Auto)
[2] : Update (w Confirmation)
[3] : Update (Overwrite all)
[4] : Clear/Format
[5] : Backup/Restore
[6] : Other Menu

[C] : Return to Select Version
[Reset]: Start shutdown sequence

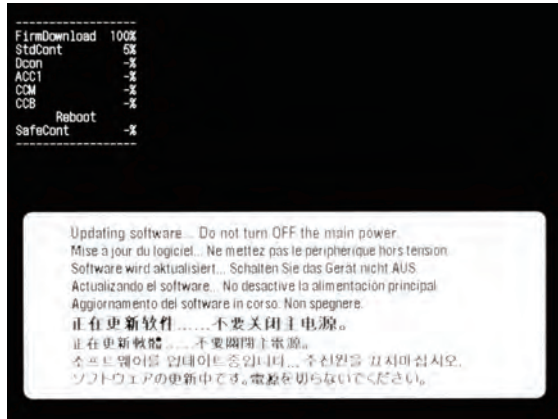
Do not turn OFF the power without executing the shutdown sequence.

```

F-6-73

During the download process, download status is displayed on the control panel.

Writing to the system software area on the FLASH PCB is started once download is completed. When writing to the Dcon (ACC1, CCM or CCB if there is an option) is completed, the machine is automatically restarted. After writing of SafeCont is completed, the machine is automatically restarted again.



F-6-74

5) When the main menu is displayed, press the removal key at the bottom right on the touch panel and select removal of memory media device, and then remove the USB memory storage device.

● [2]: Upgrade (w Confirmation)

The versions are compared among the host machine, options and system software in the USB memory storage device, and newest version of the system software is downloaded to the temporary storage space in the FLASH PCB.

When the versions of system software in the USB memory storage device are older version, a confirmation message is displayed on the control panel so that the user can select whether to overwrite or not. This step is skipped when the target software is the same version.

This machine is automatically restarted once writing process is completed. When writing process is successfully completed, the machine is started with the new version of the system software. When an error occurs, the machine is restarted with the previous version of the system software.

Operation Procedure

- 1) Enter download mode.
 - 2) Connect the USB memory storage device to the USB port.
 - 3) Press [1] and select the version of system software to be used on the screen for selecting version.
 - 4) Select [2]: Update (w Confirmation) to start downloading.
- [2] - [0]: Execute download/ any key other than [0]: Return to the menu screen

During the download process, download status is displayed on the control panel.

NOTE:

When the system software version in the USB memory storage device is older than the system software version in the device, a confirmation message as to whether to overwrite or not is displayed on a module basis. Press the key on the control panel.
[0]: Overwrite/ any key other than [0]: Not to overwrite

When download is completed, this machine is automatically restarted to start writing to the system software area in the FLASH PCB. When writing to the Dcon (ACC1, CCM or CCB if there is an option) is completed, the machine is automatically restarted. After writing of SafeCont is completed, the machine is automatically restarted again.

5) When the main menu is displayed, press the removal key at the bottom right on the touch panel and select removal of memory media device, and then remove the USB memory storage device.

● [3]: Upgrade (Overwrite all)

Regardless of the system software version in the machine, all the system software in the USB memory storage device is downloaded.

This machine is automatically restarted once writing process is completed. When writing process is successfully completed, the machine is restarted with the new version of the system software. When an error occurs, the machine is restarted with the previous version of the system software.

NOTE:

All firmware update may take up to 25 minutes. To reduce downtime, we recommend using Auto under normal condition.

Operation Procedure

- 1) Enter download mode.
 - 2) Connect the USB memory storage device to the USB port.
 - 3) Press [1] and select the version of system software to be used on the screen for selecting version.
 - 4) Select [3]: Update (Overwrite all) to start downloading.
 - [3] - [0]: Execute download/ any key other than [0]: Return to the menu screen
- During the download process, download status is displayed on the control panel.

When download is completed, this machine is automatically restarted to start writing to the system software in the FLASH PCB. When writing to the Dcon (ACC1, CCM or CCB if there is an option) is completed, the machine is automatically restarted. After writing of SafeCont is completed, the machine is automatically restarted again.

- 5) When the main menu is displayed, press the removal key at the bottom right on the touch panel and select removal of memory media device, and then remove the USB memory storage device.

■ Formatting FLASH PCB or HDD

● Format Overview

The following 3 types of formatting/initialization methods are available with this machine. With this machine, there is no function to format BOOTDEV only, which was available with the existing machines.



F-6-75

- Disk Format: To initialize the entire HDD
- Flash Format: To initialize the entire FLASH PCB
- HDD Encryption Board Initialize: To initialize the HDD Encryption Board

For normal version update, there is no need to format the FLASH PCB/ HDD.

● [1]: Disk Format

To format the entire HDD

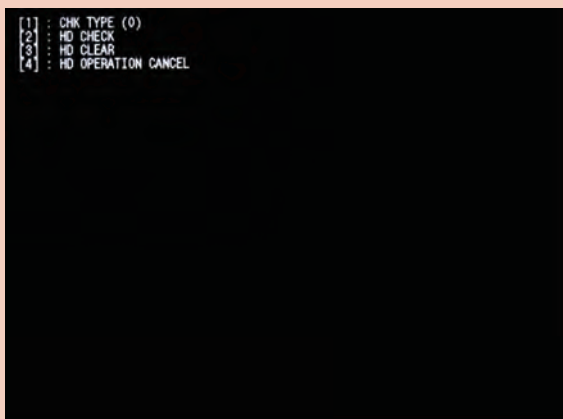
Executing format on the machine in use deletes all the user data in the HDD as well as the MEAP application (caution); therefore, be sure to gain agreement with the user.

Formatting is necessary when replacing a service part HDD. Note that recovery is not available by HD-CLEAR in service mode.

CAUTION: Points to note on FLASH (memory) model

Note that reservation to execute HDD format is available even with the machine that does not have the HDD. Do not make a reservation if the machine does not have the HDD; otherwise, the error code E602-0002 occurs and the machine cannot be started properly.

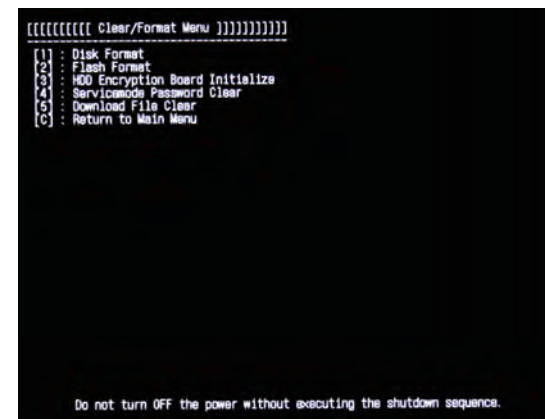
When the HDD format reservation is executed by mistake, enter service mode on the screen with the E602-0002 displayed as shown below. Execute [4]: HDD OPERATION CLEAR; and turn OFF the power to recover.



F-6-76

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] - [1] - [0]: Execute format/ any key other than [0]: Return to the menu screen



F-6-77

Formatting is executed when the power is turned ON the next time. The message showing data initialization and wait time are displayed.

● [2]: FLASH Format

To clear all the user data in the FLASH PCB

Executing format with the machine in use deletes all the user data in the FLASH PCB as well as the MEAP application (note); therefore, be sure to gain agreement with the user.

After executing format of the FLASH PCB, the user data in the FLASH PCB is initialized and the machine is started. Download of system software is not necessary because the system software is restored from the backup.

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] - [2] - [0]: Execute format/ any key other than [0]: Return to the menu screen

Formatting is executed when the power is turned ON the next time. The message showing data initialization and wait time are displayed.

● [3]HDD Encryption Board Initialize

To execute when using the HDD and the HDD Encryption Board that were used with the other machine.

When initializing the Encryption Board, the data in the HDD becomes inaccessible. Therefore, to the HDD format is necessary for reuse. Be sure to obtain agreement with the user because formatting the HDD deletes all the user data and MEAP application (note).

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] - [3] - [0]: Execute format/ any key other than [0]: Return to the menu screen

Formatting is executed when the power is turned ON the next time. The message showing data initialization and wait time are displayed.

■ Backup/ Restore

● [5]: Backup/Restore

Backup/Restoration of SRAM can be executed

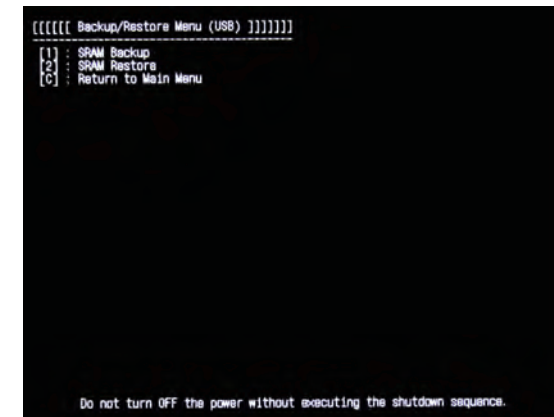
When replacing Main Controller PCB 2, this function is used to temporarily save the data stored in the SRAM to the FLASH PCB, and restore the data after replacement.

Note that this backup procedure is for backup of the data in SRAM and not for backup to the USB memory storage device.

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] - [1] - [0]: Execute backup/ any key other than [0]: Return to the menu screen



F-6-78

The following message is displayed when the backup process is completed.



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4) The restoration process follows the same procedure as the backup procedure.

NOTE:

If there is no advance data backup, restoration is not available.

■ Other menus

● [6]: Other Menu 2

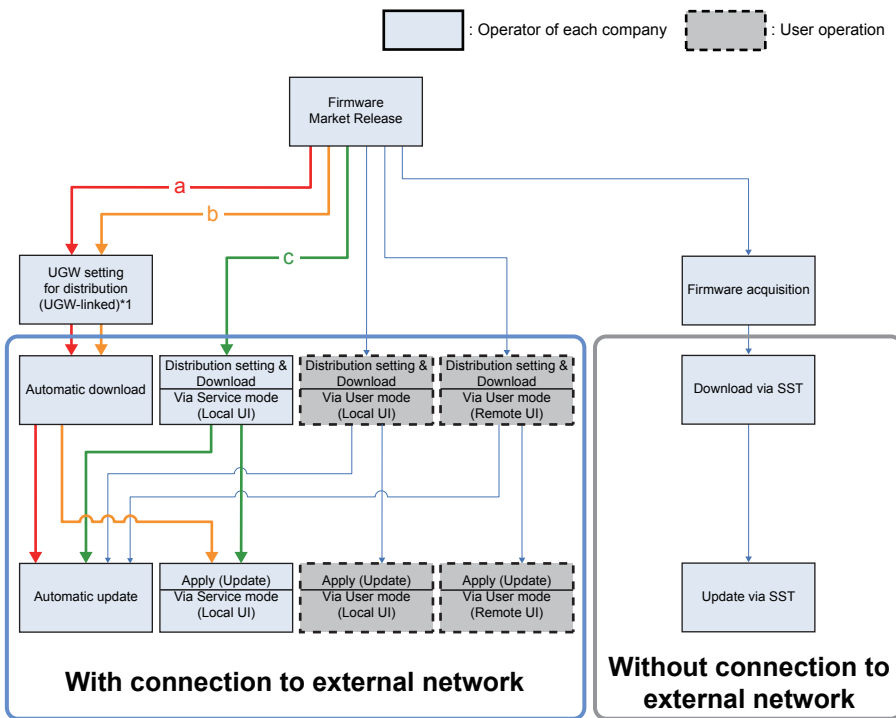
This item is not used

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.

- a. UGW-linked Download and Update (Full-remote Update)
- b. UGW-linked Download (Remote Distribution Update)
- c. Manual Download and Update (On-site Update from Service Mode)



*1: Schedules for UGW-linked distribution are maintained on CDS.

F-6-80

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)
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

T-6-22

- 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"

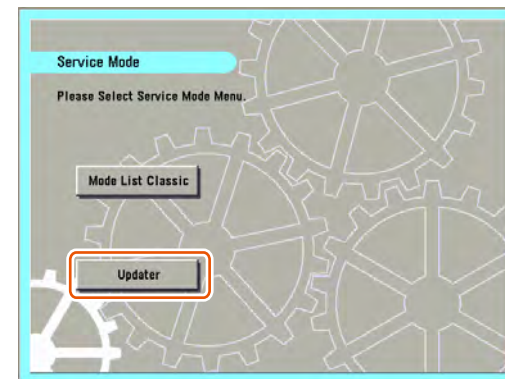
NOTE:

"External Network" here means the network connecting the device to CDS via Internet.

2. Confirming URL Setting of Distribution Server

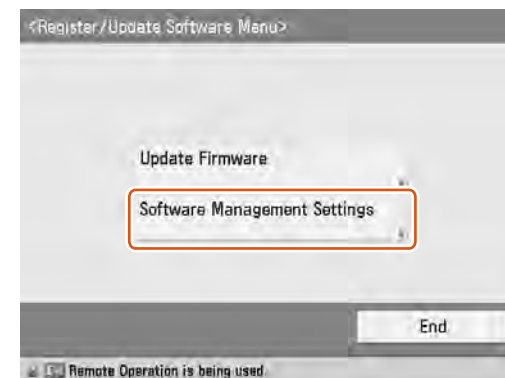
This section describes how to confirm the URL setting of the distribution server.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.



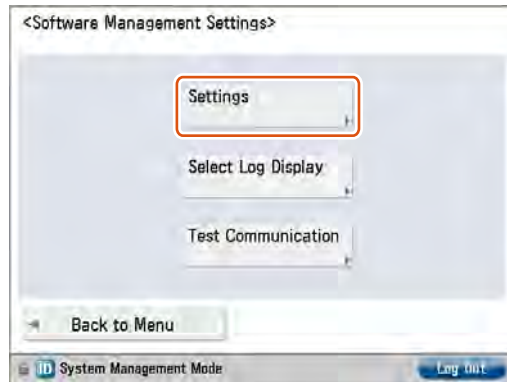
F-6-81

3. Press [Software Management Settings] button.



F-6-82

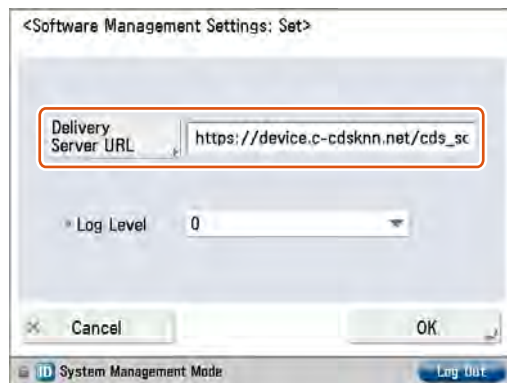
4. Press [Settings] button.



F-6-83

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-6-84

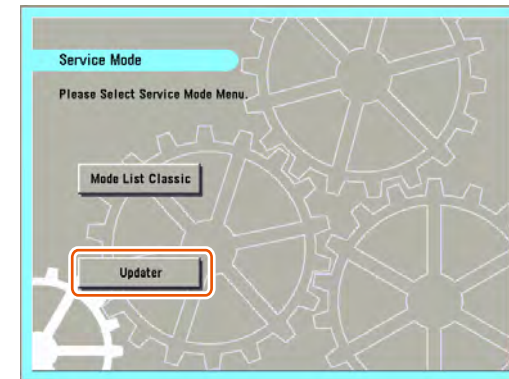
6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

3. Communication Test

This section describes how to check if the communication is normally done to the distribution server and/or the file server.

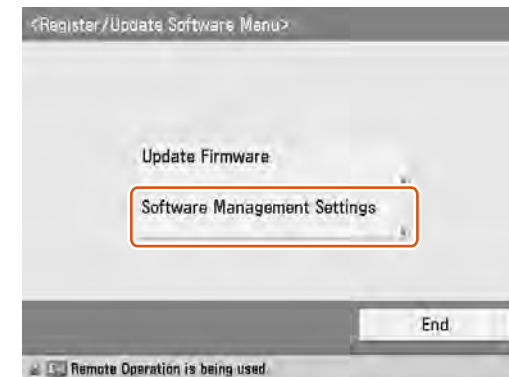
1. Start [Service Mode] at Level 1.

2. Press [Updater] button.



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3. Press [Software Management Settings] button.



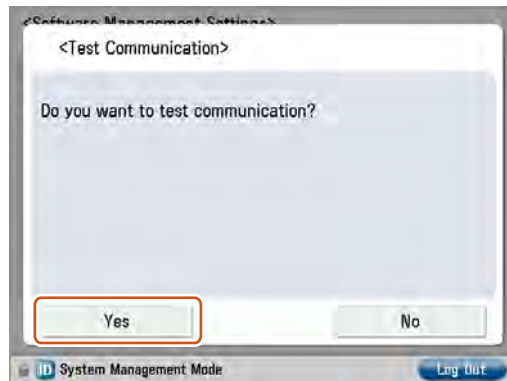
F-6-86

4. Press [Test Communication] button.



F-6-87

5. Press [Yes] button.

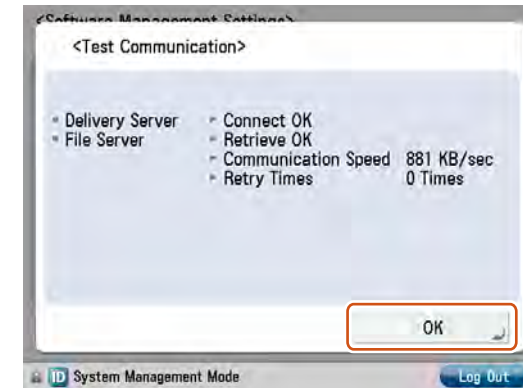


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Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).

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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NOTE:

Carry out the communication test with both Embedded RDS and CDS.

● 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.

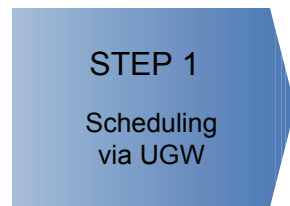
Service Technician	Setting of Device Service Mode (Level 1)	COPIER > OPTION > FNC-SW > CDS-UGW (0 -> 1)
	Setting of UGW WebPortal	In [Customer Management] screen, set [Do not distribute firmware] to [Distribute firmware].
Sales Company's HQ	Setting of Authorities on UGW WebPortal	See "Analysis>Firmware 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-6-90

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 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-6-91

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 Content Delivery System (for Firmware Distribution) for details.

NOTE:

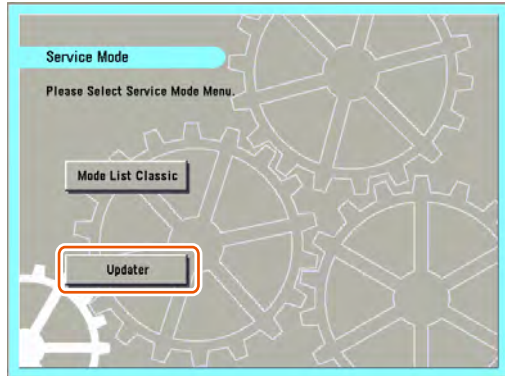
The firmware downloaded by scheduling via UGW can be checked/deleted from User mode, but cannot be updated. If a user download the other firmware, the firmware downloaded with "UGW-linked Download" is overwritten.

STEP 2: Update using Updater

The firmware downloaded on the device can be updated using Updater functions.

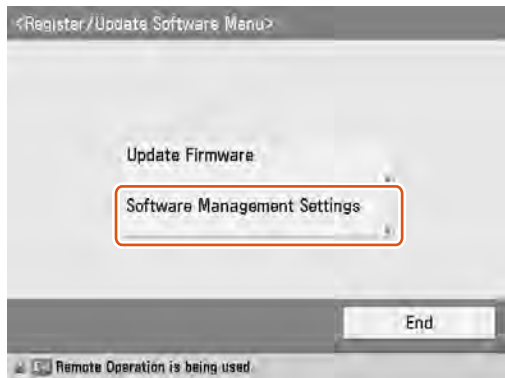
1. Start [Service Mode] at Level 1.

2. Press [Updater] button.



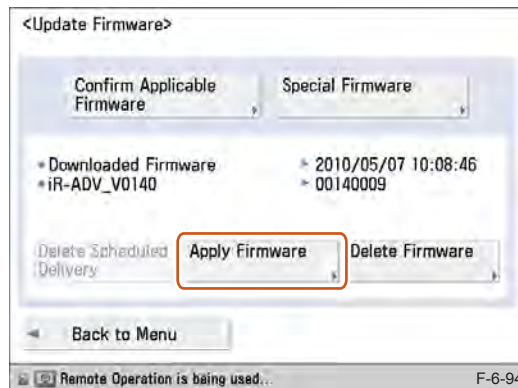
F-6-92

3. Press [Update Firmware] button.



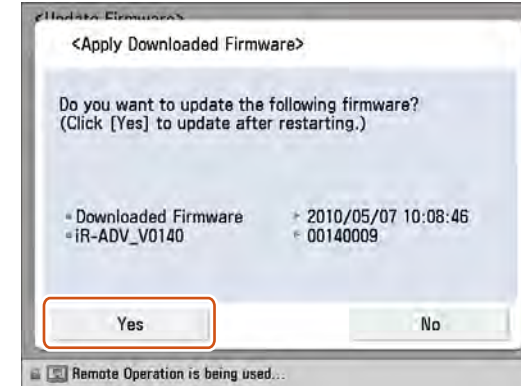
F-6-93

4. Press [Apply Firmware] button.



F-6-94

5. Confirm the downloaded firmware and press [Yes] button.



F-6-95

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)

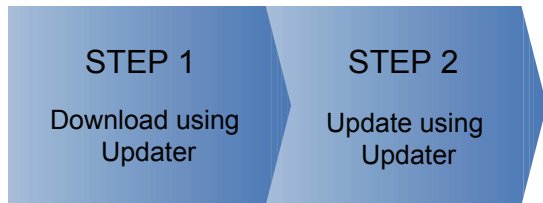
See the section of "Wait for EOJ (end of job) Function" under "Limitations and Cautions", "Updater" of Chapter 2 "Technology" of this manual for more detailed information.

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”.



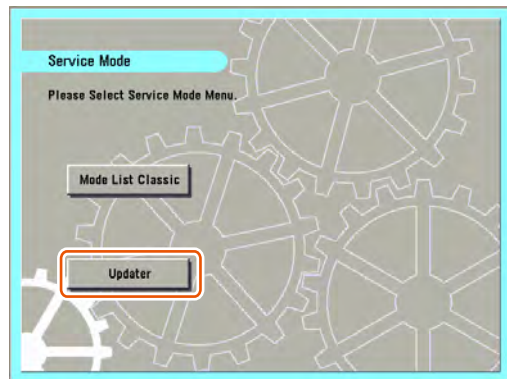
F-6-96

STEP 1: Download using Updater

The firmware can be downloaded from CDS to the device using Updater.

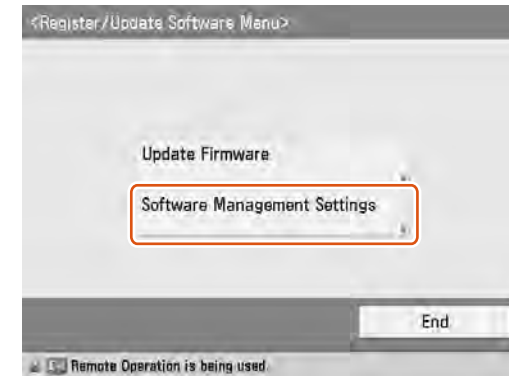
1. Start [Service Mode] at Level 1.

2. Press [Updater] button.



F-6-97

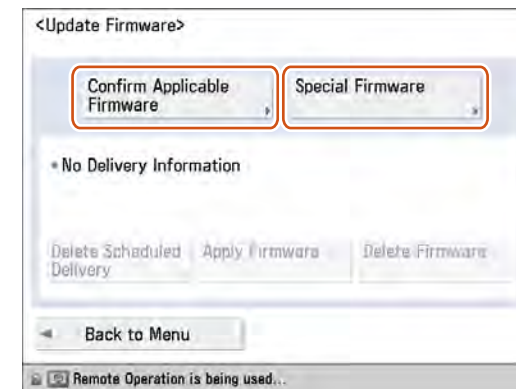
3. Press [Update Firmware] button.



F-6-98

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.



F-6-99

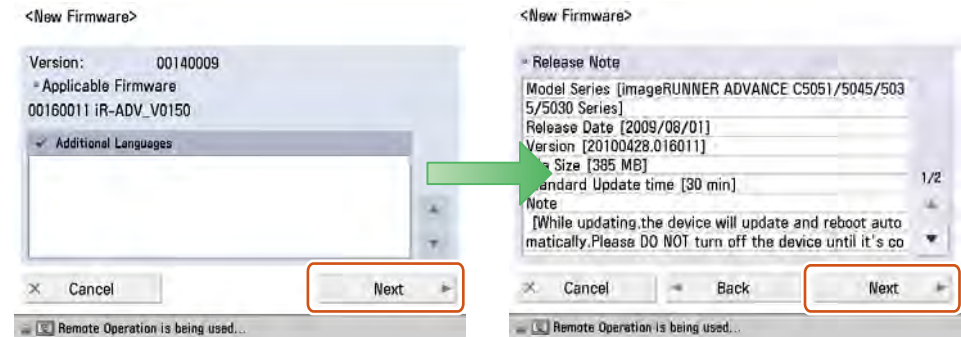
5. [Special Firmware] screen is shown as below. Enter the fields and press [OK] button.



F-6-100

- [Registration 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.



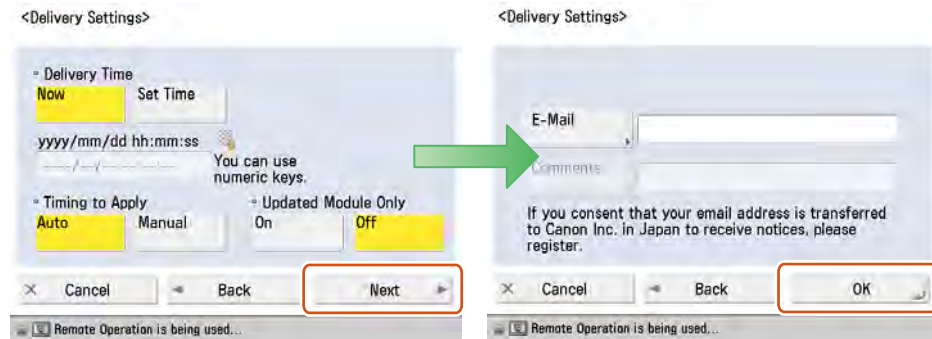
F-6-101

- [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, including Japanese and English. The languages already registered in the device are always selected, and SST is used to delete an unnecessary language from the device.
- [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.



F-6-102

- [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]

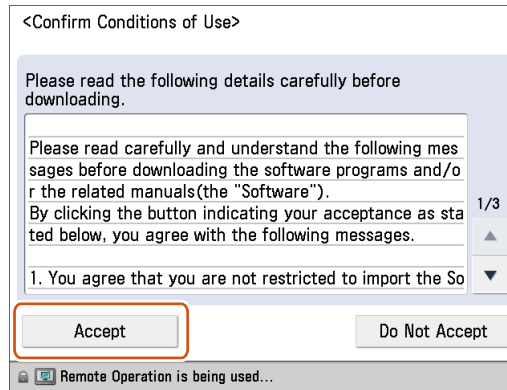
- For firmware versions with difference-only delivery disabled, only [OFF] can be selected in [Updated Module Only].

[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.



F-6-103

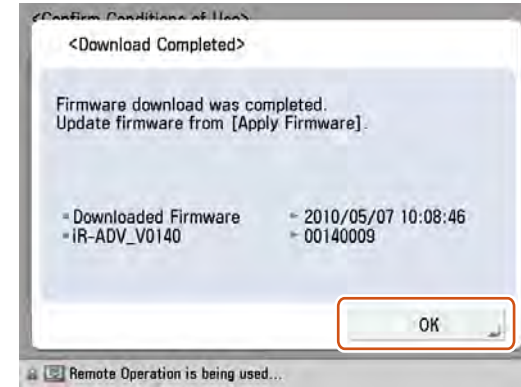
9. One of the screens below is shown according to the setting.

- 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.



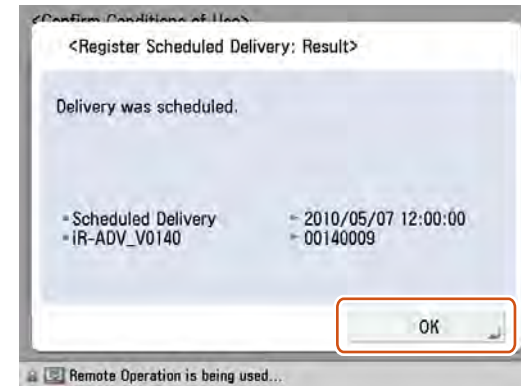
F-6-104

- 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.



F-6-105

- 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.



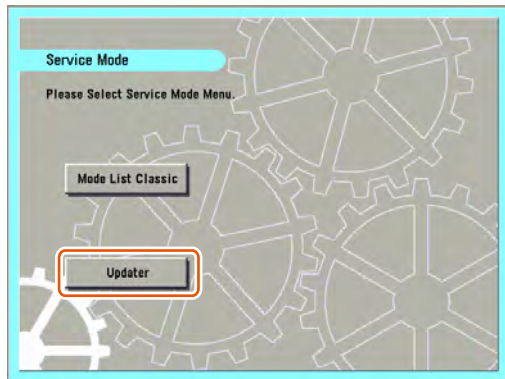
F-6-106

STEP 2: Update using Updater

The firmware downloaded to the device can be updated using Updater functions.

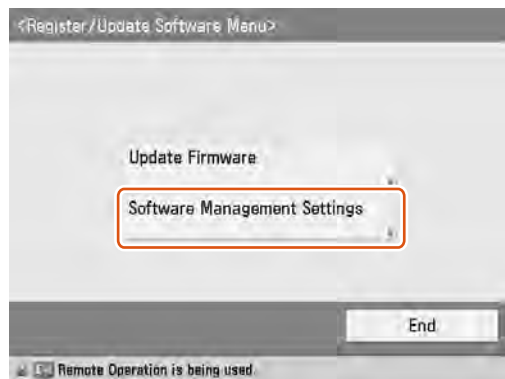
When Timing to Apply is set to [Auto] in Distribution Setting in STEP 1, the firmware is updated automatically. Only when Timing to Apply is set to [Manual], follow the steps below to update the firmware.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.



F-6-107

3. Press [Update Firmware] button.



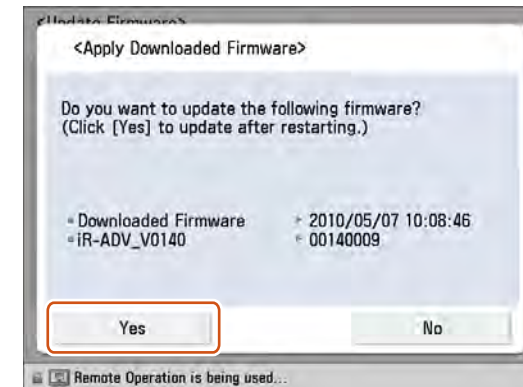
F-6-108

4. Press [Apply Firmware] button.



F-6-109

5. Confirm the downloaded firmware and press [Yes] button.



F-6-110

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.

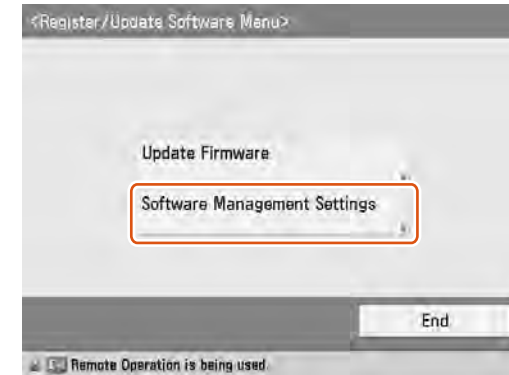
- Print
- Scan
- Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

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

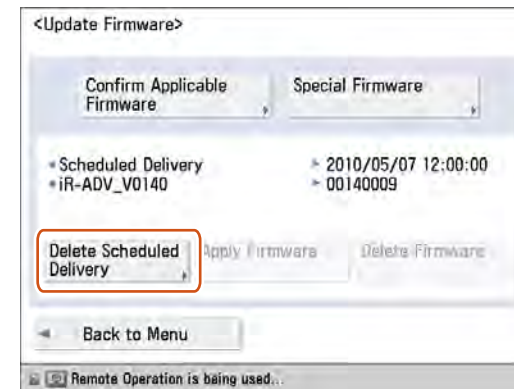
This section describes how to delete firmware distribution schedule set by Updater.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Update Firmware] button.



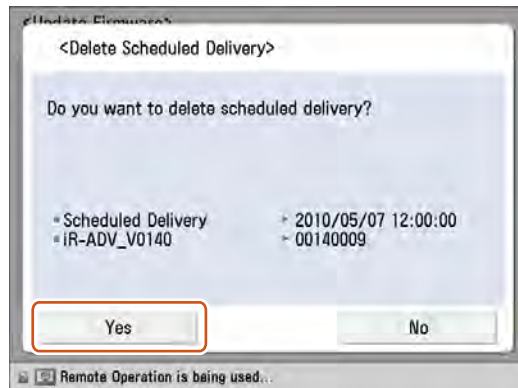
F-6-111

4. Press [Delete Scheduled Delivery] button.



F-6-112

5. Confirm the contents of the distribution schedule and press [Yes] button.



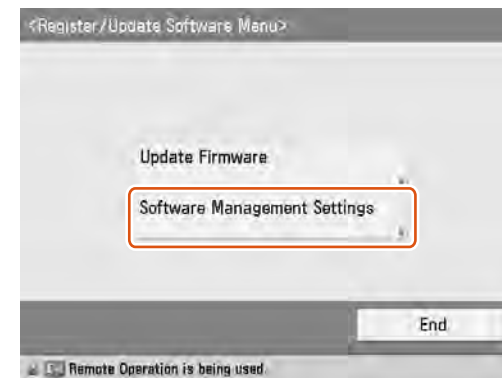
F-6-113

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)

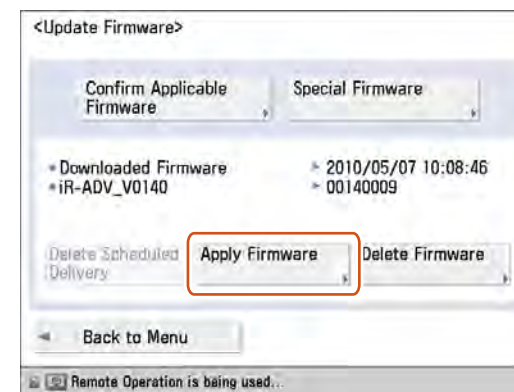
This section describes how to update the downloaded firmware.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Update Firmware] button.



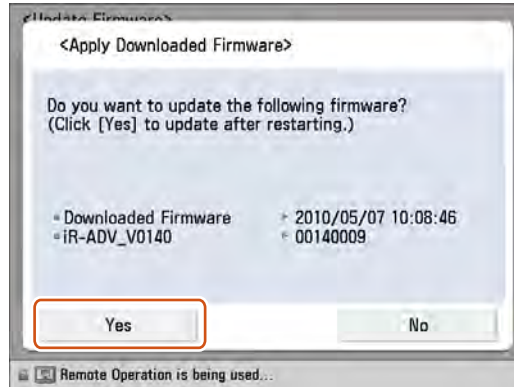
F-6-114

4. Press [Apply Firmware] button.



F-6-115

5. Confirm the downloaded firmware and press [Yes] button.



F-6-116

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.

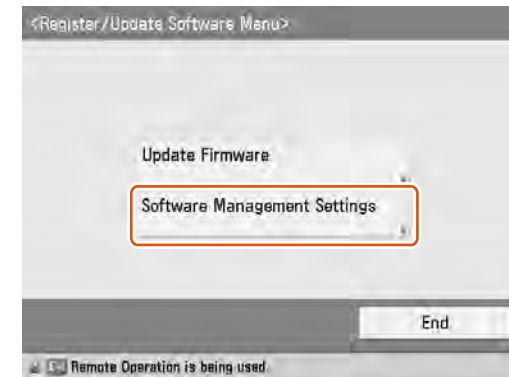
- 1). Press [Check Counter Key] button on the control panel.
- 2). Press [Check Device Configuration] button.
- 3). Confirm if the updated firmware version corresponds to [Controller Version].

Now the firmware is successfully updated in the method.

Deleting Downloaded Firmware

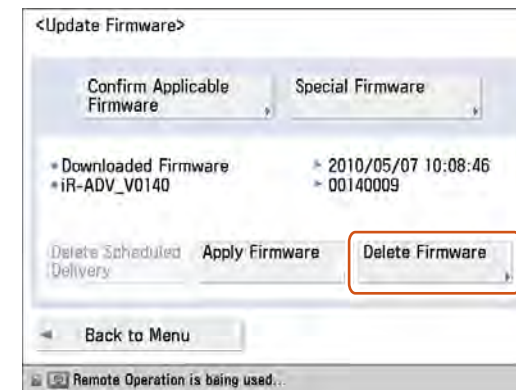
This section describes how to delete the downloaded firmware using Updater.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Update Firmware] button.



F-6-117

4. Press [Delete Firmware] button.



F-6-118

5. Confirm the downloaded firmware to be deleted and press [Yes] button.



F-6-119

6. Confirm the result of deletion and press [OK] button. Now the downloaded firmware is successfully deleted.

Troubleshooting on Firmware Installation

No.1

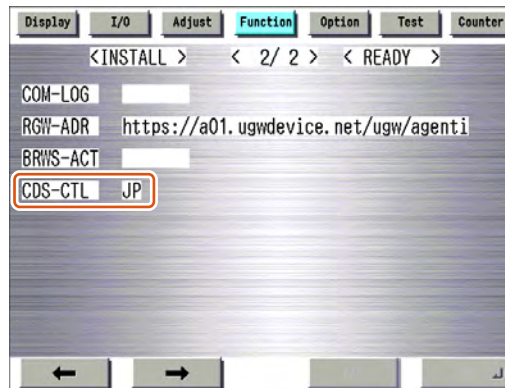
Symptom: I can't find the firmware to be updated using Updater.

Cause: Preparation has not been properly done.

Action: Confirm the setting of Sales Company's HQ below.

Setting of Device [SERVICE MODE] (Level1)

COPIER > FUNCTION > INSTALL > CDS-CTL



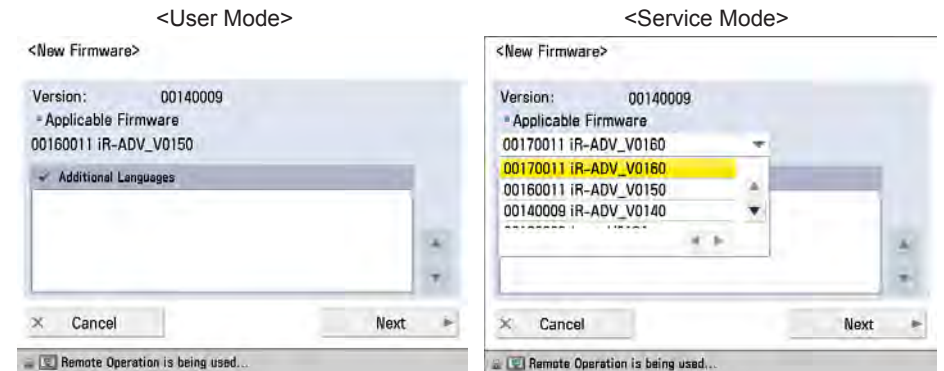
F-6-120

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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F-6-122

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”

The screenshot shows the 'Register/Update Software' interface for device ENS00264. The 'Display Logs/Communication Test' section is active, showing a log view of system logs. A red box highlights the 'System Logs' dropdown menu. The log content includes the following entries:

```

2010/05/07 10:11:22] 4 130205 [DLThread:1]@File[597]>--- <<< Downloading Completed 1 >>> ---
[2010/05/07 10:11:22] 4 130204 [DLThread:1]@File[597]>@WAITING
[2010/05/07 10:11:22] 4 020036 ++DeliveryManager getHttpStatus() currentFunc:[8]requestFunc[8]
[2010/05/07 10:11:22] 3 033404 *** event downloading ***
[2010/05/07 10:11:22] 4 031801 download [290608222 / 307520906]
[2010/05/07 10:11:22] 4 130105 Download Finished Thread Found!
[2010/05/07 10:11:22] 4 130105 FILE INFO =====
[2010/05/07 10:11:22] 4 130105 INDEX:598
[2010/05/07 10:11:22] 4 130105
NAME http://172.16.1.139:80/Ginger/Firm/20100428.014011_00140009/xjaibase-release-7.138.1-
auto201004141916.nif
[2010/05/07 10:11:22] 4 130105 =====
[2010/05/07 10:11:22] 4 130201 [DLThread:1]@File[598]>Requested File Download
[2010/05/07 10:11:22] 4 130201 [DLThread:1]@File[598]>@HTTP-NOTIFIED
[2010/05/07 10:11:22] 4 130201 [DLThread:1]@File[598]>Requested File Download completed!
[2010/05/07 10:11:22] 4 130204 [DLThread:1]@File[598]>@EXIT WAITING
[2010/05/07 10:11:22] 4 130205 [DLThread:1]@File[598]>--- <<< Downloading >>> ---
[2010/05/07 10:11:22] 4 130500 [DLThread:1]@File[598]>Server Host[172.16.1.139:80] Port[80]
[2010/05/07 10:11:22] 4 130500 [DLThread:1]@File[598]>adapter connect no proxy.
[2010/05/07 10:11:22] 3 130209 [DLThread:0]@File[595]>Another 1M bytes downloaded

```

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NOTE:

- See the section of “Setting Log Level” under “Various Setting”, “System Management Operations” of “Updater” of Chapter 2 “Technology” of this manual for more 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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
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. In SOAP communication, failed to success after 1 min retry. ID and Password required for proxy to connect to the internet are not configured in device.	Check the network environment of the device, and re-execute the job. If it recurs, obtain the log etc. (Refer to "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company. Set proxy and restart the communication test. If it recurs, obtain the log etc. (Refer to "Information required for Reports" under "Version Upgrade via CDS", "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)	The access to the network is limited.	Set the user environment to make the access to the following domain available. https://device.cdsknn.net/ http://cdsknn.net.edgesuite.net/ If it recurs, obtain the log etc. (Refer to "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
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 "Information required for Reports" under "Version Upgrade via CDS", "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.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
			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 "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
			No return of notifying version information	
			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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
		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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
			At the end of receipt, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
			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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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)	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 "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.
		Immediate download (Update Firmware 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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "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 "Information required for Reports" under "Version Upgrade via CDS", "Version Upgrade" of Chapter 6 "Troubleshooting" of this manual.) and contact Support Div. of the sales company.

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Error Codes

Error Codes displayed on LUI in a device and how to read them.

How to read an error code

The screenshot shows a device screen with the error code '84014206' highlighted. A legend indicates: Delivery Server, File Server, Connect Failed, Retrieve Failed, and Error Code: 84014206. The breakdown table below explains the structure of the code.

Code	Value	Contents
The first digit Error field	8	Error
The second digit Operator	0 1 2 3 4 5	Not defined. CDS server Updater UGW Service person IT administrator (User)
The 3rd - 4th digits Method category	xx	Method
The 5th digit Category code	0 1 2 3 4 5 6 7	Category code
The 6 - 8th digits Description code	000-	See Error code list

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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	✓	✓	

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 3	In a data entry item, the value is set against the regulations (E.g. the set value is other than "Operator: 4. Service person, 5. IT administrator(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	IT administrator(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		✓	-	-	-	
				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 1 1	The delivery status is Distributing/Distributed/Applying/Finished/Failed		✓	-	-	-	
				0 1 2	Device is "Not applicable to CDS" (Firmware delivery)		✓	-	-	-	
				0 1 3	The specified delivery time is in the CDS delivery stop time. (Firmware delivery)		✓	-	-	-	

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 1 4	Firmware reservation status confirmation is time out.		✓	-	-	-
				0 1 5	Firmware delivery is time out.		✓	-	-	-
				0 1 6	The version up of firmware is time out.		✓	-	-	-
			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 101 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 *In multi-manifesto correspondence, as for "division value of MFP/SFP" 0 or the case except 1, LMS gives back error code "-215" to CDS.		✓	-	-	-
				0 1 1	LMS system error *When the acquisition of the manifesto is failure, in multi-manifesto correspondence, LMS puts back error code "-999" to CDS.		✓	-	-	-
			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					

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 1	Processing exclusively	Start the operation again after terminating other Updater operations being executed simultaneously	-	✓	-	-
				1 0 1	Failed to process preparation for use	-	-	✓	-	-
				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	-	-	✓	-	-
				5 x x	An internal error in Property setting	-	-	✓	-	-
			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"> Check the network environment of the device and start the operation again Check if the URL settings of the CDS server are correct, and start the operation again after resetting 	✓	✓	-	✓
				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	-	-	✓	✓	✓

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 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	-	✓	✓	✓		
				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	-	✓	-	-		
			A	CVM								
				0 0 0	Codes other than the following "0XX" definitions	Normally not indicated						
				1 0 0	Codes other than the following "1XX" definitions	Normally not indicated						
				1 0 1	Failed in ContentsList registration to CVM	-	-	✓	-	-		

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 obtain the current ContentsList from CVM	-	✓	-	-	
				1 0 3	Failed to obtain all the package lists in the existing device from CVM	-	✓	-	-	
				1 0 4	Failed to obtain the list of updated-module-only delivery from CVM	-	✓	-	-	
				1 0 5	Failed to obtain the list of whole-module delivery from CVM	-	✓	-	-	
				1 0 6	Failed to obtain information on the firmware of the existing device from CVM	-	✓	-	-	
				1 0 7	Failed to obtain the updated-module-only delivery Std additional mode list from CVM	-	✓	-	-	
				1 0 8	Failed to obtain the updated-module-only delivery Std version-upgrade mode list from CVM	-	✓	-	-	
				1 0 9	Failed to obtain the updated-module-only delivery Std version-downgrade mode list from CVM	-	✓	-	-	
				1 0 A	Failed to obtain the updated-module-only delivery Std deletion mode list from CVM	-	✓	-	-	
				1 0 B	Failed to obtain the updated-module-only delivery Safe additional mode list from CVM	-	✓	-	-	
				1 0 C	Failed to obtain the updated-module-only delivery Safe version-upgrade mode list from CVM	-	✓	-	-	
				1 0 D	Failed to obtain the updated-module-only delivery Safe version-downgrade mode list from CVM	-	✓	-	-	
				1 0 E	Failed to obtain the updated-module-only delivery Safe deletion mode list from CVM	-	✓	-	-	
				1 0 F	Failed to obtain the updated-module-only delivery ExtRom version-upgrade mode list from CVM	-	✓	-	-	
				1 1 0	Failed to obtain the updated-module-only delivery ExtRom version-downgrade mode list from CVM	-	✓	-	-	
				1 1 1	Failed to obtain the whole-module delivery Std additional mode list from CVM	-	✓	-	-	
				1 1 2	Failed to obtain the whole-module delivery Std deletion mode list from CVM	-	✓	-	-	
				1 1 3	Failed to obtain the whole-module delivery Safe additional mode list from CVM	-	✓	-	-	
				1 1 4	Failed to obtain the whole-module delivery Safe deletion mode list from CVM	-	✓	-	-	
				1 1 5	Failed to obtain the whole-module delivery ExtRom version-upgrade mode list from CVM	-	✓	-	-	

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* Not displayed on a device UI

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

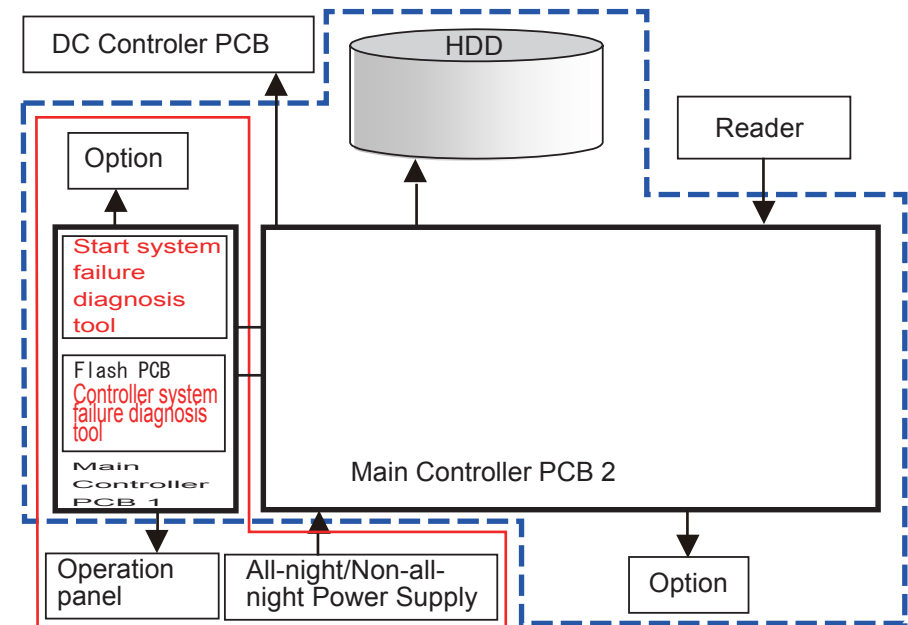
- Main Controller PCB 1 side <Main Controller PCB 1, SDRAM, PCI Expansion PCB (option)>
- Control Panel
- All-night Power Supply, Non-all-night Power Supply

Controller System Error Diagnosis Tool

- Main Controller PCB 1 side <Main Controller PCB 1, SDRAM, TPM PCB, FLASH Memory PCB, PCI Expansion PCB (option)>
- Main Controller PCB 2 side <Main Controller PCB 2, SDRAM, Memory PCB
- HDD (except Flash memory model)

Overview

Two types of error diagnosis tools are installed in this machine, and stored in the locations shown below.



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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

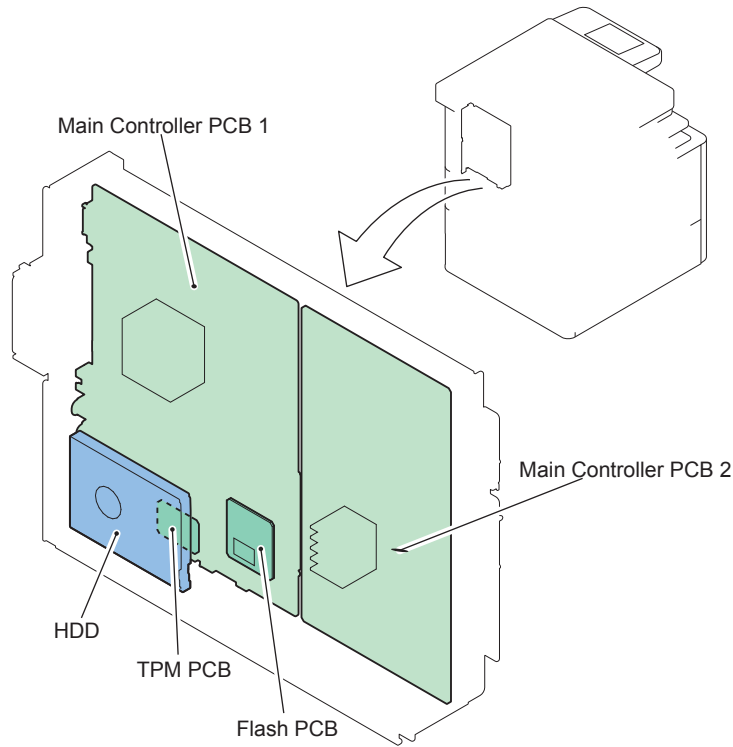
This tool automatically checks the Main Controller PCB 1/2, child PCBs mounted on the Main Controller PCB 1/2, and HDD, and display the result on the Control Panel.

This tool is installed in Flash PCB.

Therefore, this tool cannot be used when an error occurred in Flash PCB.

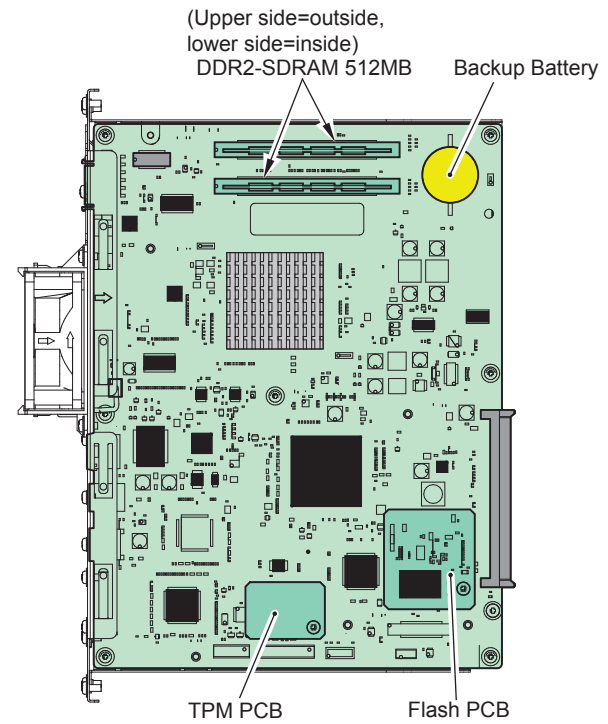
■ Layout Drawing

Layout Drawing of PCBs Subject to Diagnosis

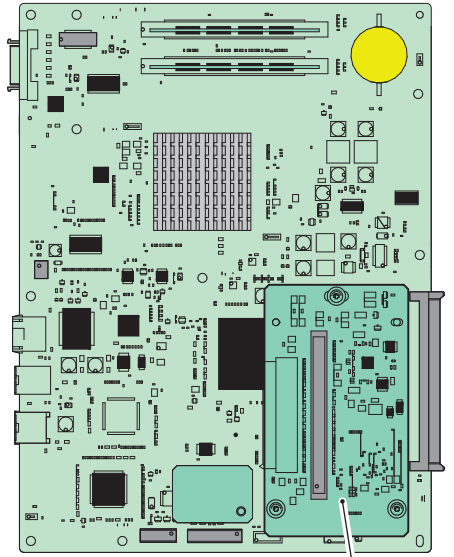


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Main Controller PCB 1



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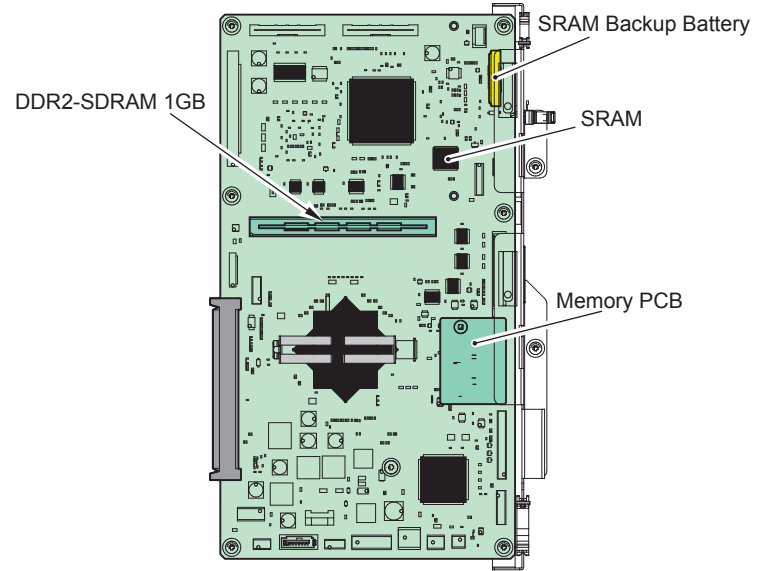


PCI Expansion PCB



F-6-128

Main Controller PCB 2

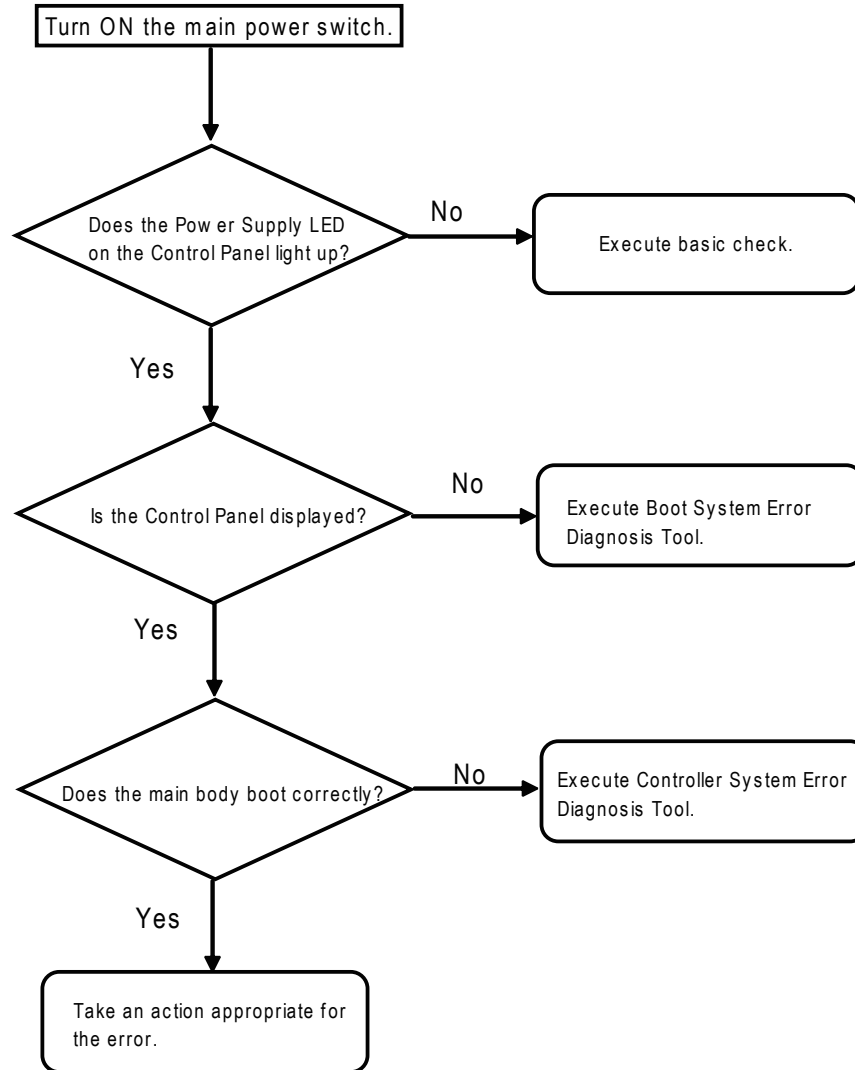


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Basic Flowchart

Basic Check Items

Check all of the items shown below.



Basic Check Items

1. Check if the Power Supply Plug is disconnected.
2. Check if the Connection Cable between the Main Controller PCB 1 and Control Panel is disconnected.
3. Check if the Connection An All-night Power Supply. Check if the Connection Cable from Main Controller PCB 2 is disconnected. Change AC Driver PCB if not recovered.

■ Prerequisite

This machine's Firmware is installed in Flash PCB.

Controller System Error Diagnosis Tool (BCT) is also installed at the same time when System software is installed.

NOTE:

BCT stands for Box Checker Test.

When BCT is installed on the main body, version of the installed module can be checked using service mode (COPIER>DISPLAY>VERSION>BCT).

■ Operation

Operations of the two diagnosis tools are explained below.

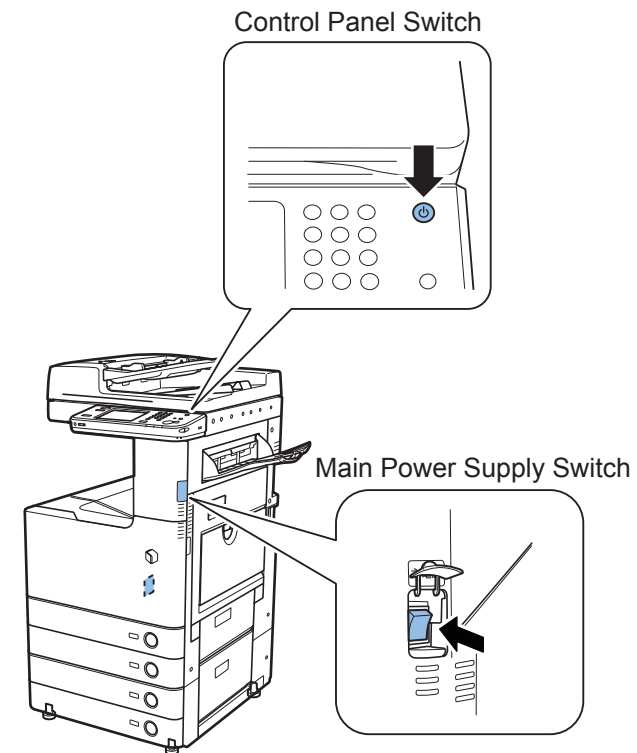
Use each tool according to the following purposes.

- 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

● Boot Method

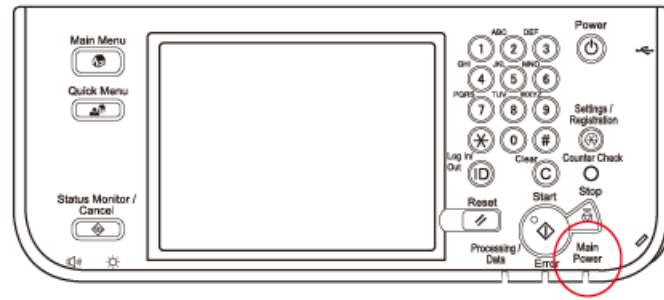
- 1) Turn ON the Main Power Supply Switch while pressing the Control Panel Power Supply Switch.



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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.)



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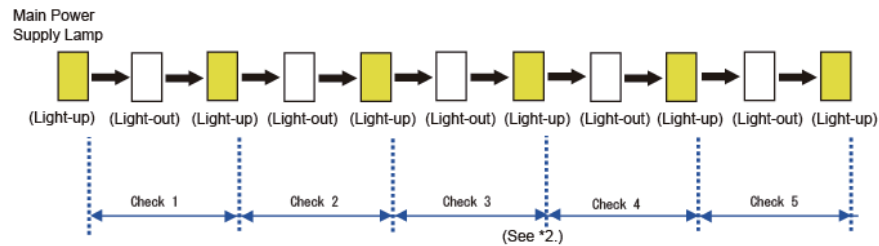
● Diagnosis Time

Diagnosis is completed in approx. 1 minutes.

<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.



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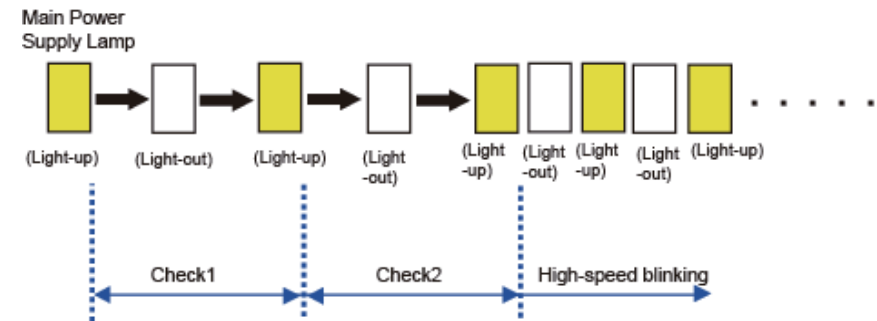
<When an error is detected by diagnosis>

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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*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".)

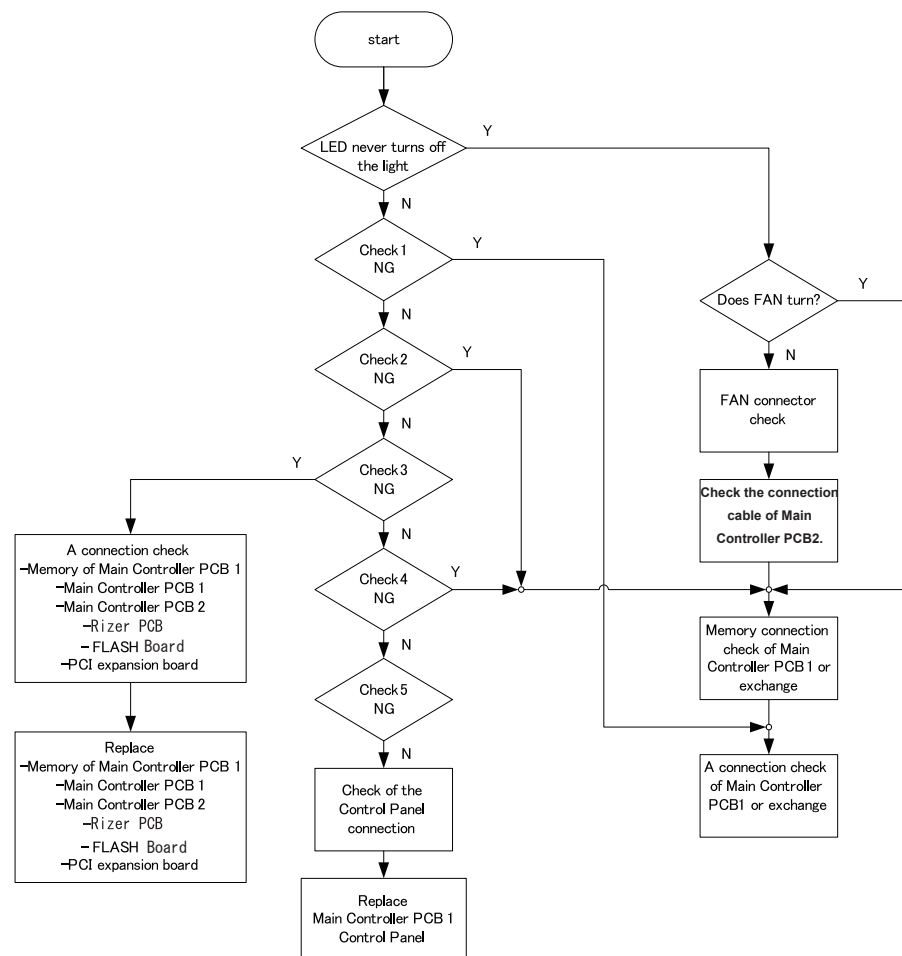
*2: Although diagnosis time for Check 3, and Check 4 is longer than that of other Checks, it is correct operation.

*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.

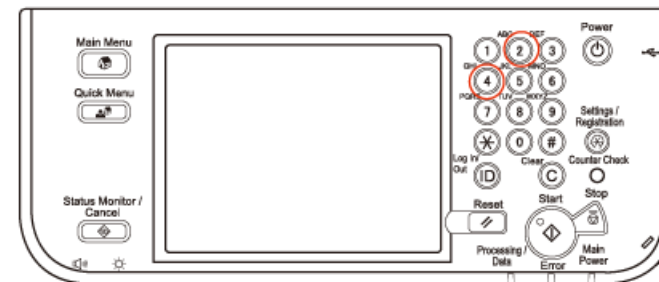


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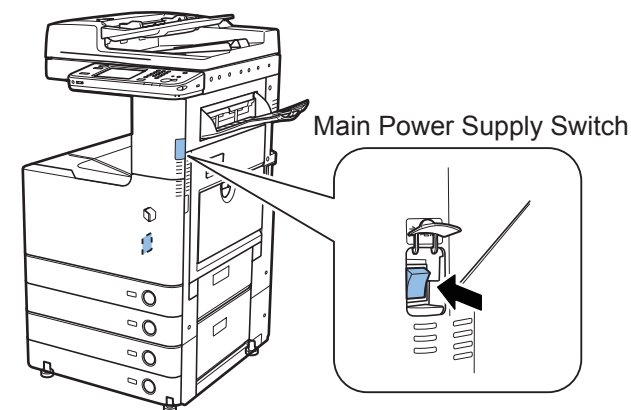
■ Controller System Error Diagnosis

● Boot Method

1) Turn ON the Main Power Supply Switch while pressing the numeric keys '2' and '4' simultaneously.

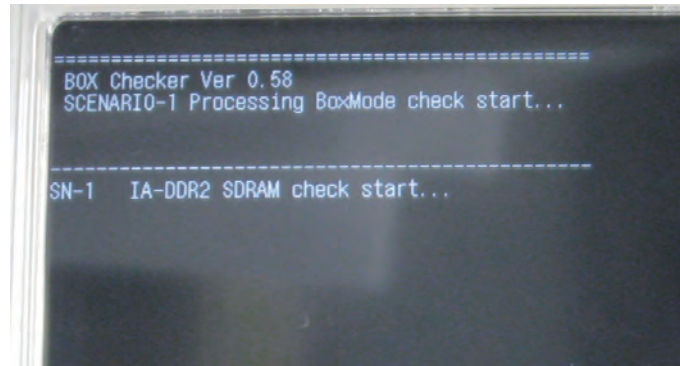


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F-6-136

2) Keep pressing the numeric keys (for approx. 20 seconds) until the following screen appears on the Control Panel.

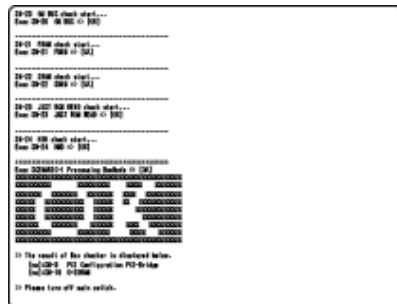


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● Diagnosis Time

Diagnosis is completed in approx. 3 minutes.
The result is displayed on the Control Panel.

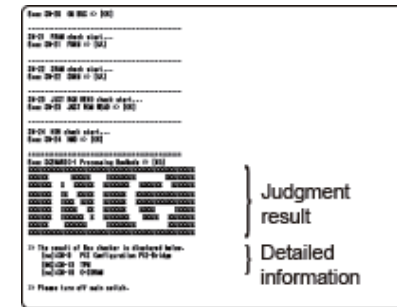
<When the diagnosis result is normal>



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<When an error is detected by diagnosis>

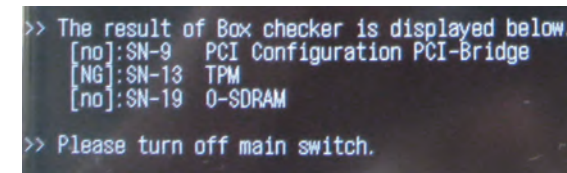
Detailed information is displayed under the judgment result. In detailed information, the name of the test where an error was detected is indicated.



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<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.



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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-DDR2 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 on the Main Controller PCB 2	Main Controller PCB 1 PCI Expansion PCB Main Controller PCB 2 DDR2 SDRAM 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 DDR2 SDRAM on the Main Controller PCB 2. 3. Replace DDR2 SDRAM on the Main Controller PCB 2. 4. Replace the Main Controller PCB 2. 5. Replace the Main Controller PCB 1.	-
SN-6 PCI Config SOC	Test a PCI bus between the Main Controller PCB 1 and the Main Controller PCB 2	PCI bus error between Main Controller PCB 1 and Main Controller PCB 2	1. Check the connection of the Main Controller PCB 1, and ascertain presence of breach. 2. Replace the Main Controller PCB 1.	-

Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-7 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-8 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-9 CPLD	Check failure of CPLD chip on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-
SN-10 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-11 RTC CHECK	Check failure of RTC on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-
SN-12 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-13 SOC- DDR2 SDRAM	Check an error DDR2 SDRAM on the Main Controller PCB 2	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.	-

Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-14 FRAM	Check failure between the Main Controller PCB 2 and the Memory PCB	Main Controller PCB 2 Memory PCB	1. Check the installation of the Memory PCB on the Main Controller PCB 2. 2. Replace the Memory PCB on the Main Controller PCB 2. 3. Replace the Main Controller PCB 2.	E355
SN-15 SRAM	Check failure of SDRAM and battery exhaustion on the Main Controller PCB 2	Main Controller PCB 2	1. Replace the Main Controller PCB 2.	E246 E350 E355
SN-16 JUST ROM READ	Check ROM READ on the Main Controller PCB 2	Main Controller PCB 2	1. Replace the Main Controller PCB 2.	-
SN-17 PERSEUS	Check IC on the Main Controller PCB 2	Main Controller PCB 2	1. Replace the Main Controller PCB 2.	-
SN-18 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.	-

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Optional PCB: [OK]

However, [no] is displayed in detailed error information for optional PCBs.

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, 6, 14, 18), 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]

Debug log

Scope of Application

Purpose

- 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.
- This is intended to improve efficiency in log collection when a trouble occurs.

Target Models

iR ADVANCE C2030/C2025/C2020 Series

Version of the host machine: 20.xx or later

Adding Users for Log Collection

Collecting logs previously required operation in service mode. Therefore, a service technician needed to visit the site.

Operation in service mode, however, is no longer necessary because a log can be created by holding down the counter + 123.

Thanks to this feature, even a user can create a log for a trouble as long as the Control Panel can be used.

When only the service mode is available, the service technician performs the work.

Lev2 COPIER > FUNCTION > DBG-LOG > LOG2USB

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 > DBG-LOG > LOG-TRIG.

Debug log is automatically stored in the case of the following:

Exception + E-code + reboot

Manual Storage

Counter Key + 1.2.3

When executing "Counter Key + 1.2.3" while no USB memory device is connected to the machine, "Storing system information..." is displayed at the lower side of the Control Panel and debug log is stored in the HDD of the machine.

Description of Log to be Collected

The log consists of the number of logs as shown below; from the latest log extended to the older logs.

Logs older than the specified period are overwritten (deleted).

When collecting logs, they are archived to be one file.

When collecting logs from the machine, the log file in the machine is deleted.

DC configuration can be obtained by manual generation. DC configuration cannot be obtained by automatic generation with LOG-TRIG specified.

FLASH model	2 pieces
HDD model	10 pieces

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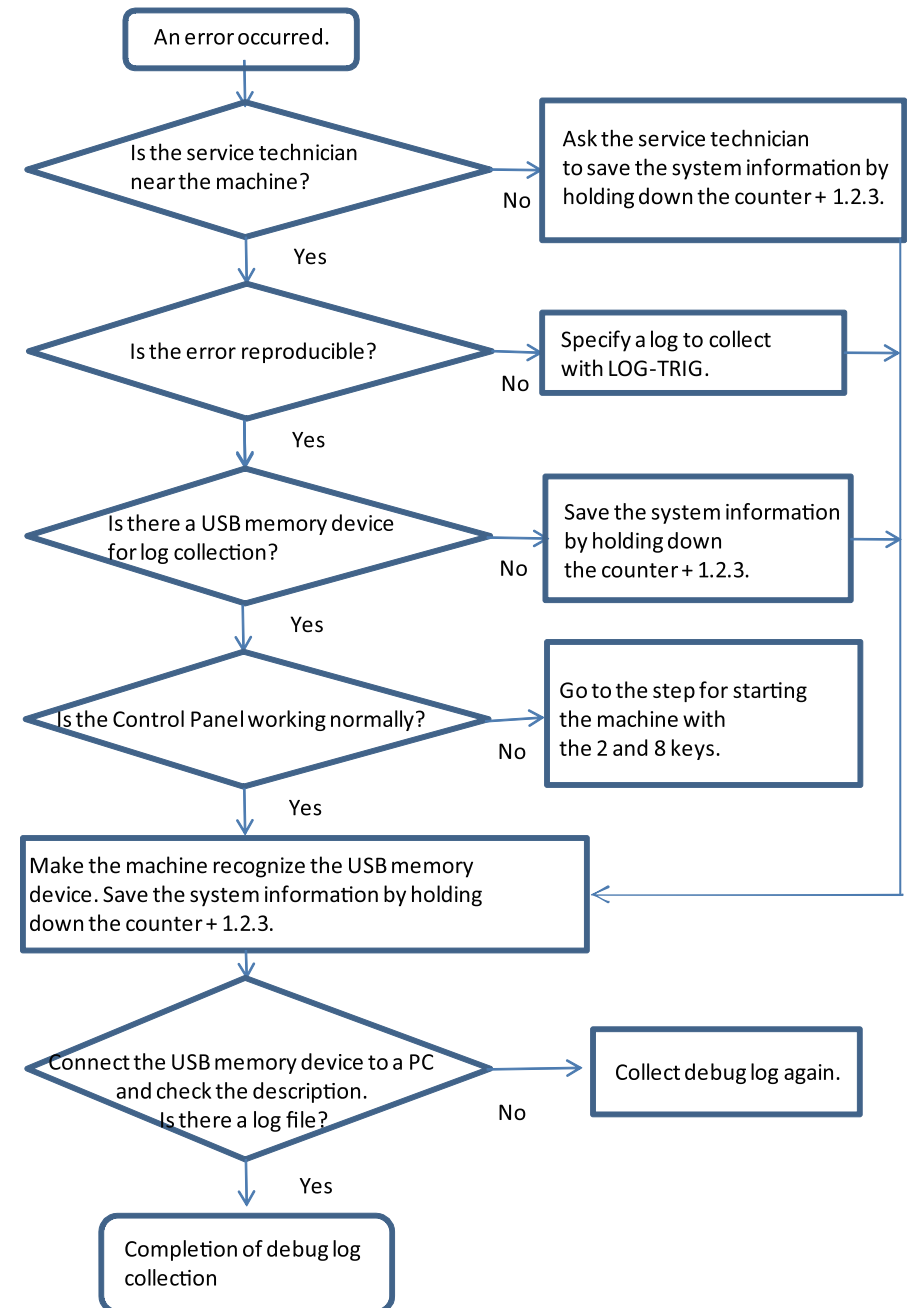
Operation to Save System Information

By holding down the counter + 1.2.3, you can separate the operation into two: the operation to save debug log in the HDD and the operation to transfer the data into a USB memory.

By using service mode LOG2USB or SST, the data storage and the data transfer are performed as one operation.

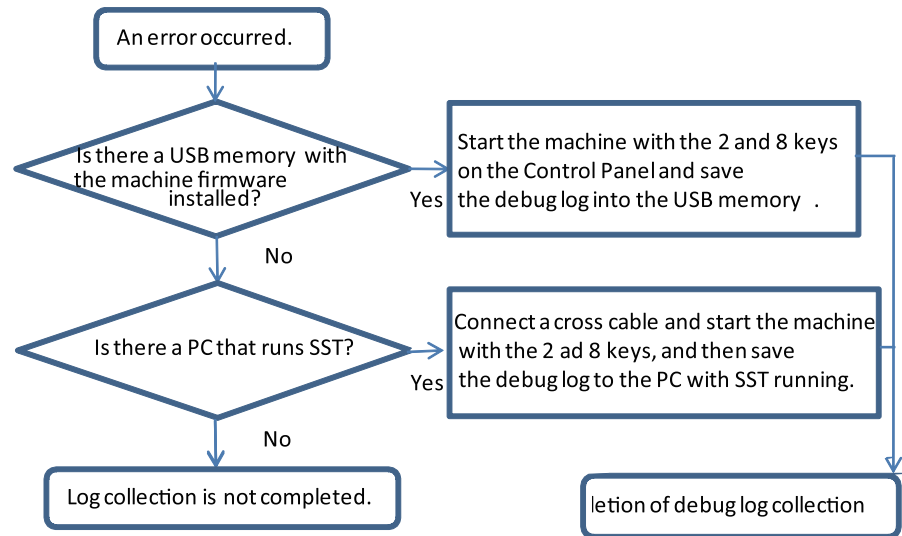
In any of these cases, debug log in the HDD of the machine is deleted when the data is transferred.]

The following shows a flowchart of assumed work to collect debug log by a service technician.



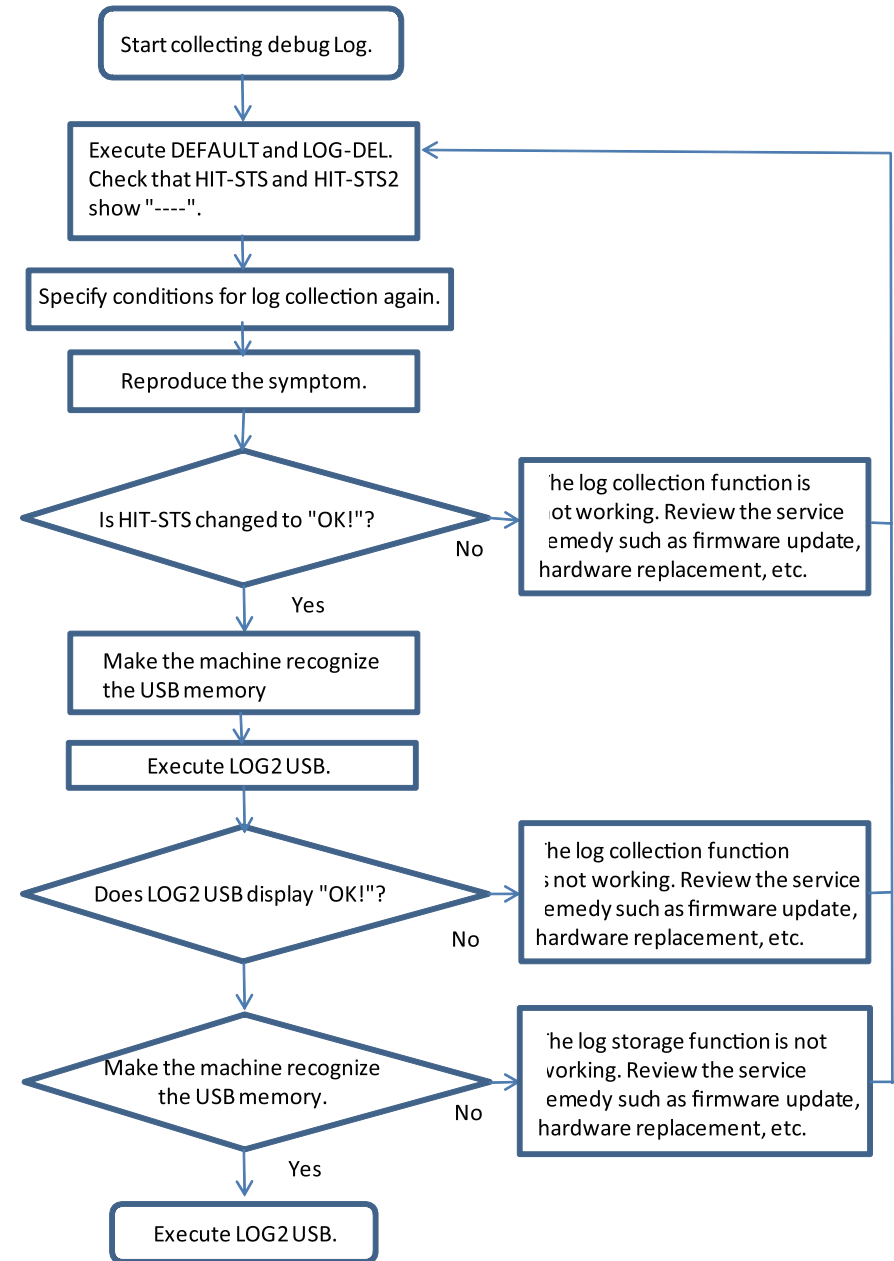
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Workflow to Start the Machine with the 2 and 8 Keys



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Reacquiring Debug Log



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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. Save the system information by holding down the counter + 1.2.3 and transfer the data to the USB memory device.
- Make the machine recognize the USB memory device. Select the following in service mode Lev2: COPIER > FUNCTION > DBG-LOG > LOG2USB; 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.
- Store the setting file, which was sent from the Canon field support department through the sales company HQ, into a USB memory device. Select the following in service mode Lev2 to read the data with LOG2SRVR: COPIER > FUNCTION > DBG-LOG > LOG2SRVR; and transfer the debug log to the specified FTP server.

Method	Storage	Collection
Holding down the counter + 1.2.3	If there is no USB memory device, the data is just saved.	If there is a USB memory device, the data is saved and collected.
LOG2USB	The data is saved and collected as a set of operation.	
LOG2RVR	The data is saved and collected as a set of operation.	
SST	The data is saved and collected as a set of operation.	
Starting the machine with the 2 and 8 keys and using a USB memory device	The data is saved and collected as a set of operation.	

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Measures against Frequent Debug Log Collection

Debug log collection involves operations with the machine; therefore, frequent log collection increases service load.

Carrying a tool PC (PC with a USB memory device attached or SST installed) to the user site can be restricted.

When the user allows the Internet connection in their site, debug log can be sent to the specified FTP server in the service mode LOG2SRVR setting by distributing the setting file, which has been sent from the Canon field support department via the sales company HQ.

Collecting Debug Log (USB memory device)

Manual Saving by Holding Down the Counter + 1.2.3

Note:

If a USB memory device is recognized in advance by the machine, debug log is written to the USB memory device by executing the following operation.

If the USB memory device is not recognized, the data is moved to the log storage space in the controller; and then the data is written to the USB memory device when the following operation is executed the next time while the USB memory device is connected.

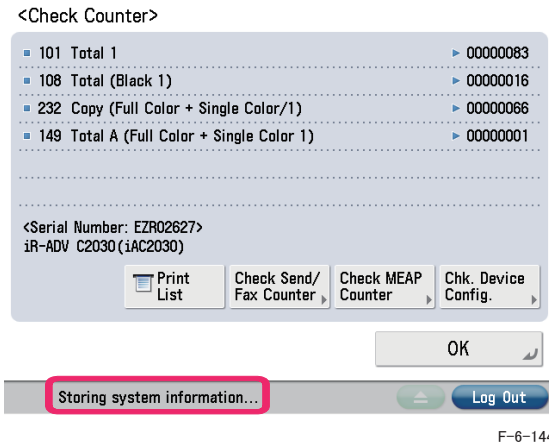
Note that the extension of the file name differs between the one that is directly written and the one that is written after the data was saved.

The log file is deleted in the machine once it is collected into the USB memory device. Log can be collected from service mode as well. See the LOG2USB section for details.

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 binary data on the memory into text-based data and then encrypted.

“Storing system information...” is displayed at the lower side of the touch panel (Control Panel of the machine). Data transfer is complete when the display disappears.

See the following for the file name.



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6. A file is generated in root of the USB memory device.

7. Note that the screen is locked while the data is transferred to the USB memory device; therefore, the screen does not change even though you press any key on the Control Panel. Press the Reset key to check that the screen changes. Data transfer is completed when the screen changes. (Multiple times) No change on the screen at this moment. (The screen is locked.)

8. Wait for a while until the screen changes. Completion of copying data into the USB memory device when the screen changes.

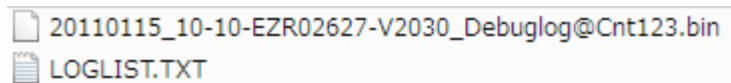
File name

When the data is sent to the USB memory device:

The file name is as follows: Date/time + serial number + MNCNT version + Debuglog@Cnt123.Bin

Example:

20100510_12-35-ENS00059-V01.54_debuglog@Cnt123.bin



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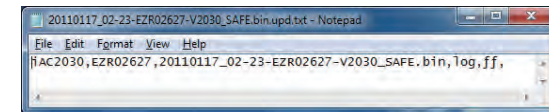
Note:

Date to be added to the file name shows the date that the log was transferred. The time of the specified region may not be shown when the machine is not working properly. In such a case, Greenwich Mean Time (GMT) is shown.

Log Description

You can check the description of the logs to be included in .bin file with "LOGLIST.TXT" that is saved simultaneously with the .bin file into the USB memory device.

The following are samples of LOGLIST.TXT:



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20101216_14-12-ENS00059-V2022_UserErr00-ServiceCall

<- A log file automatically saved at 14:12 on Dec. 16 by a service call

20101216_14-48-ENS00059-V2022_Fatal00-exception

<- A log file automatically saved at 14:48 on Dec. 16 by Exception processing

20101216_14-51-ENS00059-V2022_Debuglog@Cnt123

<- A log file saved at the moment of holding down the counter + 1.2.3

Status Display on the Control Panel

During a log collection processing, "Storing system information..." is displayed on the status line. The message disappears once the log collection processing is complete. (When the log has been collected with a USB memory device connected, a message "a memory media is connected" is displayed.)

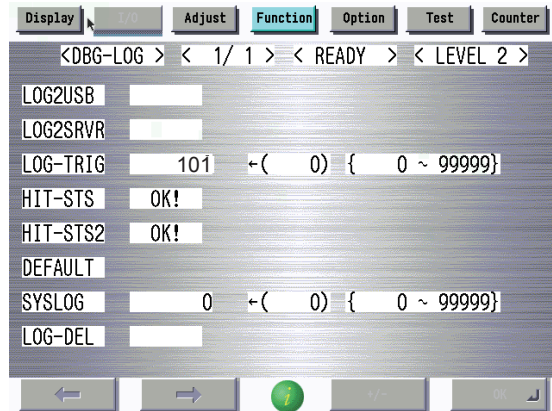
When holding down the counter + 1.2.3 while an error code is shown, the message "Storing system information..." is not displayed for convenience of UI display.

DBG-LOG Screen

Function

Service mode LEVEL 2

COPIER > FUNCTION > DBG-LOG



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LOG2USB

Function

This is a function to send a set of debug logs in the machine to a USB memory device attached to the device.

For using LOG2USB, take note of the following difference compared to the operation by holding down the counter + 1.2.3.

Points to Remember

- Executing LOG2USB while no USB memory device is attached to the machine causes an "NG" display. The data is not transferred. The log in the HDD is retained.
- Make the machine recognize a USB memory device before executing LOG2USB.

Operation Procedure

- Insert a USB memory device for log collection to the machine.

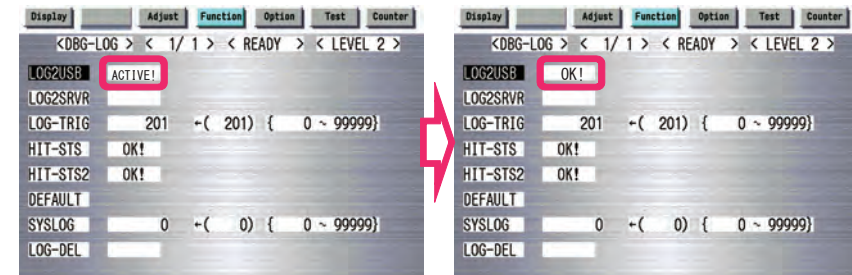
Note:

When inserting a USB memory device, wait for 10 seconds or so because it takes several seconds for the machine to recognize the USB memory device after it was inserted. Or enter service mode when you confirmed the display of "A memory media is connected" after inserting a USB memory device to the machine.

The size and the number of log files to be collected vary depending on the device status and log storage status; therefore, the file size to be collected can be large as several-hundred MB. Because of the above reason, we recommend using a USB memory device with 1GB or larger capacity.

- Select "LOG-USB" and click "OK" to start a log collection.

An "ACTIVE!" sign blinks during the processing.



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Note:

Do no perform the following operations during the processing.

- Turning OFF and then ON the power of the machine.
- Disconnecting a USB memory device.
- Any operation on the touch panel of the machine.

- "OK!" is displayed when the processing is successfully completed. "NG!" is displayed when the processing fails.

- Remove the USB memory device for log collection.

Note:

To remove the USB memory device, exit the service mode screen and perform the operation for removing memory media on the screen.

Remarks:)

- When there is any debug log file that has been automatically saved in the sublog storage space, send it to the USB memory device as well.
- Multiple debug logs are archived into one file to be sent into the USB memory device.
- The archived name is automatically given as follows: "date and time", "serial number", "MN-CONT"

A file name example: 20100425_13-32-ENS00059-V01.44_Debuglog@USB.bin

In the above example, "20100425_13-32" shows the date and time of log collection (the date and time set in the machine),

"ENS00059" the serial number,

"V01.44" the firmware version of the Main Controller (MNCONT), and

"Debuglog@USB" shows that the log was "collected with "DBG-LOG>LOG2USB".

Note:

The log file is deleted from the machine once it is collected into the USB memory device. You can check the description of the logs to be included in .bin file with "LOGLIST.TXT" that is saved simultaneously with the .bin file into the USB memory device.

LOG2SRVR

When the Canon quality-appointed staff determines that it is necessary to use this function, the setting file for the FTP server is provided through the sales company HQ.

Function

This is a function to transfer debug log to the FTP server.

Preconditions

Network connection is available from the machine and there is a FTP server with a registered account (ID/Password) used by the machine.

The address and account of the FTP server used by the machine are specified with the setting file (to be described later).

Operation Procedure

First, go through the following steps to set the address of the FTP server:

- a) Save the log setting file (e.g. "800.conf") provided by the Canon quality-appointed staff into a USB memory device.
- b) Insert the USB memory device to the machine and enter 800 for "LOG-TRIG" to execute reading.
 - > The server address described in 800.conf is specified in the transfer destination of LOG2SRVR.
- c) Select "LOG-SRVR" and click "OK" to start a log collection and server transfer processing.
- d) An "ACTIVE!" sign blinks during the processing.

Note:

Do not perform the following operations during the processing.

- Turning OFF and then ON the power of the machine.
- Operation on UI.

When the processing results in "NG!" although you tried several times before, check for the IP address in the loaded setting file again.

Perform an internal ping test from the machine to the specified IP address immediately after you started the processing; if the result shows OK, start a processing to collect and transfer the log.

Failure in a ping test can cause "NG!"; in such a case, select "LOG2SRVR" again to try again.

- e) "OK!" is displayed when the processing is successfully completed. "NG!" is displayed when the processing fails.

When there is any debug log file that has been automatically saved in the sublog storage space, send it to the server as well.

- f) Multiple debug logs are archived into one file to be sent to the server.

The archived name is automatically given as follows: "date and time", "serial number", "MN-CONT"

A file name example: 20100425_13-26-ENS00059-V01.44_Debuglog@Server.bin

In the above example, "20100425_13-26" shows the date and time of log collection (the date and time set in the machine),

"ENS00059" the serial number,

"V01.44" the firmware version of the Main Controller (MNCONT), and

"Debuglog@Server" shows that the log was "collected with "DBG-LOG>LOG2SRVR".

Note:

The log file is deleted from the device once it is collected into the server.

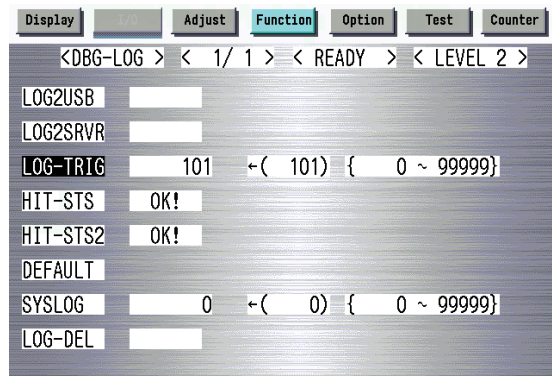
LOG-TRIG

Function

This is a function to change the settings on debug log and then start a log collection operation with the new settings.

Operation Procedure

a) Enter a numeric value (100 to 99999) that corresponds to the target operation mode for "LOG-TRIG" and click the "OK" button.



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b) The log settings start to be changed in the device and "ACTIVE!" blinks during the processing.

c) "OK!" is displayed when the processing is successfully completed. "NG!" is displayed when the processing fails.

d) It is not necessary to reboot the device.

See the following table for definition of the operation mode (0 to 99999).

	Number	Timing to automatically store the log
100-199	101	Exception + E-code + reboot
	Default setting (at the time of shipment)	
	111	Exception only
	121	E-code only
200-299	131	Reboot only
	201	101 + alarm
	211	Exception + alarm
	221	E-code + alarm
	231	Reboot + alarm
300-399	291	Alarm only
	301	101 + jam
	311	Exception + jam
	321	E-code + jam
	331	Reboot + jam
	391	Jam only

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- Do not use number 0 to 99 for system reservation.
- When changing the setting value or executing DEFAULT, the latest setting value will not be displayed unless the DBG-LOG screen is displayed again. Therefore, exit the DBG-LOG screen and then display the DBG-LOG screen again to check that the intended setting value is shown.
- The setting to "automatically store logs by Exception + E-code + reboot (setting number 101)" is specified as default (the state specified at the shipment).

Limitations

Automatic Collection (LOG-TRIG)

- Dcon log cannot be specified for log collection with the automatic storage function.
- When the operation on debug log goes wrong, repeated log collection/setting change can cause faulty behavior such as generating extra temporary file and log file. In such a case, execute "DEFAULT" and reset the settings on debug log, and then try again.

Types and Descriptions of Logs to be Collected from Device

Debug log information, serial number and status information sent by the firmware of the device are collected while image data, user settings (such as Address Book), etc. are not collected. Depending on the log, user information (print file name, a part of image data, etc.) can be included indirectly.

Select necessary settings.

1. Mode 1: Collection of all logs (including logs that may contain user information)
2. Mode 2: Collection of only logs that do not contain user information

When you gain an approval from the customer, collect log in mode 1. (Switch modes 1 and 2 by changing the settings from "LOG-TRIG".)

Mode 2 is the default setting; therefore, Mode 2 applies to all log collection settings unless the mode is changed by LOG-TRIG (LOG-TRIG > 1).

When changing the mode to Mode 1 by LOG-TRIG, Mode 1 applies to all log collection settings.

The following shows how to change the mode from Mode 2 (default at the time of shipping) to Mode 1:

- 1) Enter "1" by LOG-TRIG and click OK.
- 2) Then enter "101" and click OK.

When making another number setting after executing step 2) above, the setting made in step 1) is disabled; therefore, clear the default settings and then execute steps 1) and 2) again.

HIT-STS

The status shows OK when there is any log.

Note:
The status shows "OK" under the condition that there is any storage log.
The status also shows "OK" by holding down the counter key + 1.2.3.

HIT-STS2

The log is automatically collected by the automatic log storage function (to be saved as a file in the device) and the status shows whether there is any log that includes an "expected log pattern".

There is a log that includes an "expected pattern" when the status shows "OK".

Note:

- 1) The status shows "OK" when both of the following conditions are satisfied: "There is a storage log" and "the log includes an expected pattern described in the settings file".
- 2) In the standard settings, the expected pattern for HIT-STS2 condition is not specified. To enable HIT-STS2, it is necessary to use LOG-TRIG to read and set the setting file with an expected pattern described, which was provided by R&D.

DEFAULT

Function

Set all debug log-related settings back to the default settings (the state at the time of shipment).

- You must perform this measure when you complete troubleshooting and return the device to the customer.
- Perform this measure when you reset or make another settings relating to debug log during a log collection investigation.

For log files that were automatically stored in the debug log storage space secured in the machine's controller (/var/xpt/dbglog), they kept to be stored unless the number of log files exceeds the limit. To delete the stored log (to use HIT-STS), use "LOG-DEL" described later.

SYSLOG

When a Canon quality-appointed staff determines the need to use this function, the setting file for SYSLOG is provided through the sales company HQ.

The setting file may be provided when a large volume of logs are determined necessary by Canon because the log storage space in the HDD is not sufficient.

Turn ON and OFF the operation of syslog function.

The program responsible for the syslog function is hereinafter described as "syslogd".

Syslogd sends debug log of the machine's controller to any of the following:

- A file on the HDD in the controller of the machine
- Any of the syslog servers (not FTP server) that can connect to the machine and network

Note:

The syslog function involves a risk of full capacity in the HDD or increased network traffic. Perform this measure in the field only when the R&D determines it is necessary.

- Collect sublog at the main CPU of the Main Controller.

LOG-DEL

This is a function to delete log files that have been automatically stored. The settings on log operation such as the log storage trigger are not cleared.

Normally, there is no need to use this function (the firmware automatically restricts the upper limit for the number of stored logs); however, it is necessary to delete logs by LOG-DEL when using HIT-STS to see whether the log is collected or not after changing the log storage trigger setting.

(Because the HIT-STS status always shows OK as long as there is a log that has been stored.)

An Example of Automatic Log Collection Setting

Setting LOG-TRIG enables to collect logs limited to the following items

- Error code, Reboot, Exception processing
- Alarm
- Jam

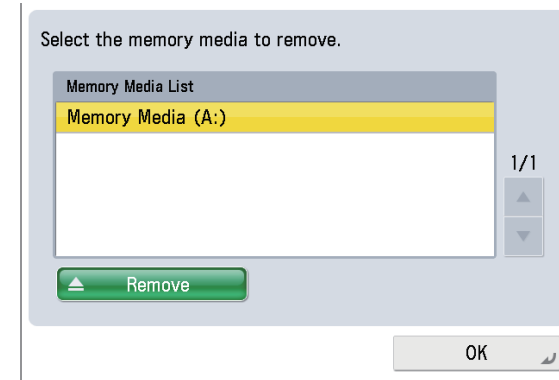
Setting Example

(Delivery Jam)

To experience a log collection operation, the following shows a setting example:

This is a log collection example when a jam occurs in the Delivery Assembly during a copy operation.

1. Connect a USB memory to an available machine.
2. Check that the machine recognizes the USB memory.

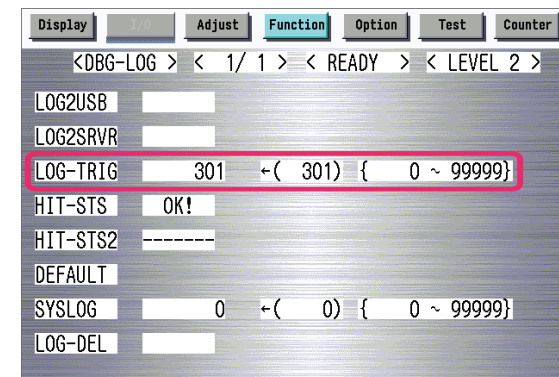


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3. Execute the service mode setting as follows.

Service mode LEVEL 2

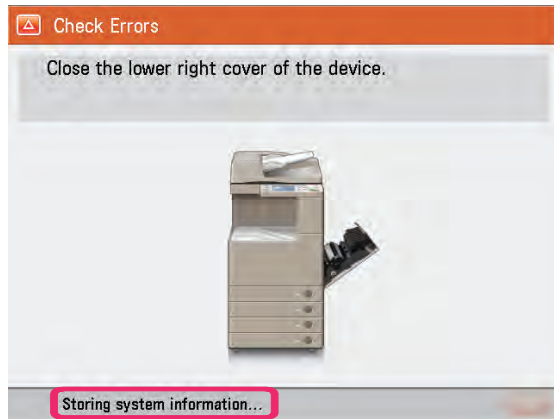
COPIER > FUNCTION > DBG-LOG > LOG-TRIG; and set 301.



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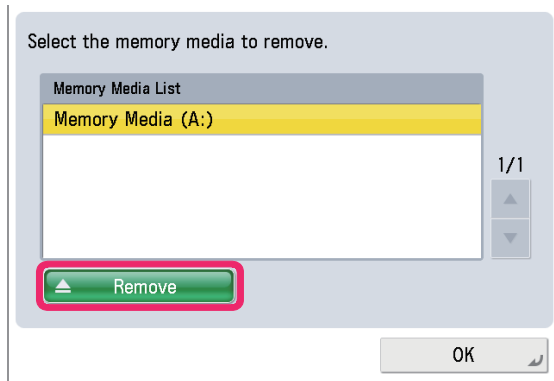
4. Make a sheet of copy. Open the Delivery Feed Assembly before the paper is delivered from the Delivery Assembly to make paper jam.

5. When a jam occurs, "Storing system information..." is displayed at the lower side of the Control Panel.



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6. Hold down the counter + 1.2.3 to transfer the log in the HDD of the machine to the USB memory.
7. Check that the display disappears and cancel connection of the USB memory device to remove the USB memory.



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8. Connect the USB memory to the PC and check that a log file is created.

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:

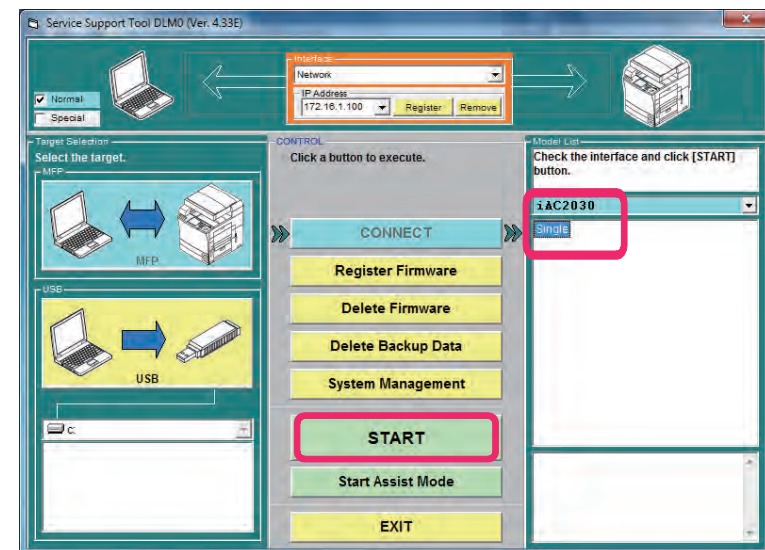
The log is stored in the machine by holding down the counter + 1.2.3 or the automatic log collection function.

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:

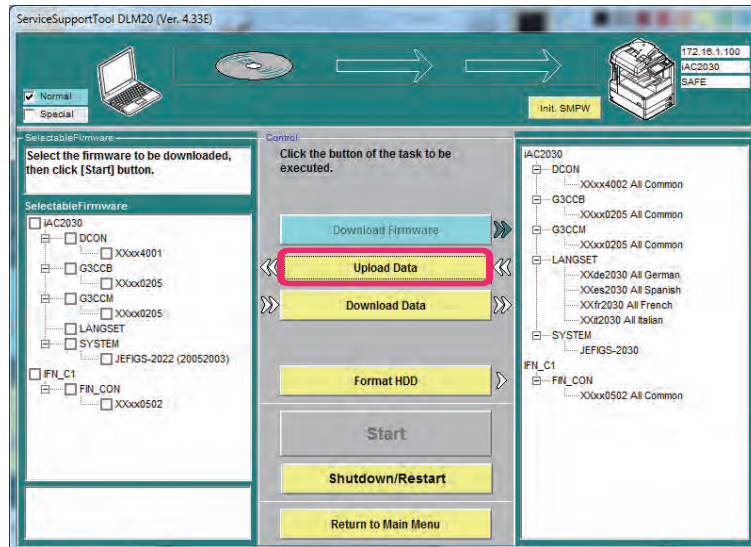
Executing a log collection by SST deletes logs in the machine.

1. Start SST (Ver. 4.41 or later) and select iRC2030 from Model List. Press the Start button.



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2. Press the Upload Data button.



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3. Select the data to be uploaded, then click [Start] button.

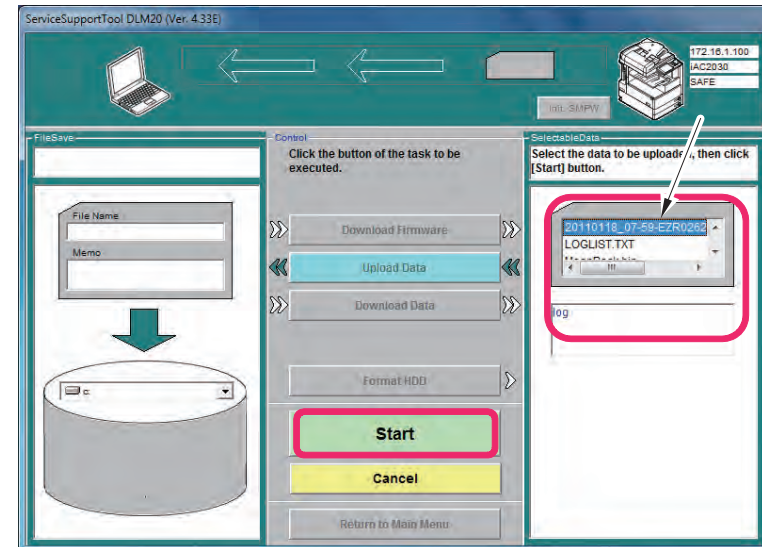
When there is no log in the machine, it results in blank option items for "data to upload".

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:

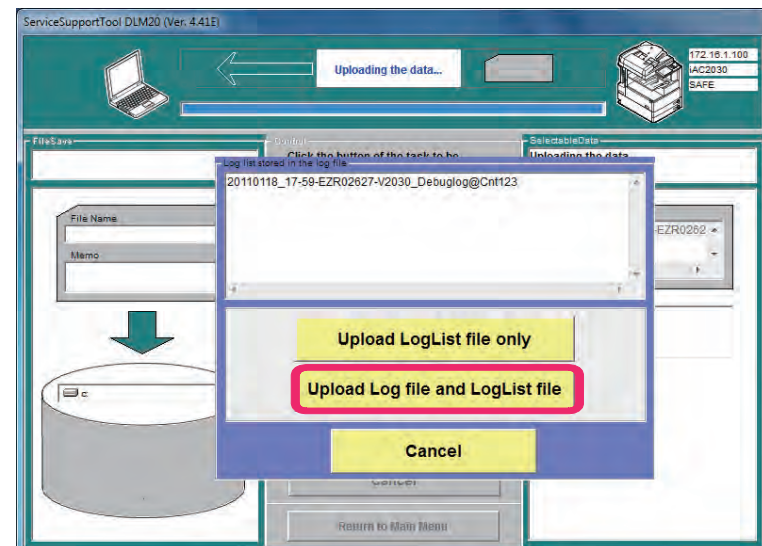
The log is not stored when You cancel it before pushing the Start button.
It is deleted from the main body.



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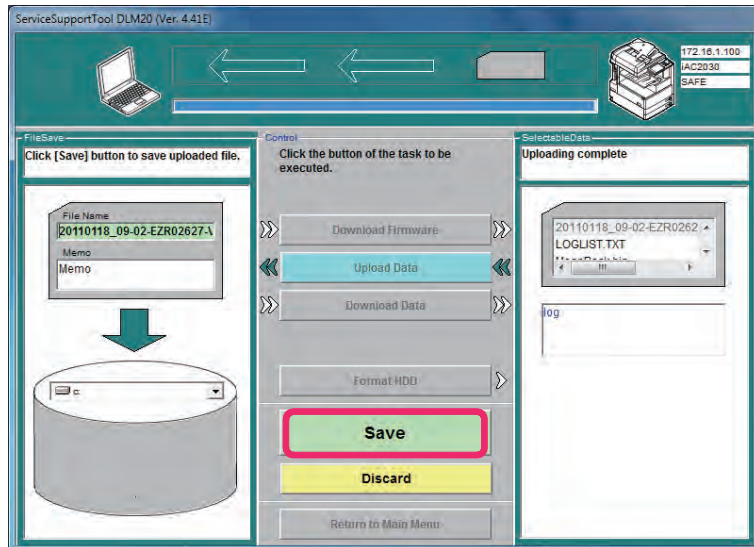
4. Select "Upload Log file and LogList file".

The list of logs stored in the log file of the machine (description of LogList files) is displayed.



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5. Press the "Save" button.

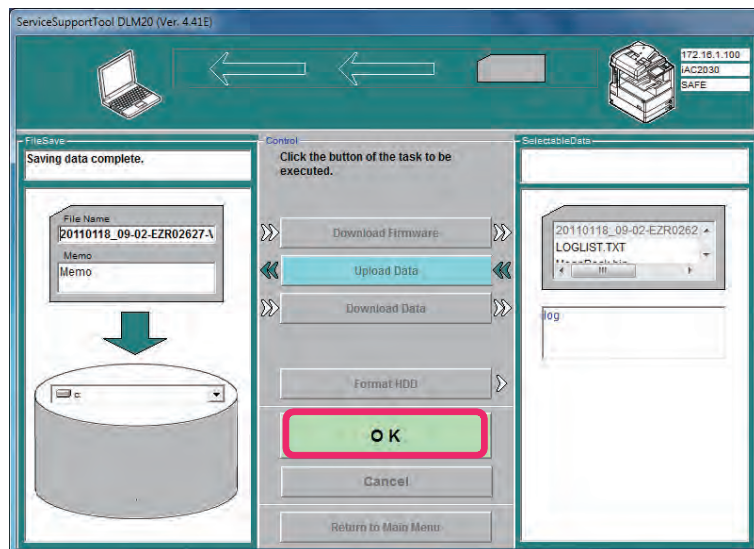


20110118_08-14-EZR02627-V2030_SAFE.bin.upd
 20110118_08-14-EZR02627-V2030_SAFE.bin.upd.txt

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6. Check that the data storage is completed and click the "OK" button.

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7. Check that the log is stored in the specified location in the PC.

In the initial setting:

Windows(C:) > ServData > iRC2030 > EXR02627 (Serial number)



Error Code

- Overview
- Error Code
- Jam Code
- Alarm Code

Overview

Outline

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
Error code	This code is displayed when an error occurs on the machine.
Jam code	This code is displayed when a jam occurs inside the machine.
Alarm code	This code is displayed when a function of the machine is malfunctioned.

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- 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 C2030/C2025/C2020	00	Main Controller = 00 Printer engine = 05	Others of listed below
Cassette Feeding Unit-AF1	00	05	-
Color Image Reader Unit - D1(Reader+DADF)	01	04	02
Inner Finisher-C1	02	05	-

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Location 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
Cassette 1	01
Cassette 2	02
Cassette 3 (Cassette Feeding Unit-AF1)	03
Cassette 4 (Cassette Feeding Unit-AF1)	04
Multi-purpose Tray	05
Duplex (At duplex printing, jam occurs after paper passes through the Duplex Sensor (PS31).)	F0

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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

E Code	Detail Code	Location	Item	Description
E001	0001	05	Title	Main Thermistor high temperature detection
			Detection	Main Thermistor 2 detected a temperature of 230 deg C or higher for 0.1 sec or longer.
			Remedy	Fixing Assembly error, Fixing temperature detection error 1. Check failure between the DC Controller PCB (UN09/J12) and the Fixing Assembly (UN37/J123, UN13/J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit 2. Disconnect the connector of DC Controller PCB (UN09/J12) and start the host machine to check the reading value of the following: service mode > COPIER > DISPLAY > ANALOG > FIX-C => When the value is 40 deg C or higher 3-1. Replace the DC Controller PCB (UN09) => When the value is lower than 40 deg C 3-2. Replace the Fixing Assembly NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR
E001	0002	05	Title	Center Thermistor high temperature detection
			Detection	Main Thermistor 1 detected a temperature of 283 deg C or higher for 0.1 sec or longer.
			Remedy	Fixing Assembly error, Fixing temperature detection error 1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit 2. Disconnect the connector of DC Controller PCB (UN09/ J12) and start the host machine to check the reading value of the following: service mode > COPIER > DISPLAY > ANALOG > FIX-E => When the value is 40 deg C or higher 3-1. Replace the DC Controller PCB (UN09) => When the value is lower than 40 deg C 3-2. Replace the Fixing Assembly NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR

E Code	Detail Code	Location	Item	Description
E001	0003	05	Title	Edge Thermistor high temperature detection
			Detection	Sub Thermistor 1 detected a temperature of 283 deg C or higher for 0.1 sec or longer.
			Remedy	Fixing Assembly error, Fixing temperature detection error 1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit 2. Disconnect the connector of DC Controller PCB (UN09/ J12) and start the host machine to check the reading value of the following: service mode > COPIER > DISPLAY > ANALOG > FIX-E2 => When the value is 40 deg C or higher 3-1. Replace the DC Controller PCB (UN09) => When the value is lower than 40 deg C 3-2. Replace the Fixing Assembly NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR
E001	0004	05	Title	Edge Thermistor high temperature detection
			Detection	Sub Thermistor 2 detected a temperature of 283 deg C or higher for 0.1 sec or longer.
			Remedy	Fixing Assembly error, Fixing temperature detection error 1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit 2. Disconnect the connector of DC Controller PCB (UN09/ J12) and start the host machine to check the reading value of the following: service mode > COPIER > DISPLAY > ANALOG > FIX-E3 => When the value is 40 deg C or higher 3-1. Replace the DC Controller PCB (UN09) => When the value is lower than 40 deg C 3-2. Replace the Fixing Assembly NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR

E Code	Detail Code	Location	Item	Description
E001	0005	05	Title	Center Thermistor high temperature detection
			Detection	Main Thermistor 1 hardware signal is continued for 1 sec or longer.
			Remedy	Fixing Assembly error, Fixing temperature detection error 1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit 2. Disconnect the connector of DC Controller PCB (UN09/ J12) and start the host machine to check the reading value of the following: service mode > COPIER > DISPLAY > ANALOG > FIX-E => When the value is 40 deg C or higher 3-1. Replace the DC Controller PCB (UN09) => When the value is lower than 40 deg C 3-2. Replace the Fixing Assembly NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR
E001	0006	05	Title	Edge Thermistor high temperature detection
			Detection	Sub Thermistor 1 hardware error detection signal is continued for 1 sec or longer.
			Remedy	Fixing Assembly error, Fixing temperature detection error 1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit 2. Disconnect the connector of DC Controller PCB (UN09/ J12) and start the host machine to check the reading value of the following: service mode > COPIER > DISPLAY > ANALOG > FIX-E2 => When the value is 40 deg C or higher 3-1. Replace the DC Controller PCB (UN09) => When the value is lower than 40 deg C 3-2. Replace the Fixing Assembly NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR

E Code	Detail Code	Location	Item	Description
E001	0007	05	Title	Edge Thermistor high temperature detection
			Detection	Sub Thermistor 2 hardware error detection signal is continued for 1 sec or longer.
			Remedy	Fixing Assembly error, Fixing temperature detection error 1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit 2. Disconnect the connector of DC Controller PCB (UN09/ J12) and start the host machine to check the reading value of the following: service mode > COPIER > DISPLAY > ANALOG > FIX-C Check the reading value of the following: service mode > COPIER > DISPLAY > ANALOG > FIX-E3 => When the value is 40 deg C or higher 3-1. Replace the DC Controller PCB (UN09) => When the value is lower than 40 deg C 3-2. Replace the Fixing Assembly NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR
E001	0008	05	Title	Displacement detection
			Detection	The temperature difference between the Sub Thermistor 1 (TH3) and the Sub Thermistor 2 (TH4) remained 45 deg C or more for 1 second or more.
			Remedy	Fixing Assembly error, Fixing temperature detection error 1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit 2. Disconnect the connector of DC Controller PCB (UN09/ J12) and start the host machine to check the reading value of the following: service mode > COPIER > DISPLAY > ANALOG > FIX-E2, FIX-E3 => When the value of either one is 40 deg C or higher 3-1. Replace the DC Controller PCB (UN09) => When the both values are lower than 40 deg C 3-2. Replace the Fixing Assembly NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR

E Code	Detail Code	Location	Item	Description
E002	0006	05	Title	Detection of abnormal temperature increase
			Detection	Fixing Assembly error, Fixing temperature detection error
			Remedy	<p>1. Check the location for voltage of the Fixing Assembly -> Replace with a correct Fixing Assembly for the location in the case of mismatching.</p> <p>2. Check the location for voltage of the AC Driver PCB (UN14) -> Replace with a correct AC Driver PCB (UN14) for the location in the case of mismatching.</p> <p>3. Check failure between the AC Driver PCB (UN14/J103) and the Fixing Assembly (UN37/J123, UN13/J13). (trapped cable, open circuit, connector disconnection) -> Replace the part in the case of trapped cable/open circuit</p> <p>4. Replace the AC Driver PCB (UN14)</p> <p>5. Replace the Fixing Assembly</p> <p>6. Replace the DC Controller PCB (UN09)</p> <p>NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR</p>
E003	0001	05	Title	Thermistor open circuit detection
			Detection	In the period from initial rotation to printing, Main Thermistor 1 detected a temperature of 22 deg C or lower for more than 5 seconds.
			Remedy	<p>Fixing Assembly error, Fixing temperature detection error</p> <p>1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit</p> <p>2. Replace the Fixing Assembly</p> <p>3. Replace the DC Controller PCB (UN09)</p> <p>NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR</p>
E003	0002	05	Title	Thermistor open circuit detection
			Detection	In the period from initial rotation to printing, Main Thermistor 2 detected a temperature of 40 deg C or lower for more than 3 seconds.
			Remedy	<p>Fixing Assembly error, Fixing temperature detection error</p> <p>1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit</p> <p>2. Replace the Fixing Assembly</p> <p>3. Replace the DC Controller PCB (UN09)</p> <p>NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR</p>

E Code	Detail Code	Location	Item	Description
E003	0003	05	Title	Thermistor open circuit detection
			Detection	In the period from initial rotation to printing, Sub Thermistor 1 detected a temperature of 40 deg C or lower for more than 3 seconds.
			Remedy	<p>Fixing Assembly error, Fixing temperature detection error</p> <p>1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit</p> <p>2. Replace the Fixing Assembly</p> <p>3. Replace the DC Controller PCB (UN09)</p> <p>NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR</p>
E003	0004	05	Title	Thermistor open circuit detection
			Detection	In the period from initial rotation to printing, Sub Thermistor 2 detected a temperature of 40 deg C or lower for more than 3 seconds.
			Remedy	<p>Fixing Assembly error, Fixing temperature detection error</p> <p>1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit</p> <p>2. Replace the Fixing Assembly</p> <p>3. Replace the DC Controller PCB (UN09)</p> <p>NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR</p>
E003	0005	05	Title	Main Thermistor 2 low temperature detection at printing
			Detection	In the period from printing to last rotation, Main Thermistor 1 detected a temperature of 70 deg C or lower for more than 5 seconds.
			Remedy	<p>Fixing Assembly error, Fixing temperature detection error</p> <p>1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit</p> <p>2. Replace the Fixing Assembly</p> <p>3. Replace the DC Controller PCB (UN09)</p> <p>NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR</p>

E Code	Detail Code	Location	Item	Description
E003	0006	05	Title	Center Thermistor low temperature detection at printing
			Detection	In the period from printing to last rotation, Main Thermistor 2 detected a temperature of 80 deg C or lower for more than 1 second.
			Remedy	Fixing Assembly error, Fixing temperature detection error 1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit 2. Replace the Fixing Assembly 3. Replace the DC Controller PCB (UN09) NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR
E003	0007	05	Title	Edge Thermistor low temperature detection at printing
			Detection	In the period from printing to last rotation, Sub Thermistor 1 detected a temperature of 80 deg C or lower for more than 1 second.
			Remedy	Fixing Assembly error, Fixing temperature detection error 1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit 2. Replace the Fixing Assembly 3. Replace the DC Controller PCB (UN09) NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR
E003	0008	05	Title	Edge Thermistor low temperature detection at printing
			Detection	In the period from printing to last rotation, Sub Thermistor 2 detected a temperature of 80 deg C or lower for more than 1 second.
			Remedy	Fixing Assembly error, Fixing temperature detection error 1. Check failure between the DC Controller PCB (UN09/ J12) and the Fixing Assembly (UN37/ J123, UN13/ J13) (trapped cable, open circuit, connector disconnection). -> Replace the part in the case of trapped cable/open circuit 2. Replace the Fixing Assembly 3. Replace the DC Controller PCB (UN09) NOTE: After performing the above remedy work, go through the following to clear the error: COPIER > FUNCTION > CLEAR > ERR
E004	0001	05	Title	Fixing Relay PCB welding detection error
			Detection	Zero cross interruption although relay is not ON.
			Remedy	Electrical trouble with abnormal fixing safety circuit relay Replace the AC Driver PCB (UN14)

E Code	Detail Code	Location	Item	Description
E004	0005	05	Title	Failure in electrical current detection circuit (abnormal small current)
			Detection	Failure in electrical current detection circuit (Less than the specified range of current value)
			Remedy	Electrical trouble with abnormal fixing current detection circuit 1. Check failure between the AC Driver PCB (UN14/ J122) and the DC Controller PCB (UN09/ J10). (trapped cable, open circuit, connector disconnection) -> Replace the part in the case of trapped cable/open circuit 2. Replace the AC Driver PCB (UN14) 3. Replace the DC Controller PCB (UN09)
E004	0006	05	Title	Failure in electrical current detection circuit (abnormal large current)
			Detection	Failure in electrical current detection circuit (More than the specified range of current value)
			Remedy	Electrical trouble with abnormal fixing current detection circuit 1. Check failure between the AC Driver PCB (UN14/ J122) and the DC Controller PCB (UN09/ J10). (trapped cable, open circuit, connector disconnection) -> Replace the part in the case of trapped cable/open circuit 2. Replace the AC Driver PCB (UN14) 3. Replace the DC Controller PCB (UN09)
E009	0000	05	Title	Fixing Film Unit engagement / disengagement error
			Detection	There is no change in the result of detection by the Fixing Pressure Release Sensor even after five seconds elapsed after counterclockwise rotation of the Fixing Motor started.
			Remedy	Possible cause is overload or rotation failure of the motor due to an electrical trouble 1. Check if the Fixing Assembly is installed. 2. Remove and reinstall the Fixing Assembly 3. Check the gear 4. Replace the Fixing Assembly 5. Check the harness/connector between the DC Controller PCB (UN09/ J210) and the Fixing Motor (M17). 6. Check the harness/connector between the DC Controller PCB (UN09/ J12) and the Fixing Pressure Release Sensor (PS24) 6. Check conduction of FU1153 in the AC Driver PCB (UN14) => Replace the AC Driver PCB (UN14) in the case of disconnection. 7. Replace the Fixing Motor (M17) 8. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E010	0001	05	Title	ITB Motor startup error
			Detection	Within a specified period of time from the startup, the speed fails to be OK.
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check the Main Drive Unit (turn the unit by hand to see if it rotates) Replace the Main Drive Unit when the unit failed to rotate When the unit rotates</p> <p>2. Check failure of the harness between the ITB Motor (M02/ J6027) and the DC Controller PCB (UN09/ J210W) (trapped cable, open circuit, connector disconnection)</p> <p>3. Check conduction of the fuse (FU4) in the DC Controller PCB (UN09)</p> <p>When the fuse is not blown out 4-1. Replace the ITB Motor (M02) 5-1. Replace the DC Controller PCB (UN09) 6-1. Replace the Main Drive Unit</p> <p>When the fuse is blown out 4-2. Replace the DC Controller PCB (UN09)</p>
E010	0002	05	Title	ITB Motor speed error
			Detection	ITB Motor speed error
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check the Main Drive Unit (turn the unit by hand to see if it rotates) Replace the Main Drive Unit when the unit failed to rotate When the unit rotates</p> <p>2. Check failure of the harness between the ITB Motor (M02/ J6027) and the DC Controller PCB (UN09/ J210W) (trapped cable, open circuit, connector disconnection)</p> <p>3. Check conduction of the fuse (FU4) in the DC Controller PCB (UN09)</p> <p>When the fuse is not blown out 4-1. Replace the ITB Motor (M02) 5-1. Replace the DC Controller PCB (UN09) 6-1. Replace the Main Drive Unit</p> <p>When the fuse is blown out 4-2. Replace the DC Controller PCB (UN09)</p>

E Code	Detail Code	Location	Item	Description
E010	0003	05	Title	ITB Motor lock detection
			Detection	Within a specified period of time from the startup, signal is not received.
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check the Main Drive Unit (turn the unit by hand to see if it rotates) Replace the Main Drive Unit when the unit failed to rotate When the unit rotates</p> <p>2. Check failure of the harness between the ITB Motor (M02/ J6027) and the DC Controller PCB (UN09/ J210W) (trapped cable, open circuit, connector disconnection)</p> <p>3. Check conduction of the fuse (FU4) in the DC Controller PCB (UN09)</p> <p>When the fuse is not blown out 4-1. Replace the ITB Motor (M02) 5-1. Replace the DC Controller PCB (UN09) 6-1. Replace the Main Drive Unit</p> <p>When the fuse is blown out 4-2. Replace the DC Controller PCB (UN09)</p>
E012	0001	05	Title	CL Drum Motor speed error
			Detection	Within a specified period of time from the startup, the speed fails to be OK.
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check the Main Drive Unit (turn the unit by hand to see if it rotates) Replace the Main Drive Unit when the unit failed to rotate When the unit rotates</p> <p>2. Check failure of the harness between the Motor (M04/ J6025) and the DC Controller PCB (UN09/ J210W) (trapped cable, open circuit, connector disconnection)</p> <p>3. Check conduction of the fuse (FU7) in the DC Controller PCB (UN09)</p> <p>When the fuse is not blown out 4-1. Replace the Drum Motor (M04) 5-1. Replace the DC Controller PCB (UN09)</p> <p>When the fuse is blown out 4-2. Replace the DC Controller PCB (UN09)</p>

E Code	Detail Code	Location	Item	Description
E012	0002	05	Title	CL Drum Motor speed error
			Detection	CL Drum Motor speed error
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check the Main Drive Unit (turn the unit by hand to see if it rotates) Replace the Main Drive Unit when the unit failed to rotate When the unit rotates</p> <p>2. Check failure of the harness between the Motor (M04/ J6025) and the DC Controller PCB (UN09/ J210W) (trapped cable, open circuit, connector disconnection)</p> <p>3. Check conduction of the fuse (FU7) in the DC Controller PCB (UN09)</p> <p>When the fuse is not blown out</p> <p>4-1. Replace the Drum Motor (M04) 5-1. Replace the DC Controller PCB (UN09)</p> <p>When the fuse is blown out</p> <p>4-2. Replace the DC Controller PCB (UN09)</p>
E012	0003	05	Title	CL Drum Motor lock detection
			Detection	Within a specified period of time from the startup, the speed fails to be OK.
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check the Main Drive Unit (turn the unit by hand to see if it rotates) Replace the Main Drive Unit when the unit failed to rotate When the unit rotates</p> <p>2. Check failure of the harness between the Motor (M04/ J6025) and the DC Controller PCB (UN09/ J210W) (trapped cable, open circuit, connector disconnection)</p> <p>3. Check conduction of the fuse (FU7) in the DC Controller PCB (UN09)</p> <p>When the fuse is not blown out</p> <p>4-1. Replace the Drum Motor (M04) 5-1. Replace the DC Controller PCB (UN09)</p> <p>When the fuse is blown out</p> <p>4-2. Replace the DC Controller PCB (UN09)</p>

E Code	Detail Code	Location	Item	Description
E014	0001	05	Title	Fixing Motor startup error
			Detection	Within a specified period of time from the startup, the speed fails to be OK.
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check if the Fixing Assembly is installed. 2. Remove and reinstall the Fixing Assembly 3. Check the gear 4. Replace the Fixing Assembly 5. Check the harness/connector between the DC Controller PCB (UN09/ J210) and the Fixing Motor (M17). 6. Check conduction of FU1153 in the AC Driver PCB (UN14) =>Replace the AC Driver when the fuse is blown out 7. Replace the Fixing Motor (M17) 8. Replace the DC Controller PCB (UN09)</p>
E014	0002	05	Title	Fixing Motor speed error
			Detection	Fixing Motor speed error
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check if the Fixing Assembly is installed. 2. Remove and reinstall the Fixing Assembly 3. Check the gear 4. Replace the Fixing Assembly 5. Check the harness/connector between the DC Controller PCB (UN09/ J210) and the Fixing Motor (M17). 6. Check conduction of FU1153 in the AC Driver PCB (UN14) =>Replace the AC Driver when the fuse is blown out 7. Replace the Fixing Motor (M17) 8. Replace the DC Controller PCB (UN09)</p>
E014	0003	05	Title	Fixing Motor lock detection
			Detection	Within a specified period of time from the startup, signal is not received.
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check if the Fixing Assembly is installed. 2. Remove and reinstall the Fixing Assembly 3. Check the gear 4. Replace the Fixing Assembly 5. Check the harness/connector between the DC Controller PCB (UN09/ J210) and the Fixing Motor (M17). 6. Check conduction of FU1153 in the AC Driver PCB (UN14) =>Replace the AC Driver when the fuse is blown out 7. Replace the Fixing Motor (M17) 8. Replace the DC Controller PCB (UN09)</p>

E Code	Detail Code	Location	Item	Description
E020	0020	05	Title	ATR Sensor (Y) error or toner supply error
			Detection	Error in detected delta T/D ratio At Y inductance initialization, the average inductance reference value is equal to or lower than the specified value
			Remedy	1. Check if the Drum Unit (Y) is installed. 2. Check the Drum Unit Relay PCB (Y) (UN26) 3. Check the Drum Unit Memory PCB (Y) (UN30) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Y) (UN26). 5. Replace the Drum Unit (Y). 6. Replace the DC Controller PCB (UN09)
E020	0030	05	Title	ATR Sensor (Y) error or toner supply error
			Detection	Error in detected delta T/D ratio At Y inductance initialization, the average inductance reference value is equal to or higher than the specified value
			Remedy	1. Check if the Drum Unit (Y) is installed. 2. Check the Drum Unit Relay PCB (Y) (UN26) 3. Check the Drum Unit Memory PCB (Y) (UN30) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Y) (UN26). 5. Replace the Drum Unit (Y). 6. Replace the DC Controller PCB (UN09)
E020	0040	05	Title	ATR Sensor (Y) error or toner supply error
			Detection	Unable to adjust the control voltage at Y inductance initialization
			Remedy	1. Check if the Drum Unit (Y) is installed. 2. Check the Drum Unit Relay PCB (Y) (UN26) 3. Check the Drum Unit Memory PCB (Y) (UN30) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Y) (UN26). 5. Replace the Drum Unit (Y). 6. Replace the DC Controller PCB (UN09)
E020	0041	05	Title	ATR Sensor (Y) error or toner supply error
			Detection	Unable to adjust the control voltage at Y inductance initialization
			Remedy	1. Check if the Drum Unit (Y) is installed. 2. Check the Drum Unit Relay PCB (Y) (UN26) 3. Check the Drum Unit Memory PCB (Y) (UN30) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Y) (UN26). 5. Replace the Drum Unit (Y). 6. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	0050	05	Title	ATR patch failed to be created correctly or Patch Sensor error
			Detection	High density for the target at patch detection
			Remedy	1. Clean the scanner's window. 2. Use your hand to check if the shutter of the Registration Patch Sensor Unit can be open. 3. Check if the window of the Patch Sensor (UN43/ UN44) is soiled. 4. Check scar on the ITB. 5. Check movement of the Registration Shutter Solenoid (SL02). COPIER > FUNCTION > PART-CHK > SL to move SL02 6. Check the harness/connector between the DC Controller PCB (UN09/J12) and the Patch Sensors (UN43/J4007, UN44, J4006). 7. Replace the Drum Unit (Y) 8. Replace the Registration Patch Sensor Unit 9. Replace the ITB Unit. 10. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 11. Replace the Primary Transfer High Voltage PCB (UN04) 12. Replace the Developing High Voltage PCB (UN07) 13. Replace the Primary Charging High Voltage PCB (UN06) 14. Replace the Auxiliary High Voltage PCB (UN08) 15. Replace the Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	0060	05	Title	ATR patch failed to be created correctly or Patch Sensor error
			Detection	High density for the target at patch detection
			Remedy	<p>* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition</p> <p>If possible, check the image right before the error occurrence. If this output image is a shrunken image, or if the leading edge margin is wider than the adjustable range, it is highly possible that the ITB is the cause of the error. Replacing the ITB Unit is required.</p> <ol style="list-style-type: none"> 1. Check the patch shape. 2. Clean the high voltage contact point with dry wiping or air blower. 3. Check the harness/connector between the DC Controller (UN09) and the High Voltage PCB. Between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442) Between the DC Controller PCB (UN09/ J21, J22) and the Developing High Voltage PCB (UN07/ J451, J452) Between the DC Controller PCB (UN09/ J19) and the Auxiliary High Voltage PCB (UN08/J461, J462) Between the DC Controller PCB (J205) and the Primary Transfer High Voltage PCB (UN04/J1001) 4. Replace the Drum Unit (Y) 5. Replace the Registration Patch Sensor Unit 6. Replace the ITB Unit. 7. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 8. Replace the Primary Transfer High Voltage PCB (UN04) 9. Replace the Developing High Voltage PCB (UN07) 10. Replace the Primary Charging High Voltage PCB (UN06) 11. Replace the Auxiliary High Voltage PCB (UN08) 12. Replace the DC Controller PCB (UN09)
E020	0070	05	Title	Patch Sensor error
			Detection	The Patch Sensor could not read a patch properly. (Patch error due to software or the ITB Unit)
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the power. 2. Replace the ITB Unit.

E Code	Detail Code	Location	Item	Description
E020	0090	05	Title	ATR Sensor (Y) error or toner supply error
			Detection	The average value of detected inductance sampling value is equal to or lower than the specified value (0x0F)
			Remedy	<ol style="list-style-type: none"> 1. Check if the Drum Unit (Y) is installed. 2. Check the Drum Unit Relay PCB (Y) (UN26) 3. Check the Drum Unit Memory PCB (Y) (UN30) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Y) (UN26). 5. Replace the Drum Unit (Y). 6. Replace the DC Controller PCB (UN09)
E020	0091	05	Title	ATR Sensor (Y) error or toner supply error
			Detection	The average value of detected inductance sampling value is equal to or higher than the specified value (0xE0)
			Remedy	<p>* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition</p> <ol style="list-style-type: none"> 11. Check if the Drum Unit (Y) is installed. 2. Check the Drum Unit Relay PCB (Y) (UN26) 3. Check the Drum Unit Memory PCB (Y) (UN30) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Y) (UN26). 5. Replace the Drum Unit (Y). 6. Replace the DC Controller PCB (UN09)
E020	00B0	05	Title	ATR Sensor (Y) error or toner supply error
			Detection	T/D ratio detected by the ATR Sensor (Y) (UN39) is equal to or higher than the specified value (high density)
			Remedy	<ol style="list-style-type: none"> 1. Check if the Drum Unit (Y) is installed. 2. Check the Drum Unit Relay PCB (Y) (UN26) 3. Check the Drum Unit Memory PCB (Y) (UN30) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Y) (UN26). 5. Replace the Drum Unit (Y). 6. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	00B1	05	Title	ATR Sensor (Y) error or toner supply error
			Detection	Error in detected delta T/D ratio T/D ratio detected by the ATR Sensor (Y) (UN39) is equal to or lower than the specified value (light density)
			Remedy	* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition 1. Check conduction with FU2 on the DC Controller PCB (UN09) 2. Check the harness/connector between the DC Controller PCB (UN09/ J23) and PS06. 3. Replace the DC Controller PCB (UN09) 4. Check the Hopper Unit (Y) 5. Replace the Hopper Unit (Y).
E020	0120	05	Title	ATR Sensor (M) error or toner supply error
			Detection	Error in detected delta T/D ratio At M inductance initialization, the average inductance reference value is equal to or lower than the specified value
			Remedy	1. Check if the Drum Unit (M) is installed. 2. Check the Drum Unit Relay PCB (M) (UN27). 3. Check the Drum Unit Memory PCB (M) (UN31). 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (M) (UN27). 5. Replace the Drum Unit (M). 6. Replace the DC Controller PCB (UN09)
E020	0130	05	Title	ATR Sensor (M) error or toner supply error
			Detection	Error in detected delta T/D ratio At M inductance initialization, the average inductance reference value is equal to or higher than the specified value
			Remedy	1. Check if the Drum Unit (M) is installed. 2. Check the Drum Unit Relay PCB (M) (UN27). 3. Check the Drum Unit Memory PCB (M) (UN31). 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (M) (UN27). 5. Replace the Drum Unit (M). 6. Replace the DC Controller PCB (UN09)
E020	0140	05	Title	ATR Sensor (M) error or toner supply error
			Detection	Unable to adjust the control voltage at M inductance initialization
			Remedy	1. Check if the Drum Unit (M) is installed. 2. Check the Drum Unit Relay PCB (M) (UN27). 3. Check the Drum Unit Memory PCB (M) (UN31). 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (M) (UN27). 5. Replace the Drum Unit (M). 6. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	0141	05	Title	ATR Sensor (M) error or toner supply error
			Detection	Unable to adjust the control voltage at M inductance initialization
			Remedy	1. Check if the Drum Unit (M) is installed. 2. Check the Drum Unit Relay PCB (M) (UN27). 3. Check the Drum Unit Memory PCB (M) (UN31). 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (M) (UN27). 5. Replace the Drum Unit (M). 6. Replace the DC Controller PCB (UN09)
E020	0150	05	Title	ATR patch failed to be created correctly or Patch Sensor error
			Detection	High density for the target at patch detection
			Remedy	1. Clean the scanner's window. 2. Use your hand to check if the shutter of the Registration Patch Sensor Unit can be open. 3. Check if the window of the Patch Sensor (UN43/ UN44) is soiled. 4. Check scar on the ITB. 5. Check movement of the Registration Shutter Solenoid (SL02). COPIER > FUNCTION > PART-CHK > SL to move SL02 6. Check the harness/connector between the DC Controller PCB (UN09/J12) and the Patch Sensors (UN43/J4007, UN44, J4006). 7. Replace the Drum Unit (M) 8. Replace the Registration Patch Sensor Unit 9. Replace the ITB Unit. 10. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 11. Replace the Primary Transfer High Voltage PCB (UN04) 12. Replace the Developing High Voltage PCB (UN07) 13. Replace the Primary Charging High Voltage PCB (UN06) 14. Replace the Auxiliary High Voltage PCB (UN08) 15. Replace the Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	0160	05	Title	ATR patch failed to be created correctly or Patch Sensor error
			Detection	High density for the target at patch detection
			Remedy	<p>* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition</p> <p>If possible, check the image right before the error occurrence. If this output image is a shrunken image, or if the leading edge margin is wider than the adjustable range, it is highly possible that the ITB is the cause of the error. Replacing the ITB Unit is required.</p> <ol style="list-style-type: none"> 1. Check the patch shape. 2. Clean the high voltage contact point with dry wiping or air blower. 3. Check the harness/connector between the DC Controller (UN09) and the High Voltage PCB. Between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442) Between the DC Controller PCB (UN09/ J21, J22) and the Developing High Voltage PCB (UN07/ J451, J452) Between the DC Controller PCB (UN09/ J19) and the Auxiliary High Voltage PCB (UN08/J461, J462) Between the DC Controller PCB (J205) and the Primary Transfer High Voltage PCB (UN04/J1001) 4. Replace the Drum Unit (M) 5. Replace the Registration Patch Sensor Unit 6. Replace the ITB Unit. 7. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 8. Replace the Primary Transfer High Voltage PCB (UN04) 9. Replace the Developing High Voltage PCB (UN07) 10. Replace the Primary Charging High Voltage PCB (UN06) 11. Replace the Auxiliary High Voltage PCB (UN08) 12. Replace the DC Controller PCB (UN09)
E020	0170	05	Title	Patch Sensor error
			Detection	The Patch Sensor could not read a patch properly. (Patch error due to software or the ITB Unit)
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the power. 2. Replace the ITB Unit.

E Code	Detail Code	Location	Item	Description
E020	0190	05	Title	ATR Sensor (M) error or toner supply error
			Detection	The average value of detected inductance sampling value is equal to or lower than the specified value (0x0F)
			Remedy	<ol style="list-style-type: none"> 1. Check if the Drum Unit (M) is installed. 2. Check the Drum Unit Relay PCB (M) (UN27). 3. Check the Drum Unit Memory PCB (M) (UN31). 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (M) (UN27). 5. Replace the Drum Unit (M). 6. Replace the DC Controller PCB (UN09)
E020	0191	05	Title	ATR Sensor (M) error or toner supply error
			Detection	The average value of detected inductance sampling value is equal to or higher than the specified value (0x0F)
			Remedy	<p>* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition</p> <ol style="list-style-type: none"> 1. Check if the Drum Unit (M) is installed. 2. Check the Drum Unit Relay PCB (M) (UN27). 3. Check the Drum Unit Memory PCB (M) (UN31). 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (M) (UN27). 5. Replace the Drum Unit (M). 6. Replace the DC Controller PCB (UN09)
E020	01B0	05	Title	ATR Sensor (M) error or toner supply error
			Detection	The T/D ratio detected by the ATR Sensor (M) (UN40) is equal to or higher than the specified value (high density)
			Remedy	<ol style="list-style-type: none"> 1. Check if the Drum Unit (M) is installed. 2. Check the Drum Unit Relay PCB (M) (UN27). 3. Check the Drum Unit Memory PCB (M) (UN31). 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (M) (UN27). 5. Replace the Drum Unit (M). 6. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	01B1	05	Title	ATR Sensor (M) error or toner supply error
			Detection	Error in detected delta T/D ratio The T/D ratio detected by the ATR Sensor (M) (UN40) is equal to or lower than the specified value (light density)
			Remedy	* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition 1. Check conduction with FU2 on the DC Controller PCB (UN09) 2. Check the harness/connector between the DC Controller PCB (UN09/J24) and PS07. 3. Replace the DC Controller PCB (UN09) 4. Check the Hopper Unit (M) 5. Replace the Hopper Unit (M).
E020	0220	05	Title	ATR Sensor (C) error or toner supply error
			Detection	Error in detected delta T/D ratio At C inductance initialization, the average inductance reference value is equal to or lower than the specified value
			Remedy	1. Check if the Drum Unit (C) is installed. 2. Check the Drum Unit Relay PCB (C) (UN28) 3. Check the Drum Unit Memory PCB (C) (UN32) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (C) (UN28). 5. Replace the Drum Unit (C). 6. Replace the DC Controller PCB (UN09)
E020	0230	05	Title	ATR Sensor (C) error or toner supply error
			Detection	Error in detected delta T/D ratio At C inductance initialization, the average inductance reference value is equal to or higher than the specified value
			Remedy	1. Check if the Drum Unit (C) is installed. 2. Check the Drum Unit Relay PCB (C) (UN28) 3. Check the Drum Unit Memory PCB (C) (UN32) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (C) (UN28). 5. Replace the Drum Unit (C). 6. Replace the DC Controller PCB (UN09)
E020	0240	05	Title	ATR Sensor (C) error or toner supply error
			Detection	Unable to adjust the control voltage at C inductance initialization
			Remedy	1. Check if the Drum Unit (C) is installed. 2. Check the Drum Unit Relay PCB (C) (UN28) 3. Check the Drum Unit Memory PCB (C) (UN32) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (C) (UN28). 5. Replace the Drum Unit (C). 6. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	0241	05	Title	ATR Sensor (C) error or toner supply error
			Detection	Unable to adjust the control voltage at C inductance initialization
			Remedy	1. Check if the Drum Unit (C) is installed. 2. Check the Drum Unit Relay PCB (C) (UN28) 3. Check the Drum Unit Memory PCB (C) (UN32) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (C) (UN28). 5. Replace the Drum Unit (C). 6. Replace the DC Controller PCB (UN09)
E020	0250	05	Title	ATR patch failed to be created correctly or Patch Sensor error
			Detection	High density for the target at patch detection
			Remedy	1. Clean the scanner's window. 2. Use your hand to check if the shutter of the Registration Patch Sensor Unit can be open. 3. Check if the window of the Patch Sensor (UN43/ UN44) is soiled. 4. Check scar on the ITB. 5. Check movement of the Registration Shutter Solenoid (SL02). COPIER > FUNCTION > PART-CHK > SL to move SL02 6. Check the harness/connector between the DC Controller PCB (UN09/J12) and the Patch Sensors (UN43/J4007, UN44, J4006). 7. Replace the Drum Unit (C) 8. Replace the Registration Patch Sensor Unit 9. Replace the ITB Unit. 10. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 11. Replace the Primary Transfer High Voltage PCB (UN04) 12. Replace the Developing High Voltage PCB (UN07) 13. Replace the Primary Charging High Voltage PCB (UN06) 14. Replace the Auxiliary High Voltage PCB (UN08) 15. Replace the Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	0260	05	Title	ATR patch failed to be created correctly or Patch Sensor error
			Detection	High density for the target at patch detection
			Remedy	<p>* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition</p> <p>If possible, check the image right before the error occurrence. If this output image is a shrunken image, or if the leading edge margin is wider than the adjustable range, it is highly possible that the ITB is the cause of the error. Replacing the ITB Unit is required.</p> <ol style="list-style-type: none"> 1. Check the patch shape. 2. Clean the high voltage contact point with dry wiping or air blower. 3. Check the harness/connector between the DC Controller (UN09) and the High Voltage PCB. Between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442) Between the DC Controller PCB (UN09/ J21, J22) and the Developing High Voltage PCB (UN07/ J451, J452) Between the DC Controller PCB (UN09/ J19) and the Auxiliary High Voltage PCB (UN08/J461, J462) Between the DC Controller PCB (J205) and the Primary Transfer High Voltage PCB (UN04/J1001) 4. Replace the Drum Unit (C) 5. Replace the Registration Patch Sensor Unit 6. Replace the ITB Unit. 7. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 8. Replace the Primary Transfer High Voltage PCB (UN04) 9. Replace the Developing High Voltage PCB (UN07) 10. Replace the Primary Charging High Voltage PCB (UN06) 11. Replace the Auxiliary High Voltage PCB (UN08) 12. Replace the DC Controller PCB (UN09)
E020	0290	05	Title	ATR Sensor (C) error or toner supply error
			Detection	The average value of detected inductance sampling value is equal to or lower than the specified value (0x0F)
			Remedy	<ol style="list-style-type: none"> 1. Check if the Drum Unit (C) is installed. 2. Check the Drum Unit Relay PCB (C) (UN28) 3. Check the Drum Unit Memory PCB (C) (UN32) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (C) (UN28). 5. Replace the Drum Unit (C). 6. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	0291	05	Title	ATR Sensor (C) error or toner supply error
			Detection	The average value of detected inductance sampling value is equal to or higher than the specified value (0x0F)
			Remedy	<p>* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition</p> <ol style="list-style-type: none"> 1. Check if the Drum Unit (C) is installed. 2. Check the Drum Unit Relay PCB (C) (UN28) 3. Check the Drum Unit Memory PCB (C) (UN32) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (C) (UN28). 5. Replace the Drum Unit (C). 6. Replace the DC Controller PCB (UN09)
E020	02B0	05	Title	ATR Sensor (C) error or toner supply error
			Detection	The T/D ratio detected by the ATR Sensor (C) (UN41) is equal to or higher than the specified value (high density)
			Remedy	<ol style="list-style-type: none"> 1. Check if the Drum Unit (C) is installed. 2. Check the Drum Unit Relay PCB (C) (UN28) 3. Check the Drum Unit Memory PCB (C) (UN32) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (C) (UN28). 5. Replace the Drum Unit (C). 6. Replace the DC Controller PCB (UN09)
E020	02B1	05	Title	ATR Sensor (C) error or toner supply error
			Detection	<p>Error in detected delta T/D ratio</p> <p>The T/D ratio detected by the ATR Sensor (C) (UN41) is equal to or lower than the specified value (light density)</p>
			Remedy	<p>* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition</p> <ol style="list-style-type: none"> 1. Check conduction of FU9 on the DC Controller PCB (UN09). 2. Check the harness/connector between the DC Controller PCB (UN09/J24) and PS08. 3. Replace the DC Controller PCB (UN09) 4. Check the Hopper Unit (C). 5. Replace the Hopper Unit (C).

E Code	Detail Code	Location	Item	Description
E020	0320	05	Title	ATR Sensor (Bk) error or toner supply error
			Detection	Error in detected delta T/D ratio At Bk inductance initialization, the average inductance reference value is equal to or lower than the specified value
			Remedy	1. Check if the Drum Unit (Bk) is installed. 2. Check the Drum Unit Relay PCB (Bk) (UN29) 3. Check the Drum Unit Memory PCB (Bk) (UN33) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Bk) (UN29). 5. Replace the Drum Unit (Bk). 6. Replace the DC Controller PCB (UN09)
E020	0330	05	Title	ATR Sensor (Bk) error or toner supply error
			Detection	Error in detected delta T/D ratio At Bk inductance initialization, the average inductance reference value is equal to or higher than the specified value
			Remedy	1. Check if the Drum Unit (Bk) is installed. 2. Check the Drum Unit Relay PCB (Bk) (UN29) 3. Check the Drum Unit Memory PCB (Bk) (UN33) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Bk) (UN29). 5. Replace the Drum Unit (Bk). 6. Replace the DC Controller PCB (UN09)
E020	0340	05	Title	ATR Sensor (Bk) error or toner supply error
			Detection	Unable to adjust the control voltage at Bk inductance initialization
			Remedy	1. Check if the Drum Unit (Bk) is installed. 2. Check the Drum Unit Relay PCB (Bk) (UN29) 3. Check the Drum Unit Memory PCB (Bk) (UN33) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Bk) (UN29). 5. Replace the Drum Unit (Bk). 6. Replace the DC Controller PCB (UN09)
E020	0341	05	Title	ATR Sensor (Bk) error or toner supply error
			Detection	Unable to adjust the control voltage at Bk inductance initialization
			Remedy	1. Check if the Drum Unit (Bk) is installed. 2. Check the Drum Unit Relay PCB (Bk) (UN29) 3. Check the Drum Unit Memory PCB (Bk) (UN33) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Bk) (UN29). 5. Replace the Drum Unit (Bk). 6. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	0350	05	Title	ATR patch failed to be created correctly or Patch Sensor error
			Detection	High density for the target at patch detection
			Remedy	1. Clean the scanner's window. 2. Use your hand to check if the shutter of the Registration Patch Sensor Unit can be open. 3. Check if the window of the Patch Sensor (UN43/ UN44) is soiled. 4. Check scar on the ITB. 5. Check movement of the Registration Shutter Solenoid (SL02). COPIER > FUNCTION > PART-CHK > SL to move SL02 6. Check the harness/connector between the DC Controller PCB (UN09/J12) and the Patch Sensors (UN43/J4007, UN44, J4006). 7. Replace the Drum Unit (Bk) 8. Replace the Registration Patch Sensor Unit 9. Replace the ITB Unit. 10. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 11. Replace the Primary Transfer High Voltage PCB (UN04) 12. Replace the Developing High Voltage PCB (UN07) 13. Replace the Primary Charging High Voltage PCB (UN06) 14. Replace the Auxiliary High Voltage PCB (UN08) 15. Replace the Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	0360	05	Title	ATR patch failed to be created correctly or Patch Sensor error
			Detection	High density for the target at patch detection
			Remedy	<p>* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition</p> <p>If possible, check the image right before the error occurrence. If this output image is a shrunken image, or if the leading edge margin is wider than the adjustable range, it is highly possible that the ITB is the cause of the error. Replacing the ITB Unit is required.</p> <ol style="list-style-type: none"> 1. Check the patch shape. 2. Clean the high voltage contact point with dry wiping or air blower. 3. Check the harness/connector between the DC Controller (UN09) and the High Voltage PCB. Between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442) Between the DC Controller PCB (UN09/ J21, J22) and the Developing High Voltage PCB (UN07/ J451, J452) Between the DC Controller PCB (UN09/ J19) and the Auxiliary High Voltage PCB (UN08/J461, J462) Between the DC Controller PCB (J205) and the Primary Transfer High Voltage PCB (UN04/J1001) 4. Replace the Drum Unit (Bk) 5. Replace the Registration Patch Sensor Unit 6. Replace the ITB Unit. 7. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 8. Replace the Primary Transfer High Voltage PCB (UN04) 9. Replace the Developing High Voltage PCB (UN07) 10. Replace the Primary Charging High Voltage PCB (UN06) 11. Replace the Auxiliary High Voltage PCB (UN08) 12. Replace the DC Controller PCB (UN09)
E020	0390	05	Title	ATR Sensor (Bk) error or toner supply error
			Detection	The average value of detected inductance sampling value is equal to or lower than the specified value (0x0F)
			Remedy	<ol style="list-style-type: none"> 1. Check if the Drum Unit (Bk) is installed. 2. Check the Drum Unit Relay PCB (Bk) (UN29) 3. Check the Drum Unit Memory PCB (Bk) (UN33) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Bk) (UN29). 5. Replace the Drum Unit (Bk). 6. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	0391	05	Title	ATR Sensor (Bk) error or toner supply error
			Detection	The average value of detected inductance sampling value is equal to or higher than the specified value (0x0F)
			Remedy	<p>* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition</p> <ol style="list-style-type: none"> 1. Check if the Drum Unit (Bk) is installed. 2. Check the Drum Unit Relay PCB (Bk) (UN29) 3. Check the Drum Unit Memory PCB (Bk) (UN33) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Bk) (UN29). 5. Replace the Drum Unit (Bk). 6. Replace the DC Controller PCB (UN09)
E020	03B0	05	Title	ATR Sensor (Bk) error or toner supply error
			Detection	The T/D ratio detected by the ATR Sensor (Bk) (UN42) is equal to or higher than the specified value (high density)
			Remedy	<ol style="list-style-type: none"> 1. Check if the Drum Unit (Bk) is installed. 2. Check the Drum Unit Relay PCB (Bk) (UN29) 3. Check the Drum Unit Memory PCB (Bk) (UN33) 4. Check the harness/connector between the DC Controller PCB (UN09/ J25) and the Drum Unit Relay PCB (Bk) (UN29). 5. Replace the Drum Unit (Bk). 6. Replace the DC Controller PCB (UN09)
E020	03B1	05	Title	ATR Sensor (Bk) error or toner supply error
			Detection	Error in detected delta T/D ratio The T/D ratio detected by the ATR Sensor (Bk) (UN42) is equal to or lower than the specified value (light density)
			Remedy	<p>* In the case of Cont v29.04/Dcon v55.08 or later, check whether alarm code 10-200x has occurred. If the alarm has occurred, perform the remedy against the alarm." Addition</p> <ol style="list-style-type: none"> 1. Check conduction of FU9 on the DC Controller PCB (UN09). 2. Check the harness/connector between the DC Controller PCB (UN09/J26) and PS09 3. Replace the DC Controller PCB (UN09) 4. Check the Hopper Unit (Bk). 5. Replace the Hopper Unit (Bk).

E Code	Detail Code	Location	Item	Description
E020	1050	05	Title	Abnormal detected patch reading value
			Detection	Dark patch although setting 0 for the patch level (unable to fit in the target between 550 and 640)
			Remedy	<ol style="list-style-type: none"> 1. Clean the scanner's window. 2. Use your hand to check if the shutter of the Registration Patch Sensor Unit can be open. 3. Check if the window of the Patch Sensor (UN43/ UN44) is soiled. 4. Check scar on the ITB. 5. Check movement of the Registration Shutter Solenoid (SL02). COPIER > FUNCTION > PART-CHK > SL to move SL02 6. Check the harness/connector between the DC Controller PCB (UN09/J12) and the Patch Sensors (UN43/J4007, UN44, J4006). 7. Replace the Drum Unit (Y) 8. Replace the Registration Patch Sensor Unit 9. Replace the ITB Unit. 10. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 11. Replace the Primary Transfer High Voltage PCB (UN04) 12. Replace the Developing High Voltage PCB (UN07) 13. Replace the Primary Charging High Voltage PCB (UN06) 14. Replace the Auxiliary High Voltage PCB (UN08) 15. Replace the Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	1060	05	Title	Abnormal detected patch reading value
			Detection	Light patch although setting 7 for patch level (unable to fit in the target between 550 and 640)
			Remedy	<ol style="list-style-type: none"> 1. Check the patch shape. 2. Clean the high voltage contact point with dry wiping or air blower. 3. Check the harness/connector between the DC Controller (UN09) and the High Voltage PCB. Between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442) Between the DC Controller PCB (UN09/ J21, J22) and the Developing High Voltage PCB (UN07/ J451, J452) Between the DC Controller PCB (UN09/ J19) and the Auxiliary High Voltage PCB (UN08/J461, J462) Between the DC Controller PCB (J205) and the Primary Transfer High Voltage PCB (UN04/J1001) 4. Replace the Drum Unit (Y) 5. Replace the Registration Patch Sensor Unit 6. Replace the ITB Unit. 7. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 8. Replace the Primary Transfer High Voltage PCB (UN04) 9. Replace the Developing High Voltage PCB (UN07) 10. Replace the Primary Charging High Voltage PCB (UN06) 11. Replace the Auxiliary High Voltage PCB (UN08) 12. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	1150	05	Title	Abnormal detected patch reading value
			Detection	Dark patch although setting 0 for the patch level (unable to fit in the target between 550 and 640)
			Remedy	<ol style="list-style-type: none"> 1. Clean the scanner's window. 2. Use your hand to check if the shutter of the Registration Patch Sensor Unit can be open. 3. Check if the window of the Patch Sensor (UN43/ UN44) is soiled. 4. Check scar on the ITB. 5. Check movement of the Registration Shutter Solenoid (SL02). COPIER > FUNCTION > PART-CHK > SL to move SL02 6. Check the harness/connector between the DC Controller PCB (UN09/J12) and the Patch Sensors (UN43/J4007, UN44, J4006). 7. Replace the Drum Unit (M) 8. Replace the Registration Patch Sensor Unit 9. Replace the ITB Unit. 10. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 11. Replace the Primary Transfer High Voltage PCB (UN04) 12. Replace the Developing High Voltage PCB (UN07) 13. Replace the Primary Charging High Voltage PCB (UN06) 14. Replace the Auxiliary High Voltage PCB (UN08) 15. Replace the Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	1160	05	Title	Abnormal detected patch reading value
			Detection	Light patch although setting 7 for patch level (unable to fit in the target between 550 and 640)
			Remedy	<ol style="list-style-type: none"> 1. Check the patch shape. 2. Clean the high voltage contact point with dry wiping or air blower. 3. Check the harness/connector between the DC Controller (UN09) and the High Voltage PCB. Between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442) Between the DC Controller PCB (UN09/ J21, J22) and the Developing High Voltage PCB (UN07/ J451, J452) Between the DC Controller PCB (UN09/ J19) and the Auxiliary High Voltage PCB (UN08/J461, J462) Between the DC Controller PCB (J205) and the Primary Transfer High Voltage PCB (UN04/J1001) 4. Replace the Drum Unit (M) 5. Replace the Registration Patch Sensor Unit 6. Replace the ITB Unit. 7. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 8. Replace the Primary Transfer High Voltage PCB (UN04) 9. Replace the Developing High Voltage PCB (UN07) 10. Replace the Primary Charging High Voltage PCB (UN06) 11. Replace the Auxiliary High Voltage PCB (UN08) 12. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	1250	05	Title	Abnormal detected patch reading value
			Detection	Dark patch although setting 0 for the patch level (unable to fit in the target between 550 and 640)
			Remedy	<ol style="list-style-type: none"> 1. Clean the scanner's window. 2. Use your hand to check if the shutter of the Registration Patch Sensor Unit can be open. 3. Check if the window of the Patch Sensor (UN43/ UN44) is soiled. 4. Check scar on the ITB. 5. Check movement of the Registration Shutter Solenoid (SL02). COPIER > FUNCTION > PART-CHK > SL to move SL02 6. Check the harness/connector between the DC Controller PCB (UN09/J12) and the Patch Sensors (UN43/J4007, UN44, J4006). 7. Replace the Drum Unit (C) 8. Replace the Registration Patch Sensor Unit 9. Replace the ITB Unit. 10. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 11. Replace the Primary Transfer High Voltage PCB (UN04) 12. Replace the Developing High Voltage PCB (UN07) 13. Replace the Primary Charging High Voltage PCB (UN06) 14. Replace the Auxiliary High Voltage PCB (UN08) 15. Replace the Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	1260	05	Title	Abnormal detected patch reading value
			Detection	Light patch although setting 7 for patch level (unable to fit in the target between 550 and 640)
			Remedy	<ol style="list-style-type: none"> 1. Check the patch shape. 2. Clean the high voltage contact point with dry wiping or air blower. 3. Check the harness/connector between the DC Controller (UN09) and the High Voltage PCB. Between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442) Between the DC Controller PCB (UN09/ J21, J22) and the Developing High Voltage PCB (UN07/ J451, J452) Between the DC Controller PCB (UN09/ J19) and the Auxiliary High Voltage PCB (UN08/J461, J462) Between the DC Controller PCB (J205) and the Primary Transfer High Voltage PCB (UN04/J1001) 4. Replace the Drum Unit (C) 5. Replace the Registration Patch Sensor Unit 6. Replace the ITB Unit. 7. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 8. Replace the Primary Transfer High Voltage PCB (UN04) 9. Replace the Developing High Voltage PCB (UN07) 10. Replace the Primary Charging High Voltage PCB (UN06) 11. Replace the Auxiliary High Voltage PCB (UN08) 12. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	1350	05	Title	Abnormal detected patch reading value
			Detection	Dark patch although setting 0 for the patch level (unable to fit in the target between 550 and 640)
			Remedy	<ol style="list-style-type: none"> 1. Clean the scanner's window. 2. Use your hand to check if the shutter of the Registration Patch Sensor Unit can be open. 3. Check if the window of the Patch Sensor (UN43/ UN44) is soiled. 4. Check scar on the ITB. 5. Check movement of the Registration Shutter Solenoid (SL02). COPIER > FUNCTION > PART-CHK > SL to move SL02 6. Check the harness/connector between the DC Controller PCB (UN09/J12) and the Patch Sensors (UN43/J4007, UN44, J4006). 7. Replace the Drum Unit (Bk) 8. Replace the Registration Patch Sensor Unit 9. Replace the ITB Unit. 10. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 11. Replace the Primary Transfer High Voltage PCB (UN04) 12. Replace the Developing High Voltage PCB (UN07) 13. Replace the Primary Charging High Voltage PCB (UN06) 14. Replace the Auxiliary High Voltage PCB (UN08) 15. Replace the Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E020	1360	05	Title	Abnormal detected patch reading value
			Detection	Light patch although setting 7 for patch level (unable to fit in the target between 550 and 640)
			Remedy	<ol style="list-style-type: none"> 1. Check the patch shape. 2. Clean the high voltage contact point with dry wiping or air blower. 3. Check the harness/connector between the DC Controller (UN09) and the High Voltage PCB. Between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442) Between the DC Controller PCB (UN09/ J21, J22) and the Developing High Voltage PCB (UN07/ J451, J452) Between the DC Controller PCB (UN09/ J19) and the Auxiliary High Voltage PCB (UN08/J461, J462) Between the DC Controller PCB (J205) and the Primary Transfer High Voltage PCB (UN04/J1001) 4. Replace the Drum Unit (Bk) 5. Replace the Registration Patch Sensor Unit 6. Replace the ITB Unit. 7. Check conduction of the fuses (FU5, FU8) in the DC Controller PCB (UN09). 8. Replace the Primary Transfer High Voltage PCB (UN04) 9. Replace the Developing High Voltage PCB (UN07) 10. Replace the Primary Charging High Voltage PCB (UN06) 11. Replace the Auxiliary High Voltage PCB (UN08) 12. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E021	0001	05	Title	CL Developing Motor startup error
			Detection	After 700 msec since the startup, the speed failed to be OK for 500 consecutive msec.
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check the Main Drive Unit (turn the unit by hand to see if it rotates) Replace the Main Drive Unit when the unit failed to rotate When the unit rotates</p> <p>2. Check failure of the harness between the Developing Motor (M03/J6026) and the DC Controller PCB (UN09/J210W) (trapped cable, open circuit, connector disconnection)</p> <p>3. Check conduction of the fuse (FU7) in the DC Controller PCB (UN09)</p> <p>When the fuse is not blown out 4-1. Replace the Developing Motor (M03) 5-1. Replace the DC Controller PCB (UN09).</p> <p>When the fuse is blown out 4-2. Replace the DC Controller PCB (UN09).</p>
E021	0002	05	Title	CL Developing Motor speed error
			Detection	Since the startup, the speed had been OK at least once, and then the speed failed to be OK for 500 consecutive msec.
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check the Main Drive Unit (turn the unit by hand to see if it rotates) Replace the Main Drive Unit when the unit failed to rotate When the unit rotates</p> <p>2. Check failure of the harness between the Developing Motor (M03/J6026) and the DC Controller PCB (UN09/J210W) (trapped cable, open circuit, connector disconnection)</p> <p>3. Check conduction of the fuse (FU7) in the DC Controller PCB (UN09)</p> <p>When the fuse is not blown out 4-1. Replace the Developing Motor (M03) 5-1. Replace the DC Controller PCB (UN09).</p> <p>When the fuse is blown out 4-2. Replace the DC Controller PCB (UN09).</p>

E Code	Detail Code	Location	Item	Description
E021	0003	05	Title	CL Developing Motor lock detection
			Detection	Since the startup, the FG signal failed to be turned ON for 300msec.
			Remedy	<p>Possible cause is overload or rotation failure of the motor due to an electrical trouble</p> <p>1. Check the Main Drive Unit (turn the unit by hand to see if it rotates) Replace the Main Drive Unit when the unit failed to rotate When the unit rotates</p> <p>2. Check failure of the harness between the Developing Motor (M03/J6026) and the DC Controller PCB (UN09/J210W) (trapped cable, open circuit, connector disconnection)</p> <p>3. Check conduction of the fuse (FU7) in the DC Controller PCB (UN09)</p> <p>When the fuse is not blown out 4-1. Replace the Developing Motor (M03) 5-1. Replace the DC Controller PCB (UN09).</p> <p>When the fuse is blown out 4-2. Replace the DC Controller PCB (UN09).</p>
E021	0020	05	Title	Developing screw rotation detection
			Detection	The difference between the maximum and the minimum of detected inductance sampling values is equal to or lower than 0.5V.
			Remedy	<p>Possible cause: The screw is not rotating due to failure in the coupling between the main body and the Developing Assembly, or the value of ATR Sensor (Y) (UN39) failed to be read due to an electrical trouble.</p> <p>1. Remove the Drum Unit (Y) and check no damage. (Replace the Drum Unit (Y) if defective)</p> <p>2. Lift the pressure lever after the Drum Unit (Y) is pushed all the way in.</p> <p>3. Check failure of the harness between the Drum Unit (Y) and the DC Controller PCB (UN09/J25) (trapped cable, open circuit, connector disconnection)</p> <p>4. Check the Drum Unit Relay PCB (Y) (UN26) (Soil/ deformation/ damage)</p> <p>5. Check the Drum Unit Memory PCB (M) (UN30) (Soil/ damage)</p> <p>6. Replace the Drum Unit (Y)</p> <p>7. Replace the DC Controller PCB (UN09).</p> <p>8. Replace the Main Drive Unit</p>

E Code	Detail Code	Location	Item	Description
E021	0120	05	Title	Developing screw rotation detection
			Detection	The difference between the maximum and the minimum of detected inductance sampling values is equal to or lower than 0.5V.
			Remedy	<p>Possible cause: The screw is not rotating due to failure in the coupling between the main body and the Developing Assembly, or the value of ATR Sensor (M) (UN40) failed to be read due to an electrical trouble.</p> <ol style="list-style-type: none"> 1. Remove the Drum Unit (M) and check no damage. (Replace the Drum Unit (M) if defective) 2. Lift the pressure lever after the Drum Unit (M) is pushed all the way in. 3. Check failure of the harness between the Drum Unit (M) and the DC Controller PCB (UN09/J25) (trapped cable, open circuit, connector disconnection) 4. Check the Drum Unit Relay PCB (M) (UN27) (Soil/ deformation/ damage) 5. Check the Drum Unit Memory PCB (M) (UN31) (Soil/ damage) 6. Replace the Drum Unit (M) 7. Replace the DC Controller PCB (UN09). 8. Replace the Main Drive Unit
E021	0220	05	Title	Developing screw rotation detection
			Detection	The difference between the maximum and the minimum of detected inductance sampling values is equal to or lower than 0.5V.
			Remedy	<p>Possible cause: The screw is not rotating due to failure in the coupling between the main body and the Developing Assembly, or the value of ATR Sensor (C)(UN41) failed to be read due to an electrical trouble.</p> <ol style="list-style-type: none"> 1. Remove the Drum Unit (C) and check no damage. (Replace the Drum Unit (C) if defective) 2. Lift the pressure lever after the Drum Unit (C) is pushed all the way in. 3. Check failure of the harness between the Drum Unit (C) and the DC Controller PCB (UN09/J25) (trapped cable, open circuit, connector disconnection) 4. Check the Drum Unit Relay PCB (C) (UN28) (Soil/ deformation/ damage) 5. Check the Drum Unit Memory PCB (C) (UN32) (Soil/ damage) 6. Replace the Drum Unit (C). 7. Replace the DC Controller PCB (UN09). 8. Replace the Main Drive Unit

E Code	Detail Code	Location	Item	Description
E021	0320	05	Title	Developing screw rotation detection
			Detection	The difference between the maximum and the minimum of detected inductance sampling values is equal to or lower than 0.5V.
			Remedy	<p>Possible cause: The screw is not rotating due to failure in the coupling between the main body and the Developing Assembly, or the value of ATR Sensor (Bk) (UN42) failed to be read due to an electrical trouble</p> <ol style="list-style-type: none"> 1. Remove the Drum Unit (Bk) and check no damage. (Replace the Drum Unit (Bk) if defective) 2. Lift the pressure lever after the Drum Unit (Bk) is pushed all the way in. 3. Check failure of the harness between the Drum Unit (Bk) and the DC Controller PCB (UN09/J25) (trapped cable, open circuit, connector disconnection) 4. Check the Drum Unit Relay PCB (Bk) (UN29) (Soil/ deformation/ damage) 5. Check the Drum Unit Memory PCB (Bk) (UN33) (Soil/ damage) 6. Replace the Drum Unit (Bk). 7. Replace the DC Controller PCB (UN09). 8. Replace the Main Drive Unit
E022	0000	05	Title	Error in detection of abnormal opening/closing of the Laser Shutter
			Detection	At the Laser Shutter open/close control, the sensor fails to detect although the specified time has passed (the specified time differs depending on the mode)
			Remedy	<p>Error in the Shutter Motor or the Laser Shutter Sensor</p> <ol style="list-style-type: none"> 1. COPIER > FUNCTION > PART-CHK > MTR; move M05 <p>When it works</p> <ol style="list-style-type: none"> 2-1. Check the harness between the DC Controller (UN09/ J11) and the Laser Shutter Sensor (PS05) 3-1. Check condition of the Laser Shutter 4-1. Check the Laser Shutter Sensor (PS05) in the Main Drive 5-1. Replace the Main Drive <p>When it does not work</p> <ol style="list-style-type: none"> 2-2. Check the harness between the DC Controller (UN09/ J31) and the Developing Disengagement Motor (M05) 3-2. Check conduction of the fuse (FU6) in the DC Controller (UN09) 4-2. Replace the Laser Shutter Motor (M05) 5-2. Replace the Main Drive

E Code	Detail Code	Location	Item	Description
E025	0000	05	Title	Toner Supply Motor (Y) lock detection
			Detection	The Rotation Sensor does not detect rotation although 5 sec has passed since the motor was turned ON
			Remedy	Possible cause: overload with the motor or motor failure 1. Check conduction with FU2 on the DC Controller PCB (UN09) 2. Check the harness/connector between the DC Controller PCB (UN09/ J23) and PS06. 3. Replace the DC Controller PCB (UN09) Check the harness toward the sensor 4. Check the Hopper Unit (Y) 5. Replace the Hopper Unit (Y).
E025	0010	05	Title	Toner Container Motor (Y) lock detection
			Detection	After turning ON the motor, current value is 2.5V or higher for a specified consecutive period of time.
			Remedy	Overload of the motor or motor failure 1. While the Toner Bottle (Y) is removed, COPIER > FUNCTION > PART-CHK > MTR; and move M07 When the motor works, 2-1. Check if the Toner Bottle (Y) is installed 3-1. Check the Hopper Unit (Y). When the motor does not work, 2-2. Check the harness/connector between the DC Controller PCB (UN09) and the Toner Container Motor (Y) (M07) 3-2. Check conduction of FU1 in the DC Controller PCB (UN09) 4-2. Replace the DC Controller PCB (UN09) 5-2. Replace the Hopper Unit (Y)
E025	0020	05	Title	Detection of short-circuit with Toner Container Motor (Y)FET
			Detection	After turning OFF the motor, current value is 1.5V or higher for a specified consecutive period of time.
			Remedy	Error in element in the DC Controller PCB 1. Replace the DC Controller PCB (UN09)
E025	0030	05	Title	Detection of short-circuit with Toner Container Motor (Y) GND
			Detection	After the Motor was turned ON, the current value (AD value) is equal to or lower than 0.5h (0.06V: Motor current 0.06A) for 5 consecutive sec.
			Remedy	Short-circuit failure of the Toner Bottle Motor or error in element in the DC Controller PCB 1. Check the harness between the DC Controller (UN09/J23) and the Toner Container Motor (Y) (M07) 2. Replace the DC Controller PCB (UN09) 3. Replace the Hopper Unit (Y)

E Code	Detail Code	Location	Item	Description
E025	0100	05	Title	Toner Supply Motor (M) lock detection
			Detection	The Rotation Sensor does not detect rotation although 5 sec has passed since the motor was turned ON
			Remedy	Overload of the motor or motor failure 1. Check conduction with FU2 on the DC Controller PCB (UN09) 2. Check the harness/connector between the DC Controller PCB (UN09/J24) and PS07. 3. Replace the DC Controller PCB (UN09) 4. Check the Hopper Unit (M). 5. Replace the Hopper Unit (M).
E025	0110	05	Title	Toner Container Motor (Bk) lock detection
			Detection	After turning ON the motor, current value is 2.5V or higher for a specified consecutive period of time.
			Remedy	Overload of the motor or motor failure 1. While the Toner Bottle (M) is removed, COPIER > FUNCTION > PART-CHK > MTR; and move M09 When the motor works, 2-1. Check if the Toner Bottle (M) is installed 3-1. Check the Hopper Unit (M) When the motor does not work, 2-2. Check the harness/connector between the DC Controller PCB (UN09) and the Toner Container Motor (M) (M09) 3-2. Check conduction of FU1 in the DC Controller PCB (UN09) 4-2. Replace the DC Controller PCB (UN09) 5-2. Replace the Hopper Unit (M)
E025	0120	05	Title	Detection of short-circuit with Toner Container Motor (M)FET
			Detection	After turning OFF the motor, current value is 1.5V or higher for a specified consecutive period of time.
			Remedy	Error in element in the DC Controller PCB 1. Replace the DC Controller PCB (UN09)
E025	0130	05	Title	Detection of short-circuit with Toner Container Motor (M) GND
			Detection	After the Motor was turned ON, the current value (AD value) is equal to or lower than 0.5h (0.06V: Motor current 0.06A) for 5 consecutive sec.
			Remedy	Short-circuit failure of the Toner Bottle Motor or error in element in the DC Controller PCB 1. Check the harness between the DC Controller (UN09/J24) and the Toner Container Motor (M) (M09) 2. Replace the DC Controller PCB (UN09) 3. Replace the Hopper Unit (M)

E Code	Detail Code	Location	Item	Description
E025	0200	05	Title	Toner Supply Motor (C) lock detection
			Detection	After turning ON the motor, the rotation sensor does not detect although a specified period of time has passed.
			Remedy	Overload of the motor or motor failure 1. Check conduction of FU9 on the DC Controller PCB (UN09). 2. Check the harness/connector between the DC Controller PCB (UN09/J24) and PS08. 3. Replace the DC Controller PCB (UN09) 4. Check the Hopper Unit (C). 5. Replace the Hopper Unit (C).
E025	0210	05	Title	Toner Container Motor (C) lock detection
			Detection	After turning ON the motor, current value is 2.5V or higher for a specified consecutive period of time.
			Remedy	Overload of the motor or motor failure 1. While the Toner Bottle (C) is removed, COPIER > FUNCTION > PART-CHK > MTR; and move M11 When the motor works, 2-1. Check if the Toner Bottle (C) is installed 3-1. Check the Hopper Unit (C) When the motor does not work, 2-2. Check the harness/connector between the DC Controller PCB (UN09) and the Toner Container Motor (C) (M12) 3-2. Check conduction of FU3 in the DC Controller PCB (UN09) 4-2. Replace the DC Controller PCB (UN09) 5-2. Replace the Hopper Unit (C)
E025	0220	05	Title	Detection of short-circuit with Toner Container Motor (C)FET
			Detection	After turning OFF the motor, current value is 1.5V or higher for a specified consecutive period of time.
			Remedy	Error in element in the DC Controller PCB 1.Replace the DC Controller PCB (UN09)
E025	0230	05	Title	Detection of short-circuit with Toner Container Motor (C) GND
			Detection	After the Motor was turned ON, the current value (AD value) is equal to or lower than 0.5h (0.06V: Motor current 0.06A) for 5 consecutive sec.
			Remedy	Short-circuit failure of the Toner Bottle Motor or error in element in the DC Controller PCB 1. Check the harness between the DC Controller (UN09/J24) and the Toner Container Motor (C) (M11) 2. Replace the DC Controller PCB (UN09) 3. Replace the Hopper Unit (C)

E Code	Detail Code	Location	Item	Description
E025	0300	05	Title	Toner Supply Motor (Bk) lock detection
			Detection	The Rotation Sensor does not detect rotation although 5 sec has passed since the motor was turned ON
			Remedy	Overload of the motor or motor failure 1. Check conduction of FU9 on the DC Controller PCB (UN09). 2. Check the harness/connector between the DC Controller PCB (UN09/J26) and PS09 3. Replace the DC Controller PCB (UN09) 4. Check the Hopper Unit (Bk). 5. Replace the Hopper Unit (Bk).
E025	0310	05	Title	Toner Container Motor (Bk) lock detection
			Detection	After turning ON the motor, current value is 2.5V or higher for a specified consecutive period of time.
			Remedy	Overload of the motor or motor failure 1. While the Toner Bottle (Bk) is removed, COPIER>FUNCTION>PART-CHK>MTR; and move M13 When the motor works, 2-1. Check if the Toner Bottle (Bk) is installed 3-1. Check the Hopper Unit (Bk) When the motor does not work, 2-2. Check the harness/connector between the DC Controller PCB (UN09) and the B Toner Container Motor (Bk)(M13) 3-2. Check conduction of FU3 in the DC Controller PCB (UN09) 4-2. Replace the DC Controller PCB (UN09) 5-2. Replace the Hopper Unit (Bk)
E025	0320	05	Title	Detection of short-circuit with Toner Container Motor (Bk)FET
			Detection	After turning OFF the motor, current value is 1.5V or higher for a specified consecutive period of time.
			Remedy	Error in element in the DC Controller PCB 1.Replace the DC Controller PCB (UN09)
E025	0330	05	Title	Detection of short-circuit with Toner Container Motor (Bk) GND
			Detection	After the Motor was turned ON, the current value (AD value) is equal to or lower than 0.5h (0.06V: Motor current 0.06A) for 5 consecutive sec.
			Remedy	Short-circuit failure of the Toner Bottle Motor or error in element in the DC Controller PCB 1. Check the harness between the DC Controller (UN09/J26) and the Toner Container Motor (Bk) (M13) 2. Replace the DC Controller PCB (UN09) 3. Replace the Hopper Unit (Bk)

E Code	Detail Code	Location	Item	Description
E040	0002	05	Title	Cassette 1 Lifter error
			Description	Unable to detect the lift-up completion position within 4.5 sec after lift-up was started
			Remedy	<p>Error in Lift Motor or Lifter Sensor</p> <p>1. While Cassette 1 is removed, turn ON the power and then insert Cassette 1.</p> <p>When there is operation sound of the motor</p> <p>1-1. Check the harness/connector between the DC Controller (UN09/J13) and the Cassette 1 Lifter Sensor (PS12)</p> <p>2-1. Check if the Cassette 1 Lifter Sensor (PS12) is installed.</p> <p>3-1. Check the condition of the gear at the host machine side (to see if there is missing or swing with the gear)</p> <p>4-1. Replace the Cassette 1 Lifter Sensor (PS12)</p> <p>5-1. Replace the DC Controller PCB (UN09)</p> <p>When there is no operation sound of the motor</p> <p>1-2. Check the harness/connector between the DC Controller (UN09/J13) and the Cassette 1 Lifter Motor (M14)</p> <p>2-2. Check conduction of the fuse (FU2) of the DC Controller (UN09)</p> <p>3-2. Check the condition of the gear at the host machine side (to see if there is something missing or swing with the gear)</p> <p>4-2. Check the Cassette 1 Lifter Motor (M14)</p> <p>5-2. Replace the DC Controller (UN09)</p>
E065	0000	05	Title	Error in detection of abnormal Y charging AC current value
			Description	During the paper interval simple discharge current control, a current value that is higher than the target of 500[uA] is detected
			Remedy	<p>Error in output of charging high voltage, Drum Unit error or environment control error</p> <p>1. COPIER > DISPLAY > ANALOG; check if the TEMP value and the HUM value are matched with the environment temperature.</p> <p>When the values are dramatically mismatched (Lager than 15degrees Celsius)</p> <p>2-1. Check the harness and connector between the DC Controller (UN09/ J206) and the Environment Sensor (UN45)</p> <p>3-1. Replace the Environment Sensor (UN45)</p> <p>4-1. Replace the DC Controller (UN09)</p> <p>When the values are matched</p> <p>2-2. Check the state of the charging high voltage contact point</p> <p>3-2. Replace the Drum Unit (Y)</p> <p>4-2. Check the harness and connector between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442)</p> <p>5-2. Replace the Primary Charging High Voltage PCB (UN06)</p> <p>6-2. Replace the DC Controller PCB (UN09)</p>

E Code	Detail Code	Location	Item	Description
E065	0001	05	Title	Error in detection of abnormal M charging AC current value
			Description	During the paper interval simple discharge current control, a current value that is higher than the target of 500[uA] is detected
			Remedy	<p>Error in output of charging high voltage, Drum Unit error or environment control error</p> <p>1. COPIER > DISPLAY > ANALOG; check if the TEMP value and the HUM value are matched with the environment temperature.</p> <p>When the values are dramatically mismatched (Lager than 15degrees Celsius)</p> <p>2-1. Check the harness and connector between the DC Controller (UN09/ J206) and the Environment Sensor (UN45)</p> <p>3-1. Replace the Environment Sensor (UN45)</p> <p>4-1. Replace the DC Controller (UN9)</p> <p>When the values are matched</p> <p>2-2. Check the state of the charging high voltage contact point</p> <p>3-2. Replace the Drum Unit (M)</p> <p>4-2. Check the harness and connector between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442)</p> <p>5-2. Replace the Primary Charging High Voltage PCB (UN06)</p> <p>6-2. Replace the DC Controller PCB (UN09)</p>
E065	0002	05	Title	Error in detection of abnormal C charging AC current value
			Description	During the paper interval simple discharge current control, a current value that is higher than the target of 500[uA] is detected
			Remedy	<p>Error in output of charging high voltage, Drum Unit error or environment control error</p> <p>1. COPIER > DISPLAY > ANALOG; check if the TEMP value and the HUM value are matched with the environment temperature.</p> <p>When the values are dramatically mismatched (Lager than 15degrees Celsius)</p> <p>2-1. Check the harness and connector between the DC Controller (UN09/ J206) and the Environment Sensor (UN45)</p> <p>3-1. Replace the Environment Sensor (UN45)</p> <p>4-1. Replace the DC Controller (UN9)</p> <p>When the values are matched</p> <p>2-2. Check the state of the charging high voltage contact point</p> <p>3-2. Replace the Drum Unit (C)</p> <p>4-2. Check the harness and connector between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442)</p> <p>5-2. Replace the Primary Charging High Voltage PCB (UN06)</p> <p>6-2. Replace the DC Controller PCB (UN09)</p>

E Code	Detail Code	Location	Item	Description
E065	0003	05	Title	Error in detection of abnormal Bk charging AC current value
			Description	During the paper interval simple discharge current control, a current value that is higher than the target of 500[uA] is detected
			Remedy	Error in output of charging high voltage, Drum Unit error or environment control error 1. COPIER > DISPLAY > ANALOG; check if the TEMP value and the HUM value are matched with the environment temperature. When the values are dramatically mismatched (Lager than 15degrees Celsius) 2-1. Check the harness and connector between the DC Controller (UN09/ J206) and the Environment Sensor (UN45) 3-1. Replace the Environment Sensor (UN45) 4-1. Replace the DC Controller (UN9) When the values are matched 2-2. Check the state of the charging high voltage contact point 3-2. Replace the Drum Unit (Bk). 4-2. Check the harness and connector between the DC Controller PCB (UN09/ J21) and the Primary Charging High Voltage PCB (UN06/ J441, J442) 5-2. Replace the Primary Charging High Voltage PCB (UN06) 6-2. Replace the DC Controller PCB (UN09)
E069	0002	05	Title	Abnormal current is detected at the secondary transfer
			Description	When 100 [uA] or larger is detected at the secondary transfer
			Remedy	Error in the Secondary Transfer High Voltage PCB, Error in the Secondary Transfer Roller 1. Check failure of the harness between the Secondary Transfer High Voltage PCB (UN05/J201) and the DC Controller PCB (UN09/J10) (open circuit, trapped cable, connector disconnection). -> Replace the harness if it is faulty 2. Check connection failure between the Secondary Transfer High Voltage PCB (UN05/T1201) and the Secondary Transfer Outer Roller (Check that the connection is free from open circuit or GND contact) -> Replace the connection wire if it is faulty 3. Replace the Secondary Transfer High Voltage PCB (UN05) 4. Replace the Secondary Transfer Outer Roller 5. Replace the ITB Unit 6. Replace the DC Controller PCB (UN09).

E Code	Detail Code	Location	Item	Description
E067	0000	05	Title	Error in Y primary transfer abnormal detection
			Description	When trying to apply the specified voltage of 1500 [V] or higher * It occurs only in the case of Cont v28.30/Dcon v54.02 or earlier.
			Remedy	Error in the Primary Transfer High Voltage PCB, Error in the Primary Transfer Roller (ITB Unit) 1. Check failure of the harness between the Primary Transfer High Voltage PCB (UN04/J1001) and the DC Controller PCB (UN09/J205) (open circuit, trapped cable, connector disconnection). -> Replace the harness if it is faulty 2. Check connection failure between the Primary Transfer High Voltage PCB (UN04/J41) and the Primary Transfer Roller (Check that the connection is free from open circuit or GND contact) 3. Replace the Primary Transfer High Voltage PCB (UN04) 4. Replace the ITB Unit 5. Replace the DC Controller PCB (UN09). 6. Replace the Primary Transfer Power Supply Unit
E067	0001	05	Title	Error in M primary transfer abnormal detection
			Description	When trying to apply the specified voltage of 1500 [V] or higher * It occurs only in the case of Cont v28.30/Dcon v54.02 or earlier.
			Remedy	Error in the Primary Transfer High Voltage PCB, Error in the Primary Transfer Roller (ITB Unit) 1. Check failure of the harness between the Primary Transfer High Voltage PCB (UN04/J1001) and the DC Controller PCB (UN09/J205) (open circuit, trapped cable, connector disconnection). -> Replace the harness if it is faulty 2. Check connection failure between the Primary Transfer High Voltage PCB (UN04/J31) and the Primary Transfer Roller (Check that the connection is free from open circuit or GND contact) 3. Replace the Primary Transfer High Voltage PCB (UN04) 4. Replace the ITB Unit 5. Replace the DC Controller PCB (UN09). 6. Replace the Primary Transfer Power Supply Unit

E Code	Detail Code	Location	Item	Description
E067	0002	05	Title	Error in C primary transfer abnormal detection
			Description	When trying to apply the specified voltage of 1500 [V] or higher * It occurs only in the case of Cont v28.30/Dcon v54.02 or earlier.
			Remedy	Error in the Primary Transfer High Voltage PCB, Error in the Primary Transfer Roller (ITB Unit) 1. Check failure of the harness between the Primary Transfer High Voltage PCB (UN04/J1001) and the DC Controller PCB (UN09/J205) (open circuit, trapped cable, connector disconnection). -> Replace the harness if it is faulty 2. Check connection failure between the Primary Transfer High Voltage PCB (UN04/J21) and the Primary Transfer Roller (Check that the connection is free from open circuit or GND contact) 3. Replace the Primary Transfer High Voltage PCB (UN04) 4. Replace the ITB Unit 5. Replace the DC Controller PCB (UN09). 6. Replace the Primary Transfer Power Supply Unit
E067	0003	05	Title	Error in Bk primary transfer abnormal detection
			Description	When trying to apply the specified voltage of 1500 [V] or higher * It occurs only in the case of Cont v28.30/Dcon v54.02 or earlier.
			Remedy	Error in the Primary Transfer High Voltage PCB, Error in the Primary Transfer Roller (ITB Unit) 1. Check failure of the harness between the Primary Transfer High Voltage PCB (UN04/J1001) and the DC Controller PCB (UN09/J205) (open circuit, trapped cable, connector disconnection). -> Replace the harness if it is faulty 2. Check connection failure between the Primary Transfer High Voltage PCB (UN04/J11) and the Primary Transfer Roller (Check that the connection is free from open circuit or GND contact) 3. Replace the Primary Transfer High Voltage PCB (UN04) 4. Replace the ITB Unit 5. Replace the DC Controller PCB (UN09) 6. Replace the Primary Transfer Power Supply Unit

E Code	Detail Code	Location	Item	Description
E069	0001	05	Title	Abnormal current is detected at the secondary transfer
			Description	When 5 [uA] or smaller is detected at the secondary transfer
			Remedy	Error in the Secondary Transfer High Voltage PCB, Error in the Secondary Transfer Roller 1. Check failure of the harness between the Secondary Transfer High Voltage PCB (UN05/J201) and the DC Controller PCB (UN09/J10) (open circuit, trapped cable, connector disconnection). -> Replace the harness if it is faulty 2. Check connection failure between the Secondary Transfer High Voltage PCB (UN05/T1201) and the Secondary Transfer Outer Roller (Check that the connection is free from open circuit or GND contact) 3. Replace the Secondary Transfer High Voltage PCB (UN05) 4. Replace the Secondary Transfer Outer Roller 5. Replace the ITB Unit 6. Replace the DC Controller PCB (UN09) 7. Replace the Secondary Transfer Power Supply Unit
E074	0000	05	Title	Error in the primary transfer disengagement control
			Description	At the primary transfer disengagement control, the sensor fails to detect although the specified time has passed (the specified time differs depending on the mode)
			Remedy	Error in the Primary Transfer Disengagement Solenoid, Error in the Primary Transfer Disengagement Switch, or the ITB Guide Rail error 1. Replace the ITB Unit 2. Check the harness/connector between the DC Controller PCB (UN09/J11) and the Primary Transfer Disengagement Switch (SW01) 3. Check the harness/connector between the DC Controller PCB (UN09/J11) and the Primary Transfer Disengagement Solenoid (SL01) 4. Check conduction of FU6 on the DC Controller PCB (UN09) 5. Replace the ITB Guide Rail 6. Replace the Main Drive 7. Replace the Fixing Drive 8. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E074	FFFF	05	Title	ITB rotation detection error
			Description	The sensor fails to detect although it passes through the mark on the ITB for the specified time (ITB is detected as not rotating)
			Remedy	<p>The HP mark is at undetectable state, ITB Top Sensor error, or error in the coupling between the ITB Unit and the ITB Drive</p> <p>1. Check if the ITB is driven. When the ITB is driven</p> <p>2-1. Check soil of the HP mark on the ITB Belt</p> <p>3-1. Check if there is a scar at the edge of the ITB</p> <p>4-1. Use your hand to check if the shutter of the Registration Patch Sensor Unit can be open</p> <p>5-1. Check for soil on the window of the Patch Sensor (UN43/UN44)</p> <p>6-1. Check movement of the Registration Shutter Solenoid (SL02)</p> <p>COPIER > FUNCTION > PART-CHK > SL to move SL02</p> <p>7-1. Check the harness/connector between the DC Controller PCB (UN09/J12) and the Patch Sensor (UN43/J4007, UN44/J4006)</p> <p>8-1. Replace the Registration Patch Sensor Unit</p> <p>9-1. Replace the ITB Unit.</p> <p>10-1. Replace the DCON</p> <p>When the ITB is not driven</p> <p>2-2. Remove and then install the ITB Unit</p> <p>3-2. Replace the ITB Unit.</p> <p>4-2. Replace the Main Drive</p>
E100	0001	05	Title	BD error
			Description	BD fails to be ready in 5 sec
			Remedy	<p>Scanner Motor movement error or BD signal error</p> <p>1. COPIER > FUNCTION > PART-CHK > MTR; and move M01</p> <p>When the Scanner Motor (M01) moves</p> <p>2-1. Check the flexible cable/connector between the DC Controller PCB (UN09) and the Laser Scanner Unit</p> <p>3-1. Replace the Laser Scanner Unit</p> <p>4-1. Replace the DC Controller PCB (UN09)</p> <p>When the Scanner Motor (M01) does not move</p> <p>2-2. Check the harness/connector between the DC Controller PCB (UN09) and the Laser Scanner Unit</p> <p>3-2. Replace the Laser Scanner Unit</p> <p>4-2. Replace the DC Controller PCB (UN09)</p>

E Code	Detail Code	Location	Item	Description
E100	0002	05	Title	BD error
			Description	Unable to complete in 5 sec since the facet correction was started
			Remedy	Polygon Motor error 1. Replace the Laser Scanner Unit
E100	0003	05	Title	BD error
			Description	During the drive at the constant speed, the BD cycle is mismatched by $\pm 0.5\%$ for 500 continuous msec
			Remedy	<p>Scanner Motor movement error or BD signal error</p> <p>1. COPIER > FUNCTION > PART-CHK > MTR; and move M01</p> <p>When the Scanner Motor (M01) moves</p> <p>2-1. Check the flexible cable/connector between the DC Controller PCB (UN09) and the Laser Scanner Unit</p> <p>3-1. Replace the Laser Scanner Unit</p> <p>4-1. Replace the DC Controller PCB (UN09)</p> <p>When the Scanner Motor (M01) does not move</p> <p>2-2. Check the harness/connector between the DC Controller PCB (UN09) and the Laser Scanner Unit</p> <p>3-2. Replace the Laser Scanner Unit</p> <p>4-2. Replace the DC Controller PCB (UN09)</p>
E110	0001	05	Title	Scanner Motor error
			Description	Scanner Motor movement error or motor control error
			Remedy	<p>Scanner Motor movement error or motor control error</p> <p>1. Check the harness/connector between the DC Controller PCB (UN09) and the Laser Scanner Unit</p> <p>2. Check the flexible cable/connector between the DC Controller PCB (UN09) and the Laser Scanner Unit</p> <p>3. Replace the Laser Scanner Unit</p> <p>4. Replace the DC Controller PCB (UN09)</p>
E110	0002	05	Title	Scanner Motor error
			Description	Scanner Motor movement error or motor control error
			Remedy	<p>Scanner Motor movement error or motor control error</p> <p>1. Check the harness/connector between the DC Controller PCB (UN09) and the Laser Scanner Unit</p> <p>2. Check the flexible cable/connector between the DC Controller PCB (UN09) and the Laser Scanner Unit</p> <p>3. Replace the Laser Scanner Unit</p> <p>4. Replace the DC Controller PCB (UN09)</p>
E110	0003	05	Title	Scanner Motor error
			Description	The signal fails to be 1 at laser sequence enable check
			Remedy	<p>Error in control with the Laser Scanner Unit</p> <p>1. Replace the Laser Scanner Unit</p>

E Code	Detail Code	Location	Item	Description
E194	0000	05	Title	Registration detection error
			Description	When the number of reading patterns fails to be the specified value
			Remedy	<p>The patch by the registration detection is not correctly created, or registration patch sensor error</p> <p>1. Clean the dustproof glass. 2. Check density on the image visually.</p> <p>When the image density is light 3-1. Clean the high voltage contact point with dry wiping or air blower. 4-1. Replace the Drum Unit (If the color showing abnormality can be identified from the image, replace the Drum Unit for that color. otherwise, replace from the Drum Unit (Y) in order) 5-1. Check the harness/connector between the DC Controller PCB (UN09) and the High Voltage PCB 6-1. Replace the High Voltage PCB. Primary Charging High Voltage PCB (UN06), Developing High Voltage PCB (UN07), Auxiliary High Voltage PCB (UN08), Primary Transfer High Voltage PCB (UN04) 7-1 Replace the DCON</p> <p>When the image density is not light 3-2. Use your hand to check that the shutter of the Registration Patch Sensor Unit can be open 4-2. Check for soil on the window of the Patch Sensor (UN43, UN44) 5-2. Check scar on the ITB. 6-2. Check movement of the Registration Shutter Solenoid COPIER > FUNCTION > PART-CHK > SL to move SL02</p> <p>7-2. Check the harness/connector between the DC Controller PCB (UN09/J12) and the Patch Sensor (UN43/J4007, UN44/J4006) 8-2. Replace the Registration Patch Sensor Unit 9-2 Replace the ITB Unit.</p>

E Code	Detail Code	Location	Item	Description
E194	0001	05	Title	Registration detection error
			Description	When there is a gap of 3.25[mm] or larger
			Remedy	<p>The last registration detection was not properly executed</p> <p>1. Clear the registration detection data COPIER>FUNCTION>CLEAR>REG-CLR 2. Clean the window of the scanner 3. Check density on the image visually.</p> <p>When the image density is light 4-1. Clean the high voltage contact point with dry wiping or air blower. 5-1. Replace the Drum Unit (If the color showing abnormality can be identified from the image, replace the Drum Unit for that color. otherwise, replace from the Drum Unit (Y) in order) 6-1. Check the harness/connector between the DCON and the High Voltage PCB 7-1. Replace the High Voltage PCB. Primary Charging High Voltage PCB (UN06), Developing High Voltage PCB (UN07), Auxiliary High Voltage PCB (UN08), Primary Transfer High Voltage PCB (UN04) 8-1 Replace the DCON</p> <p>When the image density is not light 4-2. Use your hand to check that the shutter of the Registration Patch Sensor Unit can be open 5-2. Check for soil on the window of the Patch Sensor (UN43, UN44) 6-2. Check scar on the ITB. 7-2. Check movement of the Registration Shutter Solenoid COPIER > FUNCTION > PART-CHK > SL to move SL02</p> <p>8-2. Check the harness/connector between the DC Controller PCB (UN09) and the Patch Sensor (UN43/J4007, UN44/J4006) 9-2. Replace the Registration Patch Sensor Unit 10-2 Replace the ITB Unit.</p>

E Code	Detail Code	Location	Item	Description
E194	FFFF	05	Title	Registration detection error
			Description	There has been no command from CONT although 1 min has passed since the start of retry operation
			Remedy	Connection failure between the DC Controller PCB (UN09) and the CB Controller PCB (UN11), error in the DC Controller PCB (UN09), or error in the Controller PCB 1.Disconnect and then connect FFC (FFC 07) that is connected to the DC Controller PCB (UN09) and Main Controller PCB 2 (UN12) 2. Replace Main Controller PCB 2 (UN12) 3. Replace the DC Controller PCB (UN09)
E196	0001	05	Title	E2PROM communication error
			Description	I2C communication error
			Remedy	Error in access to EEPROM mounted on the Laser Scanner. 1. Disconnect and then connect the connector and Flat Cable of the Laser Scanner Unit. 2. Replace the Laser Scanner Unit.
E196	0002	05	Title	E2PROM data retrieval timeout
			Description	Within 10 sec since the power was turned ON, the E2PROM data cannot be developed to RAM
			Remedy	EEPROM communication error in the DCON or the Drum Unit 1. Check the harness/connector between the DC Controller PCB (UN09/J25) and the Drum Unit Relay PCB (UN26/4011, UN27/J4014, UN28/J4017, UN29/J4020) 2. Check the contact surface on the Drum Unit Relay PCB and the Drum Unit Memory PCB (soil, damage, contact pressure) Y:UN26/UN30 M:UN27/UN31 C:UN28/UN32 Bk UN29/UN33 3. From Y Drum Unit, install each Drum Unit accordingly at a time to identify error ROM 4. Replace the DC Controller PCB (UN09)
E196	0003	05	Title	E2PROM bus possession error
			Description	The operation of the Drum Unit Memory PCB is faulty and cannot be recovered
			Remedy	EEPROM communication error of the Drum Unit 1.Check the harness/connector between the DC Controller PCB (UN09/J25) and the Drum Unit Relay PCB (UN26/4011, UN27/J4014, UN28/J4017, UN29/J4020) 2.Check the contact surface on the Drum Unit Relay PCB and the Drum Unit Memory PCB (soil, damage, contact pressure) Y:UN26/UN30 M:UN27/UN31 C:UN28/UN32 Bk UN29/UN33 3. From Y Drum Unit, install each Drum Unit accordingly at a time to identify error ROM 4. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E196	1B00	05	Title	E2PROM communication error
			Description	Command error
			Remedy	Turn OFF and then ON the main power
E196	1B01	05	Title	E2PROM communication error
			Description	Command error
			Remedy	Turn OFF and then ON the main power
E196	1B02	05	Title	E2PROM communication error
			Description	Command error
			Remedy	Turn OFF and then ON the main power
E196	1B03	05	Title	E2PROM communication error
			Description	Command error
			Remedy	Turn OFF and then ON the main power
E196	1B04	05	Title	E2PROM communication error
			Description	Command error
			Remedy	Turn OFF and then ON the main power
E196	1BFF	05	Title	E2PROM communication error
			Description	Command error
			Remedy	Turn OFF and then ON the main power
E197	0000	05	Title	HOB communication error
			Description	HOB communication error
			Remedy	High Voltage contact point error or DC Controller PCB error When this symptom occurs regularly 1-1. Replace the DC Controller PCB (UN09) When this symptom occurs incidentally 1-2. Check the high voltage contact point and clean the Primary Transfer Roller Shaft Support 2-2. Replace the DC Controller PCB (UN09)
E197	0050	05	Title	HOB communication error
			Description	HOB communication error
			Remedy	High Voltage contact point error or DC Controller PCB error When this symptom occurs regularly 1-1. Replace the DC Controller PCB (UN09) When this symptom occurs incidentally 1-2. Check the high voltage contact point and clean the Primary Transfer Roller Shaft Support 2-2. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E202	0001	04	Title	There is an error in the detection of the CCD home position.
			Description	The attempt to detect the home position fails when the CCD is moved forward.
			Remedy	1.Disconnect and then connect the flexible cable(Relay PCB(PCB1)-Main Controller2 PCB(UN12)64Pin). 2.Replace the flexible cable. 3.Replace the CCD HP sensor(SR1). 4.Replace the Scanner Motor(M1). 5.Replace the Relay PCB(PCB1). 6.Replace the Main Controller2 PCB(UN12)
E202	0002	04	Title	There is an error in the detection of the CCD home position.
			Description	The attempt to detect the home position fails when the CCD is moved back.
			Remedy	1.Disconnect and then connect the flexible cable(Relay PCB(PCB1)-Main Controller2 PCB(UN12)64Pin). 2.Replace the flexible cable. 3.Replace the CCD HP sensor(SR1). 4.Replace the Scanner Motor(M1). 5.Replace the Relay PCB(PCB1). 6.Replace the Main Controller2 PCB(UN12)
E225	0001	04	Title	The light intensity of the CCD is faulty.
			Description	The light intensity of the CCD during shading is under the specified level.
			Remedy	1.Disconnect and then connect the flexible cable. 2.Replace the flexible cable. 3.Replace the CCD Unit. 4.Replace the Relay PCB(PCB1). 5.Replace the Main Controller2 PCB(UN12).
E227	0001	05	Title	The reader unit power supply (24V) is faulty.
			Description	At time of power-on, the 24V port is off.
			Remedy	1.Disconnect and then connect the power supply harness connector. 2.Replace the Power Supply PCB(UN1).
E227	0002	05	Title	The reader unit power supply (24V) is faulty.
			Description	At the start of a job, the 24V port is off.
			Remedy	1.Disconnect and then connect the power supply harness connector. 2.Replace the Power Supply PCB(UN1).
E227	0003	05	Title	At the end of a job, the 24V port is off.
			Description	At time of power-on,the 24V port is off.
			Remedy	1.Disconnect and then connect the power supply harness connector. 2.Replace the Power Supply PCB(UN1).

E Code	Detail Code	Location	Item	Description
E227	0004	05	Title	The reader unit power supply (24V) is faulty.
			Description	When a load is being driven, the 24V port is off.
			Remedy	1.Disconnect and then connect the power supply harness connector. 2.Replace the Power Supply PCB(UN1).
E240	0000	05	Title	Communication data error
			Description	Communication data error
			Remedy	1. Disconnect and then connect the FFC (FFC07) that is connected to the DC Controller PCB (UN09) and Main Controller PCB 2 (UN12) 2. Replace Main Controller PCB 2 (UN12) 3. Replace the DC Controller PCB (UN09)
E240	0001	05	Title	Communication data error
			Description	60 sec while waiting for a pickup request
			Remedy	1. Disconnect and then connect the FFC (FFC07) that is connected to the DC Controller PCB (UN09) and Main Controller PCB 2 (UN12) 2. Replace Main Controller PCB 2 (UN12) 3. Replace the DC Controller PCB (UN09)
E240	0002	05	Title	Communication data error
			Description	60 sec while waiting for an image output request
			Remedy	1. Disconnect and then connect the FFC (FFC07) that is connected to the DC Controller PCB (UN09) and Main Controller PCB 2 (UN12) 2. Replace Main Controller PCB 2 (UN12) 3. Replace the DC Controller PCB (UN09)
E240	0003	05	Title	Communication data error
			Description	After a paper jam, 60 sec has passed without stopping
			Remedy	1. Disconnect and then connect the FFC (FFC07) that is connected to the DC Controller PCB (UN09) and Main Controller PCB 2 (UN12) 2. Replace Main Controller PCB 2 (UN12) 3. Replace the DC Controller PCB (UN09)
E240	0004	05	Title	Communication data error
			Description	60 sec has passed while waiting for completion of the initial rotation
			Remedy	1. Disconnect and then connect the FFC (FFC07) that is connected to the DC Controller PCB (UN09) and Main Controller PCB 2 (UN12) 2. Replace Main Controller PCB 2 (UN12) 3. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E240	0005	05	Title	Communication data error
			Description	60 sec has passed while waiting for the start of auto adjustment at warm-up rotation
			Remedy	1. Disconnect and then connect the FFC (FFC07) that is connected to the DC Controller PCB (UN09) and Main Controller PCB 2 (UN12) 2. Replace Main Controller PCB 2 (UN12) 3. Replace the DC Controller PCB (UN09)
E240	0006	05	Title	Communication data error
			Description	Data access error
			Remedy	1. Disconnect and then connect the FFC (FFC07) that is connected to the DC Controller PCB (UN09) and Main Controller PCB 2 (UN12) 2. Replace Main Controller PCB 2 (UN12) 3. Replace the DC Controller PCB (UN09)
E240	0007	05	Title	Communication data error
			Description	Time notification error
			Remedy	1. Disconnect and then connect the FFC (FFC07) that is connected to the DC Controller PCB (UN09) and Main Controller PCB 2 (UN12) 2. Replace Main Controller PCB 2 (UN12) 3. Replace the DC Controller PCB (UN09)
E246	0001	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E246	0002	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E246	0003	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E246	0005	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E247	0001	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E247	0002	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E247	0003	00	Title	System error
			Description	System error
			Remedy	Contact the service company office

E Code	Detail Code	Location	Item	Description
E247	0004	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E248	0001	04	Title	EEPROM error (CCD Unit)
			Description	An error has occurred at power-on.
			Remedy	1. Disconnect and then connect the flexible cable(Relay PCB(PCB1)-Main Controller2 PCB(UN12)50pin). 2. Disconnect and then connect the flexible cable(CCD unit-Relay PCB(PCB1)). 3. Disconnect and then connect the power supply harness connector. 4. Replace the flexible cable. 5. Replace the CCD Unit. 6. Replace the Relay PCB(PCB1) 7. Replace the Power Supply PCB(PCB1). 8. Replace the Main Controller2 PCB(UN12).
E248	0002	04	Title	EEPROM error (CCD Unit)
			Description	An error has occurred during write operation.
			Remedy	1. Disconnect and then connect the flexible cable(Relay PCB(PCB1)-Main Controller2 PCB(UN12)50pin). 2. Disconnect and then connect the flexible cable(CCD unit-Relay PCB(PCB1)). 3. Disconnect and then connect the power supply harness connector. 4. Replace the flexible cable. 5. Replace the CCD Unit. 6. Replace the Relay PCB(PCB1) 7. Replace the Power Supply PCB(PCB1). 8. Replace the Main Controller2 PCB(UN12).
E248	0003	04	Title	EEPROM error (CCD Unit)
			Description	An error has occurred during read operation following write operation.
			Remedy	1. Disconnect and then connect the flexible cable(Relay PCB(PCB1)-Main Controller2 PCB(UN12)50pin). 2. Disconnect and then connect the flexible cable(CCD unit-Relay PCB(PCB1)). 3. Disconnect and then connect the power supply harness connector. 4. Replace the flexible cable. 5. Replace the CCD Unit. 6. Replace the Relay PCB(PCB1) 7. Replace the Power Supply PCB(PCB1). 8. Replace the Main Controller2 PCB(UN12).

E Code	Detail Code	Location	Item	Description
E280	0003	04	Title	Readingunit communication error
			Description	Communication error at J507 and J508 connectors of the Relay PBC(PCB1).
			Remedy	1.Disconnect and then connect the flexible cable(Relay PCB(PCB1)-Main Controller PCB(UN12) 50pin). 2.Cisconnect and then connect the flexible cable(CCD unit-Relay PCB(PCB1)). 3.Replace the flexible cable. 4.Replace the Relay PCB(PCB1). 5.Replace the Main Controller2 PCB(UN12).
E280	0004	04	Title	Readingunit communication error
			Description	Communication error at J512 conector of the Relay PBC(PCB1).
			Remedy	1.Disconnect and then connect the flexible cable(Relay PCB(PCB1)-Main Controller PCB(UN12) 50pin). 2.Replace the flexible cable. 3.Replace the Relay PCB(PCB1). 4.Replace the Main Controller2 PCB(UN12).
E315	0007	00	Title	Image process device error
			Description	JBIG encode error
			Remedy	1. Turn OFF and then ON the main power 2. Check connection of Main Controller PCB 2 3. Replace Main Controller PCB 2
E315	000d	00	Title	Image process device error
			Description	JBIG decode error
			Remedy	1. Delete the current job 2. Turn OFF and then ON the main power 3. Check connection of Main Controller PCB 2 4. Replace the DDR-SDRAM, the HDD and Main Controller PCB 2 at the same time
E315	000e	00	Title	Image process device error
			Description	Error at software decoding
			Remedy	1. Delete the current job 2. Turn OFF and then ON the main power 3. Check connection of Main Controller PCB 2 4. Replace the DDR-SDRAM, the HDD and Main Controller PCB 2 at the same time
E315	000f	00	Title	Image process device error
			Description	Error at MemoryCopy
			Remedy	1. Turn OFF and then ON the main power 2. Check connection of Main Controller PCB 2 3. Replace Main Controller PCB 2
E315	0027	00	Title	Image process device error
			Description	ROTU timeout error
			Remedy	1. Turn OFF and then ON the main power 2. Check connection of Main Controller PCB 2 3. Replace Main Controller PCB 2

E Code	Detail Code	Location	Item	Description
E315	0035	00	Title	Image process device error
			Description	MemFill timeout error
			Remedy	1. Turn OFF and then ON the main power 2. Check connection of Main Controller PCB 2 3. Replace Main Controller PCB 2
E315	0100	00	Title	Image process device error
			Description	PRIO overrun
			Remedy	1. Turn OFF and then ON the main power 2. Check connection of Main Controller PCB 2 3. Replace Main Controller PCB 2
E315	0500	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB 2 to the Reader is not received within 30 seconds.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.
E315	0501	00	Title	Device abnormal completion
			Description	An abnormal signal from the Main Controller PCB 2 to the Reader is detected.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.
E315	0510	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB 2 to the Reader is not received within 30 seconds.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.
E315	0511	00	Title	Device abnormal completion
			Description	An abnormal signal from the Main Controller PCB 2 to the Reader is detected.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.

E Code	Detail Code	Location	Item	Description
E315	0520	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB 2 to the Reader is not received within 30 seconds.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.
E315	0521	00	Title	Device abnormal completion
			Description	An abnormal signal from the Main Controller PCB 2 to the Reader is detected.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.
E315	0530	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB 2 to the Reader is not received within 30 seconds.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.
E315	0531	00	Title	Device abnormal completion
			Description	An abnormal signal from the Main Controller PCB 2 to the Reader is detected.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.
E315	0540	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB 2 to the Reader is not received within 30 seconds.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.

E Code	Detail Code	Location	Item	Description
E315	0541	00	Title	Device abnormal completion
			Description	An abnormal signal from the Main Controller PCB 2 to the Reader is detected.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.
E315	0550	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB 2 to the Reader is not received within 30 seconds.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.
E315	0551	00	Title	Device abnormal completion
			Description	An abnormal signal from the Main Controller PCB 2 to the Reader is detected.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB 2 (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB 2.
E350	0000	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E350	0001	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E350	0002	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E350	0003	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E350	3000	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E351	0000	00	Title	System error
			Description	System error
			Remedy	Turn OFF and then ON the main power
E354	0001	00	Title	System error
			Description	System error
			Remedy	Contact the service company office

E Code	Detail Code	Location	Item	Description
E354	0002	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E355	0001	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E355	0002	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E355	0003	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E355	0004	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E413	0001	04	Title	Release Motor error
			Description	Release motor HP sensor open.
			Remedy	1. Replace the Release Motor HP sensor(SR11). 2. Replace the Release Motor(M2). 3. Replace the ADF Driver PCB(PCB1).
E413	0002	04	Title	Release Motor error
			Description	Release motor HP sensor close.
			Remedy	1. Replace the Release Motor HP sensor(SR11). 2. Replace the Release Motor(M2). 3. Replace the ADF Driver PCB(PCB1).
E500	0000	05	Title	Communication error
			Description	The communication with the host machine is interrupted.
			Remedy	1. Replace the finisher controller PCB. 2. Replace the host machine DC Controller PCB.
E505	0001	05	Title	EEPROM error
			Description	The checksum for the EEPROM data has an error.
			Remedy	Replace the finisher controller PCB.
E520	0001	05	Title	Shift Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M4) Connector is physically removed. 2. Replace the Motor. 3. Check if the Shift Roller HP Sensor (S2) Connector is physically removed. 4. Replace the Shift Roller HP Sensor (S2).

E Code	Detail Code	Location	Item	Description
E520	0002	05	Title	Shift Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
E531	8001	05	Title	Stapler Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check the conditions of the parts around the Staple. 2. Check if the Motor (M10) Connector is physically removed. 3. Replace the Motor. 4. Check if the Stapler HP Sensor (S18) Connector is physically removed. 5. Replace the Stapler HP Sensor (S18).
E531	8002	05	Title	Stapler Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check the conditions of the parts around the Staple. 2. Check if the Motor (M10) Connector is physically removed. 3. Replace the Motor. 4. Check if the Stapler HP Sensor (S18) Connector is physically removed. 5. Replace the Stapler HP Sensor (S18).
E532	0001	05	Title	STP Move Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check the conditions of the parts around the Staple. 2. Check if the Motor (M1) Connector is physically removed. 3. Replace the Motor. 4. Check if the Stapler Move HP Sensor (S10) Connector is physically removed. 5. Replace the Stapler Move HP Sensor (S10).

E Code	Detail Code	Location	Item	Description
E532	0002	05	Title	STP Move Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check the conditions of the parts around the Staple. 2. Check if the Motor (M1) Connector is physically removed. 3. Replace the Motor. 4. Check if the Stapler Move HP Sensor (S10) Connector is physically removed. 5. Replace the Stapler Move HP Sensor (S10).
E540	0001	05	Title	Tray Lift Motor timeout error
			Description	Unable to complete the operation even after the specified period of time during initial rotation. When the Motor remains in the same area for the specified period of time and the same symptom occurs again after the first retry, it is detected as an error.
			Remedy	1. Check if the Motor (M11) Connector is physically removed. 2. Replace the Motor failure occurs. 3. Check if the Stack Tray Clock Sensor (S14) Connector is physically removed. 4. Replace the Stack Tray Clock Sensor (S14).
E540	0002	05	Title	Tray Lift Motor clock error
			Description	At initial rotation, when the Tray Lift Motor rotates and clock input is not detected within the specified period of time, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M11) Connector is physically removed. 2. Replace the Motor. 3. Check if the Stack Tray Clock Sensor (S14) Connector is physically removed. 4. Replace the Stack Tray Clock Sensor (S14).
E542	0001	05	Title	Additional Tray Lift Motor timeout error
			Description	Unable to complete the operation even after the specified period of time during initial rotation. When the Motor remains in the same area for the specified period of time and the same symptom occurs again after the first retry, it is detected as an error.
			Remedy	1. Check if the Motor (M12) Connector is physically removed. 2. Replace the Motor. 3. Check if the Additional Tray Clock Sensor (S23) Connector is physically removed. 4. Replace the Additional Tray Clock Sensor (S23).

E Code	Detail Code	Location	Item	Description
E542	0005	05	Title	Additional Tray Lift Motor clock error
			Description	At initial rotation, when the Tray Lift Motor rotates and clock signal is not detected within the specified period of time, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M12) Connector is physically removed. 2. Replace the Motor. 3. Check if the Additional Tray Clock Sensor (S23) Connector is physically removed. 4. Replace the Additional Tray Clock Sensor (S23).
E551	8001	05	Title	Front Fan lock error
			Description	While the front fan is rotating, this machine stops the front fan after detecting the lock signal. Then this machine retries to rotate the front fan, but lock signal is detected again, this machine displays the error.
			Remedy	1. Check the Fan (M8). 2. Replace the finisher controller PCB.
E551	8002	05	Title	Rear Fan lock error
			Description	While the rear fan is rotating, this machine stops the front fan after detecting the lock signal. Then this machine retries to rotate the rear fan, but lock signal is detected again, this machine displays the error.
			Remedy	1. Check the Fan (M9). 2. Replace the finisher controller PCB.
E567	0001	05	Title	Entrance Roller Release/Stopper HP Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M6) Connector is physically removed. 2. Replace the Motor. 3. Check if the Entrance Roller Release/Stopper HP Sensor (S5) Connector is physically removed. 4. Replace the Entrance Roller Release/Stopper HP Sensor (S5).
E567	0002	05	Title	Entrance Roller Release/Stopper HP Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M6) Connector is physically removed. 2. Replace the Motor. 3. Check if the Entrance Roller Release/Stopper HP Sensor (S5) Connector is physically removed. 4. Replace the Entrance Roller Release/Stopper HP Sensor (S5).

E Code	Detail Code	Location	Item	Description
E56F	0001	05	Title	Shift Roller Release Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry
			Remedy	1. Check if the Motor (M5) Connector is physically removed. 2. Replace the Motor. 3. Check if the Shift Roller Release Sensor (S3) Connector is physically removed. 4. Replace the Shift Roller Release Sensor (S3).
E56F	0002	05	Title	Shift Roller Release Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M5) Connector is physically removed. 2. Replace the Motor. 3. Check if the Shift Roller Release Sensor (S3) Connector is physically removed. 4. Replace the Shift Roller Release Sensor (S3).
E571	0001	05	Title	Gripper Open/Close Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M7) Connector is physically removed. 2. Replace the Motor. 3. Check if the Gripper Arm HP Sensor (S13) Connector is physically removed. 4. Replace the Gripper Unit HP Sensor (S13).
E571	0002	05	Title	Gripper Open/Close Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M7) Connector is physically removed. 2. Replace the Motor. 3. Check if the Gripper Arm HP Sensor (S13) Connector is physically removed. 4. Replace the Gripper Unit HP Sensor (S7).
E575	0001	05	Title	Gripper Unit Move Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M2) Connector is physically removed. 2. Replaec the Motor. 3. Check if the Gripper Unit HP Sensor (S7) Connector is physically removed. 4. Replace the Gripper Unit HP Sensor (S7).

E Code	Detail Code	Location	Item	Description
E575	0002	05	Title	Gripper Unit Move Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M2) Connector is physically removed. 2. Replace the Motor. 3. Check if the Gripper Unit HP Sensor (S7) Connector is physically removed. 4. Replace the Gripper Unit HP Sensor (S7).

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E Code	Detail Code	Location	Item	Description
E602	0001	00	Title	HDD detection error
			Description	HDD fails to be Ready. HDD is not formatted.
			Remedy	<p>1. Turn OFF the main power and check connection of the HDD cable. Then, turn ON the main power.</p> <p>2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0; and select and execute the following: [3]:HD-CLEAR = 1; and then turn OFF and ON the power.</p> <p>3. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>4. Replace the HDD</p> <p>5. Replace Main Controller PCB 1</p>
E602	0002	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0003	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>4. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>5. Replace the HDD</p>
E602	0012	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>4. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>5. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0013	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	1. Turn OFF and then ON the main power 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 4. Start in safe mode to format the HDD (all the data in the HDD is erased) 5. Replace the HDD
E602	0102	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 4: [1]:CHK-TYPE = 4, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased) 4. Replace the HDD
E602	0103	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	1. Turn OFF and then ON the main power 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 4: [1]:CHK-TYPE = 4, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased) 4. Replace the HDD
E602	0112	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	1. Turn OFF and then ON the main power 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 4: [1]:CHK-TYPE = 4, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased) 4. Replace the HDD

E Code	Detail Code	Location	Item	Description
E602	0113	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	1. Turn OFF and then ON the main power 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 4: [1]:CHK-TYPE = 4, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased) 4. Replace the HDD
E602	0202	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode to format the HDD (all the data in the HDD is erased) 3. Replace the HDD
E602	0203	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode to format the HDD (all the data in the HDD is erased) 3. Replace the HDD
E602	0212	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode to format the HDD (all the data in the HDD is erased) 3. Replace the HDD
E602	0213	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode to format the HDD (all the data in the HDD is erased) 3. Replace the HDD

E Code	Detail Code	Location	Item	Description
E602	0302	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0303	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0312	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0313	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0502	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0503	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0512	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0513	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0602	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0603	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0612	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0613	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0702	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0703	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0712	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0713	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0802	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0803	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0812	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0813	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0902	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0903	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	0912	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	0913	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	1002	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 6: [1]:CHK-TYPE = 6, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased) 4. Replace the HDD
E602	1003	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	1. Turn OFF and then ON the main power 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 6: [1]:CHK-TYPE = 6, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased) 4. Replace the HDD
E602	1012	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	1. Turn OFF and then ON the main power 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 6: [1]:CHK-TYPE = 6, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased) 4. Replace the HDD
E602	1013	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	1. Turn OFF and then ON the main power 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 6: [1]:CHK-TYPE = 6, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased) 4. Replace the HDD

E Code	Detail Code	Location	Item	Description
E602	1102	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased) 6. Replace the HDD
E602	1103	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	1. Turn OFF and then ON the main power 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased) 6. Replace the HDD

E Code	Detail Code	Location	Item	Description
E602	1112	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	1113	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	1202	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	1203	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	1212	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	1213	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	1302	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 7: [1]:CHK-TYPE = 7, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>4. Replace the HDD</p>
E602	1303	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 7: [1]:CHK-TYPE = 7, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>4. Replace the HDD</p>
E602	1312	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 7: [1]:CHK-TYPE = 7, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>4. Replace the HDD</p>
E602	1313	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 7: [1]:CHK-TYPE = 7, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>4. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	1402	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	1403	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	1412	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>
E602	1413	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased)</p> <p>6. Replace the HDD</p>

E Code	Detail Code	Location	Item	Description
E602	2000	00	Title	Error in authentication between the host machine and the Encryption Board
			Description	I/O error occurred in the file system after startup
			Remedy	1. After checking connection of the Encryption Board, remove and then install the board, and then turn OFF and ON the main power 2. Execute key clear by SST (to make an unformatted disc) Execute step 3 because starting an unformatted disc causes E602-0001 3. Start in safe mode and format the HDD
E604	0512	00	Title	Image memory is faulty or insufficient
			Description	0512MB memory needs to be installed (insufficient memory for the model)
			Remedy	1. Install a 0512MB or larger main memory
E604	1024	00	Title	Image memory is faulty or insufficient
			Description	1024MB memory needs to be installed (insufficient memory for the model)
			Remedy	1. Install a 1024MB or larger main memory
E604	1536	00	Title	Image memory is faulty or insufficient
			Description	1536MB memory needs to be installed (insufficient memory for the model)
			Remedy	1. Install a 1536MB or larger main memory
E611	0000	07	Title	An error code to prevent repeated resend due to power shutdown during FAX transmission
			Description	Repeated rebooting and resending in a short period of time
			Remedy	1. Clear the FAX job information Execute the following: COPIER > FUNCTION > CLEAR > FCTX-CLR 2. Turn OFF and ON the main power
E613	0512	00	Title	Image memory is faulty or insufficient
			Description	No necessary memory at Main Controller PCB 2 side
			Remedy	Make a 512MB memory at Main Controller PCB 2 side
E613	1024	00	Title	Image memory is faulty or insufficient
			Description	No necessary memory at Main Controller PCB 2 side
			Remedy	Make a 1024MB memory at Main Controller PCB 2 side
E613	1536	00	Title	Image memory is faulty or insufficient
			Description	No necessary memory at Main Controller PCB 2 side
			Remedy	Make a 1536MB memory at Main Controller PCB 2 side

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E Code	Detail Code	Location	Item	Description
E614	0001	00	Title	Flash PCB detection error
			Description	Unable to recognize the Flash PCB. The Flash PCB is not formatted.
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1
E614	0002	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1
E614	0003	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1

E Code	Detail Code	Location	Item	Description
E614	0004	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1
E614	0005	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1
E614	0006	00	Title	Error in file system on the Flash PCB
			Description	Bootable is not found on the Flash PCB.
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1

E Code	Detail Code	Location	Item	Description
E614	0007	00	Title	Error in file system on the Flash PCB
			Description	The ICC Profile is not found on the Flash PCB.
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1
E614	0008	00	Title	Error in file system on the Flash PCB
			Description	Thai font is not found on the Flash PCB.
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1
E614	0009	00	Title	Error in file system on the Flash PCB
			Description	The font for Print Report is not found on the Flash PCB.
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1

E Code	Detail Code	Location	Item	Description
E614	0010	00	Title	Error in file system on the Flash PCB
			Description	Simplified Chinese, Hangul, and traditional Chinese fonts are not found on the Flash PCB.
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1
E614	0011	00	Title	Error in file system on the Flash PCB
			Description	Simplified Chinese, Hangul, and traditional Chinese fonts are not found on the Flash PCB.
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1
E614	0012	00	Title	Error in file system on the Flash PCB
			Description	The web browser archive is not found on the Flash PCB.
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1

E Code	Detail Code	Location	Item	Description
E614	0013	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB 5. Replace Main Controller PCB 1
E614	0102	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	0103	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	0112	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1

E Code	Detail Code	Location	Item	Description
E614	0113	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	0202	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	0203	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	0212	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	0213	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1

E Code	Detail Code	Location	Item	Description
E614	0302	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	0303	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	0312	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	0313	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1

E Code	Detail Code	Location	Item	Description
E614	0502	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 5: [1]:CHK-TYPE = 5, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB 6. Replace Main Controller PCB 1
E614	0503	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	1. Turn OFF and then ON the main power 2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 5: [1]:CHK-TYPE = 5, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB 6. Replace Main Controller PCB 1

E Code	Detail Code	Location	Item	Description
E614	0512	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>
E614	0513	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>

E Code	Detail Code	Location	Item	Description
E614	0602	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>
E614	0603	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>

E Code	Detail Code	Location	Item	Description
E614	0612	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>
E614	0613	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>

E Code	Detail Code	Location	Item	Description
E614	0702	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>
E614	0703	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>

E Code	Detail Code	Location	Item	Description
E614	0712	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 1: [1]:CHK-TYPE = 1, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>
E614	0713	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 1: [1]:CHK-TYPE = 1, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>

E Code	Detail Code	Location	Item	Description
E614	0802	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>
E614	0803	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>

E Code	Detail Code	Location	Item	Description
E614	0812	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>
E614	0813	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>

E Code	Detail Code	Location	Item	Description
E614	0902	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>3. Replace the Flash PCB and install the system using SST or USB</p> <p>4. Replace Main Controller PCB 1</p>
E614	0903	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>3. Replace the Flash PCB and install the system using SST or USB</p> <p>4. Replace Main Controller PCB 1</p>
E614	0912	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>3. Replace the Flash PCB and install the system using SST or USB</p> <p>4. Replace Main Controller PCB 1</p>
E614	0913	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>3. Replace the Flash PCB and install the system using SST or USB</p> <p>4. Replace Main Controller PCB 1</p>

E Code	Detail Code	Location	Item	Description
E614	1002	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>
E614	1003	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>

E Code	Detail Code	Location	Item	Description
E614	1012	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>
E614	1013	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased) Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>

E Code	Detail Code	Location	Item	Description
E614	1102	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	1103	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	1112	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1
E614	1113	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	1. Turn OFF and then ON the main power 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB 4. Replace Main Controller PCB 1

E Code	Detail Code	Location	Item	Description
E614	1202	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF and then ON the main power 2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased) Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB 6. Replace Main Controller PCB 1
E614	1203	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	1. Turn OFF and then ON the main power 2. Initialize the corresponding partition (all the data in the corresponding partition is erased) Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased) Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB 6. Replace Main Controller PCB 1

E Code	Detail Code	Location	Item	Description
E614	1212	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased)</p> <p>Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased)</p> <p>Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>
E614	1213	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased)</p> <p>Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased)</p> <p>Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB</p> <p>6. Replace Main Controller PCB 1</p>
E614	4000	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Check the cable or the power connector</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>

E Code	Detail Code	Location	Item	Description
E614	4001	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<p>1. Check the cable or the power connector</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>
E614	4002	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Check the cable or the power connector</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>
E614	4003	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	<p>1. Check the cable or the power connector</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>
E614	4010	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Check the cable or the power connector</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>
E614	4011	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<p>1. Check the cable or the power connector</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>

E Code	Detail Code	Location	Item	Description
E614	4012	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Check the cable or the power connector 2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power. 3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.
E614	9000	00	Title	Error in file system on the Flash PCB
			Description	SRAM device access-related error
			Remedy	1. Check the cable or the power connector 2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power. 3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.
E614	9001	00	Title	Error in file system on the Flash PCB
			Description	Error in securing memory/invalid memory
			Remedy	1. Check the cable or the power connector 2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power. 3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.
E614	9002	00	Title	Error in file system on the Flash PCB
			Description	Setting file error
			Remedy	1. Check the cable or the power connector 2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power. 3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.
E614	9003	00	Title	Error in file system on the Flash PCB
			Description	Parameter error
			Remedy	1. Check the cable or the power connector 2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power. 3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.

E Code	Detail Code	Location	Item	Description
E614	9004	00	Title	Error in file system on the Flash PCB
			Description	Startup error
			Remedy	1. Check the cable or the power connector 2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power. 3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.
E674	0001	07	Title	FAX Board communication error
			Description	The specified number of errors was detected with FAX Board communication
			Remedy	Note: Note: For the part described as the Main Control PCB, it indicates Main Controller PCB 2 when the FAX Board is for 1 line, and Main Controller PCB 1 when the FAX Board is for 2 lines. 1. Check wire connection between the FAX Board and the Main Controller PCB 2. Replace the FAX Board 3. Replace the Main Controller PCB
E674	0004	07	Title	FAX Board communication error
			Description	Error in access of the modem IC used by FAX
			Remedy	Note: Note: For the part described as the Main Control PCB, it indicates Main Controller PCB 2 when the FAX Board is for 1 line, and Main Controller PCB 1 when the FAX Board is for 2 lines. 1. Check wire connection between the FAX Board and the Main Controller PCB 2. Replace the FAX Board 3. Replace the Main Controller PCB
E674	0008	07	Title	FAX Board communication error
			Description	Error in access of the port IC used by OnBoardFax
			Remedy	Note: Note: For the part described as the Main Control PCB, it indicates Main Controller PCB 2 when the FAX Board is for 1 line, and Main Controller PCB 1 when the FAX Board is for 2 lines. 1. Check wire connection between the FAX Board and the Main Controller PCB 2. Replace the FAX Board 3. Replace the Main Controller PCB

E Code	Detail Code	Location	Item	Description
E674	000C	07	Title	FAX Board communication error
			Description	An error was detected in access of the modem IC or port IC used by Fax
			Remedy	Note: Note: For the part described as the Main Control PCB, it indicates Main Controller PCB 2 when the FAX Board is for 1 line, and Main Controller PCB 1 when the FAX Board is for 2 lines. 1. Check wire connection between the FAX Board and the Main Controller PCB 2. Replace the FAX Board 3. Replace the Main Controller PCB
E674	0010	07	Title	FAX Board communication error
			Description	Error in timer device to be used by FAX at activation
			Remedy	Note: For the part described as the Main Control PCB, it indicates Main Controller PCB 2 when the FAX Board is for 1 line, and Main Controller PCB 1 when the FAX Board is for 2 lines. Replace the Main Controller PCB
E674	0011	07	Title	FAX Board communication error
			Description	Error when the timer device to be used by FAX is started
			Remedy	Note: For the part described as the Main Control PCB, it indicates Main Controller PCB 2 when the FAX Board is for 1 line, and Main Controller PCB 1 when the FAX Board is for 2 lines. Replace the Main Controller PCB
E674	0100	07	Title	FAX Board communication error
			Description	After completion of fax communication, writing of the communication information (log) failed, and the log cannot be read.
			Remedy	Turn OFF and then ON the power. (Points to note) All the previous communication information will be cleared.
E674	0200	07	Title	HDD access error
			Description	An error occurred when accessing the HDD.
			Remedy	1. Turn OFF and then ON the power. 2. System all format and installation 3. Replace the HDD. 4. Replace the Main Controller PCB 2.
E674	0030	07	Title	FAX Board communication error
			Description	Checksum error of USB-FAX MAINROM
			Remedy	When the power is turned ON, get in the download mode from service mode to execute downloading of USBFAX MAINROM

E Code	Detail Code	Location	Item	Description
E677	0003	00	Title	Print server error
			Description	Error is detected by checking of the mother board at startup of the print server
			Remedy	1. Check cable connection and turn ON the power again 2. Reinstall the printer server
E710	0001	05	Title	IPC initialization error
			Description	Unable to be ready within 3 sec after IPC chip was started
			Remedy	Check the connection cable between the DC Controller PCB and the Finisher
E711	0001	05	Title	IPC register error
			Description	4 or more errors are set to the error register of the IPC chip in 1.5 sec
			Remedy	Check the connection cable between the DC Controller PCB and the Finisher
E713	0001	05	Title	Finisher communication error 1
			Description	Continuous interruption to RX communication from the Finisher (Finisher down is detected)
			Remedy	Turn OFF and then ON the main power
E713	0002	05	Title	Finisher communication error 2
			Description	A large amount of data from the Finisher causes data overflow
			Remedy	Turn OFF and then ON the main power
E713	0003	05	Title	Finisher communication error 3
			Description	A large amount of data from the Finisher causes the reception buffer overflow
			Remedy	Turn OFF and then ON the main power
E713	0004	05	Title	Finisher communication error 4
			Description	OFF detection of detect signal
			Remedy	Turn OFF and then ON the main power
E713	0005	05	Title	Finisher communication error 5
			Description	(1) Fails to receive the signal although retransmission is executed for 3 times. (2) This error occurs also when the Finisher is removed. * Detection description (2) occurs only in the case of Cont v28.30/Dcon v54.02 or earlier.
			Remedy	Turn OFF and then ON the main power
E713	0006	05	Title	Finisher communication error 6
			Description	NACK reception for 3 times straight
			Remedy	Turn OFF and then ON the main power
E713	0007	05	Title	Finisher communication error 7
			Description	Overflow of driver buffer due to many requests from the upper task before the process of the driver
			Remedy	Turn OFF and then ON the main power

E Code	Detail Code	Location	Item	Description
E713	0008	05	Title	Removing the Finisher
			Description	Removal of the Finisher from the host machine was detected.
			Remedy	Turn OFF and then ON the main power. *It occurs Cont v29.04, Dcon v55.08 and later.
E719	0001	00	Title	Coin vendor error
			Description	Error when the coin vendor is started - The Coin Vendor, which must have been connected before the power was turned OFF, is not connected when the power is turned ON
			Remedy	Check cable connection between the charging management equipment and the host machine While the charging management equipment is connected for operation, clear the error in the case of switching to the operation without the charging management equipment (To prevent a misuse by removing the charging management equipment, this error code is displayed)
E719	0002	00	Title	Coin vendor error
			Description	IPC error at coin vendor 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
			Remedy	Check cable connection between the charging management equipment and the host machine While the charging management equipment is connected for operation, clear the error in the case of switching to the operation without the charging management equipment (To prevent a misuse by removing the charging management equipment, this error code is displayed)
E719	0003	00	Title	Coin vendor error
			Description	- Communication error with the coin manager occurs during unit price acquisition at startup.
			Remedy	Check cable connection between the charging management equipment and the host machine While the charging management equipment is connected for operation, clear the error in the case of switching to the operation without the charging management equipment (To prevent a misuse by removing the charging management equipment, this error code is displayed)
E719	0004		Title	Coin vendor error
			Description	The coin vendor was connected to a model that does not support the coin vendor
			Remedy	1. Disconnect the coin vendor

E Code	Detail Code	Location	Item	Description
E719	0011	00	Title	Coin vendor error
			Description	Error when the NewCardReader is started - The NewCardReader, which must have been connected before the power was turned OFF, is not connected when the power is turned ON)
			Remedy	Check cable connection between the charging management equipment and the host machine While the charging management equipment is connected for operation, clear the error in the case of switching to the operation without the charging management equipment (To prevent a misuse by removing the charging management equipment, this error code is displayed)
E719	0012	00	Title	Coin vendor error
			Description	IPC error at NewCardReader operation Open circuit of IPC, unable to recover the IPC communication
			Remedy	Check cable connection between the charging management equipment and the host machine While the charging management equipment is connected for operation, clear the error in the case of switching to the operation without the charging management equipment (To prevent a misuse by removing the charging management equipment, this error code is displayed)
E719	0031	00	Title	Serial communication error when the NewCardReader is started
			Description	Unable to start communication with the Serial NewCardReader at startup
			Remedy	1. Check if the cable of Serial NewCardReader is open circuit 2. Remove the Serial NewCardReader COPIER > Function > CLEAR > CARD COPIER > Function > CLEAR > ERR
E719	0032	00	Title	Serial communication error after the NewCardReader was started
			Description	Although communication with the Card Reader was possible at startup, it became unavailable in the middle of communication
			Remedy	Check if the NewCardReader cable is open circuit
E730	1001	00	Title	PDL software error
			Description	Initialization error
			Remedy	1. PDL reset processing (user mode > function settings > printer > printer settings > utility > Reset Printer) 2. Turn OFF and then ON the power

E Code	Detail Code	Location	Item	Description
E730	100A	00	Title	PDL software error
			Description	Systematic fatal error occurs
			Remedy	1. PDL reset processing (user mode > function settings > printer > printer settings > utility > Reset Printer) 2. Turn OFF and then ON the power
E730	A006	00	Title	PDL communication error
			Description	No reply from PDL. No reply from PDL due to failure or absence of the controller firmware
			Remedy	1. PDL reset processing (user mode > function settings > printer > printer settings > utility > Reset Printer) 2. Turn OFF and then ON the power 3. Check connection of Main Controller PCB 2 4. Reinstall the controller firmware 5. Replace Main Controller PCB 1
E730	A007	00	Title	Mismatched PDL version
			Description	Mismatch in version of the control software between the host machine and the PDL
			Remedy	System all format and installation
E730	B013	00	Title	PDL embedded font error
			Description	Broken font data
			Remedy	1. Turn OFF and then ON the power 2. Reinstall the system using SST or USB 3. System all format and reinstall the system using SST or USB
E730	C000	00	Title	Initialization error
			Description	An error, such as failure in memory retrieval at startup, occurs
			Remedy	System all format and installation Replace Main Controller PCB 1
E730	C001	00	Title	HDD access error
			Description	An error occurs when accessing to the HDD
			Remedy	1. Start in safe mode to format the HDD (all the data in the HDD is erased) 2. Replace the HDD 3. Replace Main Controller PCB 2 4. Replace Main Controller PCB 1
E731	3000	00	Title	Error in Main Controller PCB 2
			Description	Unable to recognize the Surf board
			Remedy	1. Check connection of Main Controller PCB 2 2. Replace Main Controller PCB 2 3. Replace Main Controller PCB 1
E731	3001	00	Title	Error in Main Controller PCB 2
			Description	Failure in Surf initialization
			Remedy	1. Check connection of Main Controller PCB 2 2. Replace Main Controller PCB 2 3. Replace Main Controller PCB 1

E Code	Detail Code	Location	Item	Description
E731	3002	00	Title	Error in Main Controller PCB 2
			Description	Failure in Surf initialization
			Remedy	1. Check connection of Main Controller PCB 2 2. Replace Main Controller PCB 2 3. Replace Main Controller PCB 1
E731	3015	00	Title	Error in Main Controller PCB 2
			Description	Although it works normally at the software side, there is no video data into CL1-G
			Remedy	1. Check connection of Main Controller PCB 2 2. Replace Main Controller PCB 2 3. Replace Main Controller PCB 1
E732	0001	00	Title	Scanner communication error
			Description	DDI-S communication error
			Remedy	1. Check the connector connection with the scanner 2. Check the power of the scanner > Is initialization executed at startup? 3. Replace the Reader Controller PCB, the Scanner PCB or Main Controller PCB 2
E732	0010	00	Title	Scanner communication error
			Description	Vertical Synchronizing signal detection error
			Remedy	1. Check the connector connection with the scanner 2. Check the power of the scanner > Is initialization executed at startup? 3. Replace the Reader Relay PCB, the Scanner PCB or Main Controller PCB 2
E732	9999	00	Title	Scanner communication error
			Description	When a scanner is detected from the printer model for the first time (It is recorded in the history, but "Turn OFF and then ON the power again" is displayed on the UI.)
			Remedy	1. Turn OFF and then ON the power
E732	FFFF	00	Title	Scanner communication error
			Description	A network communication error in a development environment is detected.
			Remedy	1. Checking network connection 2. Turn OFF and then ON the main power.
E733	0000	00	Title	Printer communication error
			Description	A communication error between the DC Controller PCB and the Main Controller PCB 2 is detected at startup.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Flexible Cable between the DC Controller PCB (UN9) and the Main Controller PCB 2. 3. Replace the Flexible Cable. 4. Check the power of the DC Controller PCB (UN9). (Check if the initialization operation is executed at startup.) 5. Replace the DC Controller PCB (UN9). 6. Replace the Main Controller PCB 2.

E Code	Detail Code	Location	Item	Description
E733	0001	00	Title	Printer communication error
			Description	A communication error between the DC Controller PCB and the Main Controller PCB 2 is detected at startup.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Flexible Cable between the DC Controller PCB (UN9) and the Main Controller PCB 2. 3. Replace the Flexible Cable. 4. Check the power of the DC Controller PCB (UN9). (Check if the initialization operation is executed at startup.) 5. Replace the DC Controller PCB (UN9). 6. Replace the Main Controller PCB 2.
E733	0005	00	Title	Printer communication error
			Description	A communication error between the DC Controller PCB and the Main Controller PCB 2 is detected at startup.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Flexible Cable between the DC Controller PCB (UN9) and the Main Controller PCB 2. 3. Replace the Flexible Cable. 4. Check the power of the DC Controller PCB (UN9). (Check if the initialization operation is executed at startup.) 5. Replace the DC Controller PCB (UN9). 6. Replace the Main Controller PCB 2.
E733	0006	00	Title	Printer communication error
			Description	A communication error between the DC Controller PCB and the Main Controller PCB 2 is detected at startup.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Flexible Cable between the DC Controller PCB (UN9) and the Main Controller PCB 2. 3. Replace the Flexible Cable. 4. Check the power of the DC Controller PCB (UN9). (Check if the initialization operation is executed at startup.) 5. Replace the DC Controller PCB (UN9). 6. Replace the Main Controller PCB 2.
E733	9999	00	Title	Printer communication error
			Description	A communication error between the DC Controller PCB and the Main Controller PCB 2 is detected at startup.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Flexible Cable between the DC Controller PCB (UN9) and the Main Controller PCB 2. 3. Replace the Flexible Cable. 4. Check the power of the DC Controller PCB (UN9). (Check if the initialization operation is executed at startup.) 5. Replace the DC Controller PCB (UN9). 6. Replace the Main Controller PCB 2.

E Code	Detail Code	Location	Item	Description
E733	F000	00	Title	Printer communication error
			Description	A communication error between the DC Controller PCB and the Main Controller PCB 2 is detected at startup.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Flexible Cable between the DC Controller PCB (UN9) and the Main Controller PCB 2. 3. Replace the Flexible Cable.
E740	0002	00	Title	Ethernet Board error
			Description	Invalid MAC address
			Remedy	1. Replace the LAN card
E740	0003	00	Title	Ethernet Board error
			Description	Invalid MAC address
			Remedy	1. Replace the LAN card
E743	0000	00	Title	DDI communication error
			Description	SCI error, reception data NG, reception timeout, SEQ timeout error
			Remedy	1. Turn OFF and then ON the power 2. Check connection of the cable between the Reader and the Controller 3. Check voltage (+24V and +12V) on the Reader Controller PCB 4. Replace the DDI-S cable 5. Replace the Reader Controller PCB 6. Replace Main Controller PCB 2
E744	0001	00	Title	Language file error
			Description	Mismatch between the language version in the Flash PCB and the Bootable version
			Remedy	Use SST or USB memory to reinstall the correct language file. Or reinstall the entire software.
E744	0002	00	Title	Language file error
			Description	Too large language size in the Flash PCB
			Remedy	Format the Flash PCB and reinstall the system because more than necessary language files may have been installed
E744	0003	00	Title	Language file error
			Description	Unable to find the language described in Config.txt in the Flash that should be switched
			Remedy	Reinstall the system
E744	0004	00	Title	Language file error
			Description	Unable to switch to the language in the Flash PCB
			Remedy	Use SST or USB to reinstall the system
E744	2000	00	Title	System error
			Description	System error
			Remedy	Contact the service company office

E Code	Detail Code	Location	Item	Description
E746	0021	00	Title	Engine ID error
			Description	Self-check error of Image Analysis Board (HW board used for PCAM)
			Remedy	1. Replace the Image Analysis Board (HW board used for PCAM) 2. As a temporary measure, remove the Image Analysis Board and get in service mode: COPIER > OPTION > LCNS-TR > ST-JBLK (Lv2); set ST-JBLK from 1 to 0, and turn OFF and then ON the power
E746	0022	00	Title	Engine ID error
			Description	Wrong version of Image Analysis Board
			Remedy	1. Update the firmware of the Image Analysis Board 2. As a temporary measure, remove the Image Analysis Board and get in service mode: COPIER > OPTION > LCNS-TR > ST-JBLK (Lv2); set ST-JBLK from 1 to 0, and turn OFF and then ON the power
E746	0023	00	Title	Engine ID error
			Description	No reply from the Image Analysis Board
			Remedy	1. Check if the Image Analysis Board is correctly installed 2. Turn OFF and then ON the power 3. If the problem is not fixed, replace the Option Board. 4. As a temporary measure, remove the Image Analysis Board and get in service mode: COPIER > OPTION > LCNS-TR > ST-JBLK (Lv2); set ST-JBLK from 1 to 0, and turn OFF and then ON the power
E746	0024	00	Title	Engine ID error
			Description	Operation error of the Image Analysis Board
			Remedy	1. Turn OFF and then ON the power 2. If the problem is not fixed, replace the Image Analysis Board. 3. As a temporary measure, remove the Image Analysis Board and get in service mode: (Lv2) COPIER > OPTION > LCNS-TR > ST-JBLK ; set ST-JBLK from 1 to 0, and turn OFF and then ON the power
E746	0031	00	Title	Engine ID error
			Description	Hardware error
			Remedy	1. Turn OFF and then ON the power 2. Replace the TPM PCB
E746	0032	00	Title	Engine ID error
			Description	TPM key mismatch
			Remedy	Format the system Use SST or USB memory to format the HDD, and then execute downloading of the system software. See Chapter 6 Upgrading for details. For reference, the method using USB memory is shown below: 1. Prepare USB memory in which the system software was registered

E Code	Detail Code	Location	Item	Description
E746	0033	00	Title	Engine ID error
			Description	Mismatched data in the TPM
			Remedy	Recovery is available if backup of the TPM has been executed 1. Connect the USB memory in which the TPM key is saved 2. Management Settings > Data Management > TPM Settings; click [Restore TPM key] 3. Enter the password that was specified at the time of backup work 4. Once the restore completion screen is displayed, click [OK] and remove the USB memory, and then turn OFF and ON the main power switch. When backup of the TPM key is not executed System format is necessary Use SST or USB memory to format the HDD, and then download the system software
E746	0034	00	Title	TPM auto recovery error
			Description	An error occurs when clearing the HDD while the TPM setting is ON
			Remedy	The symptom is recovered by turning OFF and then ON the power
E746	0035	00	Title	TPM version error
			Description	TPM which cannot be used in this machine was installed.
			Remedy	Install the supported TPM.
E747	1201	00	Title	PDL rendering error
			Description	Image processing IC error
			Remedy	1. Turn OFF and then ON the power (send the data to Inc because running the data which generated an error code causes another error code) 2. Replace Main Controller PCB 2
E748	2010	00	Title	Flash PCB error
			Description	Unable to find IPL (startup program)
			Remedy	Replace the Flash PCB and install the system using SST or USB
E748	2021	00	Title	Main Controller PCB 2 access error
			Description	Necessary H/W on Main Controller PCB 2 is not detected
			Remedy	1. Clean the terminal of Main Controller PCB 2, and remove and then install Main Controller PCB 2 2. Clean the terminal of Main Controller PCB 1, and remove and then install Main Controller PCB 1 3. Replace Main Controller PCB 2

E Code	Detail Code	Location	Item	Description
E748	2023	00	Title	Main Controller PCB 2 access error
			Description	Unable to initialize memory DDR2-SDRAM at the Main Controller PCB 2 side
			Remedy	1. Clean the terminal of DDR2-SDRAM, and remove and then install the DDR2-SDRAM 2. Replace the DDR2-SDRAM
E748	2024	00	Title	Main Controller PCB 2 access error
			Description	The CPU at the Main Controller PCB 2 side failed to complete initialization
			Remedy	1. Clean the terminal of DDR2-SDRAM, and remove and then install the DDR2-SDRAM 2. Check power state of Main Controller PCB 2 and check around the connector 3. Replace Main Controller PCB 2 4. Replace Main Controller PCB 1
E748	9000	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E749	0002	00	Title	Rebooting instruction due to change of MEAP configuration
			Description	There is a change in configuration that requires turning OFF and then ON the power
			Remedy	The symptom is recovered by turning OFF and then ON the power
E749	0003	00	Title	Booting instruction due to change in mAccele configuration
			Description	There is a change in configuration that requires turning OFF and then ON the power
			Remedy	The symptom is recovered by turning OFF and then ON the power
E749	0005	00	Title	Booting instruction due to change in hardware configuration
			Description	There is a change in configuration that requires turning OFF and then ON the power
			Remedy	The symptom is recovered by turning OFF and then ON the power
E750	0013	05	Title	Mismatch between the DC Controller PCB and the Driver PCB
			Description	Error in combination of the software of the DC Controller PCB with the electrical circuit
			Remedy	This symptom occurs when updating the software that does not match with the DC Controller PCB 1. Check the downloaded software and then execute downloading again 2. Replace the DC Controller PCB (UN09)

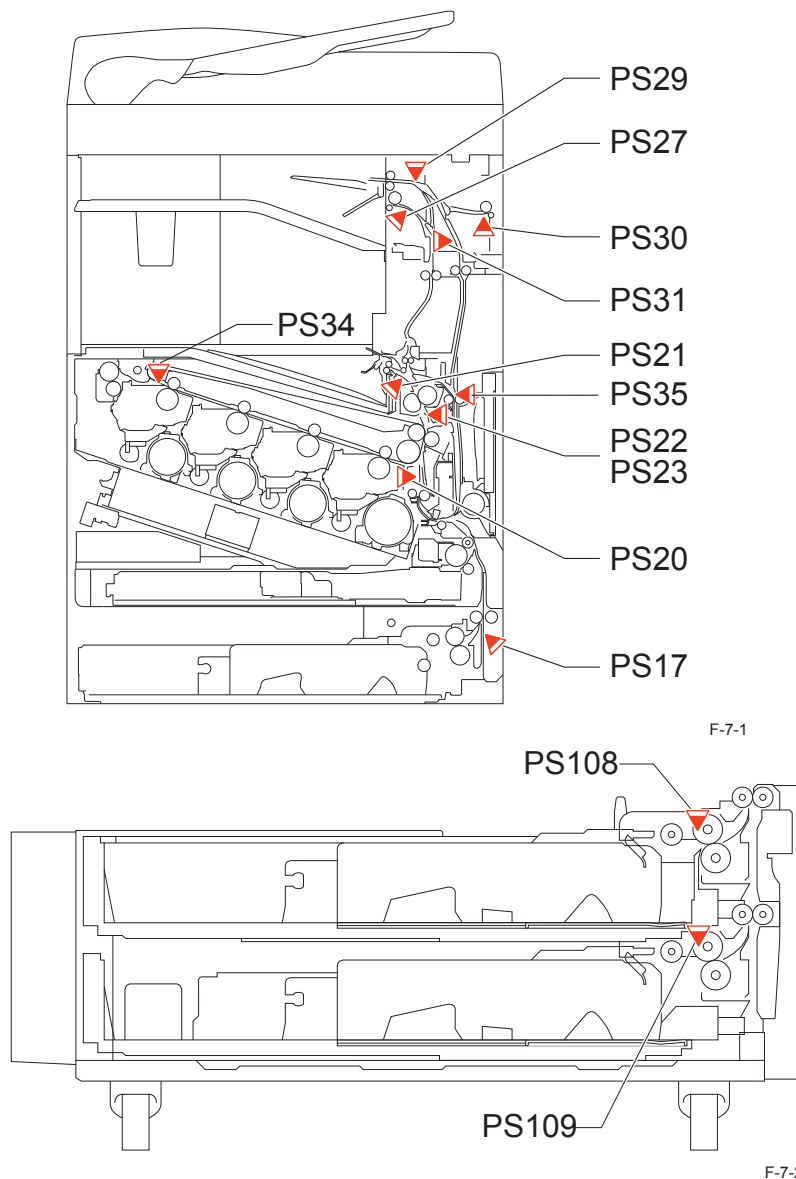
E Code	Detail Code	Location	Item	Description
E753	0001	00	Title	Downloading error
			Description	Firmware update error This symptom occurs when trying to update the firmware of an option that is not installed
			Remedy	1. Check the log to identify the location of the download error Check if the target option is installed When the target option is not installed: -> The symptom is recovered by turning OFF and then ON the power (because there is nothing to update) When the target option is installed: -> 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.
E804	0000	00	Title	Power Supply Cooling Fan error
			Description	Lock of the Power Supply Cooling Fan is detected
			Remedy	1. Check power supply to the Power Supply Cooling Fan (FM1) 2. Replace the Power Supply Cooling Fan
E806	0001	05	Title	Error detection of 3 Way Unit Cooling Fan
			Description	When lock of the 3 Way Unit Cooling Fan was detected out for 15 sec
			Remedy	The Fan is physically locked or failed, or electrical trouble 1. COPIER > FUNCTION > PART-CHK > FAN; and then move FM04 When the 3 Way Unit Cooling Fan (FM04) works 2-1. Check the harness/connector between the DC Controller PCB (UN09) and the 3 Way Unit Cooling Fan (FM04) 3-1. Replace the 3 Way Unit Cooling Fan (FM04) 4-1. Replace the DC Controller PCB (UN09) When the 3 Way Unit Cooling Fan (FM04) does not work 2-2. Turn the 3 Way Unit Cooling Fan (FM04) with your hand to check for rotation of the fan 3-2. Check the harness/connector between the DC Controller PCB (UN09) and the 3 Way Unit Cooling Fan (FM04) 2. Check conduction of FU11 in the DC Controller PCB (UN09) When the fuse is blown out 5-2-1. Replace the DC Controller PCB (UN09) When the fuse is not blown out 5-2-2. Replace the 3 Way Unit Cooling Fan (FM04) 6-2-2. Replace the DC Controller PCB (UN09)

E Code	Detail Code	Location	Item	Description
E807	0001	05	Title	Error detection of Drum Unit Cooling Fan
			Description	Lock of the Drum Unit Cooling Fan was detected out for 15 sec
			Remedy	The Fan is physically locked or failed, or electrical trouble 1.COPIER > FUNCTION > PART-CHK > FAN; and then move FM07 When the Drum Unit Cooling Fan (FM07) works 2-1. Check the harness/connector between the DC Controller PCB (UN09) and the Drum Unit Cooling Fan (FM07) 3-1. Replace the Drum Unit Cooling Fan (FM07) 4-1. Replace the DC Controller PCB (UN09) When the Drum Unit Cooling Fan (FM07) does not work 2-2. Turn the Drum Unit Cooling Fan (FM07) with your hand to check for rotation of the fan 3-2. Check the harness/connector between the DC Controller PCB (UN09) and the Drum Unit Cooling Fan (FM07) 4-2. Check conduction of FU9 in the DC Controller PCB (UN09) When the fuse is blown out 5-2-1. Replace the DC Controller PCB (UN09) When the fuse is not blown out 5-2-2. Replace the Drum Unit Cooling Fan (FM07) 6-2-2. Replace the DC Controller PCB (UN09)
E808	0001	05	Title	Zero cross signal detection error
			Description	Unable to detect 43 to 57Hz for 5000 msec or longer at the start of zero cross detection
			Remedy	Electrical trouble with failed zero cross signal 1. Check failure between the AC Driver PCB (UN14/ J122) and the DC Controller PCB (UN09/ J10). (trapped cable, open circuit, connector disconnection) -> Replace the part in the case of trapped cable/open circuit 2. Replace the AC Driver PCB (UN14) 3. Replace the DC Controller PCB (UN09) 4. Check the power supply condition at the customer site. When it is below 43 to 57Hz, ask for a construction work.

E Code	Detail Code	Location	Item	Description
E808	0002	05	Title	Zero cross signal detection error
			Description	Unable to detect 43 to 57Hz for 500 msec or longer after confirmation of a zero cross cycle
			Remedy	Electrical trouble with failed zero cross signal 1. Check failure between the AC Driver PCB (UN14/ J122) and the DC Controller PCB (UN09/ J10). (trapped cable, open circuit, connector disconnection) -> Replace the part in the case of trapped cable/open circuit 2. Replace the AC Driver PCB (UN14) 3. Replace the DC Controller PCB (UN09) 4. Check the power supply condition at the customer site. When it is below 43 to 57Hz, ask for a construction work.
E880	0001	00	Title	Controller Fan error
			Description	Lock of Controller Fan is detected
			Remedy	Check if the connector is connected If the connector is OK, replace Controller Fan (FM13)
E996	0CA1	05	Title	Frequent error avoidance jam (PRINTER)
			Description	Frequent error avoidance jam (PRINTER)
			Remedy	Make "000CA1" jam to be displayed as an error by setting JM-ERR-D in service mode. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-D, and set JM-ERR-D to 0.
E996	0CA2	05	Title	Frequent error avoidance jam (PRINTER)
			Description	Frequent error avoidance jam (PRINTER)
			Remedy	Make "000CA2" jam to be displayed as an error by setting JM-ERR-D in service mode. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-D, and set JM-ERR-D to 0.
E996	0CA3	05	Title	Frequent error avoidance jam (PRINTER)
			Description	Frequent error avoidance jam (PRINTER)
			Remedy	Make "000CA3" jam to be displayed as an error by setting JM-ERR-D in service mode. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-D, and set JM-ERR-D to 0.
E996	0CAF	05	Title	Frequent error avoidance jam (PRINTER)
			Description	Frequent error avoidance jam (PRINTER)
			Remedy	Make "000CAF" jam to be displayed as an error by setting JM-ERR-D in service mode. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-D, and set JM-ERR-D to 0.

Jam Code

image RUNNER ADVANCE C2030/C2025/C2020



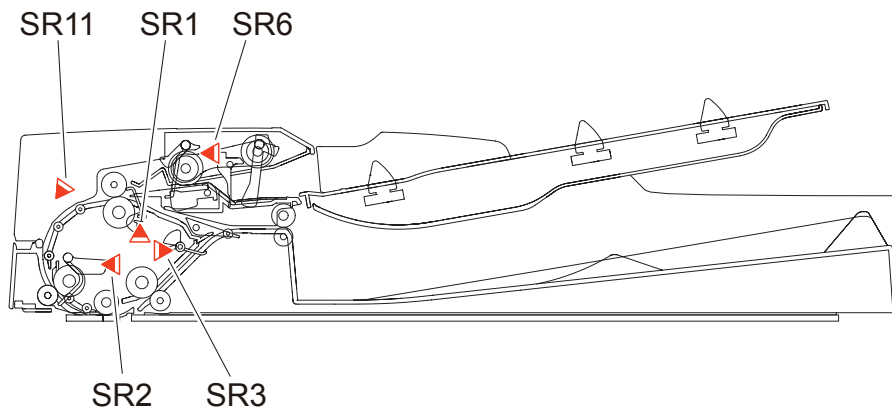
ACC ID	Jam Code	Type	Sensor Name	Sensor ID
00	0102	Delay	Cassette 2 Vertical Path Sensor	PS17
00	0103	Delay	Cassette 3 Vertical Path Sensor	PS108
00	0104	Delay	Cassette 4 Vertical Path Sensor	PS109
00	0105	Delay	Registration Sensor	PS20
00	010A	Delay	First Delivery Sensor	PS21
00	010B	Delay	Second Delivery Sensor	PS27
00	010C	Delay	Third Delivery Sensor	PS30
00	010D	Delay	Reverse Sensor	PS29
00	010E	Delay	Duplex Sensor	PS31
00	0205	Stationary	Registration Sensor	PS20
00	020A	Stationary	First Delivery Sensor	PS21
00	020B	Stationary	Second Delivery Sensor	PS27
00	020C	Stationary	Third Delivery Sensor	PS30
00	070A	Wrap	First Delivery Sensor	PS21
00	0A02	Power ON	Cassette 2 Vertical Path Sensor	PS17
00	0A03	Power ON	Cassette 3 Vertical Path Sensor	PS108
00	0A04	Power ON	Cassette 4 Vertical Path Sensor	PS109
00	0A05	Power ON	Registration Sensor	PS20
00	0A08	Power ON	Arch Sensor 1	PS22
00	0A09	Power ON	Arch Sensor 2	PS23
00	0A0A	Power ON	First Delivery Sensor	PS21
00	0A0B	Power ON	Second Delivery Sensor	PS27
00	0A0C	Power ON	Third Delivery Sensor	PS30
00	0A0D	Power ON	Reverse Sensor	PS29
00	0A0E	Power ON	Duplex Sensor	PS31
00	0B00	Door Open	Front Cover Sensor	PS41
00	0B01	Door Open	Right Door Sensor	PS41
00	0CA1	Error *1	-	-
00	0CA2	Sequence *2	-	-
00	0CA3	Sequence *2	-	-
00	0CF1	Retry Error*1	-	-
00	0D91	Size Error	Registration Sensor	PS20
00	0D92	Media Error	-	-
00	0D93	Media Error	-	-
00	0D94	Size Error	Registration Sensor	PS20

*1 The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.

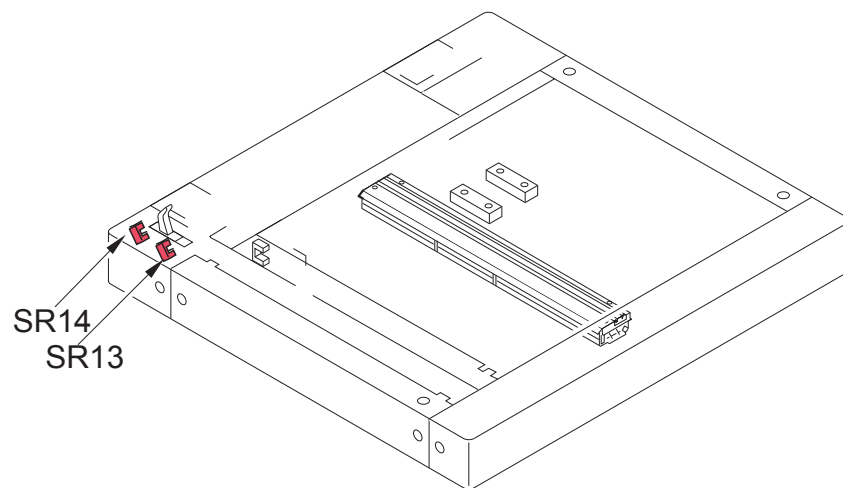
If the same jam is detected regardless of the operation above, the error code is displayed.

*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.

Color Image Reader Unit-D1/D2



F-7-3



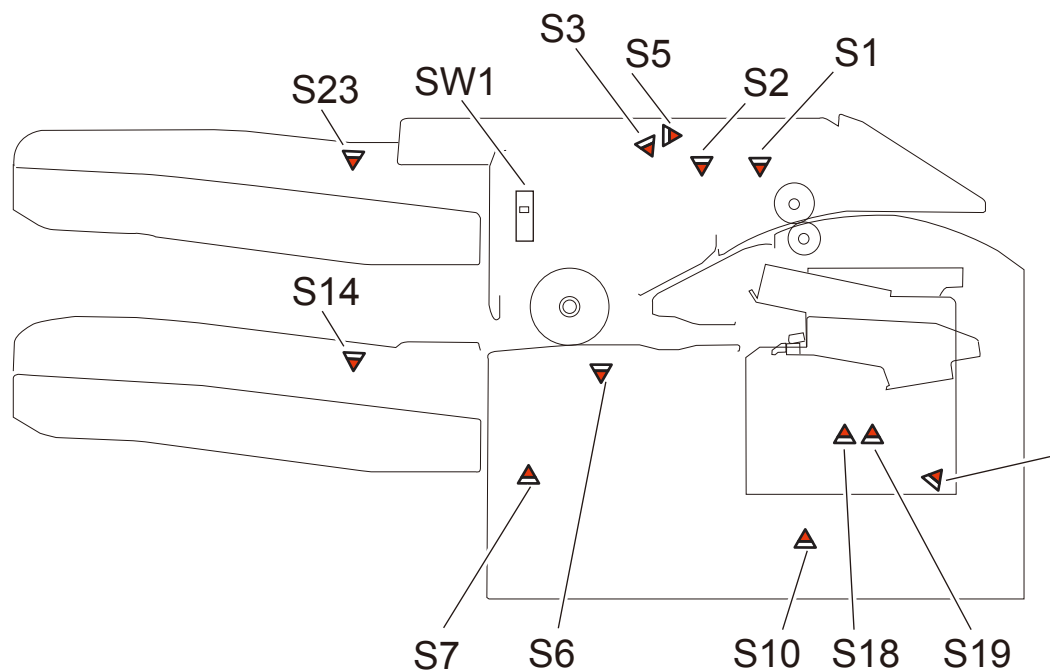
F-7-4

ACC ID	Jam Code	Type	Sensor Name	Sensor ID
01	0003	Delay	Registration sensor	SR1
01	0004	Stationary	Registration sensor	SR1
01	0005	Delay	Read sensor	SR2
01	0006	Stationary	Read sensor	SR2
01	0007	Delay	Delivery reversal sensor	SR3
01	0008	Stationary	Delivery reversal sensor	SR3
01	0044	Stationary	Registration sensor	SR1
01	0045	Delay	Read sensor	SR2
01	0046	Stationary	Read sensor	SR2
01	0047	Delay	Delivery reversal sensor	SR3
01	0048	Stationary	Delivery reversal sensor	SR3
01	0071	Timing error	-	-
01	0073	HP error	Release motor HP sensor	SR11
01	0084	Stationary	Registration Sensor / Read Sensor	SR1/SR2
01	0090	Door open	Copyboard Cover Open/Closed Sensor (front)	SR13
01	0091	Door open	Copyboard Cover Open/Closed Sensor (rear)	SR14
01	0092	Door open	Cover open/closed sensor	SR6
01	0093	Door open	Cover open/closed sensor	SR6
01	0094	Residual	Registration Sensor / Read Sensor / Delivery reversal sensor	SR1/SR2/SR3
01	0095	Pickup error	-	-

T-7-9

*1 The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.

Inner Finisher-C1



ACC ID	Jam Code	Type	Sensor Name	Sensor ID
02	1001	Delay	Entrance Sensor	S1
02	1101	Stationary	Entrance Sensor	S1
02	1102	Stationary	Processing Tray Sensor	S6
02	1300	Power ON	Entrance Sensor / Processing Tray Sensor	S1/S6
02	1400	Door open	Front cover switch	SW1
02	1500	Staple	Stapler HP sensor	S18/S19
02	1C20	Error	Shift roller HP sensor	S10
02	1C32	Error	Stapler move HP sensor	S14
02	1C40	Error	Stack tray clock sensor	S23
02	1C42	Error	Additional tray clock sensor	S3
02	1C67	Error	Shift roller release sensor	S5
02	1C6F	Error	Entrance roller release /stopper HP sensor	S13
02	1C71	Error	Grip arm sensor	S7
02	1CF7	Other	Gripper unit HP sensor	S1

T-7-10

*1 The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.

F-7-5

Alarm Code

Alarm Code

Location of Trouble	Alarm Code	Description	Details
00	E020	Dhalf control error detection	Correct gradation could not be detected at Dhalf control. Measures: If this alarm occurs, execute PASCAL (full auto gradation adjustment) in user mode.
	0246	System error	Contact the service company office
	0247	System error	Contact the service company office
09	0001	Drum life (Y)	
	0002	Drum life (M)	
	0003	Drum life (C)	
	0004	Drum life (Bk)	
	0010	Drum memory tag detection error (Y)	Unable to detect the memory tag of the Drum Unit (Y)
	0011	Drum memory tag detection error(M)	Unable to detect the memory tag of the Drum Unit (M)
	0012	Drum memory tag detection error(C)	Unable to detect the memory tag of the Drum Unit (C)
10	0001	Toner out (Bk)	
	0002	Toner out (Cy)	
	0003	Toner out (M)	
	0004	Toner out (Y)	

Location of Trouble	Alarm Code	Description	Details
10	2001	Toner supply error (Y)	(1) Symptom at occurrence of alarm Since toner supply amount for the image density to be printed is not enough, light density, error due to light density or image failure occurs. However, the foregoing error occurs simultaneously with the errors caused by light density (E020-0xB1, E020-0x91, E020-0x60). x= 0: Y, 1: M, 2: C, 3: Bk
	2002	Toner supply error (M)	(2) Factor causing alarm Due to control of toner supply amount per image, toner consumption becomes larger than toner supply when printing of a large quantity of extremely high density images continues, so that TD ratio in the Developing Assembly decreases, causing the occurrence of the alarm.
	2003	Toner supply error (C)	(3) Support by service technician - Print approx. 20 sheets of A3 halftone image with the color with which the alarm occurred. As long as not continuously printing a large quantity of high density images, TD ratio in the Developing Assembly recovers while keeping print operation. However, this alarm (and error) repeatedly occurs while continuing to print high density images.
	2004	Toner supply error (Bk)	As the permanent measure, it is necessary to reduce the image print density or put low to medium density image printings between high density image printings as needed.
11	0001	Waste Toner Container full level	

Location of Trouble	Alarm Code	Description	Details
30	0002	Transfer Charging Assembly leak	
	0025	Tried to apply abnormally great primary transfer voltage at primary transfer ATVC control for yellow.	Error in the Primary Transfer High Voltage PCB, Error in the Primary Transfer Roller (ITB Unit) 1. Check failure of the harness between the Primary Transfer High Voltage PCB (UN04/J1001) and the DC Controller PCB (UN09/J205) (open circuit, trapped cable, connector disconnection). -> Replace the harness if it is faulty
	0026	Tried to apply abnormally great primary transfer voltage at primary transfer ATVC control for Magenta.	2. Check connection failure between the Primary Transfer High Voltage PCB (UN04/J31) and the Primary Transfer Roller (Check that the connection is free from open circuit or GND contact) 3. Replace the Primary Transfer High Voltage PCB (UN04)
	0027	Tried to apply abnormally great primary transfer voltage at primary transfer ATVC control for cyan	4. Replace the ITB Unit
	0028	Tried to apply abnormally great primary transfer voltage at primary transfer ATVC control for Black.	5. Replace the DC Controller PCB (UN09). 6. Replace the Primary Transfer Power Supply Unit
33	0006	Drum Unit cooling fan alarm	Error detection of the Drum Unit cooling fan
34	0001	Auto registration adjustment	Due to misalignment in reading data as a result of misdetection that soil or scar on the belt was detected as pattern
	0002	Auto registration adjustment	Due to misalignment in reading data as a result of misdetection that soil or scar on the belt is detected as pattern
	0006	Correct color mismatch alarm	Color displacement is not properly corrected as a result of the drum phase control. Possibly an error in the Drum Phase Sensor
50	0010	Successive occurrence of separation alarm	Condition unable to separate 1st sheet of original from the ADF occurs 3 times in a row. Check rotation of the Pickup Motor -> Check the life of the Pickup Roller -> Check if paper lint is at the pickup slot.
	0012	ADF motor Fan alarm	When an error in the fan was detected at the time of completion of a job
61	0001	No staple	
70	0001	Memory overflow	
	0002	Font memory overflow	
	0003	Micromemory overflow	
	0004	Image memory overflow	
	0005	Pattern memory overflow	
	0006	A hard disk error	

Location of Trouble	Alarm Code	Description	Details	
70	0007	Detect operation abnormality for the HDD access request		
	0086	Upgrading alarm	Upgrading process is failed.	
73	0004	LIPS	Overflow of work memory for translator	
	0006	LIPS	Error in configuration acquisition/management	
	0007	LIPS	Memory management error in LIPS	
	0008	LIPS	File management error in LIPS	
	0009	LIPS	Reception data management error	
	0010	LIPS	Page control error	
	0011	LIPS	Macro management error	
	0012	LIPS	Color management error	
	0013	LIPS	Layout control error	
	0014	LIPS	Font management error	
	0015	LIPS	Letter drawing error	
	0016	LIPS	Graphic drawing error	
	0017	LIPS	Image drawing error	
	0018	LIPS	Display error to LCD	
	0019	LIPS	Text mode command error layer error	
	0020	LIPS	Vector mode command error layer error	
	0021	LIPS	Utility execution control error	
	0022	LIPS	Database management error in LIPS	
	0023	LIPS	Menu control error in LIPS	
	0024	LIPS	Boot error in LIPS	
	0025	LIPS	When the graphic library is in use for image processing, if the memory allocation is failed.	
	0026	LIPS	Data format error of image mode	
	76	0001	Font	No memory for internal font
		0002	Font	Fails to assure the work area to analyze the font that is downloaded at "Resource Download".
		0003	Font	Fails to access the file that stores the font.
0004		Font	Fails to allocate the FM work memory.	
0005		Font	Fails to analyze the internal font.	
0006		Font	Alignment of font data is wrong.	
0007		Font	Failed to allocate work memory with scaler. There are 3 types depending on where to occur.	
0008		Font	Failed to allocate work memory with scaler. There are 3 types depending on where to occur.	
77	0001	PDL	Fails to allocate the memory	
	0002	PDL	Failure of rendering	
	0003	PDL	DGL entry invalid	
	0005	PDL	Other errors	

Location of Trouble	Alarm Code	Description	Details
77	0006	PDL	DLG memory insufficient
78	0003	GL	GL entry invalid
	0005	GL	System memory full
79	0001	In-house developed PCL	PCL initialization error
	0002	In-house developed PCL	PCL processing error
	0003	In-house developed PCL	Overflow of work memory for translator
	0004	In-house developed PCL	Download overflow
80	0001	BDL	Admin error
	0003	BDL	DataArea error
	0010	BDL	Graphics error
	0011	BDL	Char error
	0015	BDL	Print data cannot process this version.
	0016	BDL	Overflow of work memory for translator
	0018	BDL	Syntax error
	0019	BDL	In case of invalid data format in BDL custom mode.
81	0001	Imaging	Fails to allocate the memory
	0002	Imaging	Failure of rendering
	0003	Imaging	Overflow of work memory for translator
	0004	Imaging	Imaging initialization error
	0005	Imaging	Imaging processing error
83	0005	CanonPDF	PDF memory full
	0015	CanonPDF	PDF data decode error
	0016	CanonPDF	PDF print range error
	0017	CanonPDF	PDF error
	0020	ESCP	
	0021	I5577	
	0022	HPGL	
	0023	N201	
84	0001	XPS memory full error	
	0002	XPS spool full error	
	0003	XPS print range error	
	0004	XPS document data error	
	0005	XPS page data error	
	0006	XPS image data error	
	0007	XPS font data error	
	0008	XPS non-support image error	
	0009	XPS rendering error	

T-7-11



Service Mode

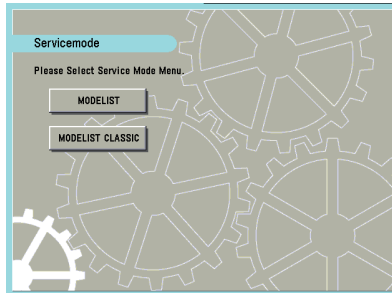
- Overview
- COPIER
- FEEDER
- SORTER
- BOARD

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.

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.

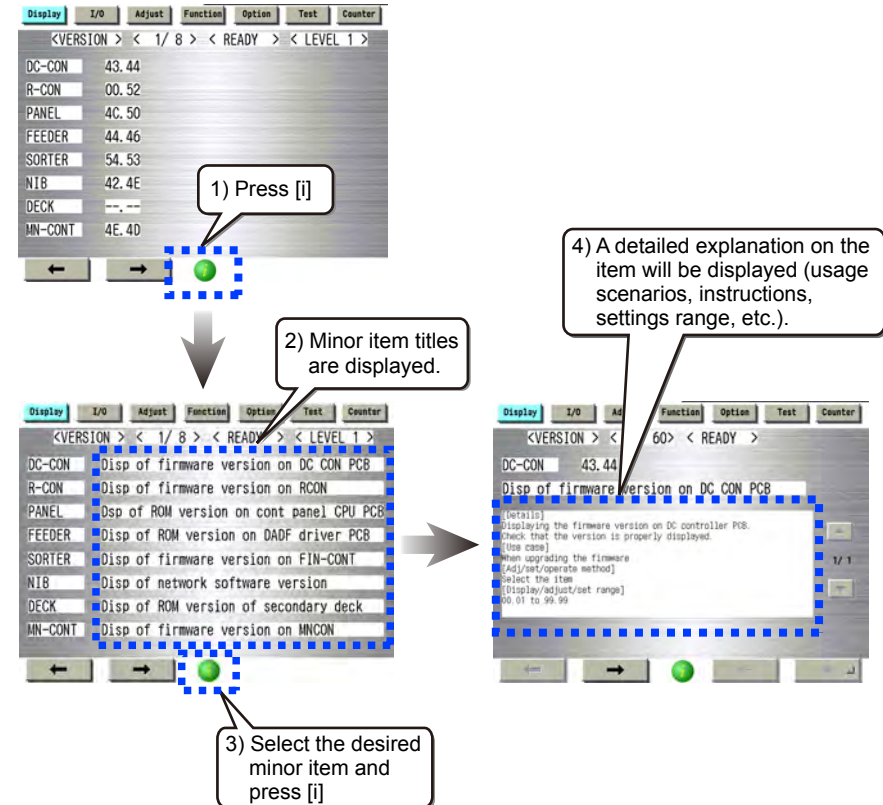
If "MODELIST" or "MODELIST CLASSIC" is pressed, the screen will switch to initial screen for each mode.

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/I/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.

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

Callout box for E804-0003:
TITLE : Error in primary suction fan
Assumed cause: When an error is detected on the primary suction fan

1/ 1

DONE

F-8-4

ALARM CODE : COPIER > DISPLAY > ERR

Display I/O Adjust Function Option Test Counter

< ALARM-2 > < 2/ 7 > < READY > < LEVEL 1 >

No.	DATE	TIME1	TIME2	CODE	DTL	CNTR
09	0308	1345	160	E804-0027		
10	0308	1345	160			
11	0308	1345	160			
12	0308	1345	160			
13	0308	1345	160			
14	0308	1345	1600	040046	0000	0
15	0308	1345	1600	040047	0000	0
16	0308	1345	1600	040048	0000	0

Callout box for E804-0027:
[Title] Error in fixing feed motor driver cooling fan
[Assumed cause] When an error is detected on the fixing feed motor driver cooling fan.

1/ 1

DONE

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	FNC-SW	Language, cassette, paper size type, NAVI/DA connection, count-up spec., document size detection, dirt detection level
Display switching/ display timing	DSPLY-SW	UI (User Interface) display related
Image related (fixing)	IMG-FIX	Fixing related
Image related (transfer)	IMG-TR	Primary transfer, secondary transfer, ITB
Image related (developing)	IMG-DEV	Developer related
Image related (laser/ latent image)	IMG-LSR	Laser, latent image related
Image related (reader/ ADF)	IMG-RDR	Reader, ADF image related
Image related (controller, other general items)	IMG-MCON	MN-CON image related, and image related items other than those referred to above.
Image quality/ copy speed	IMG-SPD	Power down sequence
Cleaning	CLEANING	Cleaning of charging unit, drum, transfer roller, ITB, etc.
Environment settings	ENV-SET	Temperature, humidity, environmental heater, condensation, log acquisition
Paper feed (pickup, delivery)	FEED-SW	Stack performance, motor speed adjustment, delivery functions, etc.
Noise reduction	SOUND	Noise related
Network	NETWORK	Network settings, IFAX, SEND, E-RDS, etc.
Customization	CUSTOM	Customization

T-8-1

Security features

To prevent unauthorized access to Service Mode, Password set is enabled.

Related service modes

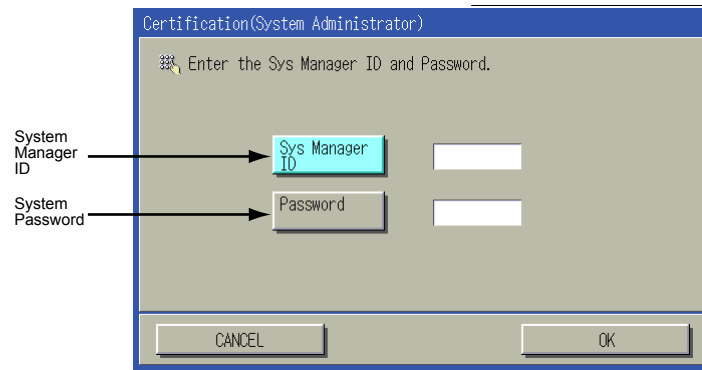
- COPIER > OPTION > FNC-SW > PSWD-SW (Level1)
Set password type for transition to service mode.
<Setting range>
0: No password (default)
1: Service engineer
2: System administrator and Service engineer.
- COPIER > OPTION > FNC-SW > SM-PSWD (Level2)
Password for service engineer for transition to service mode.
<Setting range>

To reinforce the security, change the password from a default.

***** (eight digit numeral) [default: 11111111]

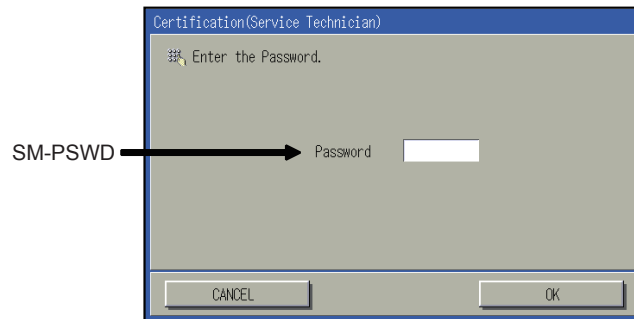
After the above setting, to enter Service Mode, enter password screen will appear.

- 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

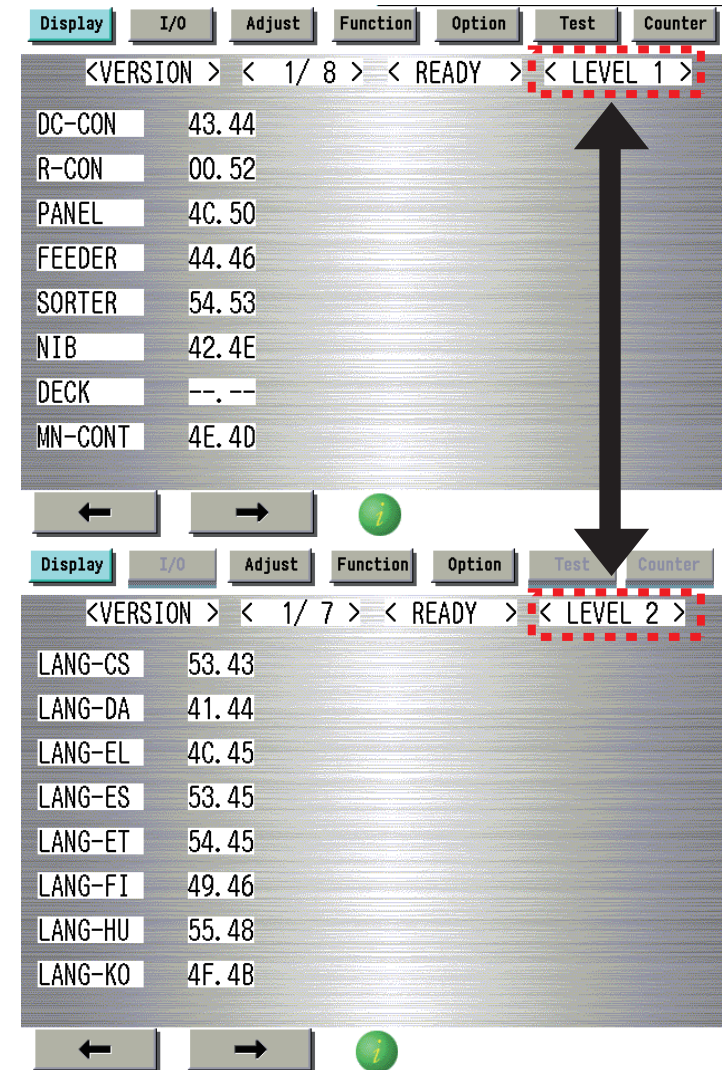
MEMO :

If Service Engineer's password is forgotten, password function is cancelable by using Service Support Tool (SST).

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

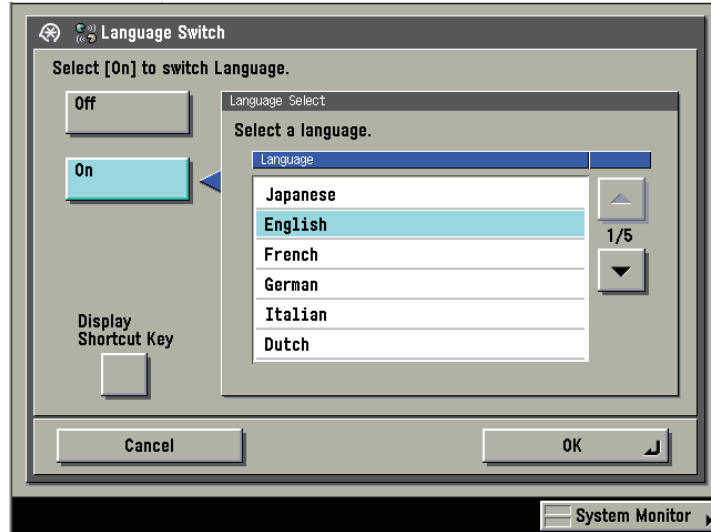
Language switch

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.

Additional Functions > Common Settings > Language Switch



F-8-9

MEMO :

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. The service label is pasted on inner front cover.

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
	Display/adj/set range	00.01 to 99.99
PANEL		Display 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
	Display/adj/set range	00.01 to 99.99
ECO		Display of ECO-ID PCB ROM version
Lv.1	Details	To display the ROM version of ECO-ID PCB
	Use case	When upgrading the firmware
	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
	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
	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
	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
	Display/adj/set range	00.01 to 99.99
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
	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
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
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
	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
	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
	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
	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
	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
	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
	Display/adj/set range	00.01 to 99.99
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
	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
	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
	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
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
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
	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
	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
	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
	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
	Display/adj/set range	00.01 to 99.99
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
	Display/adj/set range	00.01 to 99.99
LANG-TW		Display of Chinese language file ver: trad
Lv.2	Details	To display the version of Chinese language file (traditional).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
LANG-ZH		Display of Chinese language file ver: simpl
Lv.2	Details	To display the version of Chinese language file (simplified).
	Use case	When upgrading the firmware
	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
	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
	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
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
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
	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
	Display/adj/set range	00.01 to 99.99
LANG-CA		Display of Catalan language file version
Lv.2	Details	To display the version of Catalan language file. “-.-” is displayed when no file is found.
	Use case	When upgrading the firmware
	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. “NULL” is displayed if the PCB is not connected.
	Use case	When upgrading the firmware
	Display/adj/set range	ASCII character string (12 digits)
FAX2/3/4		Display of 2/3/4-line FAX PCB ROM version
Lv.1	Details	To display the ROM version of 2/3/4-line FAX PCB. “NULL” is displayed if the PCB is not connected.
	Use case	When upgrading the firmware
	Display/adj/set range	ASCII character string (12 digits)
IOCS		Display of BIOS version
Lv.1	Details	To display the BIOS version.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-FR		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-IT		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-DE		Display 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
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
COPY-ES		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-ZH		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-TW		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-KO		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-CS		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-DA		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-EL		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-ET		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-FI		Display 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
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
COPY-HU		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-NL		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-NO		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-PL		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-PT		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-RU		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-SL		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-SV		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-ID		Display 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
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
COPY-BU		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-CR		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-RM		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-SK		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-TK		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-CA		Display 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
	Display/adj/set range	00.01 to 99.99
COPY-TH		Display of COPY appli Thai file version
Lv.2	Details	To display the Thai language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-VN		Display of COPY appli Vietnamese file ver
Lv.2	Details	To display the Vietnamese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-FR		Display 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
	Display/adj/set range	00.01 to 99.99

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SEND-IT		Display 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
	Display/adj/set range	00.01 to 99.99
SEND-DE		Display 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
	Display/adj/set range	00.01 to 99.99
SEND-ES		Display 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
	Display/adj/set range	00.01 to 99.99
SEND-ZH		Display SEND appli Chinese file ver: simpl
Lv.2	Details	To display the simplified Chinese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-TW		Display 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
	Display/adj/set range	00.01 to 99.99
SEND-KO		Display 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
	Display/adj/set range	00.01 to 99.99
SEND-CS		Display 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
	Display/adj/set range	00.01 to 99.99
SEND-DA		Display 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
	Display/adj/set range	00.01 to 99.99
SEND-EL		Display 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
	Display/adj/set range	00.01 to 99.99

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SEND-ET	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-FI	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-HU	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-NL	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-NO	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-PL	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-PT	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-RU	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-SL	Display 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
	Display/adj/set range	00.01 to 99.99

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SEND-SV	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-ID	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-BU	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-CR	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-RM	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-SK	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-TK	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-CA	Display 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
	Display/adj/set range	00.01 to 99.99
SEND-TH	Display of SEND appli Thai file version	
Lv.2	Details	To display the Thai language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

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SEND-VN		Display of SEND appli Vietnamese file ver
Lv.2	Details	To display the Vietnamese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-FR		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-IT		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-DE		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-ES		Display 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
	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
	Display/adj/set range	00.01 to 99.99
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
	Display/adj/set range	00.01 to 99.99
INTRO-KO		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-CS		Display 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
	Display/adj/set range	00.01 to 99.99

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INTRO-DA		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-EL		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-ET		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-FI		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-HU		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-NL		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-NO		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-PL		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-PT		Display 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
	Display/adj/set range	00.01 to 99.99

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INTRO-RU		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-SL		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-SV		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-ID		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-BU		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-CR		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-RM		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-SK		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-TK		Display 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
	Display/adj/set range	00.01 to 99.99

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INTRO-CA		Display 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
	Display/adj/set range	00.01 to 99.99
INTRO-TH		Display useful func intro Thai file version
Lv.2	Details	To display the version of Thai language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-VN		Useful func intro Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-FR		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-IT		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-DE		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-ES		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-ZH		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-TW		Display 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
	Display/adj/set range	00.01 to 99.99

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CSTMN-KO		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-CS		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-DA		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-EL		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-ET		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-FI		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-HU		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-NL		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-NO		Display 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
	Display/adj/set range	00.01 to 99.99

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CSTMN-PL		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-PT		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-RU		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-SL		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-SV		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-ID		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-BU		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-CR		Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-RM		Display 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
	Display/adj/set range	00.01 to 99.99

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CSTMN-SK		
Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-TK		
Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-CA		
Display 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
	Display/adj/set range	00.01 to 99.99
CSTMN-TH		
Display of custom menu Thai file version		
Lv.2	Details	To display the version of Thai language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-VN		
Display of custom menu Vietnamese file ver		
Lv.2	Details	To display the version of Vietnamese language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-FR		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-IT		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-DE		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-ES		
Display 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
	Display/adj/set range	00.01 to 99.99

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ACSBT-ZH		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-TW		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-KO		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-CS		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-DA		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-EL		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-ET		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-FI		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-HU		
Display 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
	Display/adj/set range	00.01 to 99.99

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ACSBT-NL		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-NO		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-PL		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-PT		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-RU		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-SL		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-SV		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-ID		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-BU		
Display 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
	Display/adj/set range	00.01 to 99.99

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ACSBT-CR		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-RM		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-SK		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-TK		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-CA		
Display 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
	Display/adj/set range	00.01 to 99.99
ACSBT-TH		
Display of accessibility Thai file version		
Lv.2	Details	To display the version of Thai language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-VN		
Display of accessibility Vietnamese file ver		
Lv.2	Details	To display the version of Vietnamese language file for Accessibility application.
	Use case	When upgrading the firmware
	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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System

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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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System

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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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System

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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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-TH		Display of ERS Thai file version
Lv.2	Details	To display the version of Thai language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System

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ERS-VN		Display of ERS Vietnamese file version
Lv.2	Details	To display the version of Vietnamese language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
LANG-TH		Display of Thai language file version
Lv.2	Details	To display the version of Thai language file.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
LANG-VN		Display of Vietnamese language file ver
Lv.2	Details	To display the version of Vietnamese language file.
	Use case	When upgrading the firmware
	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
	Display/adj/set range	00.01 to 99.99
BOX-IT		Display 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
	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
	Display/adj/set range	00.01 to 99.99
BOX-ES		Display 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
	Display/adj/set range	00.01 to 99.99
BOX-ZH		Display 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
	Display/adj/set range	00.01 to 99.99

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BOX-TW		Display 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
	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
	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
	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
	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
	Display/adj/set range	00.01 to 99.99
BOX-ET		Display 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
	Display/adj/set range	00.01 to 99.99
BOX-FI		Display 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
	Display/adj/set range	00.01 to 99.99
BOX-HU		Display 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
	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
	Display/adj/set range	00.01 to 99.99

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BOX-NO		Display 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
	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
	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
	Display/adj/set range	00.01 to 99.99
BOX-RU		Display 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
	Display/adj/set range	00.01 to 99.99
BOX-SL		Display 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
	Display/adj/set range	00.01 to 99.99
BOX-SV		Display 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
	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
	Display/adj/set range	00.01 to 99.99
BOX-BU		Display 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
	Display/adj/set range	00.01 to 99.99
BOX-CR		Display 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
	Display/adj/set range	00.01 to 99.99

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BOX-RM		Display 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
	Display/adj/set range	00.01 to 99.99
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
	Display/adj/set range	00.01 to 99.99
BOX-TK		Display 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
	Display/adj/set range	00.01 to 99.99
BOX-CA		Display 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
	Display/adj/set range	00.01 to 99.99
BOX-TH		Display of BOX appli Thai file version
Lv.2	Details	To display the version of Thai language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-VN		Display of BOX appli Vietnamese file version
Lv.2	Details	To display the version of Vietnamese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-FR		Display of SC appli French file version
Lv.1	Details	To display the version of French language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-IT		Display of SC appli Italian file version
Lv.1	Details	To display the version of Italian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-DE		Display of SC appli German file version
Lv.1	Details	To display the version of German language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SC-ES		Display of SC appli Spanish file version
Lv.1	Details	To display the version of Spanish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-ZH		Display of SC appli Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-TW		Display of SC appli Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-KO		Display of SC appli Korean file version
Lv.2	Details	To display the version of Korean language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-CS		Display of SC appli Czech file version
Lv.2	Details	To display the version of Czech language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-DA		Display of SC appli Danish file version
Lv.2	Details	To display the version of Danish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-EL		Display of SC appli Greek file version
Lv.2	Details	To display the version of Greek language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-ET		Display of SC appli Estonian file version
Lv.2	Details	To display the version of Estonian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-FI		Display of SC appli Finnish file version
Lv.2	Details	To display the version of Finnish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

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SC-HU	Display of SC appli Hungarian file version	
Lv.2	Details	To display the version of Hungarian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-NL	Display of SC appli Dutch file version	
Lv.2	Details	To display the version of Dutch language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-NO	Display of SC appli Norwegian file version	
Lv.2	Details	To display the version of Norwegian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-PL	Display of SC appli Polish file version	
Lv.2	Details	To display the version of Polish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-PT	Display of SC appli Portuguese file ver	
Lv.2	Details	To display the version of Portuguese language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-RU	Display of SC appli Russian file version	
Lv.2	Details	To display the version of Russian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-SL	Display of SC appli Slovenian file version	
Lv.2	Details	To display the version of Slovenian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-SV	Display of SC appli Swedish file version	
Lv.2	Details	To display the version of Swedish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-ID	Display of SC appli Indonesian file ver	
Lv.2	Details	To display the version of Indonesian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SC-BU	Display of SC appli Bulgarian file version	
Lv.2	Details	To display the version of Bulgarian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-CR	Display of SC appli Croatian file version	
Lv.2	Details	To display the version of Croatian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-RM	Display of SC appli Romanian file version	
Lv.2	Details	To display the version of Romanian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-SK	Display of SC appli Slovak file version	
Lv.2	Details	To display the version of Slovak language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-TK	Display of SC appli Turkish file version	
Lv.2	Details	To display the version of Turkish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-CA	Display of SC appli Catalan file version	
Lv.2	Details	To display the version of Catalan language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-TH	Display of SC appli Thai file version	
Lv.2	Details	To display the version of Thai language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-VN	Display of SC appli Vietnamese file version	
Lv.2	Details	To display the version of Vietnamese language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

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■ USER

COPIER > DISPLAY > USER		
SPDTYPE	Display of Ctrlr 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
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> FUCNTION> 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
	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
	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		Display 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
	Display/adj/set range	0 to 5 0: Not connected, 1: Connected, 2 to 4: Not used, 5: Multi-purpose Tray only
CARD		Display 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
	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.)
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
	Unit	MB
	Default value	1024
COINROBO		Display 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
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected

COPIER > DISPLAY > ACC-ST3		
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
	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
NETWARE		Display 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
	Display/adj/set range	0 to 1 0: Not installed, 1: Installed
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
	Display/adj/set range	0 to 1 0: Not mounted, 1: Mounted
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
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
	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
	Display/adj/set range	-: No PCB connected iSLOT: iSLOT 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

COPIER > DISPLAY > ACC-ST3		
PCI3		Display of PCI3-connected PCB name
Lv.1	Details	To display the name of the PCB that is connected to PCI3.
	Use case	When checking name of the PCB that is connected to PCI3
	Display/adj/set range	-: No PCB connected iSLOT: iSLOT 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
	Unit	MB
	Default value	1024

T-8-4

ANALOG

COPIER > DISPLAY > ANALOG		
TEMP		Display of outside temperature
Lv.1	Details	To display the temperature outside the machine. This is measured by the Environment Sensor 2 that detects the outside air.
	Use case	When checking the temperature outside the machine
	Display/adj/set range	0 to 60
	Unit	Deg C
	Appropriate target value	20 to 27
HUM		Display of outside humidity
Lv.1	Details	To display the humidity outside the machine. This is measured by the Environment Sensor 2 that detects the outside air.
	Use case	When checking the humidity outside the machine
	Display/adj/set range	5 to 90
	Unit	%
	Appropriate target value	30 to 70
ABS-HUM		Display of outside moisture amount
Lv.1	Details	To display the absolute moisture amount outside the machine. This is measured by the Environment Sensor 2 that detects the outside air.
	Use case	When checking the moisture amount outside the machine
	Display/adj/set range	0 to 100
	Unit	g (g/m3)
	Appropriate target value	0 to 22

COPIER > DISPLAY > ANALOG		
FIX-C		Display of Fixing Sleeve center temperature
Lv.1	Details	To display the temperature of the Fixing Sleeve detected by the Main Thermistor 2.
	Use case	When checking the temperature at Fixing Sleeve
	Display/adj/set range	0 to 300
	Unit	Deg C
FIX-E		Display of Fixing Main Heater temperature
Lv.1	Details	To display the temperature of the Fixing Main Heater detected by the Main Thermistor 1.
	Use case	When checking the temperature of Fixing Main Heater
	Display/adj/set range	0 to 300
	Unit	Deg C
FIX-E2		Display of Fixing Sub Heater rear edge temp
Lv.1	Details	To display the rear edge temperature of the Fixing Sub Heater detected by the Sub Thermistor 2.
	Use case	When checking the edge temperature of the Fixing Sub Heater
	Display/adj/set range	0 to 300
	Unit	Deg C
TEMP2		Display of estimated inside temperature
Lv.1	Details	To display the estimated temperature inside the machine that is calculated from the outside temperature and elapsed time.
	Use case	When checking the estimated temperature inside the machine
	Display/adj/set range	0 to 100
	Unit	Deg C
	Appropriate target value	Room temperature to room temperature + 15 deg C
	Related service mode	COPIER> DISPLAY> ANALOG> TEMP
HUM2		Display of estimated inside humidity
Lv.1	Details	To display the estimated relative humidity inside the machine that is calculated from the estimated temperature inside the machine and moisture content outside the machine.
	Use case	When checking the estimated humidity inside the machine
	Display/adj/set range	0 to 100
	Unit	%
	Appropriate target value	30 to 70
	Related service mode	COPIER> DISPLAY> ANALOG> ABS-HUM, TEMP2
FIX-E3		Display of Fixing Sub Heater front edge temp
Lv.1	Details	To display the front edge temperature of the Fixing Sub Heater detected by the Sub Thermistor 1.
	Use case	When checking the edge temperature of the Fixing Sub Heater
	Display/adj/set range	0 to 300
	Unit	Deg C

T-8-5

■ HV-STS

COPIER > DISPLAY > HV-STS		
1ATVC-Y		Display pry trns paper interval current (Y)
Lv.2	Details	To display the value of the paper interval current lastly flown on the Primary Transfer Roller (Y) by the primary transfer paper interval ATVC control.
	Use case	When estimating the life of Primary Transfer Roller based on the displayed value
	Display/adj/set range	0 to 65535
	Unit	micro A
Appropriate target value		10 to 500
1ATVC-M		Display pry trns paper interval current (M)
Lv.2	Details	To display the value of the paper interval current lastly flown on the M Primary Transfer Roller by the primary transfer paper interval ATVC control.
	Use case	When estimating the life of Primary Transfer Roller based on the displayed value
	Display/adj/set range	0 to 65535
	Unit	micro A
Appropriate target value		10 to 500
1ATVC-C		Display pry trns paper interval current (C)
Lv.2	Details	To display the value of the paper interval current lastly flown on the C Primary Transfer Roller by the primary transfer paper interval ATVC control.
	Use case	When estimating the life of Primary Transfer Roller based on the displayed value
	Display/adj/set range	0 to 65535
	Unit	micro A
Appropriate target value		10 to 500
1ATVC-K4		Display pry trns ppr intvl crnt (Bk):clr
Lv.2	Details	To display the value of the paper interval current lastly flown on the Bk Primary Transfer Roller by the primary transfer paper interval ATVC control At full-color jobs.
	Use case	When estimating the life of Primary Transfer Roller based on the displayed value
	Display/adj/set range	0 to 65535
	Unit	micro A
Appropriate target value		10 to 500

COPIER > DISPLAY > HV-STS		
2ATVC	Display of secondary transfer ATVC current	
Lv.2	Details	To display the current lastly flown on the Secondary Transfer Outer Roller by the secondary transfer ATVC control. As the usage of the Secondary Transfer Outer Roller is extended, the value decreases.
	Use case	When estimating the life of Secondary Transfer Roller based on the displayed value
	Display/adj/set range	0 to 65535
	Unit	micro A
	Appropriate target value	10 to 500
1-ATVC-Y	Display of Y prmry trns ATVC base voltage	
Lv.1	Details	To display the base voltage (Vb) derived from Y primary transfer ATVC control. As Vb is closer to 2000, the Primary Transfer Roller is closer to the end of life, so image failure (leopard pattern image or mottled image due to failure at transfer) tends to occur.
	Use case	When estimating the life of Y Primary Transfer Roller
	Display/adj/set range	0 to 2000
	Unit	V
1-ATVC-M	Display of M prmry trns ATVC base voltage	
Lv.1	Details	To display the base voltage (Vb) derived from M primary transfer ATVC control. As Vb is closer to 2000, the Primary Transfer Roller is closer to the end of life, so image failure (leopard pattern image or mottled image due to failure at transfer) tends to occur.
	Use case	When estimating the life of M Primary Transfer Roller
	Display/adj/set range	0 to 2000
	Unit	V
1-ATVC-C	Display of C prmry trns ATVC base voltage	
Lv.1	Details	To display the base voltage (Vb) derived from C primary transfer ATVC control. As Vb is closer to 2000, the Primary Transfer Roller is closer to the end of life, so image failure (leopard pattern image or mottled image due to failure at transfer) tends to occur.
	Use case	When estimating the life of C Primary Transfer Roller
	Display/adj/set range	0 to 2000
	Unit	V
1-ATVC-K	Display of Bk prmry trns ATVC base voltage	
Lv.1	Details	To display the base voltage (Vb) derived from Bk primary transfer ATVC control. As Vb is closer to 2000, the Primary Transfer Roller is closer to the end of life, so image failure (leopard pattern image or mottled image due to failure at transfer) tends to occur.
	Use case	When estimating the life of Bk Primary Transfer Roller
	Display/adj/set range	0 to 2000
	Unit	V

COPIER > DISPLAY > HV-STS		
2-ATVC	Display of sec transfer ATVC base voltage	
Lv.1	Details	To display the base voltage (Vb) derived from secondary transfer ATVC control. As Vb is closer to 6000, the Primary Transfer Roller is closer to the end of life, so image failure (white dots) tends to occur.
	Use case	When estimating the life of Secondary Transfer Roller
	Display/adj/set range	0 to 6000
	Unit	V
1ATVCENV	Display prmry trns ATVC abslt moistr cntnt	
Lv.1	Details	To display the absolute moisture content at execution of the primary transfer ATVC.
	Use case	At trouble analysis
	Display/adj/set range	0 to 9999
	Unit	0.01 g/m3
Appropriate target value	0 to 4000	
2ATVCENV	Display sec trns ATVC abslt moistr cntnt	
Lv.1	Details	To display the absolute moisture content at execution of the secondary transfer ATVC.
	Use case	At trouble analysis
	Display/adj/set range	0 to 9999
	Unit	0.01 g/m3
Appropriate target value	0 to 4000	

T-8-6

■ 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 CCD Unit.
	Use case	At scanned image failure
	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 CCD Unit.
	Use case	At scanned image failure
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 to 2047

COPIER > DISPLAY > CCD		
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 CCD Unit.
	Use case	At scanned image failure
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 to 2047
OFST-B		CCD offset value (B)
Lv.2	Details	To display the CCD blue color offset value at color scanning.
	Use case	When blue color image failure occurs at front side scanning in color mode
	Display/adj/set range	0 to 95
	Appropriate target value	0 to 95
OFST-G		CCD offset value (G)
Lv.2	Details	To display the CCD green color offset value at color scanning.
	Use case	When green color image failure occurs at front side scanning in color mode
	Display/adj/set range	0 to 95
	Appropriate target value	0 to 95
OFST-R		CCD offset value (R)
Lv.2	Details	To display the CCD red color offset value at color scanning.
	Use case	When red color image failure occurs at front side scanning in color mode
	Display/adj/set range	0 to 95
	Appropriate target value	0 to 95
GAIN-B		CCD gain level (B)
Lv.2	Details	To display the Blue gain level adjustment value on CCD. Continuous display of upper limit is considered a failure of the CCD Unit.
	Use case	At scanned image failure
	Display/adj/set range	0 to FFFF
	Appropriate target value	16 to 246
GAIN-G		CCD gain level (G)
Lv.2	Details	To display the Green gain level adjustment value on CCD. Continuous display of upper limit is considered a failure of the CCD Unit.
	Use case	At scanned image failure
	Display/adj/set range	0 to FFFF
	Appropriate target value	16 to 246
GAIN-R		CCD gain level (R)
Lv.2	Details	To display the Red gain level adjustment value on CCD. Continuous display of upper limit is considered a failure of the CCD Unit.
	Use case	At scanned image failure
	Display/adj/set range	0 to FFFF
	Appropriate target value	16 to 246

T-8-7

DPOT

COPIER > DISPLAY > DPOT		
1TR-DC-Y		Display of primary transfer DC voltage (Y)
Lv.2	Details	To display the DC voltage lastly applied to the Primary Transfer Roller (Y).
	Use case	When checking the life of the Primary Transfer Roller
	Display/adj/set range	0 to 5000
	Unit	V
1TR-DC-M		Display of primary transfer DC voltage (M)
Lv.2	Details	To display the DC voltage lastly applied to the Primary Transfer Roller (M).
	Use case	When checking the life of the Primary Transfer Roller
	Display/adj/set range	0 to 5000
	Unit	V
1TR-DC-C		Display of primary transfer DC voltage (C)
Lv.2	Details	To display the DC voltage lastly applied to the Primary Transfer Roller (C).
	Use case	When checking the life of the Primary Transfer Roller
	Display/adj/set range	0 to 5000
	Unit	V
1TR-DC-K		Display of primary transfer DC voltage (Bk)
Lv.2	Details	To display the DC voltage lastly applied to the Primary Transfer Roller (Bk).
	Use case	When checking the life of the Primary Transfer Roller
	Display/adj/set range	0 to 5000
	Unit	V
CHG-AC-Y		Display of primary charging AC bias (Y)
Lv.2	Details	To display the primary charging AC bias lastly applied to the Primary Charging Roller (Y).
	Use case	When the charging failure image occurs
	Display/adj/set range	0 to 3000
	Unit	Vpp
CHG-AC-M		Display of primary charging AC bias (M)
Lv.2	Details	To display the primary charging AC bias lastly applied to the Primary Charging Roller (M).
	Use case	When the charging failure image occurs
	Display/adj/set range	0 to 3000
	Unit	Vpp
Appropriate target value		1400 to 2400

COPIER > DISPLAY > DPOT		
CHG-AC-C		Display of primary charging AC bias (C)
Lv.2	Details	To display the primary charging AC bias lastly applied to the Primary Charging Roller (C).
	Use case	When the charging failure image occurs
	Display/adj/set range	0 to 3000
	Unit	Vpp
	Appropriate target value	1400 to 2400
CHG-AC-K		Display of primary charging AC bias (Bk)
Lv.2	Details	To display the primary charging AC bias lastly applied to the Primary Charging Roller (Bk).
	Use case	When the charging failure image occurs
	Display/adj/set range	0 to 3000
	Unit	Vpp
	Appropriate target value	1400 to 2400
LPWR-Y		Display of laser power (Y)
Lv.2	Details	To display Y laser power determined by D-max control. FF display with low image density is considered that the Photosensitive Drum may be nearly the end of life.
	Use case	When the image density is low
	Display/adj/set range	00 to FF (hexadecimal)
	Appropriate target value	60 to FF
	LPWR-M	
Lv.2	Details	To display M laser power determined by D-max control. FF display with low image density is considered that the Photosensitive Drum may be nearly the end of life.
	Use case	When the image density is low
	Display/adj/set range	00 - FF (hexadecimal)
	Appropriate target value	60 to FF
	LPWR-C	
Lv.2	Details	To display C laser power determined by D-max control. FF display with low image density is considered that the Photosensitive Drum may be nearly the end of life.
	Use case	When the image density is low
	Display/adj/set range	00 - FF (hexadecimal)
	Appropriate target value	60 to FF
	LPWR-K	
Lv.2	Details	To display Bk laser power determined by potential control. FF display with low image density is considered that the Photosensitive Drum may be nearly the end of life.
	Use case	When the image density is low
	Display/adj/set range	00 - FF (hexadecimal)
	Appropriate target value	60 to FF

T-8-8

■ DENS

COPIER > DISPLAY > DENS		
DENS-Y		Display of Y developer density TD ratio
Lv.1	Details	To display TD ratio of Y-color developer density in % (percentage).
	Use case	When analyzing the cause of image failure (density failure, fogging) and occurrence of E020
	Display/adj/set range	-7 to 7
	Unit	%
	Appropriate target value	-4.5 to 3.5
	Related service mode	COPIER> DISPLAY> DENS> SGNL-Y
DENS-M		Display of M developer density TD ratio
Lv.1	Details	To display TD ratio of M-color developer density in % (percentage).
	Use case	When analyzing the cause of image failure (density failure, fogging) and occurrence of E020
	Display/adj/set range	-7 to 7
	Unit	%
	Appropriate target value	-4.5 to 3.5
	Related service mode	COPIER> DISPLAY> DENS> SGNL-M
DENS-C		Display of C developer density TD ratio
Lv.1	Details	To display TD ratio of C-color developer density in % (percentage).
	Use case	When analyzing the cause of image failure (density failure, fogging) and occurrence of E020
	Display/adj/set range	-7 to 7
	Unit	%
	Appropriate target value	-4.5 to 3.5
	Related service mode	COPIER> DISPLAY> DENS> SGNL-C
DENS-K		Display of Bk developer density TD ratio
Lv.1	Details	To display TD ratio of Bk-color developer density in % (percentage).
	Use case	When analyzing the cause of image failure (density failure, fogging) and occurrence of E020
	Display/adj/set range	-7 to 7
	Unit	%
	Appropriate target value	-4.5 to 3.5
	Related service mode	COPIER> DISPLAY> DENS> SGNL-K
DENS-S-Y		Display differ from Y patch density tgt VL
Lv.2	Details	To display difference between the Y-color target patch density at ATR control and the patch density detected by the Patch Sensor.
	Use case	When analyzing the cause of image failure (fogging, carrier adherence, low density, etc.)
	Appropriate target value	-350 to 200
	DENS-S-M	
Lv.2	Details	To display difference between the M-color target patch density at ATR control and the patch density detected by the Patch Sensor.
	Use case	When analyzing the cause of image failure (fogging, carrier adherence, low density, etc.)
	Appropriate target value	-350 to 200

COPIER > DISPLAY > DENS		
DENS-S-C		Display differ from C patch density tgt VL
Lv.2	Details	To display difference between the C-color target patch density at ATR control and the patch density detected by the Patch Sensor.
	Use case	When analyzing the cause of image failure (fogging, carrier adherence, low density, etc.)
	Appropriate target value	-350 to 200
DENS-S-K		Display differ from Bk patch density tgt VL
Lv.2	Details	To display difference between the Bk-color target patch density at ATR control and the patch density detected by the Patch Sensor.
	Use case	When analyzing the cause of image failure (fogging, carrier adherence, low density, etc.)
	Appropriate target value	-350 to 200
D-Y-TRGT		Display of ATR ctrl Y patch target density
Lv.2	Details	To display the target density for Y patch image created by ATR control.
	Use case	When analyzing the cause of a problem
	Display/adj/set range	0 to 65535
	Appropriate target value	450 to 640
D-M-TRGT		Display of ATR ctrl M patch target density
Lv.2	Details	To display the target density for M patch image created by ATR control.
	Use case	When analyzing the cause of a problem
	Display/adj/set range	0 to 65535
	Appropriate target value	450 to 640
D-C-TRGT		Display of ATR ctrl C patch target density
Lv.2	Details	To display the target density for C patch image created by ATR control.
	Use case	When analyzing the cause of a problem
	Display/adj/set range	0 to 65535
	Appropriate target value	450 to 640
REF-Y		Display of Y developer density target value
Lv.2	Details	To display the developer density target value for the ATR Sensor (Y).
	Use case	When analyzing the cause of a problem
	Display/adj/set range	0 to 255
	Appropriate target value	50 to 200
REF-M		Display of M developer density target value
Lv.2	Details	To display the developer density target value for the ATR Sensor (M).
	Use case	When analyzing the cause of a problem
	Display/adj/set range	0 to 255
	Appropriate target value	50 to 200
REF-C		Display of C developer density target value
Lv.2	Details	To display the developer density target value for the ATR Sensor (C).
	Use case	When analyzing the cause of a problem
	Display/adj/set range	0 to 255
	Appropriate target value	50 to 200

COPIER > DISPLAY > DENS		
REF-K		Display of Bk developer density target value
Lv.2	Details	To display the developer density target value for the ATR Sensor (Bk).
	Use case	When analyzing the cause of a problem
	Display/adj/set range	0 to 255
	Appropriate target value	50 to 200
DEV-DC-Y		Display of developing DC voltage (Y)
Lv.2	Details	To display the latest Y developing DC voltage Vdc.
	Use case	- When image failure occurs due to carrier adherence - When fogging appears - When fogging is deteriorated
	Display/adj/set range	-1000 to 0
	Unit	V
	Appropriate target value	-570 to -450
DEV-DC-M		Display of developing DC voltage (M)
Lv.2	Details	To display the latest M developing DC voltage Vdc.
	Use case	- When image failure occurs due to carrier adherence - When fogging appears - When fogging is deteriorated
	Display/adj/set range	-1000 to 0
	Unit	V
	Appropriate target value	-570 to -450
DEV-DC-C		Display of developing DC voltage (C)
Lv.2	Details	To display the latest C developing DC voltage Vdc.
	Use case	- When image failure occurs due to carrier adherence - When fogging appears - When fogging is deteriorated
	Display/adj/set range	-1000 to 0
	Unit	V
	Appropriate target value	-570 to -450
DEV-DC-K		Display of developing DC voltage (Bk)
Lv.2	Details	To display the latest Bk developing DC voltage Vdc.
	Use case	- When image failure occurs due to carrier adherence - When fogging appears - When fogging is deteriorated
	Display/adj/set range	-1000 to 0
	Unit	V
	Appropriate target value	-570 to -450
CHG-DC-Y		Display of primary charging DC voltage (Y)
Lv.2	Details	To display the latest primary charging DC voltage of Y color.
	Use case	When low density or fogging occurs
	Display/adj/set range	-1000 to 0
	Appropriate target value	-870 to -450

COPIER > DISPLAY > DENS		
CHG-DC-M	Display of primary charging DC voltage (M)	
Lv.2	Details	To display the latest primary charging DC voltage of M color.
	Use case	When low density or fogging occurs
	Display/adj/set range	-1000 to 0
	Unit	V
	Appropriate target value	-870 to -450
CHG-DC-C	Display of primary charging DC voltage (C)	
Lv.2	Details	To display the latest primary charging DC voltage of C color.
	Use case	When low density or fogging occurs
	Display/adj/set range	-1000 to 0
	Unit	V
	Appropriate target value	-870 to -450
CHG-DC-K	Display of Pry charge DC voltg (Bk)& gain VL	
Lv.2	Details	To display the latest output value of primary charging DC voltage (Bk).
	Use case	When low density or fogging occurs
	Display/adj/set range	-1000 to 0
	Unit	V
	Appropriate target value	-870 to -450
D-K-TRGT	Display of ATR ctrl Bk patch target density	
Lv.2	Details	To display the Bk patch image target density created by ATR control.
	Use case	When analyzing the cause of a problem
	Display/adj/set range	0 to 65535
	Appropriate target value	450 to 640
P-D-P-Y	Display of ATR ctrl Y dark current (P-wave)	
Lv.2	Details	To display the Y/M color dark current (P-wave) detected by the Patch Sensor (Rear) at ATR control. At low density or fogging deterioration, use this mode to check whether there is a problem in the Patch Sensor.
	Use case	At low density or fogging deterioration
	Display/adj/set range	0 to 1023
	Appropriate target value	50 to 150
P-D-P-C	Display of ATR ctrl C dark current (P-wave)	
Lv.2	Details	To display the C/Bk color dark current (P-wave) detected by the Patch Sensor (Front) at ATR control. At low density or fogging deterioration, use this mode to check whether there is a problem in the Patch Sensor.
	Use case	At low density or fogging deterioration
	Display/adj/set range	0 to 1023
	Appropriate target value	50 to 150

COPIER > DISPLAY > DENS		
P-B-P-Y	Display Y drum base intnsty:ATR ctrl(P-wave)	
Lv.2	Details	To display the Photosensitive Drum (Y/M) background light intensity (P-wave) detected by the Patch Sensor (Rear) at ATR control. At low density or fogging deterioration, use this mode to check whether there is a problem in the Patch Sensor.
	Use case	At low density or fogging deterioration
	Display/adj/set range	0 to 1023
	Appropriate target value	300 to 650
P-B-P-C	Display C drum base intnsty:ATR ctrl(P-wave)	
Lv.2	Details	To display the Photosensitive Drum (C/Bk) background light intensity (P-wave) detected by the Patch Sensor (Front) at ATR control. At low density or fogging deterioration, use this mode to check whether there is a problem in the Patch Sensor.
	Use case	At low density or fogging deterioration
	Display/adj/set range	0 to 1023
	Appropriate target value	300 to 650
P-B-S-Y	Display Y drum base intnsty:ATR ctrl(S-wave)	
Lv.2	Details	To display the Photosensitive Drum (Y/M) background light intensity (S-wave) detected by the Patch Sensor (Rear) at ATR control. At low density or fogging deterioration, use this mode to check whether there is a problem in the Patch Sensor.
	Use case	At low density or fogging deterioration
	Display/adj/set range	0 to 255
	Appropriate target value	239 or less
P-B-S-C	Display C drum base intnsty:ATR ctrl(S-wave)	
Lv.2	Details	To display the Photosensitive Drum (C/Bk) background light intensity (S-wave) detected by the Patch Sensor (Front) at ATR control. At low density or fogging deterioration, use this mode to check whether there is a problem in the Patch Sensor.
	Use case	At low density or fogging deterioration
	Display/adj/set range	0 to 255
P-D-S-Y	Display of ATR ctrl Y dark current (S-wave)	
Lv.2	Details	To display the Y/M color dark current (S-wave) detected by the Patch Sensor (Rear) at ATR control. At low density or fogging deterioration, use this mode to check whether there is a problem in the Patch Sensor.
	Use case	At low density or fogging deterioration
	Display/adj/set range	0 to 1023
	Appropriate target value	100 to 200

COPIER > DISPLAY > DENS		
P-D-S-C		Display of ATR ctrl C dark current (S-wave)
Lv.2	Details	To display the C/Bk color dark current (S-wave) detected by the Patch Sensor (Front) at ATR control. At low density or fogging deterioration, use this mode to check whether there is a problem in the Patch Sensor.
	Use case	At low density or fogging deterioration
	Display/adj/set range	0 to 1023
	Appropriate target value	100 to 200
	CONT-M	
Lv.2	Details	To display the density detection control voltage of the Toner Density Sensor (M).
	Use case	When checking before clearing RAM data
	Display/adj/set range	0 to 255
	Unit	V
	Appropriate target value	6 to 85
	Related service mode	COPIER> ADJUST> DENS> CONT-M
CONT-Y		Display Toner Density Sensor (Y) ctrl voltg
Lv.2	Details	To display the density detection control voltage of the Toner Density Sensor (Y).
	Use case	When checking before clearing RAM data
	Display/adj/set range	0 to 255
	Unit	V
	Appropriate target value	6 to 85
	Related service mode	COPIER> ADJUST> DENS> CONT-Y
CONT-C		Display Toner Density Sensor (C) ctrl voltg
Lv.2	Details	To display the density detection control voltage of the Toner Density Sensor (C).
	Use case	When checking before clearing RAM data
	Display/adj/set range	0 to 255
	Unit	V
	Appropriate target value	6 to 85
	Related service mode	COPIER> ADJUST> DENS> CONT-C
CONT-K		Display Toner Density Sensor (Bk) ctrl voltg
Lv.2	Details	To display the density detection control voltage of the Toner Density Sensor (Bk).
	Use case	When checking before clearing RAM data
	Display/adj/set range	0 to 255
	Unit	V
	Appropriate target value	6 to 85
	Related service mode	COPIER> ADJUST> DENS> CONT-K

COPIER > DISPLAY > DENS		
TNSNS-Y		Display of Toner Supply Sensor (Y) voltg VL
Lv.1	Details	To display the voltage value detected by the Toner Supply Sensor (Y). 1.65V is the default voltage value which judges absence of toner in the Y-color Toner Buffer.
	Use case	When identifying whether the cause is that toner is not supplied from the Toner Container because the Toner Supply Sensor incorrectly detects presence of toner due to toner soiling at low density or E020
	Display/adj/set range	00.00 to 10.00
	Unit	V
	Related service mode	COPIER> OPTION> CUSTUM> TNSNS-CL
TNSNS-M		Display of Toner Supply Sensor (M) voltg VL
Lv.1	Details	To display the voltage value detected by the Toner Supply Sensor (M). 1.65V is the default voltage value which judges absence of toner in the M-color Toner Buffer.
	Use case	When identifying whether the cause is that toner is not supplied from the Toner Container because the Toner Supply Sensor incorrectly detects presence of toner due to toner soiling at low density or E020
	Display/adj/set range	00.00 to 10.00
	Unit	V
	Related service mode	COPIER> OPTION> CUSTUM> TNSNS-CL
TNSNS-C		Display of Toner Supply Sensor (C) voltg VL
Lv.1	Details	To display the voltage value detected by the Toner Supply Sensor (C). 1.65V is the default voltage value which judges absence of toner in the C-color Toner Buffer.
	Use case	When identifying whether the cause is that toner is not supplied from the Toner Container because the Toner Supply Sensor incorrectly detects presence of toner due to toner soiling at low density or E020
	Display/adj/set range	00.00 to 10.00
	Unit	V
	Related service mode	COPIER> OPTION> CUSTUM> TNSNS-CL
TNSNS-K		Display of Toner Supply Sensor (Bk) voltg VL
Lv.1	Details	To display the voltage value detected by the Toner Supply Sensor (Bk). 0.70V is the default voltage value which judges absence of toner in the Bk-color Toner Buffer.
	Use case	When identifying whether the cause is that toner is not supplied from the Toner Container because the Toner Supply Sensor incorrectly detects presence of toner due to toner soiling at low density or E020
	Display/adj/set range	00.00 to 10.00
	Unit	V
	Related service mode	COPIER> OPTION> CUSTUM> TNSNS-BK

COPIER > DISPLAY > DENS		
D-Y-LVL		Display of ATR patch form level (Y)
Lv.2	Details	To display the ATR patch form level of Y color. When numbers other than 1 to 7 are displayed, this is particularly caused by patch error.
	Use case	When judging whether there is an error in the ATR patch form level at E020 occurrence
	Display/adj/set range	0 to 255
	Appropriate target value	1 to 7
	Related service mode	COPIER > DISPLAY > DENS > D-Y-TRGT
D-M-LVL		Display of ATR patch form level (M)
Lv.2	Details	To display the ATR patch form level of M color. When numbers other than 1 to 7 are displayed, this is particularly caused by patch error.
	Use case	When judging whether there is an error in the ATR patch form level at E020 occurrence
	Display/adj/set range	0 to 255
	Appropriate target value	1 to 7
	Related service mode	COPIER > DISPLAY > DENS > D-M-TRGT
D-C-LVL		Display of ATR patch form level (C)
Lv.2	Details	To display the ATR patch form level of C color. When numbers other than 1 to 7 are displayed, this is particularly caused by patch error.
	Use case	When judging whether there is an error in the ATR patch form level at E020 occurrence
	Display/adj/set range	0 to 255
	Appropriate target value	1 to 7
	Related service mode	COPIER > DISPLAY > DENS > D-C-TRGT
D-K-LVL		Display of ATR patch form level (Bk)
Lv.2	Details	To display the ATR patch form level of Bk color. When numbers other than 1 to 7 are displayed, this is particularly caused by patch error.
	Use case	When judging whether there is an error in the ATR patch form level at E020 occurrence
	Display/adj/set range	0 to 255
	Appropriate target value	1 to 7
	Related service mode	COPIER > DISPLAY > DENS > D-K-TRGT

T-8-9

MISC

COPIER > DISPLAY > MISC		
ENV-TR		Display of internal environment
Lv.1	Details	To display the environment (moisture content) inside of the device.
	Use case	When analyzing the cause of density variation
	Display/adj/set range	1 to 3 1: Low humidity (below 5.90 g/m ³), 2: Normal humidity (5.90 g/m ³ or higher and below 15.90 g/m ³), 3: High humidity (15.90 g/m ³ or higher)
Y-DRM-LF		Display of Drum Unit (Y) life
Lv.1	Details	To display the life of Drum Unit (Y). The value is calculated from developing time, the charging time, and drum rotation time.
	Use case	When checking the life of Drum Unit
	Display/adj/set range	0 to 65535
	Unit	%
	Default value	0
M-DRM-LF		Display of Drum Unit (M) life
Lv.1	Details	To display the life of Drum Unit (M). The value is calculated from developing time, the charging time, and drum rotation time.
	Use case	When checking the life of Drum Unit
	Display/adj/set range	0 to 65535
	Unit	%
	Default value	0
C-DRM-LF		Display of Drum Unit (C) life
Lv.1	Details	To display the life of Drum Unit (C). The value is calculated from developing time, the charging time, and drum rotation time.
	Use case	When checking the life of Drum Unit
	Display/adj/set range	0 to 65535
	Unit	%
	Default value	0
K-DRM-LF		Display of Drum Unit (Bk) life
Lv.1	Details	To display the life of Drum Unit (Bk). The value is calculated from developing time, the charging time, and drum rotation time.
	Use case	When checking the life of Drum Unit
	Display/adj/set range	0 to 65535
	Unit	%
	Default value	0
LPOWER-Y		Display of laser power (Y)
Lv.2	Details	To display the Y laser power at the latest output. The value is determined by D-max control.
	Use case	When analyzing the cause of image failure (low density, ghost, etc.)
	Display/adj/set range	0 to 255

COPIER > DISPLAY > MISC		
LPOWER-M	Display of laser power (M)	
Lv.2	Details	To display the M laser power at the latest output. The value is determined by D-max control.
	Use case	When analyzing the cause of image failure (low density, ghost, etc.)
	Display/adj/set range	0 to 255
LPOWER-C	Display of laser power (C)	
Lv.2	Details	To display the C laser power at the latest output. The value is determined by D-max control.
	Use case	When analyzing the cause of image failure (low density, ghost, etc.)
	Display/adj/set range	0 to 255
LPOWER-K	Display of laser power (Bk)	
Lv.2	Details	To display the Bk laser power at the latest output. The value is determined by D-max control.
	Use case	When analyzing the cause of image failure (low density, ghost, etc.)
	Display/adj/set range	0 to 255

T-8-10

HT-C

COPIER > DISPLAY > HT-C		
TGT-A-Y	Display of ARCDAT screen A Y-color target VL	
Lv.2	Details	To display the Y-patch target value of screen A in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
TGT-A-M	Display of ARCDAT screen A M-color target VL	
Lv.2	Details	To display the M-patch target value of screen A in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
	Default value	255
TGT-A-C	Display of ARCDAT screen A C-color target VL	
Lv.2	Details	To display the C-patch target value of screen A in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
	Default value	255

COPIER > DISPLAY > HT-C		
TGT-A-K	Display of ARCDAT screen A Bk-clr target VL	
Lv.2	Details	To display the Bk-patch target value of screen A in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
	Default value	255
TGT-B-Y	Display of ARCDAT screen B Y-color target VL	
Lv.2	Details	To display the Y-patch target value of screen B in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
	Default value	255
TGT-B-M	Display of ARCDAT screen B M-color target VL	
Lv.2	Details	To display the M-patch target value of screen B in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
	Default value	255
TGT-B-C	Display of ARCDAT screen B C-color target VL	
Lv.2	Details	To display the C-patch target value of screen B in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
	Default value	255
TGT-B-K	Display of ARCDAT screen B Bk-clr target VL	
Lv.2	Details	To display the Bk-patch target value of screen B in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
	Default value	255

COPIER > DISPLAY > HT-C		
TGT-C-Y	Display of ARCDAT screen C Y-color target VL	
Lv.2	Details	To display the Y-patch target value of screen C in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
	Default value	255
TGT-C-M	Display of ARCDAT screen C M-color target VL	
Lv.2	Details	To display the M-patch target value of screen C in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
	Default value	255
TGT-C-C	Display of ARCDAT screen C C-color target VL	
Lv.2	Details	To display the C-patch target value of screen C in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
	Default value	255
TGT-C-K	Display of ARCDAT screen C Bk-clr target VL	
Lv.2	Details	To display the Bk-patch target value of screen C in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset the target value). Check the Patch Sensor if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Appropriate target value	0 to 700
	Default value	255
SUM-A-Y	Display ARCDAT screen A Y-color ctrl differ	
Lv.2	Details	To display Y-patch control difference of screen A in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0

COPIER > DISPLAY > HT-C		
SUM-A-M	Display ARCDAT screen A M-color ctrl differ	
Lv.2	Details	To display M-patch control difference of screen A in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
	SUM-A-C	Display ARCDAT screen A C-color ctrl differ
Lv.2	Details	To display C-patch control difference of screen A in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
	SUM-A-K	Display ARCDAT screen A Bk-color ctrl differ
Lv.2	Details	To display Bk-patch control difference of screen A in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
	SUM-B-Y	Display ARCDAT screen B Y-color ctrl differ
Lv.2	Details	To display Y-patch control difference of screen B in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
	SUM-B-M	Display ARCDAT screen B M-color ctrl differ
Lv.2	Details	To display M-patch control difference of screen B in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0

COPIER > DISPLAY > HT-C		
SUM-B-C		Display ARCDAT screen B C-color ctrl differ
Lv.2	Details	To display C-patch control difference of screen B in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
SUM-B-K		Display ARCDAT screen B Bk-color ctrl differ
Lv.2	Details	To display Bk-patch control difference of screen B in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
SUM-C-Y		Display ARCDAT screen C Y-color ctrl differ
Lv.2	Details	To display Y-patch control difference of screen C in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
SUM-C-M		Display ARCDAT screen C M-color ctrl differ
Lv.2	Details	To display M-patch control difference of screen C in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
SUM-C-C		Display ARCDAT screen C C-color ctrl differ
Lv.2	Details	To display C-patch control difference of screen C in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0

COPIER > DISPLAY > HT-C		
SUM-C-K		Display ARCDAT screen C Bk-color ctrl differ
Lv.2	Details	To display Bk-patch control difference of screen C in ARCDAT control. When hue variation occurs and the displayed value is not in the tolerable range, execute the auto gradation adjustment (reset target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
SGNL-A-Y		Display ARCDAT screen A Y-patch current VL
Lv.2	Details	To display the current Y-patch value of screen A in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0
SGNL-A-M		Display ARCDAT screen A M-patch current VL
Lv.2	Details	To display the current M-patch value of screen A in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0
SGNL-A-C		Display ARCDAT screen A C-patch current VL
Lv.2	Details	To display the current C-patch value of screen A in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0
SGNL-A-K		Display ARCDAT screen A Bk-patch current VL
Lv.2	Details	To display the current Bk-patch value of screen A in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0
SGNL-B-Y		Display ARCDAT screen B Y-patch current VL
Lv.2	Details	To display the current Y-patch value of screen B in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0

COPIER > DISPLAY > HT-C		
SGNL-B-M		Display ARCDAT screen B M-patch current VL
Lv.2	Details	To display the current M-patch value of screen B in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0
SGNL-B-C		Display ARCDAT screen B C-patch current VL
Lv.2	Details	To display the current C-patch value of screen B in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0
SGNL-B-K		Display ARCDAT screen B Bk-patch current VL
Lv.2	Details	To display the current Bk-patch value of screen B in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0
SGNL-C-Y		Display ARCDAT screen C Y-patch current VL
Lv.2	Details	To display the current Y-patch value of screen C in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0
SGNL-C-M		Display ARCDAT screen C M-patch current VL
Lv.2	Details	To display the current M-patch value of screen C in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0
SGNL-C-K		Display ARCDAT screen C Bk-patch current VL
Lv.2	Details	To display the current Bk-patch value of screen C in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0

COPIER > DISPLAY > HT-C		
SGNL-C-C		Display ARCDAT screen C C-patch current VL
Lv.2	Details	To display the current C-patch value of screen C in ARCDAT control. When hue variation occurs or the value shown is not in the tolerable range, check the Patch Sensor or replace the developer.
	Use case	When hue variation occurs
	Display/adj/set range	0 to 1023
	Default value	0
DLTA-A-Y		Display of ARCDAT screen A Y-density differ
Lv.2	Details	To display the difference between the Y-patch target value and the current value of screen A in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
DLTA-A-M		Display of ARCDAT screen A M-density differ
Lv.2	Details	To display the difference between the M-patch target value and the current value of screen A in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
DLTA-A-C		Display of ARCDAT screen A C-density differ
Lv.2	Details	To display the difference between the C-patch target value and the current value of screen A in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
DLTA-A-K		Display of ARCDAT screen A Bk-density differ
Lv.2	Details	To display the difference between the Bk-patch target value and the current value of screen A in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0

COPIER > DISPLAY > HT-C		
DLTA-B-Y		Display of ARCDAT screen B Y-density differ
Lv.2	Details	To display the difference between the Y-patch target value and the current value of screen B in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
DLTA-B-M		Display of ARCDAT screen B M-density differ
Lv.2	Details	To display the difference between the M-patch target value and the current value of screen B in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
DLTA-B-C		Display of ARCDAT screen B C-density differ
Lv.2	Details	To display the difference between the C-patch target value and the current value of screen B in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
DLTA-B-K		Display of ARCDAT screen B Bk-density differ
Lv.2	Details	To display the difference between the Bk-patch target value and the current value of screen B in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0

COPIER > DISPLAY > HT-C		
DLTA-C-Y		Display of ARCDAT screen C Y-density differ
Lv.2	Details	To display the difference between the Y-patch target value and the current value of screen C in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
DLTA-C-M		Display of ARCDAT screen C M-density differ
Lv.2	Details	To display the difference between the M-patch target value and the current value of screen C in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
DLTA-C-C		Display of ARCDAT screen C C-density differ
Lv.2	Details	To display the difference between the C-patch target value and the current value of screen C in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
DLTA-C-K		Display of ARCDAT screen C Bk-density differ
Lv.2	Details	To display the difference between the Bk-patch target value and the current value of screen C in ARCDAT control. When hue variation occurs and the value shown is not in the tolerable range, execute auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not corrected.
	Use case	When hue variation occurs
	Display/adj/set range	-1023 to 1023
	Default value	0
TGT-A-Y2		[Not used]
TGT-A-M2		[Not used]
TGT-A-C2		[Not used]
TGT-A-K2		[Not used]
TGT-B-Y2		[Not used]
TGT-B-M2		[Not used]

COPIER > DISPLAY > HT-C	
TGT-B-C2	[Not used]
TGT-B-K2	[Not used]
TGT-C-Y2	[Not used]
TGT-C-M2	[Not used]
TGT-C-C2	[Not used]
TGT-C-K2	[Not used]
SUM-A-Y2	[Not used]
SUM-A-M2	[Not used]
SUM-A-C2	[Not used]
SUM-A-K2	[Not used]
SUM-B-Y2	[Not used]
SUM-B-M2	[Not used]
SUM-B-C2	[Not used]
SUM-B-K2	[Not used]
SUM-C-Y2	[Not used]
SUM-C-M2	[Not used]
SUM-C-C2	[Not used]
SUM-C-K2	[Not used]
DLT-A-Y2	[Not used]
DLT-A-M2	[Not used]
DLT-A-C2	[Not used]
DLT-A-K2	[Not used]
DLT-B-Y2	[Not used]
DLT-B-M2	[Not used]
DLT-B-C2	[Not used]
DLT-B-K2	[Not used]
DLT-C-Y2	[Not used]
DLT-C-M2	[Not used]
DLT-C-C2	[Not used]
DLT-C-K2	[Not used]
SGL-A-Y2	[Not used]
SGL-A-M2	[Not used]
SGL-A-C2	[Not used]
SGL-A-K2	[Not used]
SGL-B-Y2	[Not used]
SGL-B-M2	[Not used]
SGL-B-C2	[Not used]
SGL-B-K2	[Not used]
SGL-C-Y2	[Not used]
SGL-C-M2	[Not used]
SGL-C-C2	[Not used]
SGL-C-K2	[Not used]

T-8-11



■ Main Device (DCON > P001 to P016)

Address	bit	Name	Mark	0	1
P001	0	(UART) LOG retrieval IF RX			
	1	(UART) LOG retrieval IF TX			
	2	Duplex Sensor	PS31	no paper	paper
	3	Third Delivery Sensor	PS30	no paper	paper
	4	Reverse Sensor	PS29	no paper	paper
	5	Second Delivery Sensor	PS27	no paper	paper
	6	Second Delivery Sensor	PS27	no paper	paper
	7	CST 2 Vertical Path Sensor	PS17	no paper	paper
	8	DCON version identification			
	9	DCON version identification: phase 1			
	10	For spare debug			
	11				
	12	Patch Sensor (Rear)	UN44	OFF	ON
	13	Patch Sensor (Front)	UN43	OFF	ON
	14	AC-Driver_ID0		[ID1,ID0 = 00:100V / 01 :	
15	AC-Driver_ID1		120V / 10 : 230V / 11 : spare]		
P002	0	Laser Scanner Thermistor			
	1	Y primary transfer current			
	2	M primary transfer current			
	3	C primary transfer current			
	4	K primary transfer current			
	5	Registration Patch Sensor LED signal (front)		OFF	ON
	6	Registration Patch Sensor LED signal (rear)		OFF	ON
	7	I2C-BUFFER			
	8	Second Delivery Tray Full Sensor	PS28	paper	no paper
	9	Spare: Duplex Sensor		no paper	paper
	10	Main Power Switch OFF detection	SW06	ON	OFF
	11	Fixing pressure release detection signal	PS24		engage
	12	Fixing safety circuit error signal 4			
	13	Fixing safety circuit error signal 3			
	14	Fixing safety circuit error signal 2			
15	Fixing Assembly detection signal			installed	

Address	bit	Name	Mark	0	1
P003	0	Zerox signal			
	1	(I2C) I2C Communication Line (Data)			
	2	(I2C) I2C Communication Line (Clock)			
	3	Registration Sensor	PS20	no paper	paper
	4				
	5				
	6	Warm-up rotation signal			
	7	ROBIN interruption signal			
	8	M Bottle Motor detection	M09	OFF	ON
	9	C Bottle Motor detection	M11	OFF	ON
	10	K Bottle Motor detection	M13	OFF	ON
	11	ENG1 interruption (STM)			
	12	ENG1 interruption (screw rotation detection)			
	13	ASIC actuating/reset signal			
	14	ITB position detection signal			
P004	0	Fixing Heater drive signal (MAIN)		OFF	ON
	1	Fixing Heater drive signal (SUB)		OFF	ON
	2	Fixing Relay 1 drive signal		OFF	ON
	3	Fixing Relay 2 drive signal		OFF	ON
	4				
	5				
	6				
	7				
	8	Image formation high voltage signal output			
	9	ASIC-ROBIN chip select signal			
	10	ASIC-ENG1 chip select signal			
	11	ATR Sensor (Y)	UN39		
	12	ATR Sensor (M)	UN40		
	13	ATR Sensor (C)	UN41		
	14	ATR Sensor (Bk)	UN42		
15	Y Bottle Motor current detection				

Address	bit	Name	Mark	0	1
P005	0	Dustproof Shutter Motor standby			
	1	ITB Motor	M02	OFF	ON
	2	Fixing Motor	M17	OFF	ON
	3	Drum Motor	M04	OFF	ON
	4	Developing Motor	M03	OFF	ON
	5	Primary Transfer Disengagement Solenoid	SL01	OFF	ON
	6	CST 1 Pickup Solenoid	SL04	OFF	ON
	7	Drum Unit power supply enable		OFF	ON
	8	CST 1 Pickup Motor standby	M15	OFF	ON
	9	CST 1 Pickup Motor current degradation			
	10	Duplex Feed Motor standby	M19	OFF	ON
	11	Duplex Feed Motor current degradation			
	12	Reverse Motor standby	M21	OFF	ON
	13	Reverse Motor current degradation			
	14	Multi-purpose Pickup Solenoid	SL03	OFF	ON
15	CST 2 Pickup Solenoid	SL05	OFF	ON	
P006	0	High voltage DAC RST signal			
	1	DC Controller Operation Check LED			
	2	CST 1 Lifter Motor	M14	ON	OFF
	3	ENG1-STP-MTR-STBY: enabling the Stepping Motor rotated by ENG1			
	4				
	5				
	6				
	7				
	8	ITB Position Detection LED			
	9				
	10	Non All Night PCB 24V supply enable			supply
	11	Supply power to the Photo Sensor of the Fixing Assembly			
	12	Registration Patch Sensor (Front)			
	13	Registration Patch Sensor (Front)			
	14	Registration Patch Sensor (Rear)			
15	Registration Patch Sensor (Rear)				

Address	bit	Name	Mark	0	1
P007	0	CST 1 Lifter Sensor	PS12		detect
	1	CST 1 Paper Level Sensor	PS14		detect
	2	CST 2 Paper Level Sensor A	PS18		detect
	3	CST 2 Paper Level Sensor B	PS19		detect
	4				
	5				
	6				
	7				
	8	Factory checker mode identification			
	9	Non-interlock (5V) detection			detect
	10	First Delivery Sensor	PS21	OFF	ON
	11	Primary Transfer Disengagement Switch	SW01	OFF	ON
	12	24V interlock detct		OFF	ON
	13	Laser Shutter Sensor	PS05	OFF	ON
	14	Waste Toner Bottle Switch	SW02	OFF	ON
15	First Delivery Tray Paper Full Sensor	PS25	OFF	ON	
P008	0				
	1				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9	3 Way Unit Cooling Fan lock detection signal	FM04		lock
	10				
	11				
	12				
	13				
	14				
15					

Address	bit	Name	Mark	0	1
P009	0	LIVEWAKE signal			
	1	Controller reset signal			
	2	P0 signal			
	3	CST 1 Paper Sensor	PS13	no paper	paper
	4	CST 2 Paper Sensor	PS14	paper	no paper
	5	Right Lower Cover Sensor	PS35	open	close
	6	CST Right Upper Cover Open/Close Detection Switch	SW18	close	open
	7	Front Cover Sensor	PS34	open	close
	8				
	9				
	10				
	11				
	12				
	13				
	14				
P010	0	Developing Assembly (Y) Screw Rotation Interruption Signal			
	1	Developing Assembly (M) Screw Rotation Interruption Signal			
	2	Developing Assembly (C) Screw Rotation Interruption Signal			
	3	Developing Assembly (Bk) Screw Rotation Interruption Signal			
	4	Multi-purpose Tray Last Paper Sensor	PS11	no paper	paper
	5	Multi-purpose Tray Paper Sensor	PS10	paper	no paper
	6	Finisher Communication Line enable detection			
	7	Waste Toner Full Sensor	SW16	detect	
	8	Inner Finisher detection signal		detect	
	9	3 Way Unit detection signal		detect	
	10	Pedestal detection signal		detect	
	11	Cassette Pedestal ready signal			Ready
	12	Toner Bottle Switch (Y)	SW08	detect	
	13	Toner Bottle Switch (M)	SW09	detect	
	14	Toner Bottle Switch (C)	SW10	detect	
15	Toner Bottle Switch (Bk)	SW11	detect		

Address	bit	Name	Mark	0	1
P011	0	Toner Supply Motor (Y)	M06	OFF	ON
	1	Toner Bottle Motor (Y)	M07	OFF	ON
	2	Toner Supply Motor (M)	M08	OFF	ON
	3	Toner Bottle Motor (M)	M09	OFF	ON
	4	Toner Supply Motor (C)	M10	OFF	ON
	5	Toner Bottle Motor (C)	M11	OFF	ON
	6	Toner Supply Motor (Bk)	M12	OFF	ON
	7	Toner Bottle Motor (Bk)	M13	OFF	ON
	8				
	9				
	10				
	11				
	12				
	13				
	14				
15					
P012	0	DDI_LPPRDY			
	1	Inner Finisher download enable			
	2	Inner Finisher download mode settings			
	3				
	4	Cassette Pedestal reset signal			
	5	Inner Finisher Communication Line enable			
	6	Inner Finisher Controller reset			
	7				
	8	CST 2 Pickup Motor_I1		IO:11= 00:100% 01:70% 10:30%	
	9	CST 2 Pickup Motor_I0		11:0%	
	10	Fixing Outlet Motor_I1		IO:11= 00:100% 01:70% 10:30%	
	11	Fixing Outlet Motor_I0		11:0%	
	12	Second Delivery Motor_I1		IO:11= 00:100% 01:70% 10:30%	
	13	Second Delivery Motor_I0		11:0%	
	14	Third Delivery Motor_I1		IO:11= 00:100% 01:70% 10:30%	
15	Third Delivery Motor_I0		11:0%		

Address	bit	Name	Mark	0	1
P013	0	CST 2 Size Switch 0	UN49	OFF	ON
	1	CST 2 Size Switch 1	UN49	OFF	ON
	2	CST 2 Size Switch 2	UN49	OFF	ON
	3	CST 2 Size Switch 3	UN49	OFF	ON
	4	CST 2 Size Switch 4	UN50	OFF	ON
	5	CST 2 Size Switch 5	UN50	OFF	ON
	6	CST 2 Size Switch 6	UN50	OFF	ON
	7	CST 2 Size Switch 7	UN50	OFF	ON
	8	CST 1 Size Switch 0	UN46	OFF	ON
	9	CST 1 Size Switch 1	UN46	OFF	ON
	10	CST 1 Size Switch 2	UN46	OFF	ON
	11	CST 1 Size Switch 3	UN47	OFF	ON
	12	CST 1 Size Switch 4	UN47	OFF	ON
	13	CST 1 Size Switch 5	UN47	OFF	ON
	14				
15					
P014	0	CST 4 Size Switch 0	SW103	OFF	ON
	1	CST 4 Size Switch 1	SW103	OFF	ON
	2	CST 4 Size Switch 2	SW103	OFF	ON
	3	CST 4 Size Switch 3	SW103	OFF	ON
	4	CST 4 Size Switch 4	SW104	OFF	ON
	5	CST 4 Size Switch 5	SW104	OFF	ON
	6	CST 4 Size Switch 6	SW104	OFF	ON
	7	CST 4 Size Switch 7	SW104	OFF	ON
	8	CST 3 Size Switch 0	SW101	OFF	ON
	9	CST 3 Size Switch 1	SW101	OFF	ON
	10	CST 3 Size Switch 2	SW101	OFF	ON
	11	CST 3 Size Switch 3	SW101	OFF	ON
	12	CST 3 Size Switch 4	SW102	OFF	ON
	13	CST 3 Size Switch 5	SW102	OFF	ON
	14	CST 3 Size Switch 6	SW102	OFF	ON
15	CST 3 Size Switch 7	SW102	OFF	ON	

Address	bit	Name	Mark	0	1
P015	0	Cassette Pedestal PCB version			
	1	Cassette Pedestal PCB version			
	2	Cassette Pedestal PCB version			
	3				
	4				
	5				
	6				
	7	Pedestal Right Cover Sensor	PS101	close	open
	8	CST 4 Vertical Path Sensor	PS109	no paper	paper
	9	CST 4 Paper Level Sensor B	PS107	paper	no paper
	10	CST 4 Paper Level Sensor A	PS106	paper	no paper
	11	CST 4 Paper Sensor	PS103	paper	no paper
	12	CST 3 Vertical Path Sensor	PS108	no paper	paper
	13	CST 3 Paper Level Sensor B	PS105	paper	no paper
	14	CST 3 Paper Level Sensor A	PS104	paper	no paper
15	CST 3 Paper Sensor	PS102	paper	no paper	
P016	0	CST 3 Pickup Solenoid	SL101	OFF	ON
	1	CST 4 Pickup Solenoid	SL102	OFF	ON
	2				
	3				
	4	CST 3 Pickup Motor I0	M101	OFF	ON
	5	CST 3 Pickup Motor I1	M101	OFF	ON
	6	CST 4 Pickup Motor I0	M102	OFF	ON
	7	CST 4 Pickup Motor I1	M102	OFF	ON
	8				
	9	Cassette 4 Pickup Motor standby settings			
	10	Cassette 3 Pickup Motor standby settings			
	11	Cassette 3/4 Motor mode settings		Full	Half
	12	Switching of Cassette 3/4 Motor current settings			
	13	Pedestal size detection enable		Disable	Enable
	14	Pedestal paper level detection enable		Disable	Enable
15					

T-8-12

■ Color Image Reader Unit (RCON > P001)

Adress	bit	name	Mark	0	1
P001	7	Original size sensor 1	SR5		Document present
	6	Original size sensor 0	SR4		Document present
	5	Original size sensor			Document present
	4	Original size sensor			Document present
	3	Copyboard cover open/closed sensor(rear)	SR3	5=< to <25	<5,25=<
	2	Not used	-	-	-
	1	CCD HP sensor	SR1		HP
	0	Copyboard cover open/closed sensor(front)	SR2	>15	15=<

T-8-13

■ Color Image Reader Unit-D2 (FEEDER > P001)

Adress	bit	name	Mark	Remarks
P001	15	Not used.	-	-
	14	Not used.	-	-
	13	Document set sensor	SR5	1: Document present
	12	Not used.	-	-
	11	Cover open/closed sensor	SR6	1: Open
	10	Release motor HP sensor	SR11	1: Release
	9	Document length sensor 1	SR9	1: Document present
	8	Document length sensor 2	SR8	1: Document present
	7	Registration sensor	SR1	1: Document present
	6	Timing sensor	SR4	1: Document present
	5	Read sensor	SR2	1: Document present
	4	Delivery reversal sensor	SR3	1: Document present
	3	ADF fan motor lock detection	FM1	1: Locked
	2	Not used.	-	-
	1	Document tray width sensor 2	PS1	1: Document present
	0	Document tray width sensor 1	PS2	1: Document present

T-8-14

■ Inner Finisher-C1(SORTER>P001 to P012)

Adress	bit	name	Mark	0	1
P001	7	Entrance sensor	S1	ON	OFF
	6	Gripper arm sensor	S13	ON	OFF
	5	-			
	4	-			
	3	-			
	2	-			
	1	-			
	0	-			
P002	7	Gripper unit move motor_CW	M2	CW	CCW
	6	-			
	5	Paper lever drive solenoid	SOL1	OFF	ON
	4	Stapler solenoid	SOL2	OFF	ON
	3	Shift motor	M4	OFF	ON
	2	Shift roller release motor	M5	OFF	ON
	1	Entrance roller release/ stopper HP motor	M6	OFF	ON
	0	Gripper open/ close motor	M7	OFF	ON
P003	7	Feed motor_CW	M3	CW	CCW
	6	Feed motor_clock	M3	OFF	ON
	5	STP move motor_CW	M1	CW	CCW
	4	STP move motor_clock	M1	OFF	ON
	3	STP move motor_PWM	M1	OFF	ON
	2	Feed motor_PWM	M3	OFF	ON
	1	-			
	0	Gripper unit move motor_PWM	M2	OFF	ON
P004	7	-			
	6	-			
	5	-			
	4	-			
	3	Additional tray clock sensor	S23	ON	OFF
	2	Stack tray clock sensor	S14	ON	OFF
	1	Stapler move HP sensor	S10	ON	OFF
	0	Stapler HP sensor	S18	ON	OFF
P005	7	-			
	6	-			
	5	Entrance roller release/ stopper HP sensor	S5	ON	OFF
	4	Gripper unit HP sensor	S7	ON	OFF
	3	Shift roller release sensor	S3	ON	OFF
	2	Shift roller HP sensor	S2	ON	OFF
	1	-			
	0	-			

Adress	bit	name	Mark	0	1
P006	7	Additional tray upper/ Lower limit sensor	S21	OFF	ON
	6	-			
	5	-			
	4	-			
	3	-			
	2	-			
	1	-			
	0	-			
P007	7	-			
	6	-			
	5	-			
	4	-			
	3	-			
	2	-			
	1	-			
	0	Additional tray paper sensor	S22	OFF	ON
P008	7	Shift roller release motor_CW	M5	CW	CCW
	6	-			
	5	Feed motor_CW	M4	CW	CCW
	4	-			
	3	-			
	2	-			
	1	Entrance roller release/ stopper HP motor_CW	M6	CW	CCW
0	-				
P009	7	-			
	6	-			
	5	-			
	4	-			
	3	-			
	2	-			
	1	-			
	0	-			
P010	7	-			
	6	-			
	5	-			
	4	-			
	3	Stack tray paper sensor	S15	no paper	paper
	2	Stack tray lower limit sensor	S17	no paper	paper
	1	Stack tray middle sensor	S16	no paper	paper
0	-				

Adress	bit	name	Mark	0	1
P011	7	Processing tray sensor	S6	no paper	paper
	6	Stapler safety switch	SW2	OFF	ON
	5	-			
	4	-			
	3	Front fan motor/ Rear fan motor	M8/M9	OFF	ON
	2	-			
	1	-			
	0	-			
P012	7	-			
	6	-			
	5	Paper surface sensor2	S12	OFF	ON
	4	Paper surface sensor1	S11	OFF	ON
	3	Stapler edging sensor	S19	OFF	ON
	2	Stapler sensor	S20	OFF	ON
	1	-			
	0	Front cover switch	SW1	OFF	ON

T-8-15




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 lead edge position) in vertical scanning direction. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, 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 - When clearing the RAM data of 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.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	1 to 100
	Unit	0.1 mm
	Default value	20
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 CCD Unit/clearing the RAM data of the Reader Unit, 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 - When clearing the RAM data of 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.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	1 to 250
	Unit	0.1 mm
	Default value	77

COPIER > ADJUST > ADJ-XY		
ADJ-S	Adj image read start position: horz scan	
Lv.1	Details	To adjust the image reading start position in horizontal scanning direction when black line/white line occurs. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label. 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 - When clearing the RAM data of 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.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 500
	Unit	0.1 mm
	Default value	124
ADJ-Y-DF	Adj img pstn in DADF mode:horz scan[Fr]	
Lv.1	Details	To adjust the image reading start position in horizontal scanning direction at DADF reading. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, 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 - When clearing the RAM data of 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.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	1 to 250
	Unit	0.1 mm
	Default value	77
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 CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label.
	Use case	- When replacing the Reader Controller PCB - When clearing the RAM data of 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.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	1 to 200
	Unit	0.1 mm
	Default value	100
	Related service mode	COPIER> FUNCTION> INSTALL> STRD-POS

COPIER > ADJUST > ADJ-XY		
ADJ-X-MG	Adj img ratio in book mod:vert scan[frt]	
Lv.1	Details	To make a fine adjustment of image magnification in vertical scanning direction at copyboard reading. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, 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 - When clearing the RAM data of the Reader Unit
	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	-10 to 10
	Unit	0.01%
	Default value	0

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■ CCD

COPIER > ADJUST > CCD		
W-PLT-X	White level data(X) entry of white plate	
Lv.1	Details	When clearing the RAM data of the Reader Unit, enter the value of P-PRINT. When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit - 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	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 9999
	Default value	8271
	Related service mode	COPIER.> ADJUST> CCD> W-PLT-Y, W-PLT-Z COPIER> FUNCTION> MISC-P> P-PRINT

COPIER > ADJUST > CCD		
W-PLT-Y	White level data(Y) entry of white plate	
Lv.1	Details	When clearing the RAM data of the Reader Unit, enter the value of P-PRINT. When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit - 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	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 9999
	Default value	8735
	Related service mode	COPIER.> ADJUST> CCD> W-PLT-X, W-PLT-Z COPIER> FUNCTION> MISC-P> P-PRINT
W-PLT-Z	White level data(Z) entry of white plate	
Lv.1	Details	When clearing the RAM data of the Reader Unit, enter the value of P-PRINT. When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit - 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	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 9999
	Default value	9418
	Related service mode	COPIER.> ADJUST> CCD> W-PLT-X, W-PLT-Y COPIER> FUNCTION> MISC-P> P-PRINT
SH-TRGT	Shading tgt VL(B&W)[book mode]:D-Reader	
Lv.1	Details	To set the B&W shading target value in copyboard reading mode. When clearing the RAM data of the Reader Unit, enter the value of P-PRINT.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 2047
	Default value	1136
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

COPIER > ADJUST > CCD	
50-RG	RG clr displc crct:50% book mod[front]
Lv.1	Details
	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit (paper front) occurs at 50% Book mode. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label.
	Use case
	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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
50-GB	GB clr displc crct:50% book mod[front]
Lv.1	Details
	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit (paper front) occurs at 50% Book mode. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label.
	Use case
	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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	
100-RG	RG clr displc crct:100% book mod[front]
Lv.1	Details
	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit (paper front) occurs at 100% Book mode. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label.
	Use case
	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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	GB clr displc crct:100% book mod[front]
Lv.1	Details
	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit (paper front) occurs at 100% Book mode. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label.
	Use case
	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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		
50DF-RG	RG clr displc crct:50% DADF mode[front]	
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit (paper front) occurs at 50% DADF mode. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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
50DF-GB	GB clr displc crct:50% DADF mode[front]	
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit (paper front) occurs at 50% DADF mode. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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		
100DF-RG	RG clr displc crct:100% DADF mod[front]	
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit (paper front) occurs at 100% DADF mode. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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
100DF-GB	GB clr displc crct:100% DADF mod[front]	
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit (paper front) occurs at 100% DADF mode. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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
DFTAR-R	Shading target value (R) [Front side]	
Lv.1	Details	When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit - 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.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 2047
	Default value	1159
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT

COPIER > ADJUST > CCD		
DFTAR-G		Shading target value (G) [Front side]
Lv.1	Details	When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit - 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.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 2047
	Default value	1189
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT
	DFTAR-B	
Lv.1	Details	When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit - 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.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 2047
	Default value	1209
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT
	CCD-CHNG	
Lv.1	Details	Optimal value of the MTF value for the CCD Unit can be obtained by recalculation as long as the same CCD Unit is used. Set 1 as the judgment reference because it is necessary to obtain the MTF value separately when the CCD Unit is replaced.
	Use case	When replacing the CCD 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 replaced, 1: Replaced
	Default value	0

COPIER > ADJUST > CCD		
MTF3-M1		MTF value 1 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-M2		MTF value 2 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
Related service mode	COPIER> FUNCTION> CCD> MTF-CLC	
MTF3-M3		MTF value 3 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-M4		MTF value 4 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF3-M5		MTF value 5 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-M6		MTF value 6 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-M7		MTF value 7 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-M8		MTF value 8 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF3-M9		MTF value 9 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-M10		MTF value 10 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-M11		MTF value 11 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-M12		MTF value 12 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of label on the CCD Unit.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of 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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF3-S1		MTF value 1 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-S2		MTF value 2 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-S3		MTF value 3 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-S4		MTF value 4 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-S5		MTF value 5 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF3-S6		MTF value 6 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-S7		MTF value 7 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-S8		MTF value 8 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-S9		MTF value 9 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-S10		MTF value 10 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF3-S11	MTF value 11 setting: vert scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF3-S12	MTF value 12 setting: vert scan [Front]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-M1	MTF value 1 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-M2	MTF value 2 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-M3	MTF value 3 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF4-M4	MTF value 4 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-M5	MTF value 5 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-M6	MTF value 6 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-M7	MTF value 7 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-M8	MTF value 8 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF4-M9	MTF value 9 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-M10	MTF value 10 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-M11	MTF value 11 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-M12	MTF value 12 setting: horz scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-S1	MTF value 1 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF4-S2	MTF value 2 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-S3	MTF value 3 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-S4	MTF value 4 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-S5	MTF value 5 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-S6	MTF value 6 setting: vert scan [Back]	
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF4-S7		MTF value 7 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-S8		MTF value 8 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-S9		MTF value 9 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-S10		MTF value 10 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF4-S11		MTF value 11 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF4-S12		MTF value 12 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation.
	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	20 to 80
	Default value	55
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

T-8-17

■ IMG-REG

COPIER > ADJUST > IMG-REG			
REG-H-Y		Adj Y color write start pstn: horz scan	
Lv.1	Details	To adjust the write start position of yellow color image in the horizontal scanning direction in increments of 1 pixel.	
	Use case	When yellow color displacement in the horizontal scanning direction occurs	
	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	-128 to 127	
	Unit	1 pixel	
REG-H-C		Adj C color write start pstn: horz scan	
Lv.1	Details	To adjust the write start position of cyan color image in the horizontal scanning direction in increments of 1 pixel.	
	Use case	When cyan color displacement in the horizontal scanning direction occurs	
	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	-128 to 127	
	Unit	1 pixel	
REG-H-K		Adj Bk color write start pstn: horz scan	
Lv.1	Details	To adjust the write start position of black color image in the horizontal scanning direction in increments of 1 pixel.	
	Use case	When black color displacement in the horizontal scanning direction occurs	
	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	-128 to 127	
	Unit	1 pixel	
		Default value	0

COPIER > ADJUST > IMG-REG		
REG-HS-Y	Adj Y color write start pstn: horz scan	
Lv.1	Details	To adjust the write start position of yellow color image in the horizontal scanning direction in smaller increments than 1 pixel.
	Use case	When yellow color displacement in the horizontal scanning direction occurs (smaller than 1 pixel)
	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	-128 to 127
	Unit	1/32 pixel
	Default value	0
REG-HS-C	Adj C color write start pstn: horz scan	
Lv.1	Details	To adjust the write start position of cyan color image in the horizontal scanning direction in smaller increments than 1 pixel.
	Use case	When cyan color displacement in the horizontal scanning direction occurs (smaller than 1 pixel)
	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	-128 to 127
	Unit	1/32 pixel
	Default value	0
REG-HS-K	Adj Bk color write start pstn: horz scan	
Lv.1	Details	To adjust the write start position of black color image in the horizontal scanning direction in smaller increments than 1 pixel.
	Use case	When black color displacement in the horizontal scanning direction occurs (smaller than 1 pixel)
	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	-128 to 127
	Unit	1/32 pixel
	Default value	0
REG-V-Y	Adj Y color write start pstn: vert scan	
Lv.1	Details	To adjust the write start position of yellow color image in the vertical scanning direction in increments of 1 pixel.
	Use case	When yellow color displacement in the vertical scanning direction occurs
	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 127
	Unit	1 line
	Default value	0

COPIER > ADJUST > IMG-REG		
REG-V-C	Adj C color write start pstn: vert scan	
Lv.1	Details	To adjust the write start position of cyan color image in the vertical scanning direction in increments of 1 pixel.
	Use case	When cyan color displacement in the vertical scanning direction occurs
	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	-128 to 127
	Unit	1 line
	Default value	0
REG-V-K	Adj Bk color write start pstn: vert scan	
Lv.1	Details	To adjust the write start position of black color image in the vertical scanning direction in increments of 1 pixel.
	Use case	When black color displacement in the vertical scanning direction occurs
	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	-128 to 127
	Unit	1 line
	Default value	0
REG-H-M	Adj M color write start pstn: horz scan	
Lv.1	Details	To adjust the write start position of magenta color image in the horizontal scanning direction in increments of 1 pixel.
	Use case	When magenta color displacement in the horizontal scanning direction occurs
	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	-128 to 127
	Unit	1 pixel
	Default value	0
REG-V-M	Adj M color write start pstn: vert scan	
Lv.1	Details	To adjust the write start position of magenta color image in the vertical scanning direction in increments of 1 pixel.
	Use case	When magenta color displacement in the vertical scanning direction occurs
	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	-128 to 127
	Unit	1 line
	Default value	0

COPIER > ADJUST > IMG-REG	
REG-HS-M	Fine adj M write start psn: horz scan
Lv.1	Details
	To adjust the write start position of magenta color image in the horizontal scanning direction in smaller increments than 1 pixel.
	Use case
	When magenta color displacement in the horizontal scanning direction occurs (smaller than 1 pixel)
	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
	-128 to 127
	Unit
	1/32 pixel
	Default value
	0

T-8-18

■ DENS

COPIER > ADJUST > DENS	
SGNL-Y	Adj Y toner dens tgt VL: initialization
Lv.1	Details
	To adjust the offset of the Y-toner density target value to calculate TD ratio at initialization of the Patch Sensor. When the value is increased, TD ratio is decreased so that fogging is alleviated. When the value is decreased, TD ratio is increased so does density, but fogging/scattering occurs.
	Use case
	When checking the value before RAM clear and re-enter it after RAM clear
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-36 to 36
	Default value
	0
SGNL-M	Adj M toner dens tgt VL: initialization
Lv.1	Details
	To adjust the offset of the M-toner density target value to calculate TD ratio at initialization of the Patch Sensor. When the value is increased, TD ratio is decreased so that fogging is alleviated. When the value is decreased, TD ratio is increased so does density, but fogging/scattering occurs.
	Use case
	When checking the value before RAM clear and re-enter it after RAM clear
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-36 to 36
	Default value
	0

COPIER > ADJUST > DENS	
SGNL-C	Adj C toner dens tgt VL: initialization
Lv.1	Details
	To adjust the offset of the C-toner density target value to calculate TD ratio at initialization of the Patch Sensor. When the value is increased, TD ratio is decreased so that fogging is alleviated. When the value is decreased, TD ratio is increased so does density, but fogging/scattering occurs.
	Use case
	When checking the value before RAM clear and re-enter it after RAM clear
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-36 to 36
	Default value
	0
SGNL-K	Adj Bk toner dens tgt VL: initialization
Lv.1	Details
	To adjust the offset of the Bk-toner density target value to calculate TD ratio at initialization of the Patch Sensor. When the value is increased, TD ratio is decreased so that fogging is alleviated. When the value is decreased, TD ratio is increased so does density, but fogging/scattering occurs.
	Use case
	When checking the value before RAM clear and re-enter it after RAM clear
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range
	-36 to 36
	Default value
	0
HLMT-PTY	Adj Toner Sensor(Y) dens crct upr limit
Lv.2	Details
	To adjust the upper limit of the target density correction (lower limit of TD ratio) of the Toner Sensor (Y). When the value is increased (TD ratio is decreased), fogging/scattering is alleviated.
	Use case
	When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) occurs
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range
	-5 to 5
	Unit
	6 dec (equivalent to 5% of T/D ratio)
	Default value
	0

COPIER > ADJUST > DENS	
HLMT-PTM	Adj Toner Sensor(M) dens crct upr limit
Lv.2	<p>Details</p> <p>To adjust the upper limit of the target density correction (lower limit of TD ratio) of the Toner Sensor (M). As the value is incremented by 1, the lower limit of TD ratio is decreased by 0.5 %. When the value is increased, fogging/scattering is alleviated.</p> <p>Use case</p> <p>When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) occurs</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Caution</p> <p>Take necessary action in accordance with the instructions from the Quality Support Division.</p> <p>Display/adj/set range</p> <p>-5 to 5</p> <p>Default value</p> <p>0</p>
HLMT-PTC	Adj Toner Sensor(C) dens crct upr limit
Lv.2	<p>Details</p> <p>To adjust the upper limit of the target density correction (lower limit of TD ratio) of the Toner Sensor (C). As the value is incremented by 1, the lower limit of TD ratio is decreased by 0.5 %. When the value is increased, fogging/scattering is alleviated.</p> <p>Use case</p> <p>When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) occurs</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Caution</p> <p>Take necessary action in accordance with the instructions from the Quality Support Division.</p> <p>Display/adj/set range</p> <p>-5 to 5</p> <p>Default value</p> <p>0</p>
LLMT-PTY	Adj Toner Sensor(Y)dens crct lowr limit
Lv.2	<p>Details</p> <p>To adjust the lower limit of the target density correction (upper limit of TD ratio) of the Toner Sensor (Y). As the value is decremented by 1, the lower limit of TD ratio is increased by 0.5 %. When the value is decreased, density is increased, but fogging/scattering occurs.</p> <p>Use case</p> <p>When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) occurs</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Caution</p> <p>Take necessary action in accordance with the instructions from the Quality Support Division.</p> <p>Display/adj/set range</p> <p>-5 to 5</p> <p>Default value</p> <p>0</p>

COPIER > ADJUST > DENS	
LLMT-PTM	Adj Toner Sensor(M)dens crct lowr limit
Lv.2	<p>Details</p> <p>To adjust the lower limit of the target density correction (upper limit of TD ratio) of the Toner Sensor (M). As the value is decremented by 1, the lower limit of TD ratio is increased by 0.5 %. When the value is decreased, density is increased, but fogging/scattering occurs.</p> <p>Use case</p> <p>When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) occurs</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Caution</p> <p>Take necessary action in accordance with the instructions from the Quality Support Division.</p> <p>Display/adj/set range</p> <p>-5 to 5</p> <p>Default value</p> <p>0</p>
LLMT-PTC	Adj Toner Sensor(C)dens crct lowr limit
Lv.2	<p>Details</p> <p>To adjust the lower limit of the target density correction (upper limit of TD ratio) of the Toner Sensor (C). As the value is decremented by 1, the lower limit of TD ratio is increased by 0.5 %. When the value is decreased, density is increased, but fogging/scattering occurs.</p> <p>Use case</p> <p>When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) occurs</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Caution</p> <p>Take necessary action in accordance with the instructions from the Quality Support Division.</p> <p>Display/adj/set range</p> <p>-5 to 5</p> <p>Default value</p> <p>0</p>
T-SPLY-Y	Adjustment of Y toner supply amount
Lv.2	<p>Details</p> <p>[Not used] To adjust the offset value of Y toner supply amount. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.</p> <p>Use case</p> <p>When E020 occurs frequently</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range</p> <p>-3 to 3</p> <p>Unit</p> <p>10 % (0.1 block)</p> <p>Default value</p> <p>0</p>

COPIER > ADJUST > DENS		
T-SPLY-M	Adjustment of M toner supply amount	
Lv.2	Details	[Not used] To adjust the offset value of M toner supply amount. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When E020 occurs frequently
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Unit	10 % (0.1 block)
	Default value	0
T-SPLY-C	Adjustment of C toner supply amount	
Lv.2	Details	[Not used] To adjust the offset value of C toner supply amount. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When E020 occurs frequently
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Unit	10 % (0.1 block)
	Default value	0
T-SPLY-K	Adjustment of Bk toner supply amount	
Lv.2	Details	[Not used] To adjust the offset value of Bk toner supply amount. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When E020 occurs frequently
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Unit	10 % (0.1 block)
	Default value	0
DMAX-Y	Adj D-max ctrl Y color dens target VL	
Lv.2	Details	An image failure might occur because the density target value of the D-max control becomes out of the setting table due to environment change. Adjust the offset of the yellow density target value of D-max control.
	Use case	When any image failure occurs due to environment change
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When changing the setting, execute auto gradation adjustment.
	Display/adj/set range	-8 to 8
	Unit	Target value 16
	Default value	0

COPIER > ADJUST > DENS		
DMAX-M	Adj D-max ctrl M color dens target VL	
Lv.2	Details	An image failure might occur because the density target value of the D-max control becomes out of the setting table due to environment change. Adjust the offset of the magenta density target value of D-max control.
	Use case	When any image failure occurs due to environment change
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When changing the setting, execute auto gradation adjustment.
	Display/adj/set range	-8 to 8
	Unit	Target value 16
	Default value	0
DMAX-C	Adj D-max ctrl C color dens target VL	
Lv.2	Details	An image failure might occur because the density target value of the D-max control becomes out of the setting table due to environment change. Adjust the offset of the cyan density target value of D-max control.
	Use case	When any image failure occurs due to environment change
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When changing the setting, execute auto gradation adjustment.
	Display/adj/set range	-8 to 8
	Unit	Target value 16
	Default value	0
P-TG-Y	Adj of ATR control Y-color target value	
Lv.2	Details	To adjust the offset of the ATR patch target value for Y. When the target value determined upon initialization is changed, density and the TD ratio are also changed. Density is increased when the value is increased, and fogging/scattering is alleviated when the value is decreased.
	Use case	When density failures, fogging, etc. occur
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by +/- key) and press OK key. 2) Make 10 prints of approx. 10% image ratio (ex. COPIER> TEST> PG> TYPE: 16) 20 times. 3) Execute Auto Adjust Gradation> Full Adjust.
	Caution	Execute the Auto Adjust Gradation first to increase the density. If you adjust the offset of the target value, fogging might get worse.
	Display/adj/set range	-4 to 4
	Unit	Target value 20
	Default value	0
Related user mode	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust	

COPIER > ADJUST > DENS		
P-TG-M	Adj of ATR control M-color target value	
Lv.2	Details	To adjust the offset of the ATR patch target value for M. When the target value determined upon initialization is changed, density and the TD ratio are also changed. Density is increased when the value is increased, and fogging/scattering is alleviated when the value is decreased.
	Use case	When density failures, fogging, etc. occur
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Make 10 prints of approx. 10% image ratio (ex. COPIER> TEST> PG> TYPE: 16) 20 times. 3) Execute Auto Adjust Gradation> Full Adjust.
	Caution	Execute the Auto Adjust Gradation first to increase the density. If you adjust the offset of the target value, fogging might get worse.
	Display/adj/set range	-4 to 4
	Unit	Target value 20
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust
P-TG-C	Adj of ATR control C-color target value	
Lv.2	Details	To adjust the offset of the ATR patch target value for C. When the target value determined upon initialization is changed, density and the TD ratio are also changed. Density is increased when the value is increased, and fogging/scattering is alleviated when the value is decreased.
	Use case	When density failures, fogging, etc. occur
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Make 10 prints of approx. 10% image ratio (ex. COPIER> TEST> PG> TYPE: 16) 20 times. 3) Execute Auto Adjust Gradation> Full Adjust.
	Caution	Execute the Auto Adjust Gradation first to increase the density. If you adjust the offset of the target value, fogging might get worse.
	Display/adj/set range	-4 to 4
	Unit	Target value 20
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust

COPIER > ADJUST > DENS		
P-TG-K	Adj of ATR control Bk-color target value	
Lv.2	Details	To adjust the offset of the ATR patch target value for Bk. When the target value determined upon initialization is changed, density and the TD ratio are also changed. Density is increased when the value is increased, and fogging/scattering is alleviated when the value is decreased.
	Use case	When density failures, fogging, etc. occur
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Make 10 prints of approx. 10% image ratio (ex. COPIER> TEST> PG> TYPE: 16) 20 times. 3) Execute Auto Adjust Gradation> Full Adjust.
	Caution	Execute the Auto Adjust Gradation first to increase the density. If you adjust the offset of the target value, fogging might get worse.
	Display/adj/set range	-4 to 4
	Unit	Target value 20
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust
DMAX-K	Adj D-max ctrl Bk color dens target VL	
Lv.2	Details	An image failure might occur because the density target value of the D-max control becomes out of the setting table due to environment change. Adjust the offset of the black density target value of D-max control.
	Use case	When any image failure occurs due to environment change
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When changing the setting, execute auto gradation adjustment.
	Display/adj/set range	-8 to 8
	Unit	Target value 16
Default value	0	
HLMT-PTK	Adj Toner Sensor(Bk)dens crct upr limit	
Lv.2	Details	To adjust the upper limit of the target density correction (lower limit of TD ratio) of the Toner Sensor (Bk). As the value is incremented by 1, the lower limit of TD ratio is decreased by 0.5 %. When the value is increased, fogging/scattering is alleviated.
	Use case	When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	-5 to 5
	Default value	0

COPIER > ADJUST > DENS	
LLMT-PTK	Adj Toner Sensor(Bk)dens crct low limit
Lv.2	Details
	To adjust the lower limit of the target density correction (upper limit of TD ratio) of the Toner Sensor (Bk). As the value is decremented by 1, the lower limit of TD ratio is increased by 0.5 %. When the value is decreased, density is increased, but fogging/ scattering occurs.
	Use case
	When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) occurs
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range
	-5 to 5
	Default value
	0

T-8-19

■ 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 (0.0423mm).
	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
	Default value
	94
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 (0.0423mm).
	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
	Default value
	59

COPIER > ADJUST > BLANK	
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 (0.0423mm).
	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
	Default value
	59
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 (0.0423mm).
	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
	Default value
	59

T-8-20

■ V-CONT

COPIER > ADJUST > V-CONT	
VCONT-Y	Adj of Y color contrast potential
Lv.2	Details
	To adjust the contrast potential for Y. As the value is incremented by 1, the contrast potential changes by 10V. +: Image becomes darker. -: Image becomes lighter. When the value is too large, paper winds around the Fixing Roller or a transfer failure occurs. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value. In principle, the adjustment of the density should be performed in Adjustment/Maintenance> Adjust Image Quality> Density Adjustment Mode.
	Use case
	When adjusting the density of D-max control in the case that an image density failure occurs
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by +/- key) and press OK key. 2) Execute Auto Adjust Gradation > Full Adjust.
	Caution
	Do not use this at the normal service.
	Display/adj/set range
	-5 to 5
	Unit
	10 V
	Default value
	0
	Related service mode
	COPIER> ADJUST> V-CONT> VCONT-M, VCONT-C, VCONT-K
	Related user mode
	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation > Full Adjust Adjustment/Maintenance> Adjust Image Quality> Density Adjustment Mode

COPIER > ADJUST > V-CONT	
VCONT-M	Adj of M color contrast potential
Lv.2	Details
	To adjust the contrast potential for M. As the value is incremented by 1, the contrast potential changes by 10V. +: Image becomes darker. -: Image becomes lighter. When the value is too large, paper winds around the Fixing Roller or a transfer failure occurs. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value. In principle, the adjustment of the density should be performed in Adjustment/Maintenance> Adjust Image Quality> Density Adjustment Mode.
	Use case
	When adjusting the density of D-max control in the case that an image density failure occurs
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by +/- key) and press OK key. 2) Execute Auto Adjust Gradation > Full Adjust.
	Caution
	Do not use this when the machine is operating correctly.
	Display/adj/set range
	-5 to 5
	Unit
	10 V
	Default value
	0
	Related service mode
	COPIER> ADJUST> V-CONT> VCONT-Y, VCONT-C, VCONT-K
	Related user mode
	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation > Full Adjust Adjustment/Maintenance> Adjust Image Quality> Density Adjustment Mode

COPIER > ADJUST > V-CONT	
VCONT-C	Adj of C color contrast potential
Lv.2	Details
	To adjust the contrast potential for C. As the value is incremented by 1, the contrast potential changes by 10V. +: Image becomes darker. -: Image becomes lighter. When the value is too large, paper winds around the Fixing Roller or a transfer failure occurs. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value. In principle, the adjustment of the density should be performed in Adjustment/Maintenance> Adjust Image Quality> Density Adjustment Mode.
	Use case
	When adjusting the density of D-max control in the case that an image density failure occurs
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Execute Auto Adjust Gradation > Full Adjust.
	Caution
	Do not use this when the machine is operating correctly.
	Display/adj/set range
	-5 to 5
	Unit
	10 V
	Default value
	0
	Related service mode
	COPIER> ADJUST> V-CONT> VCONT-Y, VCONT-M, VCONT-K
	Related user mode
	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation > Full Adjust Adjustment/Maintenance> Adjust Image Quality> Density Adjustment Mode

COPIER > ADJUST > V-CONT	
VCONT-K	Adj of Bk color contrast potential
Lv.2	Details
	To adjust the offset of the contrast potential Vcont for Bk. As the value is incremented by 1, the contrast potential changes by 10V. +: Image becomes darker. -: Image becomes lighter. When the value is too large, paper winds around the Fixing Roller or a transfer failure occurs. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value. In principle, the adjustment of the density should be performed in Adjustment/Maintenance> Adjust Image Quality> Density Adjustment Mode.
	Use case
	When adjusting the density of D-max control in the case that an image density failure occurs
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Execute Auto Adjust Gradation > Full Adjust.
	Caution
	Do not use this when the machine is operating correctly.
	Display/adj/set range
	-5 to 5
	Unit
	10 V
	Default value
	0
	Related service mode
	COPIER> ADJUST> V-CONT> VCONT-Y, VCONT-M, VCONT-C
	Related user mode
	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation > Full Adjust Adjustment/Maintenance> Adjust Image Quality> Density Adjustment Mode
VBACK-Y	Adj Y color fogging removal potential
Lv.2	Details
	To adjust the offset of the fogging removal potential Vback for Y. As the value is incremented by 1, the fogging removal potential changes by 10 V. +: Fogging is alleviated. -: Coarse image, blanking of image edge, and carrier adherence are alleviated. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.
	Use case
	At the occurrence of Y fogging
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Execute Auto Adjust Gradation > Full Adjust.
	Caution
	Do not use this when the machine is operating correctly.
	Display/adj/set range
	-8 to 3
	Unit
	10 V
	Default value
	0
	Related service mode
	COPIER> ADJUST> V-CONT> VBACK-M, VBACK-C, VBACK-K
	Related user mode
	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation > Full Adjust

COPIER > ADJUST > V-CONT	
VBACK-M	Adj M color fogging removal potential
Lv.2	Details
	To adjust the offset of the fogging removal potential Vback for M. As the value is incremented by 1, the fogging removal potential changes by 10 V. +: Fogging is alleviated. -: Coarse image, blanking of image edge, and carrier adherence are alleviated. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.
	Use case
	At the occurrence of M fogging
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Execute Auto Adjust Gradation > Full Adjust.
	Caution
	Do not use this when the machine is operating correctly.
	Display/adj/set range
	-8 to 3
	Unit
	10 V
	Default value
	0
	Related service mode
	COPIER> ADJUST> V-CONT> VBACK-Y, VBACK-C, VBACK-K
	Related user mode
	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation > Full Adjust
VBACK-C	Adj C color fogging removal potential
Lv.2	Details
	To adjust the offset of the fogging removal potential Vback for C. As the value is incremented by 1, the fogging removal potential changes by 10 V. +: Fogging is alleviated. -: Coarse image, blanking of image edge, and carrier adherence are alleviated. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.
	Use case
	At the occurrence of C fogging
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Execute Auto Adjust Gradation > Full Adjust.
	Caution
	Do not use this when the machine is operating correctly.
	Display/adj/set range
	-8 to 3
	Unit
	10 V
	Default value
	0
	Related service mode
	COPIER> ADJUST> V-CONT> VBACK-Y, VBACK-M, VBACK-K
	Related user mode
	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation > Full Adjust

COPIER > ADJUST > V-CONT	
VBACK-K	Adj Bk color fogging removal potential
Lv.2	Details
	To adjust the offset of the fogging removal potential Vback for Bk. As the value is incremented by 1, the fogging removal potential changes by 10 V. +: Fogging is alleviated. -: Coarse image, blanking of image edge, and carrier adherence are alleviated. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.
	Use case
	At the occurrence of Bk fogging
	Adj/set/operate method
	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Execute Auto Adjust Gradation > Full Adjust.
	Caution
	Do not use this when the machine is operating correctly.
	Display/adj/set range
	-8 to 3
	Unit
	10 V
	Default value
	0
	Related service mode
	COPIER> ADJUST> V-CONT> VBACK-Y, VBACK-M, VBACK-C
	Related user mode
	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation > Full Adjust

T-8-21

■ PASCAL

COPIER > ADJUST > PASCAL	
OFST-P-Y	Y density adj at test print reading
Lv.1	Details
	To adjust the offset of Y color test print reading signal at Auto Adjust Gradation (Full Adjust). When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label. As the greater value is set, the image after adjustment gets darker.
	Use case
	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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
	-128 to 128
	Default value
	According to the adjustment value of the Reader at factory shipment

COPIER > ADJUST > PASCAL		
OFST-P-M		M density adj at test print reading
Lv.1	Details	To adjust the offset of M color test print reading signal at Auto Adjust Gradation (Full Adjust). When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label. As the greater value is set, the image after adjustment gets darker.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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
	OFST-P-C	
Lv.1	Details	To adjust the offset of C color test print reading signal at Auto Adjust Gradation (Full Adjust). When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label. As the greater value is set, the image after adjustment gets darker.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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
	OFST-P-K	
Lv.1	Details	To adjust the offset of Bk color test print reading signal at Auto Adjust Gradation (Full Adjust). When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label. As the greater value is set, the image after adjustment gets darker.
	Use case	- When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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

T-8-22

■ COLOR

COPIER > ADJUST > COLOR		
ADJ-Y		Y color balance adjustment
Lv.1	Details	To adjust the default value of the color balance for Y when the density of Y varies between machines. As the greater value is set, the image gets darker. If the value is too large, a transfer failure and/or a fixing failure occurs.
	Use case	When alleviating the variation of the density between machines upon user's request
	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	-8 to 8
	Default value	0
	ADJ-M	
Lv.1	Details	To adjust the default value of the color balance for M when the density of M varies between machines. As the greater value is set, the image gets darker. If the value is too large, a transfer failure and/or a fixing failure occurs.
	Use case	When alleviating the variation of the density between machines upon user's request
	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	-8 to 8
	Default value	0
	ADJ-C	
Lv.1	Details	To adjust the default value of the color balance for C when the density of C varies between machines. As the greater value is set, the image gets darker. If the value is too large, a transfer failure and/or a fixing failure occurs.
	Use case	When alleviating the variation of the density between machines upon user's request
	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	-8 to 8
	Default value	0

COPIER > ADJUST > COLOR		
ADJ-K	Bk color balance adjustment	
Lv.1	Details	To adjust the default value of the color balance for Bk when the density of Bk varies between machines. As the greater value is set, the image gets darker. If the value is too large, a transfer failure and/or a fixing failure occurs.
	Use case	When alleviating the variation of the density between machines upon user's request
	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	-8 to 8
	Default value	0
OFST-Y	Adj of Y bright area dens&color balance	
Lv.1	Details	To adjust the bright area density and color balance of Y. As the greater value is set, the image gets darker. Lower the value when the background cannot be read correctly because the density of a document is dark and increase the value when the density of a document is light. Lower the value when removal of the background is not performed correctly and a fogging-like image appears. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance in user mode.
	Use case	- When the background of a document cannot be read correctly - When removal of the background cannot be performed correctly and a fogging-like image appears
	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	-32 to 32
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Color Balance

COPIER > ADJUST > COLOR		
OFST-M	Adj of M bright area dens&color balance	
Lv.1	Details	To adjust the bright area density and color balance of M. As the greater value is set, the image gets darker. Lower the value when the background cannot be read correctly because the density of a document is dark and increase the value when the density of a document is light. Lower the value when removal of the background is not performed correctly and a fogging-like image appears. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance in user mode.
	Use case	- When the background of a document cannot be read correctly - When removal of the background cannot be performed correctly and a fogging-like image appears
	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	-32 to 32
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Color Balance
OFST-C	Adj of C bright area dens&color balance	
Lv.1	Details	To adjust the bright area density and color balance of C. As the greater value is set, the image gets darker. Lower the value when the background cannot be read correctly because the density of a document is dark and increase the value when the density of a document is light. Lower the value when removal of the background is not performed correctly and a fogging-like image appears. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance in user mode.
	Use case	- When the background of a document cannot be read correctly - When removal of the background cannot be performed correctly and a fogging-like image appears
	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	-32 to 32
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Color Balance

COPIER > ADJUST > COLOR	
OFST-K	Adj Bk bright area dens&color balance
Lv.1	<p>Details</p> <p>To adjust the bright area density and color balance of Bk. As the greater value is set, the image gets darker. Lower the value when the background cannot be read correctly because the density of a document is dark and increase the value when the density of a document is light. Lower the value when removal of the background is not performed correctly and a fogging-like image appears. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance in user mode.</p> <p>Use case</p> <p>- When the background of a document cannot be read correctly - When removal of the background cannot be performed correctly and a fogging-like image appears</p> <p>Adj/set/operate method</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>Display/adj/set range</p> <p>-32 to 32</p> <p>Default value</p> <p>0</p> <p>Related user mode</p> <p>Adjustment/Maintenance> Adjust Image Quality> Color Balance</p>
LD-OFS-Y	Color balance adj of Y low dens area
Lv.2	<p>Details</p> <p>To adjust the color balance of the low density area of Y. As the greater value is set, the image gets darker. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance.</p> <p>Use case</p> <p>Do not use this when the machine is operating correctly.</p> <p>Adj/set/operate method</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>Display/adj/set range</p> <p>-8 to 8</p> <p>Default value</p> <p>0</p> <p>Related user mode</p> <p>Adjustment/Maintenance> Adjust Image Quality> Color Balance</p>
LD-OFS-M	Color balance adj of M low dens area
Lv.2	<p>Details</p> <p>To adjust the color balance of the low density area of M. As the greater value is set, the image gets darker. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance.</p> <p>Use case</p> <p>Do not use this when the machine is operating correctly.</p> <p>Adj/set/operate method</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>Display/adj/set range</p> <p>-8 to 8</p> <p>Default value</p> <p>0</p> <p>Related user mode</p> <p>Adjustment/Maintenance> Adjust Image Quality> Color Balance</p>

COPIER > ADJUST > COLOR	
LD-OFS-C	Color balance adj of C low dens area
Lv.2	<p>Details</p> <p>To adjust the color balance of the low density area of C. As the greater value is set, the image gets darker. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance.</p> <p>Use case</p> <p>Do not use this when the machine is operating correctly.</p> <p>Adj/set/operate method</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>Display/adj/set range</p> <p>-8 to 8</p> <p>Default value</p> <p>0</p> <p>Related user mode</p> <p>Adjustment/Maintenance> Adjust Image Quality> Color Balance</p>
LD-OFS-K	Color balance adj of Bk low dens area
Lv.2	<p>Details</p> <p>To adjust the color balance of the low density area of Bk. As the greater value is set, the image gets darker. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance.</p> <p>Use case</p> <p>Do not use this when the machine is operating correctly.</p> <p>Adj/set/operate method</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>Display/adj/set range</p> <p>-8 to 8</p> <p>Default value</p> <p>0</p> <p>Related user mode</p> <p>Adjustment/Maintenance> Adjust Image Quality> Color Balance</p>
MD-OFS-Y	Color balance adj of Y mid dens area
Lv.2	<p>Details</p> <p>To adjust the color balance of the intermediate density area of Y. As the greater value is set, the image gets darker. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance.</p> <p>Use case</p> <p>Do not use this when the machine is operating correctly.</p> <p>Adj/set/operate method</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>Display/adj/set range</p> <p>-8 to 8</p> <p>Default value</p> <p>0</p> <p>Related user mode</p> <p>Adjustment/Maintenance> Adjust Image Quality> Color Balance</p>

COPIER > ADJUST > COLOR		
MD-OFS-M		Color balance adj of M mid dens area
Lv.2	Details	To adjust the color balance of the intermediate density area of M. As the greater value is set, the image gets darker. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Color Balance
MD-OFS-C		Color balance adj of C mid dens area
Lv.2	Details	To adjust the color balance of the intermediate density area of C. As the greater value is set, the image gets darker. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Color Balance
MD-OFS-K		Color balance adj of Bk mid dens area
Lv.2	Details	To adjust the color balance of the intermediate density area of Bk. As the greater value is set, the image gets darker. This setting is linked with Adjustment/Maintenance> Adjust Image Quality> Color Balance.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Color Balance

COPIER > ADJUST > COLOR		
HD-OFS-Y		Color balance adj of Y high dens area
Lv.2	Details	To adjust the color balance of the high density area of Y. As the greater value is set, the image gets darker. This setting is linked with Adjustment/ Maintenance> Adjust Image Quality> Color Balance.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Color Balance
HD-OFS-M		Color balance adj of M high dens area
Lv.2	Details	To adjust the color balance of the high density area of M. As the greater value is set, the image gets darker. This setting is linked with Adjustment/ Maintenance> Adjust Image Quality> Color Balance.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Color Balance
HD-OFS-C		Color balance adj of C high dens area
Lv.2	Details	To adjust the color balance of the high density area of C. As the greater value is set, the image gets darker. This setting is linked with Adjustment/ Maintenance> Adjust Image Quality> Color Balance.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Color Balance

COPIER > ADJUST > COLOR		
HD-OFS-K	Color balance adj of Bk high dens area	
Lv.2	Details	To adjust the color balance of the high density area of Bk. As the greater value is set, the image gets darker. This setting is linked with Adjustment/ Maintenance> Adjust Image Quality> Color Balance.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
	Related user mode	Adjustment/Maintenance> Adjust Image Quality> Color Balance
PL-OFS-Y	Clr blnce adj of Y low dens area:PDL	
Lv.2	Details	To adjust the color balance of the low density area of Y at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
PL-OFS-M	Clr blnce adj of M low dens area:PDL	
Lv.2	Details	To adjust the color balance of the low density area of M at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
PL-OFS-C	Clr blnce adj of C low dens area:PDL	
Lv.2	Details	To adjust the color balance of the low density area of C at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0

COPIER > ADJUST > COLOR		
PL-OFS-K	Clr blnce adj of Bk low dens area:PDL	
Lv.2	Details	To adjust the color balance of the low density area of Bk at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
PM-OFS-Y	Clr blnce adj of Y mid dens area:PDL	
Lv.2	Details	To adjust the color balance of the intermediate density area of Y at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
PM-OFS-M	Clr blnce adj of M mid dens area:PDL	
Lv.2	Details	To adjust the color balance of the intermediate density area of M at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
PM-OFS-C	Clr blnce adj of C mid dens area:PDL	
Lv.2	Details	To adjust the color balance of the intermediate density area of C at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0

COPIER > ADJUST > COLOR		
PM-OFS-K		Clr blnce adj of Bk mid dens area:PDL
Lv.2	Details	To adjust the color balance of the intermediate density area of Bk at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
PH-OFS-Y		Clr blnce adj of Y high dens area:PDL
Lv.2	Details	To adjust the color balance of the high density area of Y at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
PH-OFS-M		Clr blnce adj of M high dens area:PDL
Lv.2	Details	To adjust the color balance of the high density area of M at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
PH-OFS-C		Clr blnce adj of C high dens area:PDL
Lv.2	Details	To adjust the color balance of the high density area of C at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0
PH-OFS-K		Clr blnce adj of Bk high dens area:PDL
Lv.2	Details	To adjust the color balance of the high density area of Bk at PDL print. As the greater value is set, the image gets darker.
	Use case	Do not use this when the machine is operating correctly.
	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	-8 to 8
	Default value	0

T-8-23

■ HV-PRI

COPIER > ADJUST > HV-PRI		
LSUB-YDC		Y Dwnstream Auxiliary Brush DC bias ofst
Lv.2	Details	To adjust the offset value of DC bias applied to the Y-color Downstream Auxiliary Brush. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-10 to 10
	Unit	20 V
	Default value	0
LSUB-MDC		M Dwnstream Auxiliary Brush DC bias ofst
Lv.2	Details	To adjust the offset value of DC bias applied to the M-color Downstream Auxiliary Brush. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-10 to 10
	Unit	20 V
	Default value	0
LSUB-CDC		C Dwnstream Auxiliary Brush DC bias ofst
Lv.2	Details	To adjust the offset value of DC bias applied to the C-color Downstream Auxiliary Brush. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-10 to 10
	Unit	20 V
	Default value	0
LSUB-KDC		Bk Dwnstream Auxiliary Brush DC bias ofst
Lv.2	Details	To adjust the offset value of DC bias applied to the Bk-color Downstream Auxiliary Brush. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-10 to 10
	Unit	20 V
	Default value	0

COPIER > ADJUST > HV-PRI	
USUB-YAC	Adj Y/M/C Upstream Auxlry Brush AC bias
Lv.2	<p>Details</p> <p>To adjust the AC bias applied to the Y/M/C-color Upstream Auxiliary Brush. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.</p> <p>Adj/set/operate method</p> <p>Enter the setting value, and then press OK key.</p> <p>Caution</p> <p>Do not use this when the machine is operating correctly.</p> <p>Display/adj/set range</p> <p>-2 to 2</p> <p>Unit</p> <p>100 V</p> <p>Default value</p> <p>0</p>
USUB-KAC	Adj Bk Upstream Auxiliary Brush AC bias
Lv.2	<p>Details</p> <p>To adjust the AC bias applied to the Bk-color Upstream Auxiliary Brush. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.</p> <p>Adj/set/operate method</p> <p>Enter the setting value, and then press OK key.</p> <p>Caution</p> <p>Do not use this when the machine is operating correctly.</p> <p>Display/adj/set range</p> <p>-2 to 2</p> <p>Unit</p> <p>100 V</p> <p>Default value</p> <p>0</p>
USUB-YDC	Adj Y/M/C Upstream Auxlry Brush DC bias
Lv.2	<p>Details</p> <p>To adjust the DC bias applied to the Y/M/C-color Upstream Auxiliary Brush. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.</p> <p>Adj/set/operate method</p> <p>Enter the setting value, and then press OK key.</p> <p>Caution</p> <p>Do not use this when the machine is operating correctly.</p> <p>Display/adj/set range</p> <p>-5 to 5</p> <p>Unit</p> <p>20 V</p> <p>Default value</p> <p>0</p>
USUB-KDC	Adj Bk Upstream Auxiliary Brush DC bias
Lv.2	<p>Details</p> <p>To adjust the DC bias applied to the Bk-color Upstream Auxiliary Brush. In a low humidity environment (e.g. winter in North America or Japan), the output may not be changed by increasing the value.</p> <p>Adj/set/operate method</p> <p>Enter the setting value, and then press OK key.</p> <p>Caution</p> <p>Do not use this when the machine is operating correctly.</p> <p>Display/adj/set range</p> <p>-5 to 5</p> <p>Unit</p> <p>20 V</p> <p>Default value</p> <p>0</p>

COPIER > ADJUST > HV-PRI	
DIS-TGY	Dischg crmt ctrl Y tgt crmt adj:1/1SPD
Lv.2	<p>Details</p> <p>To adjust the offset of the Y target current at discharge current control in plain paper (1/1 speed).</p> <p>Use case</p> <p>When a image failure (sand-like image) occurs</p> <p>Adj/set/operate method</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>Caution</p> <p>Do not use this when the machine is operating correctly.</p> <p>Display/adj/set range</p> <p>-10 to 10</p> <p>Unit</p> <p>Approx. 3 micro A</p> <p>Appropriate target value</p> <p>-5 to 5</p> <p>Default value</p> <p>0</p>
DIS-TGM	Dischg crmt ctrl M tgt crmt adj:1/1SPD
Lv.2	<p>Details</p> <p>To adjust the offset of the M target current at discharge current control in plain paper (1/1 speed).</p> <p>Use case</p> <p>When a image failure (sand-like image) occurs</p> <p>Adj/set/operate method</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>Caution</p> <p>Do not use this when the machine is operating correctly.</p> <p>Display/adj/set range</p> <p>-10 to 10</p> <p>Unit</p> <p>Approx. 3 micro A</p> <p>Appropriate target value</p> <p>-5 to 5</p> <p>Default value</p> <p>0</p>
DIS-TGC	Dischg crmt ctrl C tgt crmt adj:1/1SPD
Lv.2	<p>Details</p> <p>To adjust the offset of the C target current at discharge current control in plain paper (1/1 speed).</p> <p>Use case</p> <p>When a image failure (sand-like image) occurs</p> <p>Adj/set/operate method</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>Caution</p> <p>Do not use this when the machine is operating correctly.</p> <p>Display/adj/set range</p> <p>-10 to 10</p> <p>Unit</p> <p>Approx. 3 micro A</p> <p>Appropriate target value</p> <p>-5 to 5</p> <p>Default value</p> <p>0</p>

COPIER > ADJUST > HV-PRI	
DIS-TGK	Dischg crnt ctrl Bktgt crnt adj:1/1SPD
Lv.2	Details
	To adjust the offset of the Bk target current at discharge current control in plain paper (1/1 speed).
	Use case
	When a image failure (sand-like image) occurs
	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 when the machine is operating correctly.
	Display/adj/set range
	-10 to 10
	Unit
	Approx. 3 micro A
	Appropriate target value
	-5 to 5
	Default value
	0
DIS-TGY2	Dischg crnt ctrl Y tgt crnt adj:1/2SPD
Lv.2	Details
	To adjust the offset of the Y target current at discharge current control in plain paper (1/2 speed).
	Use case
	When a image failure (sand-like image) occurs
	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 when the machine is operating correctly.
	Display/adj/set range
	-10 to 10
	Unit
	Approx. 3 micro A
	Appropriate target value
	-5 to 5
	Default value
	0
DIS-TGM2	Dischg crnt ctrl M tgt crnt adj:1/2SPD
Lv.2	Details
	To adjust the offset of the M target current at discharge current control in plain paper (1/2 speed).
	Use case
	When a image failure (sand-like image) occurs
	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 when the machine is operating correctly.
	Display/adj/set range
	-10 to 10
	Unit
	Approx. 3 micro A
	Appropriate target value
	-5 to 5
	Default value
	0

COPIER > ADJUST > HV-PRI	
DIS-TGC2	Dischg crnt ctrl C tgt crnt adj:1/2SPD
Lv.2	Details
	To adjust the offset of the C target current at discharge current control in plain paper (1/2 speed).
	Use case
	When a image failure (sand-like image) occurs
	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 when the machine is operating correctly.
	Display/adj/set range
	-10 to 10
	Unit
	Approx. 3 micro A
	Appropriate target value
	-5 to 5
	Default value
	0
DIS-TGK2	Dischg crnt ctrl Bktgt crnt adj:1/2SPD
Lv.2	Details
	To adjust the offset of the Bk target current at discharge current control in plain paper (1/2 speed).
	Use case
	When a image failure (sand-like image) occurs
	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 when the machine is operating correctly.
	Display/adj/set range
	-10 to 10
	Unit
	Approx. 3 micro A
	Appropriate target value
	-5 to 5
	Default value
	0

T-8-24

■ HV-TR

COPIER > ADJUST > HV-TR	
2TR-TGT1	Sec trns indiv set tgt crnt adj: set 1
Lv.2	Details
	To adjust the target current of secondary transfer for setting 1. Setting 1 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV1, TR-PPR1, TR-CLR1 and TR-DUP1. When this condition is satisfied, the target current that is set here is applied to the Secondary Transfer Outer Roller. When low-voltage mottled image or toner scattering on solid image occurs, increase the current. When high-voltage mottled image or density loss due to excessive transfer occurs, decrease the current. As the value is incremented by 1, the current changes by 2 micro A. +: Increase -: Decrease
	Use case
	When an image failure occurs on all paper types (mottled image, density loss due to excessive transfer, toner scattering on solid image, etc.)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Increase/decrease the value by 1 while checking the symptom each time.
	Display/adj/set range
	-10 to 10
	Unit
	2 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV1, TR-PPR1, TR-CLR1, TR-DUP1
	Supplement/memo
	Up to 8 patterns by 2TR-TGT1 to 8 can be individually set.

COPIER > ADJUST > HV-TR	
2TR-TGT2	Sec trns indiv set target currnt: set 2
Lv.2	Details
	To adjust the target current of secondary transfer for setting 2. Setting 2 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV2, TR-PPR2, TR-CLR2 and TR-DUP2. When this condition is satisfied, the target current that is set here is applied to the Secondary Transfer Outer Roller. When low-voltage mottled image or toner scattering on solid image occurs, increase the current. When high-voltage mottled image or density loss due to excessive transfer occurs, decrease the current. As the value is incremented by 1, the current changes by 2 micro A. +: Increase -: Decrease
	Use case
	When an image failure occurs on all paper types (mottled image, density loss due to excessive transfer, toner scattering on solid image, etc.)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Increase/decrease the value by 1 while checking the symptom each time.
	Display/adj/set range
	-10 to 10
	Unit
	2 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV2, TR-PPR2, TR-CLR2, TR-DUP2
	Supplement/memo
	Up to 8 patterns by 2TR-TGT1 to 8 can be individually set.

COPIER > ADJUST > HV-TR	
2TR-TGT3	Sec trns indiv set target currnt: set 3
Lv.2	Details
	To adjust the target current of secondary transfer for setting 3. Setting 3 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV3, TR-PPR3, TR-CLR3 and TR-DUP3. When this condition is satisfied, the target current that is set here is applied to the Secondary Transfer Outer Roller. When low-voltage mottled image or toner scattering on solid image occurs, increase the current. When high-voltage mottled image or density loss due to excessive transfer occurs, decrease the current. As the value is incremented by 1, the current changes by 2 micro A. +: Increase -: Decrease
	Use case
	When an image failure occurs on all paper types (mottled image, density loss due to excessive transfer, toner scattering on solid image, etc.)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Increase/decrease the value by 1 while checking the symptom each time.
	Display/adj/set range
	-10 to 10
	Unit
	2 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV3, TR-PPR3, TR-CLR3, TR-DUP3
	Supplement/memo
	Up to 8 patterns by 2TR-TGT1 to 8 can be individually set.

COPIER > ADJUST > HV-TR	
2TR-TGT4	Sec trns indiv set target currnt: set 4
Lv.2	Details
	To adjust the target current of secondary transfer for setting 4. Setting 4 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV4, TR-PPR4, TR-CLR4 and TR-DUP4. When this condition is satisfied, the target current that is set here is applied to the Secondary Transfer Outer Roller. When low-voltage mottled image or toner scattering on solid image occurs, increase the current. When high-voltage mottled image or density loss due to excessive transfer occurs, decrease the current. As the value is incremented by 1, the current changes by 2 micro A. +: Increase -: Decrease
	Use case
	When an image failure occurs on all paper types (mottled image, density loss due to excessive transfer, toner scattering on solid image, etc.)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Increase/decrease the value by 1 while checking the symptom each time.
	Display/adj/set range
	-10 to 10
	Unit
	2 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV4, TR-PPR4, TR-CLR4, TR-DUP4
	Supplement/memo
	Up to 8 patterns by 2TR-TGT1 to 8 can be individually set.

COPIER > ADJUST > HV-TR	
2TR-TGT5	Sec trns indiv set tgt crnt adj: set 5
Lv.2	Details
	To adjust the target current of secondary transfer for setting 5. Setting 5 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV5, TR-PPR5, TR-CLR5 and TR-DUP5. When this condition is satisfied, the target current that is set here is applied to the Secondary Transfer Outer Roller. When low-voltage mottled image or toner scattering on solid image occurs, increase the current. When high-voltage mottled image or density loss due to excessive transfer occurs, decrease the current. As the value is incremented by 1, the current changes by 2 micro A. +: Increase -: Decrease
	Use case
	When an image failure occurs on all paper types (mottled image, density loss due to excessive transfer, toner scattering on solid image, etc.)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Increase/decrease the value by 1 while checking the symptom each time.
	Display/adj/set range
	-10 to 10
	Unit
	2 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV5, TR-PPR5, TR-CLR5, TR-DUP5
	Supplement/memo
	Up to 8 patterns by 2TR-TGT1 to 8 can be individually set.

COPIER > ADJUST > HV-TR	
2TR-TGT6	Sec trns indiv set target currnt: set 6
Lv.2	Details
	To adjust the target current of secondary transfer for setting 6. Setting 6 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV6, TR-PPR6, TR-CLR6 and TR-DUP6. When this condition is satisfied, the target current that is set here is applied to the Secondary Transfer Outer Roller. When low-voltage mottled image or toner scattering on solid image occurs, increase the current. When high-voltage mottled image or density loss due to excessive transfer occurs, decrease the current. As the value is incremented by 1, the current changes by 2 micro A. +: Increase -: Decrease
	Use case
	When an image failure occurs on all paper types (mottled image, density loss due to excessive transfer, toner scattering on solid image, etc.)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Increase/decrease the value by 1 while checking the symptom each time.
	Display/adj/set range
	-10 to 10
	Unit
	2 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV6, TR-PPR6, TR-CLR6, TR-DUP6
	Supplement/memo
	Up to 8 patterns by 2TR-TGT1 to 8 can be individually set.

COPIER > ADJUST > HV-TR	
2TR-TGT7	Sec trns indiv set target currnt: set 7
Lv.2	Details
	To adjust the target current of secondary transfer for setting 7. Setting 7 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV7, TR-PPR7, TR-CLR7 and TR-DUP7. When this condition is satisfied, the target current that is set here is applied to the Secondary Transfer Outer Roller. When low-voltage mottled image or toner scattering on solid image occurs, increase the current. When high-voltage mottled image or density loss due to excessive transfer occurs, decrease the current. As the value is incremented by 1, the current changes by 2 micro A. +: Increase -: Decrease
	Use case
	When an image failure occurs on all paper types (mottled image, density loss due to excessive transfer, toner scattering on solid image, etc.)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Increase/decrease the value by 1 while checking the symptom each time.
	Display/adj/set range
	-10 to 10
	Unit
	2 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV7, TR-PPR7, TR-CLR7, TR-DUP7
	Supplement/memo
	Up to 8 patterns by 2TR-TGT1 to 8 can be individually set.

COPIER > ADJUST > HV-TR	
2TR-TGT8	Sec trns indiv set target currnt: set 8
Lv.2	Details
	To adjust the target current of secondary transfer for setting 8. Setting 8 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV8, TR-PPR8, TR-CLR8 and TR-DUP8. When this condition is satisfied, the target current that is set here is applied to the Secondary Transfer Outer Roller. When low-voltage mottled image or toner scattering on solid image occurs, increase the current. When high-voltage mottled image or density loss due to excessive transfer occurs, decrease the current. As the value is incremented by 1, the current changes by 2 micro A. +: Increase -: Decrease
	Use case
	When an image failure occurs on all paper types (mottled image, density loss due to excessive transfer, toner scattering on solid image, etc.)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Increase/decrease the value by 1 while checking the symptom each time.
	Display/adj/set range
	-10 to 10
	Unit
	2 micro A
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV8, TR-PPR8, TR-CLR8, TR-DUP8
	Supplement/memo
	Up to 8 patterns by 2TR-TGT1 to 8 can be individually set.

COPIER > ADJUST > HV-TR	
TR-PPR1	Sec trns indiv setting paper type: set 1
Lv.2	Details
	To set the paper type (paper weight) for setting 1. Setting 1 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV1, TR-PPR1, TR-CLR1 and TR-DUP1. When this condition is satisfied, the target current that is set in 2TR-TGT1 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs due to the paper type occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 13 1: Plain paper (65 to 82 g/m2) 2: Thin paper (60 to 64 g/m2) 3: Recycled paper (64 to 82 g/m2) 4: Heavy plain paper (83 to 105 g/m2) 5: Heavy paper 1 (106 to 120 g/m2)/Heavy paper 2 (121 to 163 g/m2) 6: Heavy paper 3 (164 to 220 g/m2) 7: Coated paper 1 (100 to 163 g/m2) 8: Coated paper 2 (164 to 220 g/m2) 9: Envelope 10: Postcard 11: Transparency 12: Tracing paper 13: Special paper (Bond paper/Textured paper/Labels/Punched paper)
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV1, TR-CLR1, TR-DUP1, 2TR-TGT1

COPIER > ADJUST > HV-TR	
TR-PPR2	Sec trns indiv setting paper type: set 2
Lv.2	Details
	To set the paper type (paper weight) for setting 2. Setting 2 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV2, TR-PPR2, TR-CLR2 and TR-DUP2. When this condition is satisfied, the target current that is set in 2TR-TGT2 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs due to the paper type occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 13 1: Plain paper (65 to 82 g/m2) 2: Thin paper (60 to 64 g/m2) 3: Recycled paper (64 to 82 g/m2) 4: Heavy plain paper (83 to 105 g/m2) 5: Heavy paper 1 (106 to 120 g/m2)/Heavy paper 2 (121 to 163 g/m2) 6: Heavy paper 3 (164 to 220 g/m2) 7: Coated paper 1 (100 to 163 g/m2) 8: Coated paper 2 (164 to 220 g/m2) 9: Envelope 10: Postcard 11: Transparency 12: Tracing paper 13: Special paper (Bond paper/Textured paper/Labels/Punched paper)
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV2, TR-CLR2, TR-DUP2, 2TR-TGT2

COPIER > ADJUST > HV-TR	
TR-PPR3	Sec trns indiv setting paper type: set 3
Lv.2	Details
	To set the paper type (paper weight) for setting 3. Setting 3 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV3, TR-PPR3, TR-CLR3 and TR-DUP3. When this condition is satisfied, the target current that is set in 2TR-TGT3 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs due to the paper type occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 13 1: Plain paper (65 to 82 g/m2) 2: Thin paper (60 to 64 g/m2) 3: Recycled paper (64 to 82 g/m2) 4: Heavy plain paper (83 to 105 g/m2) 5: Heavy paper 1 (106 to 120 g/m2)/Heavy paper 2 (121 to 163 g/m2) 6: Heavy paper 3 (164 to 220 g/m2) 7: Coated paper 1 (100 to 163 g/m2) 8: Coated paper 2 (164 to 220 g/m2) 9: Envelope 10: Postcard 11: Transparency 12: Tracing paper 13: Special paper (Bond paper/Textured paper/Labels/Punched paper)
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV3, TR-CLR3, TR-DUP3, 2TR-TGT3

COPIER > ADJUST > HV-TR	
TR-PPR4	Sec trns indiv setting paper type: set 4
Lv.2	Details
	To set the paper type (paper weight) for setting 4. Setting 4 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV4, TR-PPR4, TR-CLR4 and TR-DUP4. When this condition is satisfied, the target current that is set in 2TR-TGT4 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs due to the paper type occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 13 1: Plain paper (65 to 82 g/m2) 2: Thin paper (60 to 64 g/m2) 3: Recycled paper (64 to 82 g/m2) 4: Heavy plain paper (83 to 105 g/m2) 5: Heavy paper 1 (106 to 120 g/m2)/Heavy paper 2 (121 to 163 g/m2) 6: Heavy paper 3 (164 to 220 g/m2) 7: Coated paper 1 (100 to 163 g/m2) 8: Coated paper 2 (164 to 220 g/m2) 9: Envelope 10: Postcard 11: Transparency 12: Tracing paper 13: Special paper (Bond paper/Textured paper/Labels/Punched paper)
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV4, TR-CLR4, TR-DUP4, 2TR-TGT4

COPIER > ADJUST > HV-TR	
TR-PPR5	Sec trns indiv setting paper type: set 5
Lv.2	Details
	To set the paper type (paper weight) for setting 5. Setting 5 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV5, TR-PPR5, TR-CLR5 and TR-DUP5. When this condition is satisfied, the target current that is set in 2TR-TGT5 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs due to the paper type occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 13 1: Plain paper (65 to 82 g/m2) 2: Thin paper (60 to 64 g/m2) 3: Recycled paper (64 to 82 g/m2) 4: Heavy plain paper (83 to 105 g/m2) 5: Heavy paper 1 (106 to 120 g/m2)/Heavy paper 2 (121 to 163 g/m2) 6: Heavy paper 3 (164 to 220 g/m2) 7: Coated paper 1 (100 to 163 g/m2) 8: Coated paper 2 (164 to 220 g/m2) 9: Envelope 10: Postcard 11: Transparency 12: Tracing paper 13: Special paper (Bond paper/Textured paper/Labels/Punched paper)
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV5, TR-CLR5, TR-DUP5, 2TR-TGT5

COPIER > ADJUST > HV-TR	
TR-PPR6	Sec trns indiv setting paper type: set 6
Lv.2	Details
	To set the paper type (paper weight) for setting 6. Setting 6 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV6, TR-PPR6, TR-CLR6 and TR-DUP6. When this condition is satisfied, the target current that is set in 2TR-TGT6 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs due to the paper type occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 13 1: Plain paper (65 to 82 g/m2) 2: Thin paper (60 to 64 g/m2) 3: Recycled paper (64 to 82 g/m2) 4: Heavy plain paper (83 to 105 g/m2) 5: Heavy paper 1 (106 to 120 g/m2)/Heavy paper 2 (121 to 163 g/m2) 6: Heavy paper 3 (164 to 220 g/m2) 7: Coated paper 1 (100 to 163 g/m2) 8: Coated paper 2 (164 to 220 g/m2) 9: Envelope 10: Postcard 11: Transparency 12: Tracing paper 13: Special paper (Bond paper/Textured paper/Labels/Punched paper)
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV6, TR-CLR6, TR-DUP6, 2TR-TGT6

COPIER > ADJUST > HV-TR	
TR-PPR7	Sec trns indiv setting paper type: set 7
Lv.2	Details
	To set the paper type (paper weight) for setting 7. Setting 7 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV7, TR-PPR7, TR-CLR7 and TR-DUP7. When this condition is satisfied, the target current that is set in 2TR-TGT7 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs due to the paper type occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 13 1: Plain paper (65 to 82 g/m2) 2: Thin paper (60 to 64 g/m2) 3: Recycled paper (64 to 82 g/m2) 4: Heavy plain paper (83 to 105 g/m2) 5: Heavy paper 1 (106 to 120 g/m2)/Heavy paper 2 (121 to 163 g/m2) 6: Heavy paper 3 (164 to 220 g/m2) 7: Coated paper 1 (100 to 163 g/m2) 8: Coated paper 2 (164 to 220 g/m2) 9: Envelope 10: Postcard 11: Transparency 12: Tracing paper 13: Special paper (Bond paper/Textured paper/Labels/Punched paper)
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV7, TR-CLR7, TR-DUP7, 2TR-TGT7

COPIER > ADJUST > HV-TR	
TR-PPR8	Sec trns indiv setting paper type: set 8
Lv.2	Details
	To set the paper type (paper weight) for setting 8. Setting 8 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV8, TR-PPR8, TR-CLR8 and TR-DUP8. When this condition is satisfied, the target current that is set in 2TR-TGT8 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs due to the paper type occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 13 1: Plain paper (65 to 82 g/m2) 2: Thin paper (60 to 64 g/m2) 3: Recycled paper (64 to 82 g/m2) 4: Heavy plain paper (83 to 105 g/m2) 5: Heavy paper 1 (106 to 120 g/m2)/Heavy paper 2 (121 to 163 g/m2) 6: Heavy paper 3 (164 to 220 g/m2) 7: Coated paper 1 (100 to 163 g/m2) 8: Coated paper 2 (164 to 220 g/m2) 9: Envelope 10: Postcard 11: Transparency 12: Tracing paper 13: Special paper (Bond paper/Textured paper/Labels/Punched paper)
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV8, TR-CLR8, TR-DUP8, 2TR-TGT8
TR-ENV1	Sec trns indiv setting environment:set 1
Lv.2	Details
	To set the environment (absolute moisture content) for setting 1. Setting 1 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV1, TR-PPR1, TR-CLR1 and TR-DUP1. When this condition is satisfied, the target current that is set in 2TR-TGT1 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs due to the environment occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 3 1: Low humidity (Absolute moisture content: 5.8 g/m3 and less) 2: Normal humidity (5.9 to 15 g/m3) 3: High humidity (15.1 g/m3 and more)
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-PPR1, TR-CLR1, TR-DUP1, 2TR-TGT1

COPIER > ADJUST > HV-TR		
TR-ENV2		Sec trns indiv setting environment:set 2
Lv.2	Details	To set the environment (absolute moisture content) for setting 2. Setting 2 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV2, TR-PPR2, TR-CLR2 and TR-DUP2. When this condition is satisfied, the target current that is set in 2TR-TGT2 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the environment occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: Low humidity (Absolute moisture content: 5.8 g/m3 and less) 2: Normal humidity (5.9 to 15 g/m3) 3: High humidity (15.1 g/m3 and more)
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-PPR2, TR-CLR2, TR-DUP2, 2TR-TGT2
TR-ENV3		Sec trns indiv setting environment:set 3
Lv.2	Details	To set the environment (absolute moisture content) for setting 3. Setting 3 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV3, TR-PPR3, TR-CLR3 and TR-DUP3. When this condition is satisfied, the target current that is set in 2TR-TGT3 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the environment occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: Low humidity (Absolute moisture content: 5.8 g/m3 and less) 2: Normal humidity (5.9 to 15 g/m3) 3: High humidity (15.1 g/m3 and more)
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-PPR3, TR-CLR3, TR-DUP3, 2TR-TGT3

COPIER > ADJUST > HV-TR		
TR-ENV4		Sec trns indiv setting environment:set 4
Lv.2	Details	To set the environment (absolute moisture content) for setting 4. Setting 4 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV4, TR-PPR4, TR-CLR4 and TR-DUP4. When this condition is satisfied, the target current that is set in 2TR-TGT4 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the environment occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: Low humidity (Absolute moisture content: 5.8 g/m3 and less) 2: Normal humidity (5.9 to 15 g/m3) 3: High humidity (15.1 g/m3 and more)
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-PPR4, TR-CLR4, TR-DUP4, 2TR-TGT4
TR-ENV5		Sec trns indiv setting environment:set 5
Lv.2	Details	To set the environment (absolute moisture content) for setting 5. Setting 5 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV5, TR-PPR5, TR-CLR5 and TR-DUP5. When this condition is satisfied, the target current that is set in 2TR-TGT5 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the environment occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: Low humidity (Absolute moisture content: 5.8 g/m3 and less) 2: Normal humidity (5.9 to 15 g/m3) 3: High humidity (15.1 g/m3 and more)
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-PPR5, TR-CLR5, TR-DUP5, 2TR-TGT5

COPIER > ADJUST > HV-TR		
TR-ENV6	Sec trns indiv setting environment:set 6	
Lv.2	Details	To set the environment (absolute moisture content) for setting 6. Setting 6 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV6, TR-PPR6, TR-CLR6 and TR-DUP6. When this condition is satisfied, the target current that is set in 2TR-TGT6 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the environment occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: Low humidity (Absolute moisture content: 5.8 g/m3 and less) 2: Normal humidity (5.9 to 15 g/m3) 3: High humidity (15.1 g/m3 and more)
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-PPR6, TR-CLR6, TR-DUP6, 2TR-TGT6
TR-ENV7	Sec trns indiv setting environment:set 7	
Lv.2	Details	To set the environment (absolute moisture content) for setting 7. Setting 7 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV7, TR-PPR7, TR-CLR7 and TR-DUP7. When this condition is satisfied, the target current that is set in 2TR-TGT7 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the environment occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: Low humidity (Absolute moisture content: 5.8 g/m3 and less) 2: Normal humidity (5.9 to 15 g/m3) 3: High humidity (15.1 g/m3 and more)
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-PPR7, TR-CLR7, TR-DUP7, 2TR-TGT7

COPIER > ADJUST > HV-TR		
TR-ENV8	Sec trns indiv setting environment:set 8	
Lv.2	Details	To set the environment (absolute moisture content) for setting 8. Setting 8 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV8, TR-PPR8, TR-CLR8 and TR-DUP8. When this condition is satisfied, the target current that is set in 2TR-TGT8 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the environment occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: Low humidity (Absolute moisture content: 5.8 g/m3 and less) 2: Normal humidity (5.9 to 15 g/m3) 3: High humidity (15.1 g/m3 and more)
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-PPR8, TR-CLR8, TR-DUP8, 2TR-TGT8
TR-CLR1	Sec trns indiv setting color mode: set 1	
Lv.2	Details	To set B&W/color for setting 1. Setting 1 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV1, TR-PPR1, TR-CLR1 and TR-DUP1. When this condition is satisfied, the target current that is set in 2TR-TGT1 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the color mode occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 2 1: Color mode, 2: B&W mode
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV1, TR-PPR1, TR-DUP1, 2TR-TGT1

COPIER > ADJUST > HV-TR		
TR-CLR2	Sec trns indiv setting color mode: set 2	
Lv.2	Details	To set B&W/color for setting 2. Setting 2 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV2, TR-PPR2, TR-CLR2 and TR-DUP2. When this condition is satisfied, the target current that is set in 2TR-TGT2 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the color mode occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 2 1: Color mode, 2: B&W mode
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV2, TR-PPR2, TR-DUP2, 2TR-TGT2
TR-CLR3	Sec trns indiv setting color mode: set 3	
Lv.2	Details	To set B&W/color for setting 3. Setting 3 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV3, TR-PPR3, TR-CLR3 and TR-DUP3. When this condition is satisfied, the target current that is set in 2TR-TGT3 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the color mode occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 2 1: Color mode, 2: B&W mode
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV3, TR-PPR3, TR-DUP3, 2TR-TGT3

COPIER > ADJUST > HV-TR		
TR-CLR4	Sec trns indiv setting color mode: set 4	
Lv.2	Details	To set B&W/color for setting 4. Setting 4 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV4, TR-PPR4, TR-CLR4 and TR-DUP4. When this condition is satisfied, the target current that is set in 2TR-TGT4 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the color mode occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 2 1: Color mode, 2: B&W mode
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV4, TR-PPR4, TR-DUP4, 2TR-TGT4
TR-CLR5	Sec trns indiv setting color mode: set 5	
Lv.2	Details	To set B&W/color for setting 5. Setting 5 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV5, TR-PPR5, TR-CLR5 and TR-DUP5. When this condition is satisfied, the target current that is set in 2TR-TGT5 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the color mode occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 2 1: Color mode, 2: B&W mode
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV5, TR-PPR5, TR-DUP5, 2TR-TGT5

COPIER > ADJUST > HV-TR		
TR-CLR6	Sec trns indiv setting color mode: set 6	
Lv.2	Details	To set B&W/color for setting 6. Setting 6 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV6, TR-PPR6, TR-CLR6 and TR-DUP6. When this condition is satisfied, the target current that is set in 2TR-TGT6 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the color mode occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 2 1: Color mode, 2: B&W mode
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV6, TR-PPR6, TR-DUP6, 2TR-TGT6
TR-CLR7	Sec trns indiv setting color mode: set 7	
Lv.2	Details	To set B&W/color for setting 7. Setting 7 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV7, TR-PPR7, TR-CLR7 and TR-DUP7. When this condition is satisfied, the target current that is set in 2TR-TGT7 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the color mode occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 2 1: Color mode, 2: B&W mode
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV7, TR-PPR7, TR-DUP7, 2TR-TGT7

COPIER > ADJUST > HV-TR		
TR-CLR8	Sec trns indiv setting color mode: set 8	
Lv.2	Details	To set B&W/color for setting 8. Setting 8 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV8, TR-PPR8, TR-CLR8 and TR-DUP8. When this condition is satisfied, the target current that is set in 2TR-TGT8 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs due to the color mode occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 2 1: Color mode, 2: B&W mode
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV8, TR-PPR8, TR-DUP8, 2TR-TGT8
TR-DUP1	Sec trns indiv setting feed side: set 1	
Lv.2	Details	To set the feed side for setting 1. Setting 1 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV1, TR-PPR1, TR-CLR1 and TR-DUP1. When this condition is satisfied, the target current that is set in 2TR-TGT1 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs on the 1st/2nd side occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: 1-sided, 2: Auto 2-sided, 3: Multi-purpose Tray 2-sided
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV1, TR-PPR1, TR-CLR1, 2TR-TGT1

COPIER > ADJUST > HV-TR		
TR-DUP2		Sec trns indiv setting feed side: set 2
Lv.2	Details	To set the feed side for setting 2. Setting 2 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV2, TR-PPR2, TR-CLR2 and TR-DUP2. When this condition is satisfied, the target current that is set in 2TR-TGT2 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs on the 1st/2nd side occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: 1-sided, 2: Auto 2-sided, 3: Multi-purpose Tray 2-sided
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV2, TR-PPR2, TR-CLR2, 2TR-TGT2
TR-DUP3		Sec trns indiv setting feed side: set 3
Lv.2	Details	To set the feed side for setting 3. Setting 3 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV3, TR-PPR3, TR-CLR3 and TR-DUP3. When this condition is satisfied, the target current that is set in 2TR-TGT3 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs on the 1st/2nd side occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: 1-sided, 2: Auto 2-sided, 3: Multi-purpose Tray 2-sided
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV3, TR-PPR3, TR-CLR3, 2TR-TGT3

COPIER > ADJUST > HV-TR		
TR-DUP4		Sec trns indiv setting feed side: set 4
Lv.2	Details	To set the feed side for setting 4. Setting 4 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV4, TR-PPR4, TR-CLR4 and TR-DUP4. When this condition is satisfied, the target current that is set in 2TR-TGT4 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs on the 1st/2nd side occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: 1-sided, 2: Auto 2-sided, 3: Multi-purpose Tray 2-sided
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV4, TR-PPR4, TR-CLR4, 2TR-TGT4
TR-DUP5		Sec trns indiv setting feed side: set 5
Lv.2	Details	To set the feed side for setting 5. Setting 5 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV5, TR-PPR5, TR-CLR5 and TR-DUP5. When this condition is satisfied, the target current that is set in 2TR-TGT5 is applied to the Secondary Transfer Outer Roller.
	Use case	When an image failure that differs on the 1st/2nd side occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 3 1: 1-sided, 2: Auto 2-sided, 3: Multi-purpose Tray 2-sided
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-ENV5, TR-PPR5, TR-CLR5, 2TR-TGT5

COPIER > ADJUST > HV-TR	
TR-DUP6	Sec trns indiv setting feed side: set 6
Lv.2	Details
	To set the feed side for setting 6. Setting 6 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV6, TR-PPR6, TR-CLR6 and TR-DUP6. When this condition is satisfied, the target current that is set in 2TR-TGT6 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs on the 1st/2nd side occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 3 1: 1-sided, 2: Auto 2-sided, 3: Multi-purpose Tray 2-sided
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV6, TR-PPR6, TR-CLR6, 2TR-TGT6
TR-DUP7	Sec trns indiv setting feed side: set 7
Lv.2	Details
	To set the feed side for setting 7. Setting 7 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV7, TR-PPR7, TR-CLR7 and TR-DUP7. When this condition is satisfied, the target current that is set in 2TR-TGT7 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs on the 1st/2nd side occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 3 1: 1-sided, 2: Auto 2-sided, 3: Multi-purpose Tray 2-sided
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV7, TR-PPR7, TR-CLR7, 2TR-TGT7

COPIER > ADJUST > HV-TR	
TR-DUP8	Sec trns indiv setting feed side: set 8
Lv.2	Details
	To set the feed side for setting 8. Setting 8 is the combination condition of environment, paper type (paper weight), color mode and feed side that are set in TR-ENV8, TR-PPR8, TR-CLR8 and TR-DUP8. When this condition is satisfied, the target current that is set in 2TR-TGT8 is applied to the Secondary Transfer Outer Roller.
	Use case
	When an image failure that differs on the 1st/2nd side occurs (mottled image/density loss due to excessive transfer/toner scattering on solid image)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	1 to 3 1: 1-sided, 2: Auto 2-sided, 3: Multi-purpose Tray 2-sided
	Default value
	1
	Related service mode
	COPIER> ADJUST> HV-TR> TR-ENV8, TR-PPR8, TR-CLR8, 2TR-TGT8
1TR-TGY	Adj of pmry trns ATVC Y target current
Lv.2	Details
	To adjust the offset of the target current for Y upon primary transfer ATVC control. As the value is incremented by 1, the offset is increased by 1micro A. Increase the value if spotty mark or mottled image occurs. Decrease the value if leopard pattern image occurs. The setting is enabled in an environment set by COPIER > OPTION > IMG-TR > TRENVSU.
	Use case
	When an image failure due to the primary transfer occurs
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range
	-10 to 10
	Unit
	1 micro A
	Default value
	0
	Related service mode
	COPIER> OPTION> IMG-TR> TRENVSU
1TR-TGM	Adj of pmry trns ATVC M target current
Lv.2	Details
	To adjust the offset of the target current for M upon primary transfer ATVC control. As the value is incremented by 1, the offset is increased by 1 micro A. Increase the value if spotty mark or mottled image occurs. Decrease the value if leopard pattern image occurs. The setting is enabled in an environment set by COPIER > OPTION > IMG-TR > TRENVSU.
	Use case
	When an image failure due to the primary transfer occurs
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range
	-10 to 10
	Unit
	1 micro A
	Default value
	0
	Related service mode
	COPIER> OPTION> IMG-TR> TRENVSU

COPIER > ADJUST > HV-TR		
1TR-TGC	Adj of prmry trns ATVC C target current	
Lv.2	Details	To adjust the offset of the target current for C upon primary transfer ATVC control. As the value is incremented by 1, the offset is increased by 1 micro A. Increase the value if spotty mark or mottled image occurs. Decrease the value if leopard pattern image occurs. The setting is enabled in an environment set by COPIER > OPTION > IMG-TR > TRENVSWS.
	Use case	When an image failure due to the primary transfer occurs
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-10 to 10
	Unit	1 micro A
	Default value	0
	Related service mode	COPIER> OPTION> IMG-TR> TRENVSWS
1TR-TGK1	Pmry trns ATVC Bk target current (B&W)	
Lv.2	Details	To adjust the offset of the target current for Bk upon primary transfer ATVC control in B&W mode. As the value is incremented by 1, the offset is increased by 1 micro A. Increase the value if spotty mark or mottled image occurs. Decrease the value if leopard pattern image occurs. The setting is enabled in an environment set by COPIER > OPTION > IMG-TR > TRENVSWS.
	Use case	When an image failure due to the primary transfer occurs
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-10 to 10
	Unit	1 micro A
	Default value	0
	Related service mode	COPIER> OPTION> IMG-TR> TRENVSWS
1TR-TGK4	Pmry trns ATVC Bk target current (clr)	
Lv.2	Details	To adjust the offset of the target current for Bk upon primary transfer ATVC control in full color mode. As the value is incremented by 1, the offset is increased by 1 micro A. Increase the value if spotty mark or mottled image occurs. Decrease the value if white spots occur. The setting is enabled in an environment set by COPIER > OPTION > IMG-TR > TRENVSWS.
	Use case	When an image failure due to the primary transfer occurs
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range	-10 to 10
	Unit	1 micro A
	Default value	0
	Related service mode	COPIER> OPTION> IMG-TR> TRENVSWS

COPIER > ADJUST > HV-TR		
TR-COEF	Ppr type for sec trns low limit bias adj	
Lv.1	Details	To set paper type to which the offset of secondary transfer lower limit bias is applied. The offset value is set in TR-MLT.
	Use case	When the secondary transfer failure occurs in a high temperature and high humidity environment
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 14 1: Plain paper (65 to 82 g/m2) 2: Thin paper (60 to 64 g/m2) 3: Recycled paper (64 to 82 g/m2) 4: Heavy plain paper (83 to 105 g/m2) 5: Heavy paper 1 (106 to 120 g/m2)/Heavy paper 2 (121 to 163 g/m2) 6: Heavy paper 3 (164 to 220 g/m2) 7: Coated paper 1 (100 to 163 g/m2) 8: Coated paper 2 (164 to 220 g/m2) 9: Envelope 10: Postcard 11: Transparency 12: Tracing paper 13: Special paper (Bond paper/Textured paper/Labels/Punched paper) 14: All paper types
	Default value	1
	Related service mode	COPIER> ADJUST> HV-TR> TR-MLT
FIX-T2	ON/OFF of sec trns bias fixation mode	
Lv.1	Details	To set ON/OFF of secondary transfer bias fixation mode. In secondary transfer bias fixation mode, the secondary transfer bias derived from the paper leading edge constant voltage control is applied to middle and trailing edge of a paper. Set 1 when a transfer failure occurs with significantly moistened media or low resistive paper.
	Use case	When a secondary transfer failure occurs with moistened media or low resistive paper
	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

COPIER > ADJUST > HV-TR	
TR-MLT	Adj secondary transfer lower limit bias
Lv.1	Details
	To adjust the offset value of secondary transfer lower limit bias applied to the specified paper type. The paper type subject to application is set in TR-COEF.
	Use case
	When the secondary transfer failure occurs in a high temperature and high humidity environment
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-20 to 20
	Unit
	100 V
	Default value
	0
	Related service mode
	COPIER> ADJUST> HV-TR> TR-COEF

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■ FEED-ADJ

COPIER > ADJUST > FEED-ADJ	
REGIST	Adj of rgst start timing: 1/1 speed
Lv.1	Details
	To adjust the timing to turn ON the Registration Motor at 1/1 speed. As the value is incremented by 1, the margin on the leading edge of paper is increased by 0.1 mm. +: Top margin becomes larger. (An image moves downward.) -: Top margin becomes smaller. (An image moves upward.) 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	Cassette1 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 Cassette 1. 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 Reader 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
	-100 to 100
	Unit
	0.1 mm
	Default value
	0

COPIER > ADJUST > FEED-ADJ	
ADJ-C2	Cassette2 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 Cassette 2. 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 Reader 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
	-100 to 100
	Unit
	0.1 mm
	Default value
	0
ADJ-C3	Cassette 3 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 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.
	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
	-100 to 100
	Unit
	0.1 mm
	Default value
	0
ADJ-C4	Cassette 4 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 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.
	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
	-100 to 100
	Unit
	0.1 mm
	Default value
	0

COPIER > ADJUST > FEED-ADJ	
ADJ-MF	Write start pstn in horz scan: MP tray
Lv.1	Details
	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.
	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
	-100 to 100
	Unit
	0.1 mm
	Default value
	0
ADJ-C1RE	Write start pstn in horz scan:Cst1 2nd
Lv.1	Details
	To adjust the image write start position in the horizontal scanning direction for 2nd side when feeding paper from the Cassette 1. 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 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
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range
	-100 to 100
	Unit
	0.1 mm
	Default value
	0
ADJ-C2RE	Write start pstn in horz scan:Cst2 2nd
Lv.1	Details
	To adjust the image write start position in the horizontal scanning direction for 2nd side when feeding paper from the Cassette 2. 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 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
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range
	-100 to 100
	Unit
	0.1 mm
	Default value
	0

COPIER > ADJUST > FEED-ADJ	
ADJ-C3RE	Write start pstn in horz scan:Cst3 2nd
Lv.1	Details
	To adjust the image write start position in the horizontal scanning direction for 2nd side 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 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
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range
	-100 to 100
	Unit
	0.1 mm
	Default value
	0
ADJ-C4RE	Write start pstn in horz scan:Cst4 2nd
Lv.1	Details
	To adjust the image write start position in the horizontal scanning direction for 2nd side 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 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
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range
	-100 to 100
	Unit
	0.1 mm
	Default value
	0
ADJ-MFRE	Write start pstn in horz scan:MPTray 2nd
Lv.1	Details
	To adjust the image write start position in the horizontal scanning direction for 2nd side 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 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
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range
	-100 to 100
	Unit
	0.1 mm
	Default value
	0

COPIER > ADJUST > FEED-ADJ	
REG-THCK	Register start timing adj: 1/2 speed
Lv.1	<p>Details</p> <p>To adjust the top margin by changing the timing to turn ON the Registration Motor at 1/2 speed. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes larger. (An image moves downward.) -: Top margin becomes smaller. (An image moves upward.)</p> <p>Adj/set/operate method Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p>Display/adj/set range -50 to 50</p> <p>Unit 0.1 mm</p> <p>Default value 0</p>
REG-DUP1	Rgst start timing adj: Plain, 2nd side
Lv.1	<p>Details</p> <p>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 larger. (An image moves downward.) -: Top margin becomes smaller. (An image moves upward.)</p> <p>Adj/set/operate method Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p>Display/adj/set range -50 to 50</p> <p>Unit 0.1 mm</p> <p>Default value 0</p>
REG-DUP2	Rgst start timing adj: Heavy, 2nd side
Lv.1	<p>Details</p> <p>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 larger. (An image moves downward.) -: Top margin becomes smaller. (An image moves upward.)</p> <p>Adj/set/operate method Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p>Display/adj/set range -50 to 50</p> <p>Unit 0.1 mm</p> <p>Default value 0</p>

COPIER > ADJUST > FEED-ADJ	
REG-SPD	Speed adjustment of Registration Motor
Lv.1	<p>Details</p> <p>To adjust the 1/1 speed of the Registration Motor. As the value is incremented by 1, the speed is increased by 0.2%. +: The speed is increased. -: The speed is decreased. As the value is reduced, blur image around 40 to 45mm of the trailing edge is alleviated.</p> <p>Use case When color displacement in vertical scanning direction occurs since the part is close to the end of life</p> <p>Adj/set/operate method Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p>Display/adj/set range -5 to 5</p> <p>Unit 0.20%</p> <p>Default value 0</p>
REG-LEFT	Adj of img write start pstn in horz scan
Lv.1	<p>Details</p> <p>To adjust the image write start position in the horizontal scanning direction. 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>Use case When replacing the DC Controller PCB/clearing RAM data</p> <p>Adj/set/operate method Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p>Display/adj/set range -50 to 50</p> <p>Unit 0.1 mm</p> <p>Default value 0</p>
REG-MFH1	Register start tmrg adj: MP Tray, Heavy3
Lv.1	<p>Details</p> <p>To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding heavy paper 3 at 1/2 speed from the Multi-purpose Tray. As the value is incremented by 1, the top margin is increased by 0.1mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.)</p> <p>Adj/set/operate method Enter the setting value (switch negative/positive by +/- key) and press OK key.</p> <p>Display/adj/set range -50 to 50</p> <p>Unit 0.1 mm</p>

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■ 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	
SH-ADJ	Adjustment of sharpness
Lv.1	<p>Details</p> <p>To adjust the sharpness of the following images which are set in the user mode:</p> <ul style="list-style-type: none"> - Image to be read in the copyboard reading mode - Image on the first side of a document to be read in the reverse-path duplex stream reading mode - Image on the first side of a document to be read in the 1-path duplex stream reading mode <p>As the greater value is set, the image gets sharper. If the value is too large, moire is likely to occur in an output image of COPY and SEND.</p> <p>To match the image quality with that of the second side in the 1-path duplex stream reading mode, decrease the value when moire on the first side is stronger than the second side and increase the value when it is weaker.</p>
	Use case
	When moire frequently occurs on images of COPY and SEND output
	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
	Related service mode
	COPIER> ADJUST> MISC> SH-ADJ2
	Related user mode
	Settings/Registration> Adjustment/Maintenance> Adjust Image Quality> Sharpness

T-8-27

 FUNCTION

 INSTALL

COPIER > FUNCTION > INSTALL		
STIR-4		
Stirring of all color developer		
Lv.1	Details	To stir developer in the Developing Assemblies of 4 colors (Y/M/C/Bk).
	Use case	- At installation of the machine - At occurrence of an image failure - When using the Drum Unit that has been left outside of the machine (especially in an HH environment) for a long period of time
	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
SPLY-H-Y		
Toner initial supply to Y Hopper Unit		
Lv.1	Details	To automatically supply toner to the Y-Hopper Unit. After execution, the operation is performed by opening and closing the Front Door.
	Use case	- When E020-00B1 or E020-0060 occurred - When Y -Color density occurred - When replacing or cleaning the Y-Hopper Unit
	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. 45 seconds
SPLY-H-M		
Toner initial supply to M Hopper Unit		
Lv.1	Details	To automatically supply toner to the M-Hopper Unit. After execution, the operation is performed by opening and closing the Front Door.
	Use case	- When E020-01B1 or E020-0160 occurred - When M-color density occurred - When replacing or cleaning the M-Hopper Unit
	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. 45 seconds
SPLY-H-C		
Toner initial supply to C Hopper Unit		
Lv.1	Details	To automatically supply toner to the C-Hopper Unit. After execution, the operation is performed by opening and closing the Front Door.
	Use case	- When E020-02B1 or E020-0260 occurred - When C-color density occurred - When replacing or cleaning the C-Hopper Unit
	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. 45 seconds

COPIER > FUNCTION > INSTALL		
SPLY-H-K		
Toner initial supply to Bk Hopper Unit		
Lv.1	Details	To automatically supply toner to the Bk-Hopper Unit. After execution, the operation is performed by opening and closing the Front Door.
	Use case	- When E020-03B1 or E020-0360 occurred - When Bk-color density occurred - When replacing or cleaning the Bk-Hopper Unit
	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. 45 seconds
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
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	0 to 2001
	Default value	0
	Related service mode	COPIER> OPTION> FNC-SW> CARD-RNG (Level 2)

COPIER > FUNCTION > INSTALL		
AINR-OFF		ON/OFF warm-up rotn deact:dor open/close
Lv.1	Details	To set whether to disable the warm-up rotation when opening and closing the door. By selecting 1, printing can be executed without auto adjustment at warm-up rotation when analyzing the cause of a problem.
	Use case	When printing and checking without auto adjustment at warm-up rotation when analyzing the cause of a problem
	Adj/set/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 (warm-up rotation enabled), 1: ON (warm-up rotation disabled)
	Default value	0
	E-RDS	
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 to 1 0: Function not used, 1: Function 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 etc. 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 etc. to the sales company's server via SOAP protocol

COPIER > FUNCTION > INSTALL		
COM-TEST		Dis 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 etc. to the sales company's server via SOAP protocol
COM-LOG		Dis 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 etc. 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. 3) 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 etc. 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 etc. 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 the potential control after executing COPIER> OPTION> IMG-FIX> PO-CNT. - When D-max control conditions are 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 etc. 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-STSTS (1: ON, 2: OFF).
	Use case	- When using the service browser - At operation check
	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-STSTS.
	Display/adj/set range	At normal termination: OK!, At abnormal termination: NG!
	Related service mode	COPIER> FUNCTION> INSTALL> COM-TEST COPIER> DISPLAY> USER> BRWS-STSTS
CDS-CTL		Setting of country/area when CDS is used
Lv.1	Details	To set the country/area to enable the CDS.
	Use case	When enabling the CDS
	Display/adj/set range	CA (Canada), LA (Latin America), HK (Hong Kong) and the country/area specified in COPIER> OPTION> FNC-SW> CONFIG.
	Default value	It differs according to the location.
	Related service mode	COPIER> OPTION> FNC-SW> CONFIG
	Supplement/memo	CDS: Contents Delivery System

T-8-28

■ CCD

COPIER > FUNCTION > CCD		
CCD-ADJ		Adjustment of Analog Processor gain
Lv.1	Details	To adjust the gain of the Analog Processor of the CCD PCB.
	Caution	All the values in COPIER> ADJUST> CCD are updated after execution, so write the updated values in the service label.
	Display/adj/set range	During operation: ACTIVE, When the operation finished normally: OK!
	Related service mode	COPIER> ADJUST> 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	- When replacing the Copyboard Glass - When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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 the operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL2
	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	- When replacing the Copyboard Glass - When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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
	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 CCD Unit - When clearing the RAM data of the Reader Unit
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> MTF3-M1 to M12, MTF3-S1 to S12, MTF4-M1 to M12, MTF4-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-WLVL3	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 CCD Unit - When clearing the RAM data of the Reader Unit
	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-WLVL4 in a row.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!

COPIER > FUNCTION > CCD		
DF-WLVL4	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 CCD Unit - When clearing the RAM data of the Reader Unit
	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-WLVL3.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> DFTAR-R, DFTAR-G, DFTAR-B

T-8-29

■ CLEANING

COPIER > FUNCTION > CLEANING		
TBLT-CLN	Toner ejection and ITB cleaning	
Lv.1	Details	To forcibly consume toner by forming solid color band on the ITB 10 times. In addition, remove the solid color band by ITB cleaning control. Use this mode when Y/M/C-toner is deteriorated due to significantly low printing frequency of color image. In the case that only ITB cleaning is needed, execute it in user mode (Settings/Registration> Adjustment/Maintenance> Maintenance> Clean Inside Main Unit).
	Use case	- When ITB cleaning failure occurs - When toner is deteriorated due to low printing frequency of color image
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When the operation finished normally: OK!
	Required time	Approx. 4 minutes and 30 seconds
	Related user mode	Settings/Registration> Adjustment/Maintenance> Maintenance> Clean Inside Main Unit
DRM-ALL	All-color Photosensitive Drum cleaning	
Lv.1	Details	To clean the Photosensitive Drum for all colors.
	Use case	When image failure (fogging) 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!

T-8-30

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) Terminate checking with LED-OFF.
	Related service mode	COPIER> FUNCTION> PANEL> LED-OFF
LED-OFF		
End check of Control Panel LED		
Lv.1	Details	To terminate checking of the 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) Release 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 9 "+" in sequence.

T-8-31

PART-CHK

COPIER > FUNCTION > PART-CHK		
FAN		
Specification of operation Fan		
Lv.1	Details	To specify the Fan to operate.
	Use case	When replacing the Fan/checking the operation
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	1 to 10 1: 3 Way Unit Cooling Fan (FM4) 2: Drum Unit Cooling Fan (FM7) 3 to 10: Not used
	Default value	1
Related service mode		
COPIER> FUNCTION> PART-CHK> FAN-ON		
FAN-ON		
Operation check of Fan		
Lv.1	Details	To start operation check of the Fan specified by FAN.
	Use case	When replacing the Fan/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> FAN		
MTR		
Specification of operation Motor		
Lv.1	Details	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.
	Display/adj/set range	1 to 23 1: Cassette 1 Pickup Motor (M15) 2: Shutter Motor (M5) 3: Fixing Outlet Motor (M18) 4: Duplexing Feed Motor (M19) 5: Third Delivery Motor (M22) 6: Second Delivery Motor (M20) 7: Fixing Motor (M17) 8: Cassette 2 Pickup Motor (M16) 9: Cassette 3 Pickup Motor (M101) 10: Cassette 4 Pickup Motor (M102) 11: Drum Motor (M4) * 12: Developing Motor (M3) 13: ITB Motor (M2) * 14 to 21: Not used 22: Scanner Motor (M1) 23: Not used Motors with asterisk mark operate simultaneously.
	Default value	1
Related service mode		
COPIER> FUNCTION> PART-CHK> MTR-ON		

COPIER > FUNCTION > PART-CHK		
MTR-ON	Operation check of Motor	
Lv.1	Details	To start operation check of the Motor specified by MTR. The operation automatically stops after operation of 5 seconds.
	Use case	When replacing the Motor/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> MTR
SL	Specification of operation Solenoid	
Lv.1	Details	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: Cassette 1 Pickup Solenoid (SL4) 2: Cassette 2 Pickup Solenoid (SL5) 3: Cassette 3 Pickup Solenoid (SL101) 4: Cassette 4 Pickup Solenoid (SL102) 5: Manual Feed Pickup Solenoid (SL3) 6: Primary Transfer Disengagement Solenoid (SL1) 7: First Delivery Flapper Solenoid (SL6) 8: Second Delivery Flapper Solenoid (SL7) 9: Third Delivery Flapper Solenoid (SL8) 10: Registration Shutter Solenoid (SL2)
	Default value	1
	Related service mode	COPIER> FUNCTION> PART-CHK> SL-ON
SL-ON	Operation check of Solenoid	
Lv.1	Details	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-8-32

CLEAR

COPIER > FUNCTION > CLEAR		
ERR	Clear of error code	
Lv.1	Details	To clear error codes (E000, E001, E002, E003, E717, E719).
	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	- Before execution of this item, be sure to output the service mode setting values by P-PRINT. 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 Unit	
Lv.1	Details	To clear the RAM data of the Reader Unit.
	Use case	When clearing the RAM data of the Reader Unit
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Before execution of this item, be sure to output the service mode setting values by P-PRINT. 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 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.
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
	- Before execution of this item, be sure to output the service mode setting values by P-PRINT. 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
	- Address Book, Forwarding Settings, Settings/Registration (Preferences), Adjustment/Maintenance, Function Settings, Set Destination, Management Settings, TPM Settings, etc. are deleted. - Since the file management information is initialized, images on the HDD cannot be read. - Before execution of this item, be sure to output the service mode setting values by P-PRINT. After execution, enter necessary setting values. - The RAM data is cleared after the main power switch is turned OFF/ON. - If this item is executed while a login application other than Default Authentication is activated, any symptom occurs. (e.g. The login screen is not displayed.) In this case, switch the login application to Default Authentication once.
	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.

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. 3) 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
REG-CLR	Clear of image position correction value
Lv.2	Details
	To clear the value when the correction value that is adjusted by image position correction control becomes a faulty value due to some reasons. When color displacement cannot be corrected by image position correction control, clear the correction value and turn OFF/ON the machine or execute "Quick Adjust" and "Auto Correct Color Mismatch" in user mode so that image position correction is executed again.
	Use case
	- When color displacement cannot be corrected by image position correction control - When a failure occurs in correction in an oblique direction
	Adj/set/operate method
	Select the item, and then press OK key.
	Related user mode
	Settings/Registration> Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation > Quick Adjust Settings/Registration> Adjustment/Maintenance> Adjust Image Quality> Auto Correct Color Mismatch
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
	Adj/set/operate method
	Select the item, and then press OK key.
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.
FXTX-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.

COPIER > FUNCTION > CLEAR		
LNG-CLR		Uninstallation of language files
Lv.2	Details	To uninstall the language files other than Japanese and English files. After execution, the machine automatically enters the download mode.
	Use case	When installing a new language file while there are 7 installed language files
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Select the firmware in which the necessary language is included by SST, and perform downloading.
	Caution	The language files are not uninstalled if a language file is not installed by SST after the execution of this service mode. When installing the language file to the host machine, the language files other than the file selected by SST are deleted. (Japanese and English files will be kept.)
	Supplement/memo	Screen is displayed in English after the execution, so switch the language.

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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

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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. 80 seconds
	Supplement/memo	It takes approximately 15 seconds before printing starts.
KEY-HIST		Output of Ctrl Panel key entry 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. 15 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. 15 seconds

COPIER > FUNCTION > MISC-P		
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. 15 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. 60 seconds
	Supplement/memo	It takes approximately 15 seconds before printing starts.
D-PRINT		Output of service mode (DISPLAY)
Lv.1	Details	To output items displayed by DISPLAY in the service mode . Items output by P-PRINT, LBL-PRNT and HIST-PRT and ALARM are excluded.
	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. 45 seconds
ENV-PRT		Inside temp/hmdy & fix roller temp log
Lv.1	Details	To print the data of temperature and humidity in the machine/temperature of the surface of the Fixing Roller as logs.
	Use case	When grasping information of temperature in the machine/fixing temperature for 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. 15 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.

COPIER > FUNCTION > MISC-P		
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.
USBH-PRT		Output of USB device information report
Lv.1	Details	To output information of the connected USB device in the form of a report.
	SHT-OPEN	
SHT-OPEN		Exe of Dustproof Glass cleaning mode
Lv.1	Details	To open the Y, M, C, Bk Dustproof Shutters to clean the Dustproof Glass of the Laser Scanner Unit. When the Dustproof Glass is stained, set 1 to clean it with glass cleaning stick. When service mode is completed, the setting value is automatically returns to 0 at the time of opening and closing the door.
	Use case	When missing image occurs due to the stained Dustproof Glass
	Adj/set/operate method	Select the item, and then press OK key.
T1-UP		Execution of all ITB disengagement mode
Lv.1	Details	To disengage the ITB from the Photosensitive Drums of all colors to prevent making small cuts on the ITB when removing and then installing the Process Cartridge/ITB. When service mode is completed, the setting value is automatically returns to 0 at the time of opening and closing the door.
	Use case	When removing and then installing/replacing the Process Unit/ITB
	Adj/set/operate method	Select the item, and then press OK key.

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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.
	Display/adj/set range	When waiting for a command: STAND-BY/STNDBY, In communication: CONNECTED, Communication terminated: HOLD
	Supplement/memo	SST: Service Support Tool
CHK-TYPE		Specify HD-CLEAR/HD-CHECK 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 and document-related area 2: General application area 3: PDL-related area 4: System-related area 5: MEAP-related area 6: SEND-related area 7: License-related area 8: Debug-related area
	Related service mode	COPIER> FUNCTION> SYSTEM> HD-CLEAR, HD-CHECK
HD-CHECK		HDD file system check
Lv.1	Details	To execute HDD file system check.
	Use case	After executing CHK-TYPE
	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	0 to 1 0: Not executed 1: File system check of the area specified in CHK-TYPE at next startup
	Default value	0
Related service mode		COPIER> FUNCTION> SYSTEM> CHK-TYPE

COPIER > FUNCTION > SYSTEM		
HD-CLEAR		Initialization of specified partition
Lv.1	Details	To initialize the partition specified by CHK-TYPE at next startup.
	Use case	When initializing the HDD partition
	Adj/set/operate method	1) Enter 1, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to execute this item after CHK-TYPE.
	Display/adj/set range	0 to 1 0: Not executed, 1: Initialized at next startup
	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 trouble
	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 4 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	0
	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.)
DEBUG-2		Output of log saved on HDD
Lv.2	Details	To print the PLOG saved in HDD by COPIER> FUNCTION> SYSTEM> DEBUG-1. (A4: Approx. 20 sheets) SUBLOG is not printed. It should be uploaded from SST.
	Use case	When printing PLOG
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> DEBUG-1 (Level 2)
CDS-UPDT		Start-up of CDS application
Lv.1	Details	To activate the application to access to CDS.
	Use case	When executing the following operations using CDS: - Firmware update - Installation of MEAP application - Enabling of the iR options
	Adj/set/operate method	Select the item, and then press OK key.
	Supplement/memo	CDS: Contents Delivery Server

COPIER > FUNCTION > SYSTEM		
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
	Adj/set/operate method	Select the item, and then press OK key.
	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 by the old setting data and the new 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
	Adj/set/operate method	Select the item, and then press OK key.
	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 by the old setting data and the new data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> DSRAMBUP
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
	Adj/set/operate method	Select the item, and then press OK key.
	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 by the old setting data and the new 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
	Adj/set/operate method	Select the item, and then press OK key.
	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
REBOOT		Reboot of host machine
Lv.2	Details	To reboot the host machine.
	Use case	For customization
	Adj/set/operate method	Select the item, and then press OK key.

■ DBG-LOG

COPIER > FUNCTION > DBG-LOG	
LOG2USB	Storage of debug log to USB memory
Lv.1	Details
	To store a set of debug logs to USB memory at the error occurrence. A type of log to be collected is set in LOG-TRIG. If there is a debug log which is automatically stored, it is archived at this time. Required time differs according to the device conditions and volume of log data.
	Use case
	When analyzing the cause of a problem
	Adj/set/operate method
	1) Install the USB memory. 2) Select the item, and then press OK key.
	Caution
	- Wait until the machine recognizes the USB memory (approx.10 sec.). - During the data transfer ("ACTIVE" display), do not turn OFF the power/remove the USB memory/use the screen for operations.
	Display/adj/set range
	During operation: ACTIVE, At normal termination: OK!, At abnormal termination: NG
	Required time
	Approx. 5 minutes
	Related service mode
	COPIER> FUNCTION> DBG-LOG> LOG-TRIG
LOG2SRVR	Transfer of debug log to server
Lv.1	Details
	To transfer a set of debug logs to FTP server using network at the error occurrence. A type of log to be collected is set in LOG-TRIG. If there is a debug log which is automatically stored, it is archived at this time. Address and account of the FTP server can be set by reading the operation setting file from the USB memory in LOG-TRIG.
	Use case
	When analyzing the cause of a problem
	Adj/set/operate method
	Select the item, and then press OK key.
	Caution
	- Be sure to set the account of the machine to the FTP server beforehand. - During the data transfer ("ACTIVE" display), do not turn OFF the power/use the screen for operations.
	Display/adj/set range
	During operation: ACTIVE, At normal termination: OK!, At abnormal termination: NG
	Related service mode
	COPIER> FUNCTION> DBG-LOG> LOG-TRIG

COPIER > FUNCTION > DBG-LOG	
LOG-TRIG	Set of debug log storage condition
Lv.1	Details
	To set the conditions (timing, types, etc.) to automatically store the debug logs (stored as an archive file). By reading the operation setting file of the setting value from the Main Controller, the conditions written in the file are set. When setting a new condition is necessary, read the operation setting file provided by R&D from the USB memory.
	Use case
	- When changing the conditions of debug log to automatically store - When setting a new condition
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 99999
	Default value
	101
	Related service mode
	COPIER> FUNCTION> DBG-LOG> LOG2USB, LOG2SRVR
HIT-STS	Display of debug log state
Lv.1	Details
	To display whether archive file of the debug log which was matched with the conditions set in LOG-TRIG exists or not.
	Use case
	When checking the debug log automatically stored
	Adj/set/operate method
	Select the item, and then press OK key.
	Display/adj/set range
	At normal state: OK, At failure occurrence: --
	Related service mode
	COPIER> FUNCTION> DBG-LOG> LOG-TRIG
SYSLOG	Setting of syslog function
Lv.1	Details
	To set the syslog function. When ON is set, sublog on the main CPU side of the Main Controller is output to the HDD/syslog server. "sublog" can be collected by LOG2USB or LOG2SRVR.
	Use case
	When R&D considers that setting the syslog function is necessary at problem analysis
	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 99999 0: OFF
	Default value
	0
	Related service mode
	COPIER> FUNCTION> DBG-LOG> LOG2USB, LOG2SRVR
DEFAULT	Reset of debug log setting
Lv.1	Details
	To clear all debug log settings, log files, etc. and return to the state before debug log collection operation.
	Use case
	- When returning the device in which analyzing the cause of a problem was completed - When resetting the debug log settings
	Adj/set/operate method
	Select the item, and then press OK key.
LOG-DEL	Clear of debug log
Lv.2	Details
	To delete the debug log file. The debug log setting is not reset.
	Use case
	When clearing the debug log
	Adj/set/operate method
	Select the item, and then press OK key.

COPIER > FUNCTION > DBG-LOG		
HIT-STS2		Display of debug log state w/ string
Lv.2	Details	To display whether archive file of the debug log including character strings specified in LOG-TRIG exists or not.
	Use case	When checking the debug log automatically stored
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	At normal state: OK, At failure occurrence: --
	Related service mode	COPIER> FUNCTION> DBG-LOG> LOG-TRIG

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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 When Chinese paper (8K paper, 16K paper) is used
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Since the MODEL-SZ value is linked to the setting value of FEED-CNF, the FEED-CNF value automatically changes as follows when changing the MODEL-SZ value. [Linkage pattern] MODEL-SZ:0 FEED-CNF:0 MODEL-SZ:1 FEED-CNF:1 MODEL-SZ:2 FEED-CNF:0 MODEL-SZ:3 FEED-CNF:0
	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
	The default differs according to the location.
	Related service mode
	COPIER> OPTION> FNC-SW > MODELSZ2 COPIER> OPTION> FNC-SW > KSIZE-SW COPIER> OPTION> FNC-SW > FEED-CNF COPIER> OPTION> CST > CST-K-SW
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

COPIER > OPTION > FNC-SW	
DH-SW	ON/OFF of auto D-half control
Lv.2	Details
	To set ON/OFF of auto D-half control. When 0 (D-half control is OFF.) is set, ARCDT-SW becomes 1 (ARCDAT control is OFF.).
	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
	Enter the setting value, and then press OK key.
	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
	Related service mode
	COPIER> OPTION> FNC-SW> ARCDT-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 CCD Unit - When clearing the RAM data of 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: AB configuration, 1: Inch configuration
	Default value
	0

COPIER > OPTION > FNC-SW	
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. 3) 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: Iceland, 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
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

COPIER > OPTION > FNC-SW	
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 11 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, 11: F4A
	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-LTRR	Spcl ppr size set in DADF: LTRR: Reader
Lv.2	Details
	To set the size of special paper (LTR-R 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.
	Caution
	For outside Japan only
	Display/adj/set range
	0 to 2 0: LTR-R, 1: OFICIO-R, 2: Ecuador-OFICIO
	Default value
	0
ORG-LDR	Spcl ppr size set in DADF: LDR: Reader
Lv.2	Details
	To set the size of special paper (LDR 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.
	Caution
	For outside Japan only
	Display/adj/set range
	0 to 1 0: LEDGER-R, 1: Argentine LETTER
	Default value
	0

COPIER > OPTION > FNC-SW	
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
INTROT-1	Set ATR ctrl patch density dtct interval
Lv.1	Details
	To set execution interval of patch density detection executed at ATR control. By changing the setting value, execution intervals at last rotation and at paper interval are changed. Decrease the value if E020 error occurs frequently. As the execution frequency is increased, correction accuracy for density variation is increased. Since patch density detection is linked with low duty toner ejection, lowering of density can be prevented by increasing the frequency. When the value is increased, downtime can be reduced because of decrease of execution frequency, but an image failure might occur.
	Use case
	- When E020 error occurs frequently - Upon user's request (decrease downtime)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-2 to 2 -2: Not executed at last rotation and at paper interval -1: Every 50 sheets at last rotation, every 100 sheets at paper interval 0: Every 100 sheets at last rotation, every 200 sheets at paper interval 1: Every 150 sheets at last rotation, every 300 sheets at paper interval 2: Every 200 sheets at last rotation, every 400 sheets at paper interval * Converted with 5% duty per sheet
	Default value
	0
	Related service mode
	COPIER> OPTION> FNC-SW> ATR12-SW

COPIER > OPTION > FNC-SW	
INTROT-2	Set of auto adjustment execute interval
Lv.1	Details
	To set the paper interval to execute auto adjustment (D-max control, D-half control). As the value is incremented by 1, the paper interval is increased by 1 sheet. If a new Drum Unit whose number of fed sheets is 1000 or less is installed, the interval is 250 sheets at a maximum.
	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
	10 to 2000
	Unit
	1 sheet
	Default value
	500
DMAX-SW	Setting of D-max control timing
Lv.2	Details
	To set the D-max control execution timing. When the density variation is not within the requested range at continuous output of a large volume of papers (long job length), set 2.
	Use case
	When the density variation is not within the requested range at continuous output of a large volume of papers
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 2 0: Not used, 1: At last rotation, 2: At paper interval with 1/1 speed and last rotation
	Default value
	1
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
	Related service mode
	COPIER > OPTION > FNC-SW > MODEL-SZ

COPIER > OPTION > FNC-SW	
SZDT-SW	ON/OFF of photo size detection
Lv.2	Details
	To set to change the copyboard original size detection from CCD size detection to photo size detection.
	Use case
	Upon user's request (glare of the lamp for CCD size detection)
	Adj/set/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
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
FXWRNLVL	Set Fixing Film life display thresholdVL
Lv.2	Details
	To set the threshold value to display the life of Fixing Film. This item is enabled when the value at the following is set to "1" (default: 0): COPIER> OPTION> DSPLY-SW> FXMSG-SW (ON/OFF of Fixing Assembly replacement message) The life judgment counter is stored in the DC Controller. It is not possible to change or check the counter value.
	Use case
	To prevent the fixing failure caused by the continuous use of Fixing Film that exceeds the life.
	Adj/set/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: Warning is hidden. 1: Warning is displayed when the counter for life judgment reaches the specified value. 2 to 3: Not used
	Default value
	0
	Related service mode
	COPIER> OPTION> DSPLY-SW> FXMSG-SW

COPIER > OPTION > FNC-SW	
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 COPIER> OPTION> CST> CST-K-SW
	Supplement/memo
	8K paper: 270 x 390 mm, 16K paper: 270 x 195 mm
ORG-B4	Special paper size set in DADF mode: B4
Lv.2	Details
	To set the size of special paper (B4) 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 2 0: B4R, 1: FOLIO-R, 2: F4A
	Default value
	0
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
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

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
ARCDT-SW	ON/OFF of ARCDAT control
Lv.1	Details
	To set ON/OFF of ARCDAT control. When 1 is set, the ARCDAT control is not executed. When the hue variation occurs in the case of failure value displayed in COPIER> DISPLAY> HT-C, turn OFF the ARCDAT control once and check the hue. If hue variation is alleviated, analyze the cause of ARCDAT control error (developer, Patch Sensor, etc.). When 1 (ARCDAT control is OFF.) is set, DH-SW becomes 0 (D-half control is OFF.).
	Use case
	When hue variation occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Make sure to set 0 again when ARCDAT control recovers. If inputting a job during D-half control at last rotation while the setting is 1, "Waiting to print..." might be displayed.
	Display/adj/set range
	0 to 1 0: ON, 1: OFF
	Default value
	0
	Related service mode
	COPIER> DISPLAY> HT-C COPIER> OPTION> FNC-SW> DH-SW
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.
	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.

COPIER > OPTION > FNC-SW	
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, connect again after disconnecting, and then connecting the USB device again.
	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
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 print 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: no support; 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

COPIER > OPTION > FNC-SW		
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	Select the item, and then press OK key.
	Display/adj/set range	0: Returned to the initial value
	Default value	0
W/RAID		[Not used]
Lv.1	Details	[Not used]
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
RPT2SIDE		Set of report 1sided/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
	Adj/set/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: 1-sided, 1: 2-sided
	Default value	1
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

COPIER > OPTION > FNC-SW		
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
PSCL-MS		Set auto gradation adj operation: heavy
Lv.1	Details	To set at which speed (1/1 speed, 1/2 speed, or 1/3 speed) PASCAL control and D-half control are executed at auto gradation adjustment. When "2" is set, they are executed for the lastly used speed only. Required time for auto gradation adjustment is short while it takes time to switch to other speed. This is suitable for the users who frequently use a specific paper type. When "3" is set, they are executed for all speeds simultaneously. Required time for auto gradation adjustment is long (approx. 3 minutes) while it is quick to switch to other speed. This is suitable for the users who use various paper types.
	Use case	When setting the speed according to the materials used by the user
	Adj/set/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 3 2: Lastly used speed, 3: All speeds
	Default value	2
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	1

COPIER > OPTION > FNC-SW	
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
	Adj/set/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
	1: Europe, 0: Other than Europe
CDS-MEAP	Set to allow MEAP install 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
	Adj/set/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
	1
	Supplement/memo
	CDS: Contents Delivery System
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
	Adj/set/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
	CDS: Contents Delivery System
INVALIDPDL	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

COPIER > OPTION > FNC-SW	
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.
	Adj/set/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
MC-FANSW	Setting of Controller Fan control
Lv.1	Details
	To set full speed/half speed to fan control of the Controller Fan 1 and 2. When "1: Full speed" is set, the heat exhaust efficiency is enhanced.
	Use case
	- When HDD damage occurs multiple times - When the machine is installed in high temperature environment in which HDD damage is likely to occur
	Adj/set/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: Half speed, 1: Full speed
	Default value
	0
PRE-CURL	ON/OFF of curl alleviation mode: Heavy
Lv.1	Details
	To set ON/OFF of curl alleviation mode for heavy paper, etc. When 1 is set, the initial rotation is extended and the paper intervals become wider. As a result, paper curl can be alleviated, but productivity decreases.
	Use case
	When heavy paper is curled
	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 productivity decreases.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON
	Default value
	0
	Related service mode
	SORTER> OPTION> CURL-HVY

COPIER > OPTION > FNC-SW	
AUTO-OUT	ON/OFF of jammed ppr auto ejctn function
Lv.1	Details
	To set ON/OFF of jammed paper auto ejection function. When 1 is set, jammed paper is not delivered to the ejection position, but it stays at the current position at jam occurrence.
	Use case
	- When user feels unnecessary of jammed paper auto ejection - When location of jammed paper is necessary to analyze the cause of a problem
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: ON, 1: OFF
	Default value
	0
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
FEED-CNF	Setting of DADF original detection size
Lv.1	Details
	To set DADF original detection size according to AB configuration/Inch configuration.
	Use case
	When changing the DADF detection size
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	Since the setting value automatically changes when changing the MODEL-SZ value, set FEED-CNF after setting MODEL-SZ.
	Display/adj/set range
	0 to 1 0: AB configuration, 1: Inch configuration
	Default value
	The value differs according to the location.
	Related service mode
	COPIER > OPTION > FNC-SW > MODEL-SZ

COPIER > OPTION > FNC-SW	
PDL-Z-LG	Setting of draw algorithm
Lv.1	Details
	To switch the draw algorithm of the iR C Series and the iR-ADV C Series to obtain output the user expects. When 0 (FURUYA mode) is set, image is output as displayed on the screen by the new algorithm adopted from the iR-ADV C Series. Pseudo outline (boundary for processing divided graphics separately) occurred with the iR C Series does not occur. However, when PDL job with special data structure is sent, output the user expects may not be obtained. When 1 (FLAG mode) is set, the draw algorithm adopted by the conventional iR C Series is used. Output equivalent to that of the iR C Series can be obtained; however, draw-related phenomenon occurred with the series occurs.
	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 setting value 2 and 3.
	Display/adj/set range
	0 to 3 0: FURUYA mode, 1: FLAG mode, 2,3: For R&D use
	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 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.
	Display/adj/set range
	0 to 1 0: Disabled, 1: Enabled
	Default value
	1: Europe, 0: Other than Europe
	Supplement/memo
	CDS: Content Delivery System

COPIER > OPTION > FNC-SW	
CPR-SW	Clr displc crct frqcy adj;temp chng
Lv.1	Details
	<p>If a specific temperature change is seen from the previous control, the color displacement correction control is executed again.</p> <p>By changing this temperature variation range, the frequency of executing the color displacement correction control is set.</p> <p>Usually, set "0" which balances image quality and productivity.</p> <p>When 1 is set, the temperature variation range becomes narrowed, so the frequency of executing the color displacement correction control is increased. The color displacement can be reduced, but the downtime is increased.</p> <p>When 2 is set, the temperature variation range becomes widened, so the frequency of executing the color displacement correction control is decreased. The downtime can be reduced, but the color displacement occurs.</p>
	Use case
	<ul style="list-style-type: none"> - When preventing the color displacement due to a temperature change - When preventing an increase in downtime due to a temperature change
	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 the downtime is increased if image quality is prioritized, and the color displacement is increased if productivity is prioritized.
	Display/adj/set range
	0 to 2 0: Normal, 1: Quality priority, 2: Productivity priority
	Default value
	0
DMAX-DAY	D-max exe frqcy switch ON/OFF
Lv.1	Details
	<p>To set whether to switch the frequency to execute the D-max control after a specified number of sheets is fed.</p> <p>Set 1 when increasing the frequency to execute D-max control after making a large number of outputs.</p>
	Use case
	When density varies at the time of making a large number of outputs
	Adj/set/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

COPIER > OPTION > FNC-SW	
JM-ERR-D	Handling 0CAx jam as an error: DCON
Lv.2	Details
	<p>To display 0CAx jam as the error E996-0CAx.</p> <p>By handling the jam as an error, the machine stops, so that loss of the log can be prevented.</p> <p>Be sure to enable the service mode at the user's site where 0CAx jam occurs.</p> <p>After that, if the error E996-0CAx occurs, the log which has been backed up can be obtained.</p>
	Use case
	When obtaining a log at the occurrence of 0CAx jam
	Adj/set/operate method
	1) Enter the setting value, and then press OK key.
	Display/adj/set range
	0: Display as a jam, 1: Display as an error
	Default value
	0

T-8-38

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

COPIER > OPTION > DSPLY-SW	
T-LW-LVL	Display timing of toner level warning mssg
Lv.2	Details
	To set the threshold value of residual toner in the hopper. When the residual toner level becomes lower than the threshold, a warning message of "Toner is low. Replacement not yet needed." is displayed on the Control Panel.
	Use case
	- Upon user's request - At the timing that the service engineer visits to the customer, etc.
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	5 to 100
	Unit
	1%
	Default value
	10
NWERR-SW	OFF/ON of network-related error display
Lv.2	Details
	To set OFF/ON of network-related error message display. When setting "0: OFF" while the machine is not connected to network, the error message "Check the network connection." is not displayed.
	Use case
	When using the machine as a copy 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: OFF, 1: ON
	Default value
	1: Normal model, 0: Self-copy model
FXMSG-SW	ON/OFF of Fixing Assembly replace mssg
Lv.2	Details
	To set whether to display the message prompting the replacement of Fixing Assembly on the Control Panel when the life judgment counter reaches the specified value. When FXMSG-SW is 1 and COPIER> OPTION> FNC-SW> FXWRNLVL is 1 (default: 0), the life of Fixing Assembly is detected. When the Fixing Assembly reaches the end of life, the Fixing Assembly replacement message: "Prepare new fixing roller. Call service representative." is displayed. When the message is displayed, go through the following procedure. 1) After turning OFF the main power switch, replace the Fixing Film Unit+Pressure Roller and Fixing Assembly. 2) After turning ON the main power switch, execute COPIER> FUNCTION> CLEAR> CNT-DCON. 3) Turn OFF/ON the main power switch.
	Adj/set/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> FNC-SW> FXWRNLVL COPIER> FUNCTION> CLEAR> CNT-DCON

COPIER > OPTION > DSPLY-SW	
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.
	Adj/set/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: Enabled
	Default value
	0
	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.
UI-PRINT	Display/hide of secure print screen
Lv.2	Details
	To set whether to display or hide the secure print 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
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-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
TNR-WARN	ON/OFF of toner alarm display
Lv.1	Details
	To set whether to display the toner alarm screen. When "1" is set, the toner alarm is not displayed until the toner runs out.
	Use case
	When preferring to hide the alarm until the toner runs out
	Adj/set/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(other), 1(US)

COPIER > OPTION > DSPLY-SW	
HPFL-DSP	Set hvy, prntr 1200dpi dedicated mod display
Lv.1	Details
	To set whether to display heavy paper and printer 1200dpi dedicated mode on Auto Adjust Gradation screen at the time of Full Adjust.
	Use case
	When executing Full Adjust with heavy paper and printer 1200dpi dedicated 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
	0 to 3 0: OFF 1: Plain / Heavy 2: Standard / For Printer 1200dpi 3: Standard(Thin) / Standard(Heavy) / For Printer 1200dpi
	Default value
	0
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
	Adj/set/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: Europe, 1: Other than Europe
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
	Adj/set/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

COPIER > OPTION > DSPLY-SW	
UI-NAVI	Display/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
	Adj/set/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-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
	Adj/set/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
ITB-DSP	ON/OFF of init after ITB rplce:user mode
Lv.1	Details
	To set whether to display "ITB" on Initialization screen after replacing parts in user mode. When allowing the user to replace the ITB, set 1.
	Use case
	When allowing the user to replace the ITB
	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
	Adjustment/Maintenance> Maintenance> Initialize After Replacing Parts> ITB
FXU-DSP	ON/OFF init after Fx Ass'y rplce:use mod
Lv.1	Details
	To set whether to display "Fixing Unit" on Initialization screen after replacing parts in user mode. When allowing the user to replace the Fixing Assembly, set 1.
	Use case
	When allowing the user to replace the Fixing Assembly
	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
	Adjustment/Maintenance> Maintenance> Initialize After Replacing Parts> Fixing Unit

COPIER > OPTION > DSPLY-SW	
PUMF-DSP	Init afr MP Tray Pckup Rol rplce:usemod
Lv.1	Details
	To set whether to display "Ppr. Feed Roller & Separation Pad of MP Tray" on Initialization screen after replacing parts in user mode. When allowing the user to replace the Pickup Roller/Separation Pad of Multi-purpose Tray, set 1.
	Use case
	When allowing the user to replace the Pickup Roller/Separation Pad of Multi-purpose Tray
	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
	Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Ppr. Feed Roller & Separation Pad of MP Tray
PUC1-DSP	Init afr Casstt1 Pckup Rol rplce:usemod
Lv.1	Details
	To set whether to display "Ppr. Feed Roller & Separation Pad of Drawer 1" on Initialization screen after replacing parts in user mode. When allowing the user to replace the Pickup Roller/Separation Pad of Cassette 1, set 1.
	Use case
	When allowing the user to replace the Pickup Roller/Separation Pad of Cassette 1
	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
	Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Ppr. Feed Roller & Separation Pad of Drawer 1
PUC2-DSP	Init afr Casstt2 Pckup Rol rplce:usemod
Lv.1	Details
	To set whether to display "Paper Feed Rollers (x 2) of Drawer 2" on Initialization screen after replacing parts in user mode. When allowing the user to replace the Pickup Rollers of Cassette 2, set 1.
	Use case
	When allowing the user to replace the Pickup Rollers of Cassette 2
	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
	Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Paper Feed Rollers (x 2) of Drawer 2

COPIER > OPTION > DSPLY-SW	
PUC3-DSP	Init afr Casstt3 Pckup Rol rplce:usemod
Lv.1	Details
	To set whether to display "Paper Feed Rollers (x 2) of Drawer 3" on Initialization screen after replacing parts in user mode. When allowing the user to replace the Pickup Rollers of Cassette 3, set 1.
	Use case
	When allowing the user to replace the Pickup Rollers of Cassette 3
	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
	Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Paper Feed Rollers (x 2) of Drawer 3
PUC4-DSP	Init afr Casstt4 Pckup Rol rplce:usemod
Lv.1	Details
	To set whether to display "Paper Feed Rollers (x 2) of Drawer 4" on Initialization screen after replacing parts in user mode. When allowing the user to replace the Pickup Rollers of Cassette 4, set 1.
	Use case
	When allowing the user to replace the Pickup Rollers of Cassette 4
	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
	Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Paper Feed Rollers (x 2) of Drawer 4
UI-CUSTM	ON/OFF of Quick Menu screen display
Lv.2	Details
	To set ON/OFF of the Quick Menu screen on the Control Panel.
	Use case
	When not displaying the Quick 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

COPIER > OPTION > DSPLY-SW	
CLN-SEL	Set of condensation prev main unit clean
Lv.1	Details
	To set the effect of cleaning inside the main unit for condensation prevention. When 0 is set, cleaning inside the main unit is not executed. When 1 to 3 is set, an item for condensation prevention is displayed in user mode, and the level of effect of cleaning inside the main unit can be set. As the value is larger, the effect is increased because ITB cleaning is executed more frequently, but toner consumption and cleaning time are increased. In the case of installation in a low temperature and high humidity environment (in winter), ask for the user's opinion and configure the setting.
	Use case
	When condensation occurs in a low temperature and high humidity environment
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 3 0: OFF 1: ON (small effect, low toner consumption) 2: ON (moderate effect, moderate toner consumption) 3: ON (large effect, high toner consumption)
	Default value
	0

T-8-39

IMG-FIX

COPIER > OPTION > IMG-FIX	
NEGA-GST	ON/OFF of pre-exposure operation
Lv.2 Details	To set whether to execute pre-exposure operation at warm-up rotation/paper interval when ghost due to negatively charged drum occurs.
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to get approval from the user in advance by telling that productivity decreases.
Display/adj/set range	0 to 2 0: OFF, 1: ON (at warm-up rotation only), 2: Not used
Default value	0
FX-S-TMP	Img form start temp: plain ppr, 1/1 SPD
Lv.1 Details	To set the offset of image formation start temperature for plain paper (including thin paper, plain paper 2, plain paper 3) at 1/1 speed. As the value is incremented by 1, the control temperature is increased by 5 deg C.
Use case	- When a fixing failure occurs at the leading edge of paper - When uneven gloss occurs in the area that is 76 mm from the leading edge
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-2 to 2 -2: -10 deg C, -1: -5 deg C, 0: 0 deg C, 1: 5 deg C, 2: 10 deg C
Unit	5 deg C
Default value	0
TMP-TBL2	Fixing control temp: heavy ppr, 1/2 SPD
Lv.1 Details	To set the offset of fixing control temperature for heavy paper/extra-long heavy paper at 1/2 speed. As the value is incremented by 1, the control temperature is increased by 3 deg C. Increase the value when a fixing failure occurs. Decrease the value when hot offset occurs.
Use case	When hot offset/fixing failure occurs on heavy paper 1/2
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-3 to 3
Unit	3 deg C
Default value	0
TMP-TBL3	[Not used]
Lv.1 Details	-

COPIER > OPTION > IMG-FIX	
TMP-TBL4	Fixing control temp: plain ppr, 1/2 SPD
Lv.1 Details	To set the offset of fixing control temperature for plain paper (including thin paper, plain paper 2, plain paper 3) at 1/2 speed. As the value is incremented by 1, the control temperature is increased by 3 deg C. Increase the value when a fixing failure occurs. Decrease the value when hot offset occurs.
Use case	When hot offset/fixing failure occurs on plain paper
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-3 to 3
Unit	3 deg C
Default value	0
TMP-TBL5	Fixing control temp: transparency
Lv.1 Details	To set the offset of fixing control temperature for transparency. As the value is incremented by 1, the control temperature is increased by 3 deg C. Increase the value when a fixing failure occurs. Decrease the value when hot offset occurs.
Use case	When hot offset/fixing failure occurs on transparency
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-3 to 3
Unit	3 deg C
Default value	0
TMP-TBL6	Fixing control temp: envelope
Lv.1 Details	To set the offset of fixing control temperature for envelope at 1/1 and 1/2 speed. As the value is incremented by 1, the control temperature is increased by 3 deg C. Increase the value when a fixing failure occurs. Decrease the value when hot offset occurs.
Use case	When hot offset/fixing failure occurs on envelope
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-3 to 3
Unit	3 deg C
Default value	0

COPIER > OPTION > IMG-FIX		
FXS-TMP2	Img form start temp: heavy ppr, 1/2 SPD	
Lv.1	Details	To set the offset of image formation start temperature and 2-step startup judgment temperature for heavy paper/extra-long heavy paper at 1/2 speed. As the value is incremented by 1, the control temperature is increased by 5 deg C.
	Use case	- When a fixing failure occurs at the leading edge of paper - When uneven gloss occurs in the area that is 76 mm from the leading edge
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-2 to 2 -2: -10 deg C, -1: -5 deg C, 0: 0 deg C, 1: +5 deg C, 2: +10 deg C
	Unit	5 deg C
	Default value	0
FXS-TMP3	[Not used]	
Lv.1	Details	-
FXS-TMP4	Img form start temp: plain ppr, 1/2 SPD	
Lv.1	Details	To set the offset of image formation start temperature and 2-step startup judgment temperature for plain paper (including thin paper, plain paper 2 and plain paper 3) at 1/2 speed. As the value is incremented by 1, the control temperature is increased by 5 deg C.
	Use case	- When a fixing failure occurs at the leading edge of paper - When uneven gloss occurs in the area that is 76 mm from the leading edge
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-2 to 2 -2: -10 deg C, -1: -5 deg C, 0: 0 deg C, 1: +5 deg C, 2: +10 deg C
	Unit	5 deg C
	Default value	0
FXS-TMP5	Image formation start temp: transparency	
Lv.1	Details	To set the offset of image formation start temperature for transparency. As the value is incremented by 1, the control temperature is increased by 5 deg C.
	Use case	- When a fixing failure occurs at the leading edge of paper - When uneven gloss occurs in the area that is 76 mm from the leading edge
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-2 to 2 -2: -10 deg C, -1: -5 deg C, 0: 0 deg C, 1: +5 deg C, 2: +10 deg C
	Unit	5 deg C
	Default value	0

COPIER > OPTION > IMG-FIX		
FXS-TMP6	Image formation start temp: envelope	
Lv.1	Details	To set the offset of image formation start temperature for envelope at 1/1 and 1/2 speed. As the value is incremented by 1, the control temperature is increased by 5 deg C.
	Use case	- When a fixing failure occurs at the leading edge of paper - When uneven gloss occurs in the area that is 76 mm from the leading edge
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-2 to 2 -2: -10 deg C, -1: -5 deg C, 0: 0 deg C, 1: +5 deg C, 2: +10 deg C
	Unit	5 deg C
	Default value	0
FLYING	ON/OFF of flying start temperature ctrl	
Lv.2	Details	To set ON/OFF of flying start temperature control. When "1" is set, the flying start temperature control is not executed. This is more life-conscious for Fixing Assembly compared to "0".
	Use case	When preferring to extend the life of Fixing Assembly. However, setting of "1" does not mean that the life of Fixing Assembly is always extended.
	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, FCOT/FPOT is reduced.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0
DMX-OF-Y	Adjustment of Y-color D-max target density	
Lv.2	Details	To adjust the target density of D-max control in case that density of solid area on Y-color image is not appropriate even performing auto gradation adjustment. Increase the value when the density is low and decrease the value when the density is high.
	Use case	When density of solid area is not appropriate even performing auto gradation adjustment
	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 adjustment of auto gradation adjustment.
	Display/adj/set range	-3 to 3
	Default value	0

COPIER > OPTION > IMG-FIX	
DMX-OF-M	Adjustment of M-color D-max target density
Lv.2	<p>Details</p> <p>To adjust the target density of D-max control in case that density of solid area on M-color image is not appropriate even performing auto gradation adjustment. Increase the value when the density is low and decrease the value when the density is high.</p> <p>Use case</p> <p>When density of solid area is not appropriate even performing auto gradation adjustment</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch. 3) Execute full adjustment of auto gradation adjustment.</p> <p>Display/adj/set range</p> <p>-3 to 3</p> <p>Default value</p> <p>0</p>
DMX-OF-C	Adjustment of C-color D-max target density
Lv.2	<p>Details</p> <p>To adjust the target density of D-max control in case that density of solid area on C-color image is not appropriate even performing auto gradation adjustment. Increase the value when the density is low and decrease the value when the density is high.</p> <p>Use case</p> <p>When density of solid area is not appropriate even performing auto gradation adjustment</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch. 3) Execute full adjustment of auto gradation adjustment.</p> <p>Display/adj/set range</p> <p>-3 to 3</p> <p>Default value</p> <p>0</p>
DMX-OF-K	Adjustment of Bk-color D-max target density
Lv.2	<p>Details</p> <p>To adjust the target density of D-max control in case that density of solid area on Bk-color image is not appropriate even performing auto gradation adjustment. Increase the value when the density is low and decrease the value when the density is high.</p> <p>Use case</p> <p>When density of solid area is not appropriate even performing auto gradation adjustment</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch. 3) Execute full adjustment of auto gradation adjustment.</p> <p>Display/adj/set range</p> <p>-3 to 3</p> <p>Default value</p> <p>0</p>

COPIER > OPTION > IMG-FIX	
FIXMIXBD	Setting of media mixed mode
Lv.1	<p>Details</p> <p>To set whether image quality or productivity to be prioritized when media are mixed. When the value is increased, downtime is increased because of prioritizing image quality. When the value is decreased, downtime is decreased, but uneven gloss might occur.</p> <p>Use case</p> <p>- If the fixing failure occurs in media mixed condition. - When decreasing downtime in media mixed situation</p> <p>Adj/set/operate method</p> <p>Enter the setting value and press the OK key.</p> <p>Display/adj/set range</p> <p>-2 to 2</p> <p>Default value</p> <p>0</p>
PRE-FXRL	Pressure Roller soiling prevention mode
Lv.2	<p>Details</p> <p>To set ON/OFF of Pressure Roller soiling prevention mode when feeding calcium carbonate paper. When 1 is set, the paper intervals become wider and temperature of the Pressure Roller is increased. As a result, soiling on the Pressure Roller is reduced, but productivity decreases.</p> <p>Use case</p> <p>Upon user's request (prevention of soiled Pressure Roller)</p> <p>Adj/set/operate method</p> <p>Enter the setting value, and then press OK key.</p> <p>Caution</p> <p>Be sure to get approval from the user by telling that productivity decreases.</p> <p>Display/adj/set range</p> <p>0 to 1 0: OFF, 1: ON</p> <p>Default value</p> <p>0</p>
TMP-TB11	Fixing control temperature:Recycled ppr
Lv.1	<p>Details</p> <p>To set the offset of fixing control temperature for recycled paper (64 to 82 g/m2). As the value is incremented by 1, the control temperature is increased by 3 deg C. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.</p> <p>Use case</p> <p>When offset/fixing failure occurs on recycled paper</p> <p>Adj/set/operate method</p> <p>Enter the setting value, and then press OK key.</p> <p>Display/adj/set range</p> <p>-3 to 3</p> <p>Unit</p> <p>3 deg C</p> <p>Default value</p> <p>0</p>

COPIER > OPTION > IMG-FIX	
FXS-TM11	Image formation start temp: recycled ppr
Lv.1	Details
	To set the offset of image formation start temperature for recycled paper (64 to 82 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C.
	Use case
	- When a fixing failure occurs at the leading edge of paper - When uneven gloss occurs in the area that is 76 mm from the leading edge
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	-2 to 2
	Unit
	5 deg C
	Default value
	0

T-8-40

■ IMG-TR

COPIER > OPTION > IMG-TR	
ITB-TYPE	[Not used]
Lv.2	Details
	-
TRDATENV	Pry trn tgt crnt crct ev setting: R&D
Lv.1	Details
	To set the environment to execute the primary transfer target current correction after a specified number of sheets is fed. Check the use environment from COPIER> DISPLAY> MISC> ENV-TR. Set the number of sheets to be fed for correction by TRDAYCNT and set the correction value by TRDAYTGT.
	Use case
	When density varies at the time of making a large number of outputs
	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 4 0: OFF, 1: Low humidity environment, 2: Normal humidity environment, 3: High humidity environment, 4: All environments
	Default value
	0
	Related service mode
	COPIER> DISPLAY> MISC> ENV-TR COPIER> OPTION> IMG-TR> TRDAYCNT, TRDAYTGT
TRDAYCNT	Pry trn tgt crnt crct fed sht set:R&D
Lv.1	Details
	To set the number of sheets to be fed for executing the primary transfer target current correction. Set the environment for correction by TRDATENV and set the correction value by TRDAYTGT.
	Use case
	When density varies at the time of making a large number of outputs
	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 3 0: OFF, 1: Correction for 500 sheets is executed after 500 sheets are fed. 2: Correction for 1000 sheets is executed after 1000 sheets are fed. 3: Both 1 and 2 are executed.
	Default value
	0
	Related service mode
	COPIER> OPTION> IMG-TR> TRDATENV, TRDAYTGT

COPIER > OPTION > IMG-TR	
TRENVSW	Pry trn ATVC tgt crnt adj ev set: R&D
Lv.1	Details
	To set the environment to adjust the target current offset at the primary transfer ATVC control. Check the use environment from COPIER> DISPLAY> MISC> ENV-TR. Set the offset value from COPIER> ADJUST> HV-TR> 1TR-TGY, 1TR-TGM, 1TR-TGC, 1TR-TGK1, 1TR-TGK4.
	Use case
	When a ghost image due to transfer failure occurs
	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 7 0: All environments, 1: Low humidity environment, 2: Normal environment, 3: High humidity environment, 4: Low humidity environment + Normal humidity environment, 5: Low humidity environment + High humidity environment, 6: Normal humidity environment + High humidity environment, 7: OFF
	Default value
	0
	Related service mode
	COPIER> DISPLAY> MISC> ENV-TR COPIER> ADJUST> HV-TR> 1TR-TGY, 1TR-TGM, 1TR-TGC, 1TR-TGK1, 1TR-TGK4
TRDAYTGT	Pry trn tgt crnt crct VL adj: For R&D
Lv.1	Details
	To adjust the offset correction value of the primary transfer target current correction after a specified number of sheets is fed. Set the environment for correction by TRDATENV and set the number of sheets to be fed by TRDAYCNT.
	Use case
	When density varies at the time of making a large number of outputs
	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
	-5 to 5
	Unit
	1 micro A
	Default value
	0
	Related service mode
	COPIER> OPTION> IMG-TR> TRDATENV, TRDAYCNT
T2TOPDIV	Ppr lead edge V:thin ppr sprtn error
Lv.1	Details
	When the second side of the thin paper winds around the ITB, sometimes a jam occurs due to the secondary transfer separation failure. In this case, if the value is set to either 1, 2 or 3, the voltage of the leading edge on the second side is decreased, so the force which the thin paper winds around the ITB gets weakened.
	Use case
	When a jam occurs due to the separation failure on the second side of thin paper
	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 3 0: OFF, 1: Weak separation, 2: Medium separation, 3: Strong separation
	Default value
	0

T-8-41

■ IMG-DEV

COPIER > OPTION > IMG-DEV	
DEVL-VTH	Set toner ejectn image duty threshold VL
Lv.2	Details
	To set the threshold value of the image duty, which is the condition to perform the low duty toner ejection sequence. As the value is larger, coarseness is decreased, but productivity is lowered and toner consumption is increased. As the value is smaller, productivity and toner consumption are improved, but coarseness is worsened.
	Use case
	When printing low duty (low image ratio) images, - graininess (coarseness) or low density occurs - low productivity or high toner consumption is pointed out by the user
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Caution
	Do not use this when the machine is operating correctly.
	Display/adj/set range
	-1 to 2 -1: -1 %, 0: 0 %, 1: +2 %, 2: +4 % (The maximum threshold value is 6%.)
	Default value
	0
AUTO-DH	ON/OFF of proc auto adj at warm-up rotn
Lv.1	Details
	To set ON/OFF of process auto adjustment (D-max/D-half control) at warm-up rotation.
	Use case
	When density varies at the time of making a large number of outputs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 2 0: OFF, 1: ON (HH environment only), 2: ON (all environments)
	Default value
	1
DV-RT-LG	ON/OFF of Drum Unit first idle rotation
Lv.2	Details
	To set ON/OFF of idle rotation of the Drum Unit to be performed first time for the day. Although idle rotation is not performed in the normal operation to extend the life of Drum Unit, execute it for 60 seconds when any problem (image failure, etc.) occurs.
	Use case
	When an image failure occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: OFF, 1: ON (60 seconds)
	Default value
	0

COPIER > OPTION > IMG-DEV	
ADJ-VPP	Adj of dev AC bias Vpp: 1/1 SPD
Lv.2	Details
	To adjust Vpp of the developing AC bias at 1/1 speed. As the value is incremented by 1, Vpp changes by 0.5 kV. Decrease the value when fogging/bias leak/low density/white spots occurs.
	Use case
	When an image failure (carrier adherence, low density, ghost, etc.) occurs
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Execute Auto Adjust Gradation > Full Adjust.
	Display/adj/set range
	1 to 17 1: 1.00 kVpp, ..., 14: 1.65 kVpp, 15: 1.70 kVpp, 16: 1.75 kVpp, 17: For R&D
	Unit
	0.5 kV
	Default value
	16
ADJ-VPPN	Adj of dev AC bias Vpp: 1/2 SPD
Lv.1	Details
	To adjust Vpp for the developing AC bias at 1/2 speed. As the value is incremented by 1, Vpp changes by 0.5 kV. Decrease the value when fogging/bias leak/low density/white spots occurs.
	Use case
	When fogging, bias leakage, low-density image, or no image occurs
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Execute Auto Adjust Gradation > Full Adjust.
	Display/adj/set range
	1 to 17 1: 1.00 kVpp, ..., 14: 1.65 kVpp, 15: 1.70 kVpp, 16: 1.75 kVpp, 17: For R&D
	Unit
	0.5 kV
	Default value
	7

T-8-42

■ IMG-LSR

COPIER > OPTION > IMG-LSR	
PR-SUBRL	ON/OFF of Auxiliary Roller ejectn ctrl
Lv.2	Details
	To set ON/OFF of Auxiliary Roller ejection control. When ghost image (Bk) occurs, set 1. Auxiliary Roller ejection control is executed with A3 or larger size paper intervals, so the ghost image (Bk) is improved.
	Use case
	When ghost image (Bk) occurs
	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
PR-SUBBR	Brush ejctn ctrl exe intvl at high duty
Lv.2	Details
	To set the paper interval to execute the brush ejection control for high duty image at last rotation. When additionally executing the brush ejection control which is executed at last rotation at high duty, ghost image can be alleviated. If short paper interval to execute this control is set, the alleviation of ghost image is highly expected, but productivity decreases. This is executed for all colors.
	Use case
	When ghost image occurs
	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 productivity decreases.
	Display/adj/set range
	0 to 2 0: 100 sheets, 1: 50 sheets, 2: 1 sheets * Converted with 6% duty per sheet
	Default value
	0
	Supplement/memo
	Brush ejection control: Control to eject toner accumulated in the Auxiliary Brush in order to enhance the effect of collecting the remaining toner which was not transferred
PRI-CLN	ON/OFF of cleaning for foggy image
Lv.2	Details
	To set ON/OFF of cleaning for foggy image. When 1 is set, foggy image which occurs since the parts are close to the end of life can be alleviated, but productivity decreases. This is executed for all colors.
	Use case
	- Do not use this at the normal service. E32Take necessary action in accordance with the instructions from the Quality Support Division. - Upon user's request (alleviation of foggy image) - When alleviating foggy image which occurs since the parts are close to the end of life
	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 productivity decreases.
	Display/adj/set range
	0 to 2 0: OFF, 1: ON, 2: Not used
	Default value
	0

T-8-43

■ IMG-RDR

COPIER > OPTION > IMG-RDR		
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	16 to 255
	Default value	177
	Supplement/memo	Black lines can 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.
	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	16 to 255
	Default value	177
	Supplement/memo	Black lines can 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.

T-8-44

■ 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
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: 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

COPIER > OPTION > IMG-MCON	
PRN-FLG	Select of image area flag (PDL image)
Lv.2	Details
	To set the image area flag for the image processing which is performed when a PDL image fails to be compressed at a specified compression rate. If an image fails to be compressed at a specified compression rate, the following operations are performed as default: - Processing to prioritize reproduction of text - Replacing Bk color to black plain color Set 1 when moire occurs or jaggy is significant. Set 2 when not preferring to replace Bk color with black plain color.
	Use case
	- When moire occurs or jaggy is significant in case of printing an image containing many halftone dots or photos - When avoiding to replace Bk color with black plain color
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	This setting trades off with reproducibility of text.
	Display/adj/set range
	0 to 2 0: High screen ruling, gray compensation LUT 1: Error diffusion, gray compensation LUT 2: High screen ruling, normal LUT
	Default value
	0
SCN-FLG	Select of image area flag (copy image)
Lv.2	Details
	To set the image area flag for the image processing which is performed when a scanned image fails to be compressed at a specified compression rate. If an image fails to be compressed at a specified compression rate, processing to prioritize reproduction of text is performed by default. Set 1 when an image contains many halftone photos. Set 2 when an image contains many printed photos.
	Use case
	When copying an image which contains many halftone dots and photos
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	This setting trades off with reproducibility of text.
	Display/adj/set range
	0 to 2 0: Text 1: Halftone photo image 2: Printed photo
	Default value
	0

COPIER > OPTION > IMG-MCON	
TNR-DWN	Setting of toner deposit amount
Lv.2	Details
	To set the toner deposit amount on the gradation area and text area. By reducing the toner deposit amount when toner scatters or paper winds around the Fixing Assembly in the case of full color, the symptom can be decreased, but the hue might change.
	Use case
	When a full color image is blurred due to toner scattering, etc. When paper winds around 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.
	Caution
	Hue might change depending on the setting.
	Display/adj/set range
	0 to 5 0: Gradation area 210%, Text area 180% (Normal) 1: 180%, 165% 2: 160%, 150% 3: 160%, 150% (Thin paper only) 4: 160%, 150% (2-sided thin paper print only) 5: 160%, 150% (Transparency only)
	Default value
	0
TMIC-BK	ON/OFF of TMIC Bk_LUT end edge correct
Lv.2	Details
	To set ON/OFF of the trailing edge adjustment of Bk_LUT for PDL and for copy which are used by TMIC. When the trailing edge adjustment is set to ON, the density of the high density area becomes high, and consequently text and thin lines become clear. While an image becomes clear, the hue of the gradation area of photos, etc. is changed.
	Use case
	When thin lines are partly missing or characters are faded
	Adj/set/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: ON for PDL, OFF for copy 1: OFF for PDL, OFF for copy 2: ON for PDL, ON for copy 3: OFF for PDL, ON for copy
	Default value
	0
DH-MODE	Set ptch data at Dhalf except full crct
Lv.2	Details
	To set whether to use the high-density patch data that has been scanned by D-half control of full correction at the time of D-half control other than full correction.
	Adj/set/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: Used, 1: Not used
	Default value
	0

COPIER > OPTION > IMG-MCON	
REPORT-Z	Set of report print image processing
Lv.1	Details
	To set the image processing which is performed when printing a report.
	Use case
	When there is a request for image improvement
	Adj/set/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: Equivalent to PDL text mode (Black text is reproduced with 4 colors. Error diffused image. The hue of the photo area is more vivid than 2.) 1: Equivalent to PDL photo mode (Black text is reproduced with 4 colors. Screen processed image.) 2: Equivalent to scanned text mode (Black text is reproduced with black plain color. Error diffused image. The hue of the photo area might be different from 0.) 3: Equivalent to scanned photo mode (Black text is reproduced with black plain color. Screen processed image.)
	Default value
	0
IFXEML-Z	Set clr iFAX,mail recv print img process
Lv.1	Details
	To set the image processing which is performed when printing color iFAX or received mail.
	Use case
	When there is a request for image improvement
	Adj/set/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: Equivalent to PDL text mode (Black text is reproduced with 4 colors. Error diffused image. The hue of the photo area is more vivid than 2.) 1: Equivalent to PDL photo mode (Black text is reproduced with 4 colors. Screen processed image.) 2: Equivalent to scanned text mode (Black text is reproduced with black plain color. Error diffused image. The hue of the photo area might be different from 0.) 3: Equivalent to scanned photo mode (Black text is reproduced with black plain color. Screen processed image.)
	Default value
	0

COPIER > OPTION > IMG-MCON	
BMLNKS-Z	Set BMLinkS reception print img process
Lv.1	Details
	To set the image processing which is performed when printing received BMLinkS.
	Use case
	When there is a request for image improvement
	Adj/set/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: Equivalent to PDL text mode (Black text is reproduced with 4 colors. Error diffused image. The hue of the photo area is more vivid than 2.) 1: Equivalent to PDL photo mode (Black text is reproduced with 4 colors. Screen processed image.) 2: Equivalent to scanned text mode (Black text is reproduced with black plain color. Error diffused image. The hue of the photo area might be different from 0.) 3: Equivalent to scanned photo mode (Black text is reproduced with black plain color. Screen processed image.)
	Default value
	0
	Supplement/memo
	BMLinkS (Business Machine Linkage Service): An integrated network OA device interface
REDU-CNT	Set toner deposit amount limit at clr adj
Lv.2	Details
	To set whether to limit the toner deposit amount at color adjustment (color balance, fine adjustment of density). When 0 is set, the color adjustment value is reflected to an image precisely, but toner scattering in the Transfer Assembly and Fixing Assembly might occur, and paper might wind around the Fixing Assembly.
	Use case
	- Upon user's request - When reflecting the color adjustment value to an image precisely
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When 0 is set, toner scattering in the Transfer Assembly and Fixing Assembly might occur, and paper might wind around the Fixing Assembly.
	Display/adj/set range
	0 to 1 0: Toner deposit amount is not limited. 1: Toner deposit amount is limited to the specified amount.
	Default value
	1
	Related user mode
	Adjustment/Maintenance> Adjust Image Quality> Density Adjustment Mode

COPIER > OPTION > IMG-MCON	
VP-ART	Setting of line art processing
Lv.2	<p>Details</p> <p>To make a setting for 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.</p> <p>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.</p> <p>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).</p> <p>Use case Upon user's request</p> <p>Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range 0 to 99</p> <p>Default value 1</p>
VP-TXT	Setting of character vectorization
Lv.2	<p>Details</p> <p>To make a setting of vector conversion processing for text on scalable PDF.</p> <p>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.</p> <p>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.</p> <p>Change this value when you want to prioritize smoothness in small text.</p> <p>Use case Upon user's request</p> <p>Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range 0 to 99</p> <p>Default value 1</p>

COPIER > OPTION > IMG-MCON	
PASCL-TY	Paper setting for auto gradation adj
Lv.2	<p>Details</p> <p>Auto gradation adjustment is normally executed with the recommended paper specified for each location. However, if you want to change the paper type, use this setting to change the paper type.</p> <p>Use case When executing the auto gradation adjustment using a paper other than the recommended paper type</p> <p>Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Caution Do not change the setting in the normal operation.</p> <p>Display/adj/set range 1 to 3 1: CS-814 (Except for USA and EU. Mainly for Japan) 2: Hammermill (For USA) 3: Mondi (For EU)</p> <p>Default value The value differs according to the location.</p>
AST-SEL	Adj of advanced smoothing effect
Lv.2	<p>Details</p> <p>To adjust the smoothing effect which is set in the advanced smoothing UI.</p> <p>Set 3 if no smoothing effect is obtained even though Strong is set in the advanced smoothing UI.</p> <p>Set 0 if too much effect is obtained even though Weak is set in the advanced smoothing UI.</p> <p>Use case When image failures (jaggy, moire) occur</p> <p>Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range 0 to 3</p> <p>Default value 2</p> <p>Supplement/memo AST: Advanced Smoothing Technology</p>
REGM-SEL	Adj of fine-line density correction
Lv.2	<p>Details</p> <p>To adjust the line and text density which is set in the thin line density adjustment UI.</p> <p>Set 4 if density is too low even though +2 is set in the thin line density adjustment UI.</p> <p>Set 0 if density is too high even though -2 is set in the thin line density adjustment UI.</p> <p>Use case When line and text adjusted by thin line density adjustment is too dark or too light in the case of 1200 dpi print</p> <p>Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range 0 to 4</p> <p>Default value 2</p> <p>Supplement/memo REGM-SEL: REOs GaMma SElect</p>

COPIER > OPTION > IMG-MCON	
SCR-SW	Set of low screen ruling dither
Lv.1	Details
	To set the dithering method for low screen ruling. When changing the value, confirm the change by setting "1: Low screen ruling" in COPIER> TEST> PG> TXPH.
	Use case
	Upon user's request (Dot dithering is used)
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Execute Auto Adjust Gradation (Full Adjust).
	Display/adj/set range
	0 to 1 0: Low screen ruling dot dithering, 1: Low screen ruling dot dithering (screen ruling lower than 0)
	Default value
	0
	Related service mode
	COPIER> TEST> PG> TXPH
ERS-SEL1	Set 1200 dpi ERS process:PS Expnsn Kit
Lv.1	Details
	To change the ERS processing when the hue of patterned graphics is changed according to phase in the case of making 1200-dpi output with the PS Expansion Kit installed. The processing is changed only for graphics and images, and ERS weighting processing is performed to characters even if the setting is changed. Set 1 when the aforementioned symptom occurs. Set 3 if the proportion of small characters is distorted after 1 is set. Set 5 if the color of graphics is not stabilized after 1 or 3 is set. In this setting, however, a thin line of a single line disappears.
	Use case
	When the hue is changed according to phase when making 1200-dpi 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 7 The following processing are performed to graphics and images respectively: 0: Max skipping, simple skipping 1: ERS (average), simple skipping 2: ERS (average), ERS (average) 3: ERS (weighting), simple skipping 4: ERS (weighting), ERS (weighting) 5: Simple skipping, simple skipping 6, 7: Not used
	Default value
	0

COPIER > OPTION > IMG-MCON	
ERS-SEL2	Set 1200 dpi ERS process: print server
Lv.1	Details
	To change the ERS processing when the hue of patterned graphics is changed according to phase in the case of making 1200-dpi output through connection to the print server. Set 1 when the aforementioned symptom occurs. Set 3 if the proportion of small characters is distorted after 1 is set. Set 5 if the color of graphics is not stabilized after 1 or 3 is set. In this setting, however, a thin line of a single line disappears.
	Use case
	When the hue is changed according to phase when making 1200-dpi 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 5 The following processing are performed to characters, graphics, and images respectively: 0: ERS (weighting), Max skipping, simple skipping 1: ERS (average), ERS (average), simple skipping 2: ERS (average), ERS (average), ERS (average) 3: ERS (weighting), ERS (weighting), simple skipping 4: ERS (weighting), ERS (weighting), ERS (weighting) 5: ERS (weighting), simple skipping, simple skipping
	Default value
	0

T-8-45

IMG-SPD

COPIER > OPTION > IMG-SPD	
FX-D-TMP	Set small ppr down sequence start temp
Lv.1	Details
	To set temperature to start the down sequence control to small size paper. As the value is incremented by 1, the temperature is increased by 2 deg C from the initial setting temperature.
	Use case
	- When uneven gloss occurs at paper edge - When improving productivity
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range
	-4 to 4 -4: -8 deg C, -3: -6 deg C, -2: -4 deg C, -1: -2 deg C, 0: 0 deg C, 1: 2 deg C, 2: 4 deg C, 3: 6 deg C, 4: 8 deg C
	Unit
	2 deg C
	Default value
	0
FIX-ROT	Idle rotn end temp after small ppr feed
Lv.1	Details
	When feeding the small size paper following the large size paper on the Fixing Assembly, the temperature at both edges of Fixing Film is higher than the center. To prevent the fixing offset or paper wrinkle, it idles until the temperature becomes the specified value after the small size paper is fed. This item is to set the temperature to finish the idle rotation. When the value is increased, downtime is increased because of prioritizing image quality. When the value is decreased, downtime is decreased, but uneven gloss occurs.
	Use case
	- When uneven gloss occurs at paper edge - When improving productivity
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range
	-2 to 2
	Unit
	5 deg C
	Default value
	0

COPIER > OPTION > IMG-SPD	
ARC-INT1	Set of ARCDAT interruption interval
Lv.2	Details
	To set the number of sheets as the intervals at which ARCDAT control is executed. When the number of sheets reaches the specified value, ARCDAT control is executed by interrupting an ongoing job. If the value is too large, the density of image becomes different before and after the interruption. If the value is too small, the productivity is lowered.
	Use case
	Upon user's request
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	10 to 500
	Unit
	1 sheet
	Default value
	80
	Related service mode
	COPIER> OPTION> IMG-LSR> ARC-INT2
ARC-INT2	Set ARCDAT exe interval: last rotation
Lv.2	Details
	To set the number of sheets which ARCDAT control is not executed, from the start of a job. ARCDAT control which is supposed to be executed during the specified number of sheets is executed at last rotation of the previous job. Since the number of interruptions during a job is reduced, the productivity is enhanced. However, the number of times of ARCDAT control executed at last rotation might be increased depending on the print conditions.
	Use case
	Upon user's request
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Do not set a larger value than ARC-INT1.
	Display/adj/set range
	10 to 500
	Unit
	1 sheet
	Default value
	50
	Related service mode
	COPIER> OPTION> IMG-LSR> ARC-INT1

T-8-46

CLEANING

COPIER > OPTION > CLEANING	
OHP-PTH	Set of ITB clean transp threshold value
Lv.2	<p>Details</p> <p>To set the number of sheets for ITB cleaning interval to be executed when feeding transparency. When a large number of transparencies is fed, surface active agent adheres to the ITB, and the blade bounds in small motions. As a result, an image failure occurs. At last rotation of the job with more than specified number of sheets, execute ITB cleaning (not executed when 0 is set). As the value is incremented by 1, the number of sheets for cleaning interval at last rotation is increased by 1 sheet. When using the transparency that tends to cause the adherence of surface active agent, decrease the value so that the image failure can be alleviated. When the value is increased, the downtime and the toner consumption can be reduced; however, image failure may occur.</p> <p>Use case</p> <p>When an image failure occurs due to lowering of the transfer efficiency</p> <p>Adj/set/operate method</p> <p>Enter the setting value, and then press OK key.</p> <p>Display/adj/set range</p> <p>0 to 30 0: No ITB cleaning</p> <p>Unit</p> <p>Number of sheets</p> <p>Default value</p> <p>0</p> <p>Related service mode</p> <p>COPIER> FUNCTION> CLEANING> TBLT-CLN</p>
ITBB-TMG	Setting of ITB cleaning sheet interval
Lv.1	<p>Details</p> <p>To set the paper interval to execute the ITB cleaning. As the value is increased, downtime and toner consumption amount are reduced while an image failure may occur due to soiled ITB.</p> <p>Adj/set/operate method</p> <p>Enter the setting value, and then press OK key.</p> <p>Display/adj/set range</p> <p>0 to 10 0: Not executed</p> <p>Unit</p> <p>10 sheets</p> <p>Default value</p> <p>0</p>

T-8-47

ENV-SET

COPIER > OPTION > ENV-SET	
ENVP-INT	Temp, humid & Fix Film temp log get cycle
Lv.1	<p>Details</p> <p>To set the cycle to obtain log of the temperature and humidity inside the machine and the surface temperature of the Fixing Film. 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</p> <p>Use case</p> <p>At trouble analysis</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range</p> <p>0 to 480</p> <p>Unit</p> <p>1 minute</p> <p>Default value</p> <p>60</p> <p>Related service mode</p> <p>COPIER> DISPLAY> ENVRNT</p>

T-8-48

FEED-SW

COPIER > OPTION > FEED-SW	
EVL-SPD	Envelope feeding speed setting
Lv.1	Details
	To set the envelope feeding speed. Operation (1) By feeding an envelope at 1/2 speed (default) in the case of a high humidity environment, the glue flap may adhere at the time of fixing. As a result of that, the envelope may not be opened. By setting to 1/1 speed, adhesion can be prevented, but fixing might be deteriorated in a low temperature environment. Because paper interval is widened at 1/1 speed, productivity is not changed. Operation (2) Because fixing arch control is not executed, it is effective to prevent envelope from getting wrinkles.
	Use case
	- When a glue flap of envelope adheres - When wrinkles occurs on envelope
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	- This mode is enabled only when the feed direction of envelope is portrait. - The fixing is deteriorated by setting 1/1 speed in a low temperature environment. - When changing the setting value to 1, image expands slightly.
	Display/adj/set range
	0 to 1 0: 1/2 speed, execute fixing arch control, 1: 1/1 speed, not execute fixing arch control
	Default value
	0
EVL-FS	Setting of fixing speed with envelop
Lv.2	Details
	To set fixing speed when feeding envelope. As the value is incremented by 1, the fixing speed changes by 0.1%. Decrease the value when fine line displacement occurs on trailing edge of envelop, and increase the value when wrinkles occur.
	Use case
	When fine line displacement or wrinkles occur on trailing edge while feeding envelop
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Caution
	Be sure to change the value little at a time because when setting an extreme value, phenomenon opposite to fine line displacement or wrinkles occur.
	Display/adj/set range
	-20 to 20
	Unit
	%
	Default value
	0

COPIER > OPTION > FEED-SW	
OUT-SPD	Delivery trailing edge acceleration mode
Lv.1	Details
	When ejecting heavy paper 1/2/3 and coated paper 1/2 to the Inner 2-way Tray, the trailing edge of paper is not delivered to the tray appropriately, so the following paper is delivered under the preceding paper. As a result, a stacking failure may occur. When 1 is set, the trailing edge of paper to be ejected at 1/2 speed is accelerated to 1/1 speed in case of the following conditions. - When heavy paper 1/2/3 and coated paper 1/2 are delivered to the Inner 2-way Tray - The first side of paper at duplex printing is not accelerated. - When installing the Inner Finisher, the speed is not accelerated.
	Use case
	When a stacking failure occurs due to inappropriate delivery of the trailing edge of paper to the Inner 2-way Tray
	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

T-8-49

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
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
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

COPIER > OPTION > NETWORK	
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.2 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
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 TOTasync 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).

COPIER > OPTION > NETWORK		
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.
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.

COPIER > OPTION > NETWORK		
NS-PLNWS	Limit clear text auth at SMTP auth encry	
Lv.2	Details	To restrict use of PLAIN/LOGIN authentication, which is clear text, 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.
NS-PLN	Limit plain txt auth at SMTPauth noency	
Lv.2	Details	To restrict use of PLAIN/LOGIN authentication, which is plain text, 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.

COPIER > OPTION > NETWORK	
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
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
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.

COPIER > OPTION > 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
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

COPIER > OPTION > NETWORK	
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
	1 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
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

COPIER > OPTION > NETWORK	
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.
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

COPIER > OPTION > NETWORK		
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
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	1
	Supplement/memo	IKE: Internet Key Exchange

COPIER > OPTION > NETWORK		
SPDALDEL		Initialization of SPD value
Lv.2	Details	To initialize all the SPD values that is 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 and then ON the main power supply.
	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.
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
IPSEBLV		Setting of IPSec debug level
Lv.2	Details	For R&D use

COPIER > OPTION > NETWORK	
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
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
	Adj/set/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
	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
	Adj/set/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
	29400
	Related service mode
	COPIER> OPTION> NETWORK> AFS-JOB

COPIER > OPTION > NETWORK	
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
	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: 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
	Adj/set/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 48 0: 1 minute (special mode) 1 to 48: 1 hour to 48 hours
	Default value
	1
IPTBROAD	Set to allow broad/multi cast 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

COPIER > OPTION > NETWORK	
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
	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
PRNIPBLK	ON/OFF of IP range setting function
Lv.1	Details
	To set ON/OFF of IP range setting function (only at reception and print job). When 1 is set, the following are displayed in the user mode. Preferences> Network > TCP/IP Settings > IPv4 Settings > IP Address Range Settings Preferences> Network > TCP/IP Settings > IPv6 Settings > IP Address Range Settings
	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 > IP Address Range Settings Preferences> Network > TCP/IP Settings > IPv6 Settings > IP Address Range Settings

COPIER > OPTION > NETWORK	
IPMTU	Setting of MTU size of network packet
Lv.1	Details
	To change MTU size of network packet. Use this item when performing communications between locations (such as SEND) 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 to 7: not use, 8: 1300 bytes, 9: 1400 bytes, 10: 1500 bytes
	Unit
	byte
	Default value
	10
	Related user mode
	MTU: A unit of transmission showing the maximum value of data which can be sent per 1 transfer (1 frame) in a network. MTU black hole: A problem which occurs when ICMP packet is being filtered by firewall, etc. (Since the message does not reach the sender, the sender is not aware of the packet being lost, which then results in time-out.).

T-8-50

CUSTOM

COPIER > OPTION > CUSTOM	
TEMP-TBL	Fixing control temp: plain ppr, 1/1 SPD
Lv.1	Details
	To set the offset of fixing control temperature for plain paper (including thin paper, plain paper 2, plain paper 3) at 1/1 speed. As the value is incremented by 1, the control temperature is increased by 3 deg C. Increase the value when a fixing failure occurs. Decrease the value when hot offset occurs.
	Use case
	When hot offset/fixing failure occurs on plain paper at 1/1 speed
	Adj/set/operate method
	Enter the setting value (switch negative/positive by +/- key) and press OK key.
	Display/adj/set range
	-3 to 3
	Unit
	3 deg C
	Default value
	0
SC-L-CNT	Set large paper jdgmt 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
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	
FAN-ROT	Setting of fan control at condensation
Lv.2	Details
	To set fan control when condensation occurs. When 1 is set, fan control is switched according to the temperature.
	Use case
	When condensation occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 2 0: Normal, 1: Condensation prevention mode, 2: Not used
	Default value
	0
EXT-TBOX	Set Wst Toner Cntner preparation warn tmng
Lv.1	Details
	As the value is changed, display timing of the Waste Toner Container preparation warning is changed in increment of approx. 1000 counts at 5% duty.
	Use case
	When changing the Waste Toner Container preparation warning timing
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	The count may not reach 1000 when the duty is high. Toner leak may occur when changing the setting value drastically.
	Display/adj/set range
	0 to 9 0: -4000 , 1: -3000 , --- , 4: 0 , --- , 8: +4000 , 9: +5000
	Unit
	Approx. 1000 counts at 5% duty
	Default value
	4
	Related service mode
	COPIER > OPTION > DSPLY-SW > WT-WARN
	Supplement/memo
	<ul style="list-style-type: none"> The counter is advanced by 1 with a small size and by 2 with a large size. With the default setting (setting value: 4), the Waste Toner Container preparation warning is displayed after counting up approx. 9000 counts at 5% duty from the point that the weight detection is ON.

COPIER > OPTION > CUSTOM	
USEUPTNR	Set Toner Container use-up mode
Lv.1	Details
	When empty toner in the Hopper Unit is detected at the toner level detection, the Toner Container Motor is driven to supply toner from the Toner Container. If the status is not changed to "with toner" even after the motor is driven for 65 seconds, it is judged as empty toner in the Toner Container. For the last 55 seconds of 65-second motor drive, the Toner Container Motor is driven without allowing any job reception. During this operation, downtime (Motor drive noise continues independently of the job.) occurs. The downtime can be decreased by setting shorter time (default: 55 seconds) to supply toner without allowing any job reception, but the residual toner level in the Toner Container is increased.
	Use case
	Upon user's request (to decrease downtime)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Be sure to get approval from the user in advance by telling that the residual toner level is increased if the setting is changed.
	Display/adj/set range
	0 to 2 0: 20 seconds, 1: 40 seconds, 2: 55 seconds
	Default value
	2
FAN-POST	Set of fan operation at droplet mark
Lv.2	Details
	When Expansion Delivery Kit-C1 is used and 2-sided print is made after printing on moistened paper, droplet mark may occur on the image of the 2nd side. When 1 to 3 is set, 3 Way Unit Cooling Fan is operated for the specified period of time before making 2-sided print, and moisture in the feed path is ejected. "Printing" is displayed while the fan is operated.
	Use case
	When an image failure (droplet mark) occurs
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Be sure to get approval from the user in advance by telling that the downtime occurs according to the setting value.
	Display/adj/set range
	0 to 3 0: OFF, 1: 15 seconds, 2: 30 seconds, 3: 60 seconds
	Default value
	0

COPIER > OPTION > CUSTOM	
TNSNS-CL	Set Toner Supply Sensr(Y/M/C)threshold VL
Lv.2	Details
	To set the threshold value when the Toner Supply Sensor (Y/M/C) of the Toner Buffer judges presence/absence of toner. The Toner Supply Sensor detects presence of toner incorrectly due to toner soiling, low density or E020 occurs. In this case, set 1. As the threshold value is small, absence of toner is more likely detected. With this setting, toner is surely supplied, but remaining toner in the Toner Container is increased.
	Use case
	When low density or E020 occurs due to incorrect detection by the Toner Supply Sensor
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Before setting, be sure to check the current voltage value in COPIER> DISPALY> DENS> TNSNS-Y/M/C to see the effects by changing the threshold value.
	Display/adj/set range
	0 to 1 0: 1.65 V、 1: 1.20 V
	Default value
	0
	Related service mode
	COPIER> DISPLAY> DENS> TNSNS-Y, TNSNS-M, TNSNS-C COPIER> OPTION> CUSTOM> TNSNS-BK
TNSNS-BK	Set Toner Supply Sensr (Bk) threshold VL
Lv.2	Details
	To set the threshold value when the Toner Supply Sensor (Bk) of the Toner Buffer judges presence/absence of toner. The Toner Supply Sensor detects presence of toner incorrectly due to toner soiling, low density or E020 occurs. In this case, set 1. As the threshold value is small, absence of toner is more likely detected. With this setting, toner is surely supplied, but remaining toner in the Toner Container is increased.
	Use case
	When low density or E020 occurs due to incorrect detection by the Toner Supply Sensor
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	Before setting, be sure to check the current voltage value in COPIER> DISPALY> DENS> TNSNS-K to see the effects by changing the threshold value.
	Display/adj/set range
	0 to 1 0: 0.7 V、 1: 0.5 V
	Default value
	0
	Related service mode
	COPIER> DISPLAY> DENS> TNSNS-K COPIER> OPTION> CUSTOM> TNSNS-CL

COPIER > OPTION > CUSTOM	
ATR12-SW	ON/OFF of ppr intl ATVC ctrl: 1/2 speed
Lv.2	Details
	To set whether to execute the ATR control between papers at 1/2 speed. When the density variation is not within the requested range at continuous output of a large volume of papers (long job length) with 1/2 speed (heavy paper, coated paper, etc.), set 1. Both at 1/1 speed and 1/2 speed, specify the execution timing of paper interval ATR control in INTROT-1.
	Use case
	When the density variation is not within the requested range at continuous output of a large volume of papers with 1/2 speed
	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> FNC-SW> INTROT-1

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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
	999
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
	Supplement/memo
	Transfer time to sleep mode is set in the user mode (Preferences> Timer/Energy Settings> Auto Sleep Time).
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
	Display only
	Caution
	Display only. No change is available.
	Display/adj/set range
	0 to 999 0: Not registered
	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 0: Not registered
	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 0: Not registered
	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 0: Not registered
	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 0: Not registered
	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 0: Not registered
	Default value	0

COPIER > OPTION > USER		
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: YYYY/DD, 1: DD/MMY, 2: MM/DD/YY
	Default value	The value differs according to the location.
	Related user mode	Preferences > Timer/Energy Settings > Date/Time Settings
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> CUSTOM> SC-L-CNT

COPIER > OPTION > USER	
TRY-STP	Stop setting at finisher tray full
Lv.2	Details
	To set to stop/continue output at the time of tray full detection of the Finisher.
	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 tray full detection, 1: Height detection only
	Default value
	0
MF-LG-ST	Display/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.
	Caution
	When setting long length paper, be sure to set the delivery destination to Second Delivery (excluding delivery from Inner Finisher).
	Display/adj/set range
	0 to 1 0: Hide, 1: Display
	Default value
	0
	Related user mode
	Copy > Options Function Settings > Common > Paper Output Settings > Output Tray Settings
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
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

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P-CRG-LF	ON/OFF of Drum Unit life warning
Lv.2	Details
	To set whether to display a warning when the Drum Unit reaches its life. When 1 is set, a warning message is displayed when it reaches 95% of its life.
	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
CPRT-DSP	ON/OFF of [Print Charge Log] button
Lv.1	Details
	To set whether to display the [Print Charge Log] button to print the charge logs on the charge log screen in user mode. When "1: ON" is set, the button is displayed in Management Settings> Charge Management> Charge Log 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: OFF, 1: ON
	Default value
	0
	Related user mode
	Management Settings > Charge Management > Charge Log
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.
	Display/adj/set range
	0 to 1 0: Counter 1 - Total 1: 101 Counter 2 - Total (Black 1): 108 Counter 3 - Copy (Full Color + Single Color/1): 232 Counter 4 - Print (Full Color + Single Color/1): 324 1: Counter 1 - Total 2: 102 Counter 2 - Copy (Full Color + Single Color/2): 231 Counter 3 - Total A (Full Color + Single Color/2): 148 Counter 4 - Copy (Black 2): 222 Counter 5 - Total A (Black 2): 133
	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
DFLT-CPY	Setting of color mode for copy
Lv.1	Details
	To set the default color mode for copy operation.
	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: Based on Auto/ACS/Printer Driver settings, 1: Color mode, 2: B/W mode
	Default value
	Europe: 2, Other than Europe: 0
	Related user mode
	Function Settings> Copy> Select Color Settings for Copy> Use Auto (Color/Black) Selection

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DFLT-BOX	Set of color mode for box print
Lv.1	Details
	To set the default color mode for box print operation.
	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: Based on Auto/ACS/Printer Driver settings, 1: Color mode, 2: B/W mode
	Default value
	Europe: 2, Other than Europe: 0
	Related user mode
	Function Settings> Copy> Select Color Settings for Copy> Use Auto (Color/Black) Selection
DOC-REM	Display/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
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

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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 export of 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: Password is retained, 1: Password is deleted.
	Default value
	1
FREG-SW	Display/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.
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.

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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 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.
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
PRNT-POS	ON/OFF of all pauses at error job cancel
Lv.2	Details
	To set whether to pause the print operation of following jobs when a job is cancelled due to an error inside the machine (#037, etc.) except service calls during 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: OFF, 1: ON
	Default value
	0

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AFN-PSWD	Access limit setting to user mode
Lv.2	Details
	To set to restrict password entry when accessing to the user mode. With this setting is enabled, 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 when the card is inserted.
	Default value
	0
PS-MODE	Compatible mode setting at PS usage
Lv.2	Details
	To set the image processing at PS print. Although the same line width is set, it may differ depending on the drawing position. By setting the setting value to 8, line widths which vary depending on the drawing position can be uniformed.
	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 to 7: Spare 8: Strokeadjustment is enabled. 9 to 65535: Spare
	Default value
	0

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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 to prevent job interruption from other PC by group job (sending multiple jobs in 1 session at job transmission).
COUNTER7	Setting of software counter 7
Lv.1	Details
	To set counter type for software counter 7 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.
	Display/adj/set range
	0 to 999 0: Not registered
	Default value
	0
COUNTER8	Setting of software counter 8
Lv.1	Details
	To set counter type for software counter 8 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.
	Display/adj/set range
	0 to 999 0: Not registered
	Default value
	0
2C-CT-SW	Set of color counter at 2-color mode
Lv.2	Details
	To set whether to use the mono color counter or full color counter for count-up in 2-color 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
	0 to 1 0: Mono color counter, 1: Full color counter
	Default value
	0 (Japan) / 1 (Others)

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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 only reference is available. This mode can be set 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 only reference is available. This mode can be set 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
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

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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
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

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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
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

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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
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
TNRB-SW		Setting of Toner Cntner counter display
Lv.2	Details	To set whether to display or hide the Toner Container counter on the Counter Check screen.
	Use case	When not showing the screen to users
	Adj/set/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: Hide, 1: Display (Toner Container counter only), 2: Display (Toner Container counter + ejection counter)
	Default value	0

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CLR-TIM	Set of HDD Encry Kit data delete timing
Lv.2	<p>Details</p> <p>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.</p> <p>Use case</p> <p>Upon request to improve the job processing speed</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range</p> <p>0 to 1 0: During job process, 1: After the job is completed</p> <p>Default value</p> <p>0</p>
JA-FORMT	Display of job archive record format
Lv.2	<p>Details</p> <p>To display the format of images for job archives recorded in jobs other than FAX reception and IFAX reception, etc. Whether the images processed by Packet JPEG are recorded in Packet JPEG, or converted into Raster JPEG and then recorded is displayed. Only display is available in service mode. The setting is available only in the MEAP applications which support job archiving.</p> <p>Use case</p> <p>Upon user's request</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range</p> <p>0 to 1 0: Packet JPEG, 1: Raster JPEG</p> <p>Default value</p> <p>0</p>
HDCR-DSW	Display/hide of HDD complete delete ON/OFF
Lv.1	<p>Details</p> <p>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.</p> <p>Use case</p> <p>Upon user's request</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range</p> <p>0 to 1 0: Hide, 1: Display</p> <p>Default value</p> <p>0</p> <p>Related user mode</p> <p>Management Settings > Data Management > HDD Data Complete Deletion > Hard Disk Data Complete Deletion</p>

COPIER > OPTION > USER	
SNMP-COA	Inside comty name SNMPAccess limit:admin
Lv.2	<p>Details</p> <p>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.</p> <p>Use case</p> <p>When restricting SNTP access with the community name (administrator right) that is retained internally</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range</p> <p>0 to 2 0: OFF, 1: Read only, 2: Read/Write</p> <p>Default value</p> <p>2</p> <p>Related user mode</p> <p>Preferences > Network > SNMP Settings > Community Name 1 Settings</p>
SNMP-COU	Inside comty name SNMP access limit:user
Lv.2	<p>Details</p> <p>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.</p> <p>Use case</p> <p>When restricting SNTP access with the community name (user right) that is retained internally</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range</p> <p>0 to 2 0: OFF, 1: Read only, 2: Read/Write</p> <p>Default value</p> <p>2</p> <p>Related user mode</p> <p>Preferences > Network > SNMP Settings > Community Name 2 Settings</p>
BWCL-DSP	ON/OFF of color/B&W selection screen
Lv.2	<p>Details</p> <p>[Not used] To set whether to display the color/B&W selection screen to select the default of the color mode.</p> <p>Use case</p> <p>When displaying the color mode default selection screen</p> <p>Adj/set/operate method</p> <p>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Display/adj/set range</p> <p>0 to 1 0: OFF, 1: ON</p> <p>Default value</p> <p>0</p>

COPIER > OPTION > USER		
SCALL-SW		Display/hide of repair request button
Lv.1	Details	[Not used] (For expansion) 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	[Not used] (For expansion) 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	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1
	Default value	0
USBH-DSP		Display/hide of USB host usage
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 setting screen can be selected.
	Use case	When switching to display or hide "Use USB Host" on USB setting 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

COPIER > OPTION > USER		
USBM-DSP		Display/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		Display/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
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

COPIER > OPTION > USER	
USBR-DSP	Display/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
POL-SCAN	Display/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
	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
	Display/adj/set range
	0 to 1 0: Disabled, 1: Enabled
	Default value
	0
CSTHT-SW	ON/OFF of Cassette Heater
Lv.1	Details
	To set ON/OFF of the Cassette Heater. Because the host machine cannot detect ON/OFF of the Cassette Heater hardware switch, temperature around the Process Cartridge becomes higher than the predictive value when the switch is ON. To correct the predictive value, set the service mode according to ON/OFF of the Cassette Heater at the time of installation.
	Use case
	At installation (set according to ON/OFF of the Cassette Heater)
	Adj/set/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

COPIER > OPTION > USER	
EZY-SCRIP	ON/OFF of secure print simple auth
Lv.1	Details
	To set whether to conduct secure print by simple authentication. When 1 is set, secured print, encryption secured print and inbox print are received, but the normal print jobs are cancelled. If the password "3758211" is entered at job sending, authentication by entering the password on the Control Panel is not required. If the password is not entered at job sending, authentication by entering the password on the Control Panel is necessary at job output. In addition, the following selection is added as auto deletion time of secure job: 10 minutes, 20 minutes, 30 minutes
	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
DMN-MTCH	ON/OFF of secure print domain judgment
Lv.1	Details
	To set whether to display only the job which matches the domain in the "My Job Status" screen of the secure print. When 1 is set, only the job which matches the user name and domain name is displayed in the "My Job Status" screen, so the job which does not match the domain is not displayed.
	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
	In the "My Job Status" screen, the job is displayed when login service is used. Only the job of user who logs in is displayed.

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CST

COPIER > OPTION > CST		
U1-NAME Display/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 Display/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 Display/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 Display/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
CST2-P1 Setting of Cassette 2 paper size		
Lv.1	Details	To set the paper size used in Cassette 2.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	USA: 1, Others: 0
	Related user mode	Preferences> Paper Settings> B5/EXEC Paper Selection
CST3-P1 Setting of Cassette 3 paper size		
Lv.1	Details	To set the paper size used in Cassette 3.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	USA: 1, Others: 0
CST3-P2 Setting of Cassette 3 paper size		
Lv.1	Details	To set the paper size used in Cassette 3.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	USA: 1, Others: 0
	Related user mode	Preferences> Paper Settings> B5/EXEC Paper Selection
CST4-P1 Setting of Cassette 4 paper size		
Lv.1	Details	To set the paper size used in Cassette 4.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	USA: 1, Others: 0
	Related user mode	Preferences> Paper Settings> A5R/STMTR Paper Selection
CST4-P2 Setting of Cassette 4 paper size		
Lv.1	Details	To set the paper size used in Cassette 4.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	USA: 1, Others: 0
	Related user mode	Preferences> Paper Settings> B5/EXEC Paper Selection
CST1-U1 Set cst 1 oversea special ppr category 1		
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 1.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 37 0 to 23: Not used, 24: FLSC, 25: A-FLS, 26: OFI, 27: E-OFI, 28: B-OFI, 29 to 33: Not used, 34: G-LGL, 35: Not used, 36: A-OFI, 37: M-OFI
	Default value	0

COPIER > OPTION > CST		
CST2-P2 Setting of Cassette 2 paper size		
Lv.1	Details	To set the paper size used in Cassette 2.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	USA: 1, Others: 0
	Related user mode	Preferences> Paper Settings> B5/EXEC Paper Selection
CST3-P1 Setting of Cassette 3 paper size		
Lv.1	Details	To set the paper size used in Cassette 3.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	USA: 1, Others: 0
CST3-P2 Setting of Cassette 3 paper size		
Lv.1	Details	To set the paper size used in Cassette 3.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	USA: 1, Others: 0
	Related user mode	Preferences> Paper Settings> B5/EXEC Paper Selection
CST4-P1 Setting of Cassette 4 paper size		
Lv.1	Details	To set the paper size used in Cassette 4.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	USA: 1, Others: 0
	Related user mode	Preferences> Paper Settings> A5R/STMTR Paper Selection
CST4-P2 Setting of Cassette 4 paper size		
Lv.1	Details	To set the paper size used in Cassette 4.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	USA: 1, Others: 0
	Related user mode	Preferences> Paper Settings> B5/EXEC Paper Selection
CST1-U1 Set cst 1 oversea special ppr category 1		
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 1.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 37 0 to 23: Not used, 24: FLSC, 25: A-FLS, 26: OFI, 27: E-OFI, 28: B-OFI, 29 to 33: Not used, 34: G-LGL, 35: Not used, 36: A-OFI, 37: M-OFI
	Default value	0

COPIER > OPTION > CST		
CST1-U2		Set cst 1 oversea special ppr category 2
Lv.1	Details	To set the overseas special paper category 2 used in Cassette 1.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 32 0 to 29: Not used, 30: A-LTRR, 31: Not used, 32: G-LTRR
	Default value	0
CST1-U3		Set cst 1 oversea special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 1.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 29 0 to 28: Not used, 29: A-LTR
	Default value	0
CST1-U4		Set cst 1 oversea special ppr category 4
Lv.1	Details	To set the overseas special paper category 4 used in Cassette 1.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 31 0 to 30: Not used, 31: G-LTR
	Default value	0
CST2-U1		Set cst 2 oversea special ppr category 1
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 2.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 42 0 to 23: Not used, 24: FLSC, 25: A-FLS, 26: OFI, 27: E-OFI, 28 to 29: Not used, 30: A-LTRR, 31 to 33: Not used, 34: G-LGL, 35: Not used, 36: A-OFI, 37: M-OFI, 38 to 41: Not used, 42: FA4
	Default value	0
CST2-U2		Set cst 2 oversea special ppr category 2
Lv.1	Details	To set the overseas special paper category 2 used in Cassette 2.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 32 0 to 31: Not used, 32: G-LTRR
	Default value	0
CST2-U3		Set cst 2 oversea special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 2.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 31 0 to 28: Not used, 29: A-LTR, 30: Not used, 31: G-LTR
	Default value	0
CST2-U4		Set cst 2 oversea special ppr category 4
Lv.1	Details	To set the overseas special paper category 4 used in Cassette 2.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 28 0 to 27: Not used, 28: B-OFI
	Default value	0

COPIER > OPTION > CST		
CST3-U1		Set cst 3 oversea special ppr category 1
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 3.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 42 0 to 23: Not used, 24: FLSC, 25: A-FLS, 26: OFI, 27: E-OFI, 28 to 29: Not used, 30: A-LTRR, 31 to 33: Not used, 34: G-LGL, 35: Not used, 36: A-OFI, 37: M-OFI, 38 to 41: Not used, 42: FA4
	Default value	0
CST3-U2		Set cst3 oversea special ppr category 2
Lv.1	Details	To set the overseas special paper category 2 used in Cassette 3.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 32 0 to 31: Not used, 32: G-LTRR
	Default value	0
CST3-U3		Set cst3 oversea special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 3.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 31 0 to 28: Not used, 29: A-LTR, 30: Not used, 31: G-LTR
	Default value	0
CST3-U4		Set cst3 oversea special ppr category 4
Lv.1	Details	To set the overseas special paper category 4 used in Cassette 3.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 28 0 to 27: Not used, 28: B-OFI
	Default value	0
CST4-U1		Set cst4 oversea special ppr category 1
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 4.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 42 0 to 23: Not used, 24: FLSC, 25: A-FLS, 26: OFI, 27: E-OFI, 28 to 29: Not used, 30: A-LTRR, 31 to 33: Not used, 34: G-LGL, 35: Not used, 36: A-OFI, 37: M-OFI, 38 to 41: Not used, 42: FA4
	Default value	0
CST4-U2		Set cst4 oversea special ppr category 2
Lv.1	Details	To set the overseas special paper category 2 used in Cassette 4.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 32 0 to 31: Not used, 32: G-LTRR
	Default value	0
CST4-U3		Set cst4 oversea special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 4.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 31 0 to 28: Not used, 29: A-LTR, 30: Not used, 31: G-LTR
	Default value	0

COPIER > OPTION > CST	
CST4-U4	Set cst4 overseas special ppr category 4
Lv.1	Details
	To set the overseas special paper category 4 used in Cassette 4.
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 28
	0 to 27: Not used, 28: B-OFI
	Default value
	0
CST-K-SW	Set of EXEC/16K size support: Cassette 1
Lv.2	Details
	To set whether to support EXEC or 16K size (K-size paper) by the Cassette 1.
	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: EXEC, 1: 16K
	Default value
	0
	Related service mode
	COPIER> OPTION> FNC-SW> KSIZE-SW
	Supplement/memo
	16K paper: 270 x 195 mm

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■ 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
	In case of setting "3", if "0 to 2" is changed to "3", the following items are automatically set. After making a change, even though "3" is set to "0 to 2" again, they will not be restored. - COPIER> OPTION> USER> CONTROL, AFN-PSWD = 1 - COPIER> OPTION> NETWORK> DA-CNCT = 1 - COPIER> OPTION> DSPLY-SW> UI-BOX, UI-SEND, UI-FAX = 0 - IE Settings> IE Function Priority = ON - Preferences> Network> TCP/IP Settings> IPv4 Settings> IP Address Range Settings> RX/Print Range: Permit IPv4 Address = ON - Preferences> Network> TCP/IP Settings> IPv6 Settings> IP Address Range Settings> RX/Print Range: Permit IPv6 Address = ON - Preferences> Network> TCP/IP Settings> FTP Print Settings> Use FTP Printing = OFF - Preferences> Network> TCP/IP Settings> IPP Print Settings = ON - Preferences> Network> SMB Server Settings> SMB Printer Settings> Use SMB =ON - Function Settings> Send> E-Mail/I-Fax Settings> Communication Settings> SMTP RX, POP = OFF In case of setting "4", if "0 to 2" is changed to "4", the following items are automatically set. After making a change, even though "4" is set to "0 to 2" again, they will not be restored. - COPIER> OPTION> USER> AFN-PSWD = 1 - COPIER> OPTION> DSPLY-SW> UI-BOX, UI-SEND, UI-FAX, UI-RSCAN, UI-EPRNT, UI-HOLD = 0 - Management Settings>Device Management> Display Log=OFF
	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: New SC mode 6: External charge mode 6 7: External charge mode 7
	Default value
	0
	Related service mode
	COPIER> OPTION> USER> CONTROL COPIER> OPTION> DSPLY-SW> UI-BOX, UI-SEND, UI-FAX COPIER> OPTION> ACC> PDL-THR

COPIER > OPTION > ACC	
Related user mode	Function Settings > Send > E-Mail/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
CARD-SW	Screen set when Coin Manager connected
Lv.1	Details
	To set coin or card that the user is urged to insert on the Control Panel when the Coin Manager is connected.
	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: Coin, 1: Card, 2: Coin and card, 3: Card (for customization)
	Default value
	0
OUT-TRAY	Set of Third Delivery Tray installation
Lv.1	Details
	To set whether the Third Delivery Tray is installed. When the Third Delivery Tray is installed, set "1".
	Use case
	When installing the Third 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: Not installed, 1: Installed
	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. 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
	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.
	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

COPIER > OPTION > ACC	
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
IN-TRAY	Set of Second Delivery Tray installation
Lv.1	Details
	To set whether the Second Delivery Tray is installed. When the Second Delivery Tray is installed, set "1".
	Use case
	When installing the Second 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: Not installed, 1: Installed
	Default value
	0
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.

COPIER > OPTION > ACC	
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.
MIC-TUN	Manual adj of voice recognize microphone
Lv.1	Details
	To manually adjust the sound 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
	Adj/set/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 255
	Default value
	128
	Related user mode
	Preferences > Accessibility > Voice Navigation Settings > Tune Microphone

COPIER > OPTION > ACC	
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
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	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
CC-EXT	Set of information output at CCV control
Lv.1	Details
	To set the information output of large/small paper size and color/B&W at CCV control.
	Use case
	When installing a machine which requires the information on large/small paper size and color/B&W
	Adj/set/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 output, 1: Output
	Default value
	0
PDL-THR	Normal PDL print set in ex-charge mode
Lv.2	Details
	To set the normal PDL print process when the external charge mode 6/7 is set in COIN. As the value is set to "0", a job is canceled and "0" is set, a job is executed.
	Adj/set/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		
C2-EXIST	Presence/absence of 2nd Cst Pedestal	
Lv.1	Details	To set whether the 2nd Cassette Pedestal is installed or not. If the Cassette Pedestal is added to the model without the 2nd Cassette Pedestal, set 1.
	Use case	When adding to install the 2nd Cassette Pedestal
	Adj/set/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 (Model without the 2nd Cassette Pedestal) / 1 (Model with the 2nd Cassette Pedestal)
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-8-54

INT-FACE

COPIER > OPTION > INT-FACE		
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.

T-8-55

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	Flash model:0 HDD model:1
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-EXPDF	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-EXPDF	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-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
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

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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
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	1
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

COPIER > OPTION > LCNS-TR		
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
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

COPIER > OPTION > LCNS-TR		
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
ST-USPDF		Install state dis of Dgtl 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 Dgtl 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

COPIER > OPTION > LCNS-TR		
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
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

COPIER > OPTION > LCNS-TR		
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
	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.

COPIER > OPTION > LCNS-TR	
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
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

COPIER > OPTION > LCNS-TR	
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
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

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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
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

COPIER > OPTION > LCNS-TR		
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
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

COPIER > OPTION > LCNS-TR		
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
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	1	
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

COPIER > OPTION > LCNS-TR		
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
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

COPIER > OPTION > LCNS-TR	
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
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

COPIER > OPTION > LCNS-TR	
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-HDDOP	Install state dis of HDD option	
Lv.2	Details	To display installation state of HDD option when transfer is disabled.
	Use case	When checking whether HDD option is installed
	Adj/set/operate method	1) Select ST-HDDOP. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-HDDOP.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-HDDOP	Trns lcns key dis of HDD option	
Lv.2	Details	To display transfer license key to use HDD option when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-HDDOP. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-HDDOP.
	Display/adj/set range	24 digits

T-8-56



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 OK 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 100 0: Image from CCD (normal print) 1 to 3: For R&D use 4: 16 gradations 5: Halftone for all areas 6: Grid 7 to 9: For R&D use 10: MCYBk horizontal line 11: For R&D use 12: YMCKBk 64 gradations 13: For R&D use 14: Full color 16 gradations 15 to 100: For R&D use
	Default value
	0
	Required time
	Several seconds
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
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 14 0: Error diffusion 1: Low screen ruling (approx. 133 to 190 lines) 2: High screen ruling (approx. 200 to 268 lines) 3 to 4: Not used 5: Error diffusion (with trailing edge adjustment) 6: High screen ruling (with trailing edge adjustment) 7 to 8: Not used 9: 1/2 speed, low screen ruling (approx. 133 to 190 lines) 10: 1/2 speed, high screen ruling (approx. 200 to 268 lines) 11 to 13: Not used 14: 1/2 speed, high screen ruling (with trailing edge adjustment)

COPIER > TEST > PG	
THRU	Image correction table use at test print
Lv.1	Details
	To set whether to use the image correction table at the time of test print output.
	Use case
	At trouble analysis
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: Used, 1: Not used
DENS-Y	Adj of Y color density at test print
Lv.1	Details
	To adjust Y color density when performing test print (TYPE=5). As the value is increased, the density becomes higher.
	Use case
	At test print (TYPE=5)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 255
	Default value
	128
DENS-M	Adj of M color density at test print
Lv.1	Details
	To adjust M color density when performing test print (TYPE=5). As the value is increased, the density becomes higher.
	Use case
	At test print (TYPE=5)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 255
	Default value
	128
DENS-C	Adj of C color density at test print
Lv.1	Details
	To adjust C color density when performing test print (TYPE=5). As the value is increased, the density becomes higher.
	Use case
	At test print (TYPE=5)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 255
	Default value
	128
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 value is increased, the density becomes higher.
	Use case
	At test print (TYPE=5)
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 255
	Default value
	128
COLOR-Y	Y color output setting at test print
Lv.1	Details
	To make a setting of Y color output for test print. The setting is applied to all types. When setting "COLOR-Y" to 1 and other items to "0", a single Y color is output.
	Use case
	At test print
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: Not output, 1: Output
	Default value
	1

COPIER > TEST > PG		
COLOR-M		M color output setting at test print
Lv.1	Details	To make a setting of M color output for test print. The setting is applied to all types. When setting "COLOR-M" to 1 and other items to "0", a single M color is output.
	Use case	At test print
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Not output, 1: Output
	Default value	1
	COLOR-C	
Lv.1	Details	To make a setting of C color output for test print. The setting is applied to all types. When setting "COLOR-C" to 1 and other items to "0", a single C color is output.
	Use case	At test print
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Not output, 1: Output
	Default value	1
COLOR-K		Bk color output setting at test print
Lv.1	Details	To make a setting of Bk color output for test print. The setting is applied to all types. When setting "COLOR-K" to 1 and other items to "0", a single Bk color is output.
	Use case	At test print
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Not output, 1: Output
	Default value	1
F/M-SW		Setting of PG full color/mono color
Lv.1	Details	To set for the output in full color/monochrome color with PG.
	Use case	When separating (identifying) the cause whether it's due to color or monochrome.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Full color, 1: Monochrome color
	Default value	0

COPIER > TEST > PG		
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	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 8 1: Cassette1, 2: Cassette2, 3: Cassette3, 4: Cassette4, 5: Not use, 6: Multi-purpose Tray, 7 to 8: Not used
	Default value	1
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	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: 1-sided, 1: 2-sided
PG-QTY		Setting of PG output quantity
Lv.1	Details	To set the number of sheets for PG output.
	Use case	At trouble analysis
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 999
	Unit	1 sheet
Default value	1	

T-8-57

NETWORK

COPIER > TEST > NETWORK	
PING	Network connection check
Lv.1	To check connection between this machine and TCP/IP network.
Details	
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

COPIER > TEST > NETWORK	
BML-DISP	Set System Monitor scrn: BMLinks support
Lv.2	Details
	To set whether to only display the device configuration in the System Monitor screen when supporting BMLinks. When the setting is switched, the Status and Log are not displayed.
	Use case
	When supporting BMLinks
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: Ordinary System Monitor screen 1: Screen in which only the device configuration is displayed
	Default value
	0
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.
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	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
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-8-58


 TOTAL

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
BOX-PRT		[Not used]
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

COPIER > COUNTER > TOTAL		
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-8-59

 PICK-UP

COPIER > COUNTER > PICK-UP		
C1		Cassette 1 pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets
C2		Cassette 2 pickup total counter
Lv.1	Details	Large size: 1, 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
2-SIDE		2-sided pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets

T-8-60

 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
DFOP-CNT		DADF hinge open/close counter
Lv.1	Use case	When checking the DADF hinge open/close counter
	Unit	Number of times

T-8-61

■ JAM

COPIER > COUNTER > JAM		
TOTAL		Printer total jam counter
Lv.1	Use case	When checking the total jam counter of printer
	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 Cassette 1
	Unit	Number of times
C2		Left Deck jam counter
Lv.1	Use case	When checking the jam counter of machine's Cassette 2
	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

T-8-62

■ MISC

COPIER > COUNTER > MISC		
T-SPLY-Y		Y toner supply counter
Lv.1	Details	Number of Y color toner supply blocks. Counted for every one rotation of Toner Stirring Screw.
	Use case	When checking the usage status of toner
	Unit	Number of blocks
	Default value	0
T-SPLY-M		M toner supply counter
Lv.1	Details	Number of M color toner supply blocks. Counted for every one rotation of Toner Stirring Screw.
	Use case	When checking the usage status of toner
	Unit	Number of blocks
	Default value	0

COPIER > COUNTER > MISC		
T-SPLY-C		C toner supply counter
Lv.1	Details	Number of C color toner supply blocks. Counted for every one rotation of Toner Stirring Screw.
	Use case	When checking the usage status of toner
	Unit	Number of blocks
	Default value	0
T-SPLY-K		Bk toner supply counter
Lv.1	Details	Number of Bk color toner supply blocks. Counted for every one rotation of Toner Stirring Screw.
	Use case	When checking the usage status of toner
	Unit	Number of blocks
	Default value	0
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
ST-NDL		Staple needle counter: Fin-A1/C1
Lv.1	Details	To count the use of the staple needle.
	Unit	Number of times
SUC-A-Y		For R&D
SUC-A-M		For R&D
SUC-A-C		For R&D
SUC-A-K		For R&D

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■ 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-8-64

DRBL-1

COPIER > COUNTER > DRBL-1	
TR-BLT	ITB 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
2TR-ROLL	Sec Transfer Outer Roller parts counter
Lv.1	Details
	Secondary Transfer Outer 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
	Default value
	0
	Supplement/memo
	This is commonly used as operator maintenance parts counter.
PT-DRM	Drum Unit (Bk) 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-PU-RL	Cassette 1 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	
C1-SP-RL	Cassette1 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
C1-FD-RL	Cassette1 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-SP-RL	Cassette2 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	Cassette2 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-PU-RL	Multi-purpose Tray Pickup Roll prts cntr	
Lv.1	Details	Multi-purpose Tray 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
	Default value	0
	M-SP-RL	Multi-purpose Tray Sprtn Roll prts cntr
Lv.1	Details	Multi-purpose Tray Separation 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
	Default value	0
	M-FD-RL	Multi-purpose Tray Feed Roll prts cntr
Lv.1	Details	Multi-purpose Tray Feed 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
	Default value	0
	M-SP-PD	Multi-purpose Tray Sprtn Pad 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-UNIT	Fixing 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
	WST-TNR	Waste Toner Container 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
	PT-DR-Y	Drum Unit (Y) 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
	PT-DR-M	Drum Unit (M) 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		
PT-DR-C	Drum Unit (C) 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
REG-RL	Cassette 1 Pickup Unit 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
R-DOOR	Right Door Unit 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 Unit prts cntr: 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-PD	Separation Pad 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.	
LNT-TAPE	Fd Guide(Dust Colct Tape)prts cntr: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		
STAMP		Stamp 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
C3-SP-RL		Cassette3 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
	Unit	Number of sheets
	Default value	0
C3-FD-RL		Cassette3 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
	Unit	Number of sheets
	Default value	0
C4-SP-RL		Cassette4 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
	Unit	Number of sheets
	Default value	0

COPIER > COUNTER > DRBL-2		
C4-FD-RL		Cassette4 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
	Unit	Number of sheets
	Default value	0
FIN-STPR		Stapler 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
	Unit	Number of times
	Default value	0

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■ T-CNTR

COPIER > COUNTER > T-CNTR		
YELLOW		Y Toner Container counter
Lv.1	Details	To count up in the unit of 0.1 Y color Toner Container consumed.
	Use case	When checking the consumption volume of Toner Container
MAGENTA		M Toner Container counter
Lv.1	Details	To count up in the unit of 0.1 M color Toner Container consumed.
	Use case	When checking the consumption volume of Toner Container
CYAN		C Toner Container counter
Lv.1	Details	To count up in the unit of 0.1 C color Toner Container consumed.
	Use case	When checking the consumption volume of Toner Container
BLACK		Bk Toner Container counter
Lv.1	Details	To count up in the unit of 0.1 Bk color Toner Container consumed.
	Use case	When checking the consumption volume of Toner Container

T-8-67

■ V-CNTR

COPIER > COUNTER > V-CNTR		
TOTAL		Video count total counter
Lv.1	Details	To display distribution of total video count for each color. Small size: 1, Large size: 1
	Use case	When checking distribution of video count
YELLOW		Video count Y counter
Lv.1	Details	To display distribution of yellow video count. Small size: 1, Large size: 1
	Use case	When checking distribution of video count
MAGENTA		Video count M counter
Lv.1	Details	To display distribution of magenta video count. Small size: 1, Large size: 1
	Use case	When checking distribution of video count
CYAN		Video count C counter
Lv.1	Details	To display distribution of cyan video count. Small size: 1, Large size: 1
	Use case	When checking distribution of video count
BLACK		Video count Bk counter
Lv.1	Details	To display distribution of black video count. Small size: 1, Large size: 1
	Use case	When checking distribution of video count

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■ V2-CNTR

COPIER > COUNTER > V2-CNTR		
TOTAL		Video count total counter
Lv.1	Details	To display distribution of total video count for each color. Small size: 1, Large size: 2
	Use case	When checking distribution of video count
YELLOW		Video count Y counter
Lv.1	Details	To display distribution of yellow video count. Small size: 1, Large size: 2
	Use case	When checking distribution of video count
MAGENTA		Video count M counter
Lv.1	Details	To display distribution of magenta video count. Small size: 1, Large size: 2
	Use case	When checking distribution of video count
CYAN		Video count C counter
Lv.1	Details	To display distribution of cyan video count. Small size: 1, Large size: 2
	Use case	When checking distribution of video count
BLACK		Video count Bk counter
Lv.1	Details	To display distribution of black video count. Small size: 1, Large size: 2
	Use case	When checking distribution of video count

T-8-69

■ LF

COPIER > COUNTER > LF		
Y-DRM-LF		Display of Drum Unit (Y) life
Lv.1	Details	To display how much the Drum Unit (Y) is close to the end of life in % (percentage). When a new part is set, the value becomes 0%.
	Use case	When checking the life of Drum Unit
	Display/adj/set range	0 to 999
	Unit	%
M-DRM-LF		Display of Drum Unit (M) life
Lv.1	Details	To display how much the Drum Unit (M) is close to the end of life in % (percentage). When a new part is set, the value becomes 0%.
	Use case	When checking the life of Drum Unit
	Display/adj/set range	0 to 999
	Unit	%
C-DRM-LF		Display of Drum Unit (C) life
Lv.1	Details	To display how much the Drum Unit (C) is close to the end of life in % (percentage). When a new part is set, the value becomes 0%.
	Use case	When checking the life of Drum Unit
	Display/adj/set range	0 to 999
	Unit	%
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). When a new part is set, the value becomes 0%.
	Use case	When checking the life of Drum Unit
	Display/adj/set range	0 to 999
	Unit	%

T-8-70

FEEDER

 DISPLAY

FEEDER > DISPLAY		
FEEDSIZE	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

T-8-71

 ADJUST

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. Enter the value of service label when CCD Unit is replaced/RAM data of Reader Unit is cleared. 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 CCD Unit - When clearing the RAM data of the Reader Unit
	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-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.) When replacing the CCD Unit/clearing the RAM data of the Reader Unit, enter the value of service label.
	Use case	- When installing DADF - When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	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
DOC-LNGH	Ppr lngth crct:DADF lng orgnl/cstm mode	
Lv.1	Details	To correct paper length detection error in long original/custom mode at DADF reading. As the value is incremented by 1, the paper length to be detected is decreased by 0.1mm.
	Use case	- When installing DADF - When replacing the CCD Unit - When clearing the RAM data of the Reader Unit
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-100 to 100
	Unit	0.1 mm
	Default value	0

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 FUNCTION

FEEDER > FUNCTION		
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: ADF Motor (M1), 1: Release Motor (M2), 2 to 9: Not used
	Related service mode	FEEDER> FUNCTION> MTR-ON

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
CL-CHK		Specifying DADF Operation Clutch
Lv.1	Details	To specify the DADF Clutch to be operated. The Clutch is activated by CL-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: Pickup Clutch (CL1), 1: Registration Clutch (CL2)
	Related service mode	FEEDER> FUNCTION> CL-ON
CL-ON		Operation check of DADF Clutch
Lv.1	Details	To start operation check for the Clutch specified by CL-CHK.
	Use case	At operation check
	Adj/set/operate method	1) Select the item, and then press OK key. The clutch operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Caution	Press OK key again after execution. It stops automatically after approx. 5 sec; however, it does not finish unless OK key is pressed (STOP screen does not appear.)
	Required time	Approx. 5 seconds
	Related service mode	FEEDER> FUNCTION> CL-CHK
FAN-CHK		Specifying DADF Operation Fan
Lv.1	Details	To specify the DADF Fan to be operated. 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: Fan (FM1), 1: Not used
	Related service mode	FEEDER> FUNCTION> FAN-ON

FEEDER > FUNCTION		
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 fan operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Caution	Press OK key again after execution. It stops automatically after approx. 5 sec; however, it does not finish unless OK key is pressed (STOP screen does not appear.)
	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 be 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
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

FEEDER > FUNCTION		
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-8-73

SORTER

ADJUST

SORTER >ADJUST		
CLCT-SB		Adjustment of switchback position
Lv.1	Details	To adjust the paper switchback position when the paper is delivered to the Processing Tray.
	Use case	When a stacking failure due to curl at the Processing Tray occurs
	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
STP-2P		Adj front/rear 2-staple position
Lv.1	Details	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
	Use case	When the front/rear 2-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	-25 to 25
	Unit	0.1 mm
SFT-AMT1		Adj shft amnt of Shft Roll (frt)
Lv.1	Details	To adjust the front shift amount of the Shift Roller. As the value is incremented by 1, the Shift Roller moves toward the guide by 0.1 mm.
	Use case	When the front shift amount of the paper is inappropriate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 50
	Unit	0.1 mm
	Default value	0
SFT-AMT2		Adj shft amnt of Shft Roll (Rear)
Lv.1	Details	To adjust the rear shift amount of the Shift Roller. As the value is incremented by 1, the Shift Roller moves toward the guide by 0.1 mm. (The paper length to be detected is shortened by 0.1mm.)
	Use case	When the rear shift amount of the paper is inappropriate
	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

SORTER >ADJUST		
STP-NTN		Adj of Staple Needle pitch (A4)
Lv.1	Details	To adjust the pitch between needles for 2-point stapling. As the value is incremented by 1, the pitch between needles becomes wider by 0.27 mm.
	Use case	When the pitch between needles for 2-point stapling is inappropriate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-8 to 8
	Unit	0.27 mm
	Default value	0
INSTP-F1		Adj of front staple position
Lv.1	Details	To adjust the paper pull-in amount of the Gripper at the time of front 1-point stapling. As the value is incremented by 1, the paper pull-in amount is increased by 0.1 mm.
	Use case	When misalignment occurs at the front staple position
	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
INSTP-R1		Adj of rear staple position
Lv.1	Details	To adjust the paper pull-in amount of the Gripper at the time of rear 1-point stapling. As the value is incremented by 1, the paper pull-in amount is increased by 0.1 mm.
	Use case	When misalignment occurs at the rear staple position
	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

T-8-74

FUNCTION

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.
	Use case	When E505-0001 (EEPROM error) occurs
	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 the necessary setting values. - RAM clear is executed after the main power is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

T-8-75

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.
	Use case	When E505-0001 (EEPROM error) occurs
	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 the necessary setting values. - RAM clear is executed after the main power is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

T-8-76


OPTION

SORTER > OPTION(
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
CURL-HVY	ON/OFF of finisher curl alleviation mode	
Lv.1	Details	To set ON/OFF of curl alleviation mode for heavy paper, etc. at the Finisher. When 1 is set, curl of heavy paper 1/2/3 and coated paper 1/2 can be alleviated, but productivity decreases. When setting 1, adjust the fixing temperature control of the target paper type in COPIER> OPTION> IMG-FIX, and also set the curl alleviation mode on the host machine to ON.
	Use case	When the stackability of the tray decreases due to paper curl
	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 in advance by telling that productivity decreases.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> IMG-FIX> TMP-TBL4, etc.

T-8-77

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
SURF-OFF	UFR board function ON/OFF	
Lv.1	Details	To set ON/OFF of the function according to the SURF board connection status.
	Adj/set/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

BOARD > OPTION		
TR-DSP	Hide/dis of toner reduction function	
Lv.2	Details	To set whether to display or hide the toner reduction 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	0
	Supplement/memo	The toner reduction function is constantly enabled as default. Toner color is limited to 2.1 colors when genuine Canon profile is used, but it may become 2.1 colors or more when a custom profile is used for PS data. Therefore, it is limited to 2.1 colors by the toner reduction function.

T-8-78

9

Installation

- How to Check this Installation Procedure
- Checking before Installation:
- Table of Options Combination:
- Checking the Contents
- Unpacking
- Installation Procedure

How to Check this Installation Procedure

When Using the Parts Included in the Package

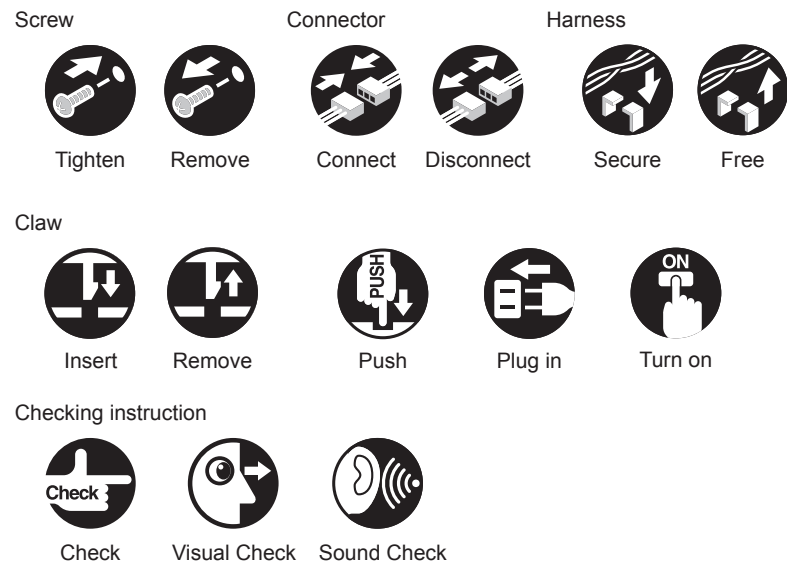
A symbol is described on the illustration in the case of using the parts included in the package of this product.



Packaged Item

Symbols in the Illustration

The frequently-performed operations are described with symbols in this procedure.



F-9-2

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

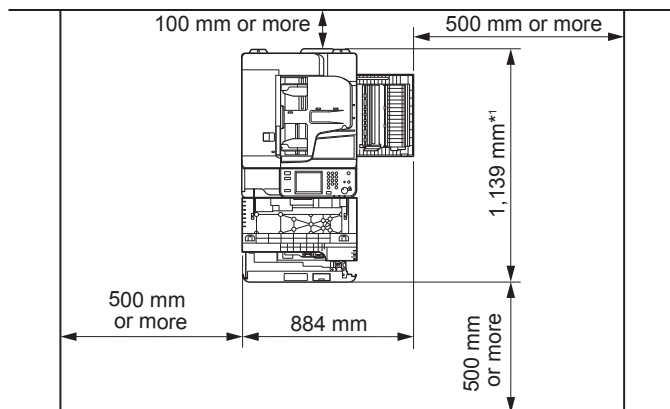
- 1) There must be a power outlet properly grounded and rated as indicated (+, -10%) for exclusive use by the machine.

Checking the Installation Environment

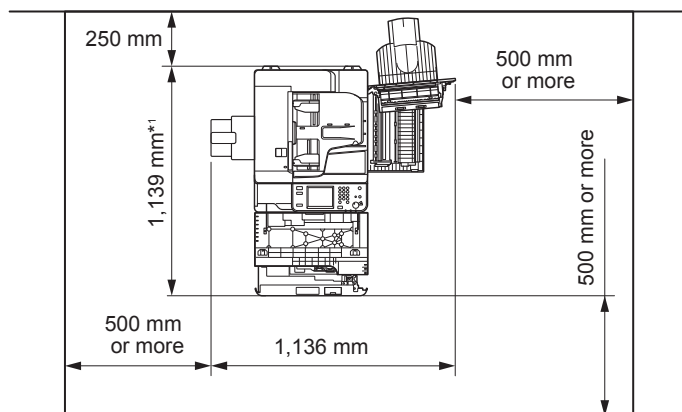
- 1) The environment of the installation site must be in the range as shown below. Avoid installation near the faucet, water boiler, humidifier or refrigerator.
Guaranteed range for operation/image Temperature: 15.0 to 30.0 deg C, Humidity: 5 to 80%
- 2) The machine must not be installed near a source 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.
 - When the Color Image Reader Unit-D1 is attached



- When the Color Image Reader Unit-D1, Inner Finisher-C1 and Copy Tray-F1 are attached



F-9-4

NOTE:

Europe

- When imageRUNNER ADVANCE C2030L/C2020L is used and Color Image Reader Unit-D1 is installed, the depth is 1109mm.

Asia

- When imageRUNNER ADVANCE C2020 is used and Platen Cover Type R is installed, the depth is 1109mm.

- 3) 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 Before Installation

Take note of the following points when installing the host machine.

- 1) 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.
- 2) Weight of the machine is approx. 95kg (the host machine with 2 cassettes + ADF).
Be sure to perform the work in accordance with the standard to handle a heavy load in each country.
In addition, be sure to keep the machine leveled when lifting it.

Table of Options Combination:

Combination of the Options installing to the Right Side of the Host Machine

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.

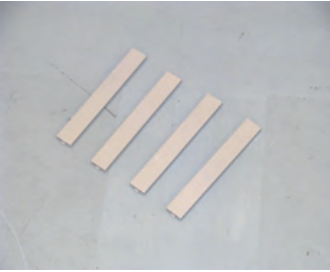
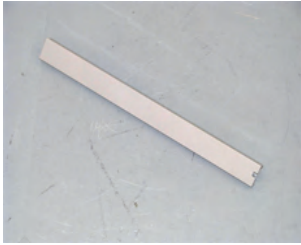
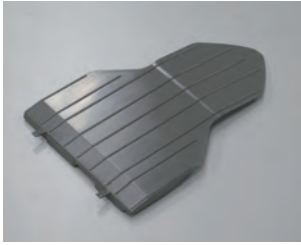
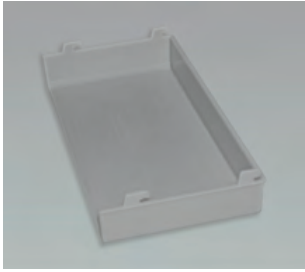
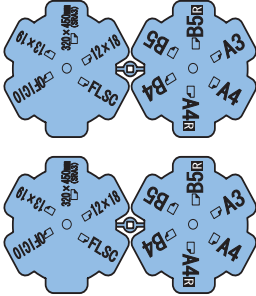
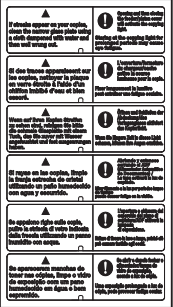


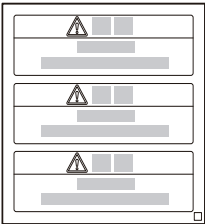


	Utility Tray	Voice Operation Kit	Voice Guidance	Card Reader
Utility Tray	-	No	No	Yes
Voice Operation Kit	No	-	No	Yes
Voice Guidance Kit	No	No	-	Yes
Card Reader	Yes	Yes	Yes	-

Yes: installation is available

No: installation is not available

T-9-1

Checking the Contents

<p><input type="checkbox"/> [1] Handle Covers X 4</p> 	<p><input type="checkbox"/> [2] Right Lower Cover X 1</p> <p>Use only when the Cassette Pedestal is not installed</p> 	<p><input type="checkbox"/> [3] Reverse Trailing Edge Guide X 1</p> <p>Included in the model with 3 Way Unit only</p> 	<p><input type="checkbox"/> [4] Service Book Holder x 1</p> 
<p><input type="checkbox"/> [5] Size Plates X 2</p> 	<p><input type="checkbox"/> [6] Cleaning Position Label</p> 	<p><input type="checkbox"/> [7] Copy Prohibition Label</p> 	<p><input type="checkbox"/> [8] Hinge Caution Label 1</p> 
<p><input type="checkbox"/> [9] Hinge Caution Label 2</p> 	<p><input type="checkbox"/> [10] Power Supply Cable X 1</p> 	<p><input type="checkbox"/> [11] Toner Container(Y/M/C/Bk) X 1</p> <p>Australia / Korea Only</p> 	

F-9-5

The numbers of labels differ from location to location.

See the following table.

	North America	Australia	Korea	Taiwan	Singapore/ Latin America
Cleaning Position Label	1	1	-	-	1
Copy Prohibition Label	3	-	-	-	2
Hinge Caution Label 1	1	-	-	1	-
Hinge Caution Label 2	1	-	-	1	-

T-9-2

'-' is NONE

<CD/Guides>

Check the contents against the following

	North America	Australia	Korea	Taiwan	Singapore/ Latin America
e-Manual	1	1	1	1	1
Setup Guide	1	1	1	1	1
Basic Operation Guide	1	1	1	1	1
UFR II User Software	1	1	1	1	1
Registration for Purchase in USA	1	-	-	-	-
Drum Unit Warranty	1	-	-	-	-
iW EMC CD	1	-	-	-	-
iW MC CD	-	1	-	-	1 *1
Before Using This Machine	1	1	1	1	1
AMS Kit	1	-	-	-	-
Main Unit Warranty	-	-	1	-	-

'-' is NONE

T-9-3

*1 It is not included in Merchandise Code 3612B006AA.

Unpacking



1) Unpack the host machine.

NOTE:

When installing the host machine and the options at the same time, install the options first by following the procedure below for better workability.

1. Installing the Cassette Pedestal (Refer to Installation Procedure for the Cassette Pedestal.)
2. Installing the DADF (if it is an option) (Refer to Installation Procedure for the DADF.)
3. Installing the host machine

NOTE:

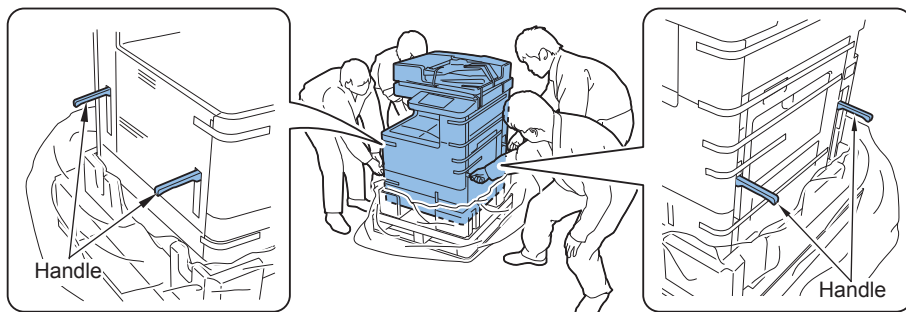
In the case of installation in European region, refer to the Printer Model (for Europe) Installation Procedure.(p. 9-22)



2) Holding the 4 handles on the left and right sides, lift the main body down from pallet.

CAUTION:

- He maximum weight of the machine including the approx. 95kg (the host machine with 2 cassettes + DADF). Be sure to work with 4 or more people when lifting it.
- In addition, be sure to keep the machine leveled when lifting it.
- Because the center of gravity will be placed at rear, be careful not to loose balance when lifting it.



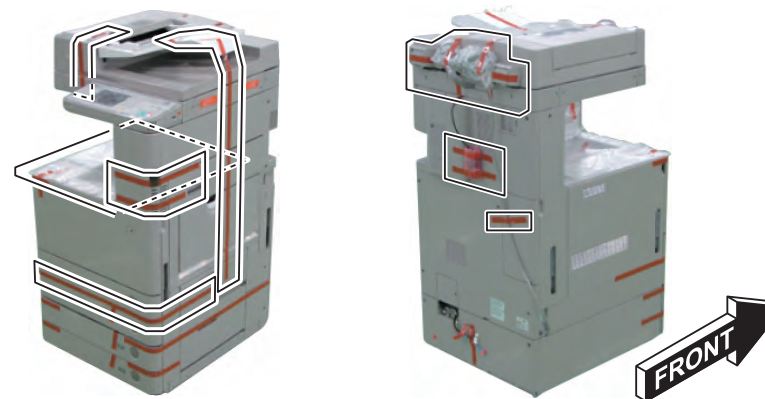
F-9-6



3) Remove the tapes on the exterior of the host machine.

CAUTION:

- Be sure to remove the tapes on the Cassette and Reader in later step.
- Be sure not to remove the Scanner System Fixation Screw until installation of the scanner.



F-9-7



4) Open the ADF, and remove the cushioning material.

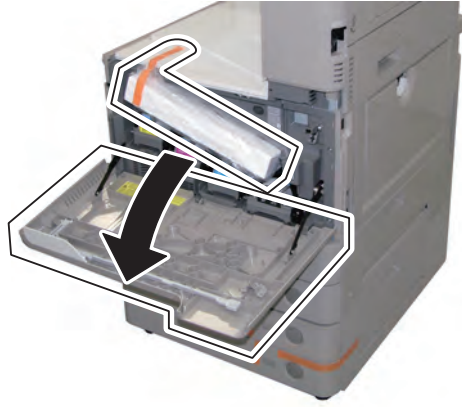


F-9-8



5) Close the ADF.

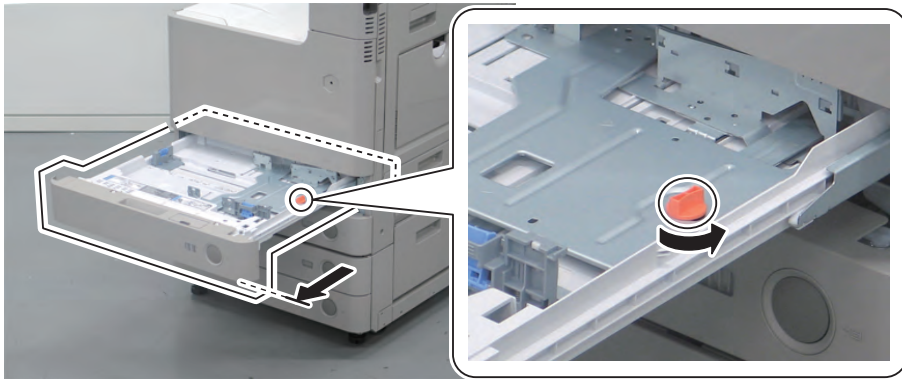
- 6) Open the Front Cover, and remove the Drum Unit Protection Member.



F-9-9

- 7) Close the Front Cover.

- 8) Press the Cassette Release button, and pull out the Cassette 1.
- 9) Remove the Lifter Retainer Member while rotating it in the direction of the arrow.



F-9-10

- 10) Return the Cassette 1 to its original position.

- 11) Press the Cassette Release button, pull out the Cassette 2, and remove the tapes material from the cassette.

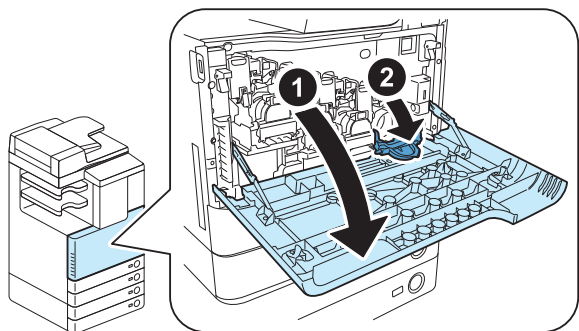
- 12) Return the Cassette 2 to its original position.

Installation Procedure

Installing the Toner Container



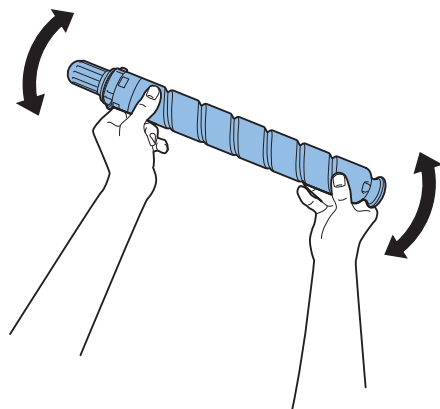
- 1) Open the Front Cover.
- 2) Open the Toner Replacement Cover.



F-9-11



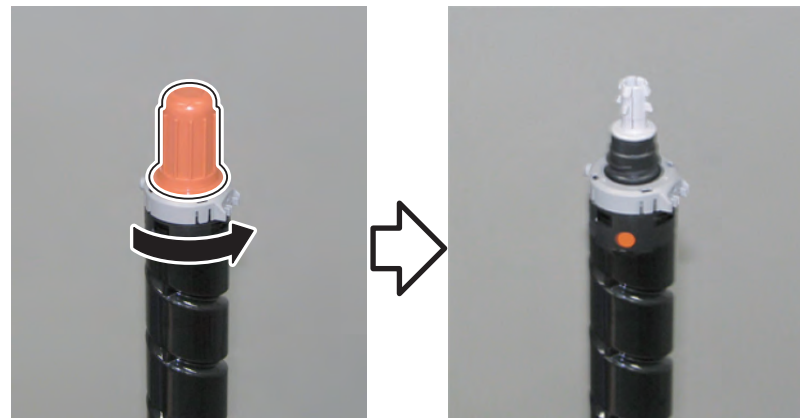
- 3) Unpack the Toner Container.
- 4) Hold the Toner Container with both hands, and shake it approx. 10 times.



F-9-12



- 5) Remove the Protection Cap of the Toner Container while rotating it in the direction of the arrow.



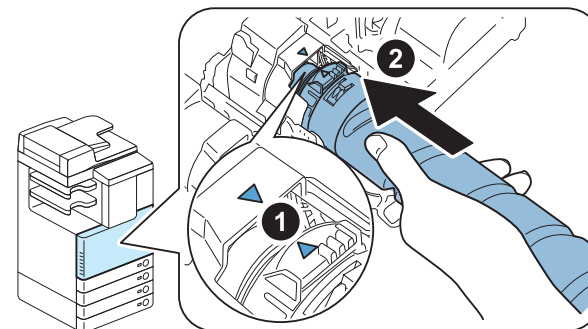
F-9-13



- 6) Align the arrow marked on the ring near the end of the Toner Container with the arrow marked at the Toner Container Inlet of the host machine as shown in the figure.
- 7) Insert the Toner Container until it stops.

NOTE:

Be sure to insert the Toner Container horizontally while putting hand on the bottom of it until approx. half of it is inserted.



F-9-14



- 8) Close the Toner Replacement Cover.
- 9) Repeat steps 2 to 8 to install the Toner Container of each color in the same way.
- 10) Close the Front Cover.

Scanner Installation



- 1) Remove the 2 Scanner System Fixation Screws.

NOTE:

Be sure to keep the Scanner System Fixation Screws in a safe place for moving the machine.



x2



F-9-15

Setting the Environment Heater Switch



- 1) ON the Environment Switch



F-9-16

Turning ON the Power



- 1) Connect the power plug to the outlet.
- 2) Remove the Protection Sheet on the Control Panel.
- 3) Turn ON the main power switch.

NOTE:

- Toner supply and initialization of the Developing Assembly and the Drum are automatically performed.
- When toner supply is completed, the operation stops. (Approx. 4 minutes)
- It is possible to perform "Installing the Others", "Securing the Host Machine", and "Setting the Cassette" while supplying toner.

- 4) Execute the following service mode to make the Cassette Heater recognized. In service mode,

Select COPIER > OPTION > USER > CSTHT-SW > "1".

- 5) In service mode > COPIER > OPTION > CST, check that the value appropriate for the location is selected for CST-K-SW. (0:EXEC, 1:16K)

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.

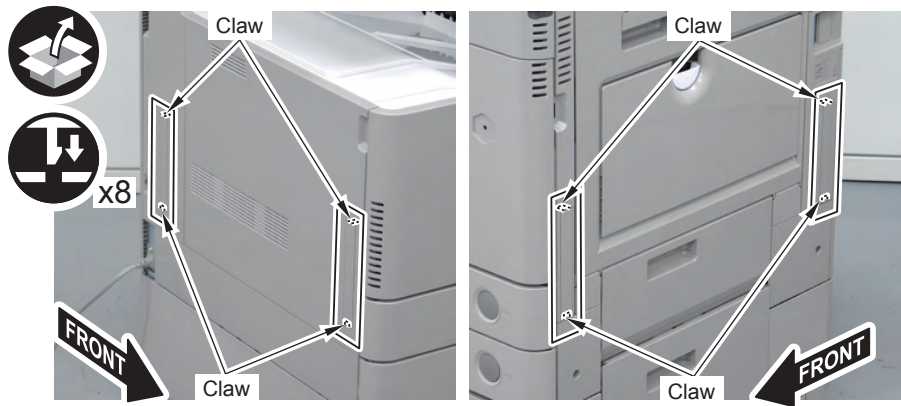
Installing the Others

- 1) In the case of not installing the Cassette Pedestal, install the Right Lower Cover.



F-9-17

- 2) Install the 4 Handle Covers.
 - 2 Claw each

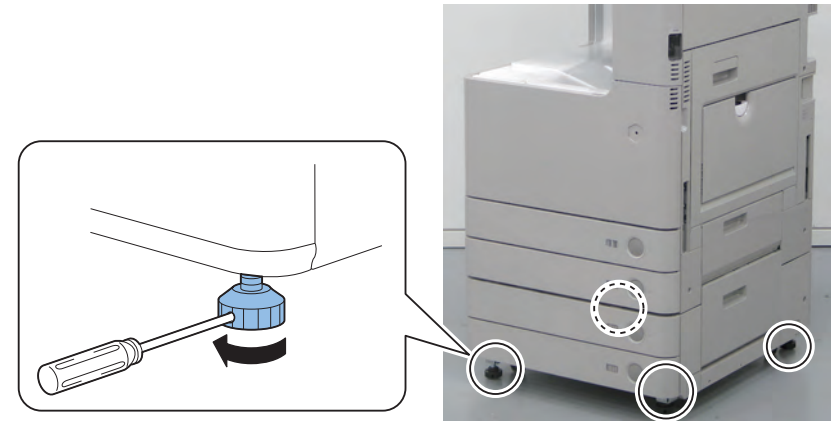


F-9-18

Securing the Host Machine

<In the Case of the Machine with Cassette Pedestal>

- 1) Move the main body to the installation position, and secure it in place by turning the 4 adjusters of the Cassette Pedestal with a screwdriver.



F-9-19

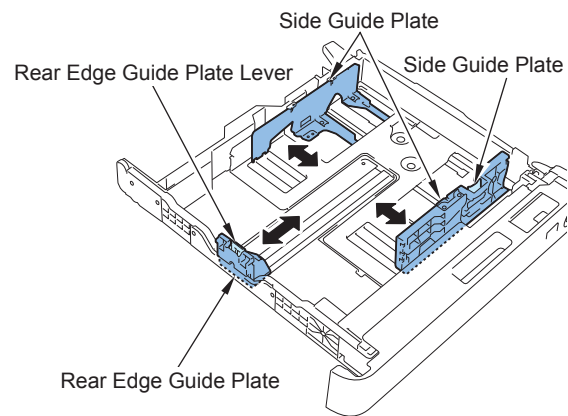
Setting the Cassette



NOTE:

The illustrations show the case of the Cassette 2 as an example. The Cassette 1 can be set in the same way.

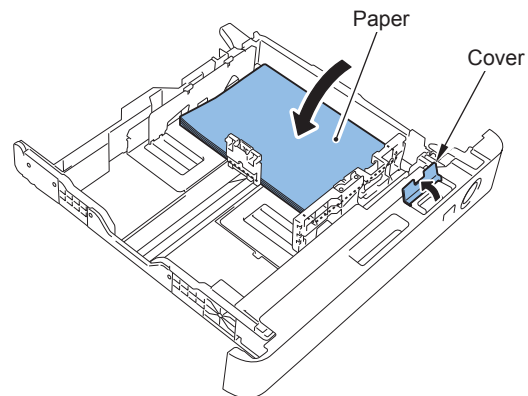
- 1) Press the Cassette Release button, pull out the Cassette.
- 2) Hold the lever of the Side Guide Plate, and adjust the plate to the specified size.
- 3) Hold the lever of the Trailing Edge Guide Plate, and adjust the plate to the specified size.



F-9-20



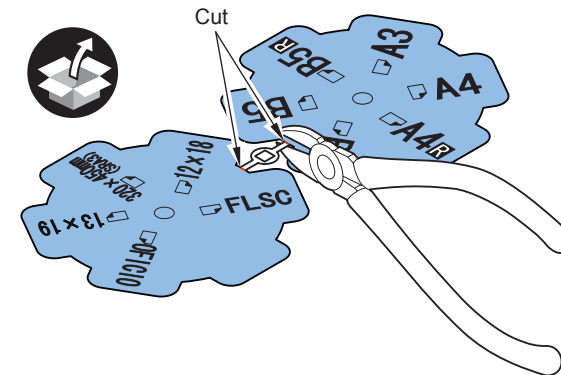
- 4) Place paper and open the cover at insertion area of the Size Plate.



F-9-21



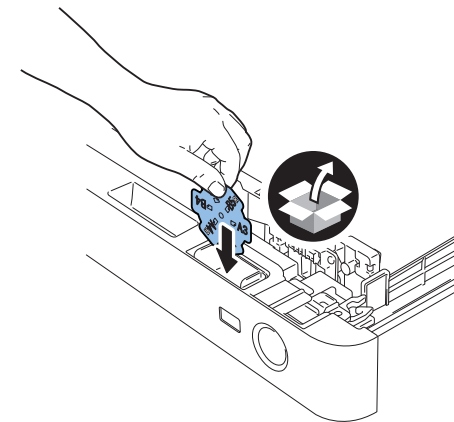
- 5) Cut the 2 places of the Size Plates with nippers.



F-9-22



- 6) Set the Size Plate according to the size of papers being set.
(Lump the Size Plates not in use together and store them at the rear.)



F-9-23



- 7) Close the cover at insertion area of the Size Plate, and insert the cassette.
- 8) Set the other cassette in the same way.
- 9) In the case that the Cassette Pedestal is installed, set the cassettes of it in the same way.

NOTE:

Paper size settings are automatically recognized.

Auto Gradation Adjustment



- 1) Clean the Copyboard Glass surface of the main body.
- 2) Place A3, A4, 11x17, or LTR size paper in the cassette.(Refer to the cassette setting.)
- 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) After that, follow the direction on the screen of the Control Panel.

Image Position Adjustment

NOTE:

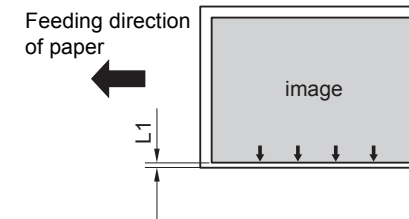
The second side of the 2-sided copy mentioned later means the second side in the image formation order.

With this equipment, the second side in the image formation order at the time of 2-sided copy/print is equivalent to the first side of the original.

Margin Adjustment (1st side;)



- 1) Print from the Cassette 1 and 2, and check that the left edge margin is within 2.5 +/- 1.5mm.



<In Case of Out of Range>>

Cassette 1



- 2) Change the left edge margin adjustment value for the 1st side of the Cassette 1.
 - As the value of COPIER > ADJUST > FEED-ADJ > ADJ-C1 in service mode is incremented by 1, the left edge margin is decreased by 0.1mm.
- 3) Turn OFF and then ON the main power switch to enable the setting value.
- 4) Print from the Cassette 1, and check that the left edge margin is within 2.5 +/- 1.5mm.
- 5) Write down the new adjustment value in the service label.
 - ADJ-C1

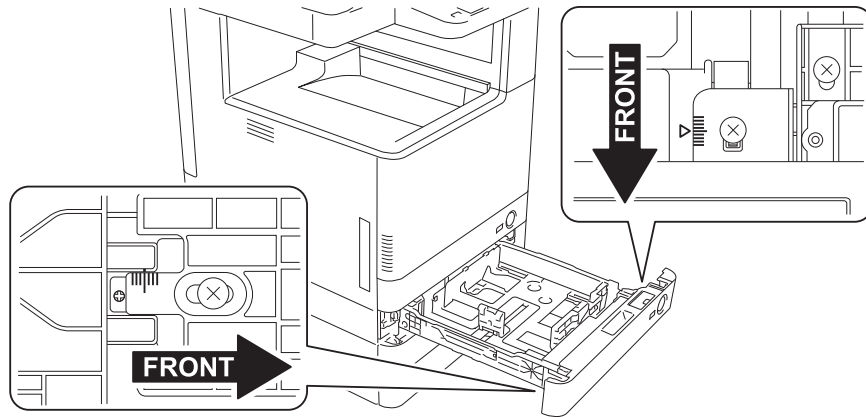
F-9-24

Cassette 2



2) Pull out the cassette2.

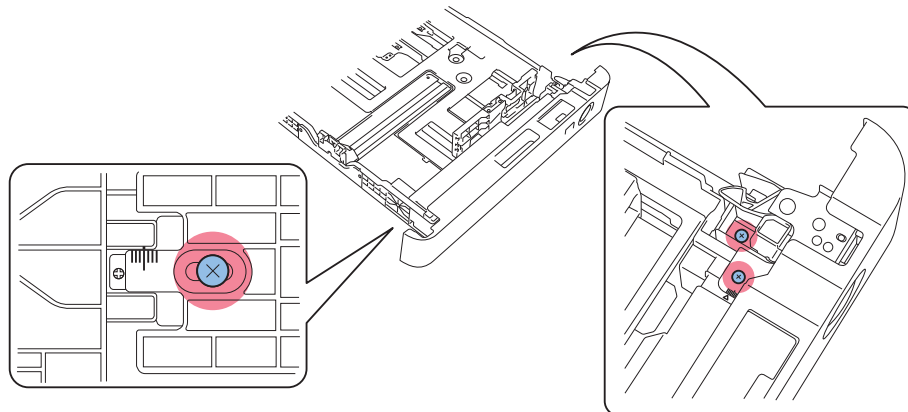
3) Check the values of the scale on the 2 Adjustment Plates.



F-9-25



4) Loosen the 3 Fixation Screws.

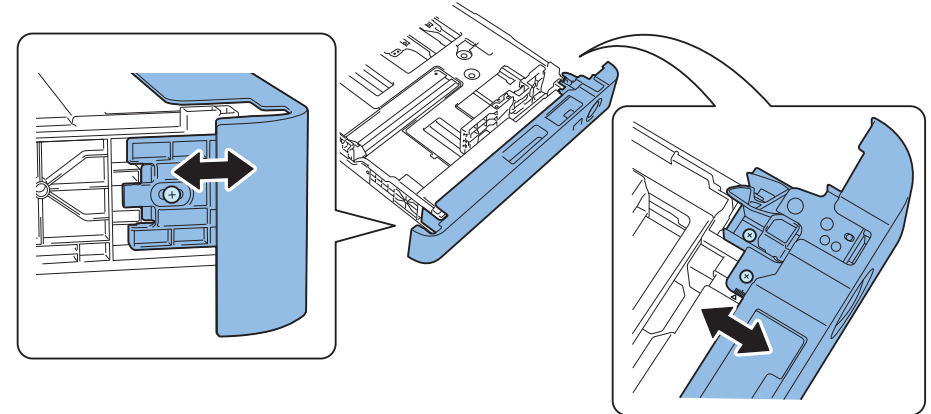


F-9-26

5) Move the Adjustment Plates back and forth according to the scale values checked in step 3. As the Adjustment Plate is moved toward the rear by 1 scale, the left edge margin is decreased by 1mm.

NOTE:

When moving the scales, be sure to move the same amount of the value for the 2 points.



F-9-27

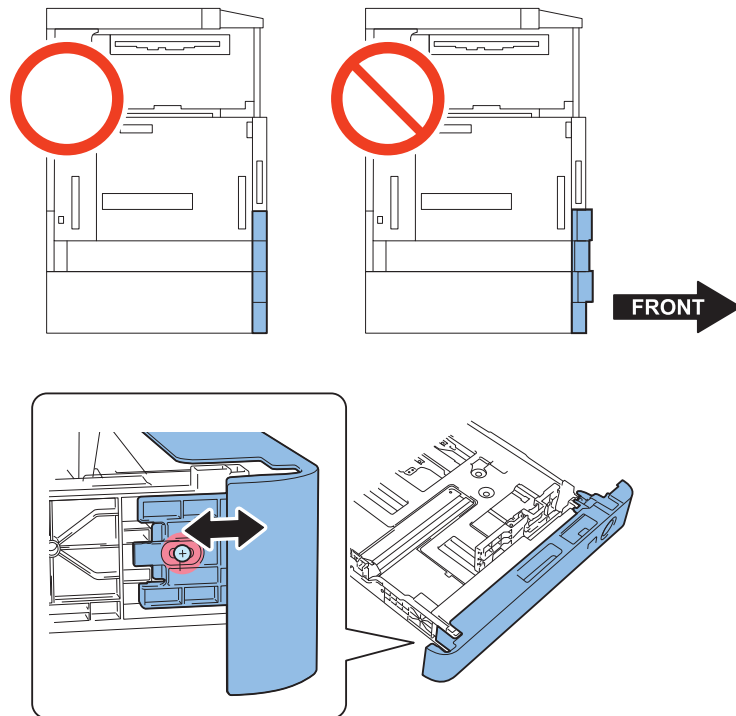


6) Tighten the Fixation Screws.

7) Return the cassette to its original position.

NOTE:

When moving the scales, be sure to move the same amount of the value for the 2 points.



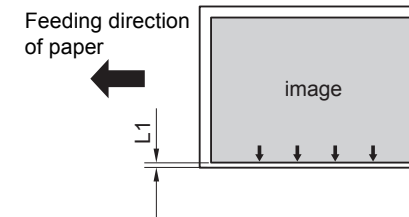
F-9-28

- 8) Print from the Cassette 2, and check that the left edge margin is within 2.5mm +/- 1.5mm.

Margin Adjustment (2nd side)



- 1) Execute duplex printing from the Cassette 1, and check that the left edge margin is within 2.5 +/- 2.0mm.



F-9-29

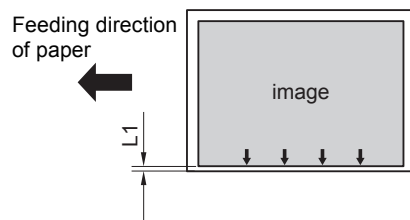


- 2) If the margin is not within the range, change the left edge margin adjustment value for the 2nd side of the Cassette 1.
- As the value of COPIER > ADJUST > FEED-ADJ > ADJ-C1RE is incremented by 1, the left edge margin is decreased by 0.1mm.
- 3) Enter the value same as the left edge margin adjustment value for the 2nd side of the Cassette 1 to the side registration adjustment value for the 2nd side of the Cassette 2.
- COPIER > ADJUST > FEED-ADJ > ADJ-C2RE
- 4) Turn OFF and then ON the main power switch to enable the setting value.
- 5) Execute duplex printing from the Cassette 2, and check that the left edge margin is within 2.5 +/- 2.0mm.
- 6) If the margin is not within the range, change the left edge margin adjustment value for the 2nd side of the Cassette 2.
- As the value of COPIER > ADJUST > FEED-ADJ > ADJ-C2RE is incremented by 1, the left edge margin is decreased by 0.1mm.
- 7) Write down the new adjustment value in the service label.
- ADJ-C1RE
 - ADJ-C2RE
- 8) Get out from service mode.

Multi-purpose Tray Margin Adjustment (1st side: mechanical adjustment)



- 1) Set papers in the Multi-purpose Tray.
- 2) Print from the Multi-purpose Tray, and check that the left edge margin is within 2.5 +/- 1.5mm.



F-9-30

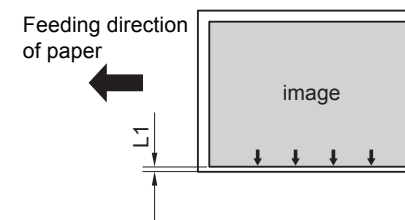


- 3) If the margin is not within the range, change the left edge margin adjustment value for the 1st side of the Multi-purpose Tray.
As the value of COPIER > ADJUST > FEED-ADJ > ADJ-MF in service mode is incremented by 1, the left edge margin is decreased by 0.1mm.
- 4) Turn OFF and then ON the main power switch to enable the setting value.
- 5) Write down the new adjustment value in the service label.
 - ADJ-MF

Multi-purpose Tray Margin Adjustment (2nd side)



- 1) Execute duplex printing from the Multi-purpose Tray, and check that the left edge margin for the 2nd side is within $L1 = 2.5 \pm 2.0$ mm.



F-9-31

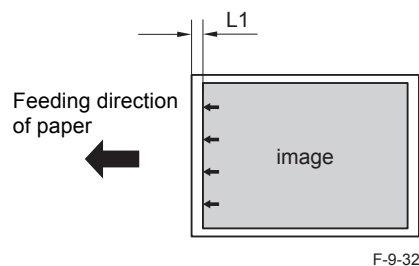


- 2) If the margin is not within the range, change the left edge margin adjustment value for the 2nd side of the Multi-purpose Tray.
As the value of COPIER > ADJUST > FEED-ADJ > ADJ-MFRE in service mode is incremented by 1, the left edge margin is decreased by 0.1mm.
- 3) Turn OFF and then ON the main power switch to enable the setting value.
- 4) Write down the new adjustment value in the service label.
 - ADJ-MFRE

Leading Edge Margin Adjustment (1st side)



- 1) Print from the Cassette 1, and check that the leading edge margin is $L1=4.0 +1.5/-1.0$ mm. If the margin is not within the range, execute the adjustment by following the procedure below.

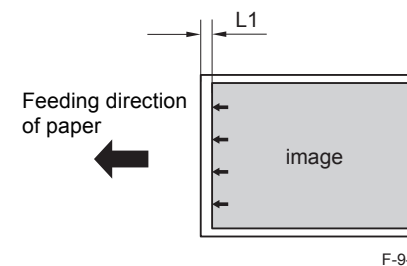


- 2) Select service mode > COPIER > ADJUST > FEED-ADJ > REGIST.
 - 3) Make adjustment by changing the setting value. (As the value is incremented by 1, the leading edge margin is decreased by 0.1mm.)
 - 4) Turn OFF/ON the main power switch to enable the setting value.
 - 5) Write down the new adjustment value in the service label.
- REGIST

Leading Edge Margin Adjustment (2nd side)



- 1) Execute duplex printing from the Cassette 1, and check that the leading edge margin for the 2nd side is $L1=4.0 +1.5/-1.0$ mm. If the margin is not within the range, execute the adjustment by following the procedure below.



- 2) Select service mode > COPIER > ADJUST > FEED-ADJ > REG-DUP1.
 - 3) Make adjustment by changing the setting value. (As the value is incremented by 1, the leading edge margin is decreased by 0.1mm.)
 - 4) Turn OFF/ON the main power switch to enable the setting value.
 - 5) Write down the new adjustment value in the service label.
- REG-DUP1

Installing Others

<Service Book Holder>



1) Install the Service Book Holder.

- 4 Hooks

NOTE:

At installation, be sure that a click sound is heard.

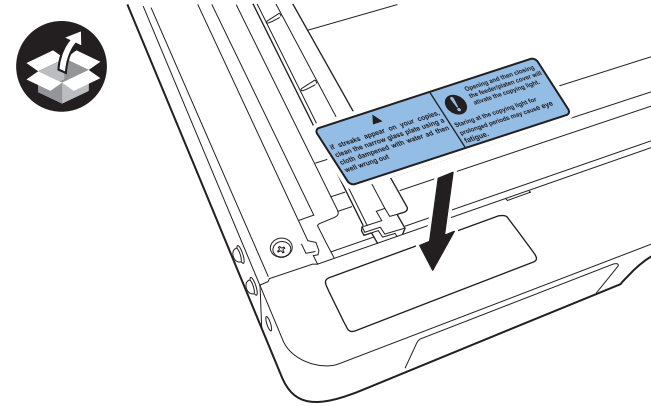


F-9-34

Affixing the Label



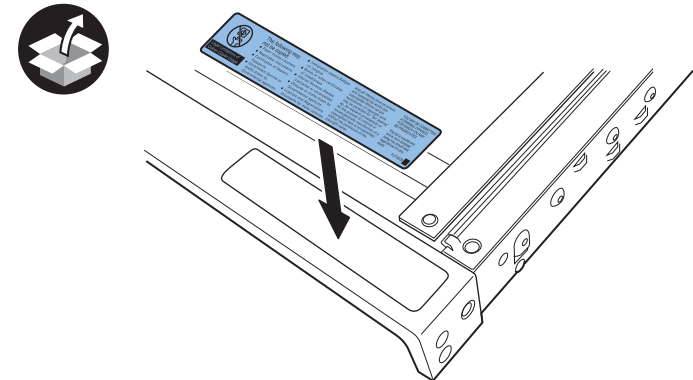
1) Affix the Cleaning Position Label of the appropriate language to the place shown in the figure.



F-9-35

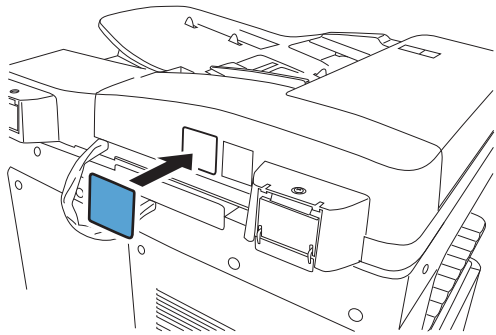


2) Affix the Copy Prohibition Label of the appropriate language to the place shown in the figure.



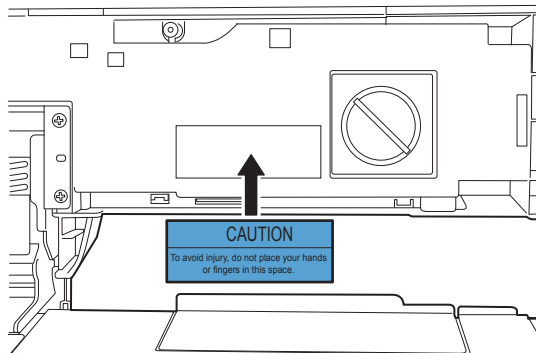
F-9-36

- 3) Affix the Hinge Caution Label 1 of the appropriate language to the place shown in the figure.



F-9-37

- 4) Affix the Hinge Caution Label 2 of the appropriate language to the place shown in the figure.



F-9-38

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



- 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

Check with the loopback address.



- 1) Select Settings/Registration > Preferences > Network > TCP/IP Settings > IPv4 Settings > PING command, enter the IP address "127.0.0.1" with the numeric keypad, and then press "Start" key.
- 2) When "Response from the host." is displayed, network function of the Main Controller operates normally.
 - When "No response from the host." is displayed, the network function of the Main Controller is failed.
 - Replace the Main Controller with a properly operating one, and check the connection.

Printer Model (for Europe) Installation Procedure






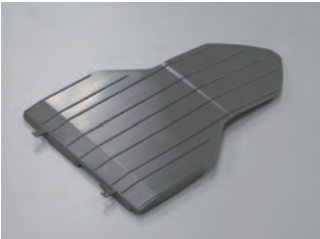
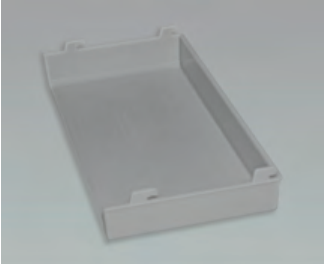
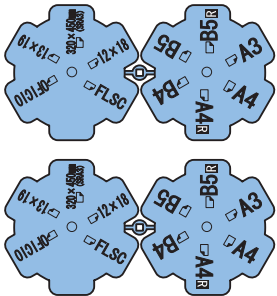

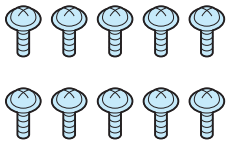
Points to Note at Installation

If the machine is used as a copier model, follow the Installation Procedure included in the package of the Reader Unit to install it, and then install the Toner Container.

If the machine is used as a copier model, "Printer Cover-D1" is required.

Checking the Contents

Host machine.

<input type="checkbox"/> [1] Control Panel X 1 	<input type="checkbox"/> [2] Fixation Plate Right X 1 	<input type="checkbox"/> [3] Fixation Plate Left X 1 	<input type="checkbox"/> [4] Handle Covers X 4 	<input type="checkbox"/> [5] Right Lower Cover X 1 <p>Use only when the Cassette Pedestal is not installed</p> 
<input type="checkbox"/> [6] Reverse Trailing Edge Guide X 1 <p>Included in the model with 3 Way Unit only</p> 	<input type="checkbox"/> [7] Service Book Holder X 1 	<input type="checkbox"/> [8] Size Plates X 2 	<input type="checkbox"/> [9] Power Supply Cable X 1 	<input type="checkbox"/> [10] Screws (TP; M4x6) X 10 

MEMO:

A Waste Toner Container is included in the package, but is not used in the installation procedure.

F-9-39

<CD/Guides>

Check the contents against the following

	imageRUNNER ADVANCE C2030L/ C2020L	imageRUNNER ADVANCE C2030i/ C2020i
e-Manual	5	5
Users Guide	1	1
UFR II User Software	1	1
PCL User Software	-	1
iW MC CD-ROM	-	1
Setup Guide	5	5
Basic Operation Guide	5	5

T-9-4

Contents of Printer Cover-D1

<input type="checkbox"/> [1] Printer Top Cover X 1 	<input type="checkbox"/> [2] Printer Top Front Cover X 1 
<input type="checkbox"/> [3] Reader Left Cover X 1 	<input type="checkbox"/> [4] Reader Right Cover X 1 
<input type="checkbox"/> [5] Screws (Binding; M4x6) X 6 	<input type="checkbox"/> [6] Screws (RS Tightening; M3x8.5) X 6 

F-9-40

Unpacking

- 1) Unpack the host machine.

NOTE:

When installing the host machine and the options at the same time, install the options first by following the procedure below for better workability.

1. Installing the Cassette Pedestal (Refer to Installation Procedure for the Cassette Pedestal.)
2. Installing the DADF (if it is an option) (Refer to Installation Procedure for the DADF.)
3. Installing the host machine

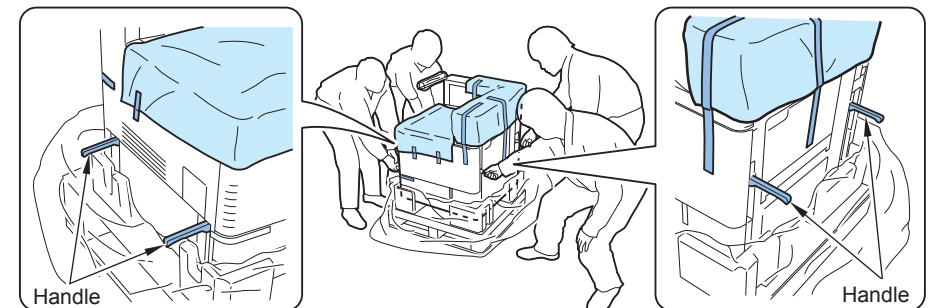
NOTE:

When installing the host machine and the USB Device Port at the same time, install the USB Device Port before installing the Control Panel (after step 10 of "Installing the Printer Cover").

- 2) Holding the 4 handles on the left and right sides, lift the main body down from pallet.

CAUTION:

- The maximum weight of the machine including the approx. 95kg (the host machine with 2 cassettes + DADF). Be sure to work with 4 or more people when lifting it.
- In addition, be sure to keep the machine leveled when lifting it.
- Because the center of gravity will be placed at rear, be careful not to lose balance when lifting it.

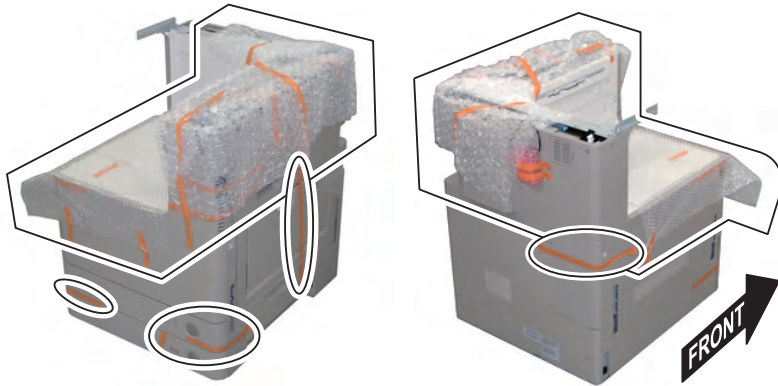


F-9-41

- 3) Remove the tapes on the exterior of the host machine.

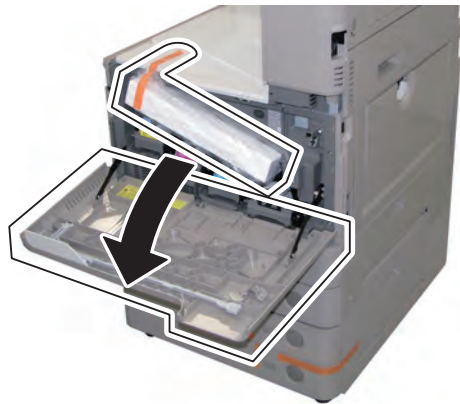
CAUTION:

- Be sure to remove the tapes on the Cassette in later step.



F-9-42

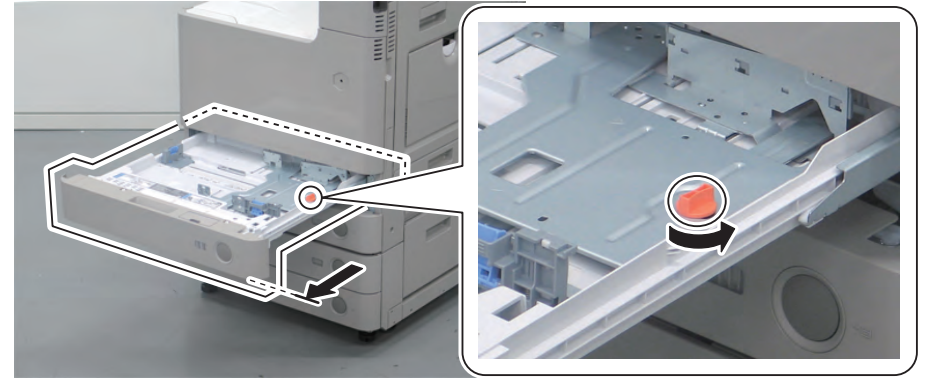
- 4) Open the Front Cover, and remove the Drum Unit Protection Member.



F-9-43

- 5) Close the Front Cover.

- 6) Press the Cassette Release button, and pull out the Cassette 1.
- 7) Remove the Lifter Retainer Member while rotating it in the direction of the arrow.



F-9-44

- 8) Return the Cassette 1 to its original position.
- 9) Press the Cassette Release button, pull out the Cassette 2, and remove the tapes material from the cassette.
- 10) Return the Cassette 2 to its original position.

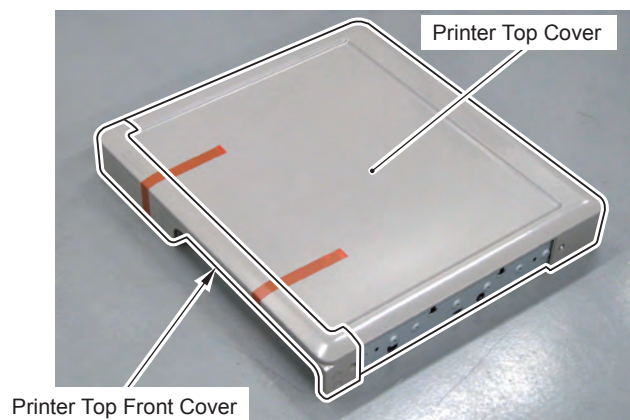
Installing the Printer Cover



1) Remove tapes on the Printer Cover.

CAUTION:

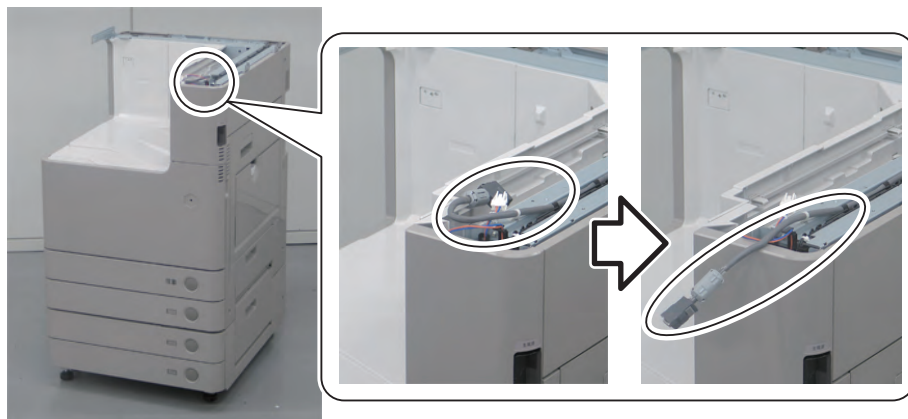
- The Printer Top Cover and the Printer Top Front Cover are secured with tapes.
- Be careful not to drop them when removing the tapes.



F-9-45



2) Pull out the 2 cables of the main body from the part shown in the figure.

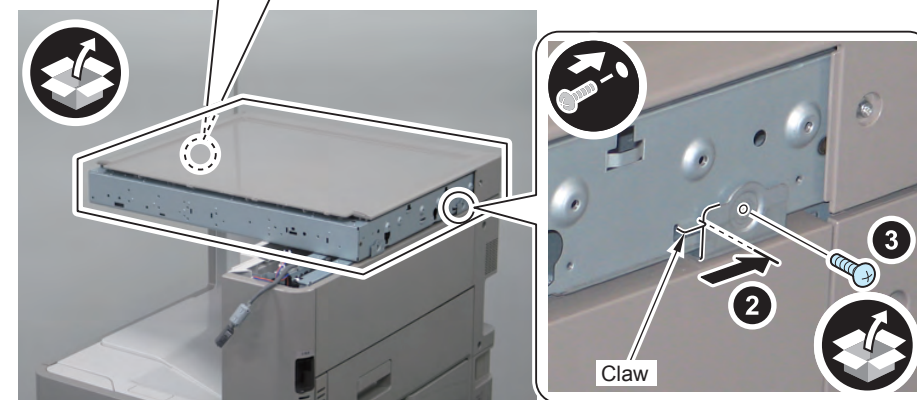
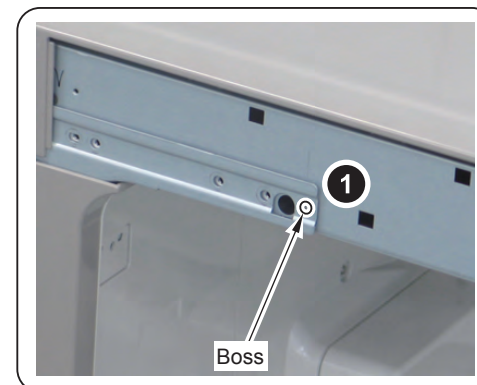


F-9-46



3) Install the Printer Top Cover.

- 1 Boss
- 4) Push the claw against the main body to install the Printer Top Cover.
- 1 Screw (Binding; M4x6) (packed with the Printer Cover)



F-9-47

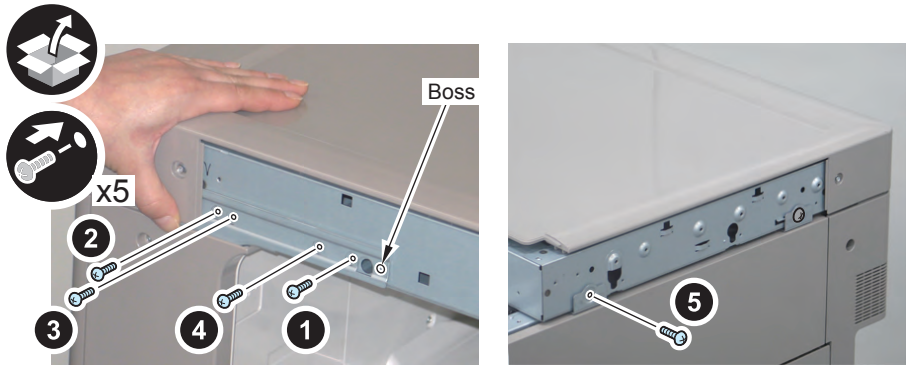
5) Fix the Printer Top Cover while pushing it from above.

- 1 Boss

6) Secure the Printer Top Cover.

- 5 Screws (Binding; M4x6) (packed with the Printer Cover)

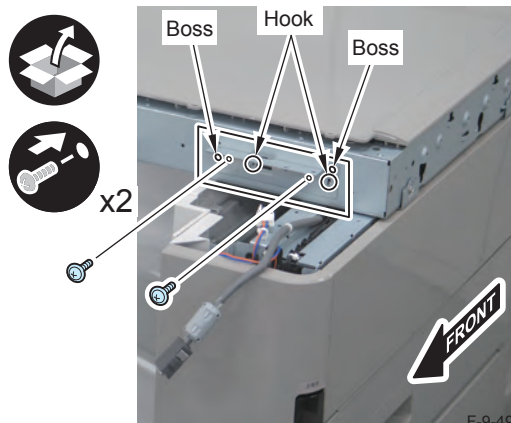
NOTE:
The screws should be tightened in the order specified below. Be sure to tighten the screws in the order from 1 to 5 in the figure.



F-9-48

7) Install the Fixation Plate Right (packed with the machine)

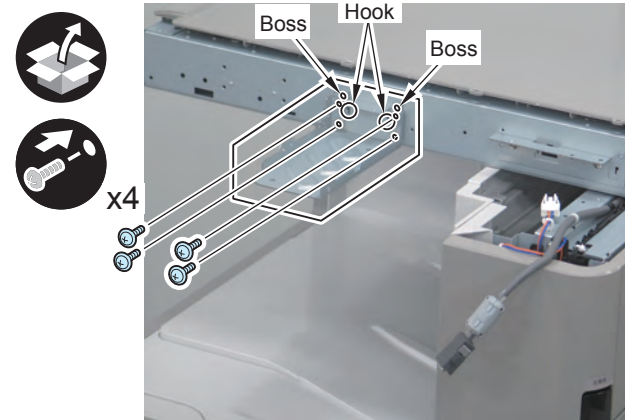
- 2 Hooks
- 2 Bosses
- 2 Screws (TP; M4x6) (packed with the host machine)



F-9-49

8) Install the Fixation Plate Left (packed with the machine).

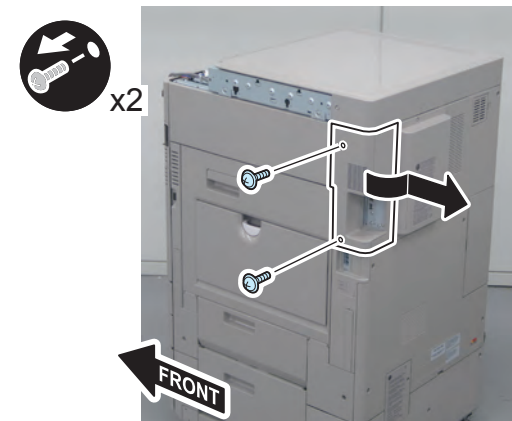
- 2 Hooks
- 2 Bosses
- 4 Screws (TP; M4x6) (packed with the host machine)



F-9-50

9) Remove the Right Upper Sub Cover Unit.

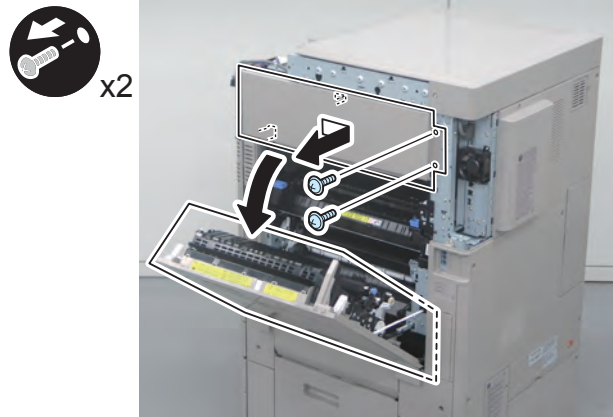
NOTE:
If the 3 Way Unit is installed, open the Right Lower Cover and the Right Upper Cover.



F-9-51

- 10) Open the Right Lower Cover and remove the Right Upper Cover.

- 2 Screws
- 2 Hook

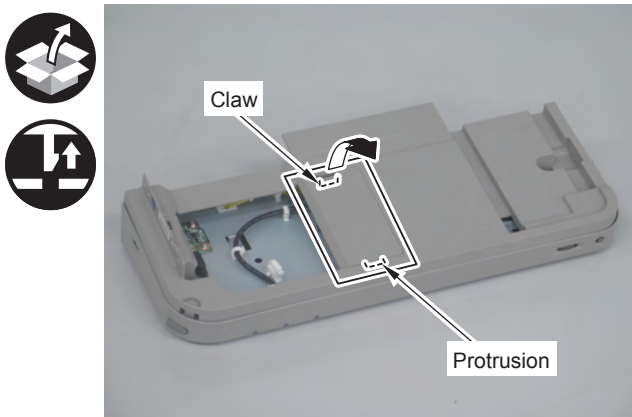


F-9-52

- 11) Close the Right Lower Cover.

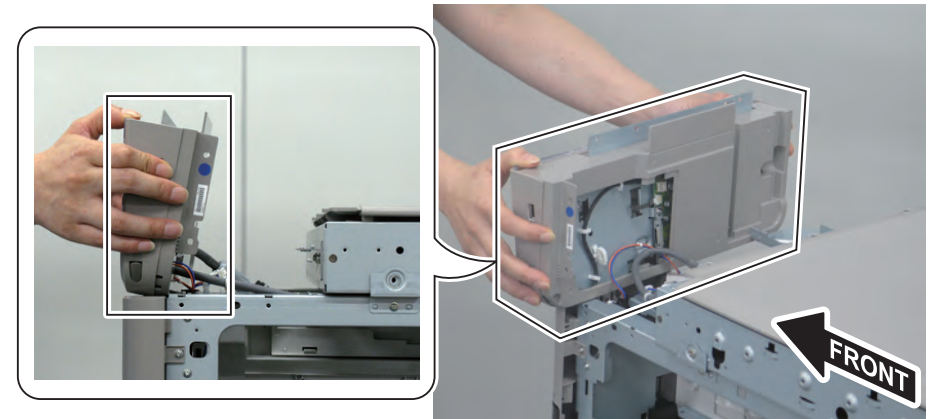
- 12) Remove the Lower Cover (small) of the Control Panel.

- 1 Protrusion
- 1 Claw



F-9-53

- 13) Place the Control Panel temporarily in the position shown in the figure.

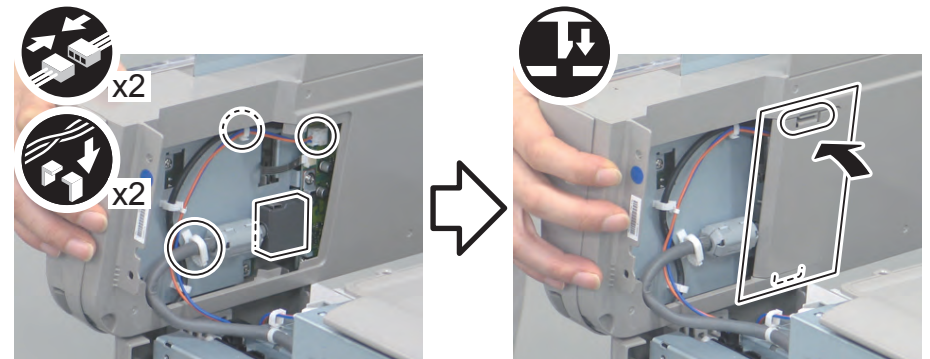


F-9-54

- 14) After placing the Control Panel Connector, fix the Control Panel Cable and the Power Supply Cable using the 2 Wire Saddles.

- 15) Install the Lower Cover (small) removed in step 12.

- 1 Protrusion
- 1 Claw



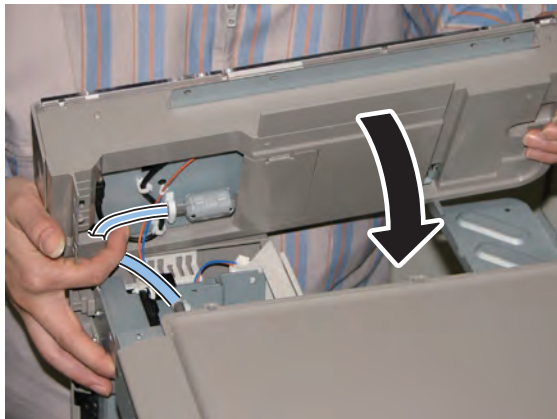
F-9-55



16) Hold the Control Panel Cable and turn over the Control Panel.

CAUTION:

- When installing the Control Panel, be careful not to hit it against the plate.
- Be sure to hold the cable when installing the Control Panel in order to prevent the cable from being trapped.
- Be careful not to pull the Control Panel because it is connected with the Control Panel Cable and the Power Supply Cable.

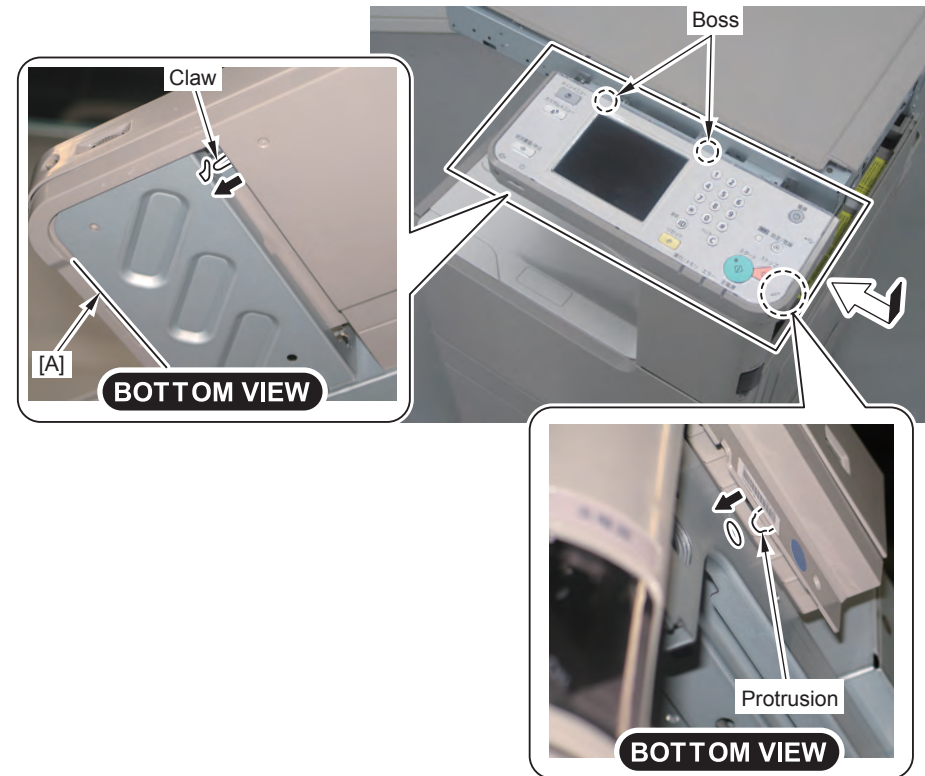


F-9-56



17) Install the Control Panel by pushing the [A] part of the Control Panel onto the Fixation Plate Left and sliding it in the direction of the arrow.

- 1 Claw
- 1 Protrusion
- 2 Bosses



F-9-57



18) Secure the Control Panel.

- 4 Screws (TP; M4x6) (packed with the host machine)



x4



F-9-58



19) Install the removed covers.

- Right Upper Cover
- Right Lower Cover
- Right Upper Sub Cover Unit

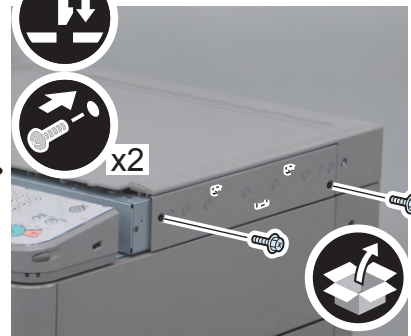


20) Install the Reader Right Cover with the Printer Upper Cover slightly lifted.

- 3 Claws
- 2 Screws (RS Tightening; M3x8.5) (packed with the Printer Cover)

CAUTION:

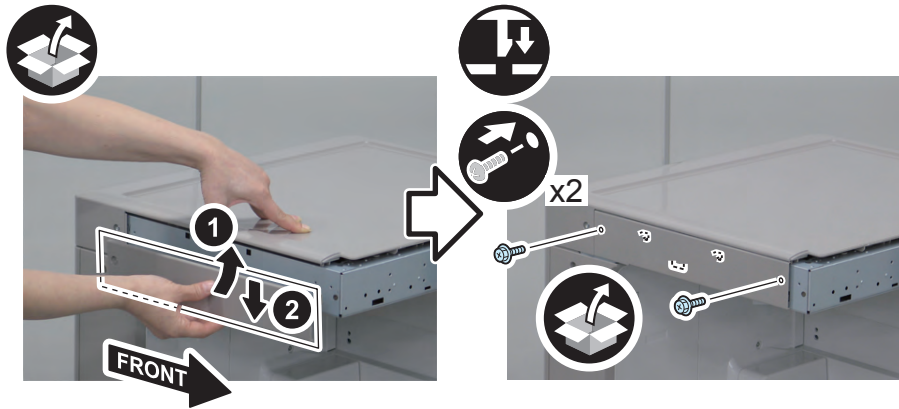
Be careful not to lift the Printer Upper Cover too high when installing the Reader Right Cover.



F-9-59

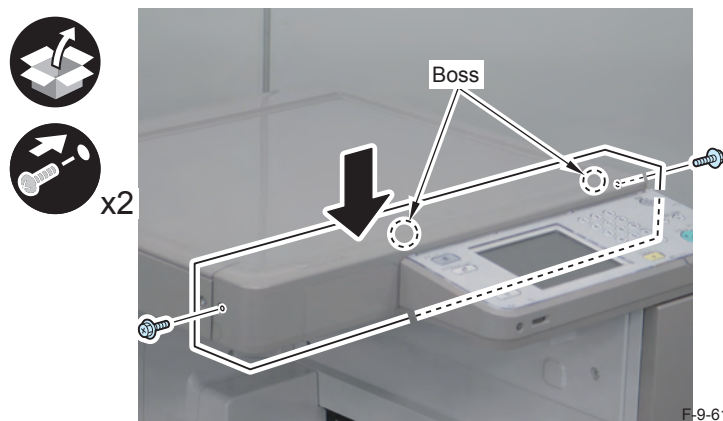
- 21) Install the Reader Left Cover with the Printer Upper Cover slightly lifted.
- 3 Claws
- 2 Screws (RS Tightening; M3x8.5) (packed with the Printer Cover)

CAUTION:
Be careful not to lift the Printer Upper Cover too high when installing the Reader Left Cover.



F-9-60

- 22) Install the Printer Top Front Cover
- 2 Bosses
- 2 Screws (RS Tightening; M3x8.5) (packed with the Printer Cover)



F-9-61

Expansion Bus-F2/ IPsec Board-B2/ Wireless LAN Board-B2

Points to Note at Installation

CAUTION:

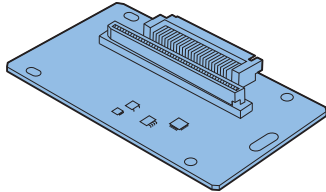

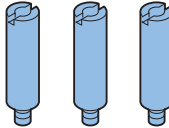
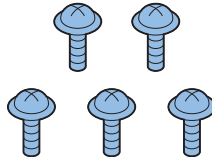
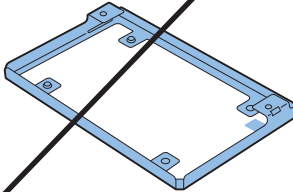
- "PCI Bus Expansion Kit-F2" is required to set "IPsec Board-B2" and "Wireless LAN Board-B2"
- When this equipment is used with "Serial Interface Kit-K1" or "Copy Control Interface Kit-A1", install "Serial Interface Kit-K1" or "Copy Control Interface Kit-A1" beforehand.

The following "Removing Main Controller PCB 1", there are 3 procedures based on the installation combination.

Combination pattern	Expansion Bus-F2	IPsec Security Board-B2	Wireless LAN Board-B2	Reference for installation
1	○	○	-	Be sure to refer to "To install Expansion Bus-F2 and IPsec Board-B2 at the same time"
2	○	-	○	Be sure to refer to "To install Expansion Bus-F2 and Wireless LAN Board-B2 and IPsec Board-B2 at the same time".
3	○	○	○	Be sure to refer to "To install Expansion Bus-F2 and Wireless LAN Board-B2 and IPsec Board-B2 at the same time".

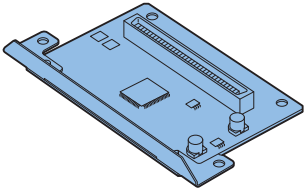

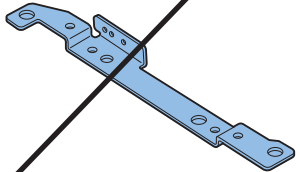
T-9-5

Checking the contents [Expansion Bus-F2]

<input type="checkbox"/> [1] PCI Bus Expansion PCB X 1 	<input type="checkbox"/> [2] PCI 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] Riser Support Plate X 1 	

F-9-62

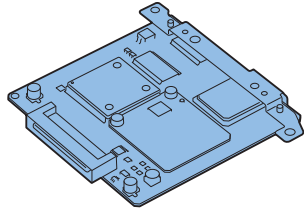
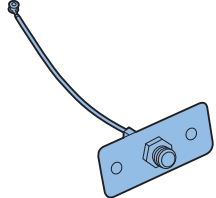

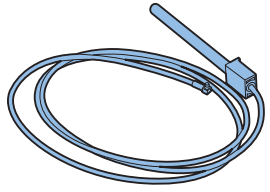
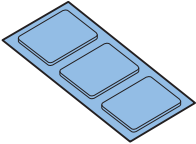

Checking the contents [IPSec Board-B2]

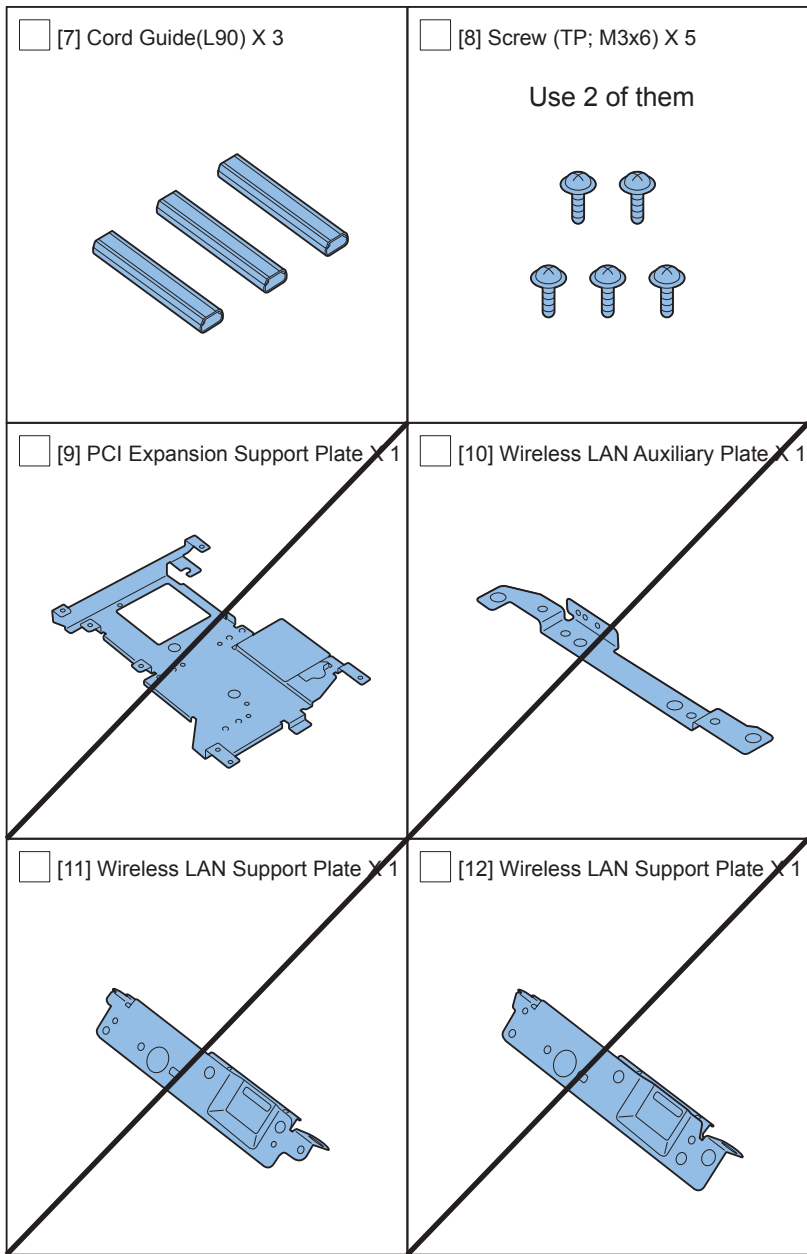
<input type="checkbox"/> [1] IPSec Security PCB X 1 	<input type="checkbox"/> [2] Screw(TP; M3x6) X 2 
<input type="checkbox"/> [3] Wireless LAN Auxiliary Plate x 1 	

F-9-63

- <CD/Guides>
 • FCC/IC Sheet

Checking the contents [Wireless LAN Board-B2]

<input type="checkbox"/> [1] Wireless LAN Board X 1 	<input type="checkbox"/> [2] Bulk Head Unit X 1 
<input type="checkbox"/> [3] Wireless LAN Board Support Plate X 1 	<input type="checkbox"/> [4] MFP Antenna X 1 
<input type="checkbox"/> [5] * Antenna Tape x 1Sheet <p>Use 1 of them</p> 	<input type="checkbox"/> [6] Wireless LAN Indication Label X 1 



F-9-65

NOTE:

*1 Be sure to keep the remaining of the 3 sheets of tape, as it might be needed for later use.

<CD/Guides>

- FCC/IC Sheet (USA only)
- Users Manual
- Users Manual CD

● Check Items when Turning OFF the Main Power

Check that the main power 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 Outline Drawing



F-9-66

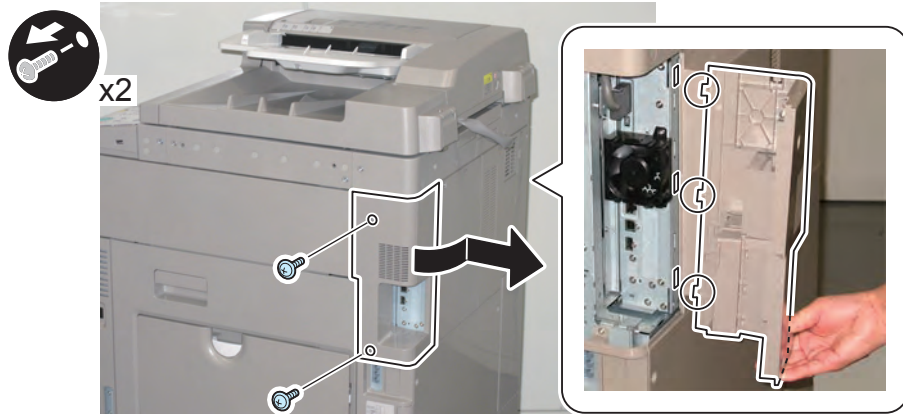
Installation Procedure

Removing the Covers



1) Remove the Right Upper Sub Cover.

- 2 Screws
- 3 Claws



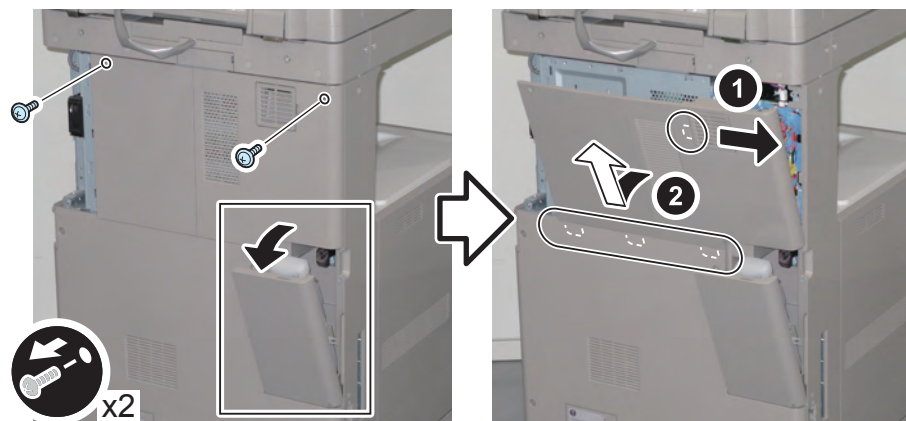
F-9-67

2) Remove the 2 screws securing the Rear Upper Cover 1 and the Rear Upper Cover 2.

3) Open the Waste Toner Box.

4) Remove the Rear Upper Covers (Rear Upper Cover 1 and Rear Upper Cover 2) in the directions of the arrows.

- 4 Claws



F-9-68



5) Remove the Controller Box Cover.

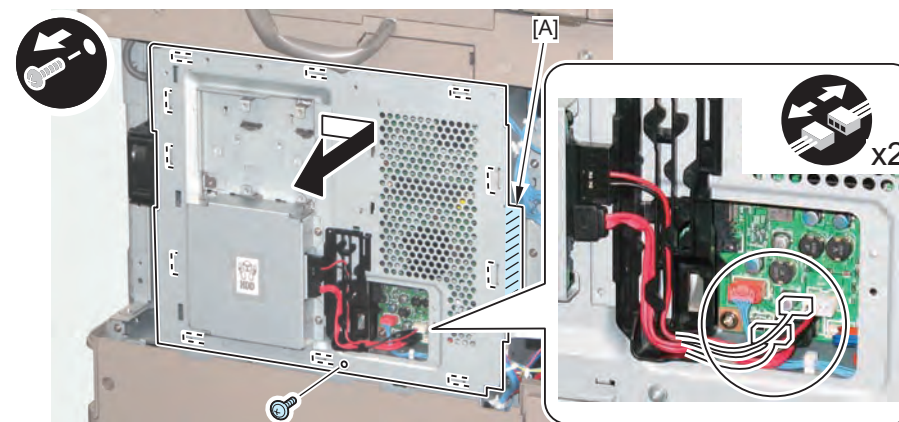
- 2 Connector (Only when an HDD is installed)
- 1 Screw

CAUTION:

When handling the HDD, be careful not to vibrate or drop it.

NOTE:

Be sure to hold the [A] part and slide the cover in the direction of the arrow.

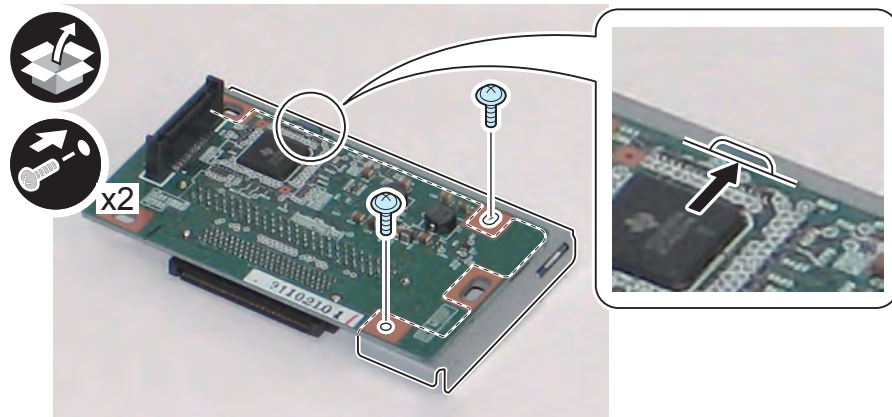


F-9-69

Combination Pattern 1: Installing the Expansion Bus-F2 and the IPsec Board-B2 Simultaneously

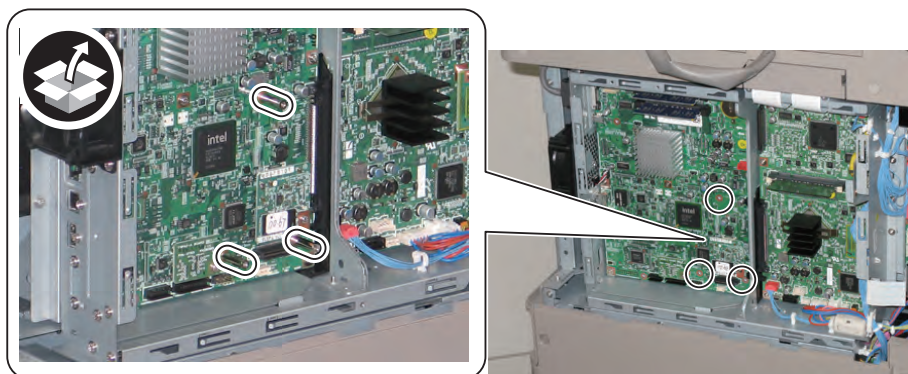
■ Installing the Expansion Bus-F2

-
- 1) Install the PCI Bus Expansion PCB to the PCI Riser Support Plate by pressing the PCB against the curved portion of the plate.
 - 2 Screws (TP;M3x6)



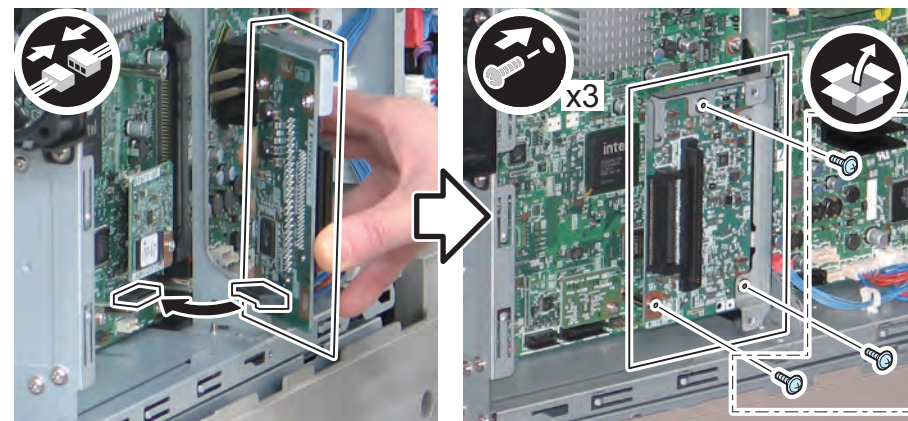
F-9-70

-
- 2) Install the 3 PCB Spacers to the Controller PCB.



F-9-71

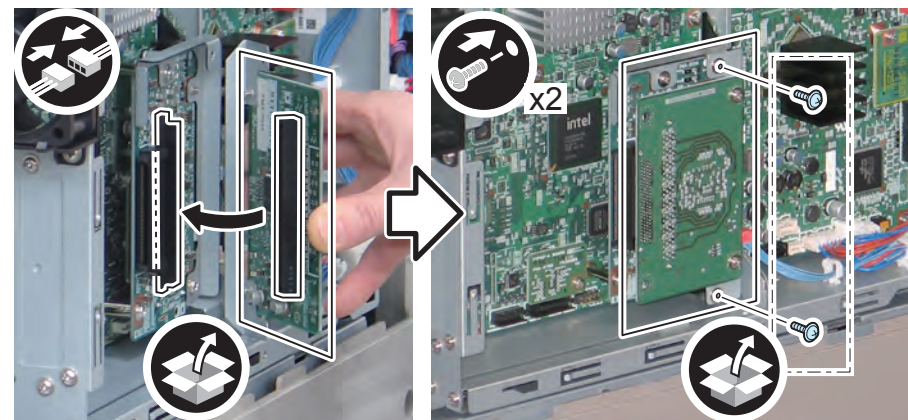
-
- 3) Install the PCI Bus Expansion PCB.
 - 1 Connector
 - 3 Screws (TP;M3x6)



F-9-72

■ [Installing the IPsec Board-B2]

-
- 1) Insert the IPsec Security PCB into the connector on the PCI Bus Expansion PCB to install it.
 - 2 Screws (TP; M3x6) (Included in the IPsec Board-B2)



F-9-73

■ [Installing the Covers]

- 1) Install the Controller Box Cover.
- 2) Connect the connector. (Only when an HDD is installed)
- 3) Install the Right Upper Sub Cover.
- 4) Install the Rear Upper Covers (Rear Upper Cover 1 and Rear Upper Cover 2).
- 5) Close the Waste Toner Cover.
- 6) Tighten the screws securing the Rear Upper Cover 1 and Rear Upper Cover 2.

■ [Checking after Installation]

- 1) Connect the power plug of the host machine to the power outlet.
- 2) Open the switch cover and turn ON the main power switch.
- 3) [Settings/Registration] > [Preference] > [Network] > [Confirm Network Connection Set. Changes] > turn it [ON].
- 4) Turn OFF and then ON the main power switch to enable the setting value.
- 5) Select [Settings/Registration] > [Preference] > [Network] > [TCP/IP Settings], and check that [IPsec Settings] is displayed.

Combination Pattern 2: Installing the Expansion Bus-F2 and the Wireless LAN Board-B2 Simultaneously

- Perform steps 1 to 9.

Combination Pattern 3: Installing the Expansion Bus-F2, Wireless LAN Board-B2, and IPsec Security Board-B2 Simultaneously

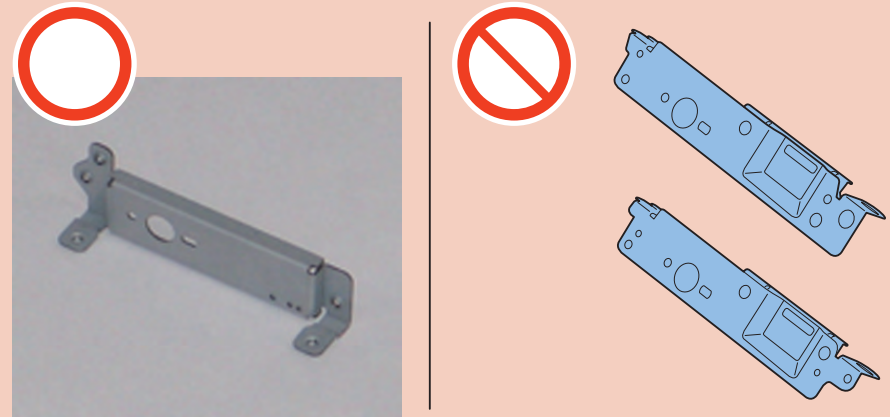
- Perform steps 1 to 10.



- 1) Install the Bulkhead Unit to the Wireless LAN Board Support Plate.
 - 2 Screws (TP; M3x6) (Included in the Wireless LAN Board)

CAUTION: Point to Note at Installation

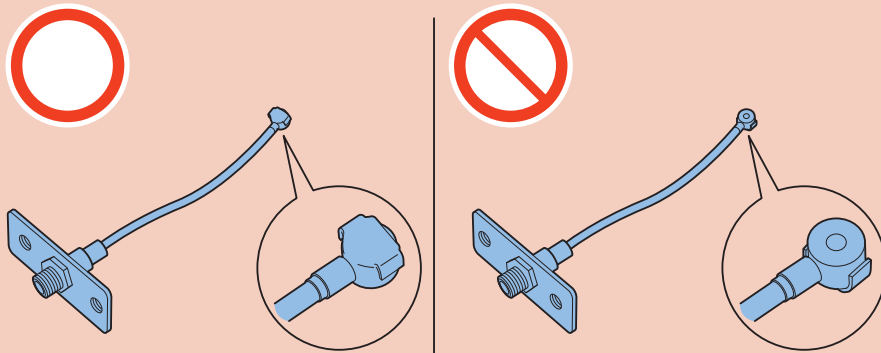
Do not mistake another plate for the Wireless LAN Board Support Plate.



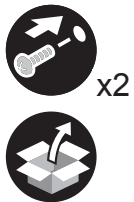
F-9-74

CAUTION: Point to Note at Installation

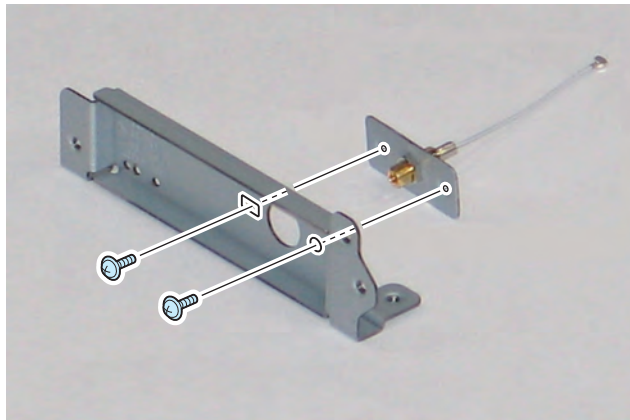
Be sure to install the Bulkhead Unit with the flat side of the terminal up.



F-9-75



x2



F-9-76

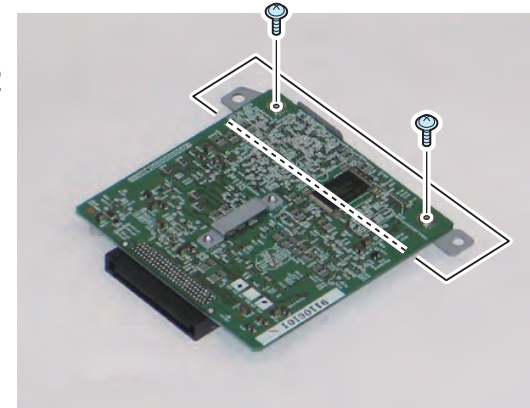


2) Remove the Wireless LAN Auxiliary Plate. (The removed Wireless LAN Auxiliary Plate will not be used.)

- 2 Screws (The removed screws will be used in step 3.)



x2



F-9-77



3) Install the Wireless LAN Board Support Plate assembled in step 1 to the Wireless LAN Board.

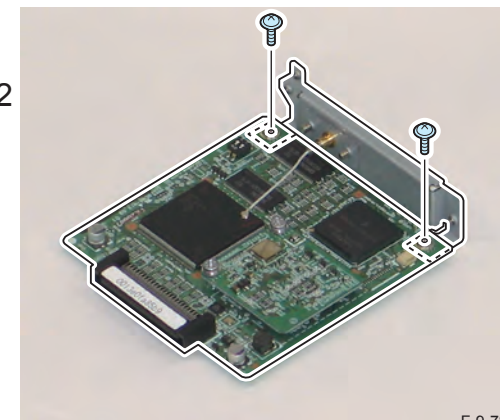
- 2 Screws (Use the screws removed in step 2.)

NOTE:

When installing the Wireless LAN Board Support Plate, be sure to place it under the Wireless LAN Board.



x2



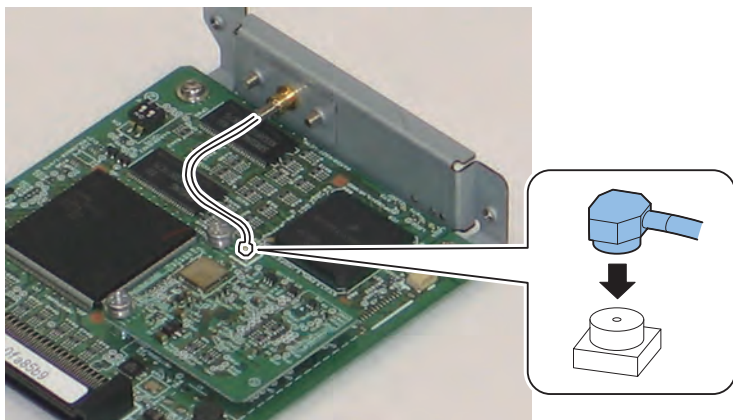
F-9-78



4) Connect the terminal of the Bulkhead Unit to the position shown in the figure.

NOTE:

Check that the terminal is connected properly.

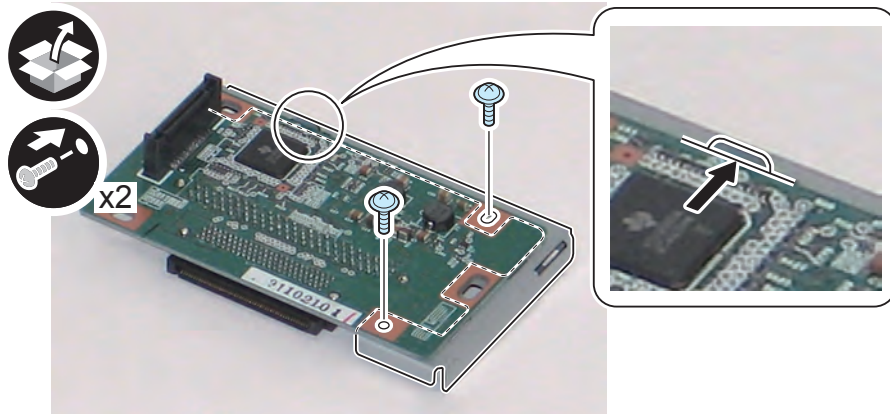


F-9-79



5) Install the PCI Bus Expansion PCB to the PCI Riser Support Plate by pressing the PCB against the curved portion of the plate.

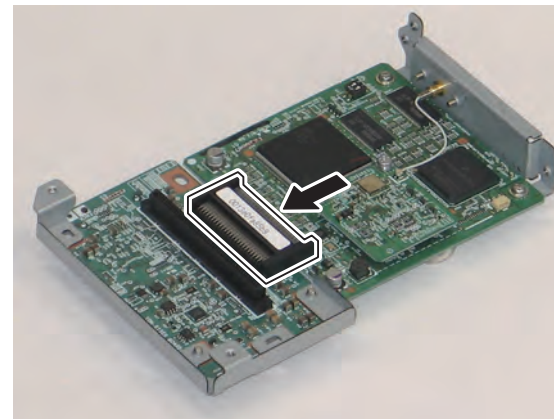
- 2 Screws (TP; M3x6) (Included in the Expansion Bus)



F-9-80



6) Connect the Wireless LAN Board to the connector of the PCI Bus Expansion PCB.



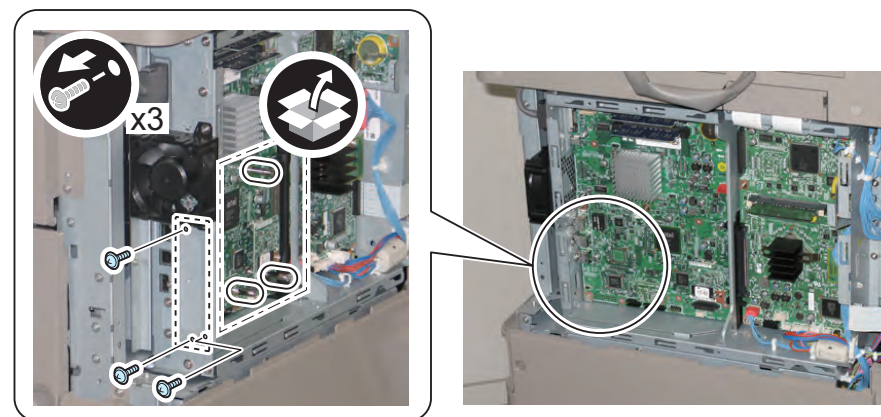
F-9-81



7) Remove the Face Plate from the Main Controller PCB. (The removed Face Plate will not be used.)

- 3 Screws (The removed screws will be used in step 9.)

8) Install the 3 PCB Spacers (included in the Expansion Bus).



F-9-82

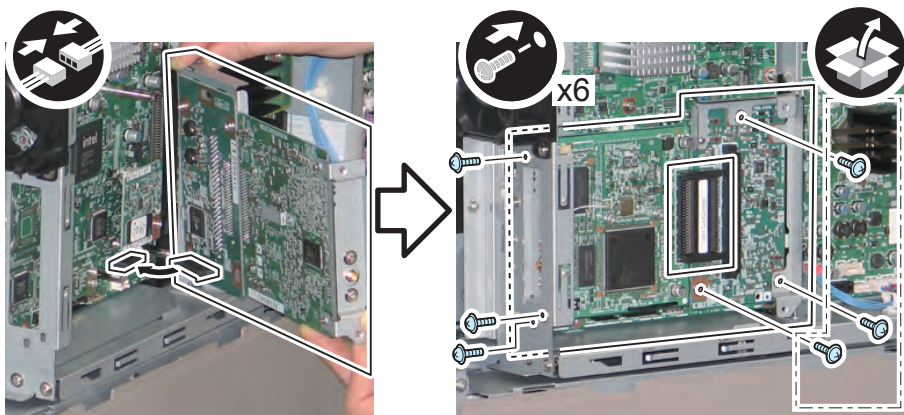


9) Install the PCI Expansion Support Plate assembled in step 6 to the Main Controller PCB.

- 1 Connector
- 6 Screws (the 3 screws removed in step 7 and the 3 screws (TP; M3x6) included in the Expansion Bus)

CAUTION:

When installing the PCI Expansion Support Plate, the Wireless LAN Board may be disconnected from the connector of the PCI Bus Expansion PCB. Check that they are connected properly.



F-9-83

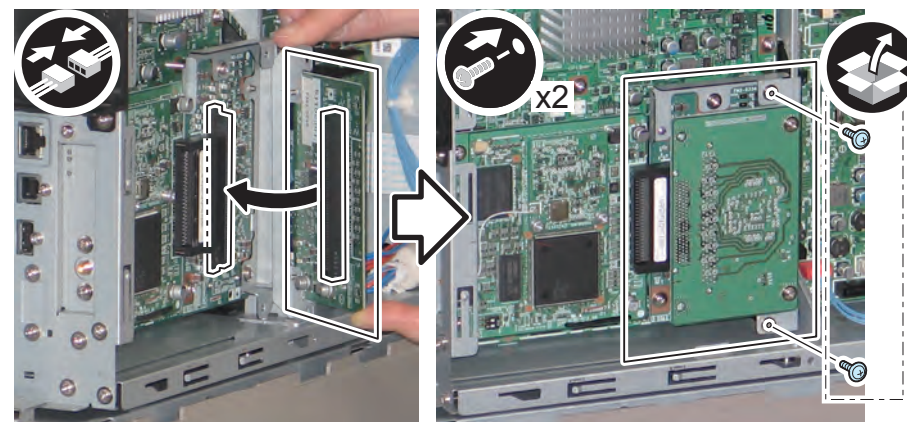
NOTE:

In the case of installing the IPsec Security Board (Combination Pattern 3), be sure to perform step 10.



10) Insert the IPsec Security PCB into the connector on the PCI Bus Expansion PCB to install it.

- 2 Screws (TP; M3x6) (Included in the IPsec Security Board)



F-9-84

■ Installing the Covers



- 1) Install the Controller Box Cover.
- 2) Connect the connector. (Only when an HDD is installed)
- 3) Install the Right Upper Sub Cover.
- 4) Install the Rear Upper Covers (Rear Upper Cover 1 and Rear Upper Cover 2).
- 5) Close the Waste Toner Cover.
- 6) Tighten the screws securing the Rear Upper Cover 1 and Rear Upper Cover 2.

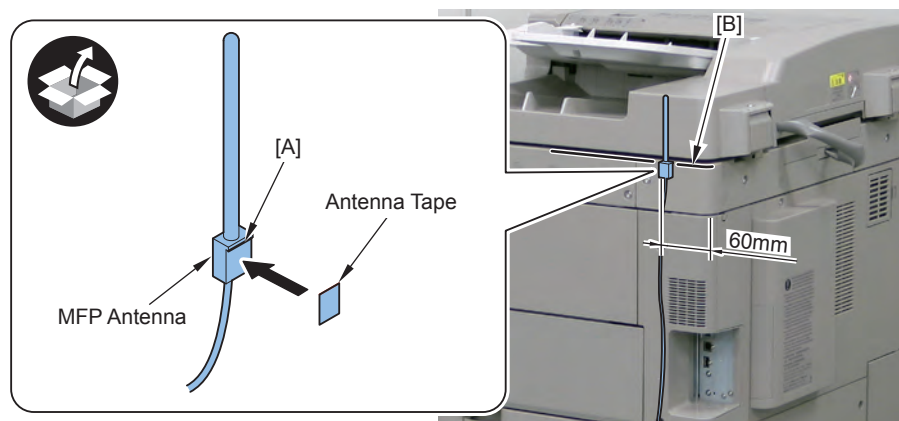
■ Installing the MFP Antenna



1) Affix the Antenna Tape to the MFP Antenna and attach it to the Reader.

CAUTION:

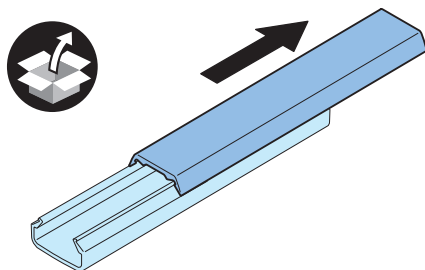
- Be sure to align the [A] part with the [B] line.
- Be sure to attach the antenna to a position where the MFP Antenna will not be caught by the ADF when it is opened and closed.



F-9-85



2) Remove the covers of the 3 Cord Guides.



F-9-86



3) Remove the release paper, and affix the 3 Cord Guides.

4) Connect the terminal of the MFP Antenna.

5) Put the MFP Antenna Cable through the Cord Guides, and attach the Cord Guide Covers.

CAUTION:

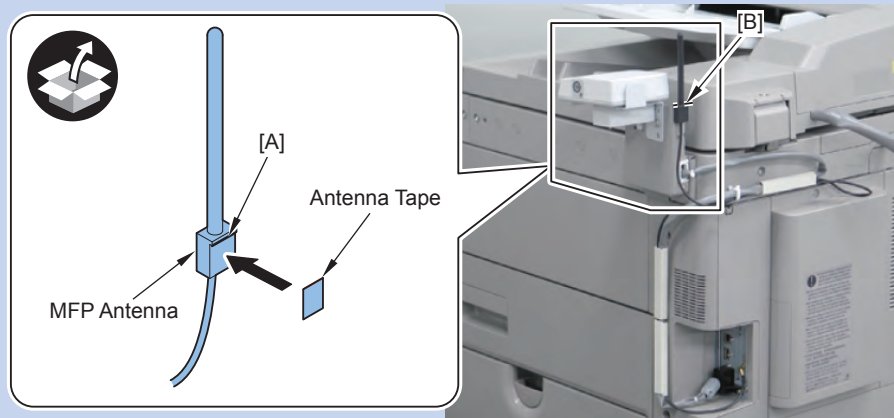
- Be sure that the terminal of the MFP Antenna is connected properly.
- Be sure to pull the cable slack to the rear side of the host machine in order to prevent the MFP Antenna Cable from being trapped when opening and closing the covers.



F-9-87

NOTE:

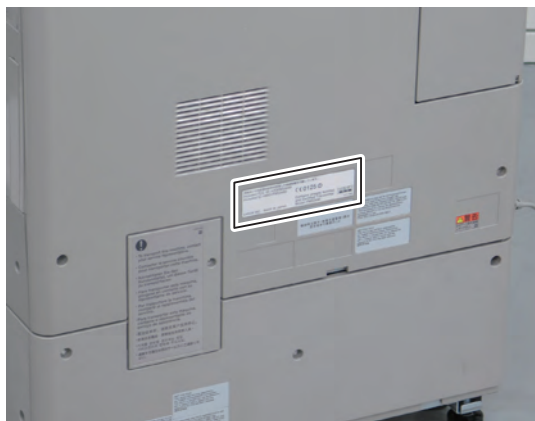
- In the case of installing the Card Reader simultaneously with the Wireless LAN, attach the MFP Antenna to the Copy Card Reader Installation Kit, and fix the cable with the Wire Saddle (included in the Card Reader-C1) and a Cord Guide (one of those included in the Wireless LAN Board-B2 or one of those included in the Card Reader-C1) as shown in the figure.
- Be sure to align the [A] part with the [B] line.



F-9-88



- 6) Affix the Wireless LAN Indication Label, aligning it with the groove.



F-9-89

■ Checking after installation

NOTE:

When changing the settings upon user's request, it is required to log in as a system manager in accordance with instructions from the user administrator.

● When IPsec Security Board has already been installed

- 1) Connect the power plug of the host machine to the power outlet.
- 2) Open the switch cover and turn ON the main power switch.
- 3) [Settings/Restriction] > [Preference] > [Network] > [Confirm Network Connection Set. Changes] > turn it [ON].
- 4) Turn OFF and then ON the main power switch to enable the setting value.
- 5) Select [Settings/Registration] > [Preference] > [Network] > [TCP/IP Settings], and check that [IPsec Settings] is displayed.

● When Wireless LAN Board has been already installed

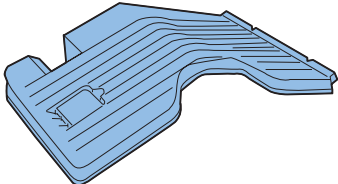
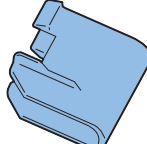

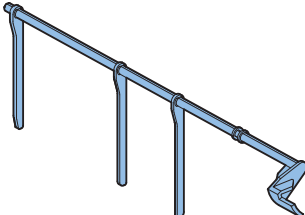
- 1) Connect the power plug of the host machine to the power outlet.
- 2) Open the switch cover and turn ON the main power switch.
- 3) Turn OFF and then ON the power according to the instruction on the screen of the Control Panel.
- 4) Select [Settings/Registration] > [Preference] > [External Interface], and check that [Extension Card Settings] is displayed.

Inner 2way Tray-F1

Points to Note at Installation

Be sure to install this equipment after installing the 3 Way Unit.

Checking the contents

<input type="checkbox"/> [1] Inner 2-way Tray X 1 	<input type="checkbox"/> [2] Insert Pin X 1 
<input type="checkbox"/> [3] Screw (TP; M3x6) X 1 	<input type="checkbox"/> [4] Second Delivery Full Detection Lever X 1 

F-9-90

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



F-9-91

Installation procedure

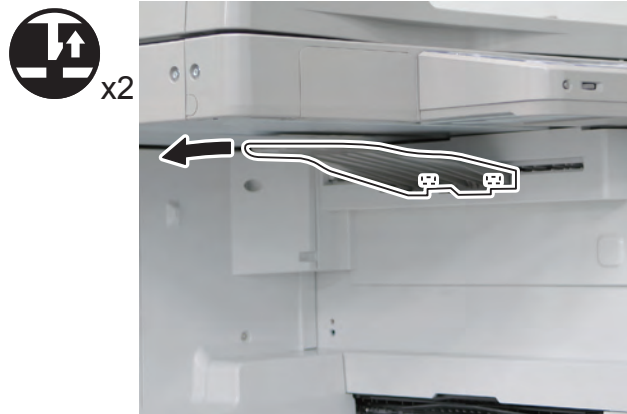
NOTE:

When installing the 3 Way Unit simultaneously, skip steps 1 and steps 2.



1) Remove the Reverse Trailing Edge Guide.

- 2 Claws



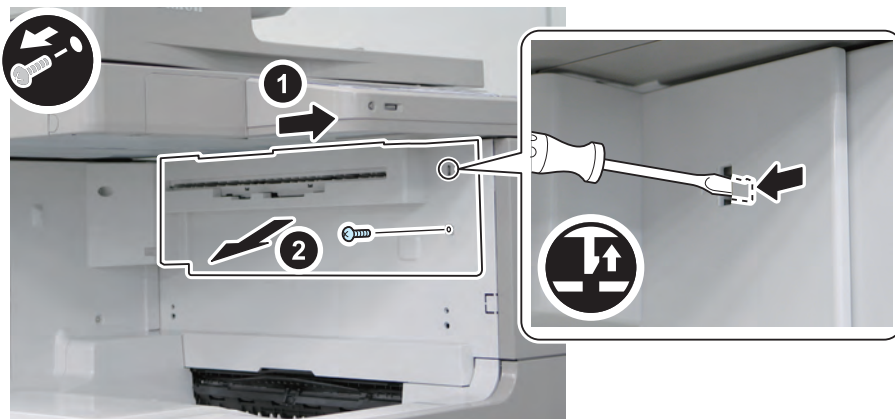
F-9-92



2) Remove the Second Delivery Cover.

(The removed Delivery Cover and screws are no longer used.)

- 1 Screw
- 1 Claw



F-9-93



3) Open the Right Lower Cover and the Right Upper Cover.



F-9-94

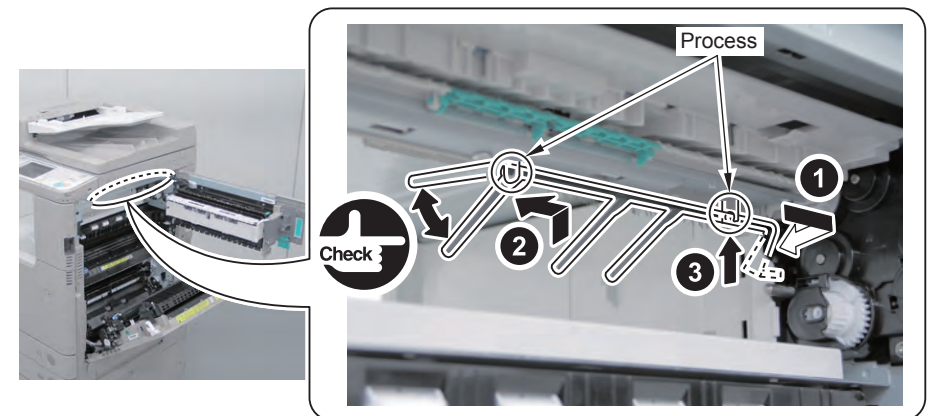


4) Install the Second Delivery Full Detection Lever in the directions of the arrows and fit it to the two protrusions.

- 2 Process

CAUTION:

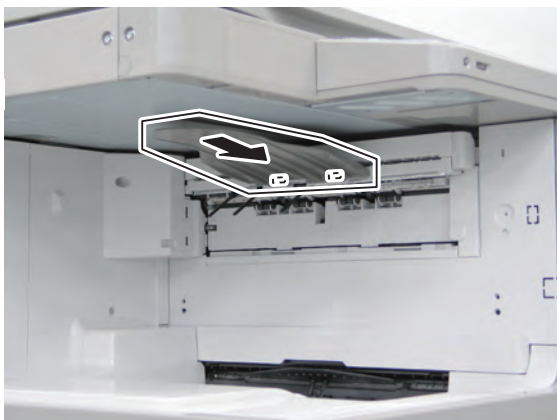
- Check that the 2 protrusions are fitted properly.
- After installation, be sure to check that it moves smoothly in the direction of the arrow.



F-9-95

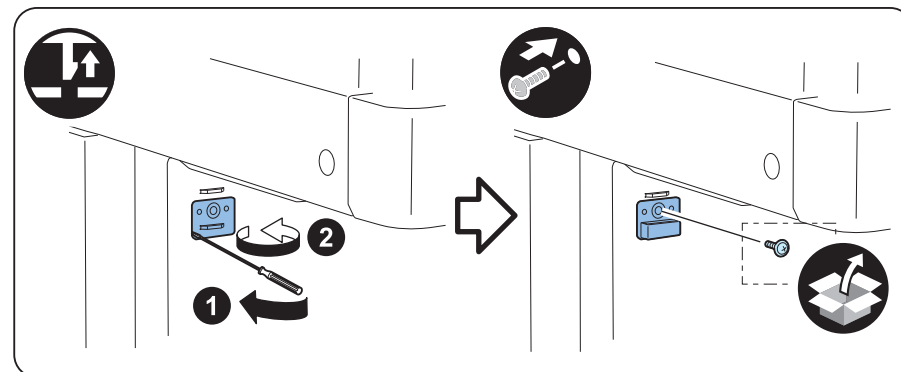
- 5) Close the Right Upper Cover and the Right Lower Cover.
- 6) Install the Reverse Trailing Edge Guide removed in step 1.
 - 2 Claws

NOTE:
When installing the 3 Way Unit simultaneously, install the Reverse Trailing Edge Guide included in the package of the 3 Way Unit.



F-9-96

- 7) Remove the one claw of the Inner 2-way Tray Support Member from the equipment using a flat-blade screwdriver.
- 8) Turn over and install the Inner 2-way Tray Support Member.
 - Screw (TP; M3x6)

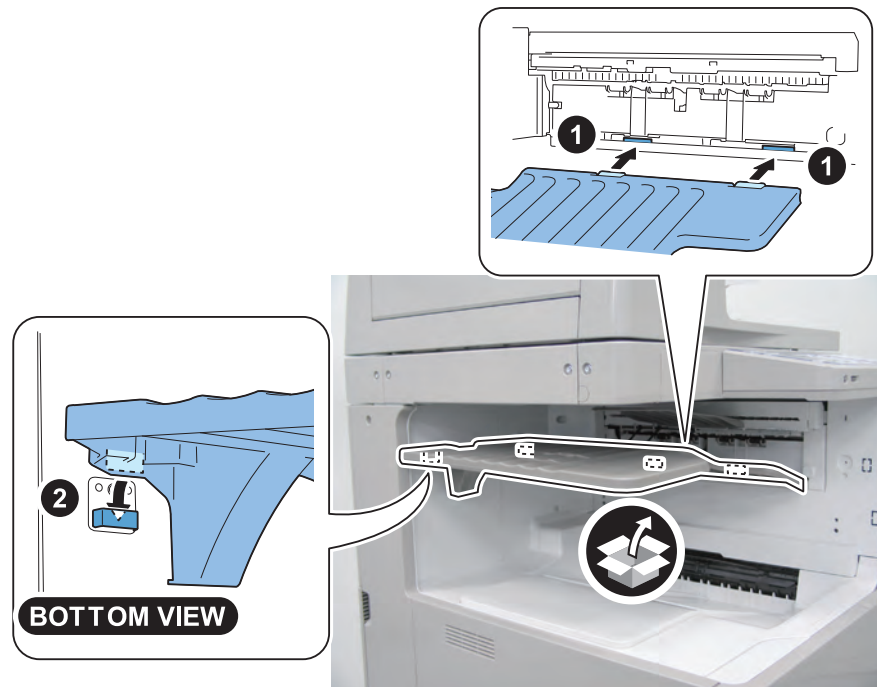


F-9-97

- 9) Insert the Inner 2-way Tray into the 2 slots of the Delivery Assembly. Hook it to the slots of the Inner 2-way Tray Support Member.

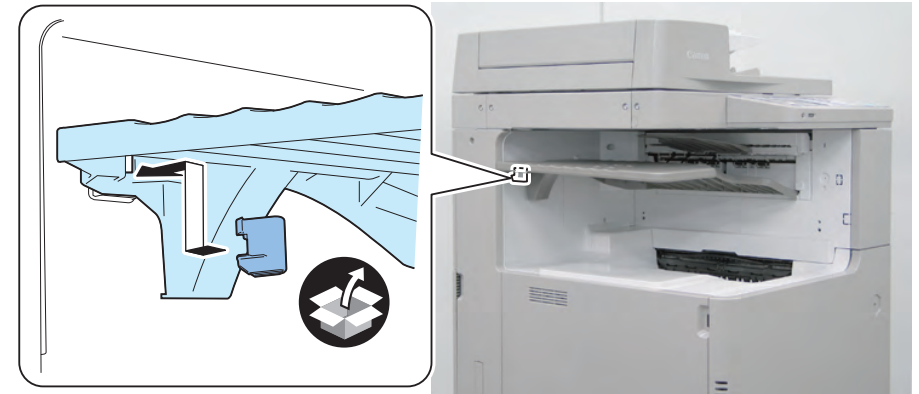
NOTE:
When the Inner 2-way Tray is inserted into the Inner 2-way Tray Support Member, the boss is inserted into the Inner Rear Cover 1.

CAUTION:
Be sure to check that the Inner 2-way Tray is inserted into the Inner 2-way Tray Support Member.



F-9-98

- 10) Install the Inner 2-way Tray to the Inner 2-way Tray Support Member by inserting the insert pin into the insertion hole of the Inner 2-way Tray.



F-9-99

- 11) Connect the power plug to the outlet.

● Checking after Installation

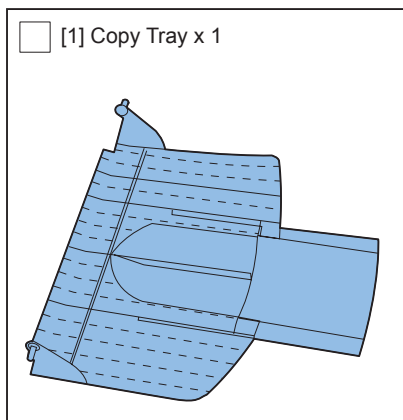
- 1) Turn ON the main power switch.
- 2) Enter service mode.
- 3) Select COPIER > OPTION > ACC > IN-TRAY and register "1".
- 4) Turn OFF and then ON the main power.
- 5) Select [Settings/Registration] > [Function Settings] > [Common] > [Paper Output Settings] and check that [Output Tray Settings] has been added.
- 6) Select Tray B for copy, and conduct a test copy.
- 7) Check that the copy has been delivered to the Inner 2-way Tray.
- 8) Change the tray setting according to the user's request.

Copy Tray-J1

Points to Note at Installation

Be sure to install this equipment after installing the 3 Way Unit.

Checking the contents



F-9-100

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation procedure

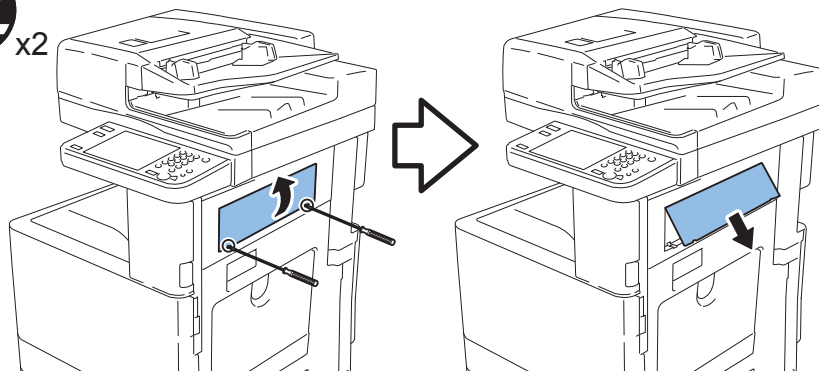


1) Remove the Right Delivery Frame Cover with flat-blade screwdriver.

- 2 Claws



x2

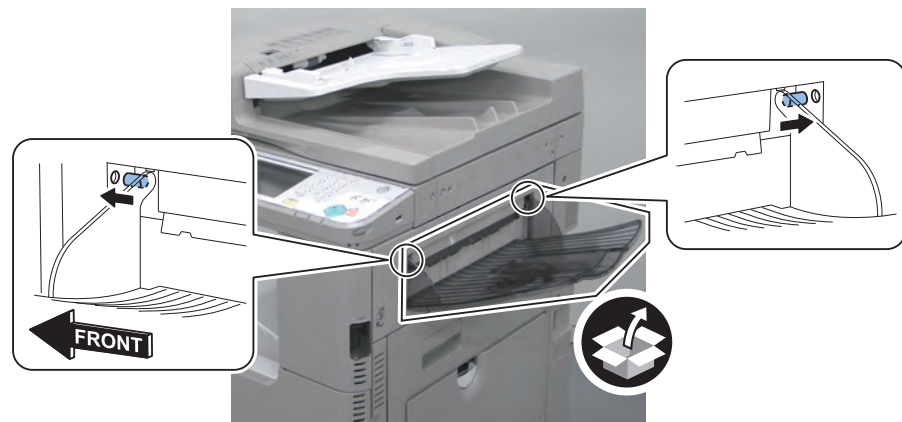


F-9-101



2) Install the Copy Tray.

- 2 Claws



F-9-102



3) Connect the Power Plug into the outlet.

4) Open the switch cover and turn ON the Main Power Switch.



1) Service Mode.

2) Select: [COPIER] > [OPTION] > [ACC] > [OUT-TRAY] and register "1".

3) Turn OFF/ON the main power switch.

4) Select: [Settings/Registration] > [Function Settings] > [Common] > [Paper Output Settings] and check that [Delivery Tray Settings] menu is added.

5) Select either tray B or C to copy, and perform test copy.

6) Check that the output paper has been delivered to the Copy Tray.

7) Change the tray setting according to the user's request.

Copy Card Reader-F1

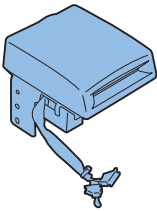


Points to Note at Installation

NOTE:
Although model with the Card Reader-C1 is used for illustration in this procedure, the same procedure is applied to model with the Copy Card Reader-F1.

Caution:
To install the Card Reader-C1, the Card Reader Mounting Kit-B2 is required.

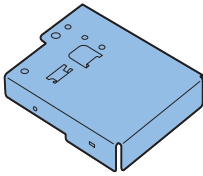
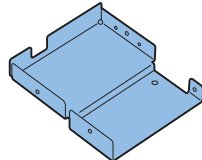
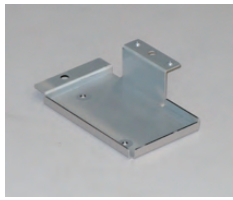
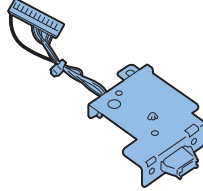
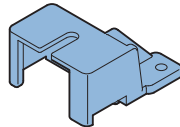
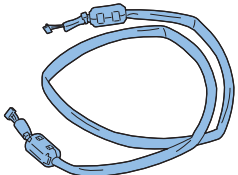
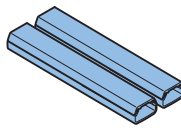

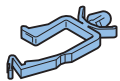
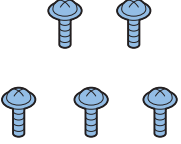
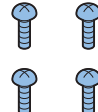

Checking the Contents

Card Reader-C1/Copy Card Reader-F1

<input type="checkbox"/> [1] Card Reader Unit X 1 	<input type="checkbox"/> [2] Screw (RS tight; M4x10) X 1 	<input type="checkbox"/> [3] Toothed washer X 1 
--	---	--

F-9-103

Copy Card Reader Mounting Kit-B2

<input type="checkbox"/> [1] Card Reader Mounting Plate (front) Unit X 1 	<input type="checkbox"/> [2] Card Reader Mounting Plate (rear) Unit X 1 	<input type="checkbox"/> [3] Card Reader Mounting Plate (lower) Unit X 1 
<input type="checkbox"/> [4] Card Reader Relay Unit X 1 	<input type="checkbox"/> [5] Connector Cover X 1 	<input type="checkbox"/> [6] Card Reader External Relay Harness X 1 
<input type="checkbox"/> [7] Cord Guide X 2 	<input type="checkbox"/> [8] PCB Spacer X 1 	<input type="checkbox"/> [9] Wire Saddle X 1 
<input type="checkbox"/> [10] Screw (TP; M3x6) X 5 	<input type="checkbox"/> [11] Screw (Bind; M4x6) X 4 	<input type="checkbox"/> [12] Screw (TP; M4x12) X 2 

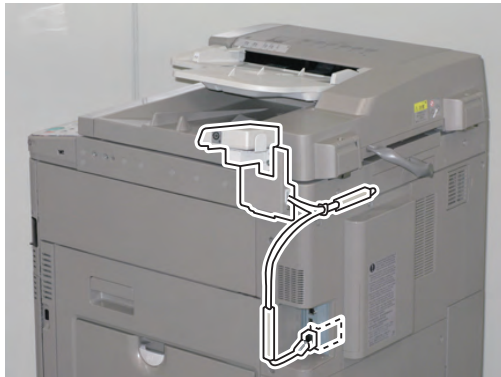
F-9-104

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



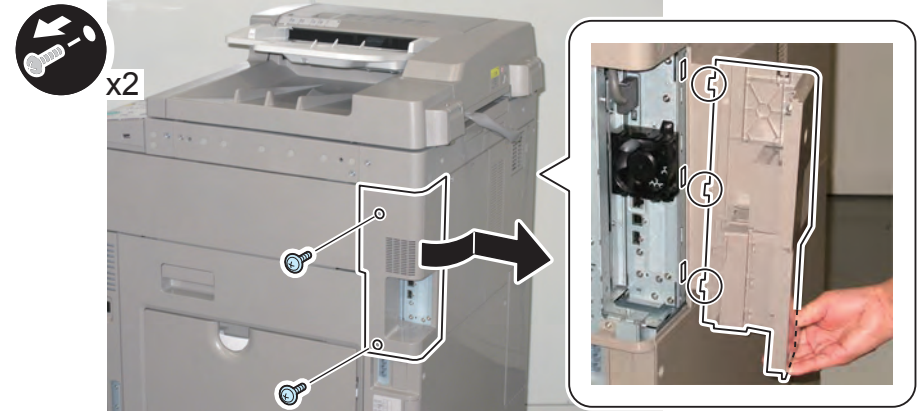
F-9-105

Installation Procedure

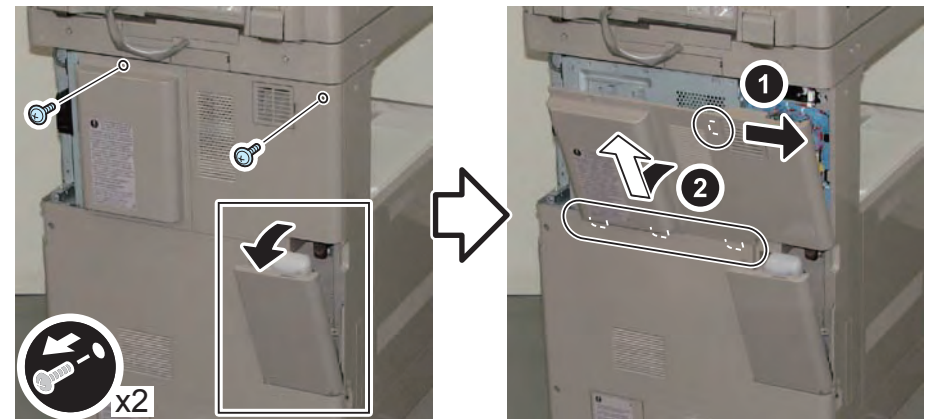
Removing the Covers



- 1) Remove the Right Upper Sub Cover.
 - 2 Screws (The removed screws will be used in "Installing the Card Reader" step 12.)
 - 3 Claws



- 2) Remove the 2 screws on the Rear Upper Cover 1 and the HDD Cover, and remove the covers by opening the Waste Toner Cover.
 - 2 Screws (The removed screws will be used in "Installing the Card Reader" step 4.)
 - 4 Claws



F-9-107

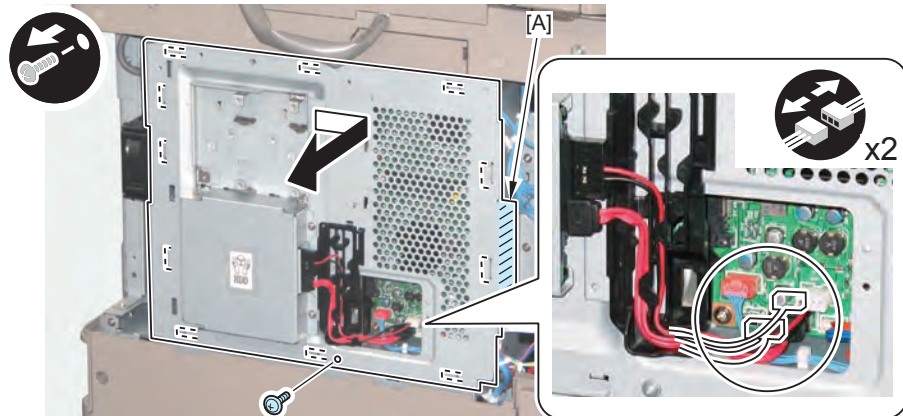


3) Remove the Controller Cover by holding [A] part.

- 1 Screw (The removed screw will be used in "Installing the Card Reader" step 4.)
- 2 Connectors (for the HDD model)

CAUTION:

When handling the hard disc, be careful not to vibrate or drop it.



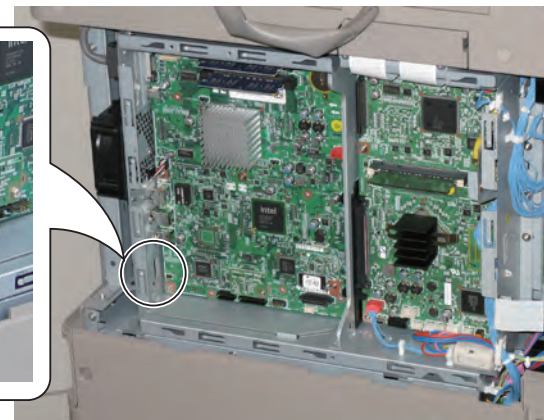
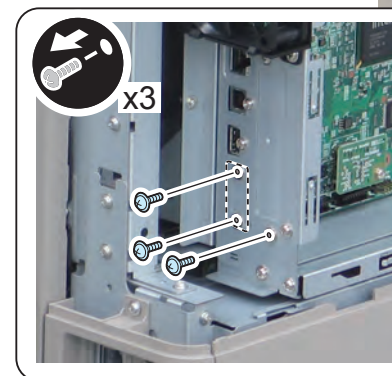
F-9-108

■ Installing the Card Reader



1) Remove the Face Plate.

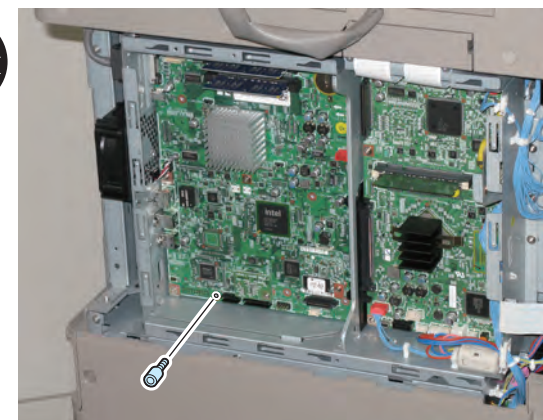
- Face Plate (The removed Face Plate will not be used.)
- 3 Screws (The removed screws will be used in step 3.)



F-9-109

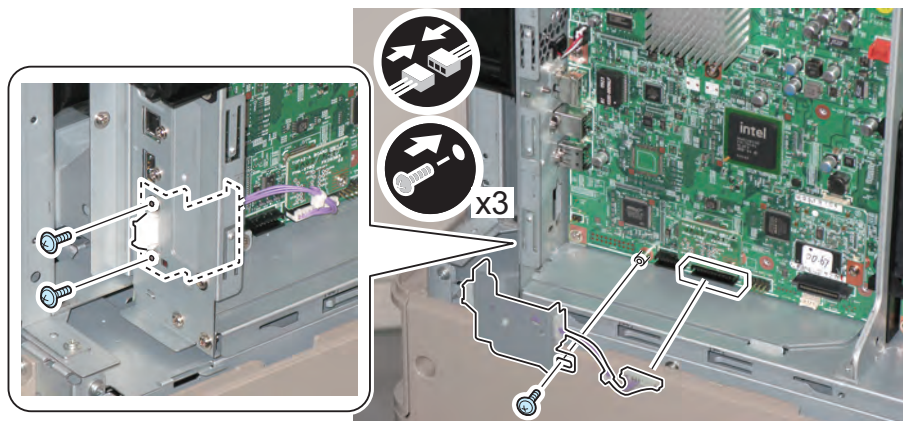


2) Install the Card Spacer.



F-9-110

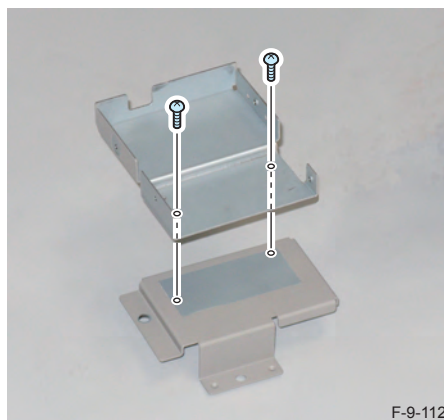
- 3) Install the Card Reader Reply Unit.
- 3 Screws (Use the screws removed in step 1.)
 - 1 Connector



F-9-111

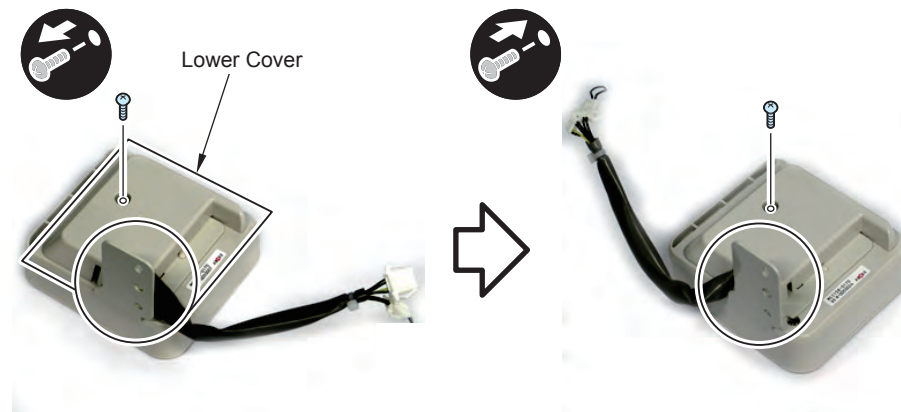
- 4) Return the covers to their original position.
- Controller Cover
 - HDD Cover
 - Rear Upper Cover 1
 - Waste Toner Cover

- 5) Install the Card Reader Mounting Plate (Rear) to the Card Reader Mounting Plate (Lower).
- 2 Screws (Binding; M4x6)



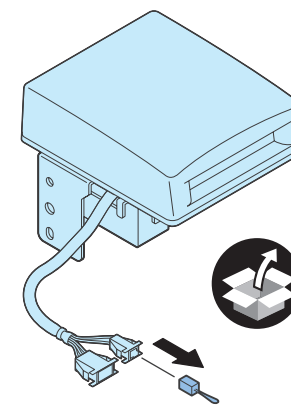
F-9-112

- 6) Remove the Lower Cover of the Card Reader Unit, and change the position of the cable.
(Copy Card Reader-F1 only)
- 1 Screws
- 7) Install the Lower Cover of the Card Reader Unit.



F-9-113

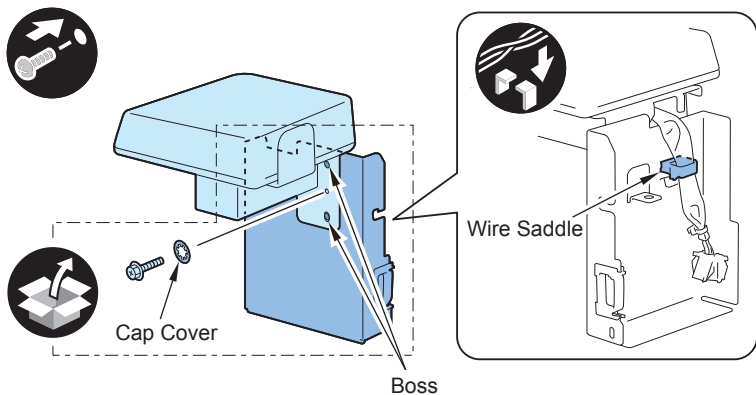
- 8) Remove Short Connector from the connector of the Card Reader Unit. (The removed Short Connector will not be used.)



F-9-114

9) Install the Card Reader Unit to the Card Reader Mounting Plate (Front).

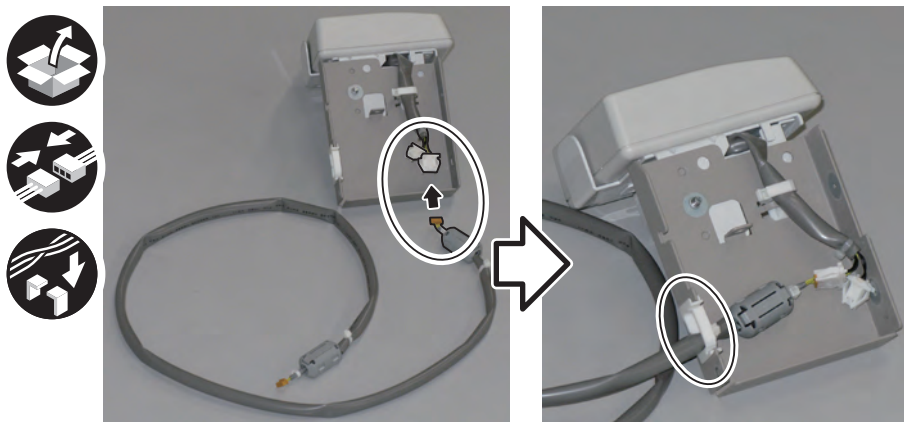
- 1 Toothed Washer
- 2 Bosses
- 1 Screw (RS Tightening; M4x10)
- 1 Wire Saddle



F-9-115

10) Connect the Card Reader External Relay Harness to the connector of the Card Reader Unit.

- 1 Connector
- 1 Edge Saddle



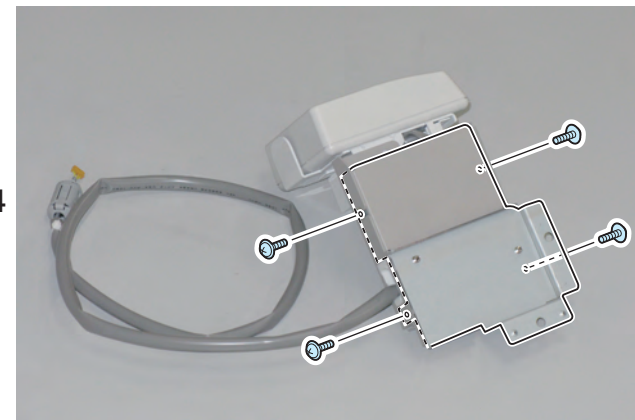
F-9-116

11) Install the Card Reader Mounting Plate (Rear) to the Card Reader Mounting Plate (Front).

- 4 Screws (TP; M3x6)

CAUTION:

Be careful not to trap the harness.



F-9-117

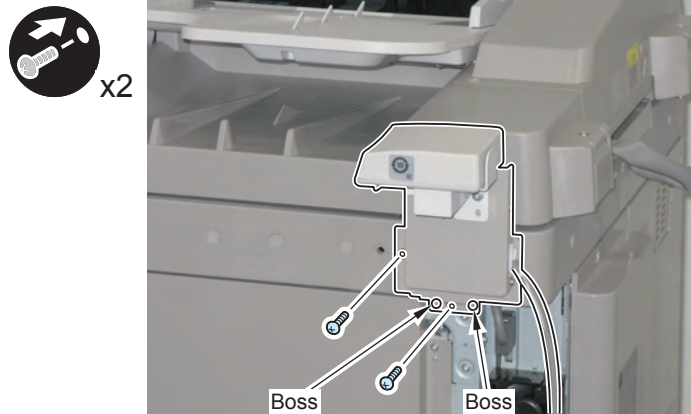
12) Remove the Face Seal from the Reader Right Cover.

- 1 Face Seal (The removed Face Seal will not be used.)



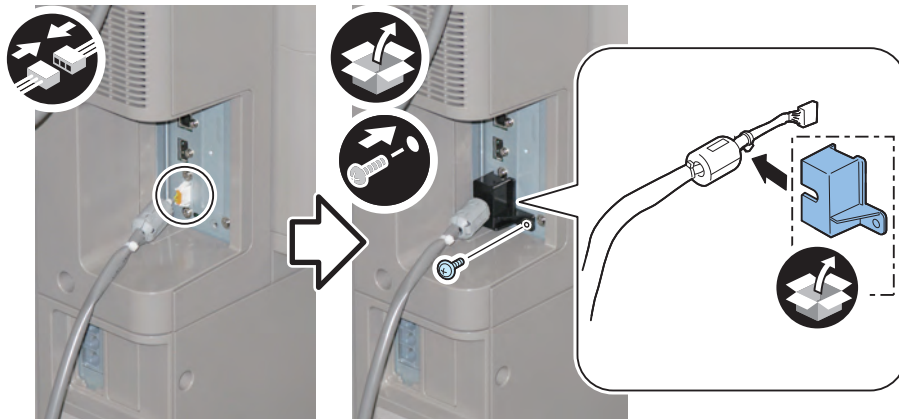
F-9-118

- 13) Install the Card Reader to the host machine.
- 2 Screws (Binding; M4x6)
 - 2 Bosses



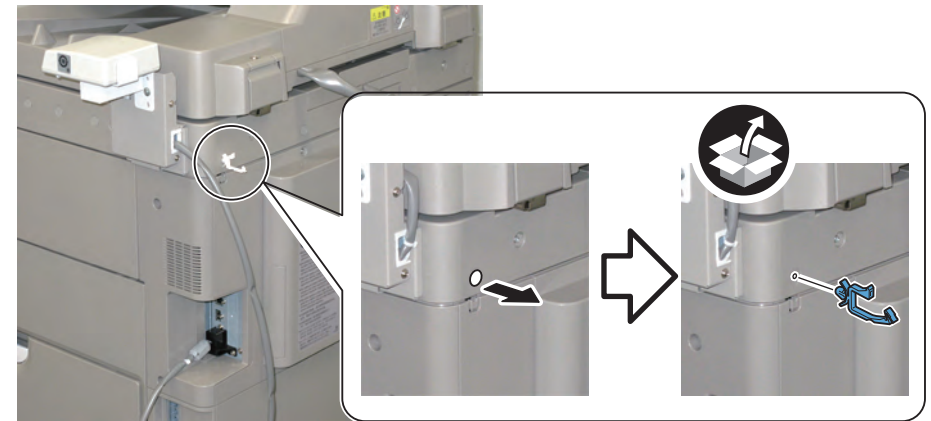
F-9-119

- 14) Return the Right Upper Sub Cover to its original position.
- 15) Connect the connector of the Card Reader External Relay Harness to the host machine, and install the Connector Cover.
- 1 Screw (TP; M3x6)



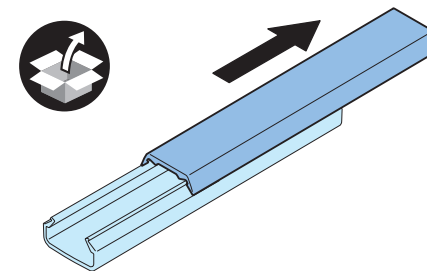
F-9-120

- 16) Remove the Face Seal from the Reader Rear Cover, and install the Wire Saddle.
- 1 Face Seal (The removed Face Seal will not be used.)
 - 1 Wire Saddle



F-9-121

- 17) Remove the covers of 2 Cord Guides.

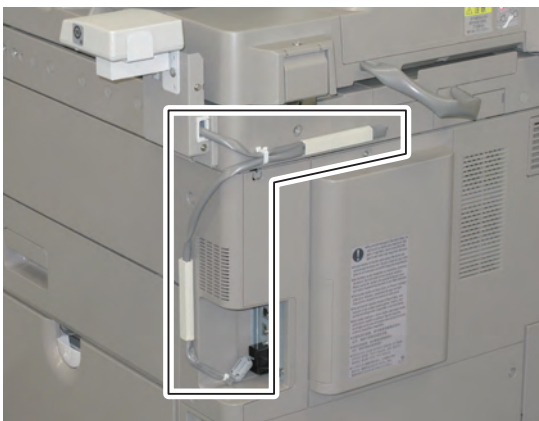


F-9-122

- 18) remove the release paper from the Cord Guides, and affix the guides to the 2 areas indicated in the figure.
- 19) Put the Card Reader External Relay Harness through the Cord Guides, and install the covers of the guides.
- 1 Wire Saddle



x2



F-9-123

- 20) Connect the power plug to the outlet.
- 21) Turn ON the main power switch.

Checking 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:

Upon user's request, number of cards (departments) can be changed. This setting change must be performed before performing step 2.

- Select Service Mode (Level 2) > COPIER > OPTION > FNC-SW > CARD-RNG, and set any value.
- Turn OFF and then ON the main power switch to enable the setting value.
- After that, perform from step 1.

- 2) Enter Service Mode > COPIER > FUNCTION > INSTALL > CARD, and enter the card number to be used (1 to 2001).
- Enter the smallest card number to be used by a user.
 - From the entered card number, 1000 cards can be used.
- 3) Turn OFF and then ON the main power switch to enable the setting value.
- 4) Insert a card which card number has been registered, and check that the machine moves to standby condition.

NOTE:

When changing number of cards (departments) upon user's request after specifying the setting, specify the following settings. In such a case, the department ID counter information is reset.

- Select Service Mode > COPIER > FUNCTION > CLEAR > CARD.
- Select Service Mode (Level 2) > COPIER > OPTION > FNC-SW > CARD-RNG, and set any value.
- Select Service Mode > COPIER > FUNCTION > INSTALL > CARD, and enter the card number to be used (1 to 2001).
- Turn OFF and then ON the main power switch to enable the setting value.
- After that, perform from step 1.

Reader Heater Unit-H1 Installation Procedure

Checking the Contents

<For 230V model>

Confirm the following components with correct quantities are contained in the carton.

<input type="checkbox"/>	[1]	Reader heater	2pcs.	(FK2-0228)
<input type="checkbox"/>	[2]	Heater harness	1pc.	(FM4-2929)
<input type="checkbox"/>	[3]	Wire saddle (large)	3pcs.	(WT2-5719)
<input type="checkbox"/>	[4]	Wire saddle (small)	3pcs.	(WT2-0507)
<input type="checkbox"/>	[5]	Screw	2pcs.	(XB2-8400-609)

<For 120V model>

Get the following service parts ready for installation.

<input type="checkbox"/>	[1]	Reader heater	2pcs.	(FK2-9468)
<input type="checkbox"/>	[4]	Wire saddle (small)	3pcs.	(WT2-0507)
<input type="checkbox"/>	[5]	Screw	2pcs.	(XB2-8400-609)

Note:
Heater harness and Wire saddle (large) are not used.

Points to Note Before Installation

Turning Main Power OFF

⚠ CAUTION

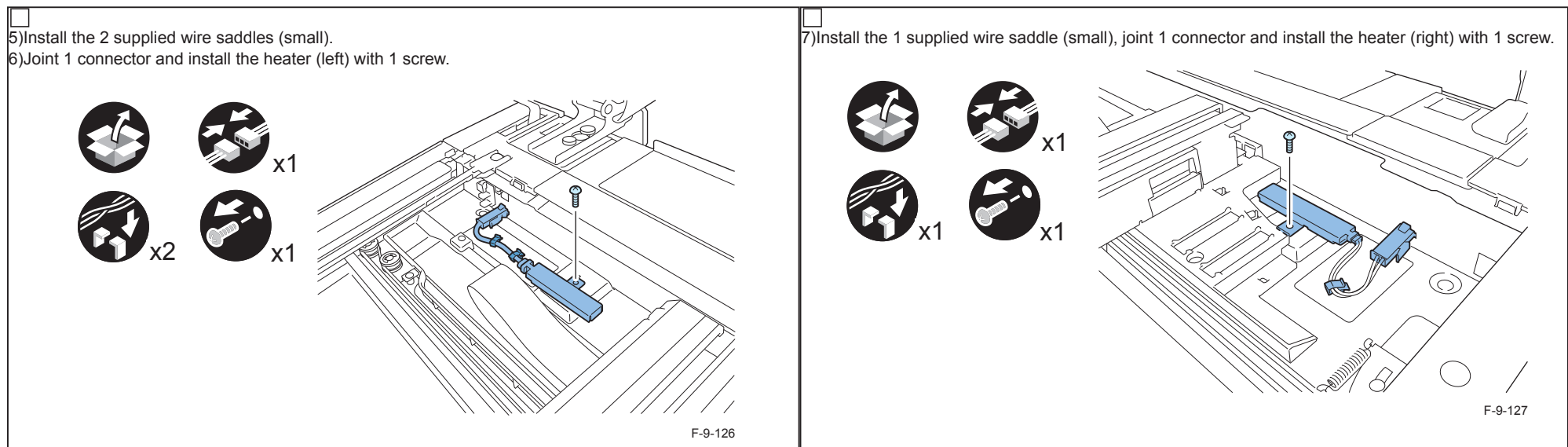
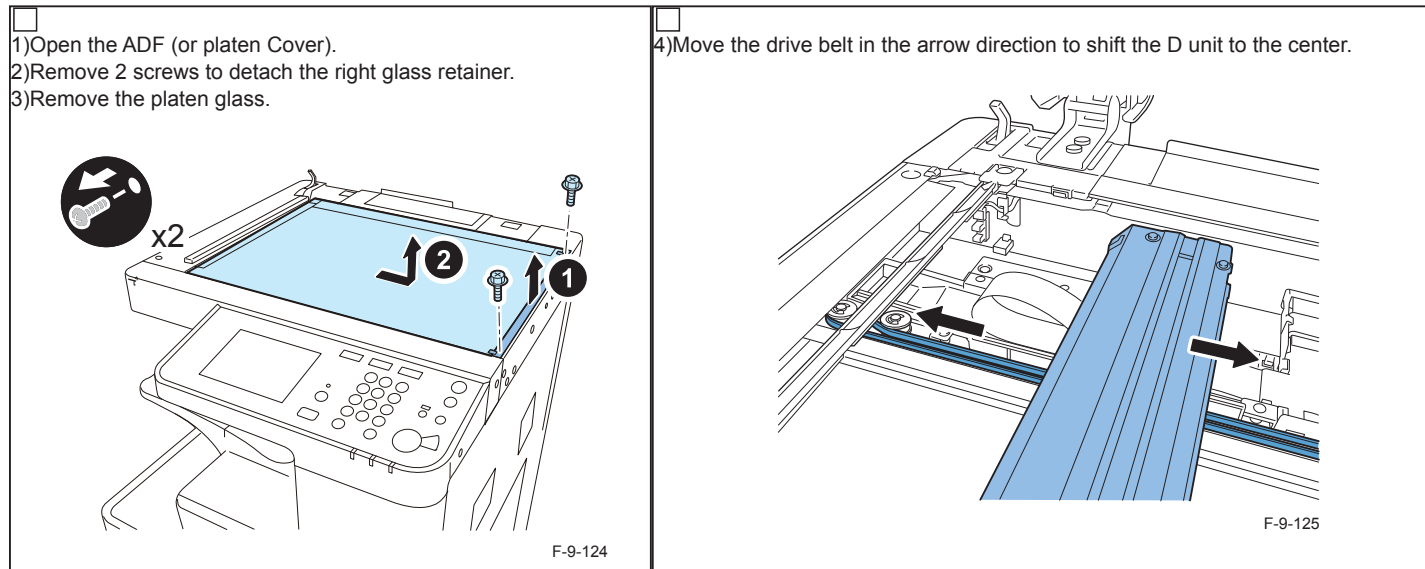
Perform the following in the order prior to the installation.

- 1) Turn the main power of the host machine OFF.
- 2) Confirm the control panel display and the main power lamp have turned OFF and unplug the power cord.

Confirmation of Heater Driver PCB

Confirm that the heater driver PCB has already been installed in the host machine.

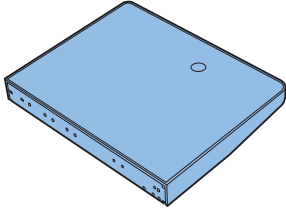

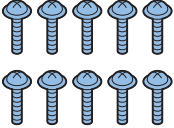
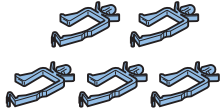


Installation Procedure



<input type="checkbox"/> 8) Restore the following parts: <input type="checkbox"/> Platen glass <input type="checkbox"/> Right glass retainer 2 screws	<input type="checkbox"/> 9) Turn the switch of the heater power ON.
---	--

Utility Tray-A2

Checking the Contents

<input type="checkbox"/> [1] Utility Tray Unit X 1 	<input type="checkbox"/> [2] Keyboard Table Plate X 1 
<input type="checkbox"/> [3] Screw (TP; M4x8) X 10 	<input type="checkbox"/> [4] Wire Saddle X 5 <p>The parts using to install the keyboard</p> 
<input type="checkbox"/> [5] Screw (TP; M4x10) X 2 	<input type="checkbox"/> [6] Screw (TP; M4x14) X 4 

F-9-128

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

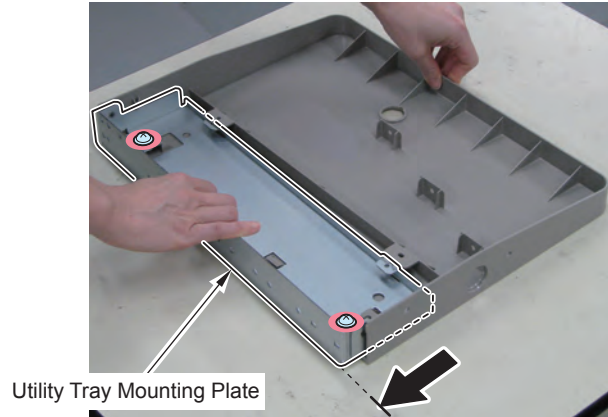
Installation Outline Drawing



F-9-129

Installation Procedure

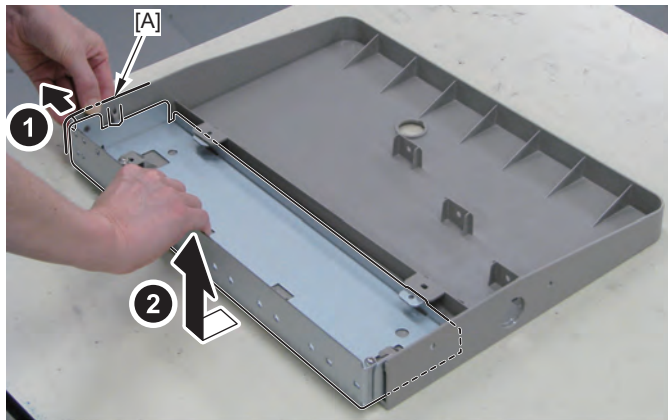
- 1) Loosen the 2 screws, and move the Utility Tray Mounting Plate in the direction of the arrow until it stops.



F-9-130

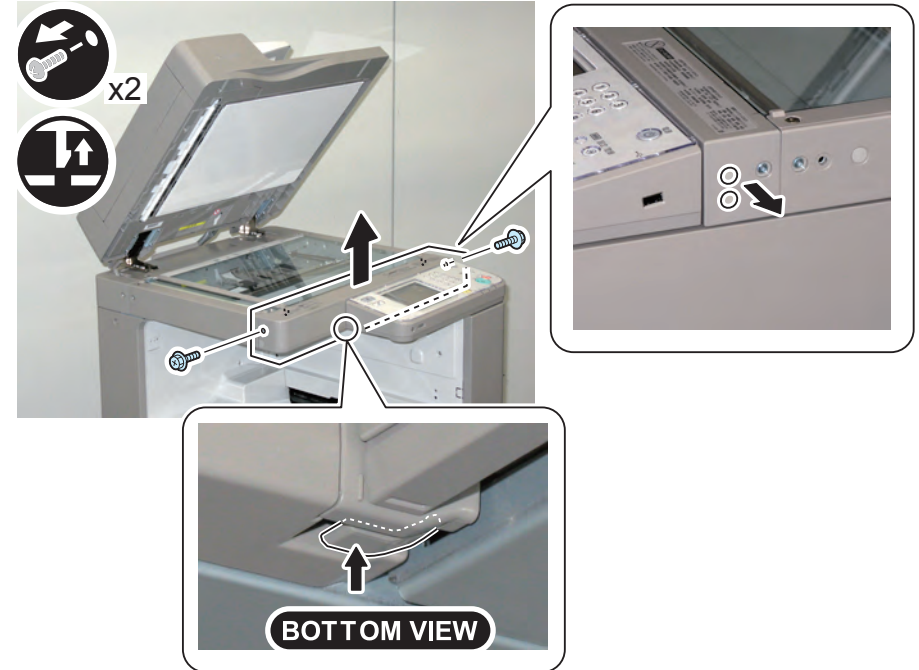
CAUTION:
Be sure not to pull the [A] part of the Utility Tray too much.

- 2) While pulling the [A] part of the Utility Tray, remove the Utility Tray Mounting Plate.
 - Utility Tray (The removed Utility Tray will be used in step 8.)
 - Utility Tray Mounting Plate (The removed Utility Tray Mounting Plate will be used in step 7.)



F-9-131

- 3) Open the ADF, and remove the 2 Face Seals from the Reader Front Cover. Then, remove the Reader Front Cover while pushing the claw under the cover.
 - 2 Face Seals (The removed Face Seals will not be used.)
 - 2 Screws (The removed screws will be used in step 5.)
 - 1 Claw



F-9-132

- 4) Install the Keyboard Base Mounting Plate.

- 2 Screws (TP; M4x8)
- 2 Bosses



F-9-133

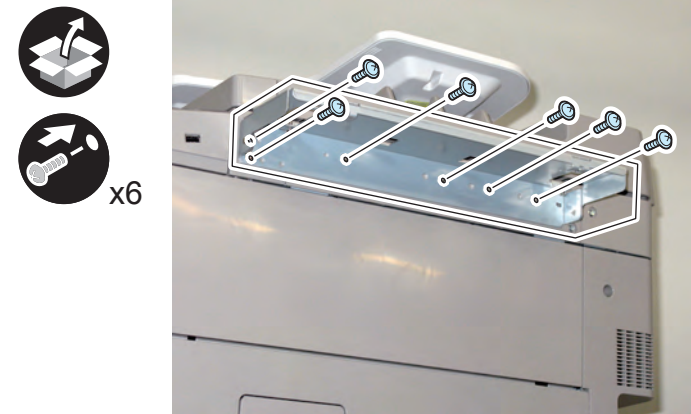
- 5) Return the Reader Front Cover to its original position.
- 6) Remove the 4 Face Seals from the Reader Right Cover.
- 4 Face Seals (The removed Face Seals will not be used.)



F-9-134

- 7) Install the Utility Tray Mounting Plate. (Use the Utility Tray Mounting Plate removed in step 2.)

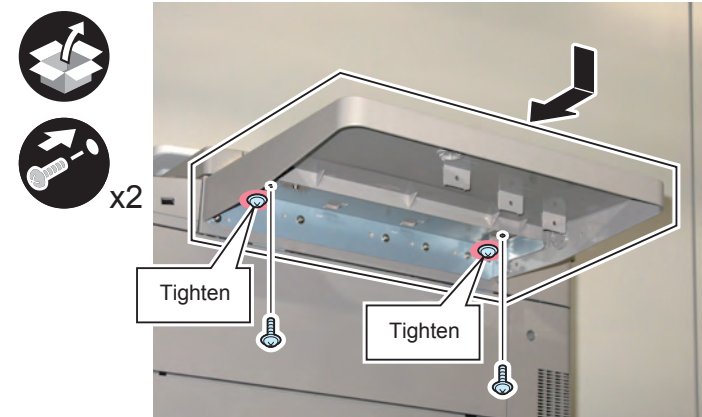
- 6 Screws (TP; M4x8)



F-9-135

- 8) Install the Utility Tray.

- 2 Screws (TP; M4x8)
- 2 Screws (Tighten the screws loosened in step 1.)

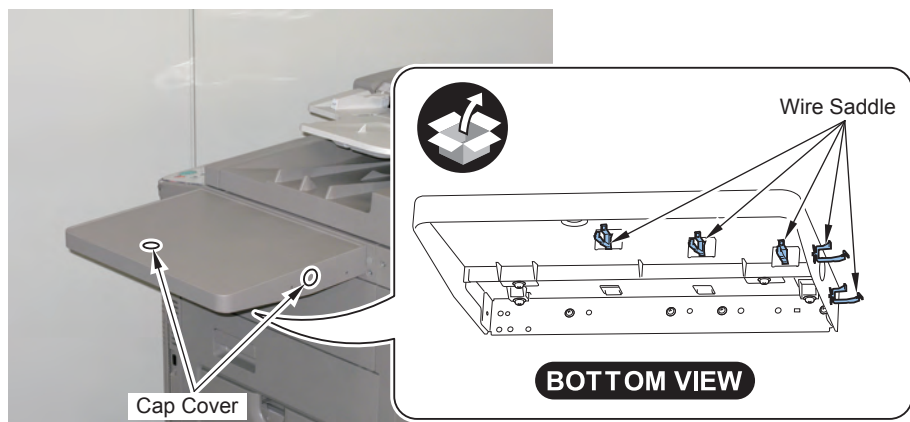


F-9-136

When Installing the USB Keyboard



- 1) Remove the 2 Cap Covers, and install the 5 Wire Saddles.
- 2 Cap Covers (The removed Cap Covers will not be used.)
 - 5 Wire Saddles



F-9-137

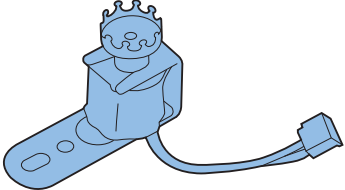
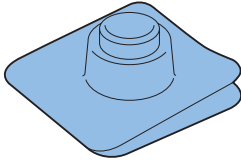


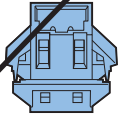
Stamp Unit-B1

Points to Note at Installation

CAUTION:

In order to enable the stamp function, it is necessary to install the FAX Board or enable the SEND function (Color Universal Send Kit).

Checking the contents

<input type="checkbox"/> [1] Stamp Solenoid X 1 	<input type="checkbox"/> [2] Stamp Ink Cartridge X 1 
<input type="checkbox"/> [3] Screw (P Tightening; M3x12) X 1 	<input type="checkbox"/> [4] Relay connector X 1 
<input type="checkbox"/> [5] Relay connector X 1 	

F-9-138

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing

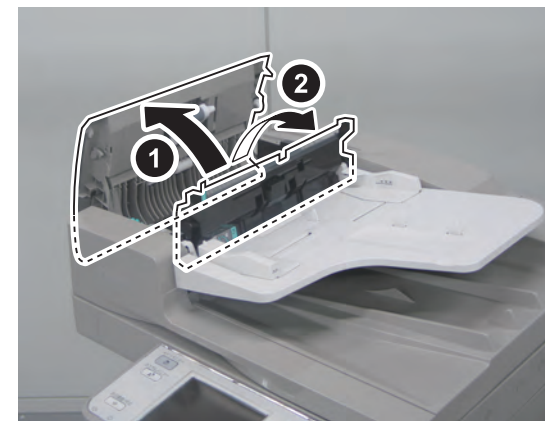


F-9-139

Installation procedure



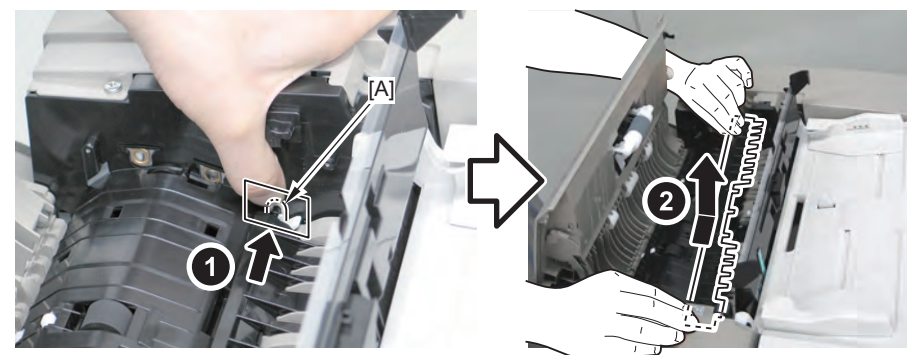
- 1) Open the Feeder Cover and the Middle Cover.



F-9-140



- 2) Remove the Delivery Guide while pushing the hook [A] in the direction of the arrow.

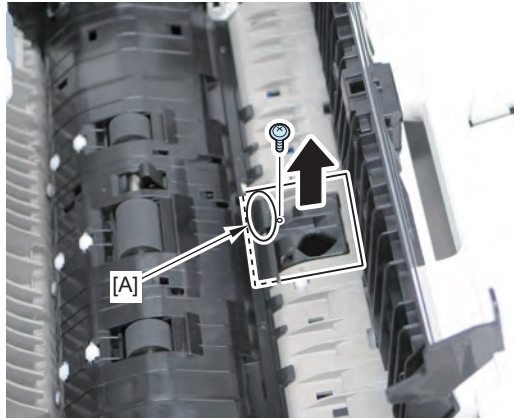


F-9-141

- 3) Remove the Stamp Cover.
- 1 Screw

CAUTION:

Be careful not to damage the [A] part of the Feed Guide with a screwdriver when removing the screw.

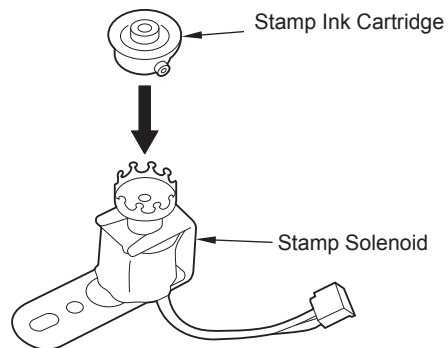


F-9-142

- 4) Install the Stamp Ink Cartridge to the Stamp Solenoid.

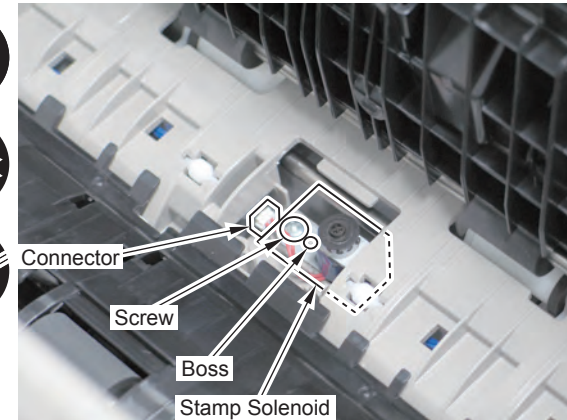
CAUTION:

Be sure to push the Stamp Ink Cartridge in until it clicks.



F-9-143

- 5) After installing the Stamp Solenoid, connect the connector on the Stamp Solenoid side to the connector on the host machine side.
- 1 Screw (P Tightening; M3x12)
 - 1 Boss



F-9-144

- 6) Return the removed covers to their original positions.
- Stamp Cover
 - Delivery Guide
 - Middle Cover
 - Feeder Cover

Operation Check

Be sure to perform the following procedure for operation check of the Stamp Unit.

- 1) Turn ON the main power switch.
- 2) Press "Finished Stamp" key.
 - [Scan and Send] or [Fax] > [Other Function] > [Finished Stamp]
- 3) Put an original in the Feeder, perform a send test, and check that a stamp is printed on the original.

Voice Operation Kit-C2

Pre-check


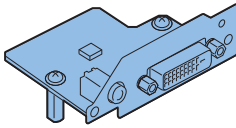
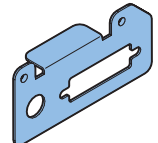
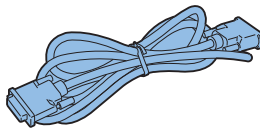
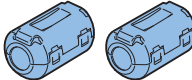

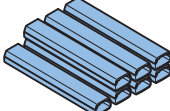








Check the firmware version6 of host machine before installing this equipment and if the version is old, upgrade it with using the Service Support Tool.

MN-CONT: Ver. 10.XX or later.

Points to note when Installing

- The Color Image Reader is necessary to operate this equipment.
- When installing the equipment, see the 'Combination Table of Accessory Installation'.

Checking the Contents

<input type="checkbox"/> [1] Speaker Unit X 1 	<input type="checkbox"/> [2] Voice Operation Board Unit X 1 	<input type="checkbox"/> [3] Support Plate X 1 
<input type="checkbox"/> [4] DVI Cable X 1 	<input type="checkbox"/> [5] Ring Core X 2 	<input type="checkbox"/> [6] Cable Face Seal X 1 
<input type="checkbox"/> [7] Cord Guide X 7 Use 6 of them 	<input type="checkbox"/> [8] Card Spacer X 1 	<input type="checkbox"/> [9] Screw (Bind; M4x14) X 2 
<input type="checkbox"/> [10] Screw (TP; M3x6) X 2 	<input type="checkbox"/> [11] Ring Core X 1 	<input type="checkbox"/> [12] Wire Saddle X 3 
<input type="checkbox"/> [13] Screw (Bind; M4x20) X 2 	<input type="checkbox"/> [14] Screw (Bind; M3x20) X 1 	<input type="checkbox"/> [15] Screw (Bind; M4x6) X 1 

F-9-145

<CD/Guides>

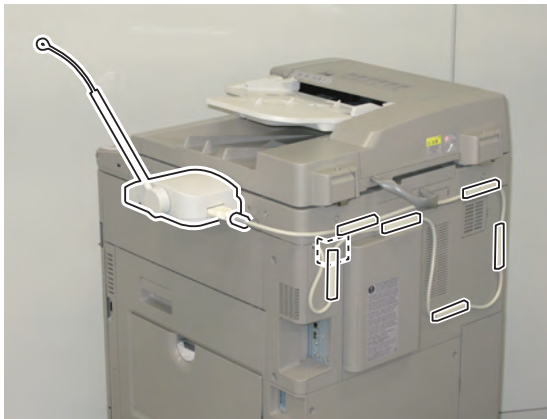
- Voice Guidance Kit Users Guide
- Voice Operation Kit Users Guide
- Voice Operation Quick Reference Guide
- Voice Guidance Guide CD
- Voice Operation Kit Manual CD

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



F-9-146

Installation Procedure

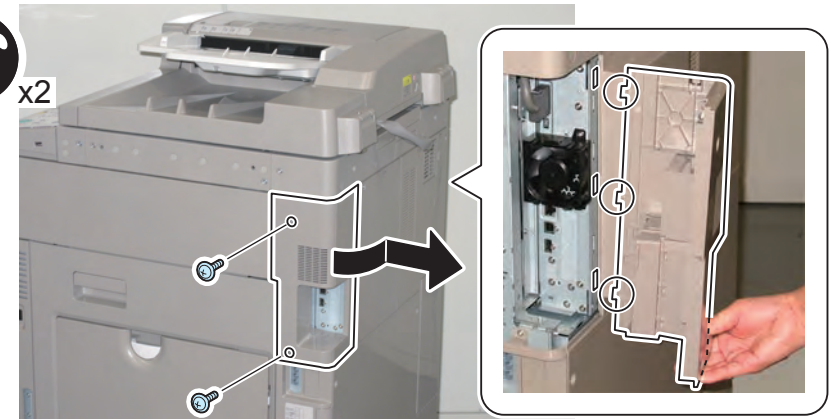


1) Remove the Right Upper Sub Cover.

- 2 Screws (The removed screws will be used in step 18.)
- 3 Claws

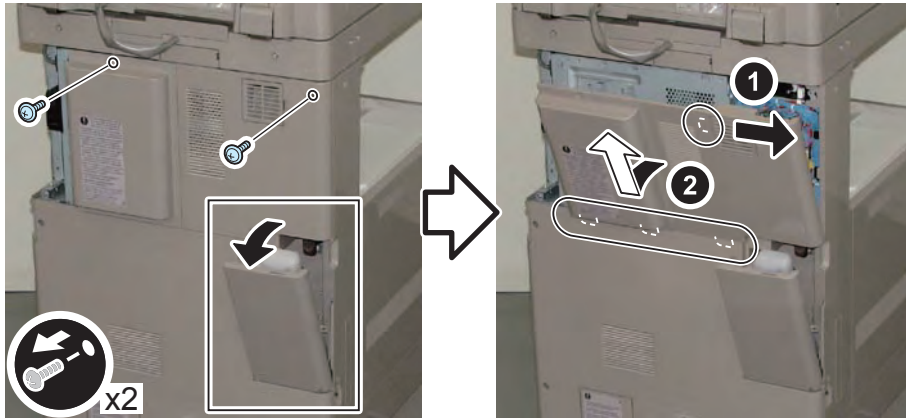


x2



F-9-147

-
- 2) Remove the 2 screws on the Rear Upper Cover 1 and the HDD Cover, and remove the covers by opening the Waste Toner Cover.
- 2 Screws (The removed screws will be used in step 9.)
 - 4 Claws

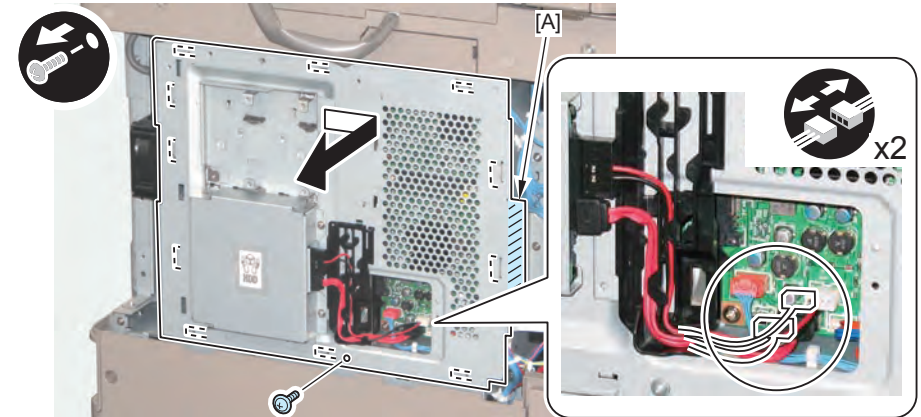


F-9-148

-
- 3) Remove the Controller Cover by holding [A] part.
- 1 Screw (The removed screw will be used in step 9.)
 - 2 Connectors (for the HDD model)

CAUTION:

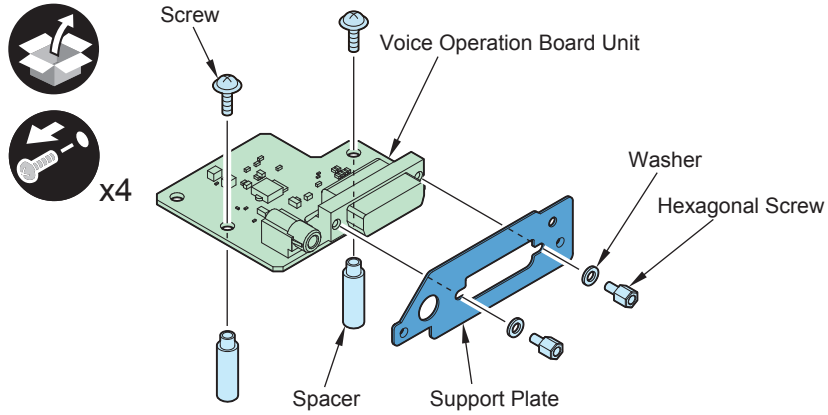
When handling the hard disc, be careful not to vibrate or drop it.



F-9-149

□ 4) Remove the Support Plate and the Spacer from the Voice Operation Board Unit.

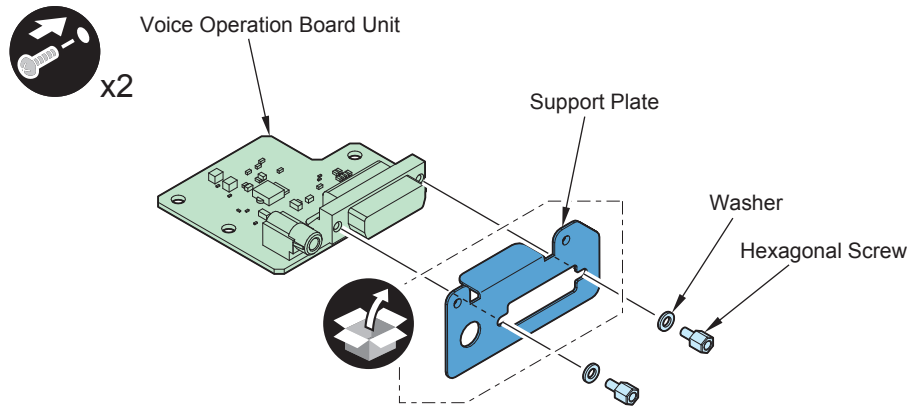
- 2 Hexagon Screws (The removed screws will be used in step 7.)
- 2 Washers (The removed washers will be used in step 7.)
- 2 Screws (The removed screws will be used in step 8.)
- 2 Spacers (The removed Spacers will not be used.)



F-9-150

□ 5) Install the Support Plate included in the package.

- 2 Hexagon Screws (Use the screws removed in step 4.)
- 2 Washers (Use the washers removed in step 4.)



F-9-151

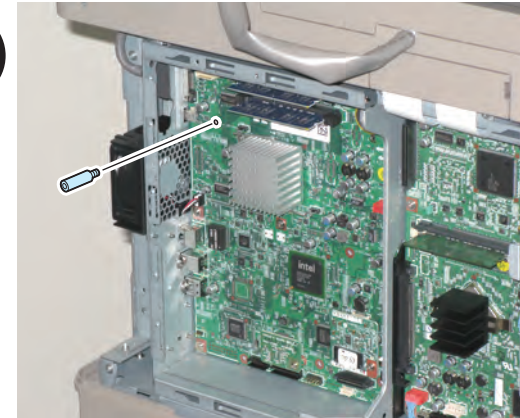
□ 6) Remove the Face Plate.

- 1 Face Plate (The removed Face Plate will not be used.)
- 1 Screw (The removed screw will not be used.)



F-9-152

□ 7) Install the Card Spacer.

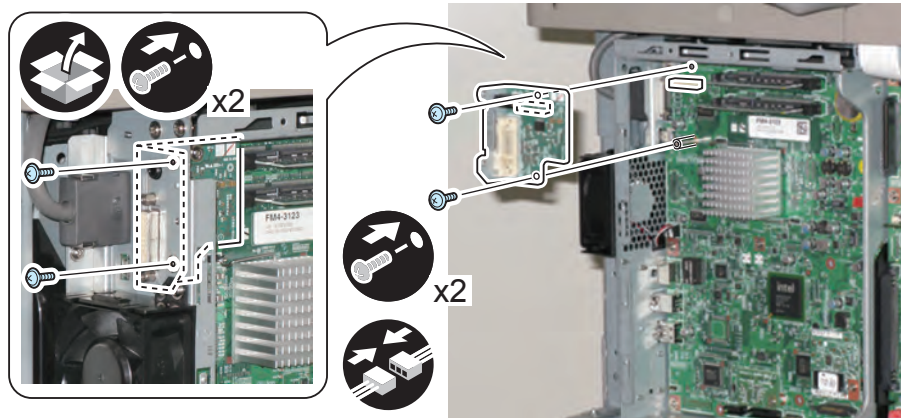


F-9-153

- 8) Install the Voice Operation Board Unit.
- 2 Screws (Use the screws removed in step 4.)
 - Connector
 - 2 Screws (TP; M3x6)

NOTE:

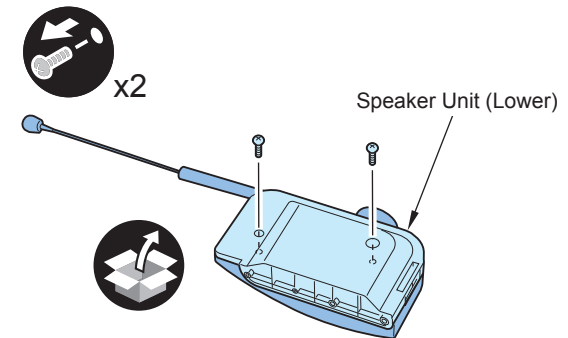
Check that the connector is connected properly.



F-9-154

- 9) Return the covers to their original position.
- Controller Cover
 - HDD Cover
 - Rear Upper Cover 1
 - Waste Toner Cover

- 10) Remove the Speaker Unit (Lower) from the Speaker Unit.
- 2 Screws (The removed screws will be used in step 13.)



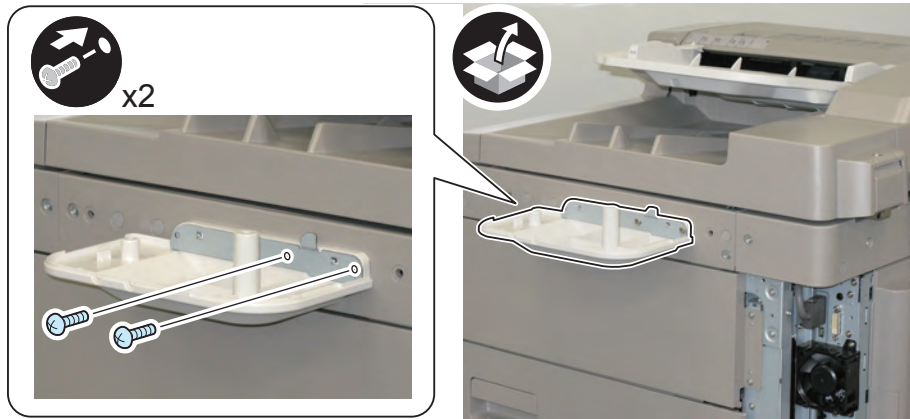
F-9-155

- 11) Remove the Face Seals from the Reader Right Cover.
- 2 Face Seals (The removed Face Seals will not be used.)



F-9-156

- 12) Install the Speaker Unit (Lower).
- 2 Screws (Binding; M4x14)



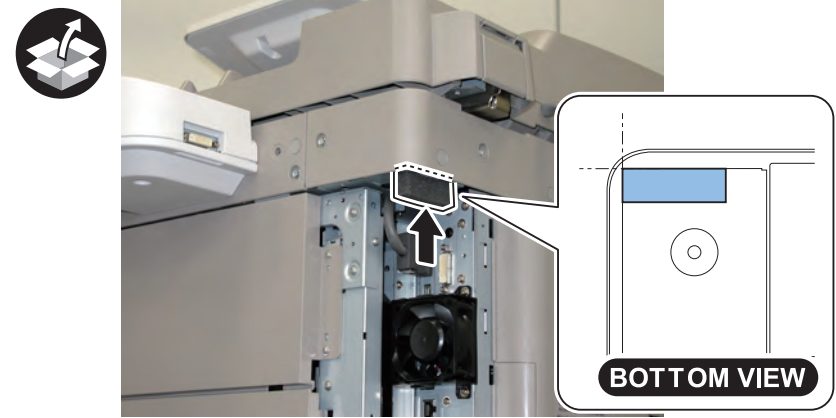
F-9-157

- 13) Install the Speaker Unit (Upper).
- 2 Screws (Use the screws removed in step 10.)



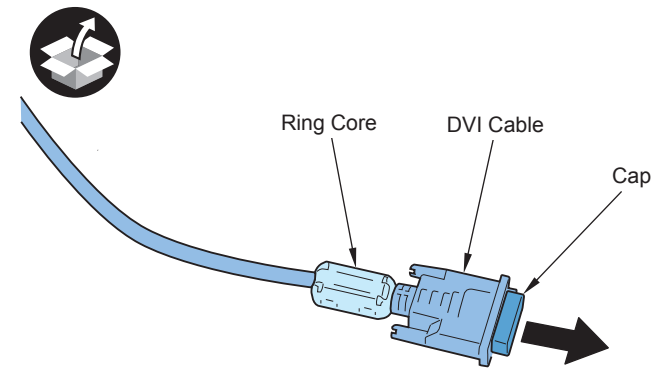
F-9-158

- 14) Affix the Cable Face Seal.



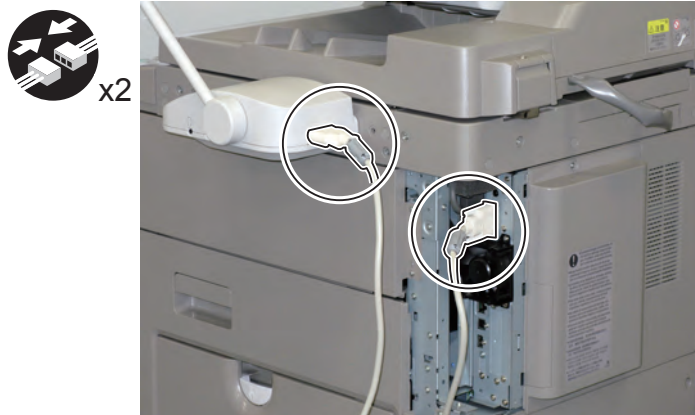
F-9-159

- 15) Install the Ring Cores to both ends of the DVI Cable, and remove the cap.



F-9-160

- 16) Connect the DVI Cable to 2 points.

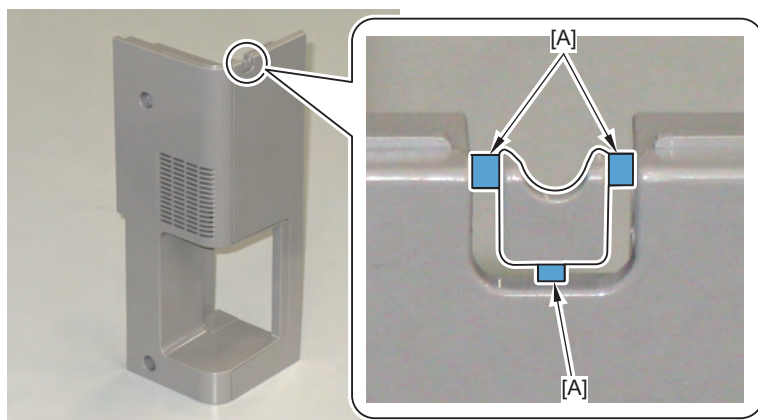


F-9-161

- 17) Cut off [A] part of the Right Upper Sub Cover with nippers.

NOTE:

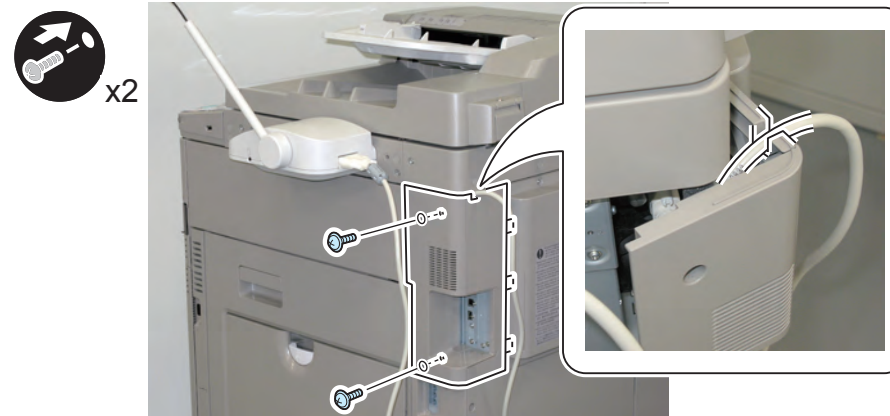
When cutting off the part, be sure not to make burrs.



F-9-162

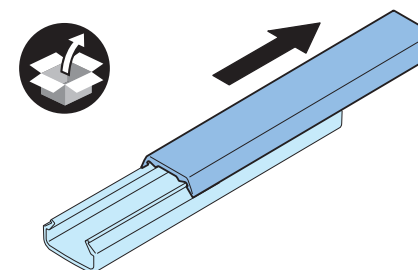
- 18) Put the DVI Cable through the cut-off of the Right Upper Sub Cover, and install the cover.

- 2 Screws (Use the screws removed in step 1.)
- 3 Claws



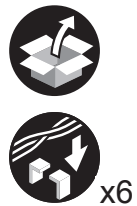
F-9-163

- 19) Remove the covers of 6 Cord Guides.



F-9-164

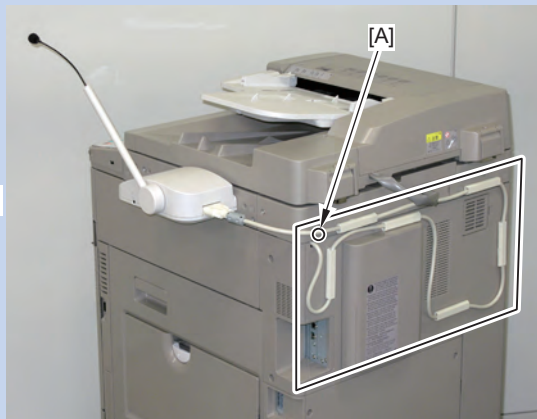
- 20) Remove the release paper from the Cord Guides, and affix the guides to the 6 areas indicated in the figure.
- 21) Put the DVI Cable through the Cord Guides, and install the covers of the guides.



F-9-165

NOTE:

In the case of simultaneous installation with the Card Reader-C1, do not install the Cord Guide to the [A] part because the Wire Saddle (included in the package of the Card Reader) needs to be installed.



F-9-166

Checking after Installation

NOTE:

When changing the settings upon user's request, it is required to log in as a system manager in accordance with instructions from the user administrator.

-
- 1) Connect the power plug of the host machine to the outlet.
 - 2) Turn ON the main power switch.
 - 3) Select Settings/Registration > Preferences > Accessibility > Voice Navigation Settings > Use Voice Navigation, and check that the setting is ON.
 - 4) Select Settings/Registration > Preferences > Accessibility > Voice Navigation Settings > Voice Navigation at Startup, and check that "Select Mode at Startup" is set.
 - 5) Select Settings/Registration > Preferences > Accessibility > Voice Navigation Settings, and check that "Tune Microphone" is displayed.
 - 6) To make the setting value effective, turn OFF/ON the main power of the Host Machine.

Operation Check

When Starting to Use

-
- 1) Press "Reset" key or the Voice Recognition button for more than 3 seconds.
 - 2) In "Select the Voice Navigation type." on the Control Panel screen, select "Manual + Vocal Mode", "Vocal Mode" or "Manual Mode", and press OK.
 - 3) Once the indication on the screen is framed in red, the "Voice Operation Kit" becomes enabled.

NOTE:

When "Manual Mode" is selected in "Select the Voice Navigation type.", nothing happens by pressing the Voice Recognition button.

When Stopping to Use

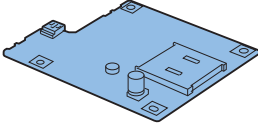
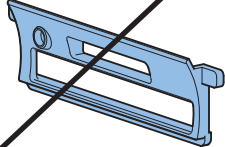
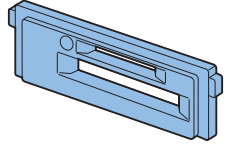

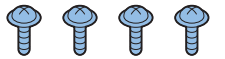
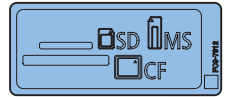

-
- 1) Press "Reset" key or the Voice Recognition button for more than 3 seconds.

Multimedia Reader/Writer-A2

Points to Note at Installation

- To install this equipment, the USB Device Port must be installed beforehand. (Refer to the Installation Procedure packed with the USB Device Port-C1.)
- The Multimedia Reader/Writer cannot be used in combination with the Card Reader that is a sales company's option.

Checking the Contents

<input type="checkbox"/> [1] Multimedia Card Slot X 1 	<input type="checkbox"/> [2] Card Slot X 1 	<input type="checkbox"/> [3] Card Slot X 1 
<input type="checkbox"/> [4] USB Cable X 1 	<input type="checkbox"/> [5] Screw (TP; M3x6) X 4 	<input type="checkbox"/> [6] Multimedia Label X 1 
<input type="checkbox"/> [7] Slot Holder X 1 		

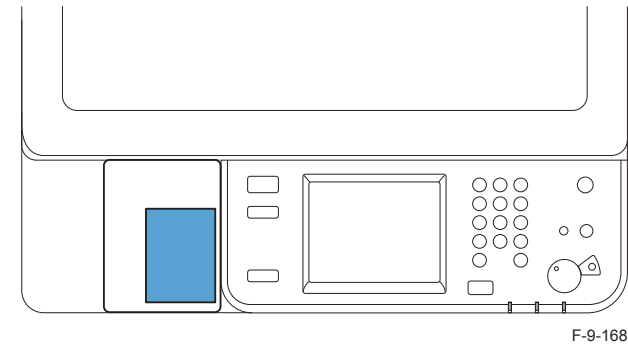
F-9-167

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- Turn OFF the main power switch.
- Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

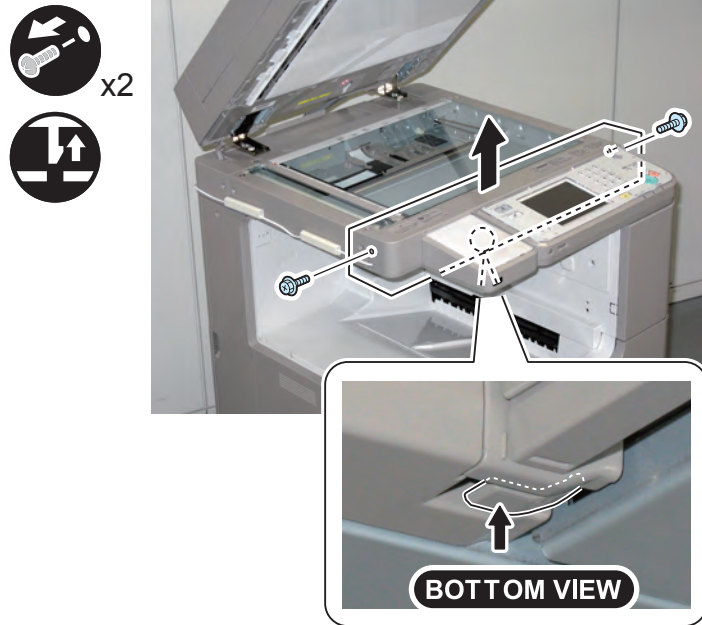
Installation Outline Drawing



F-9-168

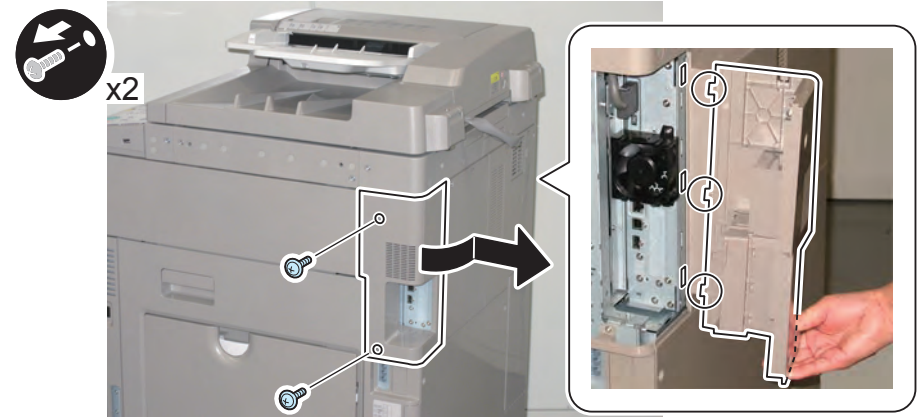
Installation Procedure

-
- 1) Open the ADF and remove the Reader Front Cover while pushing the claw at the bottom of the cover.
 - 2 Screws (The removed screws will be used in step 14.)
 - 1 Claw



F-9-169

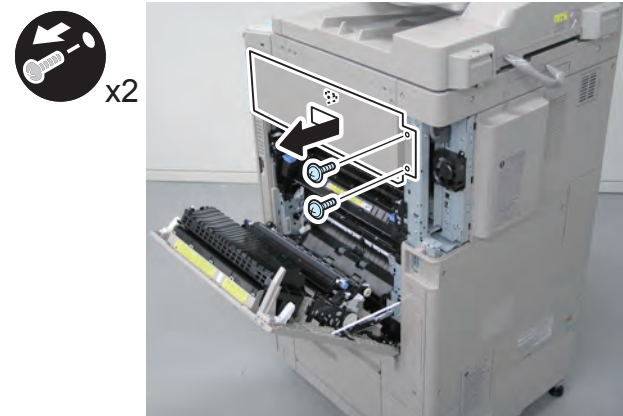
-
- 2) Remove the Right Upper Sub Cover. (If a 3 Way Unit is installed, skip this step.)
 - 2 Screws (The removed screws will be used in step 14.)
 - 3 Claws



F-9-170

-
- 3) Open the Right Lower Cover and remove the Right Upper Cover.
 - 2 Screws (The removed screws will be used in step 14.)
 - 2 Hook

NOTE:
If a 3 Way Unit is installed, open the Right Upper Cover.



F-9-171

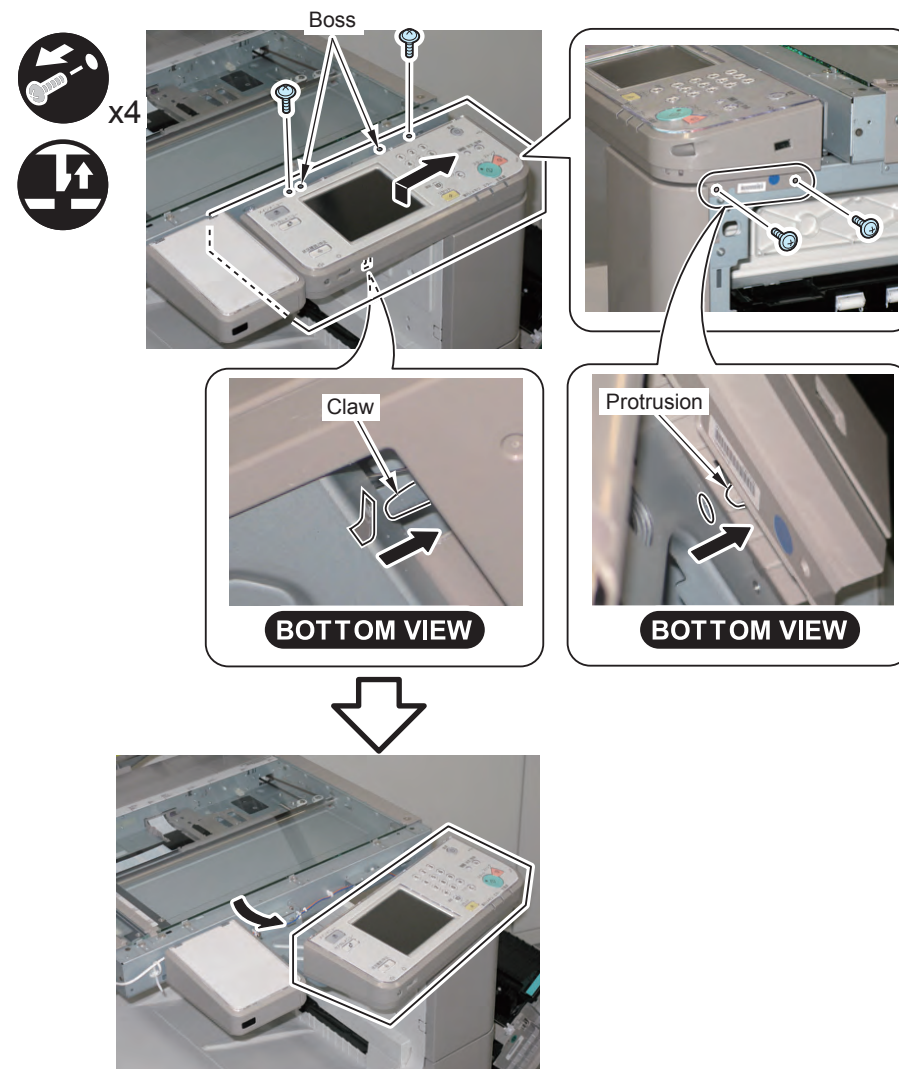


4) Remove the screws securing the Control Panel, and shift it for the work.

- 4 Screws (The removed screws will be used in step 13.)
- 2 Bosses
- 1 Claw
- 1 Protrusion

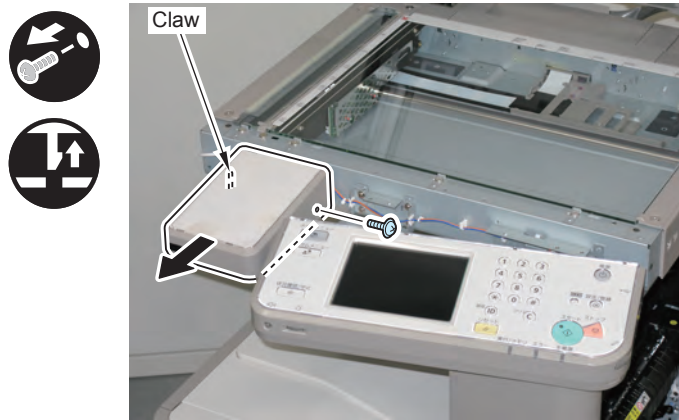
CAUTION:

- Be careful not to let the harness come in contact with the plate to prevent the Control Panel or the harness from being damaged.
- Be careful not to pull the Control Panel because it is connected with the Control Panel Cable and the Power Supply Cable.



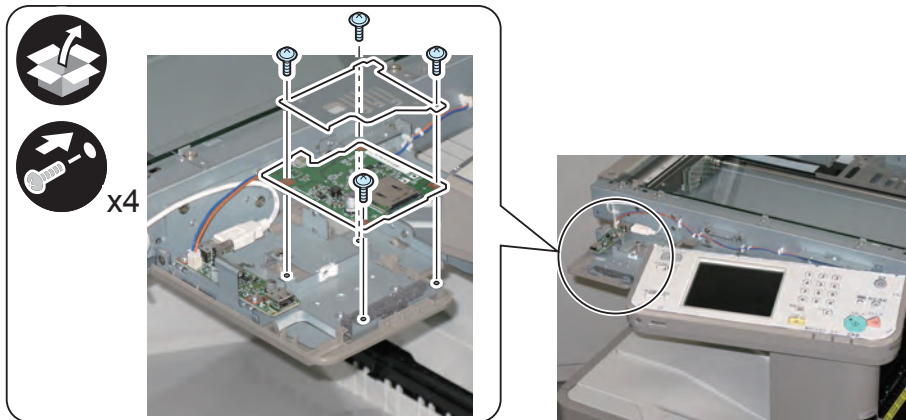
F-9-172

- 5) Remove the DP Upper Cover.
 - 1 Screw (The removed screw will be used in step 12.)
 - 1 Claw



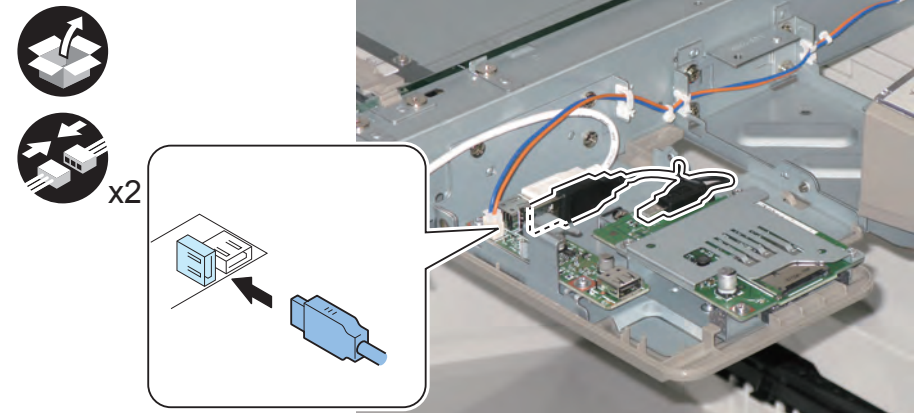
F-9-173

- 6) Install the Multimedia Card Slot and the Grounding Plate to the DP Lower Cover Unit.
 - 4 Screws (TP; M3x6)



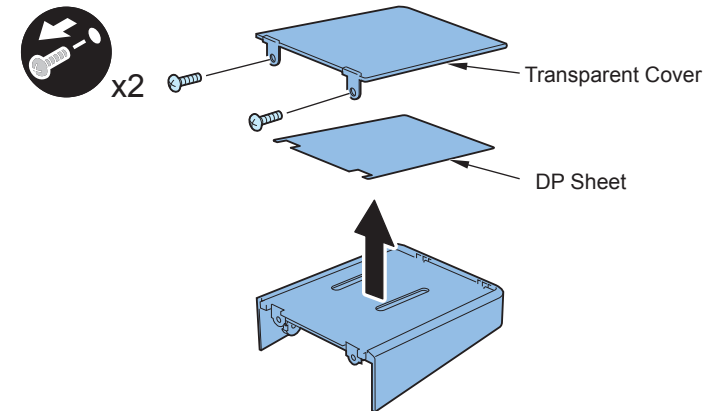
F-9-174

- 7) Connect the USB Cable.



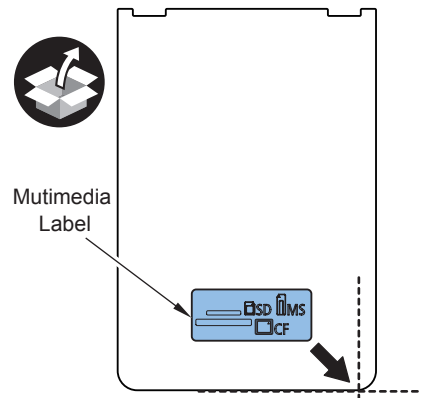
F-9-175

- 8) Remove the Transparent Cover and the DP Sheet of the DP Upper Cover Unit.
 - 2 Screws (The removed screws will be used in step 10.)



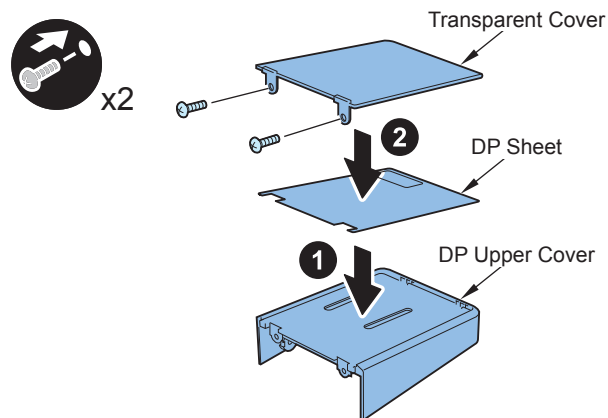
F-9-176

- 9) Affix the Multimedia Label to the DP Sheet.



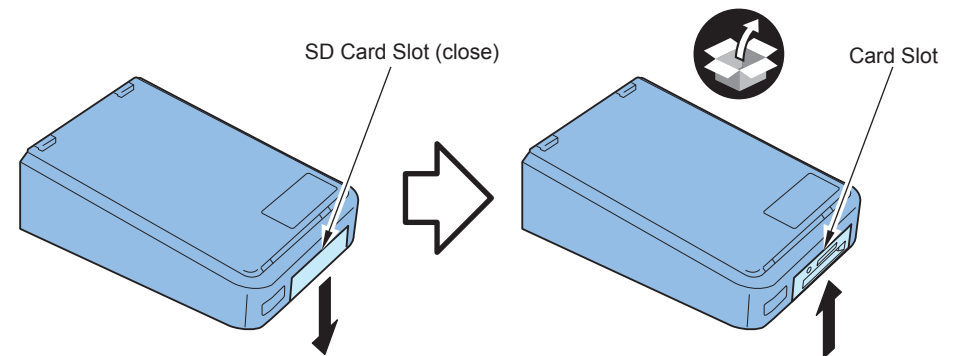
F-9-177

- 10) Install the DP Sheet and the Transparent Cover to the DP Upper Cover.
 • 2 Screws (Use the screws removed in step 8.)



F-9-178

- 11) Remove the Card Slot (closed) from the DP Upper Cover Unit and attach the Card Insertion Slot.



F-9-179

- 12) Return the DP Upper Cover Unit to its original position.
 13) Return the Control Panel to its original position.
 14) Return the removed covers to their original positions.
 • Right Upper Cover
 • Right Lower Cover
 • Right Upper Sub Cover (If a 3 Way Unit is installed, skip this step.)
 • Reader Front Cover
 15) Close the ADF.
 16) Connect the power plug to the outlet.
 17) Turn ON the main power switch.

Operation Check

NOTE

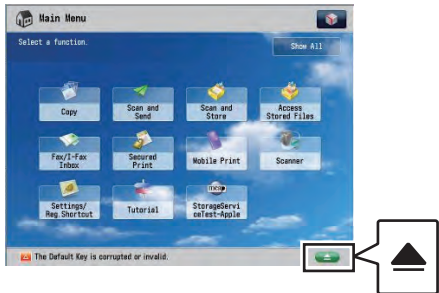
- To the Multimedia Reader/Writer, Memory Media of the SC Card, Memory Stick, and CF Card can be connected.
- With one of the 3 types of Memory Media, perform the operation check 1 through 3.
- When "System Manager Information Settings" is set, be sure to follow the direction of user administrator in order to log in as an administrator.

1. Writing Check

1) Select "1" for the following service mode (Level 2) COPIER > OPTION > DSPLY-SW > UI-MEM

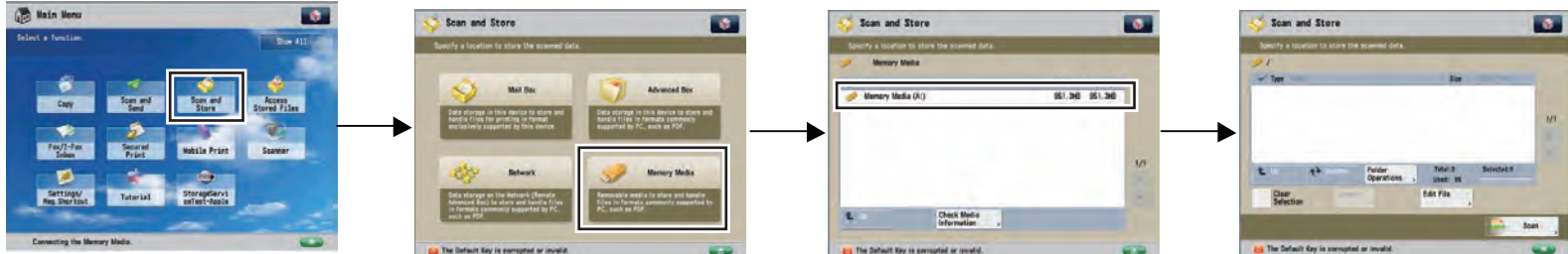
2) To make the setting value effective, turn OFF/ON the main power of the Host Machine.

3) Mount the Memory Media to the Multimedia Card Reader/Writer. (Check that the Mount Mark is indicated in the bottom right.)



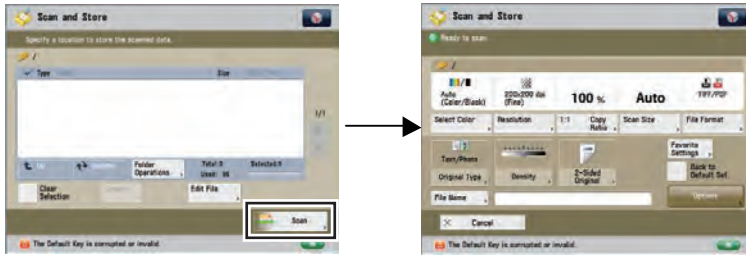
F-9-180

4) Make the following selection: [Scan and Store] > [Memory Media] > [Memory Media (A:)]



F-9-181

5) Set originals to ADF (or Copyboard), and press the [Scan] button. Then, press the Start button on the Control Panel.



F-9-182

6) After the completion of original reading, check that the data is stored in the media. After that, press the [Main Menu] button on the Control Panel.



F-9-183

2.Reading Check

7) Make the following selection from Main Menu: [Access Stored Files] > [Memory Media] > [Memory Media(A:)]

The first screenshot shows the 'Main Menu' with 'Access Stored Files' highlighted. The second screenshot shows the 'Access Stored Files' screen with 'Memory Media' highlighted. The third screenshot shows the 'Memory Media' screen with 'Memory Media (A:)' selected.

F-9-184

8) Select the files stored in step 7) and 8), and then press the [Print] button.

The first screenshot shows a file list with '20090819104548.tif' selected. The second screenshot shows the 'Print' button highlighted. The third screenshot shows the print settings dialog box.

F-9-185

9) Press the [Start Printing] button, and print the file. Then check that the file is printed correctly.

The first screenshot shows the 'Start Printing' button highlighted. The second screenshot shows a progress dialog box for printing. The third screenshot shows the 'Memory Media' screen with the file '20090819104548.tif' highlighted.

F-9-186

10) Press the [Main Menu] button on the Control Panel.

The screenshot shows the 'Main Menu' screen with 'Access Stored Files' highlighted.

F-9-187

3.Memory Media Removal

11) Press the [Mount Mark] in the bottom right. Then, select the memory media to be removed, and press the [Remove] button.

F-9-188

12) Press the [OK] button. Then, check that the Mount Mark is not indicated in the bottom right on the Main Menu screen.

F-9-189

Voice Guidance Kit-F2

Pre-check

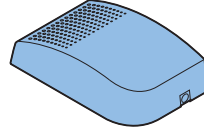
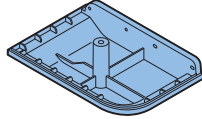
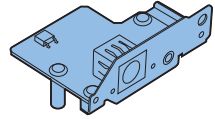
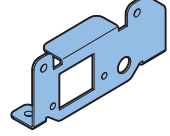
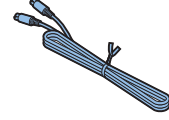
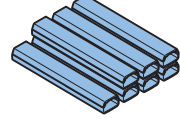
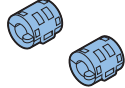







Check the firmware version6 of host machine before installing this equipment and if the version is old, upgrade it with using the Service Support Tool.

MN-CONT: Ver. 10.XX or later.

Points to note when Installing

- The Color Image Reader is necessary to operate this equipment.
- When installing the equipment, see the 'Combination Table of Accessory Installation'.

Checking the Contents

<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] Support Plate X 1 	<input type="checkbox"/> [5] Speaker Cable X 1 	<input type="checkbox"/> [6] Cord Guide X 7 Use 4 of them 
<input type="checkbox"/> [7] Ring Core X 2 	<input type="checkbox"/> [8] Cable Face Seal X 1 	<input type="checkbox"/> [9] Card Spacer X 1 
<input type="checkbox"/> [10] Screw (Bind; M3x16) X 1 	<input type="checkbox"/> [11] Screw (Bind; M4x6) X 1 	<input type="checkbox"/> [12] Screw (TP; M3x6) X 4 Use 2 of them 
<input type="checkbox"/> [13] Screw (Bind; M4x16) X 2 Use 1 of them 	<input type="checkbox"/> [14] Screw (Bind; M4x20) X 2 	

F-9-190

<CD/Guide>

- Voice Guidance Kit Users Guide
- Voice Guidance Guide CD

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



F-9-191

Installation Procedure

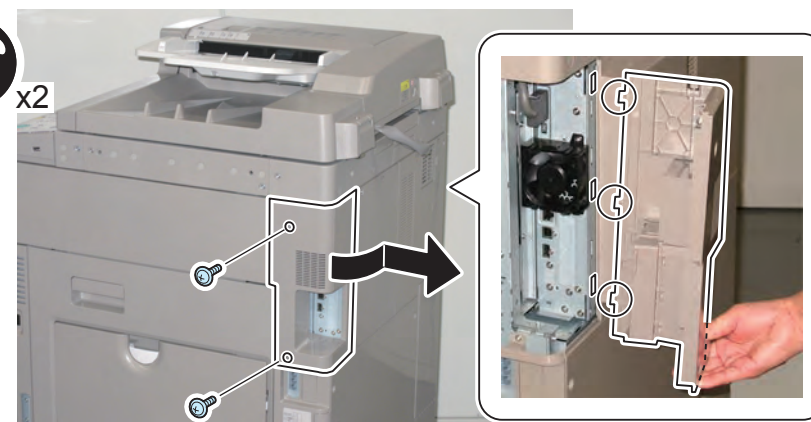


1) Remove the Right Upper Sub Cover.

- 2 Screws (The removed screws will be used in step 17.)
- 3 Claws



x2

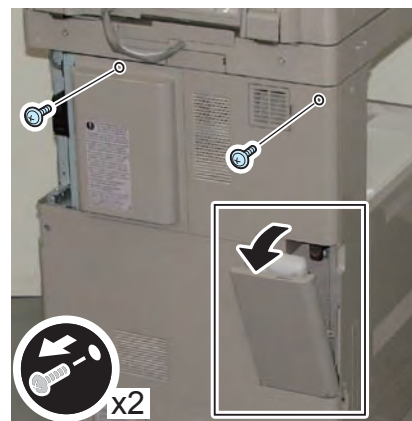


F-9-192

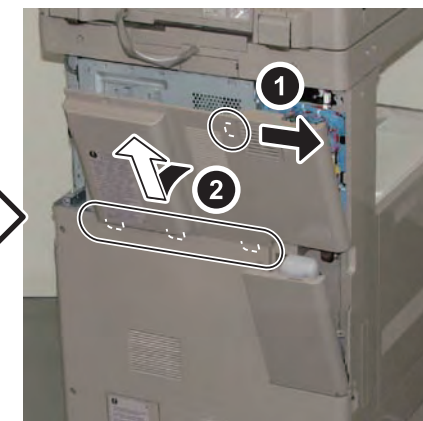


2) Remove the 2 screws on the Rear Upper Cover 1 and the HDD Cover, and remove the covers by opening the Waste Toner Cover.

- 2 Screws (The removed screws will be used in step 9.)
- 4 Claws



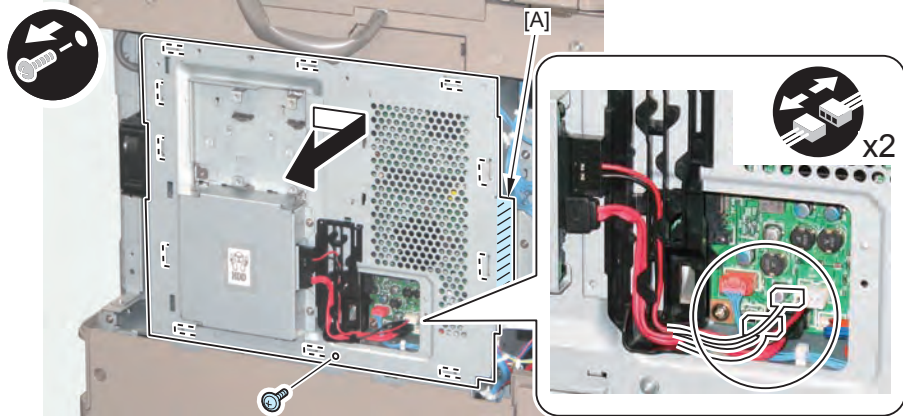
x2



F-9-193

- 3) Remove the Controller Cover by holding [A] part.
 - 1 Screw (The removed screws will be used in step 9.)
 - 2 Connectors (for the HDD model)

CAUTION:
When handling the hard disc, be careful not to vibrate or drop it.



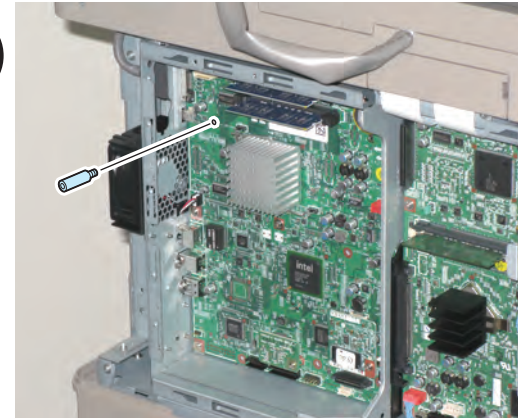
F-9-194

- 4) Remove the Face Plate. (The removed Face Cover and screw will not be used.)
 - 1 Screw



F-9-195

- 5) Install the Card Spacer.

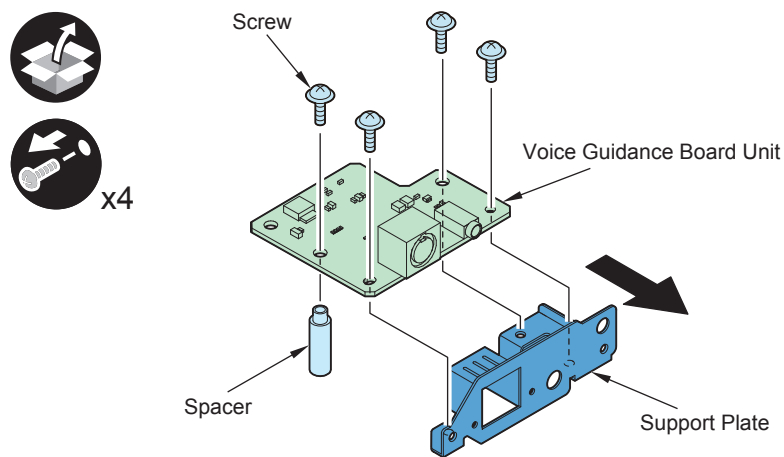


F-9-196



6) Remove the Support Plate and the Spacer from the Voice Guidance Board Unit.

- 4 Screws (The removed 2 screws will be used in step 7, and the other 2 screws will be used in step 8.)
- 1 Spacer (The removed Spacer will not be used.)

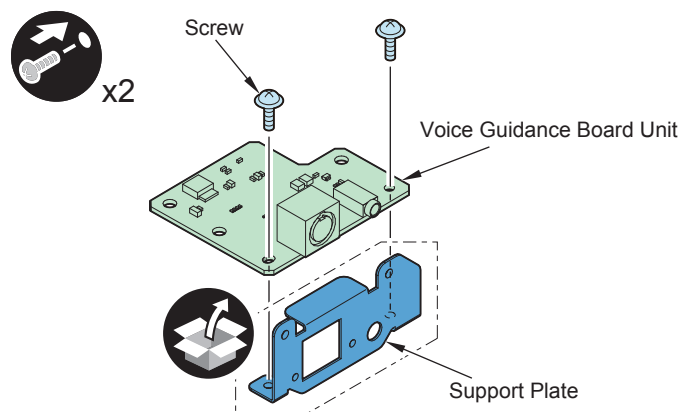


F-9-197



7) Install the Support Plate included in the package.

- 2 Screws (Use the screws removed in step 6.)



F-9-198

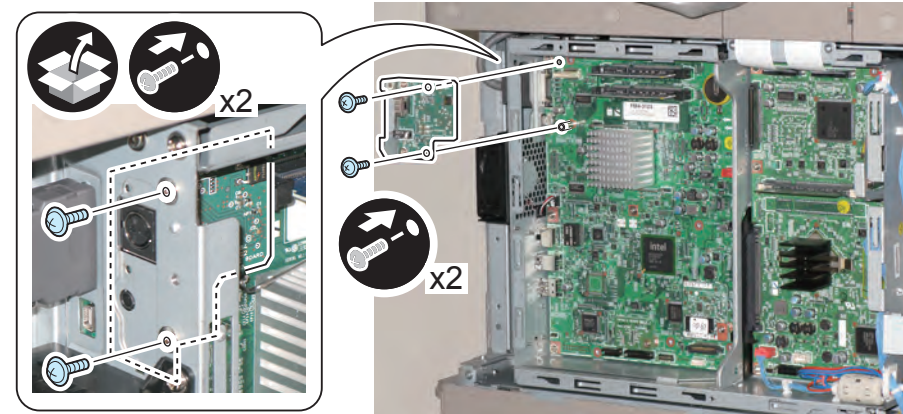


8) Install the Voice Guidance Board Unit.

- 2 Screws (Use the screws removed in step 6.)
- 1 Connector
- 2 Screws (TP; M3x6)

NOTE:

Check that the connector is connected properly.



F-9-199



9) Return the covers to their original position.

- Controller Cover
- HDD Cover
- Rear Upper Cover 1
- Waste Toner Cover

- 10) Remove the screw and the Face Seal from the Reader Right Cover.
- 1 Screw (The removed screw will not be used.)
 - 1 Face Seal (The removed Face Seal will not be used.)



F-9-200

- 11) Install the Speaker Unit (Lower).
- 1 Screw (Binding; M3x16)
 - 1 Screw (Binding; M4x16)



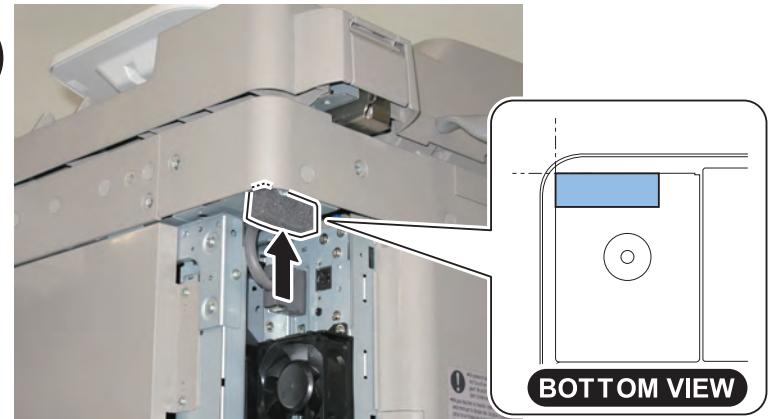
F-9-201

- 12) Install the Speaker Unit (Upper).
- 1 Screw (Binding; M4x6)



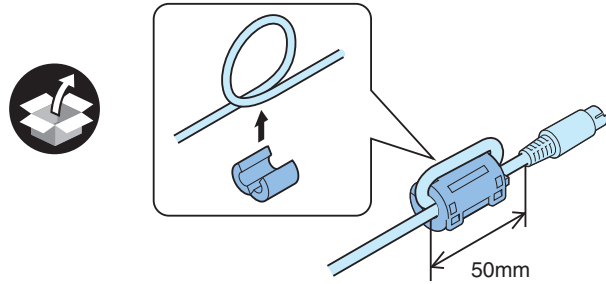
F-9-202

- 13) Affix the Cable Face Seal.



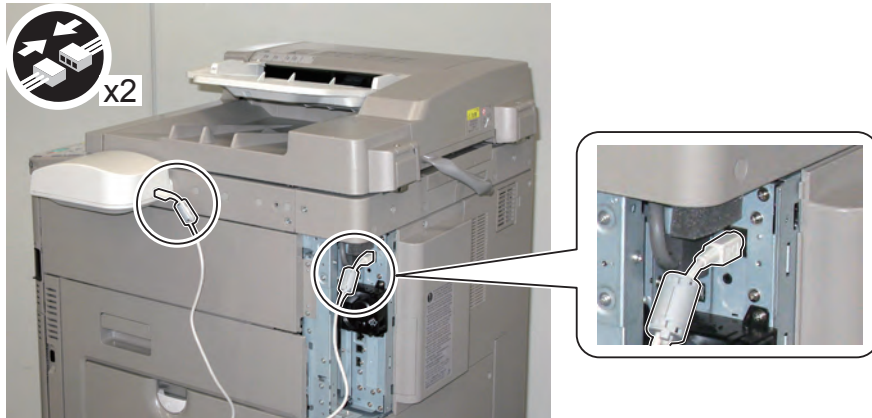
F-9-203

- 14) Install the Ring Cores to both ends of the Speaker Cable.



F-9-204

- 15) Connect the Speaker Cable to 2 points.

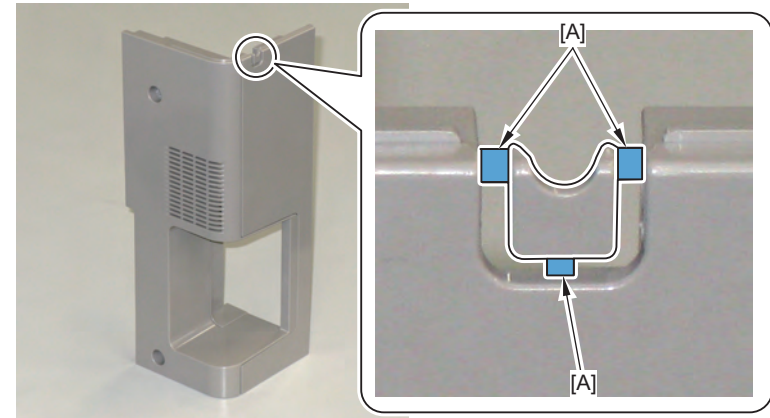


F-9-205

- 16) Cut off [A] part of the Right Upper Sub Cover with nippers.

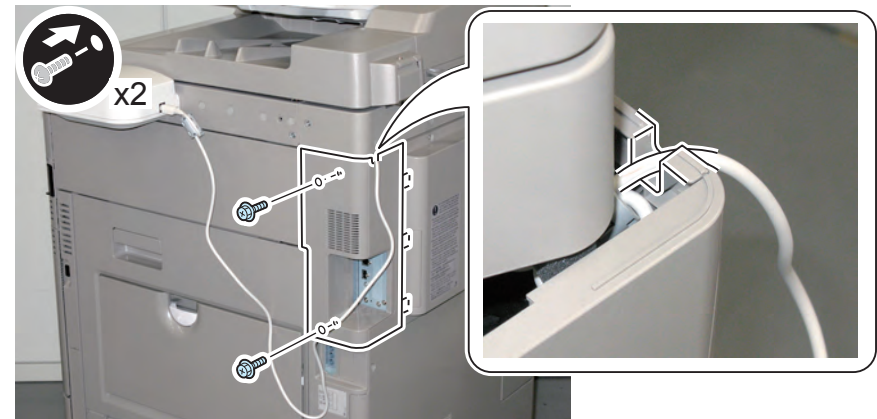
NOTE:

When cutting off the part, be sure not to make burrs.



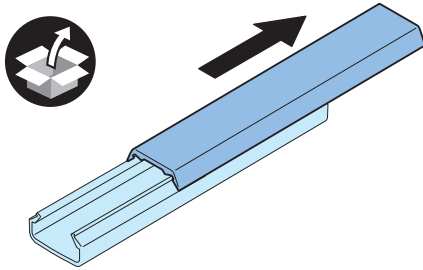
F-9-206

- 17) Put the Speaker Cable through the cut-off of the Right Upper Sub Cover, and return the cover to its original position.
 - 2 Screws (Use the screws removed in step 1.)



F-9-207

- 18) Remove the covers of 4 Cord Guides.



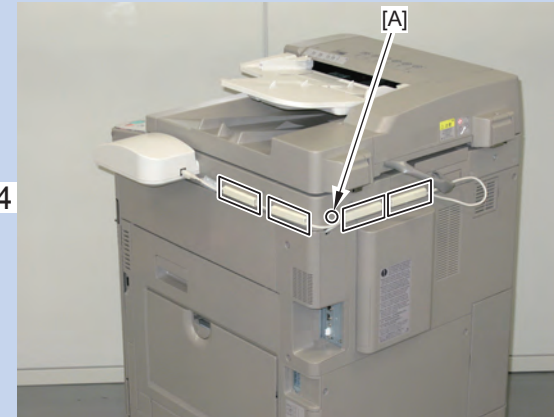
- 19) Remove the release paper from the Cord Guides, and affix the guides to the 4 areas indicated in the figure.
- 20) Put the Speaker Cable through the Cord Guides and install the covers of the guides.

F-9-208



F-9-209

NOTE:
In the case of simultaneous installation with the Card Reader-C1, do not install the Cord Guide to the [A] part because the Wire Saddle (included in the package of the Card Reader) needs to be installed.



F-9-210

Checking the Settings

NOTE:

When changing the settings upon user's request, it is required to log in as a system manager in accordance with instructions from the user administrator.



- 1) Connect the power plug of the host machine to the outlet.
- 2) Turn ON the main power switch.
- 3) Select Settings/Registration > Preferences > Accessibility > Voice Navigation Settings > Use Voice Navigation, and check that the setting is ON.
- 4) Select Settings/Registration > Preferences > Accessibility > Voice Navigation Settings, and check that "Voice Guide from Speakers" is displayed.
- 5) To make the setting value effective, turn OFF/ON the main power of the Host Machine.

Operation Check

■ When Using



- 1) Press "Reset" key for more than 3 seconds.
- 2) Press "Main Menu" on the Control Panel.
- 3) Once the indication on the screen is framed in red, the "Voice Guidance Kit" becomes enabled.

■ When Stopping to Use



- 1) Press "Reset" key for more than 3 seconds.

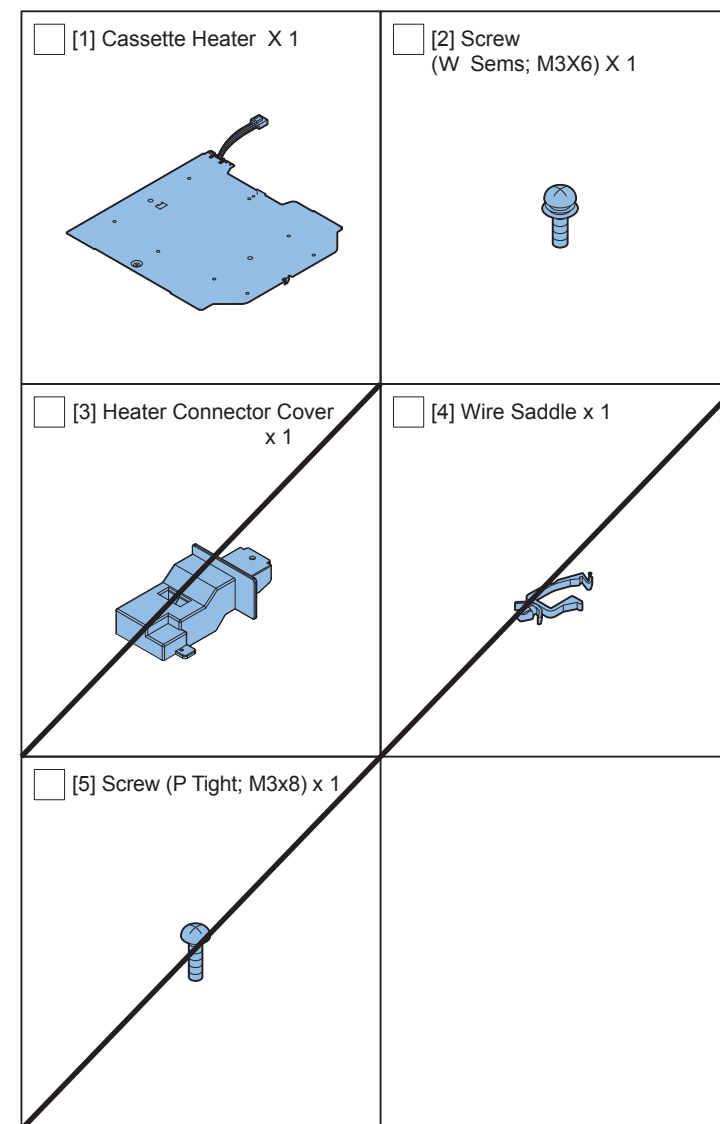
Cassette Heater unit

NOTE:

- When installing the Cassette Heater Unit 37, Heater Kit-L1 is required.
- When installing the Cassette Heater Unit 37 to both the host machine and the Cassette Pedestal, only one Heater Kit-L1 is required.

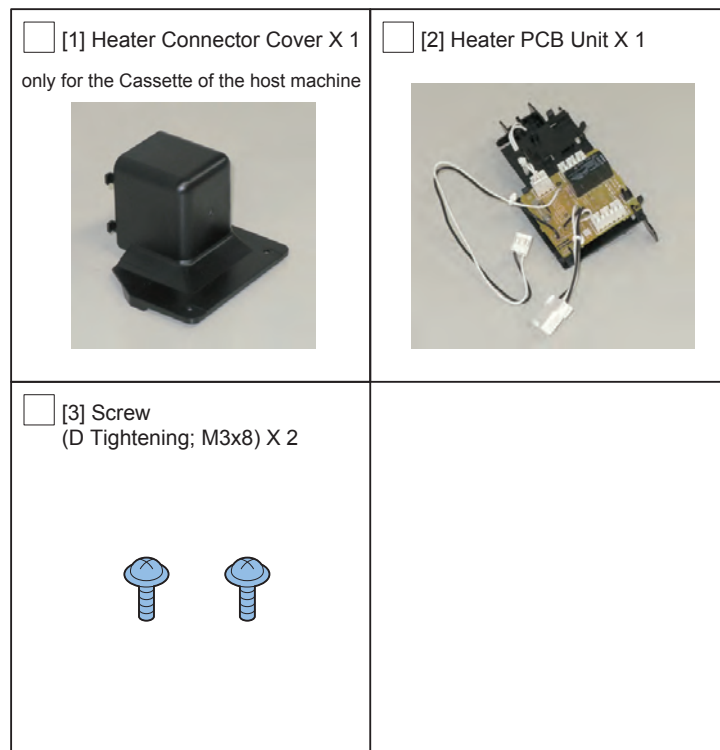
Checking the Contents

■ Cassette Heater Unit-37



F-9-211

■ Heater Kit-L1



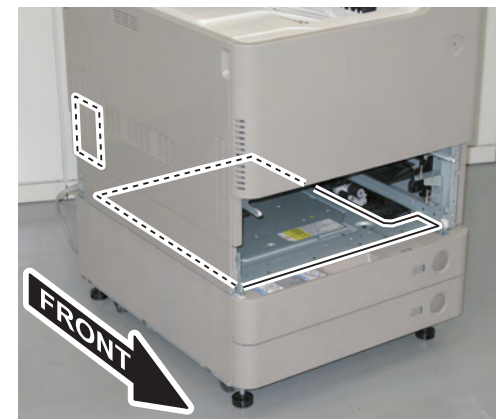
F-9-212

● Check Items when Turning OFF the Main Power

Check that the main power switch is OFF

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

● Installation Outline Drawing

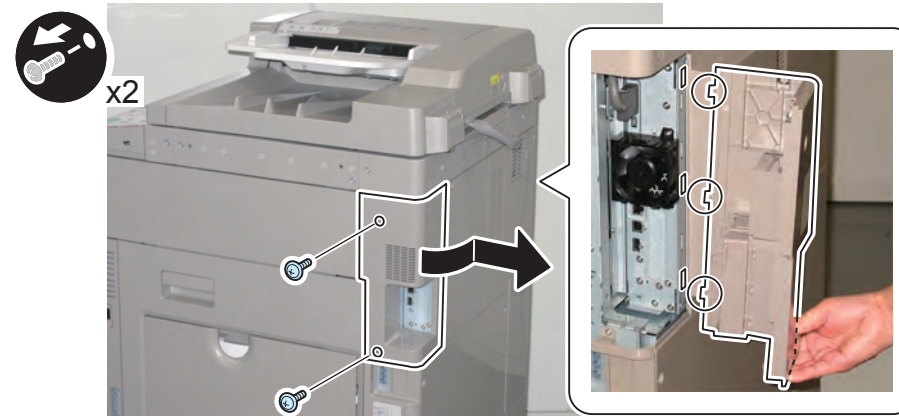


F-9-213

● Installation Procedure

■ Installing the Heater PCB

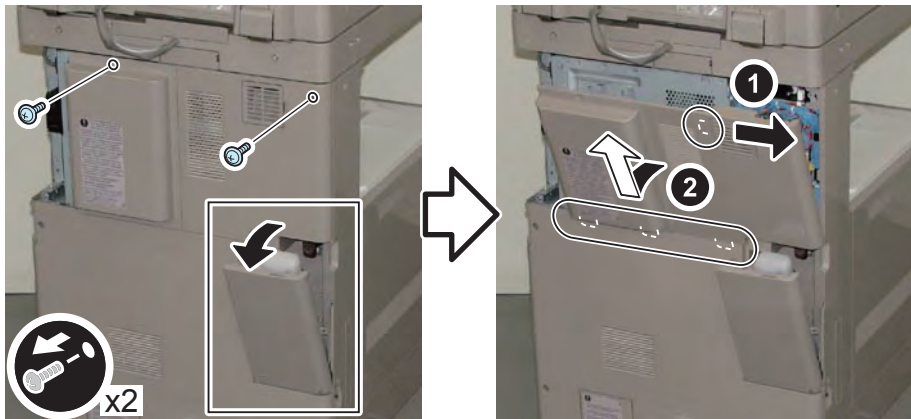
- 1) Press the cassette release button, and remove the Cassettes 1 and 2.
- 2) Remove the Right Upper Sub Cover.
 - 2 Screws
 - 3 Claws



F-9-214

- 3) Remove the 2 screws on the Rear Upper Cover 1 and the HDD Cover, and remove the covers by opening the Waste Toner Cover.

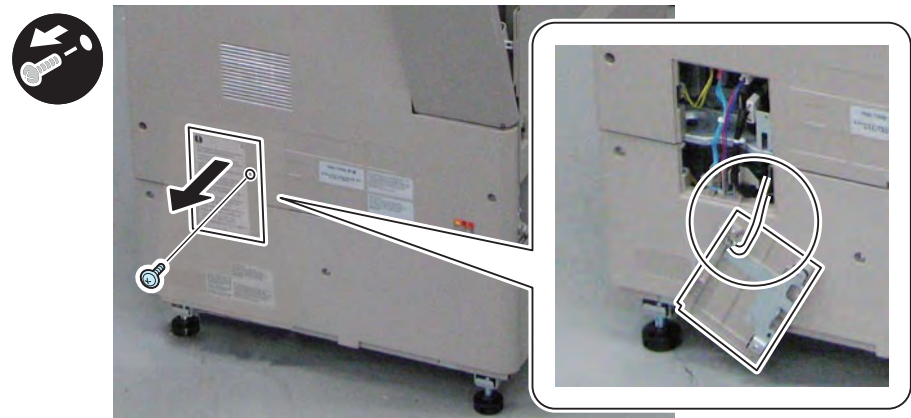
- 2 Screws
- 4 Claws



F-9-215

- 4) Remove the Connector Cover.

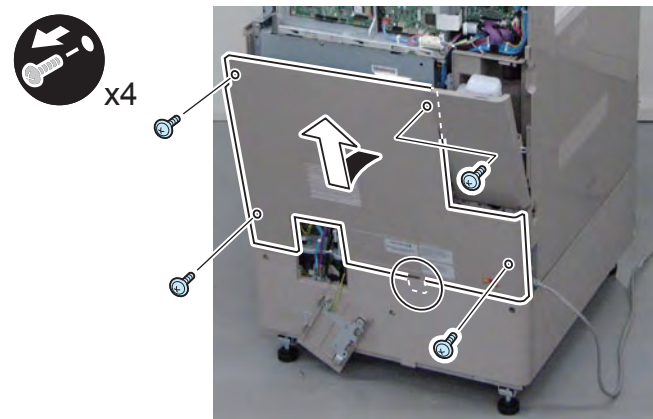
- 1 Screws



F-9-216

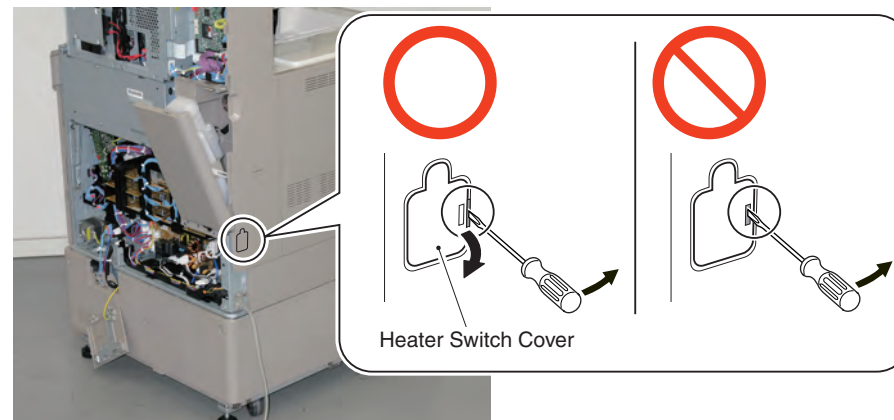
- 5) Remove the Rear Cover.

- 4 Screws
- 1 Claws



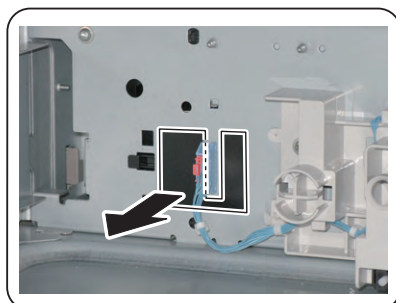
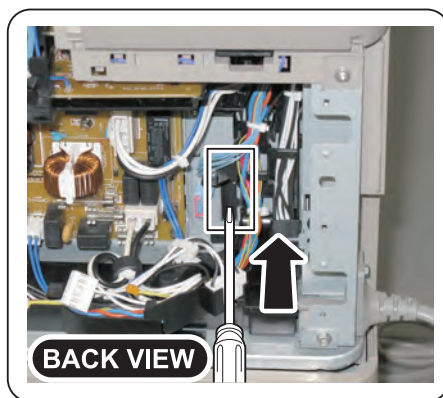
F-9-217

- 6) Remove the Environment Heater Switch Cover using a flat-blade screwdriver.



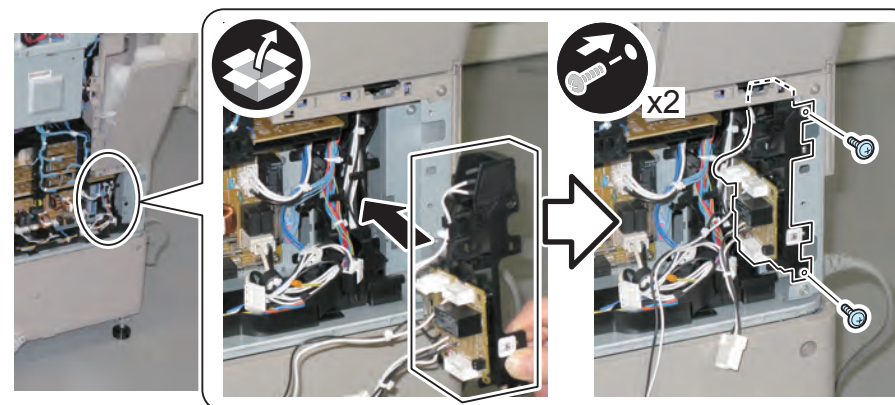
F-9-218

- 7) Slightly remove the Face Seal by pushing it with the end of a screwdriver from the rear side of the host machine. Then, remove the Face Seal from the front side of the host machine.



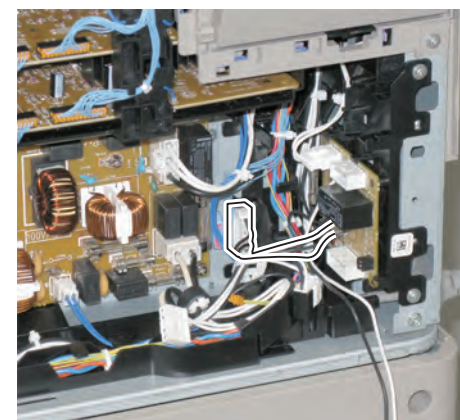
F-9-219

- 8) Install the Heater PCB.
- 2 Bosses
 - 2 Screws (D Tightening; M3x8)



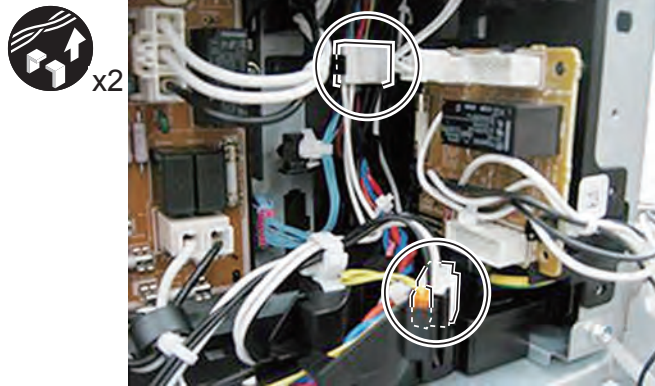
F-9-220

- 9) Connect the connector to the place from which the Face Seal was removed in step 7.



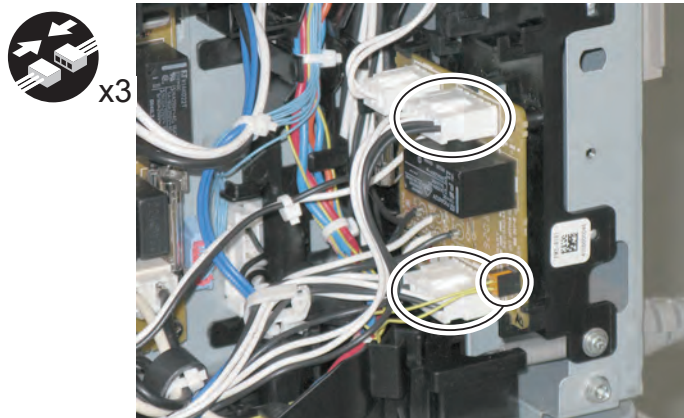
F-9-221

- 10) Free the 3 unconnected connectors.



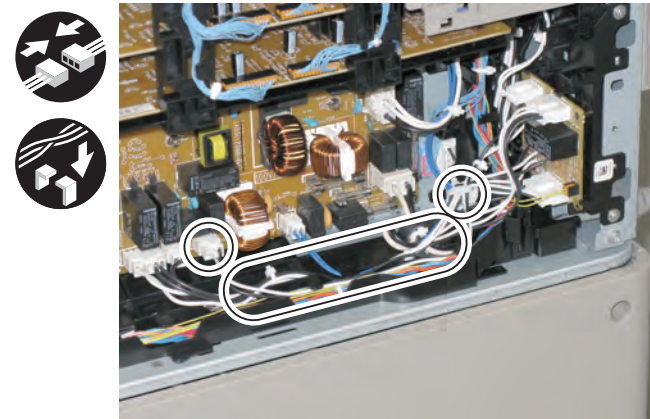
F-9-222

- 11) Connect the 3 connectors.



F-9-223

- 12) Secure the harness coming from the Heater PCB using the Wire Saddle and pass the harness through the Harness Guide. Then, connect the connectors.



F-9-224

■ Installing the Cassette Heater Unit

NOTE:

The Cassette Heater is installed to the host machine and the Cassette Pedestal by the same procedure.



1) When installing it to the Cassette Pedestal, press the cassette release button and remove the cassettes.

(Cassettes 3 and 4)



2) Remove the screw. (For the host machine only) (The removed screw will not be used.)

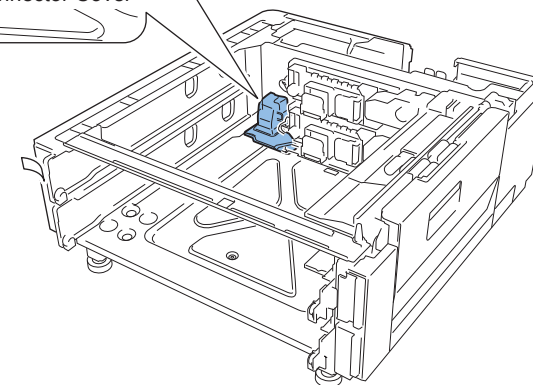
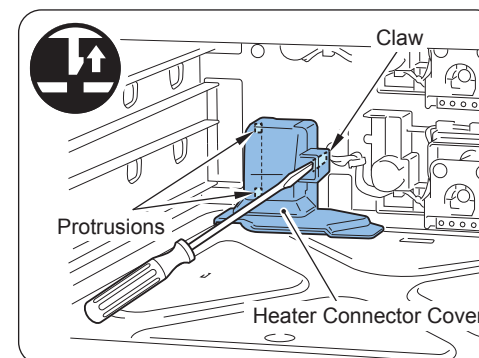


F-9-225



3) Remove the Heater Connector Cover. (Remove it only in the case of the Cassette Pedestal.)

- 2 Protrusions
- 1 Claw

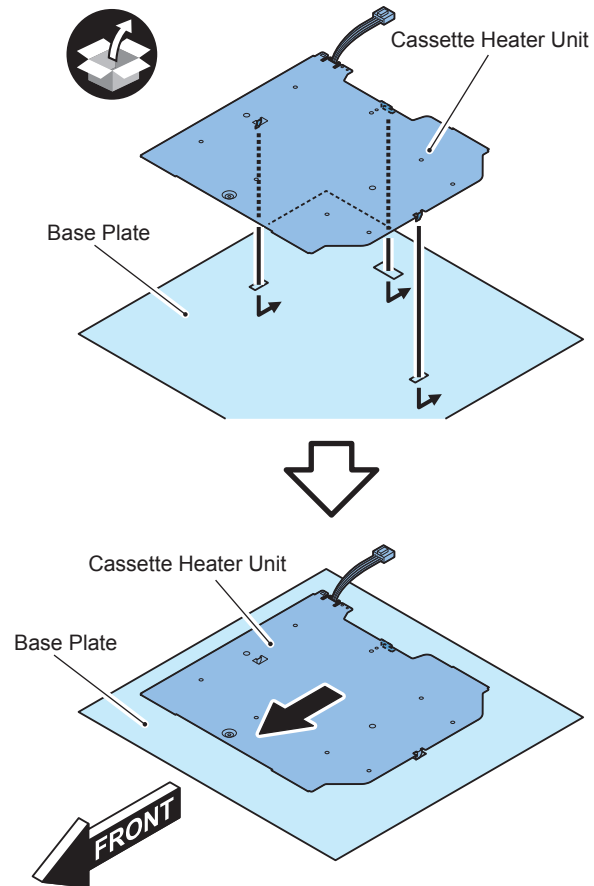


F-9-226

- 4) Fit the 3 claws of the Cassette Heater into the holes on the base plate. Then, move the Cassette Heater toward the front.
- 3 Claws

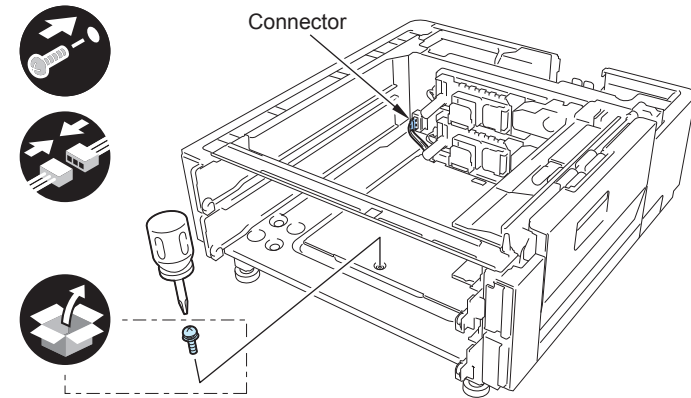
CAUTION:

Be sure that the claws are properly fitted in the holes on the base plate.



F-9-227

- 5) Tighten the screw (W Sems Round End; M3x6) with a stubby driver, and connect the connector.
- (The figure shows the case of the Cassette Pedestal. The fixing procedure is the same in the case of the host machine.)



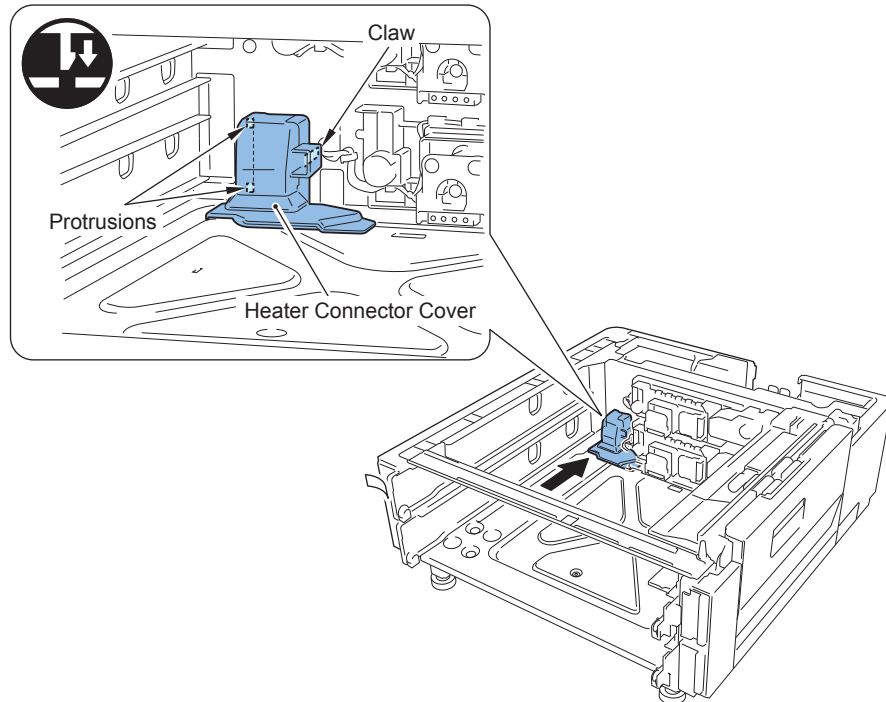
F-9-228



6) Install the Heater Connector Cover.

(For the Cassette Pedestal, install the Heater Connector Cover removed in step 3.)

- 2 Protrusions
- 1 Claw



F-9-229



7) Only in the case of the host machine, reinstall the removed cover.

MEMO :

Be sure to use the removed screw when installing the Connector Cover.



8) Install the cassettes.

9) Check that the Environment Heater Switch is ON.

If the switch is OFF, turn it ON.

10) Connect the power plug of the host machine to the outlet.

11) Execute the following service mode to make the Cassette Heater recognized. In service mode,
select COPIER > OPTION > USER > CSTHT-SW > "1".

When Relocating the Machine

When relocating this machine by truck or by other means for some reasons after installing the machine, perform the following procedure.

CAUTION:

In case of relocating the machine while it is mounted on the Cassette Pedestal, do not hold the grips of the machine to lift when, for example, passing over a difference in level of the floor. Holding the grips of the machine when lifting will result in separation of the machine from the Cassette Pedestal. Be sure to hold the Cassette Pedestal to lift the machine.



- 1) Turn OFF the main power.
- 2) Disconnect the power plug of the host machine.
- 3) If the Cassette Pedestal is installed, turn the 4 adjusters of the Cassette Pedestal with a screwdriver to lift them from the floor.



- 4) Secure the Scanner Unit with the Scanner System Fixation Screws that have been kept in a safe place since installation.



F-9-230



- 5) Put a sheet of paper on the Copyboard Glass.



- 6) After turning ON the power, make a copy. If dots image in whole or white dots image in whole occurs, refer to Troubleshooting in chapter 6 and perform a remedy.

Combination of HDD Options

How to check this Installation procedure

Description on the parts included in the package

The parts with a diagonal line in the contents list will not be used.

When using the parts included in the package

A symbol is described on the illustration in the case of using the parts included in the package of this product.



Packaged Item

^{F-9-231} Symbols in the illustration

The frequently-performed operations are described with symbols in this procedure.

Screw



Tighten



Remove



Connect



Disconnect



Secure



Free

Connector

Harness

Claw



Insert



Remove



Push



Plug in



Turn on

Checking instruction



Check



Visual Check



Sound Check

F-9-232

The combinations of installation are shown below.

TYPE	2.5inch 80GB HDD-E1	Removable HDD Kit-AE1	HDD Data Encryption Kit-C3	Reference for installation
1	Yes	-	-	2.5inch 80GB HDD-E1 Installation Procedure P9-107 to P9-114
2	Yes	-	Yes	2.5inch 80GB HDD-E1/HDD Data Encryption Kit-C3 Installation Procedure Including the installation procedure in the case of installing HDD Data Encryption Kit-C3 later P9-115 to 9-125
3	Shipped with HDD	Yes	-	Removable HDD Kit-AE1 Installation Procedure P9-126 to P9-132
4	Shipped with HDD	Yes	Yes	Removable HDD Kit-AE1 Installation Procedure (If HDD Data Encryption Kit-C3 is installed) P9-133 to P9-140
5	Shipped with HDD	Yes	Yes	Removable HDD Kit-AE1/HDD Data Encryption Kit-C3 Installation Procedure Including the installation procedure in the case of installing HDD Data Encryption Kit-C3 later P9-141 to P9-151
6	Yes	Yes	-	2.5inch 80GB HDD-E1/Removable HDD Kit-AE1 Installation Procedure P9-152 to P9-162
7	Yes	Yes	Yes	2.5inch 80GB HDD-E1/Removable HDD Kit-AE1/HDD Data Encryption Kit-C3 Installation Procedure P9-163 to P9-176

T-9-6

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 (When an option HDD is installed to a model without HDD, the data remains unerased.)	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
Data stored in Mail Boxes or the Advanced Box (Excluding the products without Box/Advanced Box function)	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 (When an option HDD is installed to a model without HDD, the data remains unerased.)	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 (When an option HDD is installed to a model without HDD, the data remains unerased.)	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box (Excluding the products without Box/Advanced Box function)	Yes

T-9-7

*1 Can only be backed up using the Remote UI.

*2 Depending on the MEAP application.

*3 Only the following items 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

*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 that can be backed up

Data that can be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings	
Printer Settings	
Paper Information	
Image forms stored in the Superimpose Image (Excluding the products without Box/Advanced Box function)	
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 (Excluding the products without Box/Advanced Box function)	See the e-Manual > Remote UI "Setting the Backup Location for Stored Data".
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 (Excluding the products without Box/Advanced Box function)	See the e-Manual > Security.

T-9-8

CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes, Confidential Fax Inboxes, and the Memory RX Inbox 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 the HDD Data Encryption & Mirroring Kit-C Series 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 T-1-2/T-1-4 (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

- 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 the HDD Data Encryption & Mirroring Kit-C Series is started must not be written back to the Host machine after the use of the HDD Data Encryption & Mirroring Kit-C Series is started. Similarly, even if the data that has been backed up after the use of the HDD Data Encryption & Mirroring Kit-C Series is started is written back to the Host machine before the use of the HDD Data Encryption & Mirroring Kit-C Series is started, the machine does not operate. It is necessary to make sure that the implementation conditions for the HDD Data Encryption & Mirroring Kit-C Series 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 MEAP SMS 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 the user has changed the password, ask him/her to change the password again after the use of the HDD Data Encryption & Mirroring Kit-C Series is started.

CAUTION:

Ask the user to change the password because the SMS password is initialized after the use of the HDD Data Encryption & Mirroring Kit-C Series 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 the HDD Data Encryption & Mirroring Kit-C Series 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/
- 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/Advanced Box document data

NOTE:

Some of the products do not have the Box/Advanced Box function.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

Specify an address, a user name, a password, and a path to the SMB server where a backup of a document data.

CAUTION: Points to note when backing up the Advanced Box

The data of the Advanced Box stored in a high-capacity HDD cannot be backed up, but the backed up data from a standard HDD to the File Server can be restored to a high-capacity HDD.

Depending on the version of the system software of the host machine, the data of the Advanced Box stored in a high-capacity HDD can be backed up/restored using a USB external HDD.

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/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.
- Set the number of users accessible to the folder to '2' or higher, or 'no restriction'. If the maximum number of users is set to [1], restoration cannot be done properly.
- If you select to encrypt the backup data, the backup process may take longer.

[Restoring the backup data of User inbox/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**NOTE:**

Some of the products do not have the Box/Advanced Box function.

- 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.







TYPE1:2.5inch/80GB HDD-E11 Installation Procedure

Points to note before installation

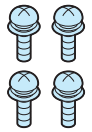
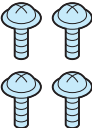

CAUTION:

- When handling the HDD, be careful not to vibrate or drop it.
- Be sure to prepare a USB memory for upgrading created with SST.
- In the case of installing the HDD, be sure to back up the data in the flash memory by way of precaution.
- Be sure to perform license registration after installing the HDD.
 - In the case of registering using LMS (License Management System), be sure to obtain a license key in advance.
 - In the case of registering using CDS (Contents Delivery System), be sure that internet connection is available.
- Be sure to delete the data on the flash memory after installing HDD.
 - Settings/Registration > Management Settings > Data Management > Delete Old Data

Checking the Contents [2.5inch/80GB HDD-E1]

<input type="checkbox"/> [1] HARD DISC X 1 	<input type="checkbox"/> [2] Expansion HDD Unit X 1 
<input type="checkbox"/> [3] Signal Cable X 1 	<input type="checkbox"/> [4] Power Cable X 1 
<input type="checkbox"/> [5] HDD Cable Holder X 1 	<input type="checkbox"/> [6] HDD Cover X 1 

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<p><input type="checkbox"/> [8] Screw (W Sems ; M3x4) X 4</p> 	<p><input type="checkbox"/> [9] Screw (TP ; M3x6) X 4</p> 
<p><input type="checkbox"/> [10] HDD Shield Cover X 1</p> 	

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<CD/Guides>

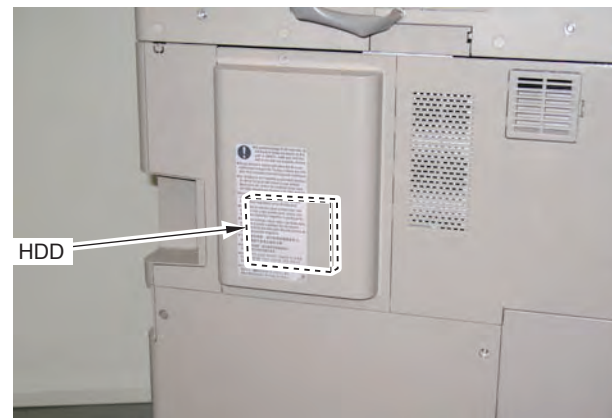
- License Access Number Certificate Data

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



F-9-235

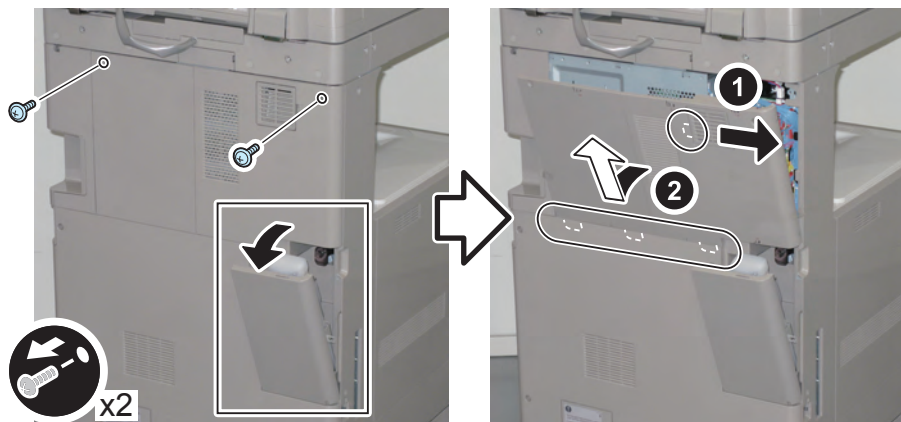
Installation Procedure

Removing the Covers



- 1) Remove the 2 screws securing the Rear Upper Cover 1 and the Rear Upper Cover 2. (The removed screws will be used in step 5 of "Installing the Covers".)
- 2) Open the Waste Toner Cover.
- 3) Remove the Rear Upper Covers (Rear Upper Cover 1 and Rear Upper Cover 2) in the directions of the arrows.

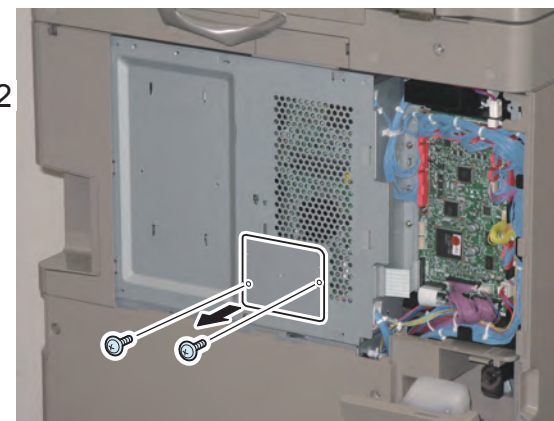
- 4 Claws



F-9-236



- 4) Remove the small cover of the Controller Box Cover. (The removed small cover and screws will not be used.)
- 2 Screws



F-9-237

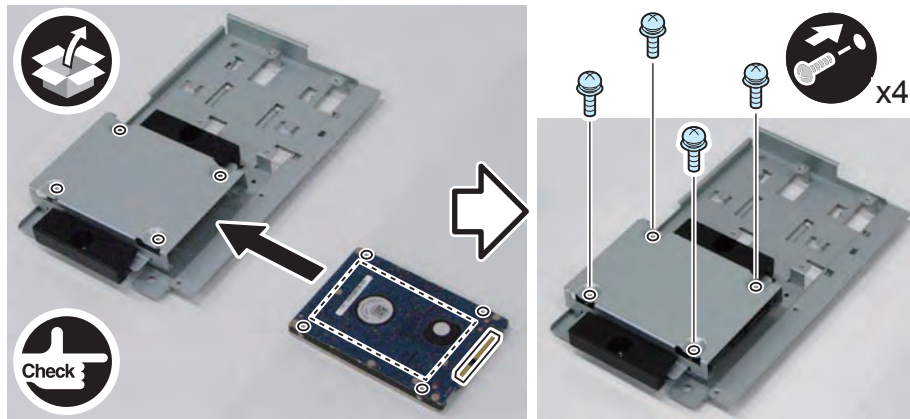
Installing the HDD



- 1) Install the HDD to the Expansion HDD Unit.
 - 4 Screws (W Sems; M3x4)

NOTE:

Be sure to insert the HDD with its label side down and its connector in the direction as shown in the figure, and align its 4 screw holes with those of the Expansion HDD Unit.



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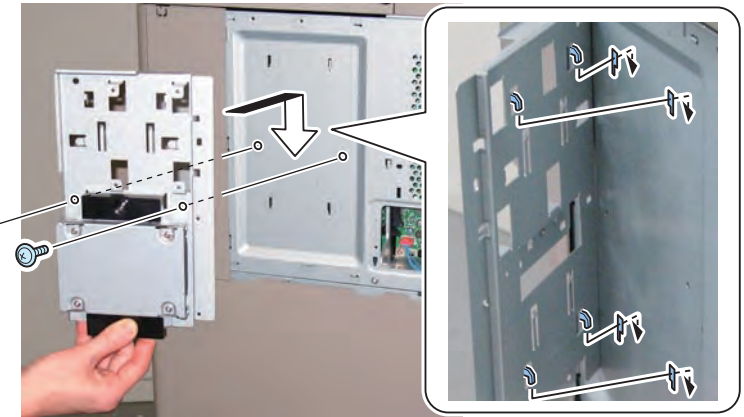
- 2) Install the Expansion HDD Unit.
 - 4 Claws
 - 2 Screws (TP; M3x6)



x4



x2



F-9-239



- 3) Install the HDD Cable Holder.
 - 3 Claws
 - 1 Boss

CAUTION:

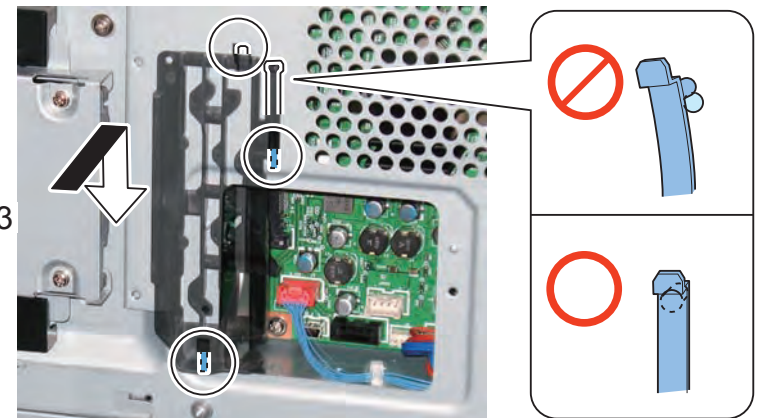
Be sure that the boss is fitted properly.



x3



Check



F-9-240

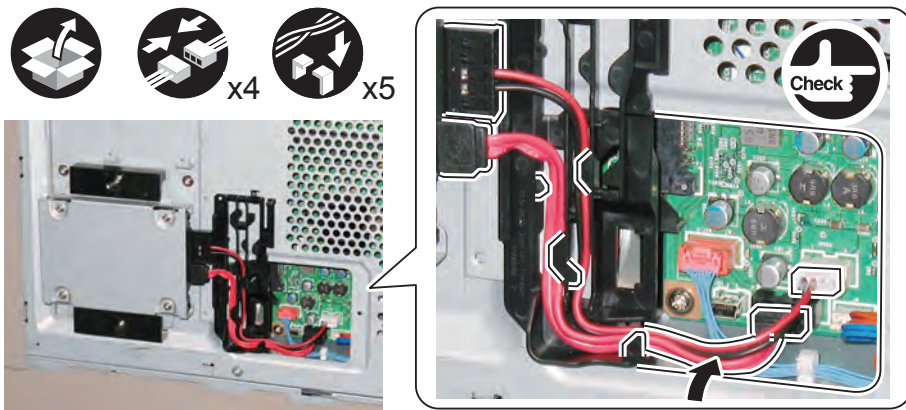


4) Secure the Signal Cable and the Power Cable with the HDD Cable Holder.

- 2 Connector each

CAUTION:

If there is extra slack of the cables, be sure to tuck them in the Controller Box.



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■ Installing the Shield Cover



1) Install the HDD Shield Cover.

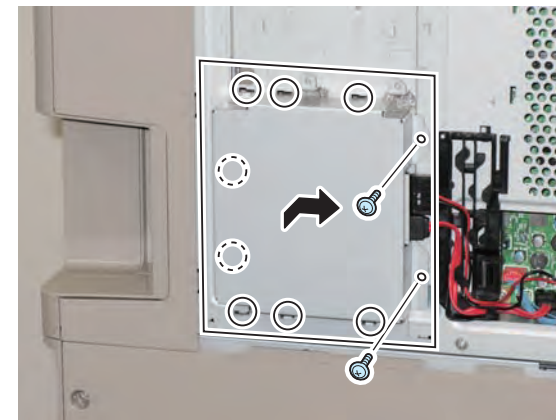
- 8 Claws
- 2 Screws (TP; M3x6)



x2



x8

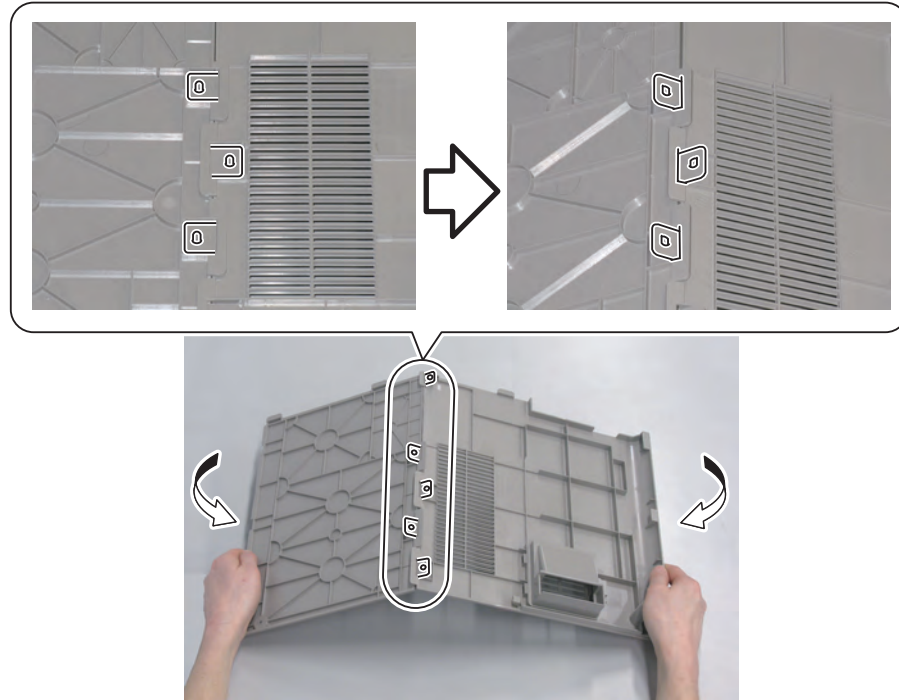


F-9-242

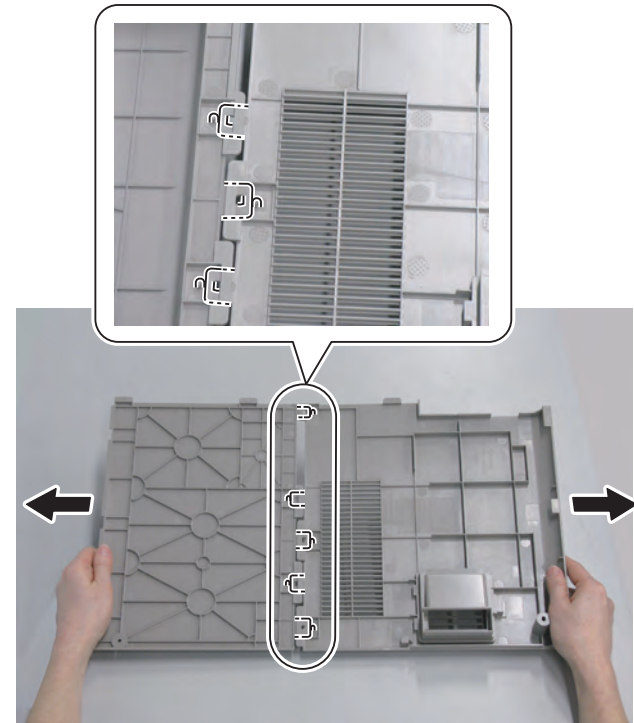
■ Installing the Covers



1) Separate the Rear Upper Cover 1 and the Rear Upper Cover 2 by bending them to release the 5 bosses. (The separated Rear Upper Cover 2 will not be used.)



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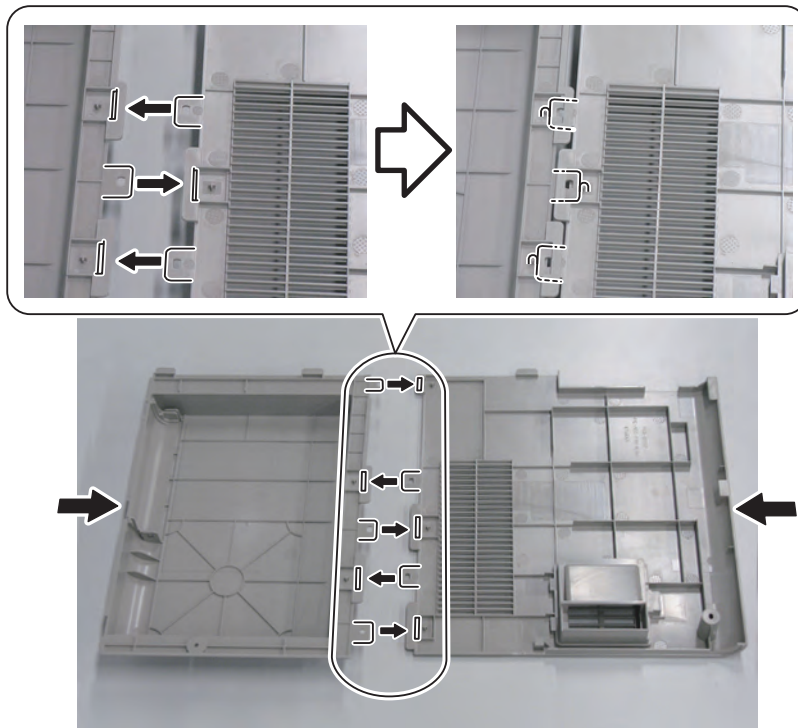


2) Replace the separated Rear Upper Cover 2 with the HDD Cover and join the HDD Cover and the Rear Upper Cover 1.

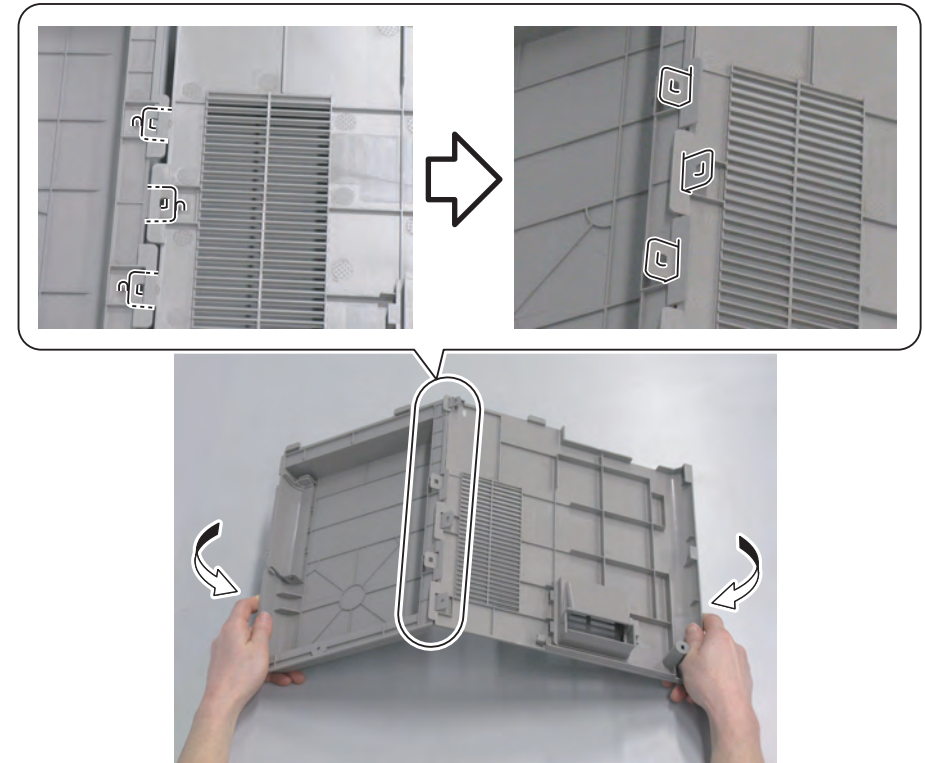
- 5 bosses

NOTE:

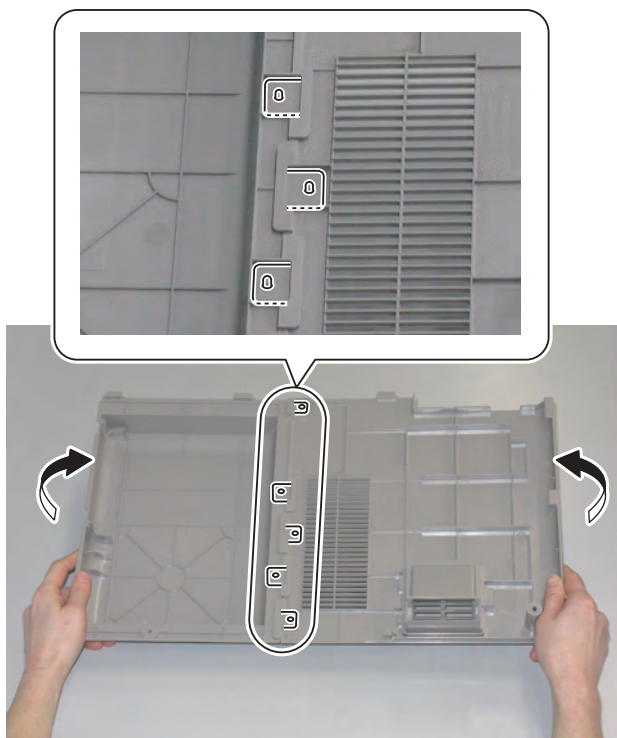
- Put the HDD Cover and the Rear Upper Cover 1 on a desk and insert the claws keeping them on the same level.
- Bend the HDD Cover and the Rear Upper Cover 1 to further insert the claws.
- Flatten the bent HDD Cover and Rear Upper Cover 1 to fit the claws into the 5 bosses.



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F-9-246



F-9-247

-
- 3) Install the Rear Upper Cover (Rear Upper Cover 1 and HDD Cover).
- 4) Close the Waste Toner Cover.
- 5) Tighten the screws securing the Rear Upper Cover 1 and HDD Cover. (Use the 2 screws removed in "Removing the Covers" step 1.)

Setting after Installation



- 1) Connect the power plug to the outlet.
- 2) Open the Switch Cover and turn ON the main power switch.
- 3) Perform license registration.

In the case of LMS (License Management System)

- Write down the serial number of the machine.
- Refer to the license access number certificate, and obtain a license key from LMS (License Management System).
- Register the license key.

Settings/Registration > Management Setting > License/Other > Register License

In the case of CDS Contents Delivery System)

- Enter the license access number in Register/Update Software of Settings/Registration to perform automatic registration.
- 4) Turn OFF and then ON the main power switch.
- 5) Delete the data on the flash memory.
- Settings/Registration > Management Settings > Data Management > Delete Old Data

Checking after Installation



- 1) Check that the HDD is recognized.
 - Select [service mode > COPIER > Display > ACC_STS > HDD], and check that the manufacturer's name and the model number are displayed.
- 2) Check that the license is registered.
 - Select Check Counter > Device Configuration Information, and check that "HDD" is displayed

TYPE2:2.5inch/80GB HDD-E1/HDD Data Encryption Kit-C3 Installation Procedure:

Points to Note at Installation

CAUTION:

- When handling the HDD, be careful not to vibrate or drop it.
- Be sure to prepare a USB memory for upgrading created with SST.
- In the case of installing the HDD, be sure to back up the data in the flash memory by way of precaution.
- Be sure to perform license registration after installing the HDD.
 - In the case of registering using LMS (License Management System), be sure to obtain a license key in advance.
 - In the case of registering using CDS (Contents Delivery System), be sure that internet connection is available.
- If only HDD Data Encryption Kit-C3 is installed later, the data on the HDD will be erased. Be sure to back up/export the data as necessary.
- Be sure to delete the data on the flash memory after installing HDD Data Encryption Kit-C3.
 - Settings/Registration > Management Settings > Data Management > Delete Old Data

NOTE:

This Installation Procedure includes the procedure in the case of installing the HDD Data Encryption Kit-C3 later.

- Remove the Rear Upper Cover and the HDD Shield Cover.
- Disconnect the Signal Cable and the Power Cable of the HDD.
- Perform steps 5 to 10 of "Installing the HDD".
- Perform "Installing the Shield Cover".
- Install the Rear Upper Cover.







Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

CAUTION:

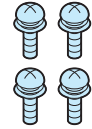
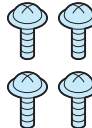

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn.

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 [2.5inch/80GB HDD-E1]

<input type="checkbox"/> [1] HARD DISC X 1 	<input type="checkbox"/> [2] Expansion HDD Unit X 1 
<input type="checkbox"/> [3] Signal Cable X 1 	<input type="checkbox"/> [4] Power Cable X 1 
<input type="checkbox"/> [5] HDD Cable Holder X 1 	<input type="checkbox"/> [6] HDD Cover X 1 

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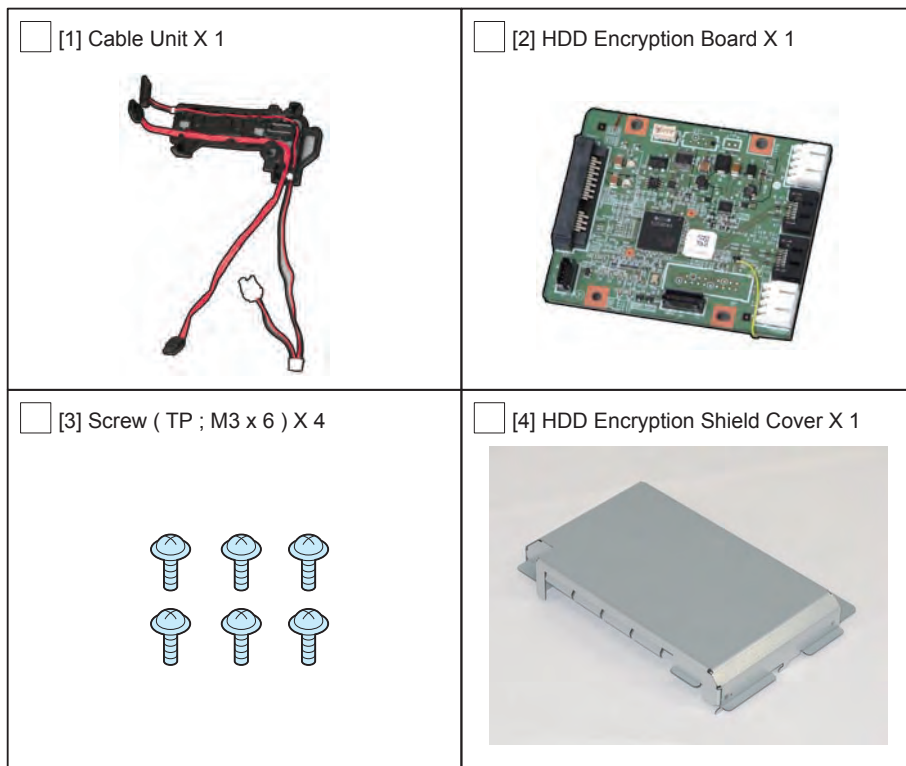
<input type="checkbox"/> [8] Screw (W Sems ; M3x4) X 4 	<input type="checkbox"/> [9] Screw (TP ; M3x6) X 4 
<input type="checkbox"/> [10] HDD Shield Cover X 1 	

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<CD/Guides>

- License Access Number Certificate Data

Checking the Contents [HDD Data Encryption Kit-C3]



F-9-250

<CD/Guides>

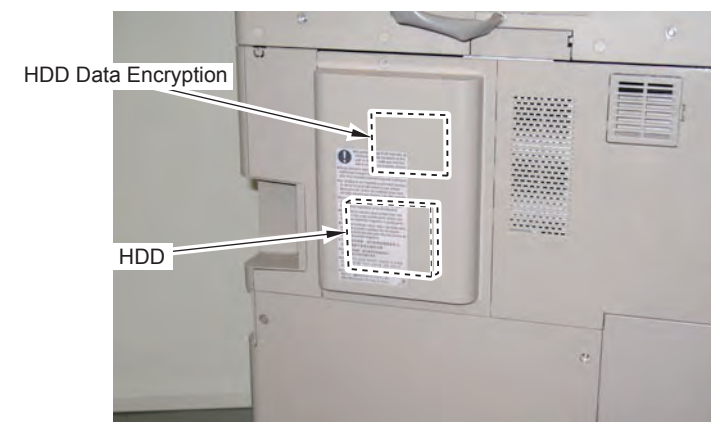
- User's Guide
- HDD Data Encryption Kit Notice

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



F-9-251

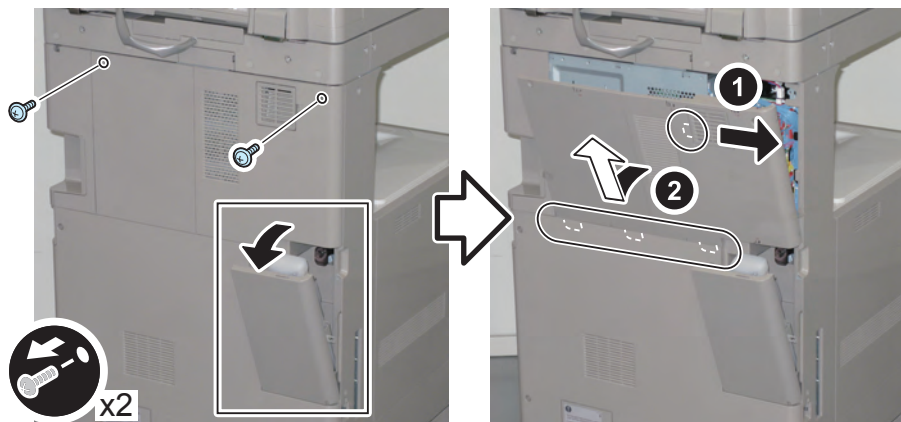
Installation Procedure

Removing the Covers



- 1) Remove the 2 screws securing the Rear Upper Cover 1 and the Rear Upper Cover 2. (The removed screws will be used in step 5 of "Installing the Covers".)
- 2) Open the Waste Toner Cover.
- 3) Remove the Rear Upper Covers (Rear Upper Cover 1 and Rear Upper Cover 2) in the directions of the arrows.

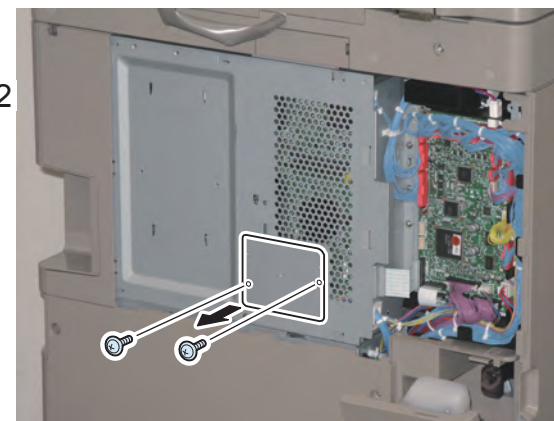
- 4 Claws



F-9-252



- 4) Remove the small cover of the Controller Box Cover. (The removed small cover and screws will not be used.)
- 2 Screws



F-9-253

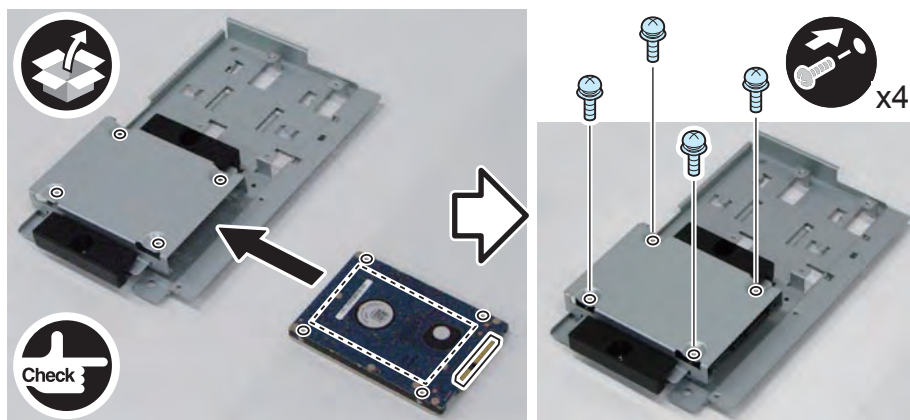
Installing the HDD



- 1) Install the HDD to the Expansion HDD Unit.
 - 4 Screws (W Sems; M3x4)

NOTE:

Be sure to insert the HDD with its label side down and its connector in the direction as shown in the figure, and align its 4 screw holes with those of the Expansion HDD Unit.



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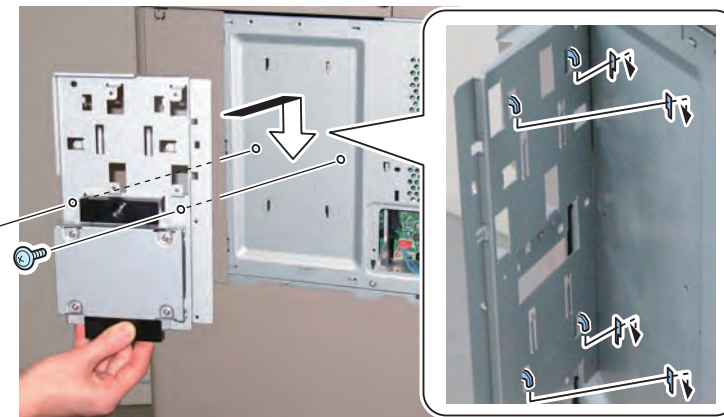
- 2) Install the Expansion HDD Unit.
 - 4 Claws
 - 2 Screws (TP; M3x6)



x4



x2



F-9-255



- 3) Install the HDD Cable Holder.
 - 3 Claws
 - 1 Boss

CAUTION:

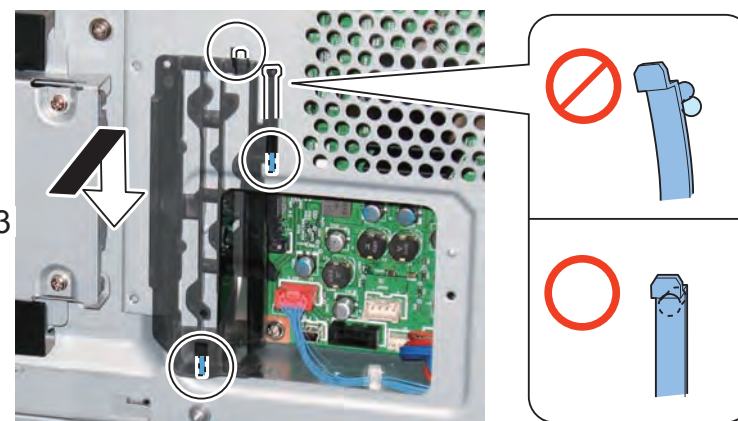
Be sure that the boss is fitted properly.



x3

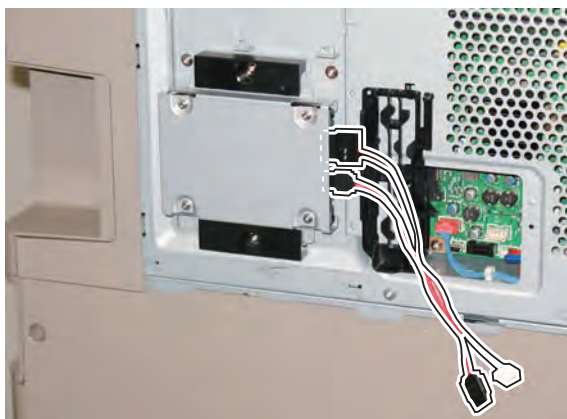


Check



F-9-256

-
- 4) Connect the Signal Cable and the Power Cable.
- 1 Connector each

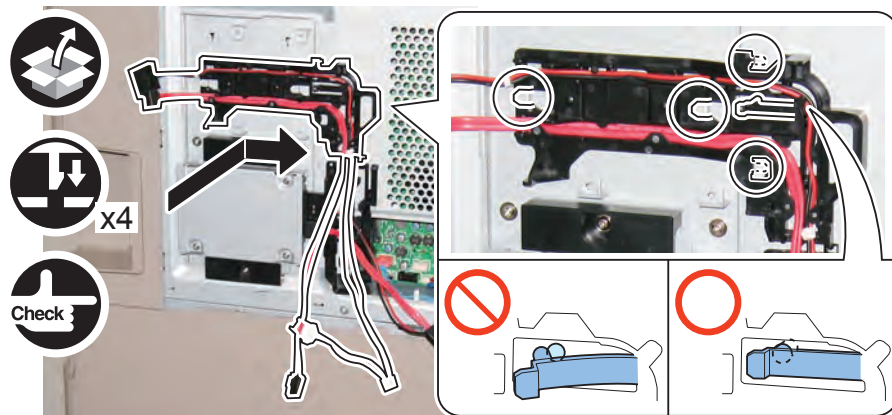


F-9-257

-
- 5) Install the Cable Unit.
- 2 Claws of the Cable Unit
 - 2 Claws of the HDD Mount Frame
 - 1 Boss

CAUTION:

Be sure that the boss is fitted properly.

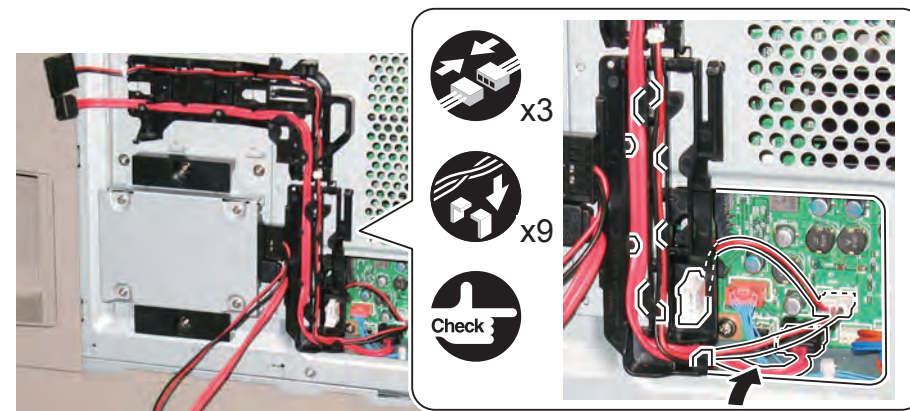


F-9-258

-
- 6) Secure the 2 cables of the Cable Unit with the HDD Cable Holder.
- 3 Connectors

CAUTION:

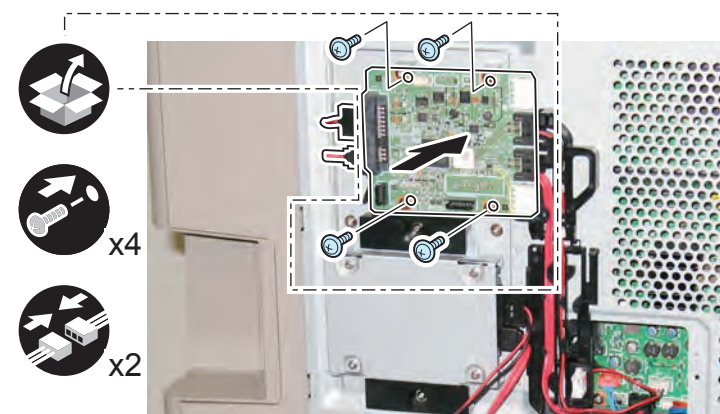
If there is extra slack of the cables, be sure to tuck them in the Controller Box.



F-9-259

-
- 7) Install the HDD Encryption Board.
- 4 Screws (TP; M3x6)

- 8) Connect the 2 connectors to the HDD Encryption Board.

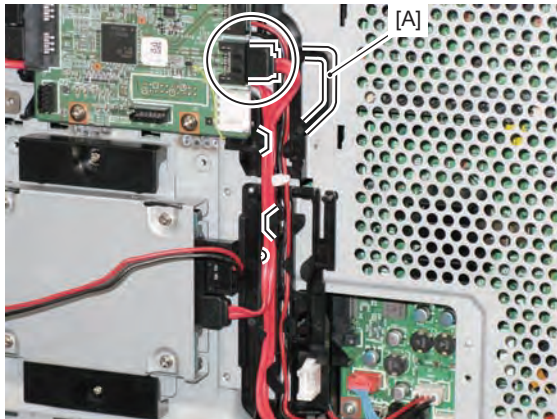


F-9-260

- 9) Secure the other end of the Signal Cable installed in step 4 with the HDD Cable Holder.
- 1 Connector

NOTE:
Put the Signal Cable through the left line of the guide and connect it to the connector of the HDD Encryption Board.

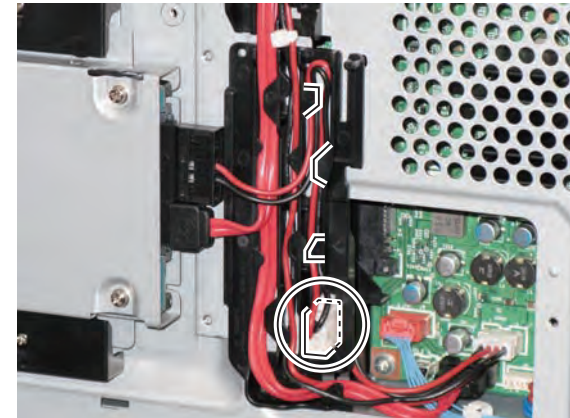
CAUTION:
Be sure that the cable of the connector does not protrude from the [A] part in order to prevent the cable from being trapped.



F-9-261

- 10) Secure the other end of the Power Cable installed in step 4 with the HDD Cable Holder.
- 1 Connector

NOTE:
Put the Power Cable up and then down through the right line of the guide and connect it to the Power Cable Connector.

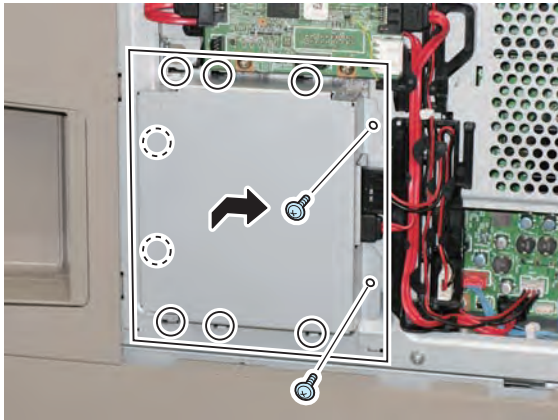


F-9-262

■ Installing the Shield Cover

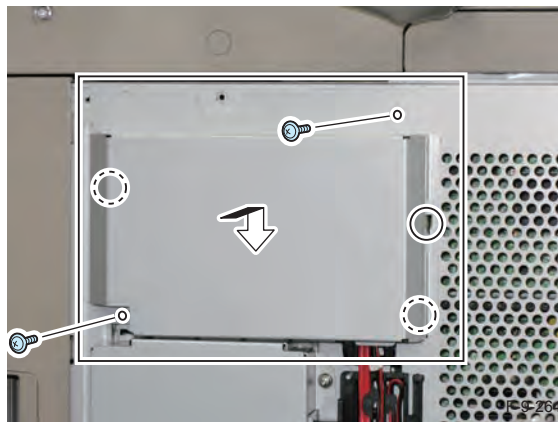
NOTE:
In the case of a machine with HDD Data Encryption Kit-C3, install the HDD Shield Cover and then install the Encryption Shield Cover for easier work.

-
- 1) Install the HDD Shield Cover.
 - 8 Claws
 - 2 Screws (TP; M3x6)



F-9-263

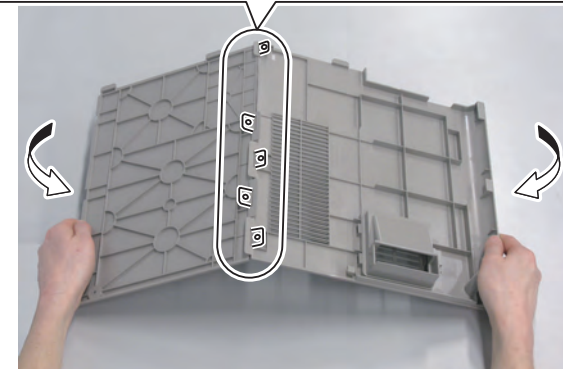
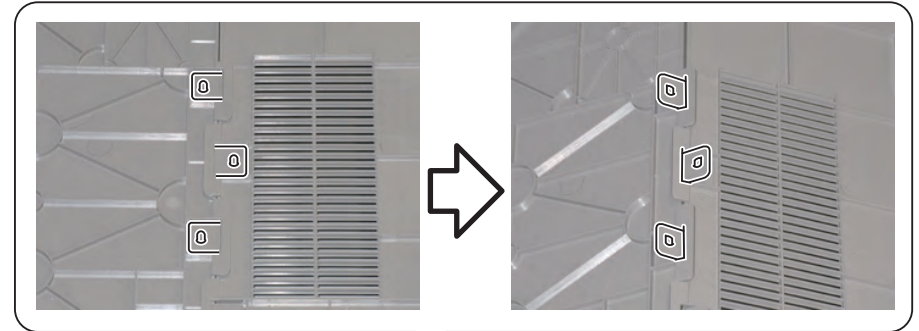
-
- 2) Install the Encryption Shield Cover.
 - 3 Claws
 - 2 Screws (TP; M3x6)



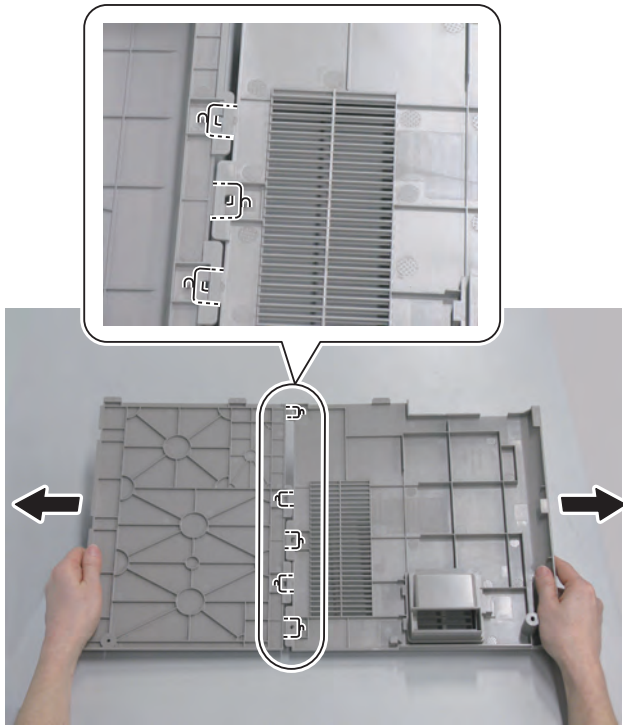
F-9-264

■ Installing the Covers

-
- 1) Separate the Rear Upper Cover 1 and the Rear Upper Cover 2 by bending them to release the 5 bosses. (The separated Rear Upper Cover 2 will not be used.)



F-9-265



F-9-266

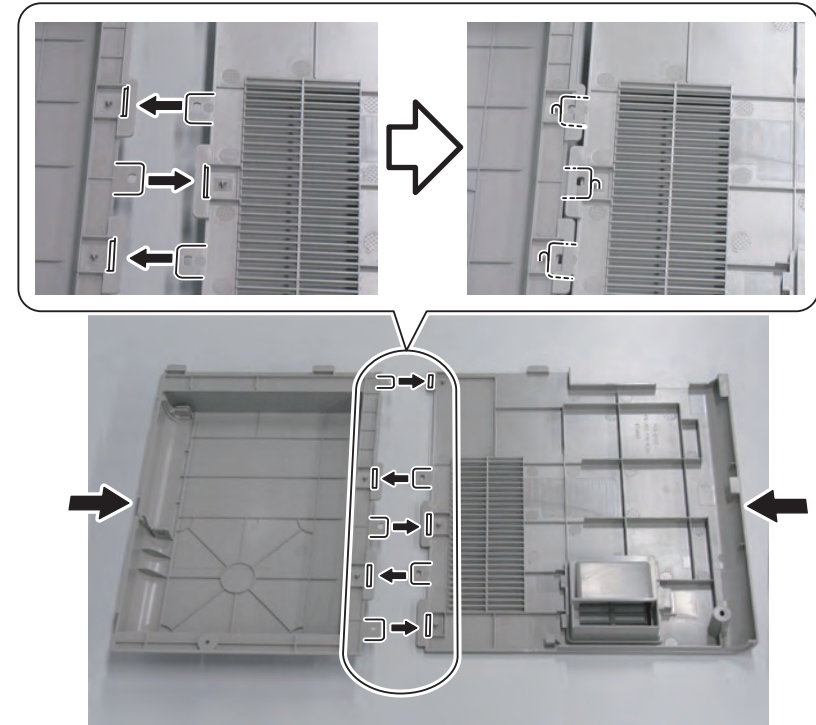


2) Replace the separated Rear Upper Cover 2 with the HDD Cover and join the HDD Cover and the Rear Upper Cover 1.

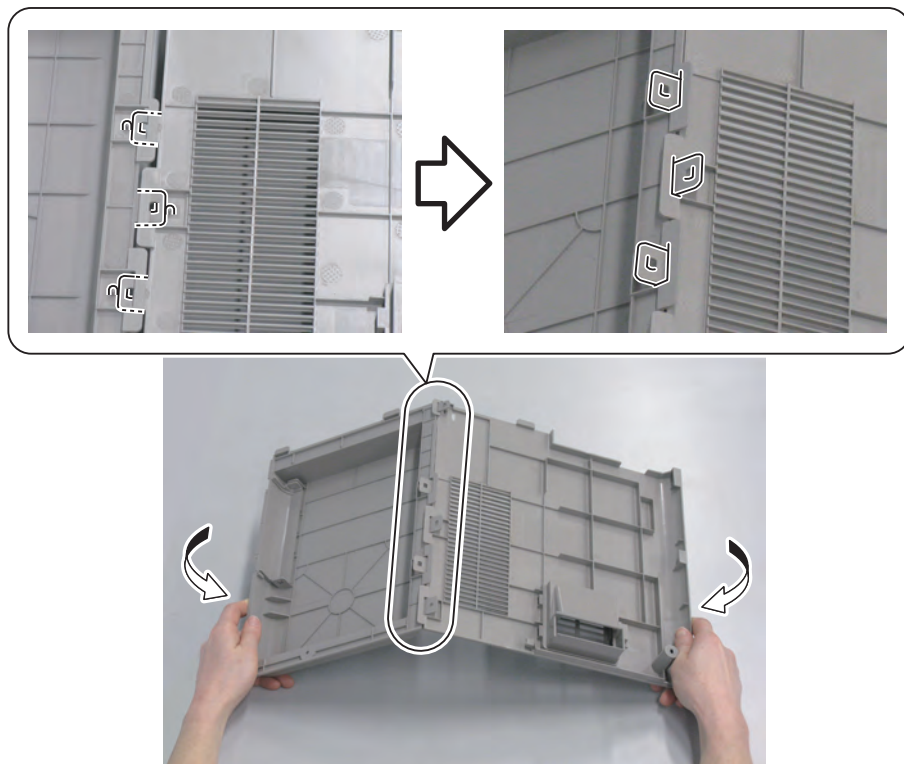
- 5 bosses

NOTE:

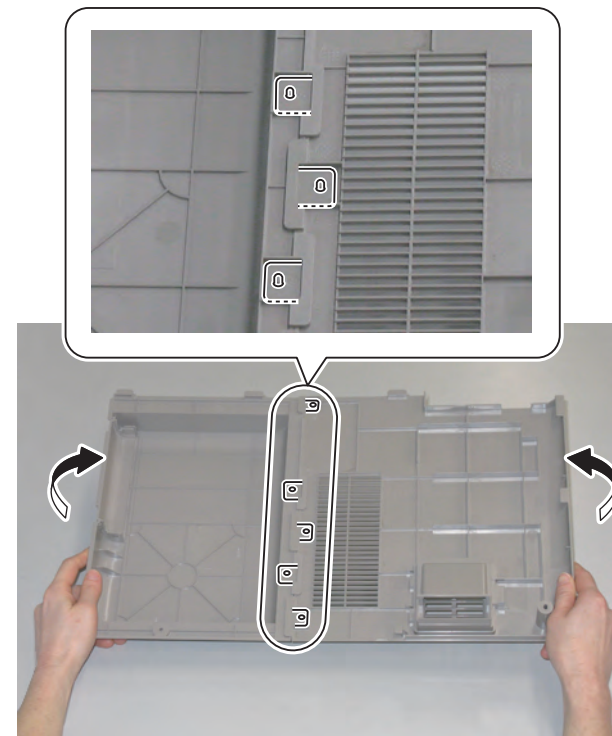
- Put the HDD Cover and the Rear Upper Cover 1 on a desk and insert the claws keeping them on the same level.
- Bend the HDD Cover and the Rear Upper Cover 1 to further insert the claws.
- Flatten the bent HDD Cover and Rear Upper Cover 1 to fit the claws into the 5 bosses.



F-9-267



F-9-268



F-9-269

- 3) Install the Rear Upper Cover (Rear Upper Cover 1 and HDD Cover).
- 4) Close the Waste Toner Cover.
- 5) Tighten the screws securing the Rear Upper Cover 1 and HDD Cover. (Use the 2 screws removed in "Removing the Covers" step 1.)

Setting after Installation



- 1) Connect the power plug to the outlet.
- 2) Open the Switch Cover and turn ON the main power switch.
- 3) Turn OFF and then ON the main power switch by following the message.
- 4) Perform license registration.

In the case of LMS (License Management System)

- Write down the serial number of the machine.
- Refer to the license access number certificate, and obtain a license key from LMS (License Management System).
- Register the license key.
Settings/Registration > Management Setting > License/Other > Register License

In the case of CDS Contents Delivery System)

- Enter the license access number in Register/Update Software of Settings/Registration to perform automatic registration.
- 5) Turn OFF and then ON the main power switch.
 - 6) Delete the data on the flash memory.
 - Settings/Registration > Management Settings > Data Management > Delete Old Data

Checking after Installation



- 1) Check that the HDD is recognized.
 - Select [service mode > COPIER > COPIER > ACC_STS > HDD], and check that the manufacturer's name and the model number are displayed.
- 2) Check that the license is registered.
 - Select Check Counter > Device Configuration Information, and check that "HDD" is displayed.
- 3) Check that the HDD Data Encryption is recognized.
 - Select Check Counter > Check Device Configuration > Option, and check that "HDD Data Encryption" is displayed.
 - A key mark should be displayed at the lower left of the Touch Panel Display.
- 4) Check the version of the HDD Data Encryption Kit.
 - Select Check Counter > Check Device Configuration, and check that "Canon MFP Security Chip '2.00' or '2.01' " is displayed.

After Installing the Encryption Kit



- 1) Connect the power plug to the outlet.
- 2) Open the Switch Cover and turn ON the main power switch.
- 3) E602-0001 occurs.
- 4) Turn OFF the main power, and start up 2+8.
- 5) Insert the USB memory for upgrading created with SST.
- 6) Press a key according to the instruction on the screen of the Control Panel.
 - [4]: Clear/Format > [1]: Disk Format > [0] > Please hit any key > [C]: Return to Main Menu > [Reset]: Start Shutdown sequence > [0]
- 7) Check that the Control Panel screen has become blank. Then, turn OFF and then ON the main power switch.
- 8) The HDD is initialized, and then the machine is started up.
- 9) Delete the data on the flash memory.
 - Settings/Registration > Management Settings > Data Management > Delete Old Data

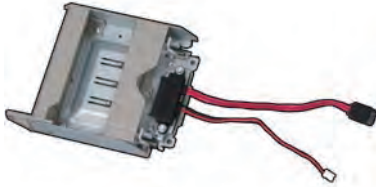
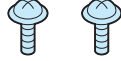



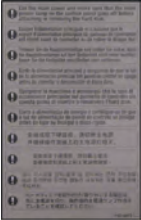


TYPE3:Removable HDD Kit-AE1 Installation Procedure:

Points to Note at Installation

CAUTION:

- When handling the HDD, be careful not to vibrate or drop it.

Checking the Contents [Removable HDD Kit-AE1]

<input type="checkbox"/> [1] HDD Slot Unit X 1 	<input type="checkbox"/> [2] Screw (TP ; M3x6) X 2 
<input type="checkbox"/> [3] Plug_Connector X 1 	<input type="checkbox"/> [4] HDD Case X 1 
<input type="checkbox"/> [5] Screw (P Tightening ; M3x10) X 1 	<input type="checkbox"/> [6] HDD Warning Label X 1 
<input type="checkbox"/> [7] HDD Case Cover X 1 	<input type="checkbox"/> [8] HDD Discriminate Label 

F-9-270

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



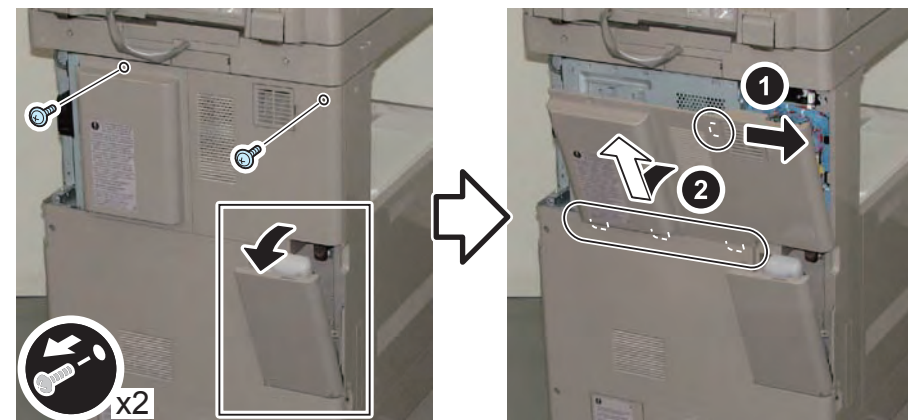
F-9-271

Installation Procedure

Removing the Covers



- 1) Remove the 2 screws securing the Rear Upper Cover 1 and the HDD Cover. (The removed screws will be used in step 4 of "Installing the Covers".)
 - 2) Open the Waste Toner Cover.
 - 3) Remove the Rear Upper Covers (Rear Upper Cover 1 and HDD Cover) in the directions of the arrows.
- 4 Claws



F-9-272

■ Removing the Shield Covers



1) Remove the HDD Shield Cover. (The removed parts will not be used.)

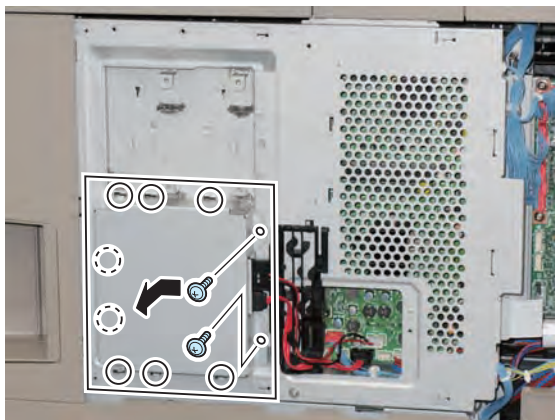
- 2 Screws
- 8 Claws



x2



x8



F-9-273

■ Installing the Removable HDD Kit



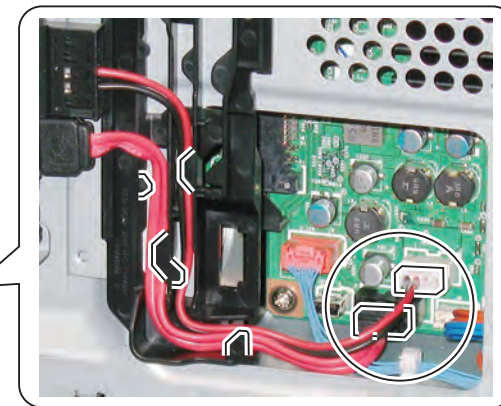
1) Free the Power Cable and the Signal Cable from the HDD Cable Holder.

- 1 Connector each



x2

x5



F-9-274



2) Remove the HDD Unit.

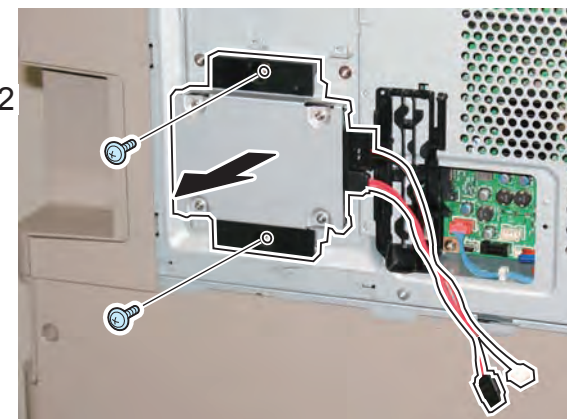
- 2 Screws (The removed screws will be used in step 9.)

CAUTION:

Be careful not to drop the HDD Unit.

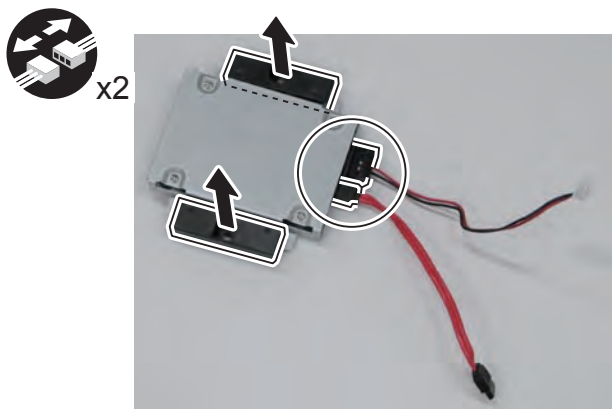


x2



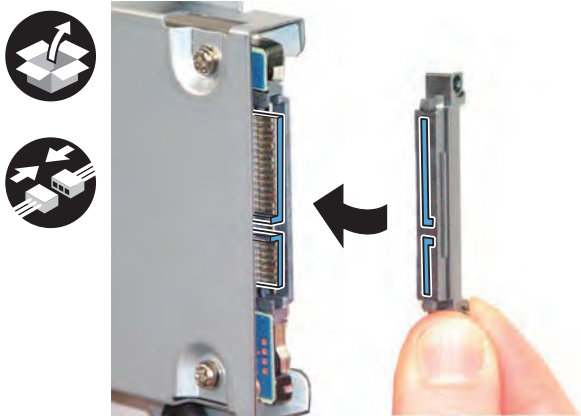
F-9-275

- 3) Remove the 2 HDD Holders and 2 cables from the HDD Unit. (The removed parts will not be used.)
- 1 Connector each



F-9-276

- 4) Connect the Plug Connector to the HDD Unit.

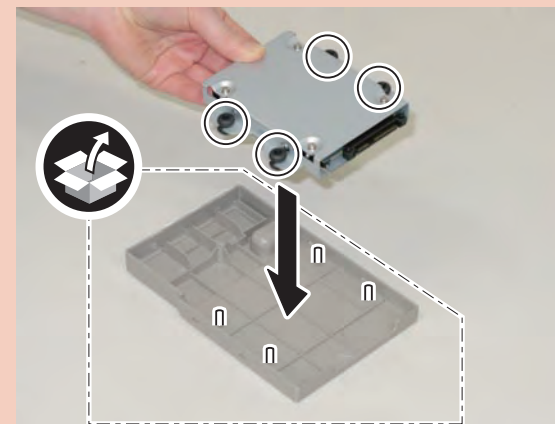


F-9-277

- 5) Install the HDD Unit to the HDD Case.
- 4 Bosses

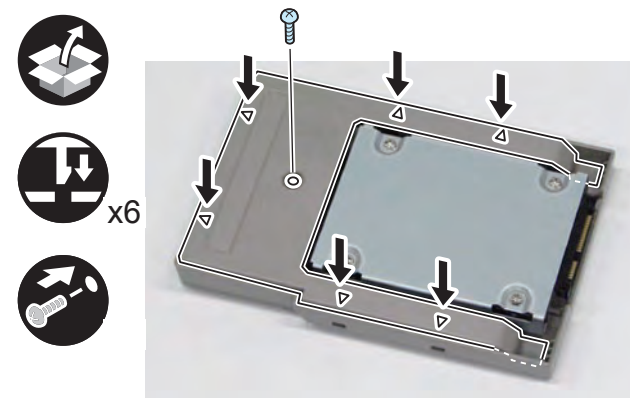
CAUTION:

When installing the HDD Unit, be sure to keep the screwed side up.



F-9-278

- 6) Install the HDD Case Cover by pushing in the 6 claws marked with triangles.
- 1 Screw (P Tightening; M3x10)



F-9-279



7) Affix the HDD Warning Label in the appropriate language, aligning the label with the groove.

CAUTION:

Be sure to affix the HDD Warning Label in the direction as shown in the figure.

8) Affix the HDD Identification Label, aligning it with the groove.

CAUTION:

Be sure to write down the serial number on the HDD Identification Label in order to show from which machine it was removed and prevent it from being installed to another machine.

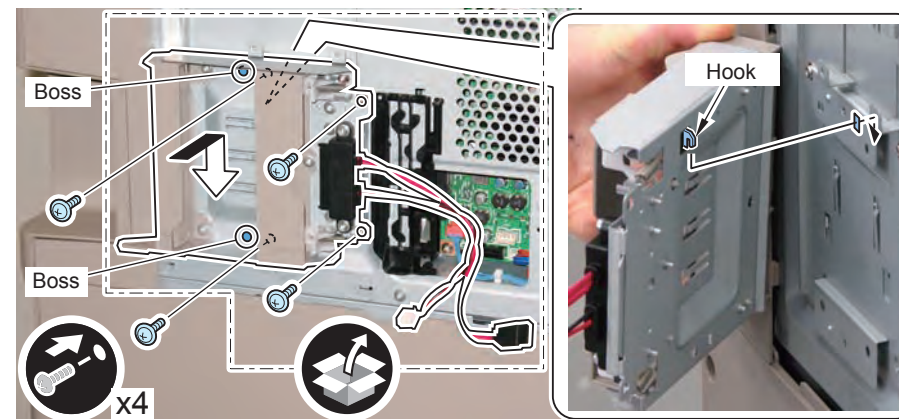


F-9-280



9) Install the HDD Slot Unit.

- 1 Hook
- 2 Bosses
- 4 Screws (Use the 2 screws removed in step 2 and the 2 screws (TP; M3x6) included in the package.)

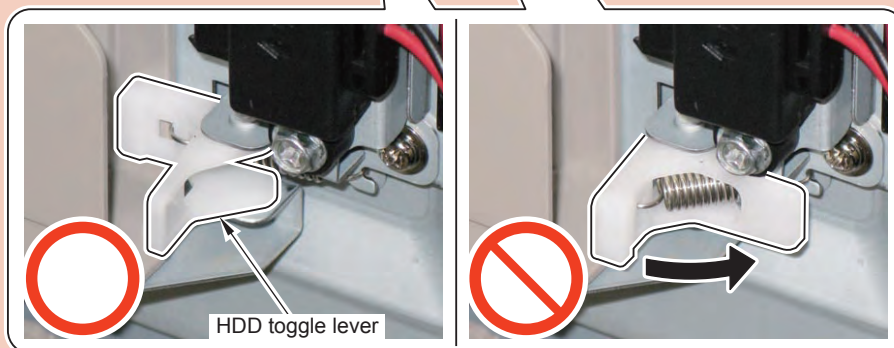
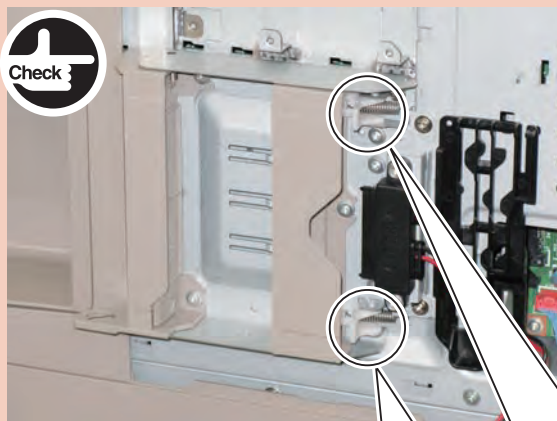


F-9-281

CAUTION:

Set the HDD Toggle Lever in the correct position as shown in the figure, and check that the HDD Case can be inserted all the way and installed properly.

Unless the HDD Toggle Lever is in the correct position, the HDD Case cannot be installed.



F-9-282

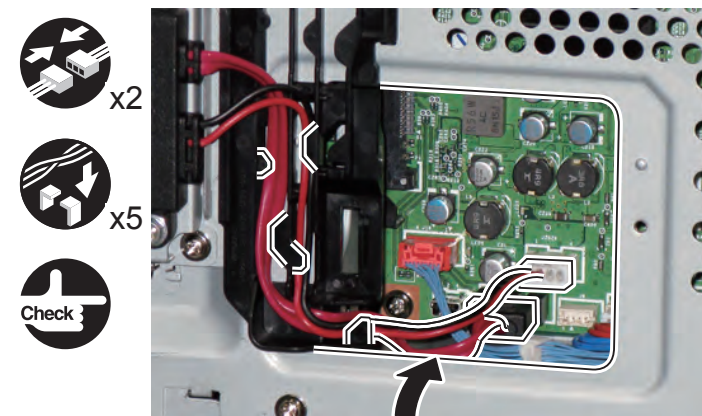


10) Secure the Signal Cable and the Power Cable with the HDD Cable Holder.

- 1 Connector each

CAUTION:

If there is extra slack of the cables, be sure to tuck them in the Controller Box.



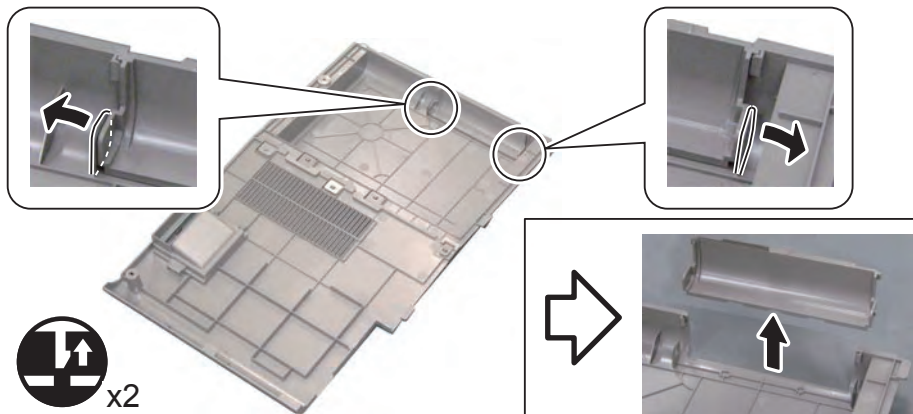
F-9-283

■ Installing the Covers



1) Remove the Slot Cover from the HDD Cover. (The removed Slot Cover will not be used.)

- 2 Claws



F-9-284



2) Install the Rear Upper Cover (Rear Upper Cover 1 and HDD Cover).

3) Close the Waste Toner Cover.

4) Tighten the screws securing the Rear Upper Cover 1 and HDD Cover. (Use the screws removed in "Removing the Covers" step 1.)

■ Installing the Removable HDD



1) Install the HDD Case to the HDD Slot Unit.



F-9-285



2) Be sure to request the user to padlock the removable HDD to discourage theft.
Setting after Installation

● Checking after Installation



1) Connect the power plug to the outlet.

2) Open the Switch Cover and turn ON the main power switch.

3) Check that the HDD is recognized.

- Select [service mode > COPIER > Display > ACC_STS > HDD], and check that the manufacturer's name and the model number are displayed.

4) Check that the license is registered.

- Select Check Counter > Device Configuration Information, and check that "HDD" is displayed.

TYPE4:Removable HDD Kit-AE1 Installation Procedure

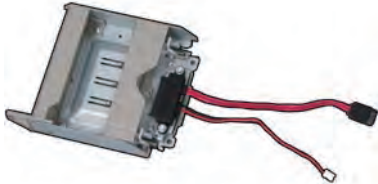
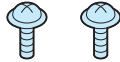



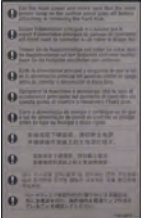


[If HDD Data Encryption Kit-C3 is installed]

Points to Note at Installation

CAUTION:

- When handling the HDD, be careful not to vibrate or drop it.
- Illustrations and pictures of a machine without Encryption Kit are used in this Installation Procedure. (Step 2 and step 9 of "Installing the Removable HDD Kit")

Checking the Contents [Removable HDD Kit-AE1]

<input type="checkbox"/> [1] HDD Slot Unit X 1 	<input type="checkbox"/> [2] Screw (TP ; M3x6) X 2 
<input type="checkbox"/> [3] Plug_Connector X 1 	<input type="checkbox"/> [4] HDD Case X 1 
<input type="checkbox"/> [5] Screw (P Tightening ; M3x10) X 1 	<input type="checkbox"/> [6] HDD Warning Label X 1 
<input type="checkbox"/> [7] HDD Case Cover X 1 	<input type="checkbox"/> [8] HDD Discriminate Label 

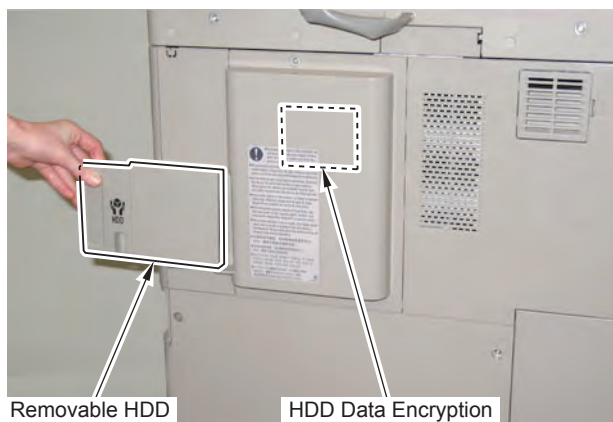
F-9-286

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



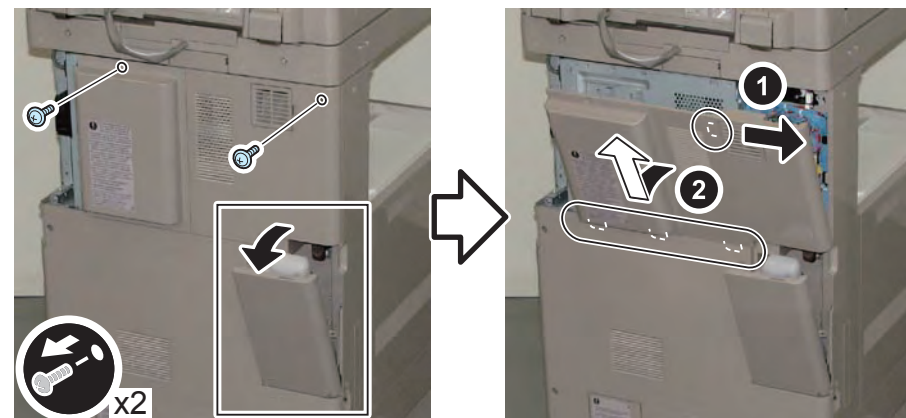
F-9-287

Installation Procedure

Removing the Covers



- 1) Remove the 2 screws securing the Rear Upper Cover 1 and the HDD Cover. (The removed screws will be used in step 4 of "Installing the Covers".)
 - 2) Open the Waste Toner Cover.
 - 3) Remove the Rear Upper Covers (Rear Upper Cover 1 and HDD Cover) in the directions of the arrows.
- 4 Claws



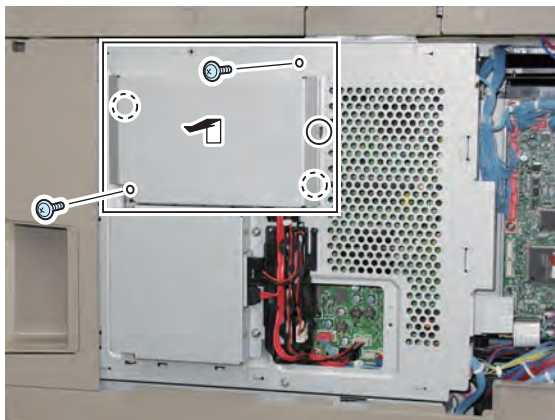
F-9-288

■ Removing the Shield Covers



1) Remove the Encryption Shield Cover.

- 2 Screws
- 3 Claws

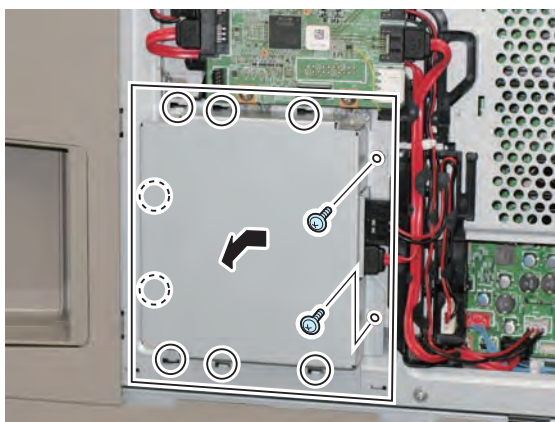


F-9-289



2) Remove the HDD Shield Cover. (The removed parts will not be used.)

- 2 Screws
- 8 Claws



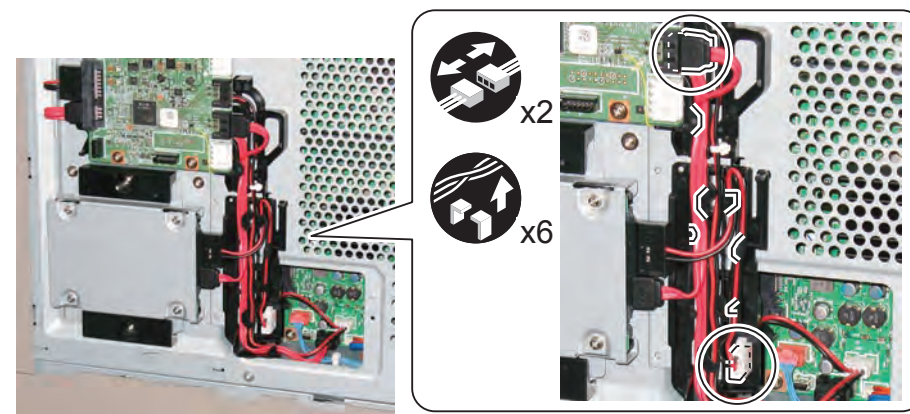
F-9-290

■ Installing the Removable HDD Kit



1) Free the Power Cable and the Signal Cable connected with the HDD from the HDD Cable Holder.

- 1 Connector each



F-9-291

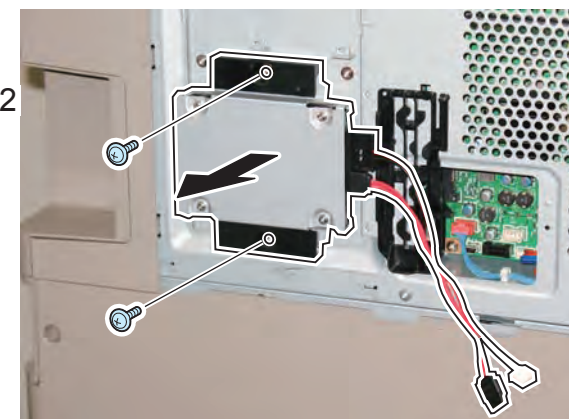


2) Remove the HDD Unit.

- 2 Screws (The removed screws will be used in step 9.)

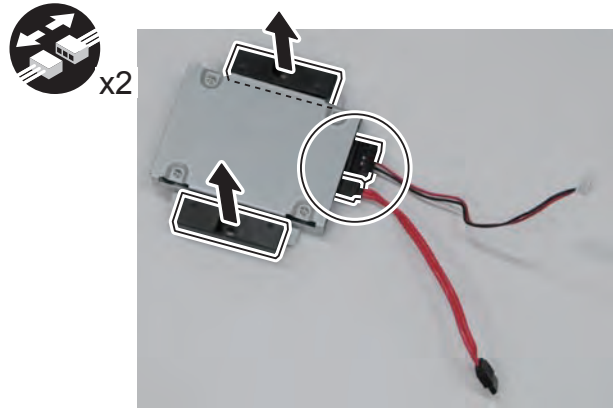
CAUTION:

Be careful not to drop the HDD Unit.



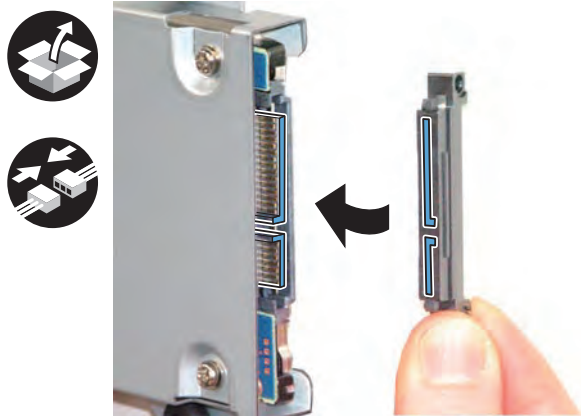
F-9-292

- 3) Remove the 2 HDD Holders and 2 cables from the HDD Unit. (The removed parts will not be used.)
- 1 Connector each



F-9-293

- 4) Connect the Plug Connector to the HDD Unit.

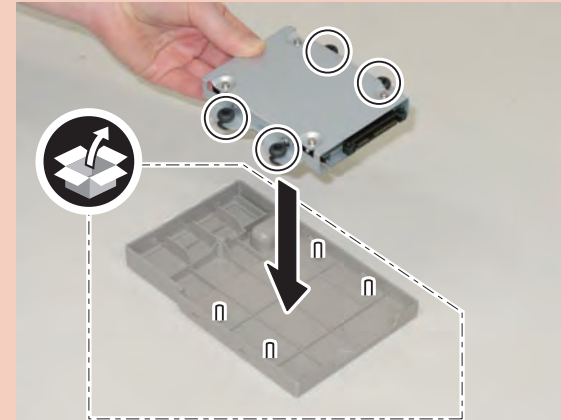


F-9-294

- 5) Install the HDD Unit to the HDD Case.
- 4 Bosses

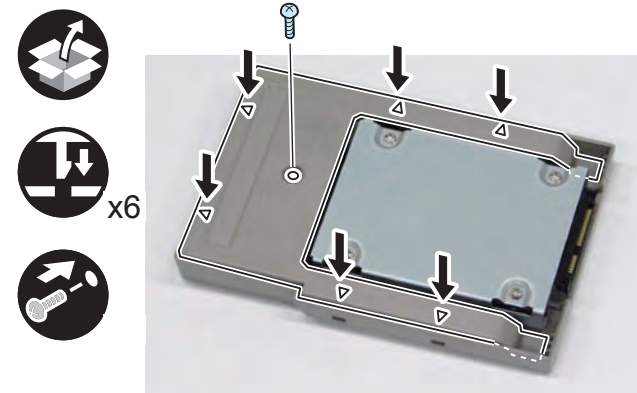
CAUTION:

When installing the HDD Unit, be sure to keep the screwed side up.



F-9-295

- 6) Install the HDD Case Cover by pushing in the 6 claws marked with triangles.
- 1 Screw (P Tightening; M3x10)



F-9-296

- 7) Affix the HDD Warning Label in the appropriate language, aligning the label with the groove.

CAUTION:

Be sure to affix the HDD Warning Label in the direction as shown in the figure.

- 8) Affix the HDD Identification Label, aligning it with the groove.

CAUTION:

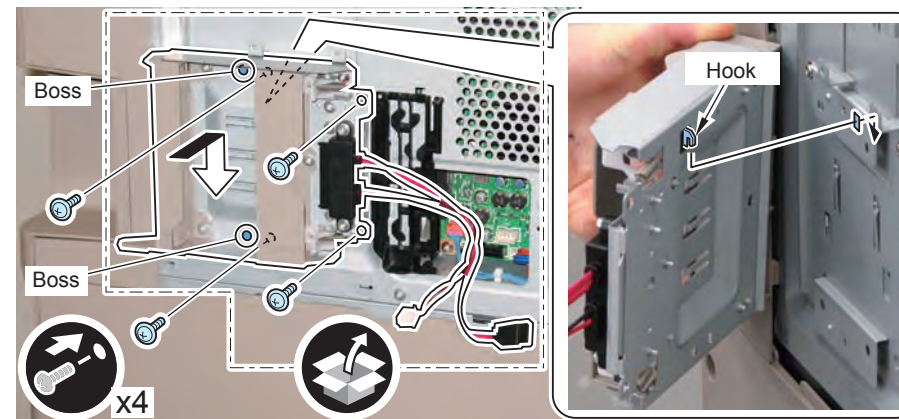
Be sure to write down the serial number on the HDD Identification Label in order to show from which machine it was removed and prevent it from being installed to another machine.



F-9-297

- 9) Install the HDD Slot Unit.

- 1 Hook
- 2 Bosses
- 4 Screws (Use the 2 screws removed in step 2 and the 2 screws (TP; M3x6) included in the package.)

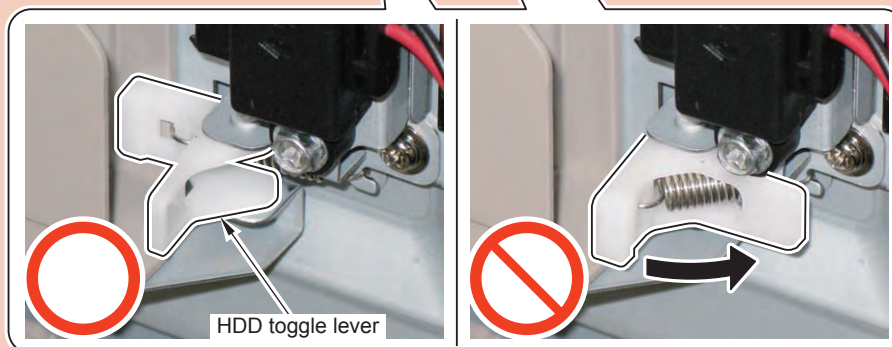
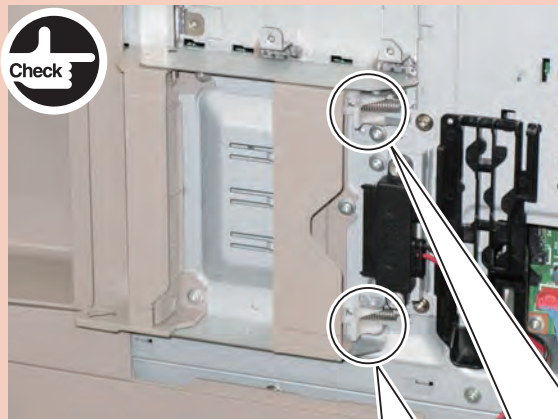


F-9-298

CAUTION:

Set the HDD Toggle Lever in the correct position as shown in the figure, and check that the HDD Case can be inserted all the way and installed properly.

Unless the HDD Toggle Lever is in the correct position, the HDD Case cannot be installed.



F-9-299



10) Secure the Signal Cable of the HDD Slot Unit with the HDD Cable Holder.

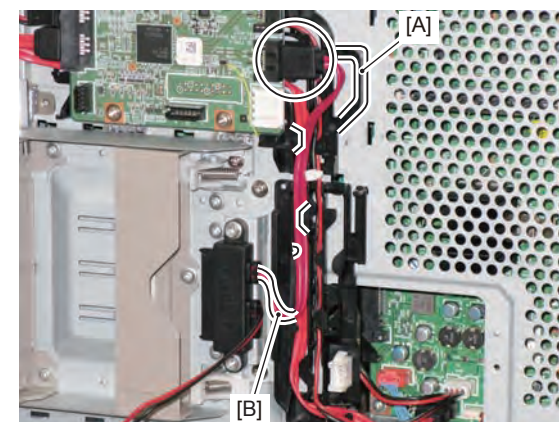
- 1 Connector

NOTE:

Put the Signal Cable through the left line of the guide and connect it to the connector of the HDD Encryption Board.

CAUTION:

- Be sure that the cable of the connector does not protrude from the [A] part in order to prevent the cable from being trapped.
- If the Signal Cable is too long, leave the slack at the [B] part.



F-9-300



11) Secure the Power Cable of the HDD Slot Unit with the HDD Cable Holder.

- 1 Connector

NOTE:

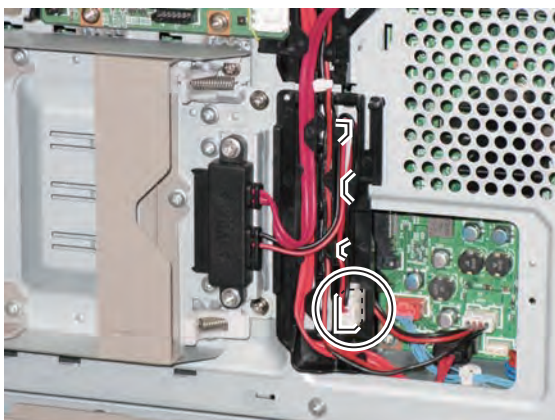
If there is extra slack of the cables, be sure to tuck them in the Controller Box.



x3



Check



F-9-301

■ Installing the Shield Cover



1) Install the Encryption Shield Cover.

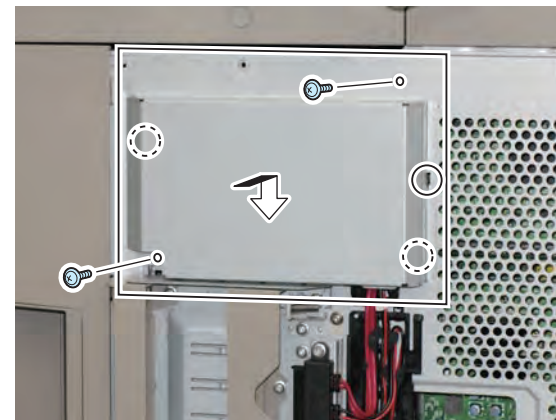
- 3 Claws
- 2 Screws (TP; M3x6)



x2



x3



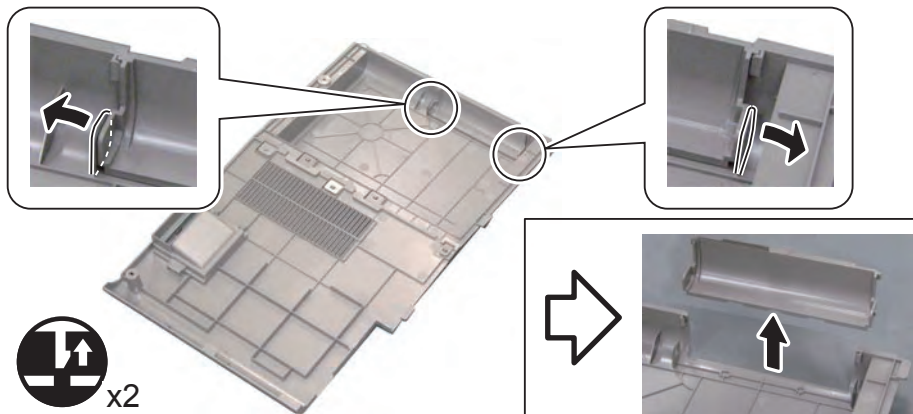
F-9-302

■ Installing the Covers



1) Remove the Slot Cover from the HDD Cover. (The removed Slot Cover will not be used.)

- 2 Claws



F-9-303



2) Install the Rear Upper Cover (Rear Upper Cover 1 and HDD Cover).

3) Close the Waste Toner Cover.

4) Tighten the screws securing the Rear Upper Cover 1 and HDD Cover. (Use the screws removed in "Removing the Covers" step 1.)

■ Installing the Removable HDD



1) Install the HDD Case to the HDD Slot Unit.



F-9-304



2) Be sure to request the user to padlock the removable HDD to discourage theft.

● Checking after Installation



1) Connect the power plug to the outlet.

2) Open the Switch Cover and turn ON the main power switch.

3) Check that the HDD is recognized.

- Select [service mode > COPIER > Display > ACC_STS > HDD], and check that the manufacturer's name and the model number are displayed.

4) Check that the license is registered.

- Select Check Counter > Device Configuration Information, and check that "HDD" is displayed

5) Check that the HDD Data Encryption is recognized.

- Select Check Counter > Check Device Configuration > Option, and check that "HDD Data Encryption" is displayed.

- A key mark should be displayed at the lower left of the Touch Panel Display.

6) Check the version of the HDD Data Encryption Kit.

- Select Check Counter > Check Device Configuration, and check that "Canon MFP Security Chip '2.00' or '2.01'" is displayed.

TYPE5:Removable HDD Kit-AE1/HDD Data Encryption Kit-C3 Installation Procedure

Points to Note at Installation

CAUTION:

- When handling the HDD, be careful not to vibrate or drop it.
- Be sure to prepare a USB memory for upgrading created with SST.
- If only HDD Data Encryption Kit-C3 is installed later, the data on the HDD will be erased. Be sure to back up/export the data as necessary.
- Be sure to delete the data on the flash memory after installing HDD Data Encryption Kit-C3.
 - Settings/Registration > Management Settings > Data Management > Delete Old Data

NOTE:

This Installation Procedure includes the procedure in the case of installing the HDD Data Encryption Kit-C3 later.

- Remove the Rear Upper Cover.
- Disconnect the Signal Cable and the Power Cable of the HDD Slot Unit.
- Perform steps 10 to 15 of "Installing the Removable HDD Kit".
- Perform "Installing the Shield Cover".
- Perform "Installing the Covers".
- Perform "Installing the Removable HDD".

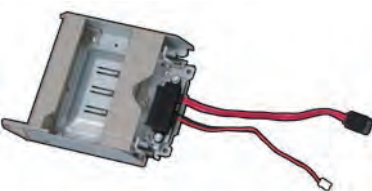
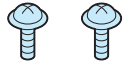



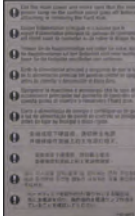

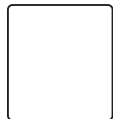
Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

CAUTION:

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.


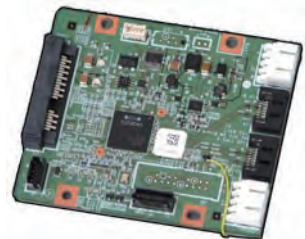
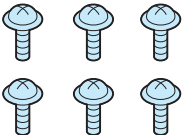
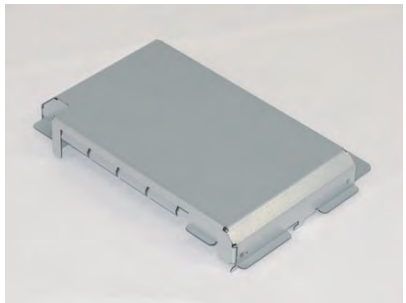
If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

Checking the Contents [Removable HDD Kit-AE1]

<input type="checkbox"/> [1] HDD Slot Unit X 1 	<input type="checkbox"/> [2] Screw (TP ; M3x6) X 2 
<input type="checkbox"/> [3] Plug_Connector X 1 	<input type="checkbox"/> [4] HDD Case X 1 
<input type="checkbox"/> [5] Screw (P Tightening ; M3x10) X 1 	<input type="checkbox"/> [6] HDD Warning Label X 1 
<input type="checkbox"/> [7] HDD Case Cover X 1 	<input type="checkbox"/> [8] HDD Discriminate Label 

F-9-305

Checking the Contents [HDD Data Encryption Kit-C3]

<input type="checkbox"/> [1] Cable Unit X 1 	<input type="checkbox"/> [2] HDD Encryption Board X 1 
<input type="checkbox"/> [3] Screw (TP ; M3 x 6) X 4 	<input type="checkbox"/> [4] HDD Encryption Shield Cover X 1 

F-9-306

<CD/Guides>

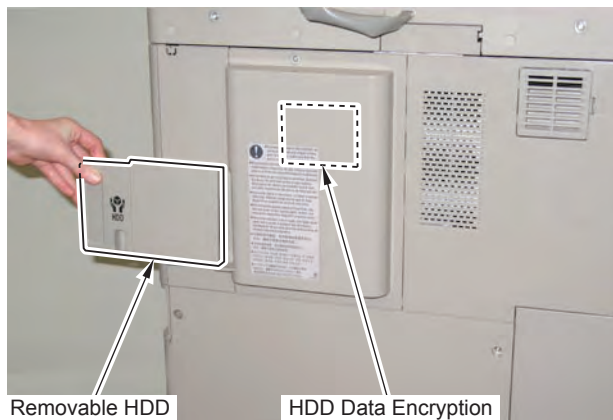
- User's Guide
- HDD Data Encryption Kit Notice

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



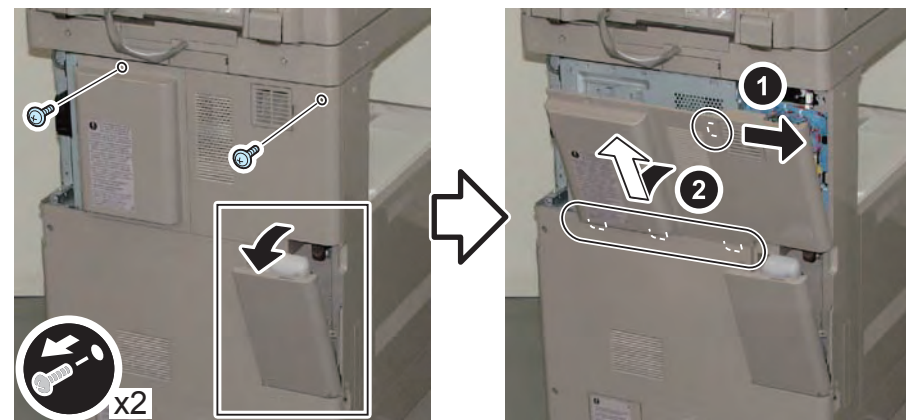
F-9-307

Installation Procedure

Removing the Covers



- 1) Remove the 2 screws securing the Rear Upper Cover 1 and the HDD Cover. (The removed screws will be used in step 4 of "Installing the Covers".)
 - 2) Open the Waste Toner Cover.
 - 3) Remove the Rear Upper Covers (Rear Upper Cover 1 and HDD Cover) in the directions of the arrows.
- 4 Screws



F-9-308

Remove the Encryption Shield Cover.



1) Remove the HDD Shield Cover. (The removed parts will not be used.)

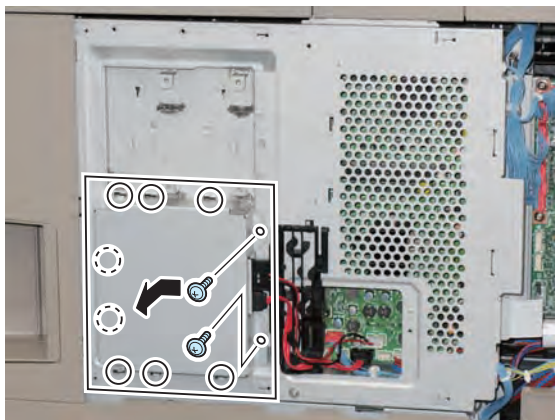
- 2 Screws
- 8 Claws



x2



x8



F-9-309

Installing the Removable HDD Kit



1) Free the Power Cable and the Signal Cable from the HDD Cable Holder.

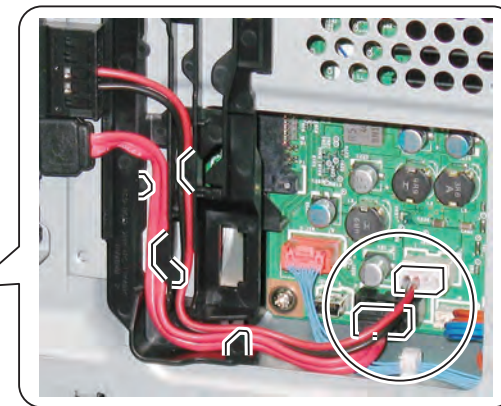
- 1 Connector each



x2



x5



F-9-310



2) Remove the HDD Unit.

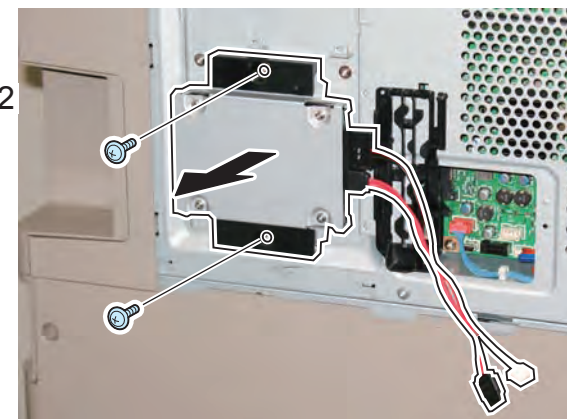
- 2 Screws (The removed screws will be used in step 9.)

CAUTION:

Be careful not to drop the HDD Unit.

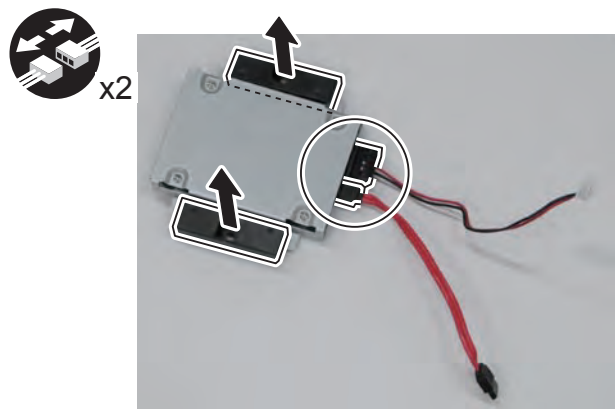


x2



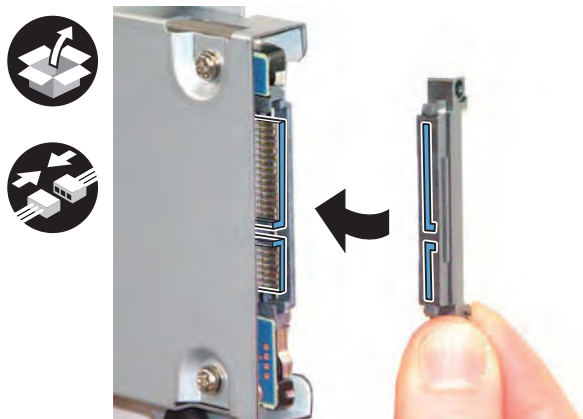
F-9-311

- 3) Remove the 2 HDD Holders and 2 cables from the HDD Unit. (The removed parts will not be used.)
- 1 Connector each



F-9-312

- 4) Connect the Plug Connector to the HDD Unit.

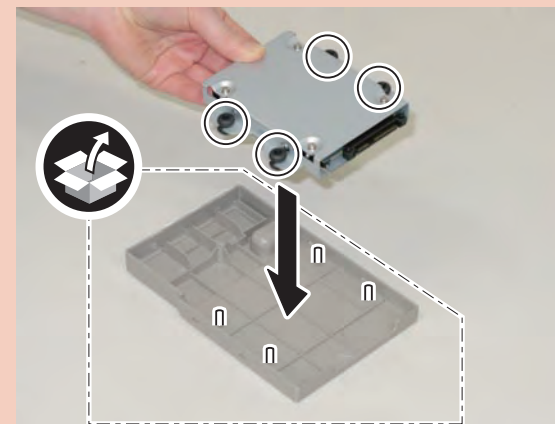


F-9-313

- 5) Install the HDD Unit to the HDD Case.
- 4 Bosses

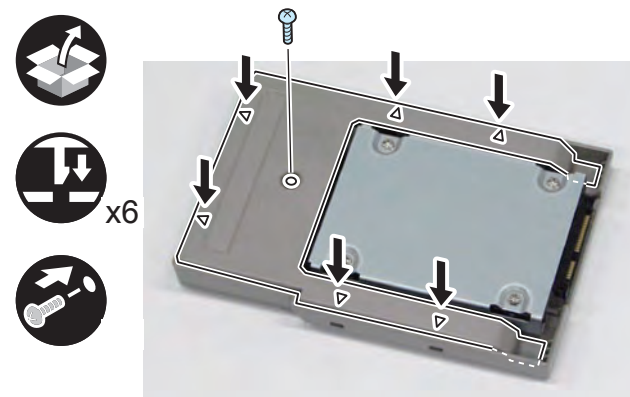
CAUTION:

When installing the HDD Unit, be sure to keep the screwed side up.



F-9-314

- 6) Install the HDD Case Cover by pushing in the 6 claws marked with triangles.
- 1 Screw (P Tightening; M3x10)



F-9-315

- 7) Affix the HDD Warning Label in the appropriate language, aligning the label with the groove.

CAUTION:

Be sure to affix the HDD Warning Label in the direction as shown in the figure.

- 8) Affix the HDD Identification Label, aligning it with the groove.

CAUTION:

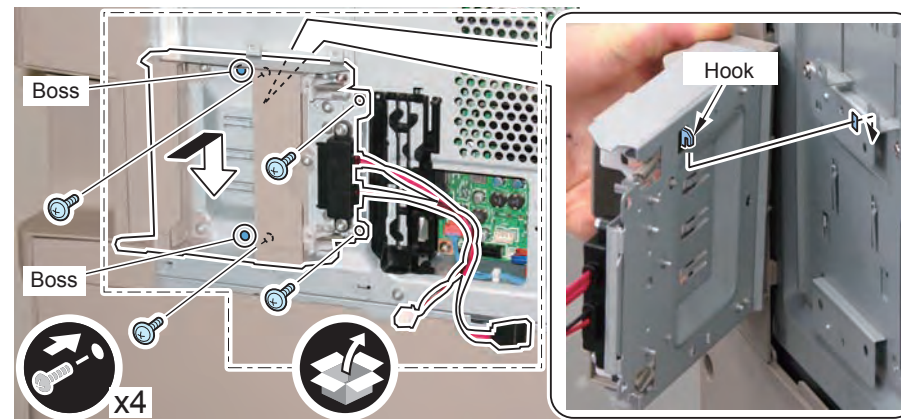
Be sure to write down the serial number on the HDD Identification Label in order to show from which machine it was removed and prevent it from being installed to another machine.



F-9-316

- 9) Install the HDD Slot Unit.

- 1 Hook
- 2 Bosses
- 4 Screws (Use the 2 screws removed in step 2 and the 2 screws (TP; M3x6) included in the package.)

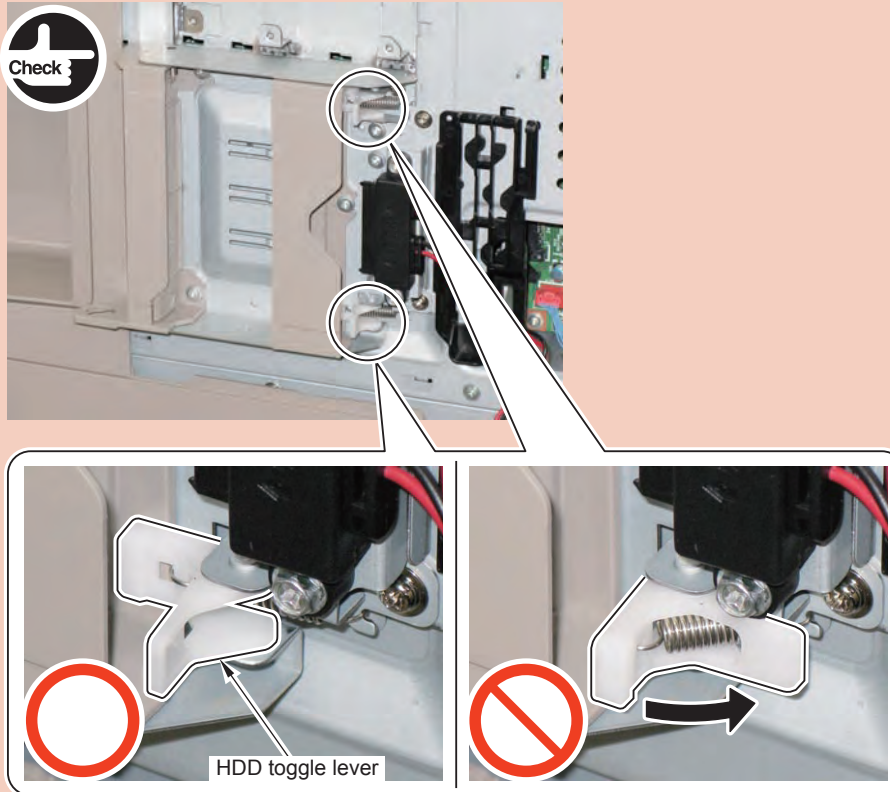


F-9-317

CAUTION:

Set the HDD Toggle Lever in the correct position as shown in the figure, and check that the HDD Case can be inserted all the way and installed properly.

Unless the HDD Toggle Lever is in the correct position, the HDD Case cannot be installed.



F-9-318

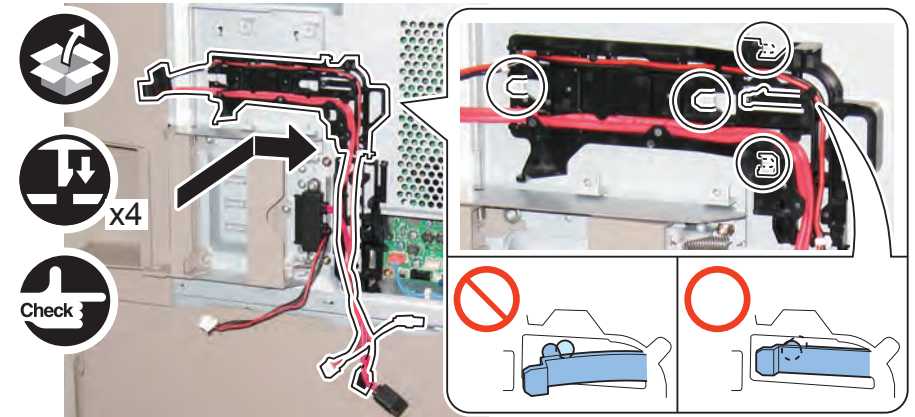


10) Install the Cable Unit.

- 2 Claws of the Cable Unit
- 2 Claws of the HDD Mount Frame
- 1 Boss

CAUTION:

Be sure that the boss is fitted properly.

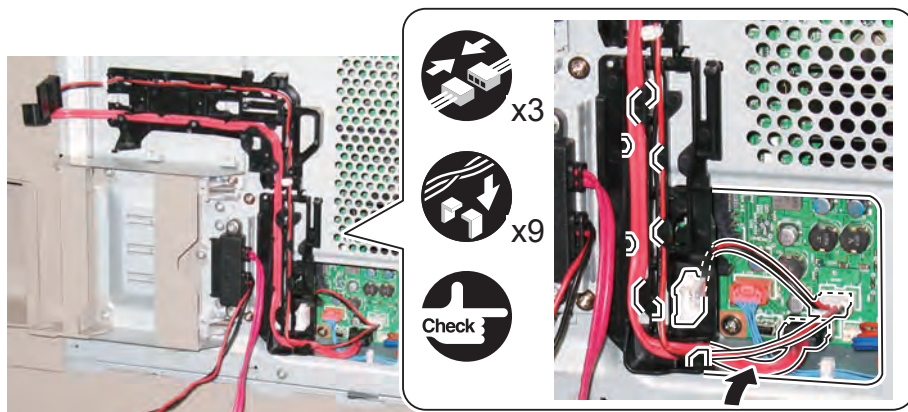


F-9-319

- 11) Secure the 2 cables of the Cable Unit with the HDD Cable Holder.
- 3 Connectors

CAUTION:

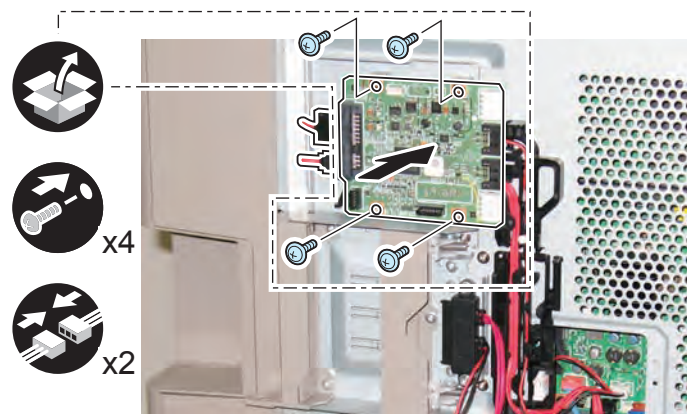
If there is extra slack of the cables, be sure to tuck them in the Controller Box.



F-9-320

- 12) Install the HDD Encryption Board.
- 4 Screws (TP; M3x6)

- 13) Connect the 2 connectors to the HDD Encryption Board.



F-9-321

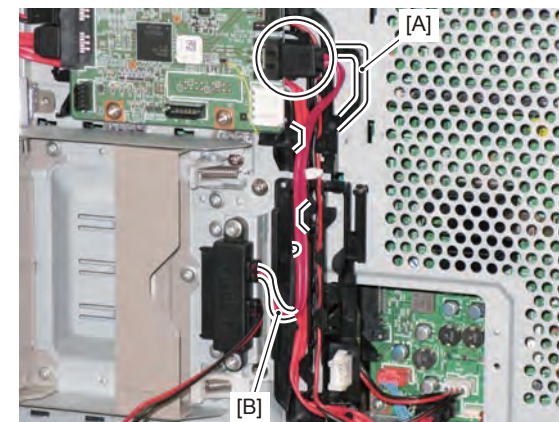
- 14) Secure the Signal Cable of the HDD Slot Unit with the HDD Cable Holder.
- 1 Connector

NOTE:

Put the Signal Cable through the left line of the guide and connect it to the connector of the HDD Encryption Board.

CAUTION:

- Be sure that the cable of the connector does not protrude from the [A] part in order to prevent the cable from being trapped.
- If the Signal Cable is too long, leave the slack at the [B] part.



F-9-322

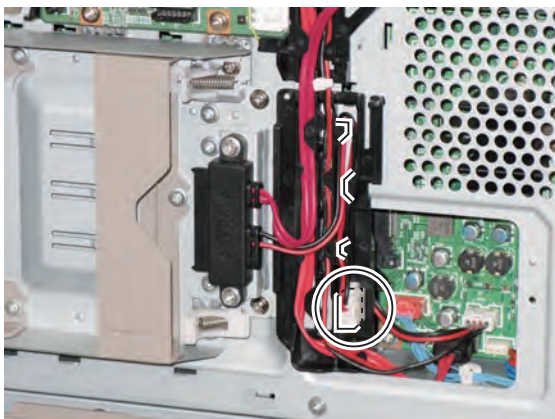


15) Secure the Power Cable of the HDD Slot Unit with the HDD Cable Holder.

- 1 Connector

NOTE:

Put the Power Cable up and then down through the right line of the guide and connect it to the Power Cable Connector.



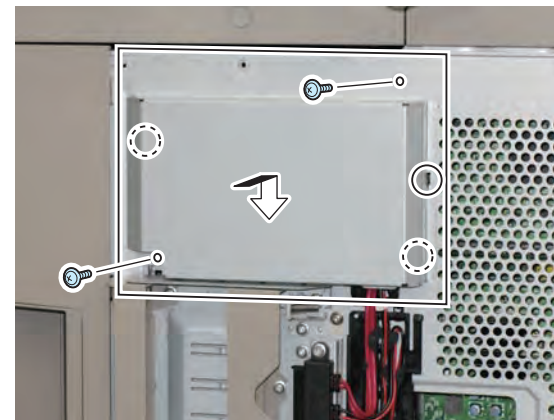
F-9-323

■ Installing the Shield Cover



1) Install the Encryption Shield Cover.

- 3 Claws
- 2 Screws (TP; M3x6)



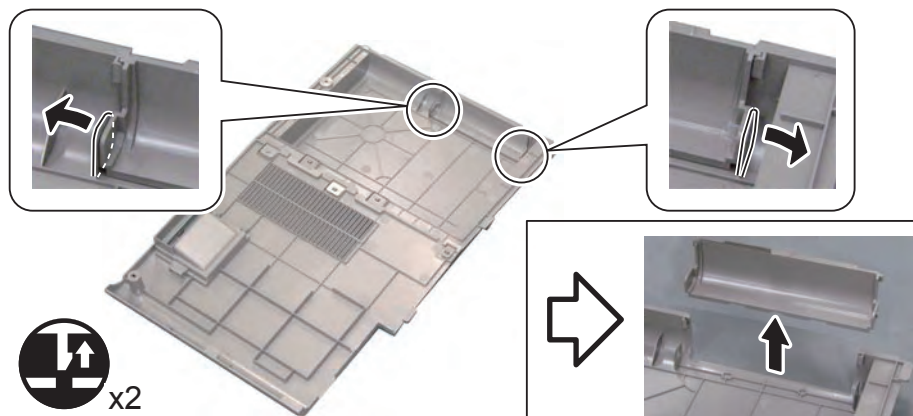
F-9-324

■ Installing the Covers



1) Remove the Slot Cover from the HDD Cover. (The removed Slot Cover will not be used.)

- 2 Claws



F-9-325



2) Install the Rear Upper Cover (Rear Upper Cover 1 and HDD Cover).

3) Close the Waste Toner Cover.

4) Tighten the screws securing the Rear Upper Cover 1 and HDD Cover. (Use the screws removed in "Removing the Covers" step 1.)

■ Installing the Removable HDD



1) Install the HDD Case to the HDD Slot Unit.



F-9-326



2) Be sure to request the user to padlock the removable HDD to discourage theft.

Setting after Installation/After Installing the Encryption Kit



- 1) Connect the power plug to the outlet.
- 2) Open the Switch Cover and turn ON the main power switch.
- 3) E602-0001 occurs.
- 4) Turn OFF the main power, and start up 2+8.
- 5) Insert the USB memory for upgrading created with SST.
- 6) Press a key according to the instruction on the screen of the Control Panel.
 - [4]: Clear/Format > [1]: Disk Format > [0] > Please hit any key > [C]: Return to Main Menu > [Reset]: Start Shutdown sequence > [0]
- 7) Check that the Control Panel screen has become blank. Then, turn OFF and then ON the main power switch.
- 8) The HDD is initialized, and then the machine is started up.
- 9) Delete the data on the flash memory.
 - Settings/Registration > Management Settings > Data Management > Delete Old Data

Checking after Installation



- 1) Check that the HDD is recognized.
 - Select [service mode > COPIER > Display > ACC_STS > HDD], and check that the manufacturer's name and the model number are displayed.
- 2) Check that the license is registered.
 - Select Check Counter > Device Configuration Information, and check that "HDD" is displayed
- 3) Check that the HDD Data Encryption is recognized.
 - Select Check Counter > Check Device Configuration > Option, and check that "HDD Data Encryption" is displayed.
 - A key mark should be displayed at the lower left of the Touch Panel Display.
- 4) Check the version of the HDD Data Encryption Kit.
 - Select Check Counter > Check Device Configuration, and check that "Canon MFP Security Chip '2.00' or '2.01' " is displayed.

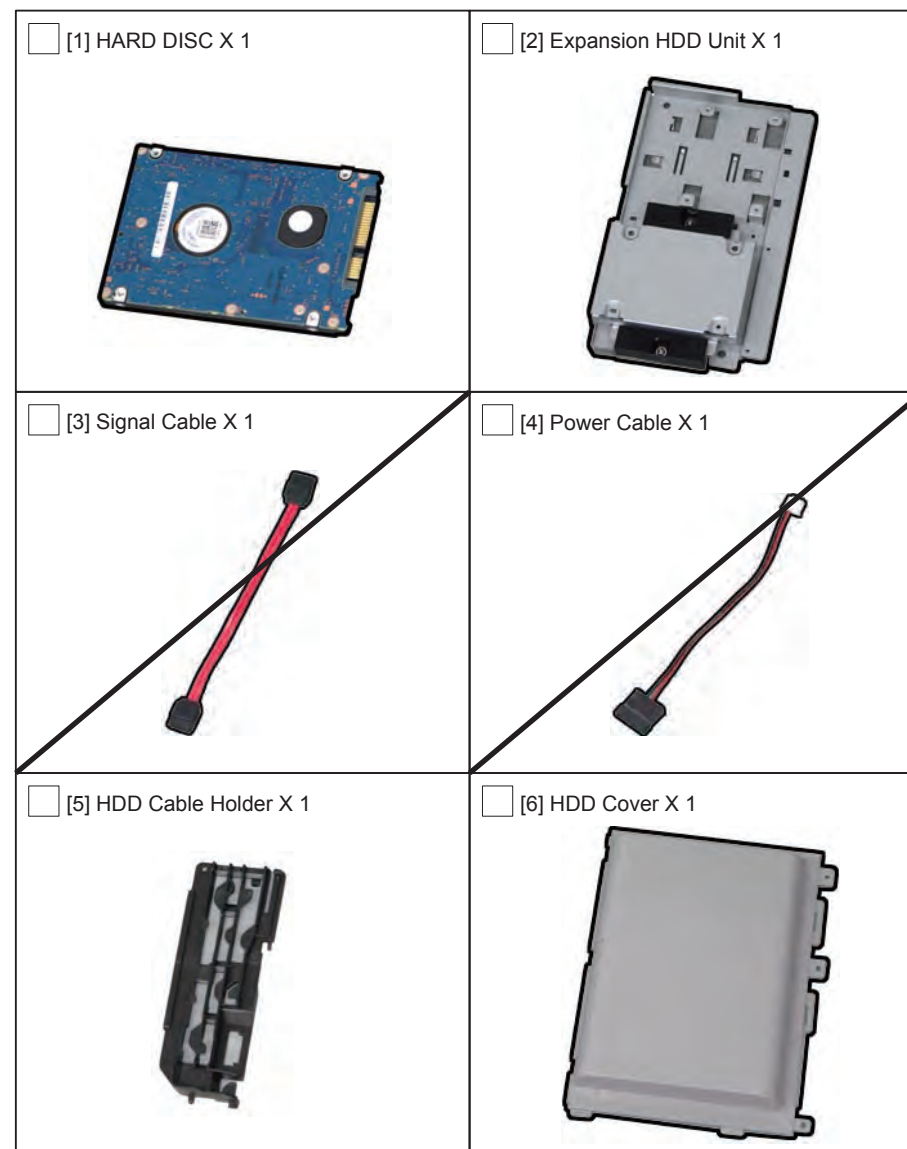
TYPE6:2.5inch/80GB HDD-E1/Removable HDD Kit-AE1 Installation Procedure

Points to Note at Installation

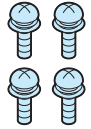
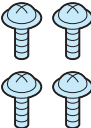
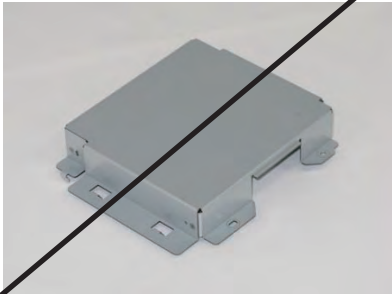
CAUTION:

- When handling the HDD, be careful not to vibrate or drop it.
- Be sure to prepare a USB memory for upgrading created with SST.
- In the case of installing the HDD, be sure to back up the data in the flash memory by way of precaution.
- Be sure to perform license registration after installing the HDD.
 - In the case of registering using LMS (License Management System), be sure to obtain a license key in advance.
 - In the case of registering using CDS (Contents Delivery System), be sure that internet connection is available.
- Be sure to delete the data on the flash memory after installing HDD.
 - Settings/Registration > Management Settings > Data Management > Delete Old Data

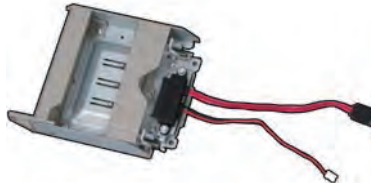
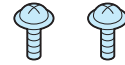






Checking the Contents [2.5inch/80GB HDD-E1]



F-9-327

<input type="checkbox"/> [8] Screw (W Sems ; M3x4) X 4 	<input type="checkbox"/> [9] Screw (TP ; M3x6) X 4 <p>Use 2 of them</p> 
<input type="checkbox"/> [10] HDD Shield Cover X 1 	

● Checking the Contents [Removable HDD Kit-AE1]

<input type="checkbox"/> [1] HDD Slot Unit X 1 	<input type="checkbox"/> [2] Screw (TP ; M3x6) X 2 
<input type="checkbox"/> [3] Plug_Connector X 1 	<input type="checkbox"/> [4] HDD Case X 1 
<input type="checkbox"/> [5] Screw (P Tightening ; M3x10) X 1 	<input type="checkbox"/> [6] HDD Warning Label X 1 
<input type="checkbox"/> [7] HDD Case Cover X 1 	<input type="checkbox"/> [8] HDD Discriminate Label 

<CD/Guides>

- License Access Number Certificate Data

F-9-328

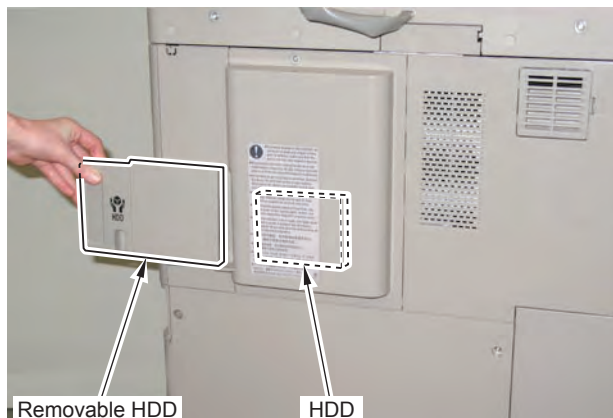
F-9-329

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



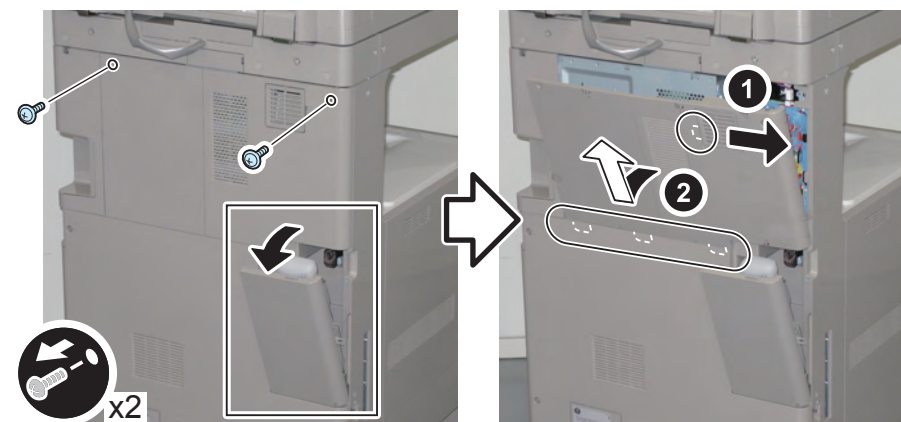
F-9-330

Installation Procedure

Removing the Covers



- 1) Remove the 2 screws securing the Rear Upper Cover 1 and the Rear Upper Cover 2. (The removed screws will be used in step 6 of "Installing the Covers".)
 - 2) Open the Waste Toner Cover.
 - 3) Remove the Rear Upper Covers (Rear Upper Cover 1 and Rear Upper Cover 2) in the directions of the arrows.
- 4 Claws

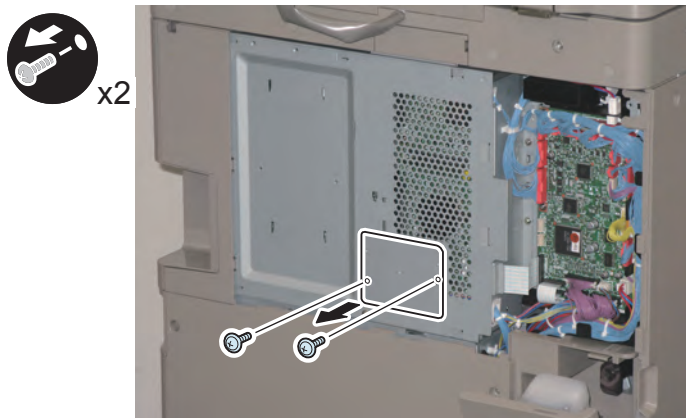


F-9-331



4) Remove the small cover of the Controller Box Cover. (The removed small cover and screws will not be used.)

- 2 Screws



F-9-332

■ Installing the Removable HDD Kit



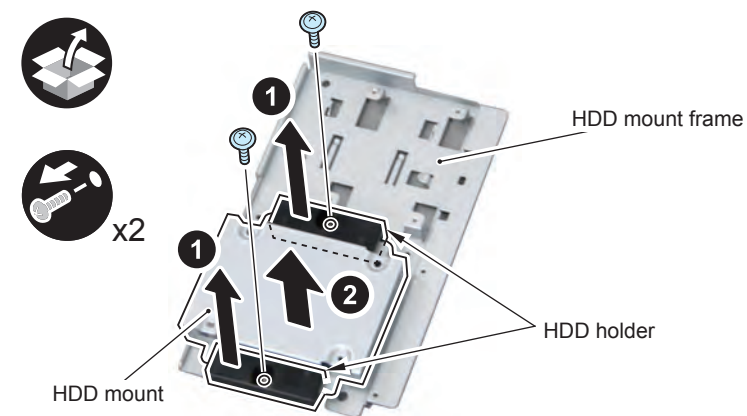
1) Remove the 2 HDD Holders and the HDD Mount from the Expansion HDD Unit (included with the HDD).

(The removed 2 HDD Holders will not be used.)

(The removed HDD Mount will be used in step 3.)

(The remaining HDD Mount Frame will be used in step 8.)

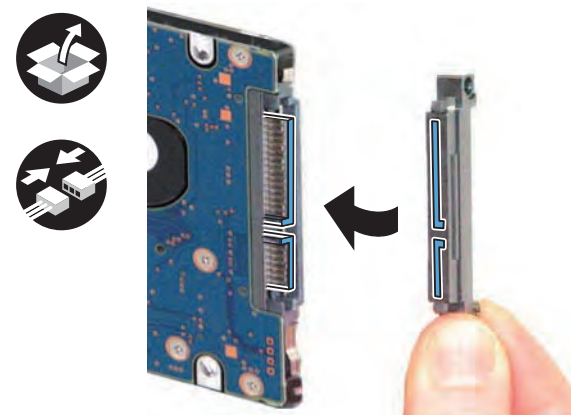
- 2 Screws (They will be used in step 10.)



F-9-333



2) Install the Plug Connector (included with the Removable HDD Kit) to the HDD (included with the HDD).



F-9-334

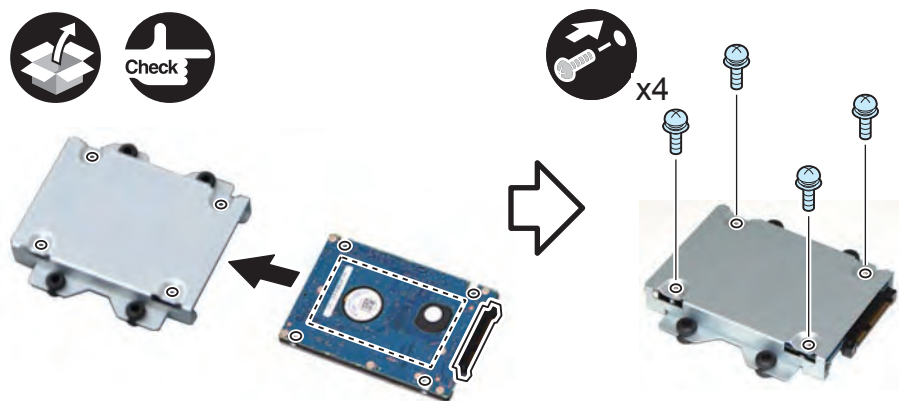


3) Install the HDD to the HDD Mount removed in step 1.

- 4 Screws (W Sems; M3x4) (included with the HDD)

NOTE:

Be sure to insert the HDD with its label side down and its connector in the direction as shown in the figure, and align its 4 screw holes with those of the HDD Mount.



F-9-335

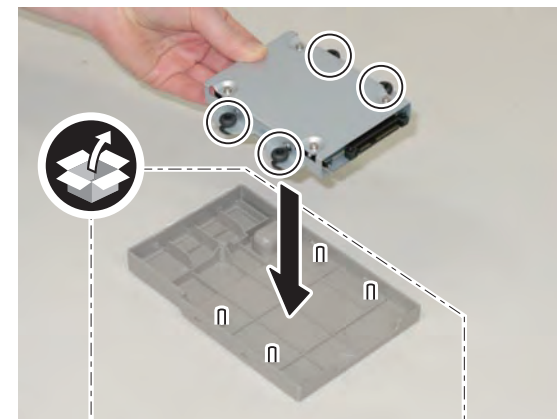


4) Install the HDD to the HDD Case.

- 4 Bosses

NOTE:

When installing the HDD, be sure to keep the side from which the screws were tightened in step 3 up.

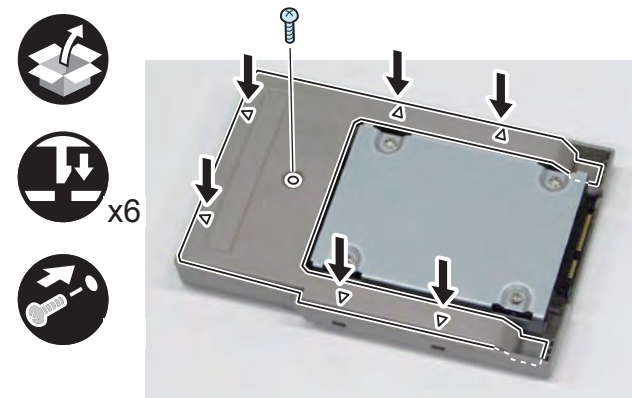


F-9-336



5) Install the HDD Case Cover by pushing in the 6 claws marked with triangles.

- 1 Screw (P Tightening; M3x10) (included with the Removable HDD Kit)



F-9-337

- 6) Affix the HDD Warning Label in the appropriate language, aligning the label with the groove.

CAUTION:

Be sure to affix the HDD Warning Label in the direction as shown in the figure.

- 7) Affix the HDD Identification Label, aligning it with the groove.

CAUTION:

Be sure to write down the serial number on the HDD Identification Label in order to show from which machine it was removed and prevent it from being installed to another machine.



F-9-338

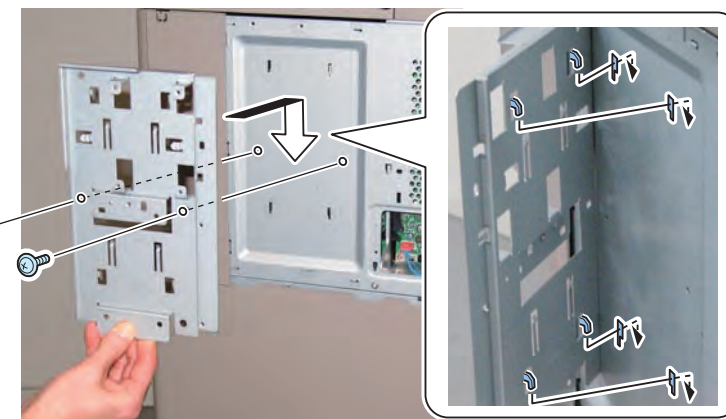
- 8) Install the remaining HDD Mount Frame separated in step 1 to the host machine.
- 4 Claws
 - 2 Screws (TP; M3x6) (included with the HDD)



x4



x2



F-9-339

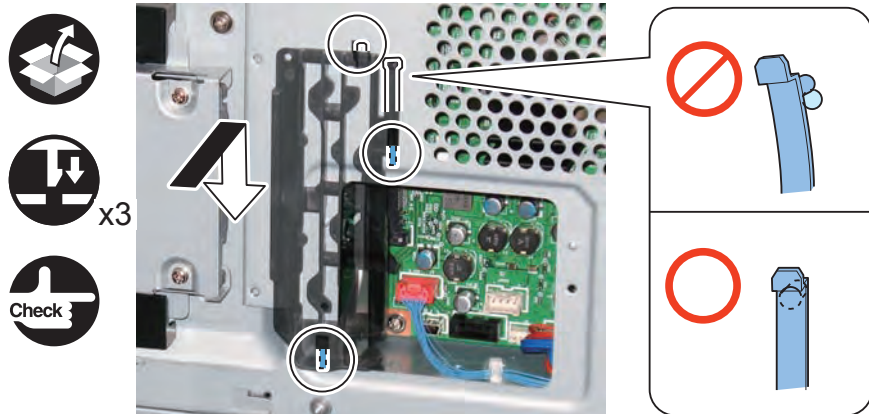


9) Install the HDD Cable Holder.

- 3 Claws
- 1 Boss

CAUTION:

Be sure that the boss is fitted properly.

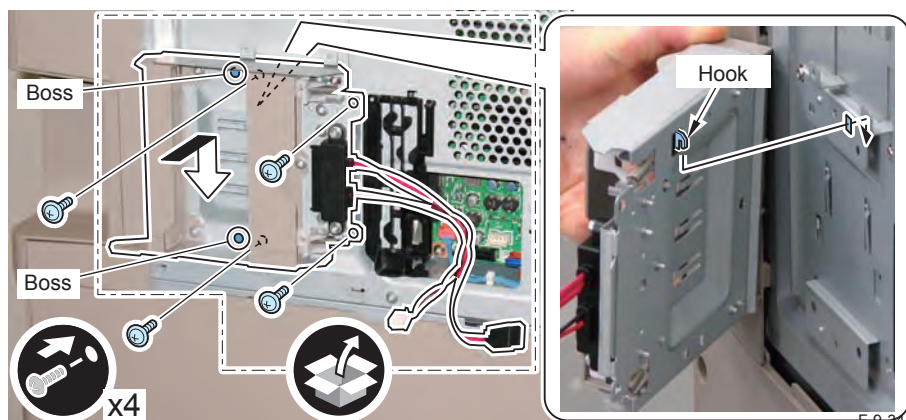


F-9-340



10) Install the HDD Slot Unit.

- 1 Hook
- 2 Bosses
- 4 Screws (Use the 2 screws removed in step 1 and the 2 screws (TP; M3x6) included in the package.)

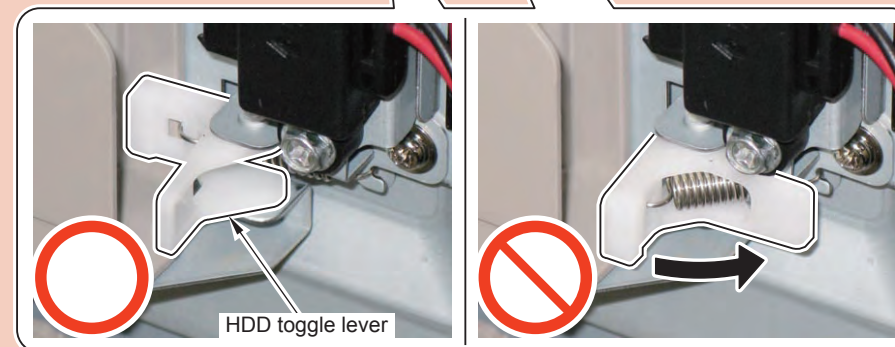
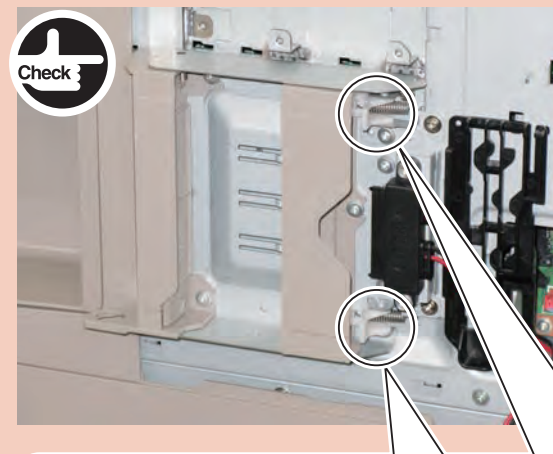


F-9-341

CAUTION:

Set the HDD Toggle Lever in the correct position as shown in the figure, and check that the HDD Case can be inserted all the way and installed properly.

Unless the HDD Toggle Lever is in the correct position, the HDD Case cannot be installed.



F-9-342

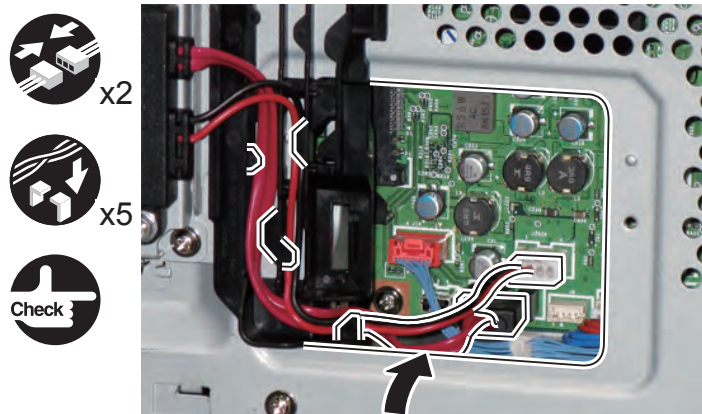


11) Secure the Signal Cable and the Power Cable with the HDD Cable Holder.

- 1 Connector each

CAUTION:

If there is extra slack of the cables, be sure to tuck them in the Controller Box.

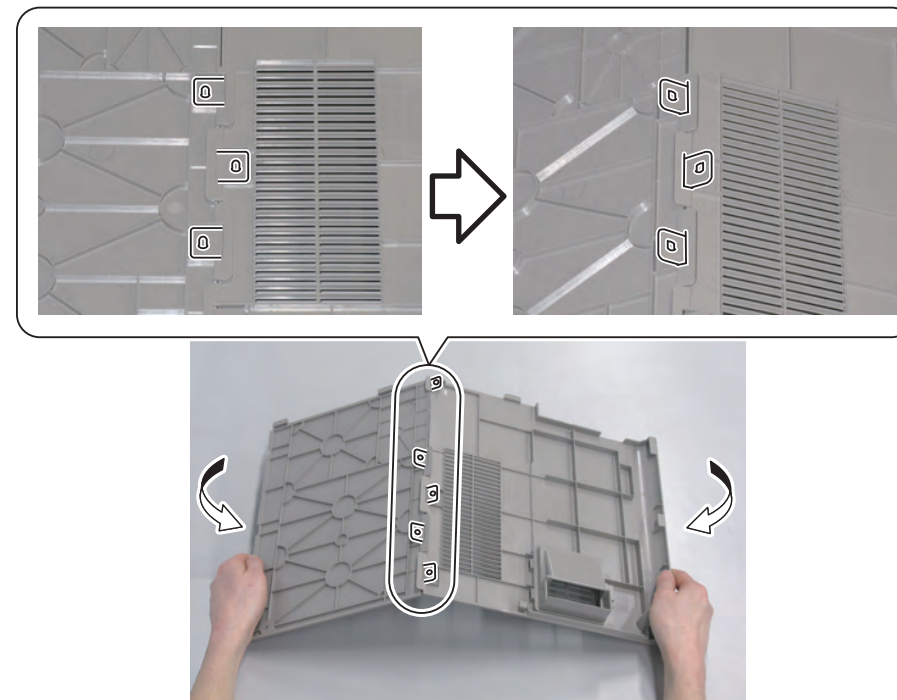


F-9-343

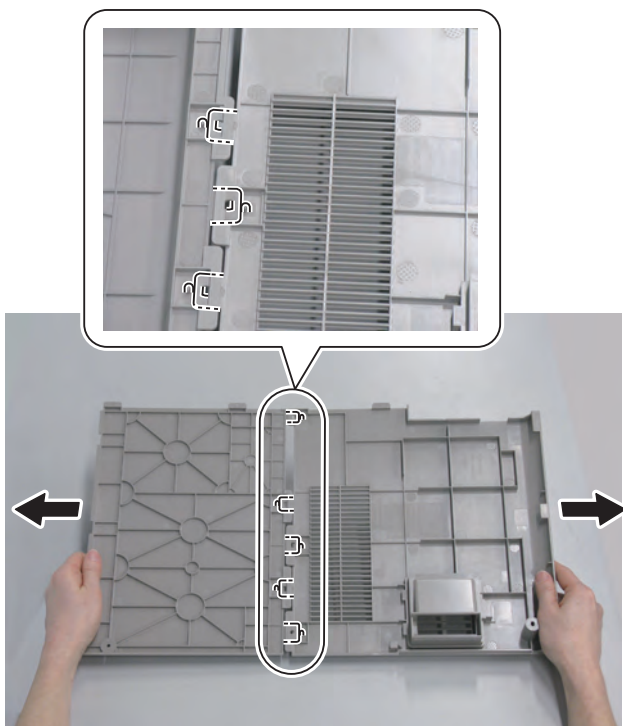
■ Installing the Covers



- 1) Separate the Rear Upper Cover 1 and the Rear Upper Cover 2 by bending them to release the 5 bosses. (The separated Rear Upper Cover 2 will not be used.)



F-9-344



F-9-345

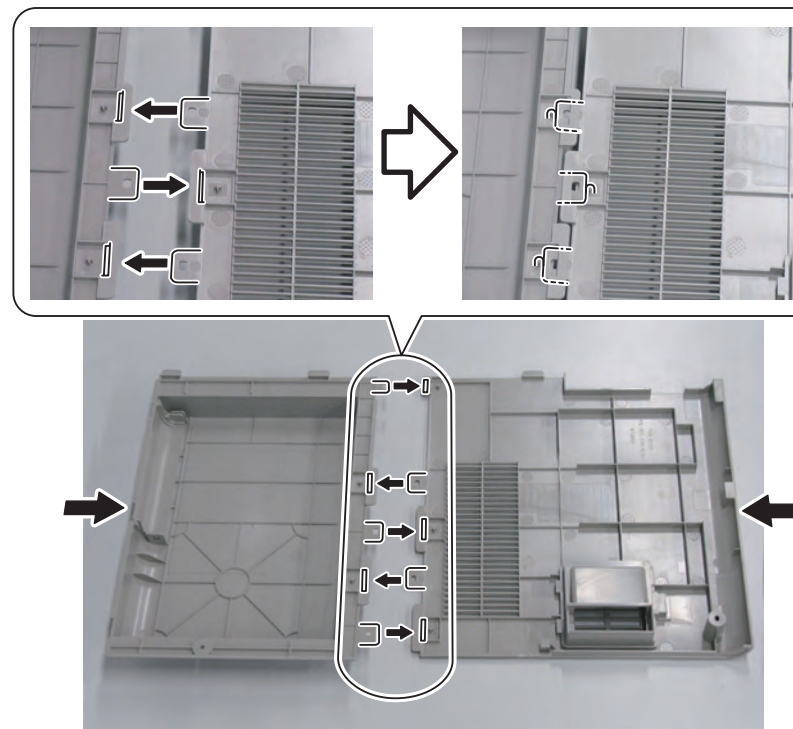


2) Replace the separated Rear Upper Cover 2 with the HDD Cover and join the HDD Cover and the Rear Upper Cover 1.

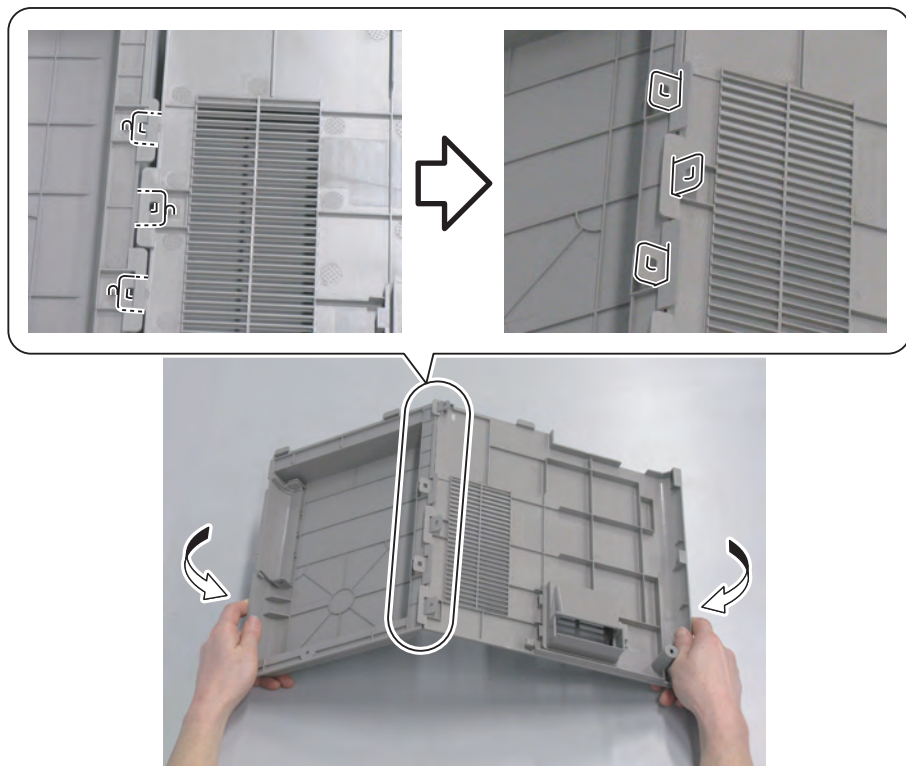
- 5 Bosses

NOTE:

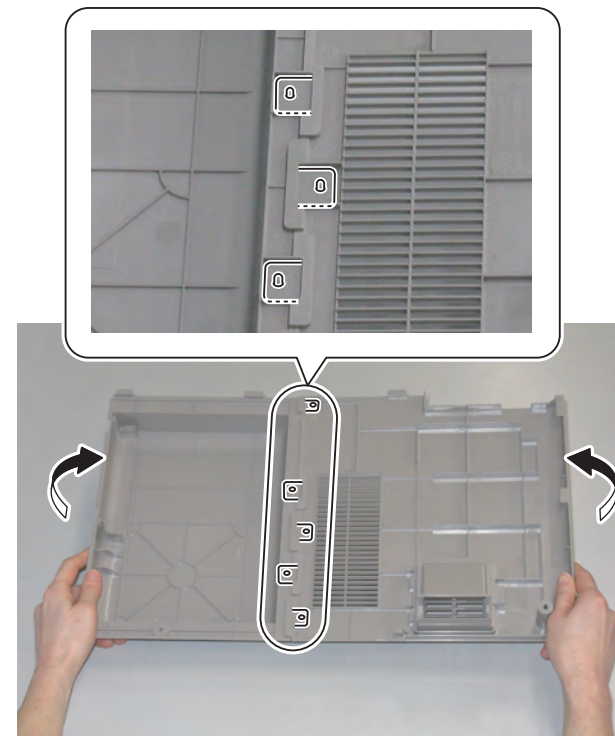
- Put the HDD Cover and the Rear Upper Cover 1 on a desk and insert the claws keeping them on the same level.
- Bend the HDD Cover and the Rear Upper Cover 1 to further insert the claws.
- Flatten the bent HDD Cover and Rear Upper Cover 1 to fit the claws into the 5 bosses.



F-9-346



F-9-347

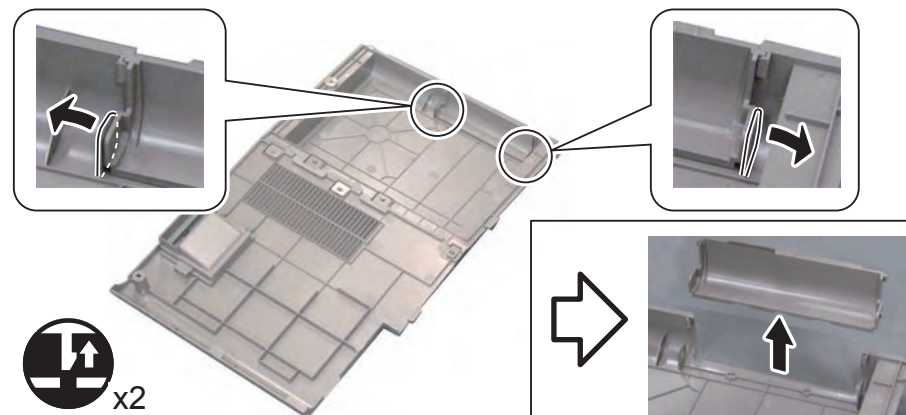


F-9-348



3) Remove the Slot Cover from the HDD Cover. (The removed Slot Cover will not be used.)

- 2 Claws



F-9-349

-
- 4) Install the Rear Upper Cover (Rear Upper Cover 1 and HDD Cover).
 - 5) Close the Waste Toner Cover.
 - 6) Tighten the screws securing the Rear Upper Cover 1 and HDD Cover. (Use the screws removed in "Removing the Covers" step 1.)

-
- 7) Install the HDD Case to the HDD Slot Unit.



F-9-350

-
- 8) Be sure to request the user to padlock the removable HDD to discourage theft.

Setting after Installation

-
- 1) Connect the power plug to the outlet.
 - 2) Open the Switch Cover and turn ON the main power switch.
 - 3) Perform license registration.
- In the case of LMS (License Management System)
- Write down the serial number of the machine.
 - Refer to the license access number certificate, and obtain a license key from LMS (License Management System).
 - Register the license key.
Settings/Registration > Management Setting > License/Other > Register License
- In the case of CDS Contents Delivery System)
- Enter the license access number in Register/Update Software of Settings/Registration to perform automatic registration.
- 4) Turn OFF and then ON the main power switch.
 - 5) Delete the data on the flash memory.
 - Settings/Registration > Management Settings > Data Management > Delete Old Data

Checking after Installation

-
- 1) Check that the HDD is recognized.
 - Select [service mode > COPIER > Display > ACC_STS > HDD], and check that the manufacturer's name and the model number are displayed.
 - 2) Check that the license is registered.
 - Select Check Counter > Device Configuration Information, and check that "HDD" is displayed

TYPE7:

2.5inch/80GB HDD-E1/Removable HDD Kit-AE1/ HDD Data Encryption Kit-C3 Installation Procedure

Points to Note at Installation

CAUTION:

- When handling the HDD, be careful not to vibrate or drop it.
- Be sure to prepare a USB memory for upgrading created with SST.
- In the case of installing the HDD, be sure to back up the data in the flash memory by way of precaution.
- Be sure to perform license registration after installing the HDD.
 - In the case of registering using LMS (License Management System), be sure to obtain a license key in advance.
 - In the case of registering using CDS (Contents Delivery System), be sure that internet connection is available.
- If only HDD Data Encryption Kit-C3 is installed later, the data on the HDD will be erased. Be sure to back up/export the data as necessary.
- Be sure to delete the data on the flash memory after installing HDD Data Encryption Kit-C3.
 - Settings/Registration > Management Settings > Data Management > Delete Old Data







Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

CAUTION:

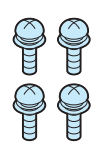
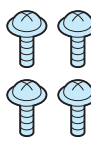
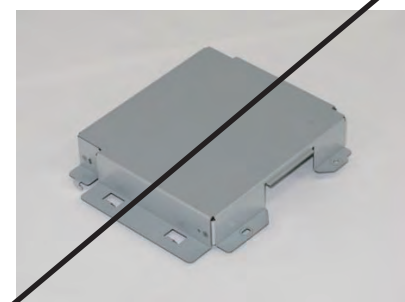
A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn.

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 [2.5inch/80GB HDD-E1]

<input type="checkbox"/> [1] HARD DISC X 1 	<input type="checkbox"/> [2] Expansion HDD Unit X 1 
<input type="checkbox"/> [3] Signal Cable X 1 	<input type="checkbox"/> [4] Power Cable X 1 
<input type="checkbox"/> [5] HDD Cable Holder X 1 	<input type="checkbox"/> [6] HDD Cover X 1 

F-9-351

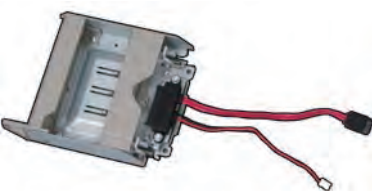
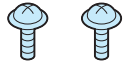



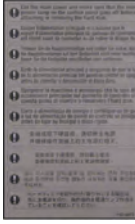

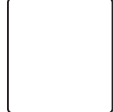
<input type="checkbox"/> [8] Screw (W Sems ; M3x4) X 4 	<input type="checkbox"/> [9] Screw (TP ; M3x6) X 4 <p>Use 2 of them</p> 
<input type="checkbox"/> [10] HDD Shield Cover X 1 	

F-9-352

<CD/Guides>


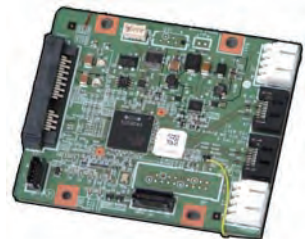
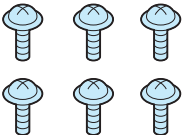
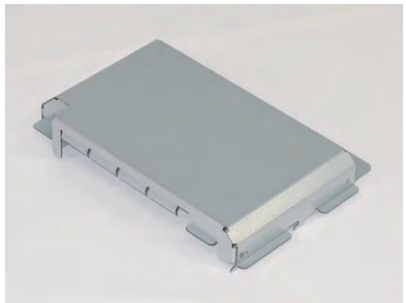
- License Access Number Certificate Data

Checking the Contents [Removable HDD Kit-AE1]

<input type="checkbox"/> [1] HDD Slot Unit X 1 	<input type="checkbox"/> [2] Screw (TP ; M3x6) X 2 
<input type="checkbox"/> [3] Plug_Connector X 1 	<input type="checkbox"/> [4] HDD Case X 1 
<input type="checkbox"/> [5] Screw (P Tightening ; M3x10) X 1 	<input type="checkbox"/> [6] HDD Warning Label X 1 
<input type="checkbox"/> [7] HDD Case Cover X 1 	<input type="checkbox"/> [8] HDD Discriminate Label 

F-9-353

Checking the Contents [HDD Data Encryption Kit-C3]

<input type="checkbox"/> [1] Cable Unit X 1 	<input type="checkbox"/> [2] HDD Encryption Board X 1 
<input type="checkbox"/> [3] Screw (TP ; M3 x 6) X 4 	<input type="checkbox"/> [4] HDD Encryption Shield Cover X 1 

F-9-354

<CD/Guides>

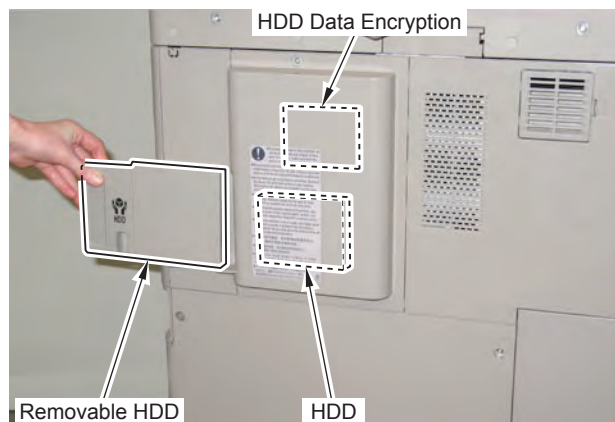
- User's Guide
- HDD Data Encryption Kit Notice

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

- 1) Turn OFF the main power switch.
- 2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



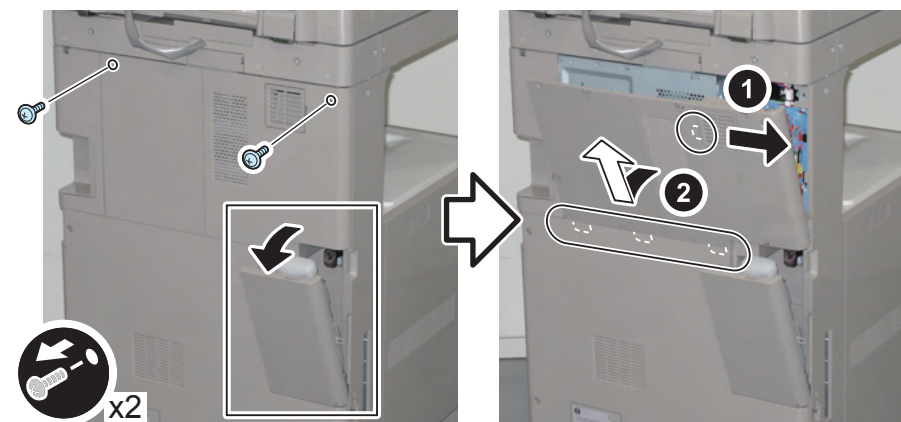
F-9-355

Installation Procedure

Removing the Covers



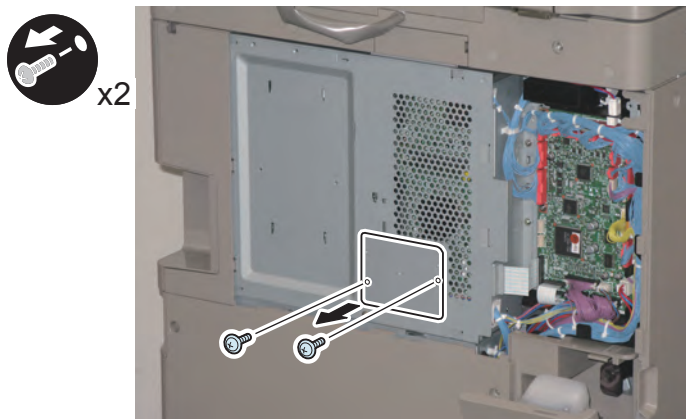
- 1) Remove the 2 screws securing the Rear Upper Cover 1 and the Rear Upper Cover 2. (The removed screws will be used in step 6 of "Installing the Covers".)
 - 2) Open the Waste Toner Cover.
 - 3) Remove the Rear Upper Covers (Rear Upper Cover 1 and Rear Upper Cover 2) in the directions of the arrows.
- 4 Claws



F-9-356

-
- 4) Remove the small cover of the Controller Box Cover. (The removed small cover and screws will not be used.)

- 2 Screws



F-9-357

■ Installing the Removable HDD Kit

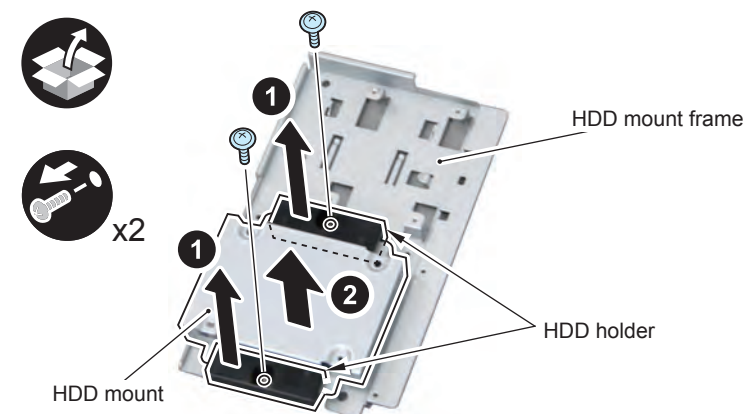
-
- 1) Remove the 2 HDD Holders and the HDD Mount from the Expansion HDD Unit (included with the HDD).

(The removed 2 HDD Holders will not be used.)

(The removed HDD Mount will be used in step 3.)

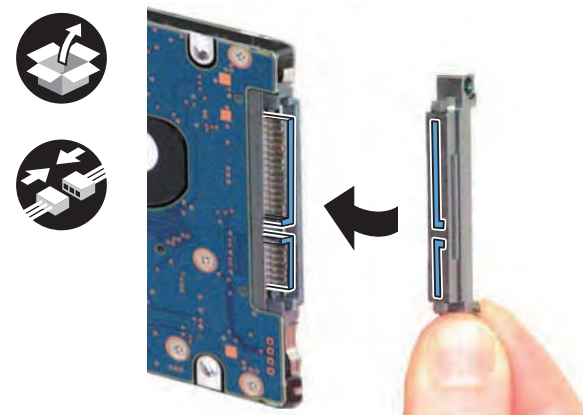
(The remaining HDD Mount Frame will be used in step 8.)

- 2 Screws (They will be used in step 10.)



F-9-358

-
- 2) Install the Plug Connector (included with the Removable HDD Kit) to the HDD (included with the HDD).



F-9-359

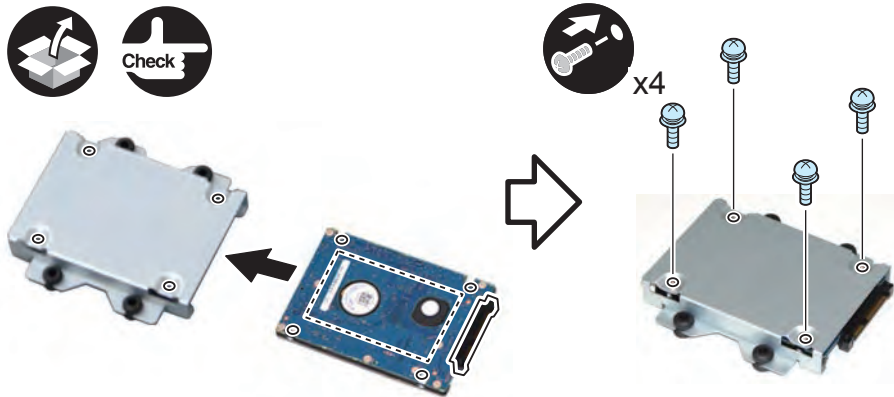


3) Install the HDD to the HDD Mount removed in step 1.

- 4 Screws (W Sems; M3x4) (included with the HDD)

NOTE:

Be sure to insert the HDD with its label side down and its connector in the direction as shown in the figure, and align its 4 screw holes with those of the HDD Mount.



F-9-360

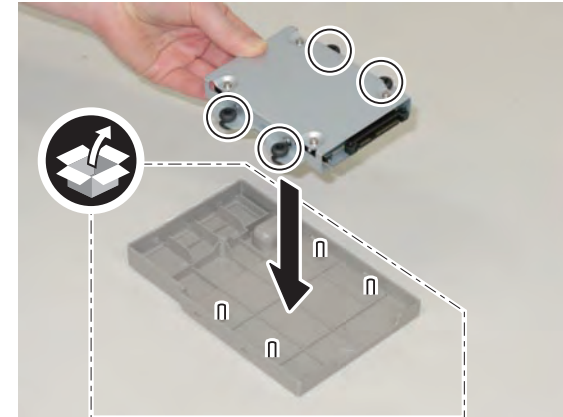


4) Install the HDD to the HDD Case.

- 4 Bosses

NOTE:

When installing the HDD, be sure to keep the side from which the screws were tightened in step 3 up.

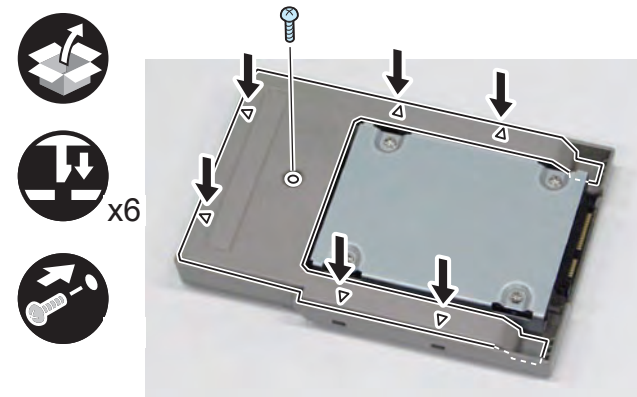


F-9-361



5) Install the HDD Case Cover by pushing in the 6 claws marked with triangles.

- 1 Screw (P Tightening; M3x10) (included with the Removable HDD Kit)



F-9-362

- 6) Affix the HDD Warning Label in the appropriate language, aligning the label with the groove.

CAUTION:

Be sure to affix the HDD Warning Label in the direction as shown in the figure.

- 7) Affix the HDD Identification Label, aligning it with the groove.

CAUTION:

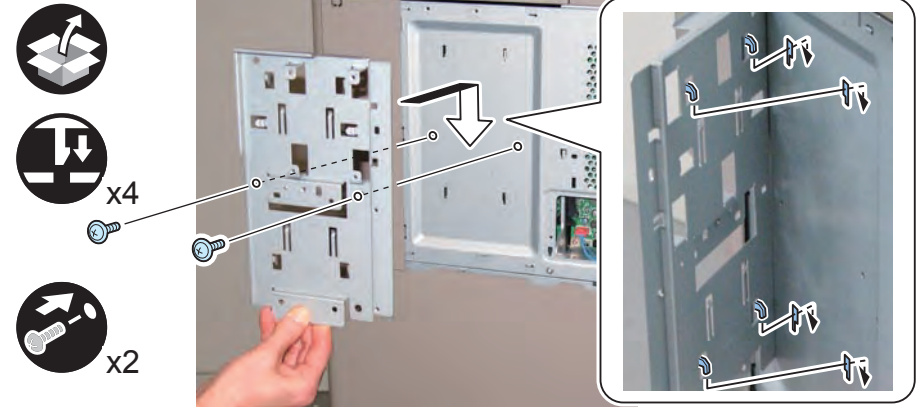
Be sure to write down the serial number on the HDD Identification Label in order to show from which machine it was removed and prevent it from being installed to another machine.



F-9-363

- 8) Install the remaining HDD Mount Frame separated in step 1 to the host machine.

- 4 Claws
- 2 Screws (TP; M3x6) (included with the HDD)



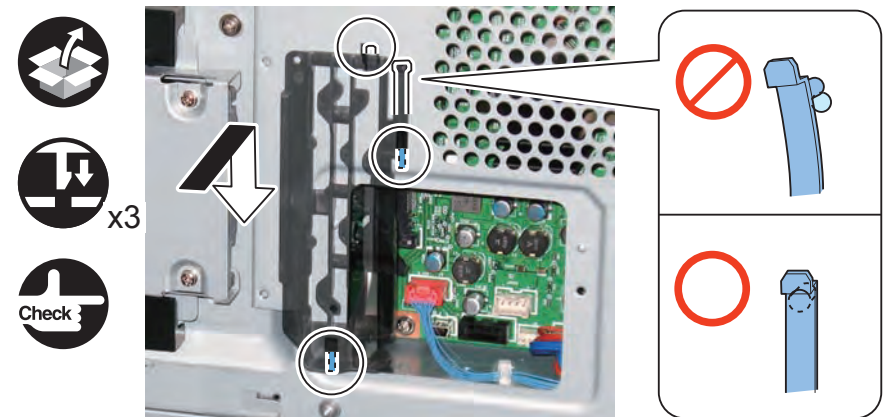
F-9-364

- 9) Install the HDD Cable Holder.

- 3 Claws
- 1 Boss

CAUTION:

Be sure that the boss is fitted properly.

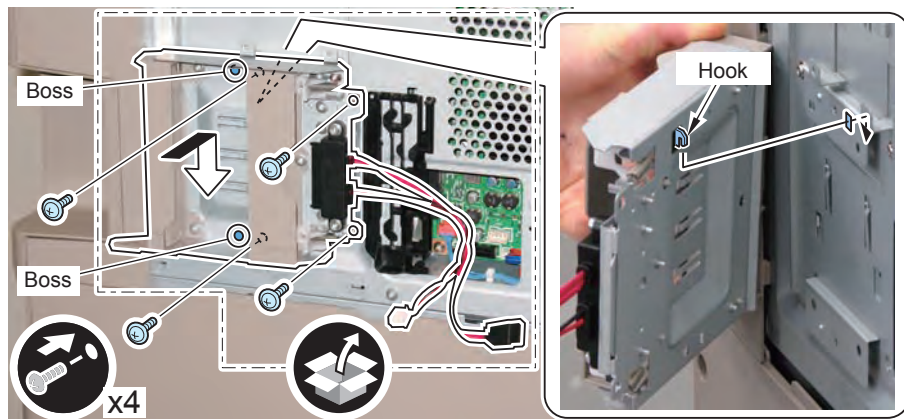


F-9-365



10) Install the HDD Slot Unit.

- 1 Hook
- 2 Bosses
- 4 Screws (Use the 2 screws removed in step 1 and the 2 screws (TP; M3x6) included in the package.)

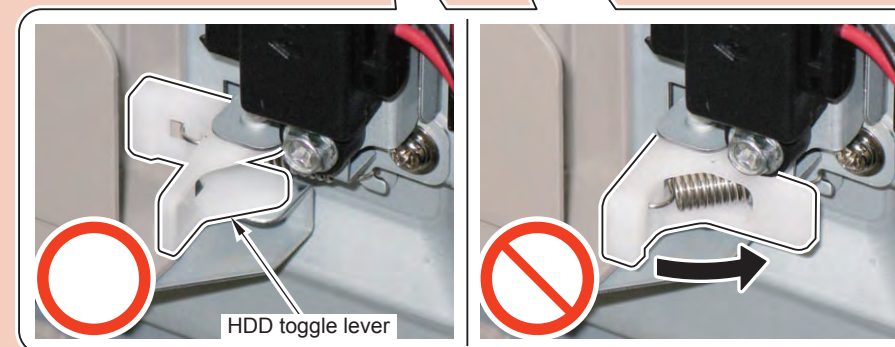
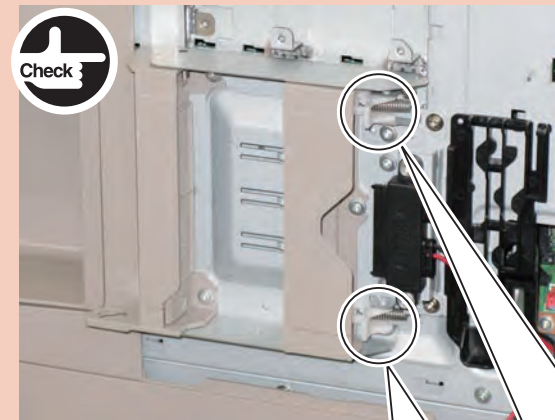


F-9-366

CAUTION:

Set the HDD Toggle Lever in the correct position as shown in the figure, and check that the HDD Case can be inserted all the way and installed properly.

Unless the HDD Toggle Lever is in the correct position, the HDD Case cannot be installed.



F-9-367

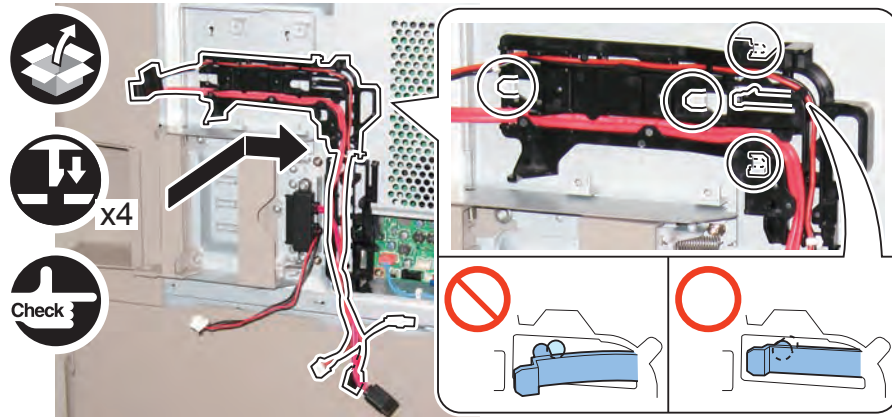


11) Install the Cable Unit.

- 2 Claws of the Cable Unit
- 2 Claws of the HDD Mount Frame
- 1 Boss

CAUTION:

Be sure that the boss is fitted properly.



F-9-368

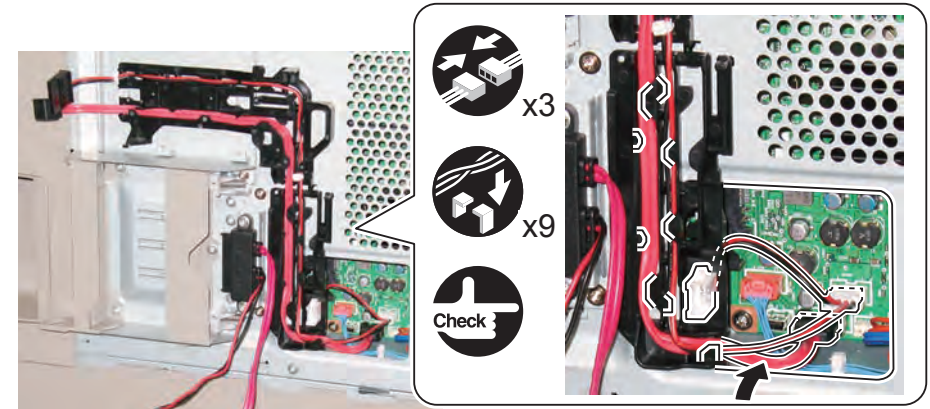


12) Secure the 2 cables of the Cable Unit with the HDD Cable Holder.

- 3 Connectors

CAUTION:

If there is extra slack of the cables, be sure to tuck them in the Controller Box.



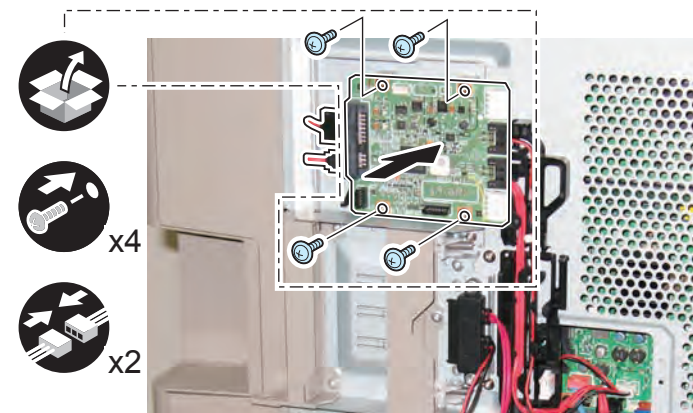
F-9-369



13) Install the HDD Encryption Board.

- 4 Screws (TP; M3x6)

14) Connect the 2 connectors to the HDD Encryption Board.



F-9-370



15) Secure the Signal Cable of the HDD Slot Unit with the HDD Cable Holder.

- 1 Connector

NOTE:

Put the Signal Cable through the left line of the guide and connect it to the connector of the HDD Encryption Board.

CAUTION:

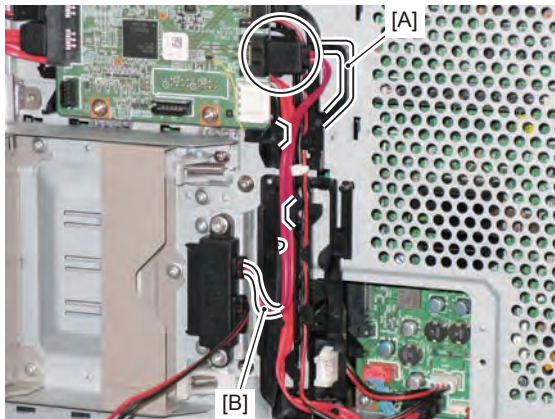
- Be sure that the cable of the connector does not protrude from the [A] part in order to prevent the cable from being trapped.
- If the Signal Cable is too long, leave the slack at the [B] part.



x3



Check



F-9-371



16) Secure the Power Cable of the HDD Slot Unit with the HDD Cable Holder.

- 1 Connector

NOTE:

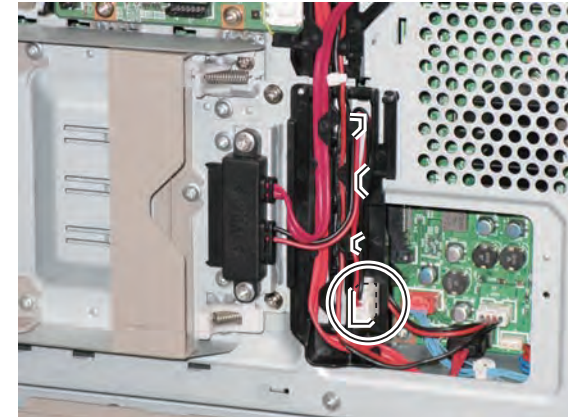
Put the Power Cable up and then down through the right line of the guide and connect it to the Power Cable Connector.



x3



Check



F-9-372

■ Installing the Shield Cover



1) Install the Encryption Shield Cover.

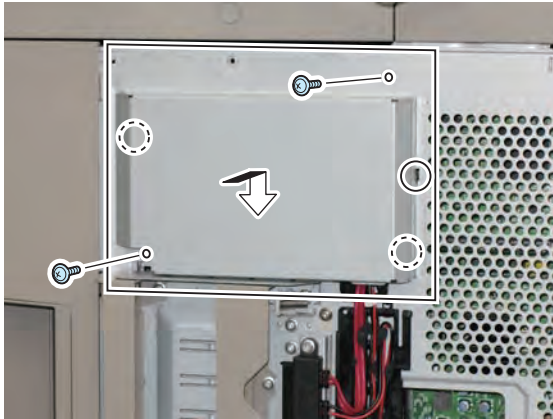
- 3 Claws
- 2 Screws (TP; M3x6)



x2



x3

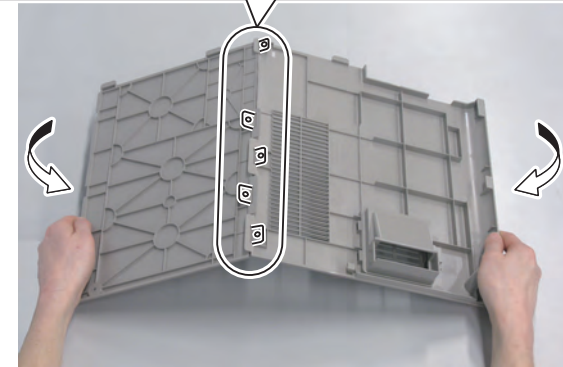
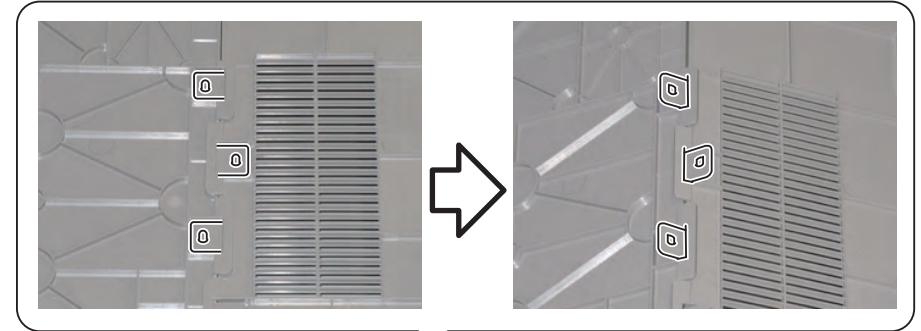


F-9-373

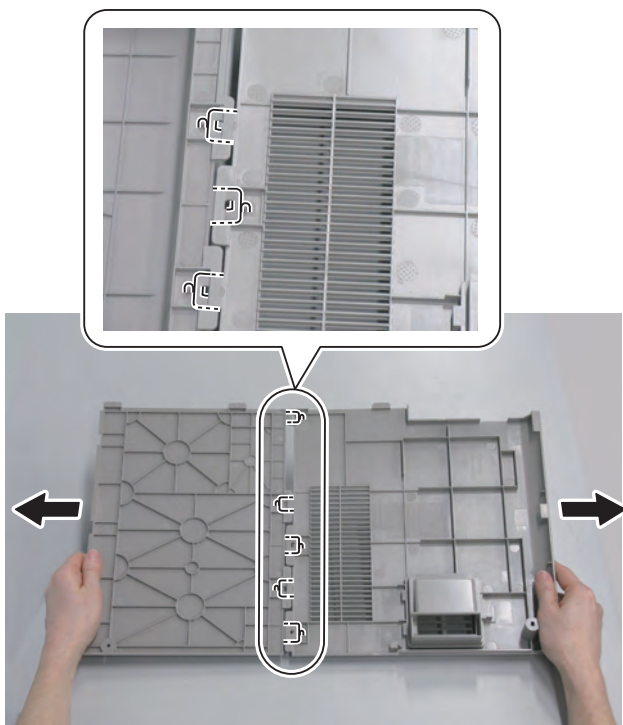
■ Installing the Covers



1) Separate the Rear Upper Cover 1 and the Rear Upper Cover 2 by bending them to release the 5 bosses. (The separated Rear Upper Cover 2 will not be used.)



F-9-374



F-9-375

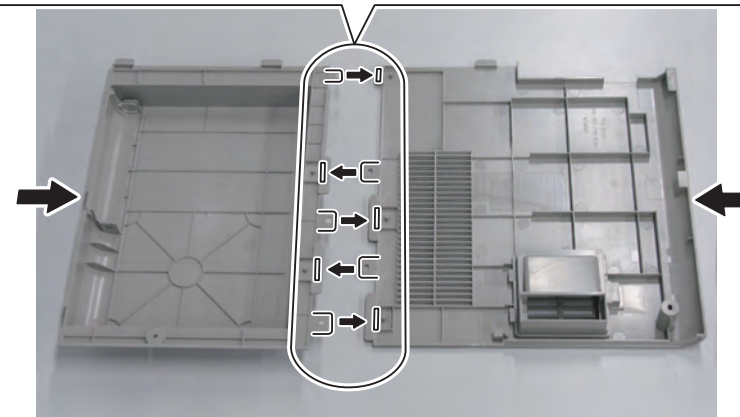
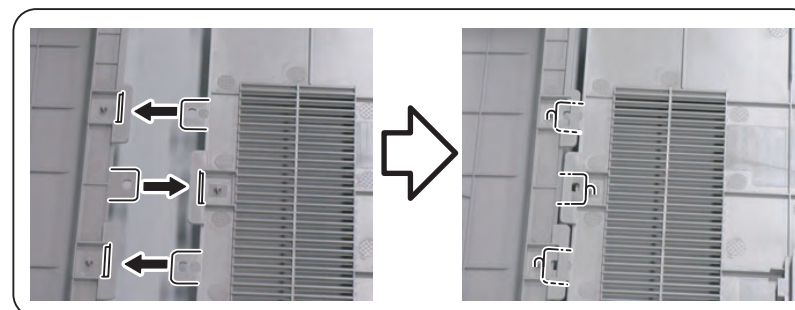


2) Replace the separated Rear Upper Cover 2 with the HDD Cover and join the HDD Cover and the Rear Upper Cover 1.

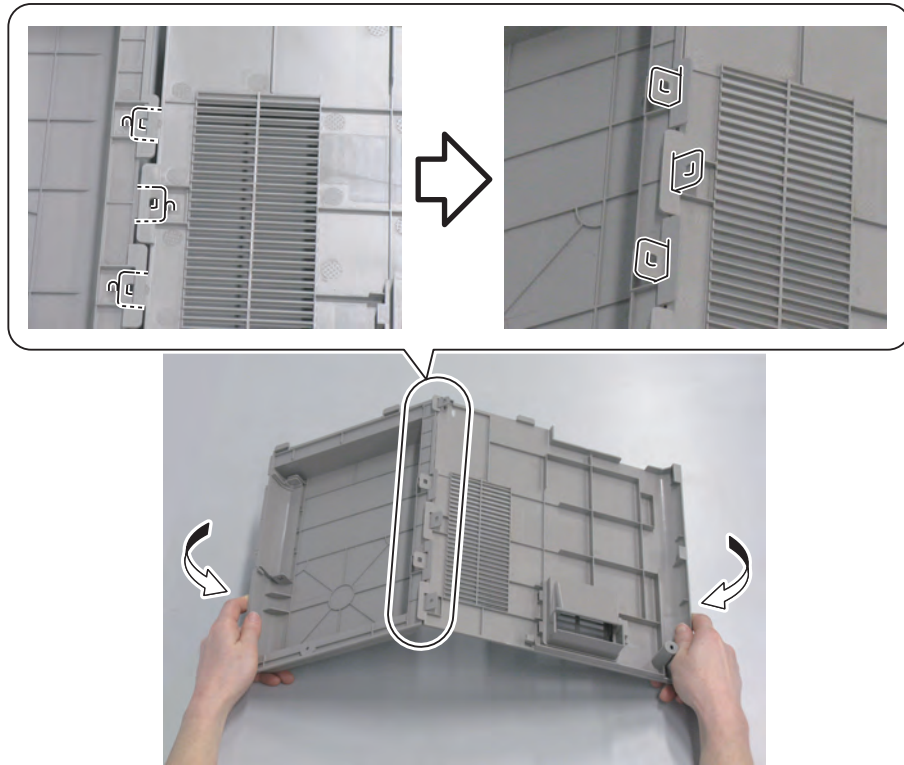
- 5 bosses

NOTE:

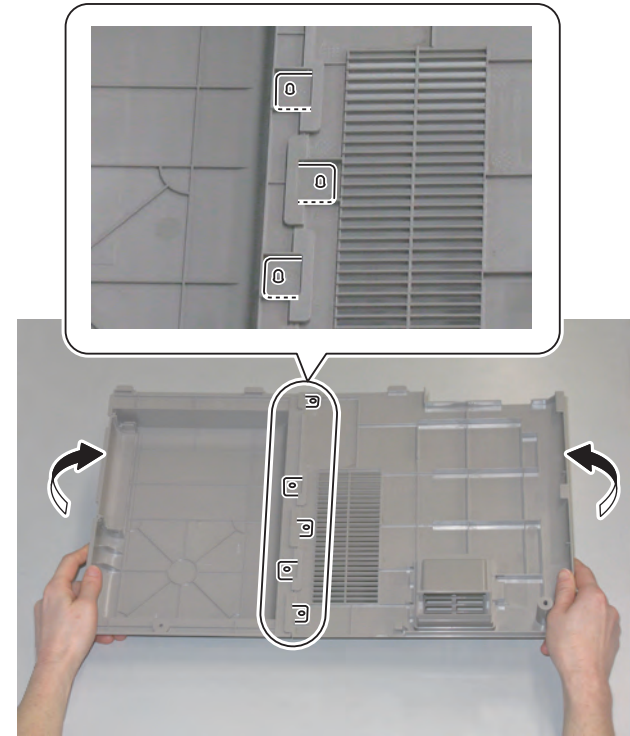
- Put the HDD Cover and the Rear Upper Cover 1 on a desk and insert the claws keeping them on the same level.
- Bend the HDD Cover and the Rear Upper Cover 1 to further insert the claws.
- Flatten the bent HDD Cover and Rear Upper Cover 1 to fit the claws into the 5 bosses.



F-9-376



F-9-377

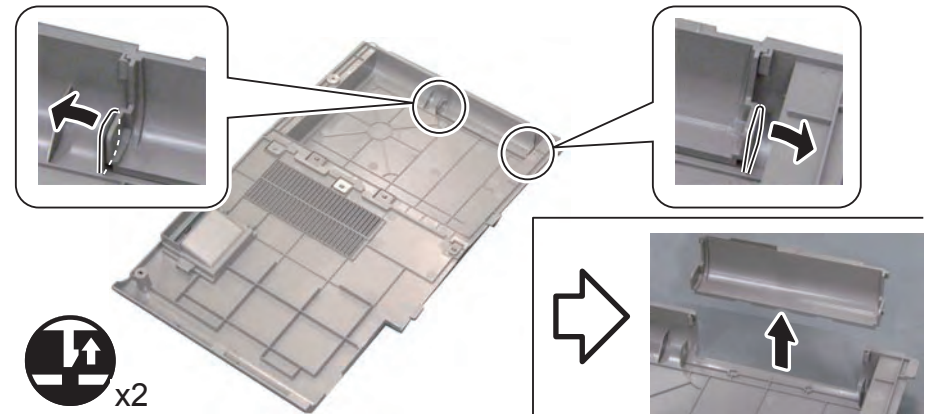


F-9-378



3) Remove the Slot Cover from the HDD Cover. (The removed Slot Cover will not be used.)

- 2 Claws



F-9-379

-
- 4) Install the Rear Upper Cover (Rear Upper Cover 1 and HDD Cover).
 - 5) Close the Waste Toner Cover.
 - 6) Tighten the screws securing the Rear Upper Cover 1 and HDD Cover. (Use the screws removed in "Removing the Covers" step 1.)

-
- 7) Install the HDD Case to the HDD Slot Unit.



F-9-380

-
- 8) Be sure to request the user to padlock the removable HDD to discourage theft.

Setting after Installation

-
- 1) Connect the power plug to the outlet.
 - 2) Open the Switch Cover and turn ON the main power switch.
 - 3) Turn OFF and then ON the main power switch by following the message.
 - 4) Perform license registration.

In the case of LMS (License Management System)

- Write down the serial number of the machine.
- Refer to the license access number certificate, and obtain a license key from LMS (License Management System).
- Register the license key.

Settings/Registration > Management Setting > License/Other > Register License

In the case of CDS Contents Delivery System)

- Enter the license access number in Register/Update Software of Settings/Registration to perform automatic registration.
- 5) Turn OFF and then ON the main power switch.
- 6) Delete the data on the flash memory.
- Settings/Registration > Management Settings > Data Management > Delete Old Data

Checking after Installation

-
- 1) Check that the HDD is recognized.
 - Select [service mode > COPIER > Display > ACC_STS > HDD], and check that the manufacturer's name and the model number are displayed.
 - 2) Check that the license is registered.
 - Select Check Counter > Device Configuration Information, and check that "HDD" is displayed.
 - 3) Check that the HDD Data Encryption is recognized.
 - Select Check Counter > Check Device Configuration > Option, and check that "HDD Data Encryption" is displayed.
 - A key mark should be displayed at the lower left of the Touch Panel Display.
 - 4) Check the version of the HDD Data Encryption Kit.
 - Select Check Counter > Check Device Configuration, and check that "Canon MFP Security Chip '2.00' or '2.01' " is displayed.

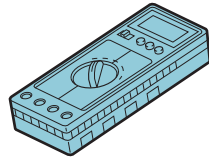
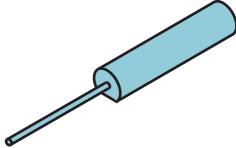
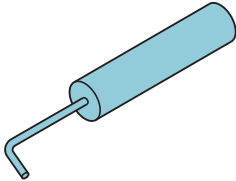

Appendix

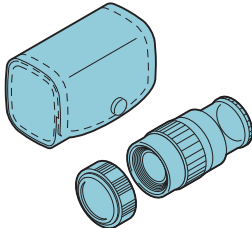
- Service Tools
- General Circuit Diagram
Signal Input/Output List
- List of User Mode
- Backup Data
- Detail of HDD partition
- Soft counter
specifications

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 as a probe extension when making electrical checks.
Tester extension pin	FY9-3038	A		
Tester extension pin (L-shaped)	FY9-3039	A		Use for electrical checks.
CA-7 test Sheet	FY9-9323	A		Used for adjusting/checking images.

Tool name	Tool No.	Ctgr	Appearance	Remarks
Loupe	CK-0056	B		Used for checking images.

Reference: Category

T-10-1

- A: Must be kept by each service engineer.
- B: Must be kept by each group of about five engineers.
- C: Must be kept by each workshop

Solvents and Oils

Item	Uses	Composition	Remarks
Alcohol	Cleaning; e.g., glass, plastic, rubber; external covers.	<ul style="list-style-type: none"> • Fluoride-family hydrocarbon • Alcohol • Surface activating • Water 	<ul style="list-style-type: none"> • Do not bring near fire. • Procure locally. • Substitute: IPA(isopropy alcohol)
Lubricating oil	Lubrication; e.g., scanner rail.	<ul style="list-style-type: none"> • Silicone oil 	<ul style="list-style-type: none"> • Tool No: FY9-6011 (50 cc)
Conducting grease	Lubrication; e.g., edge of secondary transfer roller, drum heater sliding area.	<ul style="list-style-type: none"> • Fluorine poly wthyl 	<ul style="list-style-type: none"> • Tool No: FY9-6021(20 g)

T-10-2

General Timing Chart

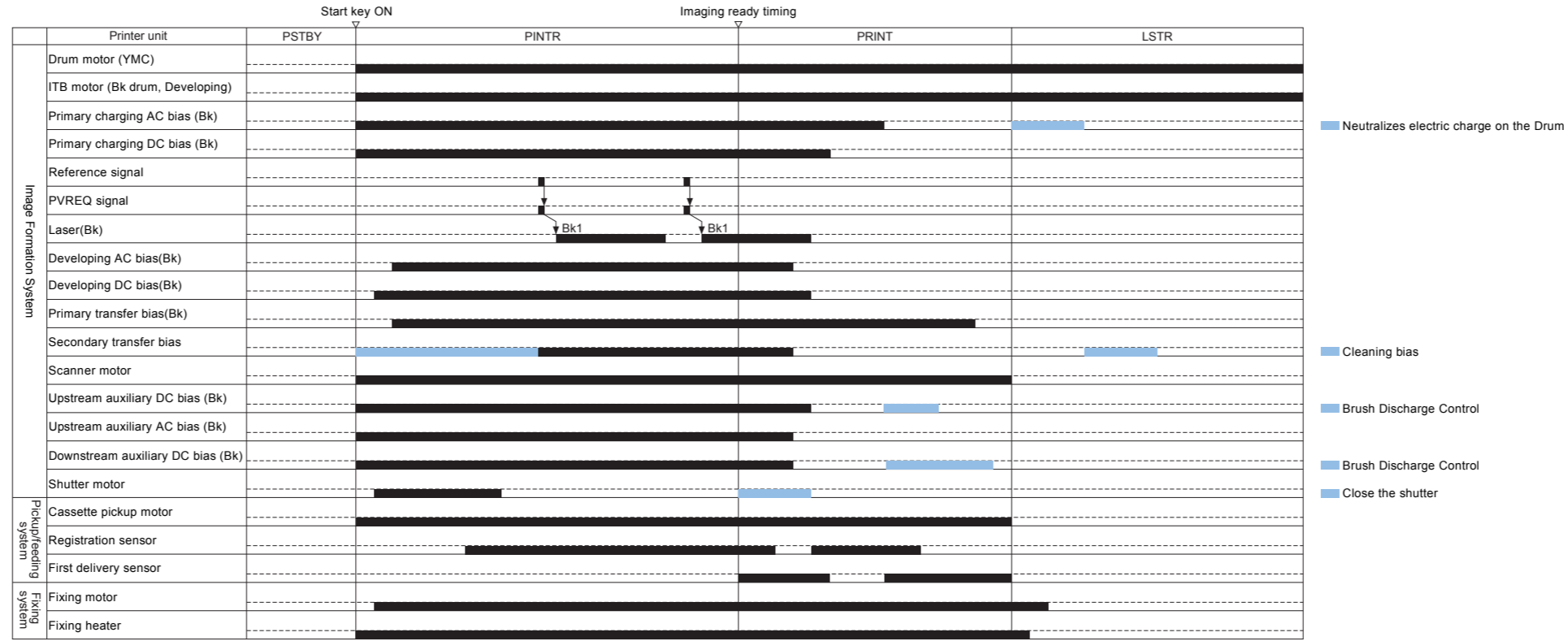
General Timing Chart

A4 single-sided 2 prints full color



F-10-1

A4 single-sided 2 prints Bk color



F-10-2

General Circuit Diagram Signal Input/Output List

Jack No.	Abbreviated Signal Name	Signal Name	
J10	LVT_RLD2_NTL	Fixing Relay Drive Signal N_Side	
	RMT_24V	Printer Engine 24V Remote Signal	
	IRQ_LVT_ZEROX	ZEROX Signal	
	LVT_FSR_CURRMS	Fixing Current Detection Signal	
	LVT_FSRD1	Fixing Heater 1 ON Signal	
	LVT_FSRD2	Fixing Heater 2 ON Signal	
	LVT_RLD1_HOT	Fixing Relay Drive Signal H_Side	
	AC_DRV_ID_0	AC Driver Country Detection Signal 0	
	AC_DRV_ID_1	AC Driver Country Detection Signal 1	
	HV_2TR_S	Secondary Transfer High Voltage Current Detection Signal	
	HV_2TR_P_CNT_PWM	Secondary Transfer High Voltage Control Signal +	
	HV_2TR_P_CLK	Secondary Transfer High Voltage Clock Signal +	
	HV_2TR_N_CNT_PWM	Secondary Transfer High Voltage Control Signal -	
	HV_2TR_N_CLK	Secondary Transfer High Voltage Clock Signal -	
J11	LSHTR_HP_SNS	Laser Shutter Home Position Sensor Signal	
	K_DRUM_HP_SNS	Drum Gear Home Position Signal Bk	
	YMC_DRUM_HP_SNS	Drum Gear Home Position Signal YMC	
	TR1_DIV_HP_SW	Primary Transfer Disengagement Home Position Signal	
	CST1_SL_ON	Cassette 1 Pickup Solenoid ON Signal	
	TR1_DIV_SL_ON	Primary Transfer Disengagement Solenoid ON Signal	
	RIGHT_DOOR_UP_SNS	Right Door Open Sensor Signal	
	RIGHT_DOOR_LO_SNS	Right Lower Door Open/Close Detection Signal	
	J12	FSR_OPEN	Fixing Unit Connection Detection Signal
TH_REAR		Rear Thermistor Signal	
TH_CENTER		Center Thermistor Signal	
LOOP_2_SNS		Arch Detection 2 Sensor Signal	
LOOP_1_SNS		Arch Detection 1 Sensor Signal	
EXIT1_SNS		First Delivery Sensor Signal	
TH_FRONT		Front Thermistor Signal	
TH_SLEEVE		Sleeve Thermistor Signal	
FSR_RLS_SNS		Fixing Pressure Release Sensor Signal	
EXIT1_PAPER_FULL_SNS		First Delivery Sensor Signal	
REGI_TOP_SNS		Registration Top Sensor Signal	
RD_DNS_P1		Patch Sensor Front Detection Signal P Wave	
RD_GAIN0		Patch Sensor Front Gain Setting Signal 0	
RD_GAIN1		Patch Sensor Front Gain Setting Signal 1	
RD_DNS_S2		Patch Sensor Front Detection Signal S Wave	
RD_LED		Patch Sensor Front LED ON	
RDBL_ITB_LED		ITB Mark Detection LED ON	
RDBL_LED		Patch Sensor Rear LED ON	
RDBL_GAIN0		Patch Sensor Rear Gain Setting Signal 0	
RDBL_GAIN1		Patch Sensor Rear Gain Setting Signal 1	
RDBL_DNS_P1		Patch Sensor Rear Detection Signal P Wave	
RDBL_DNS_S2		Patch Sensor Rear Detection Signal S Wave	
IRQ_RDBL_ITB_TOP		ITB Mark Detection Signal	
J13		MP_PAPER_EMPTY_SNS	Multi-purpose Tray Paper Sensor Signal
		MP_PAPER_LAST_SNS	Multi-purpose Tray Last Paper Sensor Signal
		MP_SL_ON	Multi-purpose Tray Pickup Solenoid ON Signal
		RC_TNR_FULL_DETECT_SW	Waste Toner Weight Detection Signal
		RC_TNR_BOX_DETECT_SW	Waste Toner BOX Detection Signal
		RDSHTR_SL_PWM	Registration Detection Shutter Solenoid ON Signal
		CST1_SIZE_10	Cassette 1 Size Detection SW1 Signal 0
	CST1_SIZE_11	Cassette 1 Size Detection SW1 Signal 1	
	CST1_SIZE_12	Cassette 1 Size Detection SW1 Signal 2	
	CST1_SIZE_20	Cassette 1 Size Detection SW2 Signal 0	
	CST1_SIZE_21	Cassette 1 Size Detection SW2 Signal 1	
	CST1_SIZE_22	Cassette 1 Size Detection SW2 Signal 2	
	CST1_LIFT_SNS	Cassette 1 Lifter Sensor Signal	
	CST1_LIFT_MTR_ON	Cassette 1 Lifter Motor ON Signal	
	CST1_PAPER_EMPTY_SNS	Cassette 1 Paper Sensor Signal	
	CST1_PAPER_LEVEL_SNS	Cassette 1 Paper Level Sensor Signal	

Jack No.	Abbreviated Signal Name	Signal Name
J15	SCN_MTR_ACC*	Laser Scanner Motor ACC Signal
	SCN_MTR_DEC*	Laser Scanner Motor DEC Signal
J19	SUB_UP_DOWN_ANALOG	Upstream Auxiliary High Voltage Detection Signal
	HV_SEL2_MUX_0	High Voltage Detection Value Selection Signal 0
	HV_SEL2_MUX_1	High Voltage Detection Value Selection Signal 1
	HV_SEL2_MUX_2	High Voltage Detection Value Selection Signal 2
	SUB_DC_CLK	Auxiliary High Voltage DC Clock Signal
	SUB_LO_DC_PWM_Y	Downstream Auxiliary High Voltage DC Duty Control Signal Y
	SUB_LO_DC_PWM_M	Downstream Auxiliary High Voltage DC Duty Control Signal M
	SUB_LO_DC_PWM_K	Downstream Auxiliary High Voltage DC Duty Control Signal Bk
	SUB_LO_DC_PWM_C	Downstream Auxiliary High Voltage DC Duty Control Signal C
	SUB_UP_AC_FIG_PWM	Downstream Auxiliary High Voltage AC Modulation Wave Signal
	SUB_UP_AC_PWM_YMC	Downstream Auxiliary High Voltage AC Duty Control Signal YMC
	SUB_UP_AC_PWM_K	Downstream Auxiliary High Voltage AC Duty Control Signal Bk
	SUB_UP_DC_PWM_K	Downstream Auxiliary High Voltage DC Duty Control Signal Bk
	SUB_UP_DC_PWM_YMC	Downstream Auxiliary High Voltage DC Duty Control Signal YMC
J20	DEV_AC_RMT_Y	Developing High Voltage AC Remote Signal Y
	DEV_DC_PWM_K	Developing High Voltage DC Duty Control Signal Bk
	DEV_AC_RMT_M	Developing High Voltage AC Remote Signal M
	DEV_DC_PWM_C	Developing High Voltage DC Duty Control Signal C
	DEV_ANALOG	Developing High Voltage Detection Signal
	DEV_AC_RMT_C	Developing High Voltage AC Remote Signal C
	DEV_DC_PWM_M	Developing High Voltage DC Duty Control Signal M
	DEV_DC_PWM_Y	Developing High Voltage DC Duty Control Signal Y
	DEV_AC_RMT_K	Developing High Voltage AC Remote Signal Bk
	J21	HV_CHG_AC_FIG_Y
HV_CHG_AC_PMW_Y		Charging High Voltage AC Duty Control Signal Y
HV_CHG_DC_PMW_Y		Charging High Voltage DC Duty Control Signal Y
HV_CHG_AC_PMW_M		Charging High Voltage AC Duty Control Signal M
HV_CHG_DC_PMW_M		Charging High Voltage DC Duty Control Signal M
HV_CHG_AC_FIG_M		Charging High Voltage AC Modulation Wave Signal M
HV_CHG_ANALOG_ACDC		Charging High Voltage Detection Signal
HV_CHG_ANALOG_CURRENT		Charging High Voltage Current Detection Signal
HVSEL_1_MUX_2		High Voltage Detection Value Selection Signal 2
HVSEL_1_MUX_1		High Voltage Detection Value Selection Signal 1
HVSEL_1_MUX_0		High Voltage Detection Value Selection Signal 0
HV_CHG_AC_FIG_PWM_C		Charging High Voltage AC Modulation Wave Signal C
HV_CHG_AC_PMW_C		Charging High Voltage AC Duty Control Signal C
HV_CHG_DC_PMW_C		Charging High Voltage DC Duty Control Signal C
HV_CHG_AC_PMW_K		Charging High Voltage AC Duty Control Signal Bk
HV_CHG_DC_PMW_K		Charging High Voltage DC Duty Control Signal Bk
HV_CHG_AC_FIG_PWM_K		Charging High Voltage AC Modulation Wave Signal Bk
HV_CHG_DC_CLK		Charging High Voltage DC Clock Signal
HV_CHG_ERR_DTCT		Charging High Voltage Error Detection Signal
12V_HV_REF		Charging High Voltage 12V
J22	DEV_DC_CLK	Developing High Voltage DC Clock Signal
	DEV_AC_CLK_N*	Developing High Voltage AC Clock Signal (N)
	DEV_AC_CLK_P	Developing High Voltage AC Clock Signal (P)
	DEV_ERR_DTCT	Developing High Voltage Error Detection Signal
	DEV_AC_AMP	Developing High Voltage AC Gain Setting Signal
	HV_SEL_2_MUX_1	High Voltage Detection Value Selection Signal 1
	HV_SEL_2_MUX_2	High Voltage Detection Value Selection Signal 2
	HV_SEL_2_MUX_0	High Voltage Detection Value Selection Signal 0

Jack No.	Abbreviated Signal Name	Signal Name
J23	Y_HPR_SCRW_HP_SNS	Y Toner Supply Sensor Signal
	Y_HPR_TBTL_MTR_ON	Y Bottle Motor VCC
	Y_HPR_TBTL_I_DETECT	Y Bottle Motor Current Detection Signal
	Y_HPR_SCRW_MTR_ON	Y Toner Measurement Screw Motor VCC
	Y_TNR_RM_DETECT_LED	Y Toner Level Detection LED VCC
	Y_TNR_RM_DETECT_LED_FB	Y Toner Level Detection LED VCC Voltage Detection
	Y_TNR_RM_DETECT_PTR	Y Toner Level Detection Signal
J24	Y_TBTL_EXIST	Y Toner Bottle Detection SE Signal
	M_HPR_SCRW_HP_SNS	M Toner Supply Sensor Signal
	M_HPR_TBTL_MTR_ON	M Bottle Motor VCC
	M_HPR_TBTL_MTR_I_DETECT	M Bottle Motor Current Detection Signal
	M_HPR_SCRW_MTR_ON	M Toner Measurement Screw Motor VCC
	M_TNR_RM_DETECT_LED	M Toner Level Detection LED VCC
	M_TNR_RM_DETECT_LED_FB	M Toner Level Detection LED VCC Voltage Detection
	M_TNR_RM_DETECT_PTR	M Toner Level Detection Signal
	M_TBTL_EXIST	M Toner Bottle Detection SW Signal
	C_HPR_SCRW_HP_SNS	C Toner Supply Sensor Signal
	C_HPR_TBTL_MTR_ON	C Bottle Motor VCC
	C_HPR_TBTL_MTR_I_DETECT	C Bottle Motor Current Detection Signal
	C_HPR_SCRW_MTR_ON	C Toner Measurement Screw Motor VCC
	C_TNR_RM_DETECT_LED	C Toner Level Detection LED VCC
	C_TNR_RM_DETECT_LED_FB	C Toner Level Detection LED VCC Voltage Detection
	C_TNR_RM_DETECT_PTR	C Toner Level Detection Signal
	C_TBTL_EXIST	C Toner Bottle Detection SW Signal
J25	I2C_SDA_PCRG_X	Drum Unit Memory Communication Data Signal
	I2C_SCL_PCRG_X	Drum Unit Memory Communication Clock Signal
	Y_INDUC_CNT	Toner Density Sensor Control Signal Y
	PCRG_VCC_+5.0V	Drum Unit Memory PCB VCC
	Y_INDUC_ANA	Toner Sensor Signal Y
	M_INDUC_CNT	Toner Sensor Control Signal M
	M_INDUC_ANA	Toner Sensor Signal M
	C_INDUC_CNT	Toner Sensor Control Signal C
	C_INDUC_ANA	Toner Sensor Signal C
	K_INDUC_CNT	Toner Sensor Control Signal K
	K_INDUC_ANA	Toner Sensor Signal K
J26	K_HPR_SCRW_HP_SNS	Bk Toner Supply Sensor Signal
	K_HPR_TBTL_MTR_ON	Bk Bottle Motor VCC
	K_HPR_TBTL_MTR_I_DETECT	Bk Bottle Motor Current Detection Signal
	K_HPR_SCRW_MTR_ON	Bk Toner Measurement Screw Motor VCC
	K_TNR_RM_DETECT_LED	Bk Toner Level Detection LED VCC
	K_TNR_RM_DETECT_LED_FB	Bk Toner Level Detection LED VCC Voltage Detection
	K_TNR_RM_DETECT_PTR	Bk Toner Level Detection Signal
	K_TBTL_EXIST	Bk Toner Bottle Detection SW Signal
	CST2_SIZE_23	Cassette 2 Size Detection SW2 Signal 3
	CST2_SIZE_22	Cassette 2 Size Detection SW2 Signal 2
	CST2_SIZE_21	Cassette 2 Size Detection SW2 Signal 1
	CST2_SIZE_20	Cassette 2 Size Detection SW2 Signal 0
	CST2_SIZE_13	Cassette 2 Size Detection SW1 Signal 3
	CST2_SIZE_12	Cassette 2 Size Detection SW1 Signal 2
	CST2_SIZE_11	Cassette 2 Size Detection SW1 Signal 1
	CST2_SIZE_10	Cassette 2 Size Detection SW1 Signal 0
	J28	CSTPD_READY
CSTPD_RESET*		Cassette Pedestal Communication Reset Signal
CSTPD_4_MTR_CLK		Cassette 3 Pickup Motor Clock Signal
CSTPD_3_MTR_CLK		Cassette 4 Pickup Motor Clock Signal
CSTPD_ENG1_CK		Cassette Pedestal Communication Clock Signal
CSTPD_ENG1_RX		Cassette Pedestal Communication Signal (Cassette Pedestal =>DC Controller)
CSTPD_ENG1_TX		Cassette Pedestal Communication Signal (DC Controller=>Cassette Pedestal)
CSTPD_CONNECT		Cassette Pedestal Connection Detection Signal
CST2_PAPER_EMPTY_SNS		Cassette 2 Paper Sensor Signal
CST2_LEVEL_A_SNS		Cassette 2 Level Detection Signal A
CST2_LEVEL_B_SNS		Cassette 2 Level Detection Signal B
V_PASS_SNS		Vertical Path Sensor Signal
CST2_SL_ON		Cassette 2 Pickup Solenoid ON Signal

Jack No.	Abbreviated Signal Name	Signal Name
J31	EXIT1_FLAP_SL_PWM	First Delivery Flapper Solenoid ON Signal
	EXIT1_OUT_/B	Fixing Outlet Motor B*
	EXIT1_OUT_B	Fixing Outlet Motor B
	EXIT1_OUT_/A	Fixing Outlet Motor A*
	EXIT1_OUT_A	Fixing Outlet Motor A
	CST2_OUT_A	Cassette 2 Pickup Motor A
	CST2_OUT/A	Cassette 2 Pickup Motor A*
	CST2_OUT_B	Cassette 2 Pickup Motor B
	CST2_OUT/B	Cassette 2 Pickup Motor B*
	FEED_OUTA	Cassette 1 Pickup Motor A
	FEED_OUT/A	Cassette 1 Pickup Motor A*
	FEED_OUTB	Cassette 1 Pickup Motor B
	FEED_OUT/B	Cassette 1 Pickup Motor B*
	LST_OUTA	Shutter Motor A
	LST_OUT/A	Shutter Motor A*
	LST_OUTB	Shutter Motor B
	LST_OUT/B	Shutter Motor B*
	DUP_OUTA	Duplex Feed Motor A
	DUP_OUT/A	Duplex Feed Motor A*
	DUP_OUTB	Duplex Feed Motor B
DUP_OUT/B	Duplex Feed Motor B*	
J33	FLIP_SNS	Reverse Sensor Signal
	EXIT2_SNS	Second Delivery Sensor Signal
	EXIT3_SNS	Third Delivery Sensor Signal
	DUP_ENTER_SNS	Duplex Inlet Sensor Signal
	EXIT2_PAPER_FULL_SNS	Second Delivery Full Sensor Signal
	FLIP_MTR_PHB	Reverse Motor Drive Signal B
	FLIP_MTR_I0B	Reverse Motor Current Control Signal B_I0
	FLIP_MTR_I1B	Reverse Motor Current Control Signal B_I1
	FLIP_MTR_STBY	Reverse Motor Standby Signal
	FLIP_MTR_CHI	Reverse Motor Current Control Signal
	FLIP_MTR_I1A	Reverse Motor Current Control Signal A_I1
	FLIP_MTR_I0A	Reverse Motor Current Control Signal A_I0
	FLIP_MTR_PHA	Reverse Motor Drive Signal A
	EXIT2_MTR_I1	Second Delivery Motor Current Control Signal_I1
	EXIT2_MTR_I0	Second Delivery Motor Current Control Signal_I0
	EXIT2_MTR_B	Second Delivery Motor Drive Signal B
	EXIT2_MTR_A	Second Delivery Motor Drive Signal A
	EXIT2_MTR_A*	Second Delivery Motor Drive Signal A*
	EXIT2_MTR_B*	Second Delivery Motor Drive Signal B*
	EXIT2_SL_PWM	Second Delivery Flapper Solenoid PWM Signal
EXIT3_MTR_I1	Third Delivery Motor Current Control Signal_I1	
EXIT3_MTR_I0	Third Delivery Motor Current Control Signal_I0	
EXIT3_MTR_B	Third Delivery Motor Drive Signal B	
EXIT3_MTR_A	Third Delivery Motor Drive Signal A	
EXIT3_MTR_A*	Third Delivery Motor Drive Signal A*	
EXIT3_MTR_B*	Third Delivery Motor Drive Signal B*	
EXIT3_SL_PWM	Third Delivery Flapper Solenoid PWM Signal	
ENG1_STM_STBY_X*	Stepping Motor Standby Signal	
EXIT23_CONNECT	23 Delivery Driver PCB Connection Detection Signal	
J35	FRONT_DOOR_SNS	Front Door Open Sensor Signal
	INNER_FIN_TX	Finisher Communication Signal (DC Controller => Finisher)
	INNER_FIN_RX	Finisher Communication Signal (Finisher => DC Controller)
	INNER_FIN_DOWNLOAD_MODE	Finisher Download Mode Signal
	INNER_FIN_RESET	Finisher Reset Signal
	INNER_FIN_DOWNLOAD_ENB	Finisher Download Enable Signal
	INNER_FIN_CONNECT	Finisher Connection Detection Signal
	EXIT_FAN_PWM	Delivery Cooling Fan VCC
	EXIT_FAN_LOCK*	Delivery Cooling Fan Lock Signal

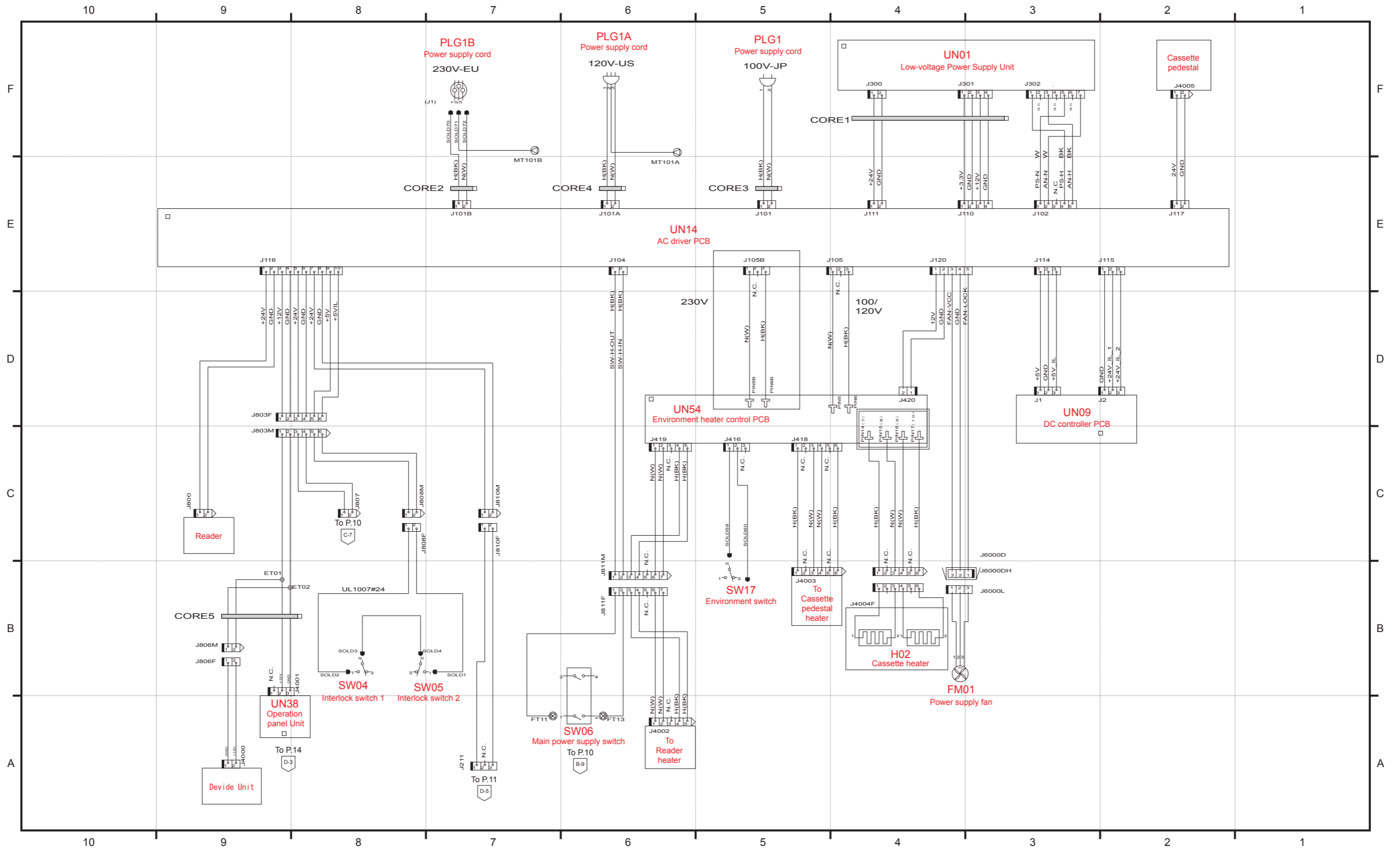
Jack No.	Abbreviated Signal Name	Signal Name
J51	DDIL_FFC_IN	DDIL Connection Detection Signal IN
	VDO_K_P	Video Data Bk Signal (Differential +)
	VDO_K_N	Video Data Bk Signal (Differential -)
	VDO_C_P	Video Data C Signal (Differential +)
	VDO_C_N	Video Data C Signal (Differential -)
	VDO_M_P	Video Data M Signal (Differential +)
	VDO_M_N	Video Data M Signal (Differential -)
	VDO_Y_P	Video Data Y Signal (Differential +)
	VDO_Y_N	Video Data Y Signal (Differential -)
	BD_OUT*	BD Sensor Detection Signal
	MAIN_SW_OFF_DETECT_TO_DCON	Main Switch OFF Detection Signal
	DDI_LPPRDY*	DDIL Printer Power Ready Signal
	ITOP*	ITOP Signal
	DDI_PCMD_CLEI	DDIL Communication Signal (Controller => DC Controller)
	DDI_PSTS_CLEO	DDIL Communication Signal (DC Controller => Controller)
	VDOEN*	Video Data Output Enable Signal
	DDI_PLIVEWAKE*	DDIL Live Wake Signal
	DDI_PCPRDY*	DDIL Controller Power Ready Signal
	DDIL_FFC_OUT	DDIL Connection Detection Signal OUT
	J61	BD_IN*
VDO_C_P		Video Data C Signal (Differential +)
VDO_C_N		Video Data C Signal (Differential -)
C_LD_CTRL1		Laser Control Signal C_1
C_LD_CTRL0		Laser Control Signal C_0
C_LD_POWER		Laser Light Intensity Control Signal C
VDO_K_P		Video Data Bk Signal (Differential +)
VDO_K_N		Video Data Bk Signal (Differential -)
K_LD_CTRL1		Laser Control Signal Bk_1
K_LD_CTRL0		Laser Control Signal Bk_0
K_LD_POWER		Laser Light Intensity Control Signal Bk
J62		I2C_SCL_LS
	I2C_SDA_LS	Laser Scanner Unit Memory Communication Clock Signal
	VDO_M_P	Video Data M Signal (Differential +)
	VDO_M_N	Video Data M Signal (Differential -)
	M_LD_CTRL1	Laser Control Signal M_1
	M_LD_CTRL0	Laser Control Signal M_0
	M_LD_POWER	Laser Light Intensity Control Signal M
	VDO_Y_P	Video Data Y Signal (Differential +)
	VDO_Y_N	Video Data Y Signal (Differential -)
	Y_LD_CTRL1	Laser Control Signal Y_1
	Y_LD_CTRL0	Laser Control Signal Y_0
	Y_LD_POWER	Laser Light Intensity Control Signal Y
J120	FAN_VCC	Power Supply Fan VCC
	FAN_LOCK	Power Supply Fan Lock Signal
J121	RELEY_ON	AC Relay ON Signal
	MAINSW_OFF_DET*	Main Switch OFF Detection Signal
	RMT_SYS	System Remote Signal
	RMT_DCON	DC Controller Remote Signal
	FAN_FULL_ON	Power Supply Fan Full Speed ON Signal
	FAN_LOCK	Power Supply Fan Lock Signal
FAN_HALF_ON	Power Supply Fan Half Speed ON Signal	

Jack No.	Abbreviated Signal Name	Signal Name	
J205	HV_TR1_S_K	Primary Transfer High Voltage Current Detection Signal Bk	
	HV_TR1_S_C	Primary Transfer High Voltage Current Detection Signal C	
	HV_TR1_S_M	Primary Transfer High Voltage Current Detection Signal M	
	HV_TR1_S_Y	Primary Transfer High Voltage Current Detection Signal Y	
	HV_TR1_SDATA	Primary Transfer High Voltage Serial Communication Data Signal	
	HV_TR1_SCK	Primary Transfer High Voltage Serial Communication Clock Signal	
	HV_TR1_LD	Primary Transfer High Voltage Serial Communication Load Signal	
	HV_TR1_OE	Primary Transfer High Voltage Output Enable Signal	
	J206	CRG_FAN_DRV	Drum Unit Cooling Fan VCC
		CRG_FRONT_FAN_KOCK	Drum Unit Cooling Fan Lock Signal
ENV_SNS_HUM		Environment Sensor Humidity Signal	
ENV_SNS_TEMP		Environment Sensor Temperature Signal	
J210	3C_DRUM_MTR_FR	Color Drum Motor FR Signal	
	3C_DRUM_MTR_ACC*	Color Drum Motor ACC Signal	
	3C_DRUM_MTR_DEC*	Color Drum Motor DEC Signal	
	3C_DRUM_MTR_FG*	Color Drum Motor FG Signal	
	3C_DEV_MTR_FR	Color Developing Motor FR Signal	
	3C_DEV_MTR_ACC*	Color Developing Motor ACC Signal	
	3C_DEV_MTR_DEC*	Color Developing Motor DEC Signal	
	3C_DEV_MTR_FG*	Color Developing Motor FG Signal	
	Bk_ITB_MTR_FR	ITB Motor FR Signal	
	Bk_ITB_MTR_ACC*	ITB Motor ACC Signal	
	Bk_ITB_MTR_DEC*	ITB Motor DEC Signal	
	Bk_ITB_MTR_FG*	ITB Motor FG Signal	
	FSR_MTR_FR	Fixing Motor FR Signal	
	FSR_MTR_ACC*	Fixing Motor ACC Signal	
FSR_MTR_DEC*	Fixing Motor DEC Signal		
FSR_MTR_FG*	Fixing Motor FG Signal		
J213	EXIT2_PAPER_FULL_SNS	Second Delivery Full Sensor Signal	
	FLIP_SNS	Reverse Sensor Signal	
	FLIP_OUTA	Reverse Motor A	
	FLIP_OUT/A	Reverse Motor A*	
	FLIP_OUTB	Reverse Motor B	
	FLIP_OUT/B	Reverse Motor B*	
	EXIT2_OUTA	Second Delivery Motor A	
	EXIT2_OUT/A	Second Delivery Motor A*	
	EXIT2_OUTB	Second Delivery Motor B	
	EXIT2_OUT/B	Second Delivery Motor B*	
	EXIT3_OUTA	Third Delivery Motor A	
EXIT3_OUT/A	Third Delivery Motor A*		
EXIT3_OUTB	Third Delivery Motor B		
EXIT3_OUT/B	Third Delivery Motor B*		
J214	EXIT2_SL_PWM	Second Delivery Flapper Solenoid ON Signal	
	EXIT3_SL_PWM	Third Delivery Flapper Solenoid ON Signal	
	EXIT3_SNS	Third Delivery Sensor Signal	
	DUP_ENTER_SNS	Duplex Inlet Sensor Signal	
	EXIT2_SNS	Second Delivery Sensor Signal	

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General Circuit Diagram

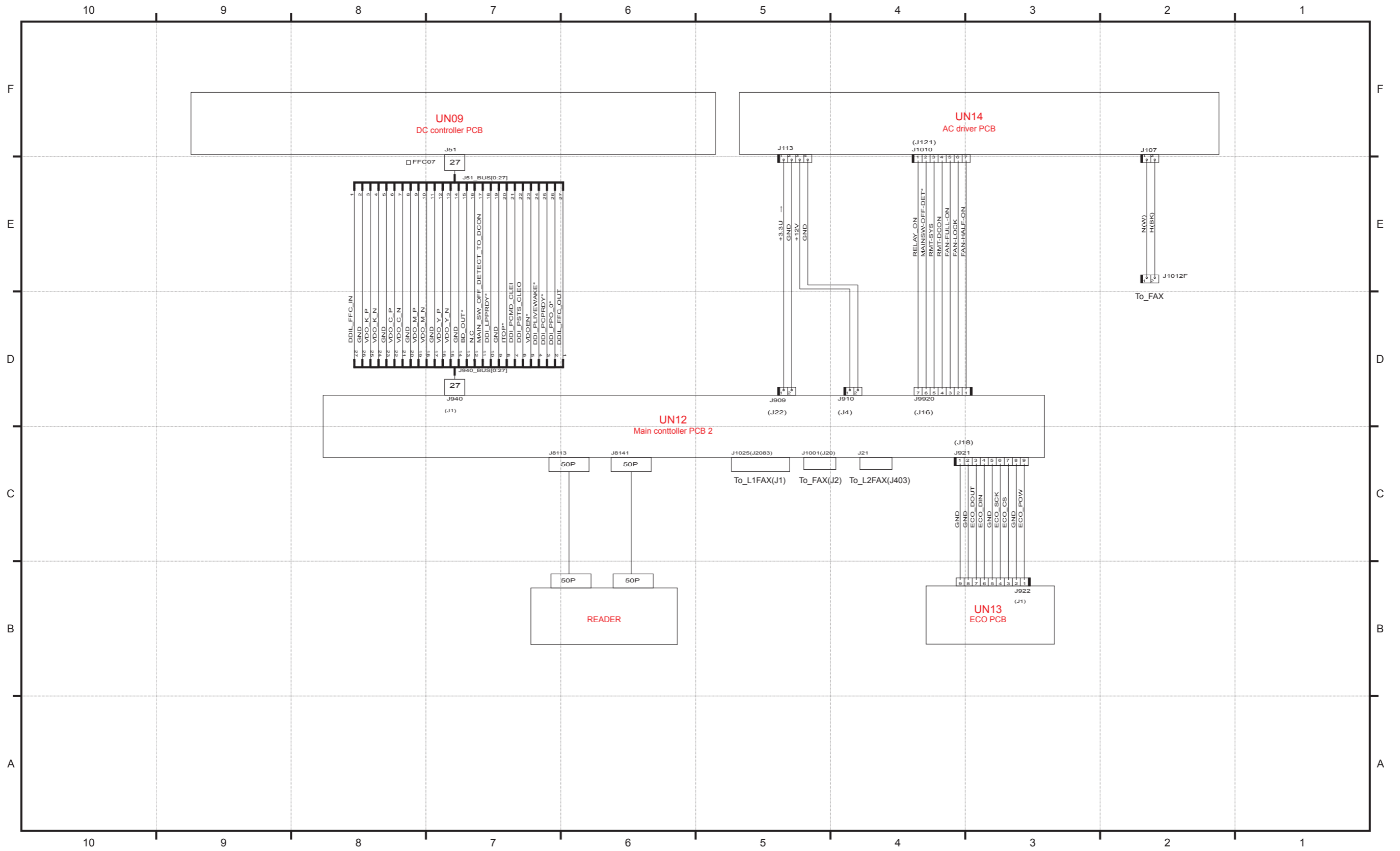
General Circuit Diagram(1/14)



P.1

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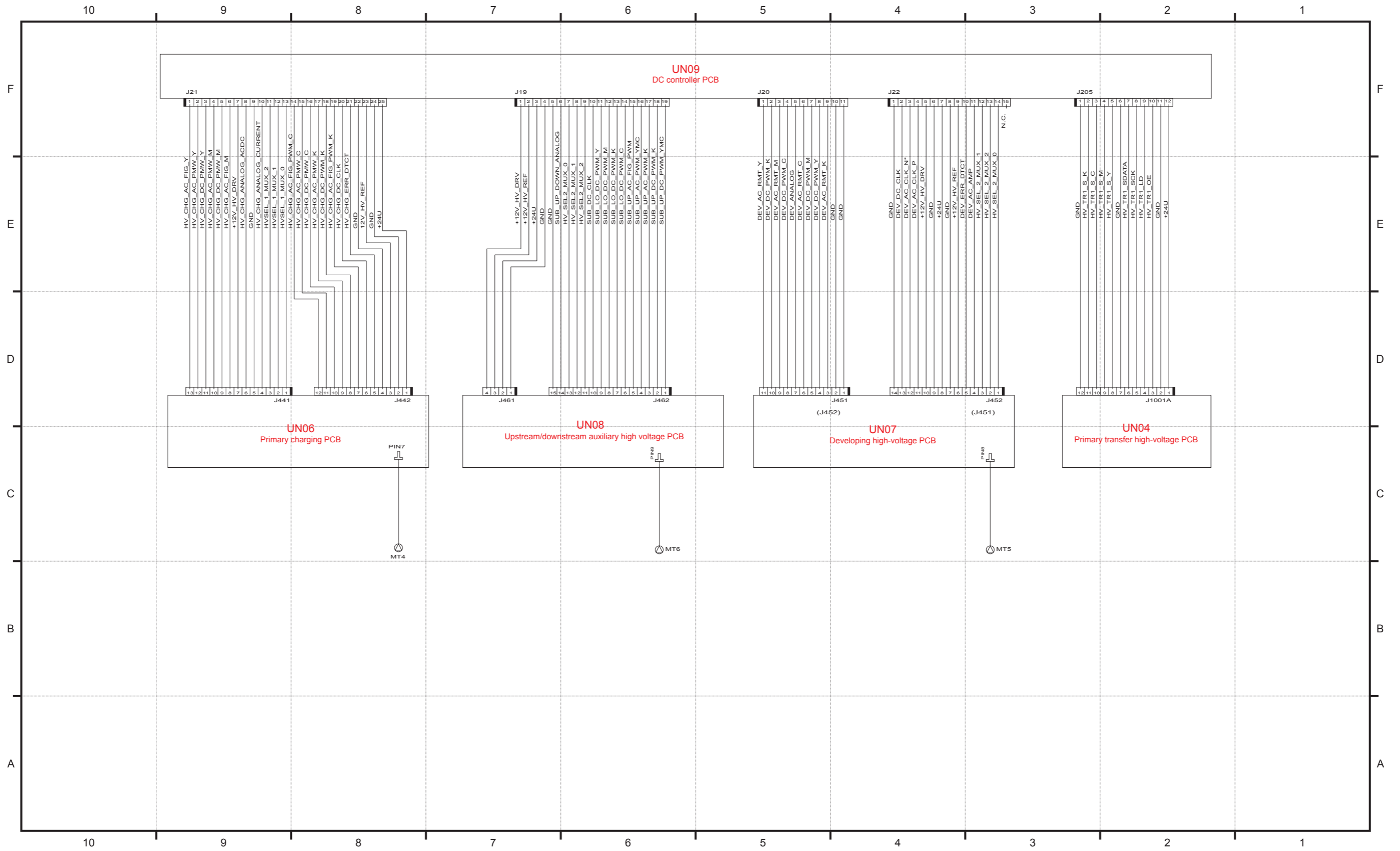
General Circuit Diagram(3/14)



P.3

General Circuit Diagram(4/14)

Appendix > General Circuit Diagram > General Circuit Diagram(4/14)



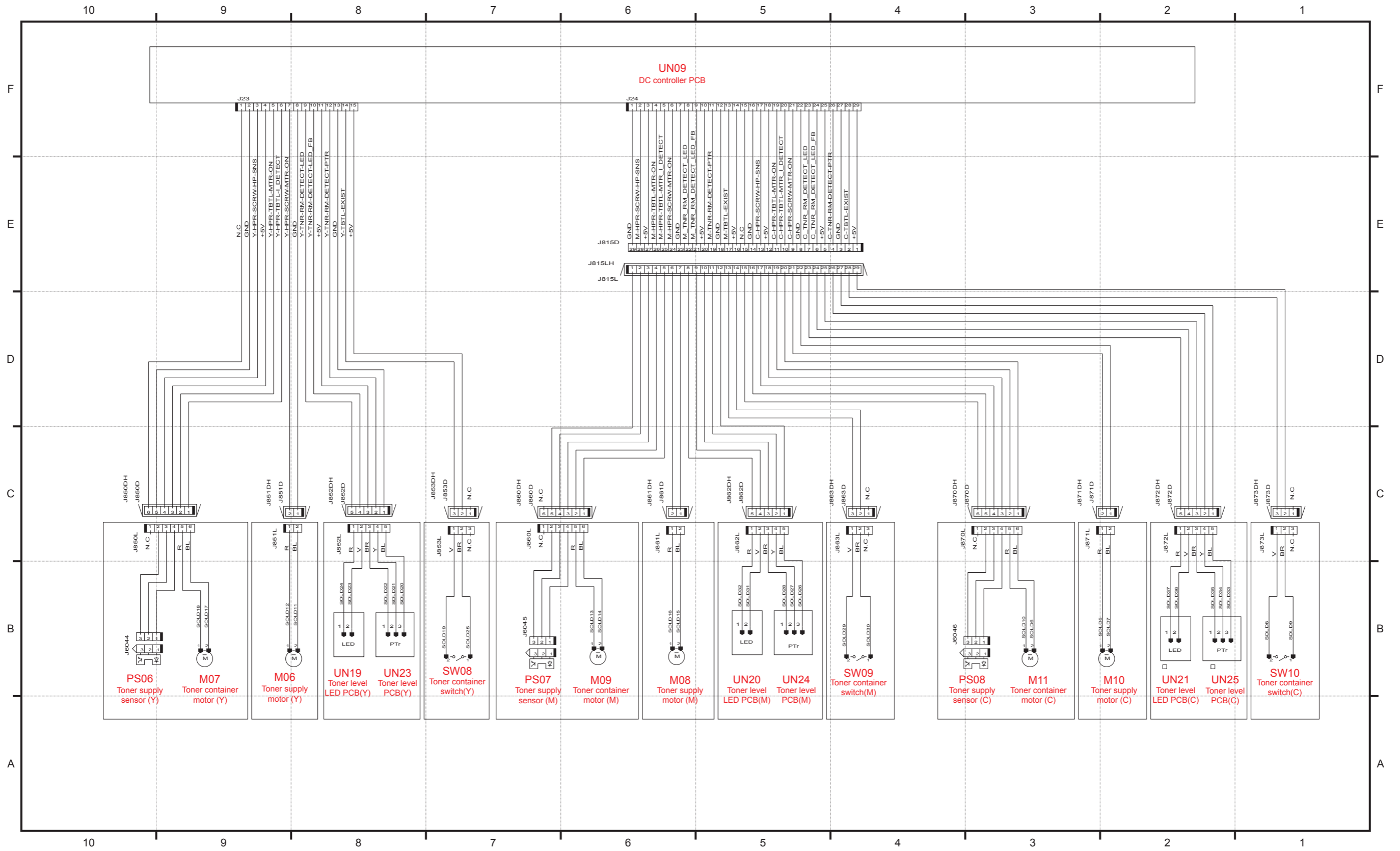
P.4

Appendix > General Circuit Diagram > General Circuit Diagram(4/14)

General Circuit Diagram(5/14)

Appendix > General Circuit Diagram > General Circuit Diagram(5/14)

Appendix > General Circuit Diagram > General Circuit Diagram(5/14)

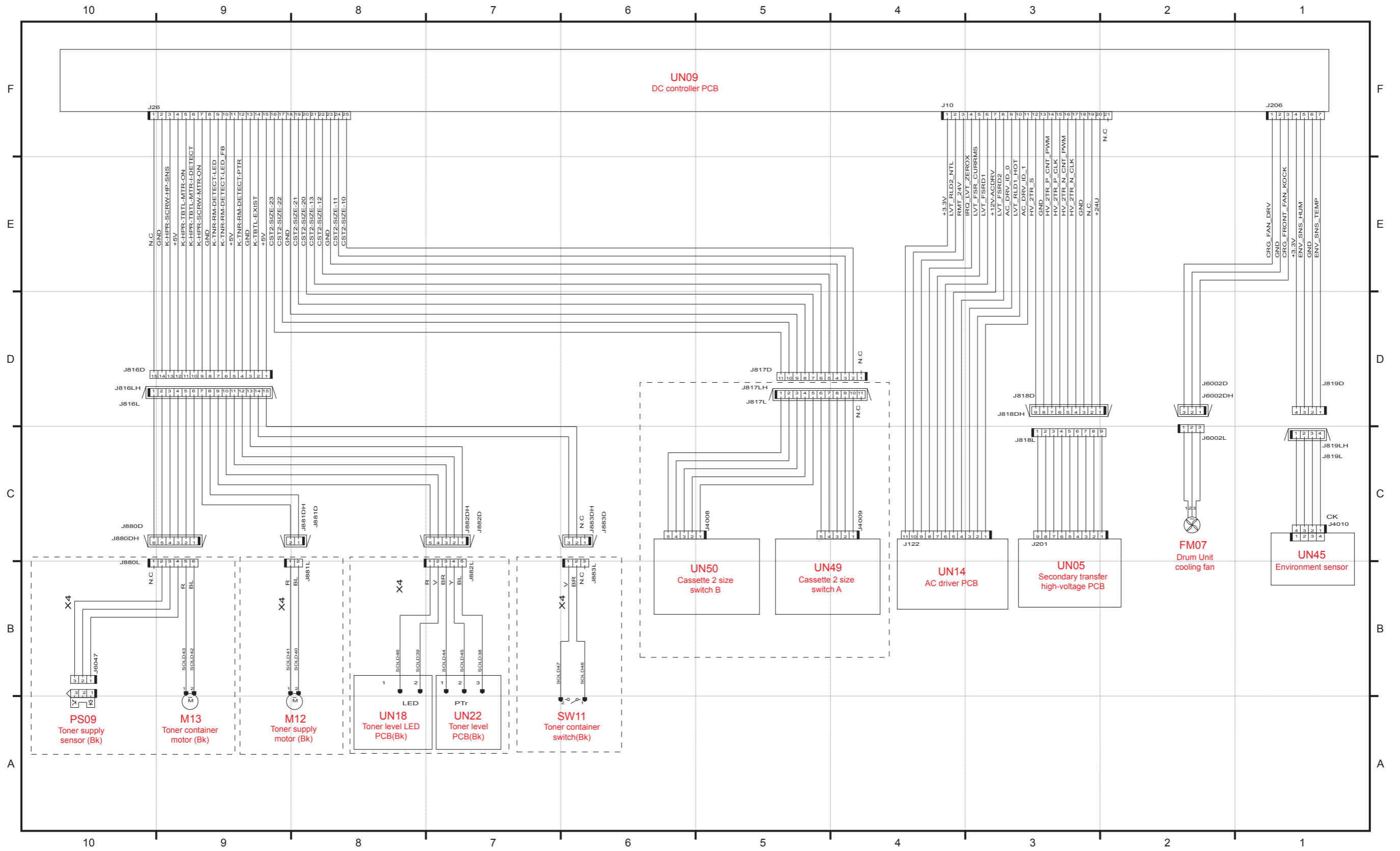


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General Circuit Diagram(6/14)

Appendix > General Circuit Diagram > General Circuit Diagram(6/14)

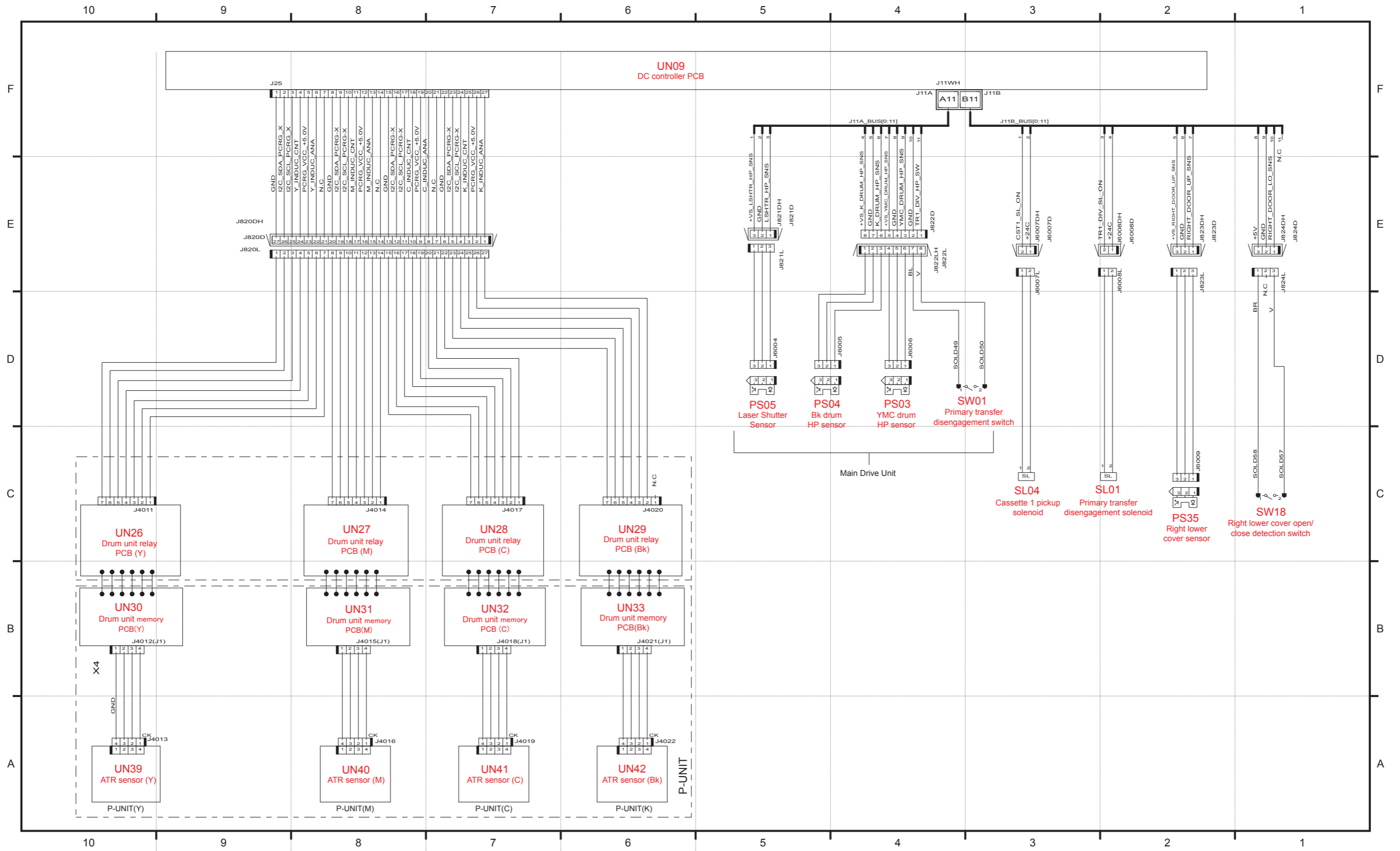


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Appendix > General Circuit Diagram > General Circuit Diagram(6/14)

General Circuit Diagram(7/14)



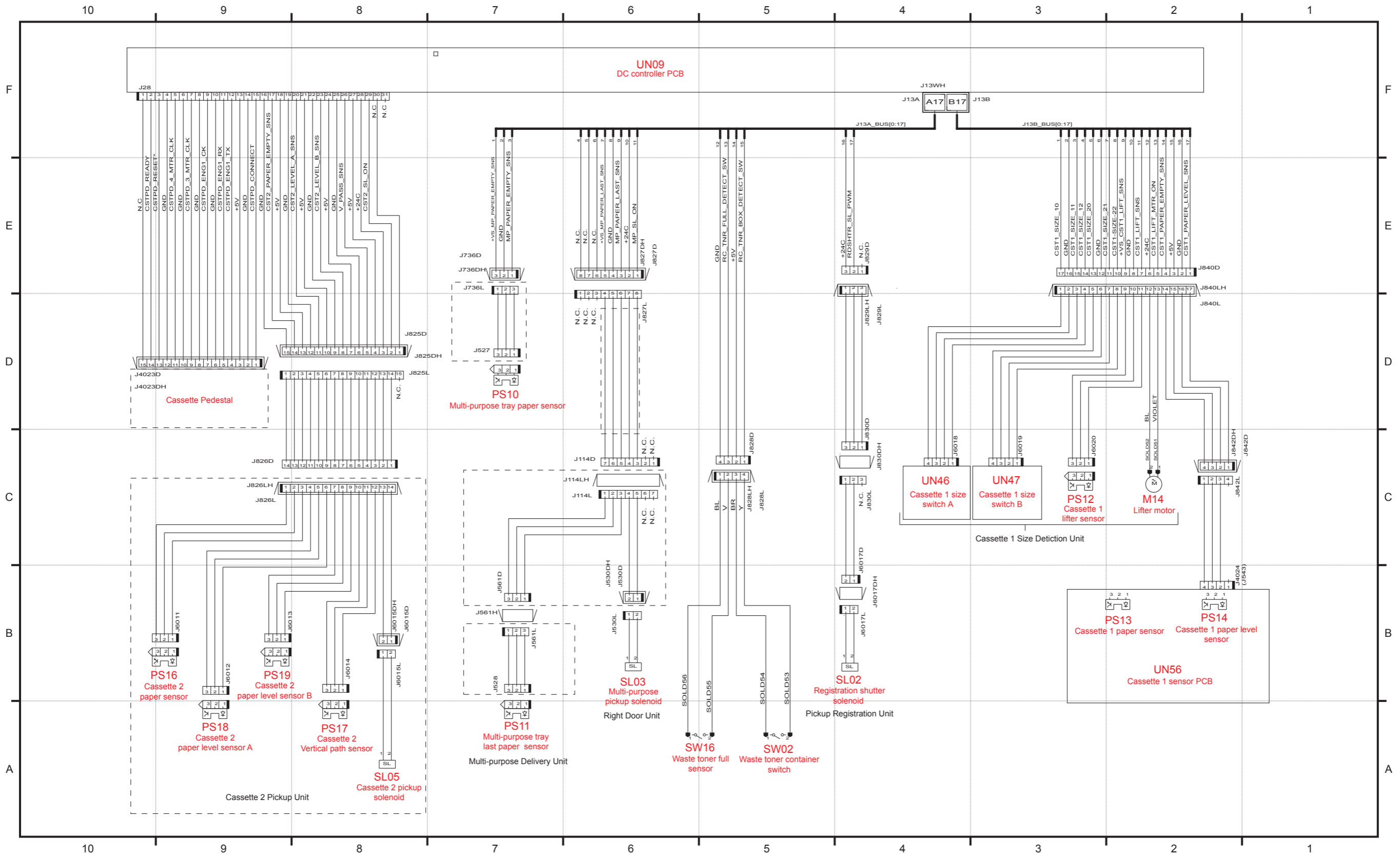
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Appendix > General Circuit Diagram > General Circuit Diagram(7/14)

Appendix > General Circuit Diagram > General Circuit Diagram(7/14)

General Circuit Diagram(8/14)

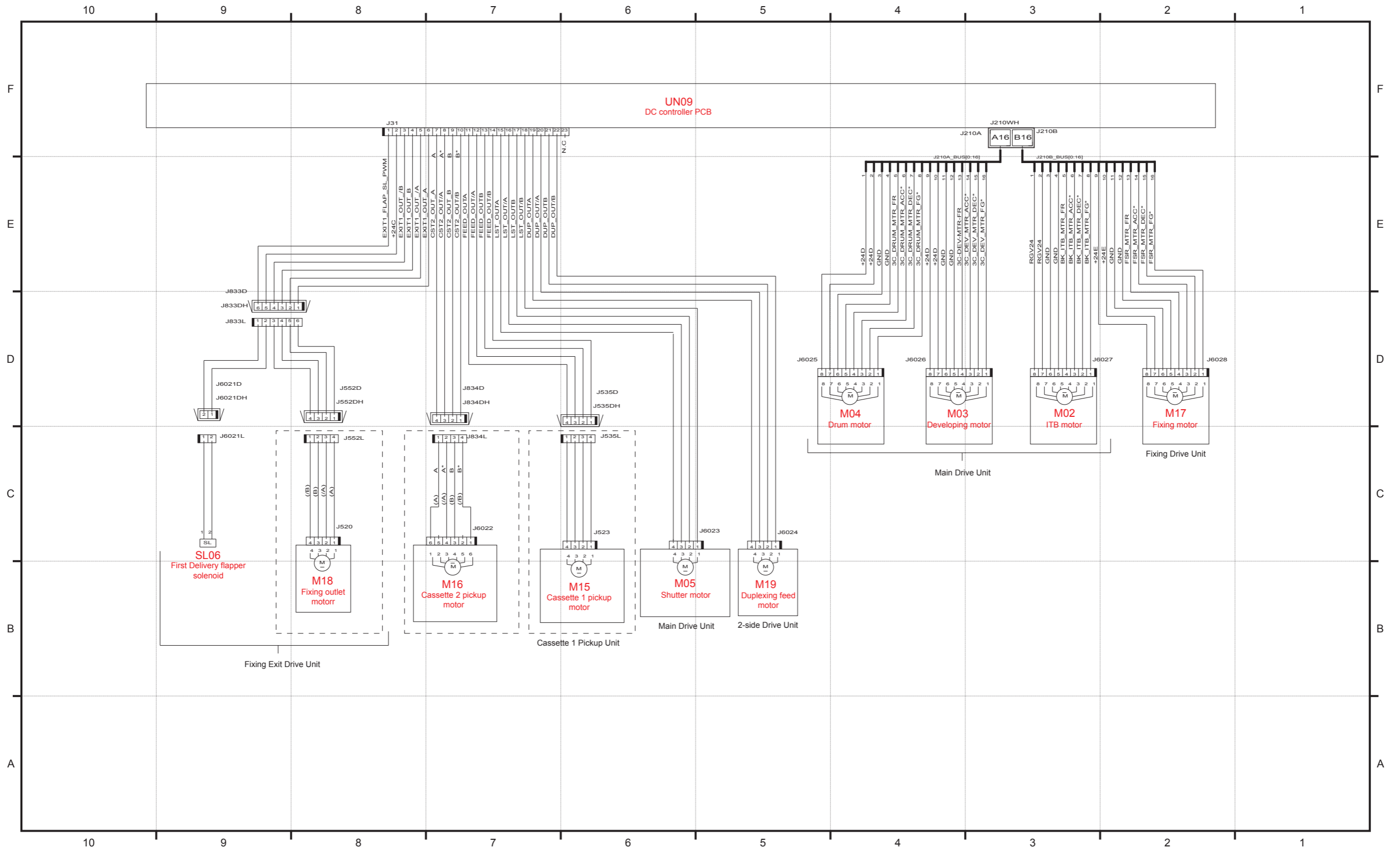
Appendix > General Circuit Diagram > General Circuit Diagram(8/14)



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Appendix > General Circuit Diagram > General Circuit Diagram(8/14)

General Circuit Diagram(9/14)



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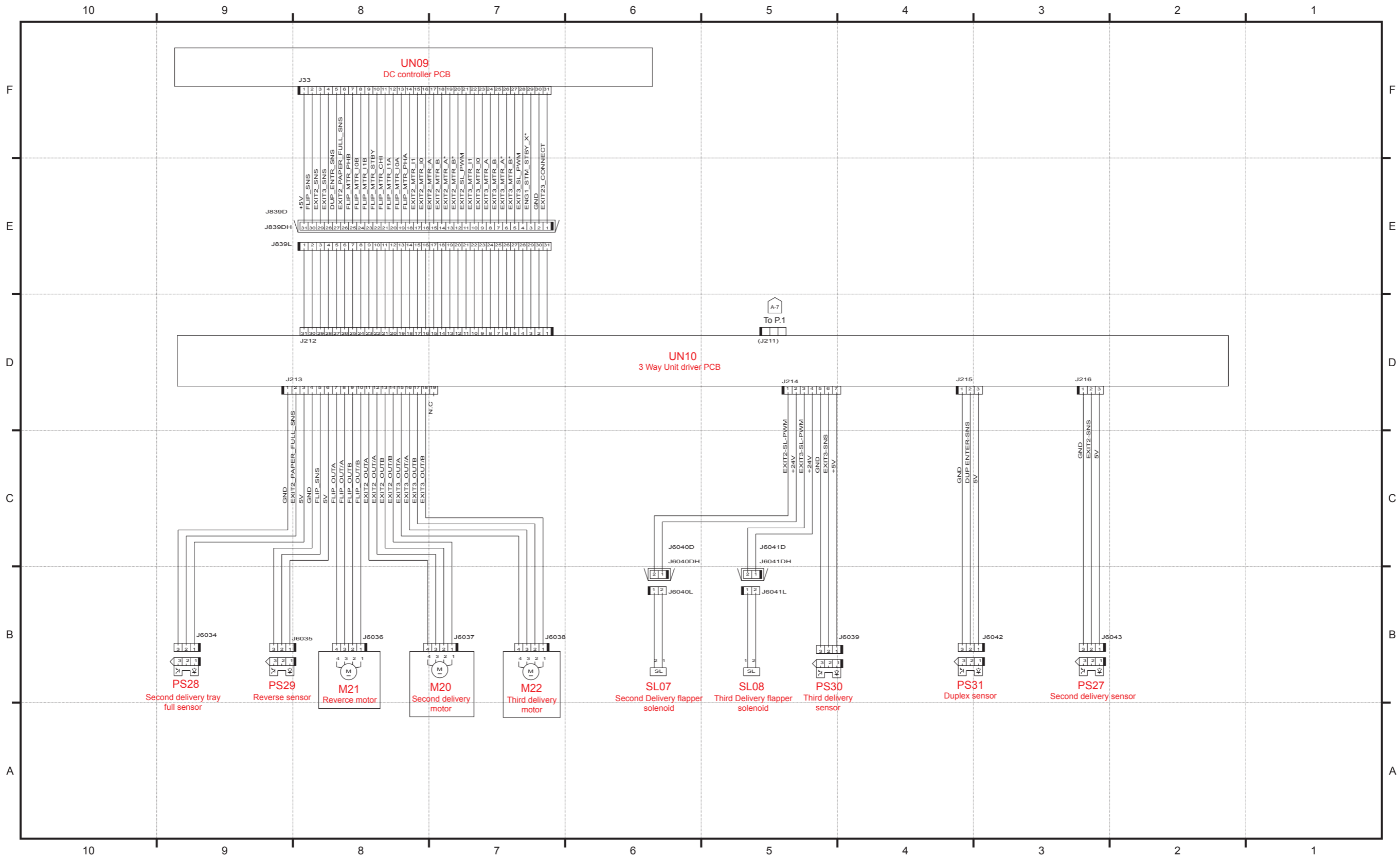
Appendix > General Circuit Diagram > General Circuit Diagram(9/14)

Appendix > General Circuit Diagram > General Circuit Diagram(9/14)

General Circuit Diagram(11/14)

Appendix > General Circuit Diagram > General Circuit Diagram(11/14)

Appendix > General Circuit Diagram > General Circuit Diagram(11/14)



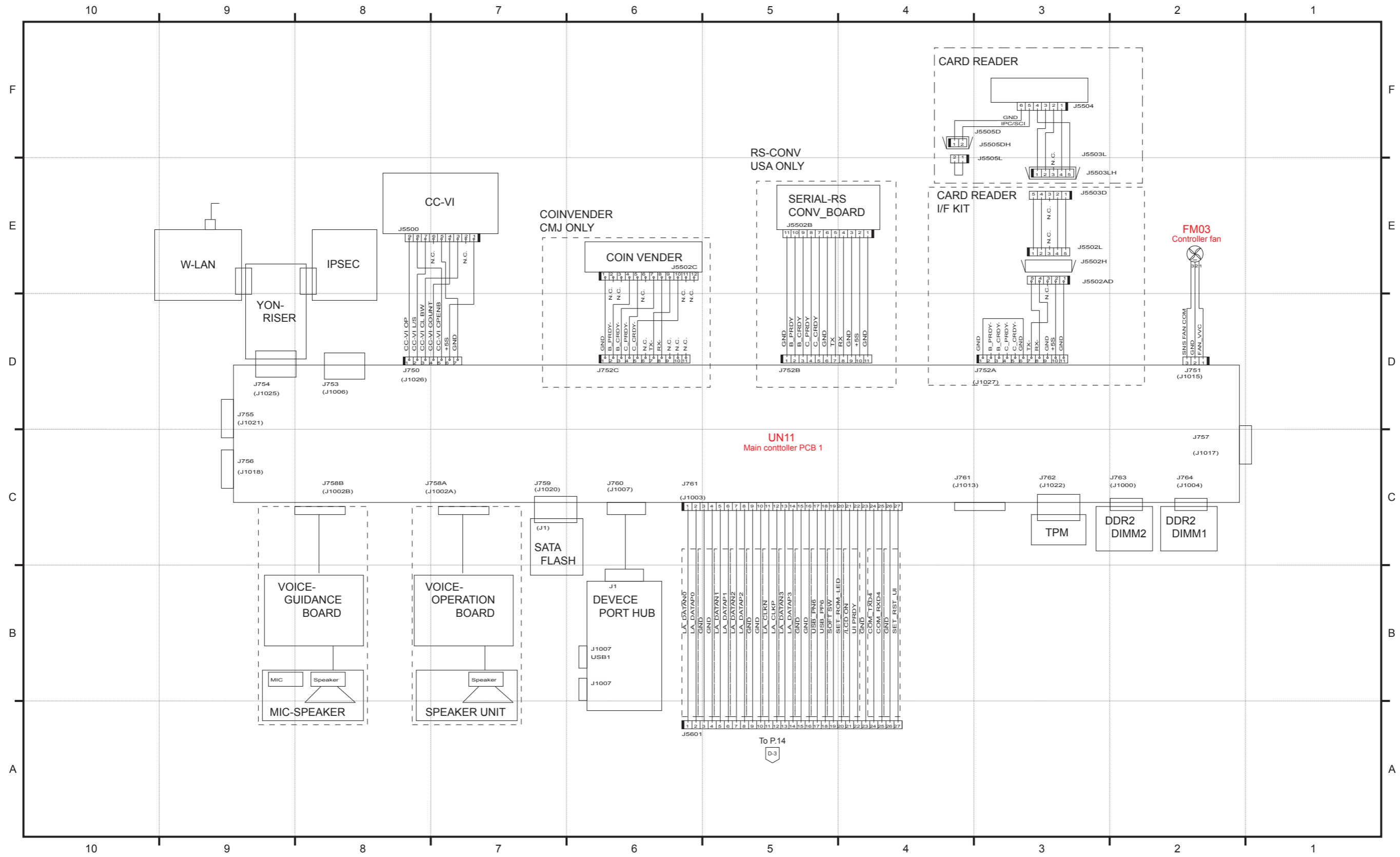
P.11

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General Circuit Diagram(12/14)

Appendix > General Circuit Diagram > General Circuit Diagram(12/14)

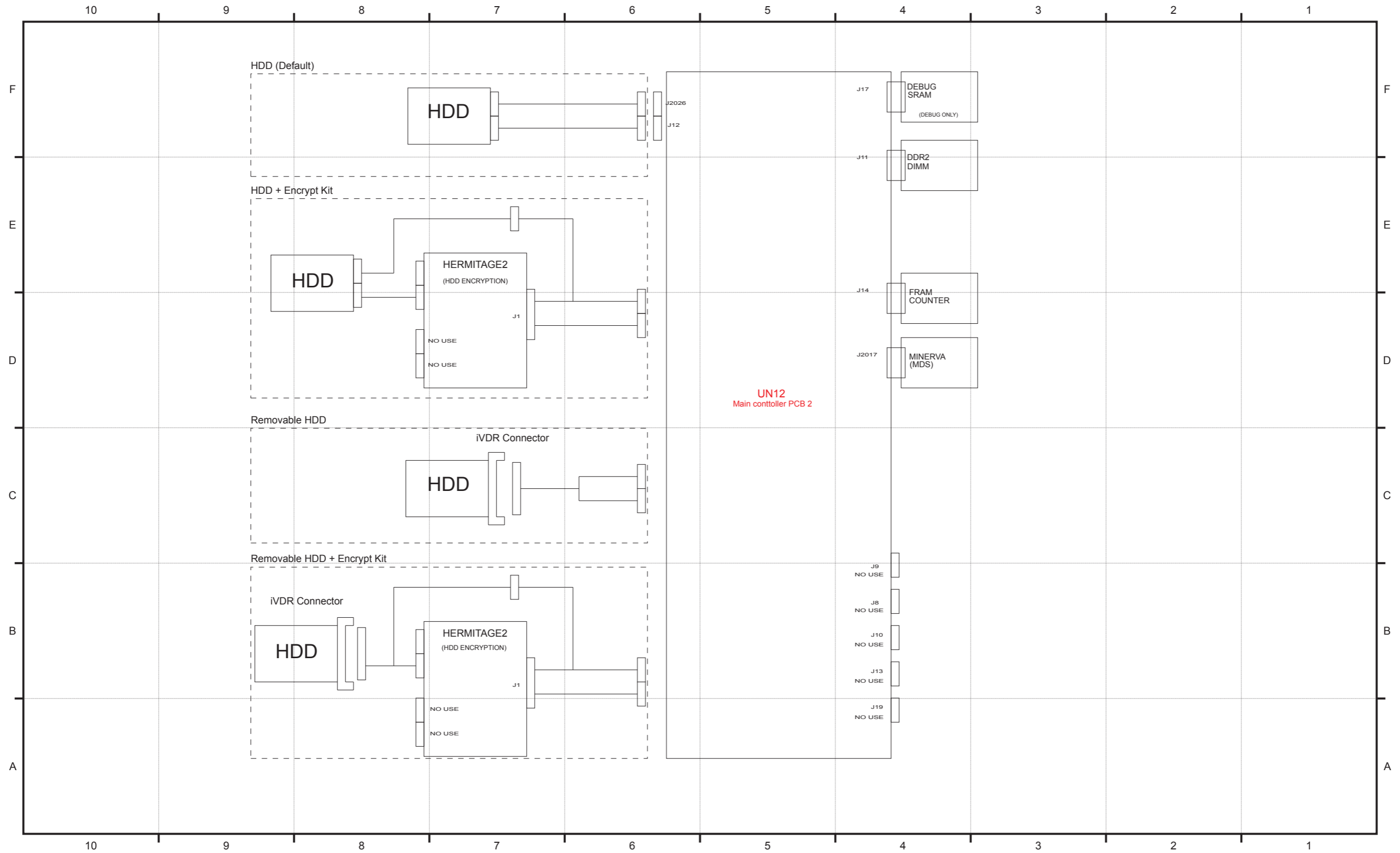
Appendix > General Circuit Diagram > General Circuit Diagram(12/14)



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General Circuit Diagram(13/14)



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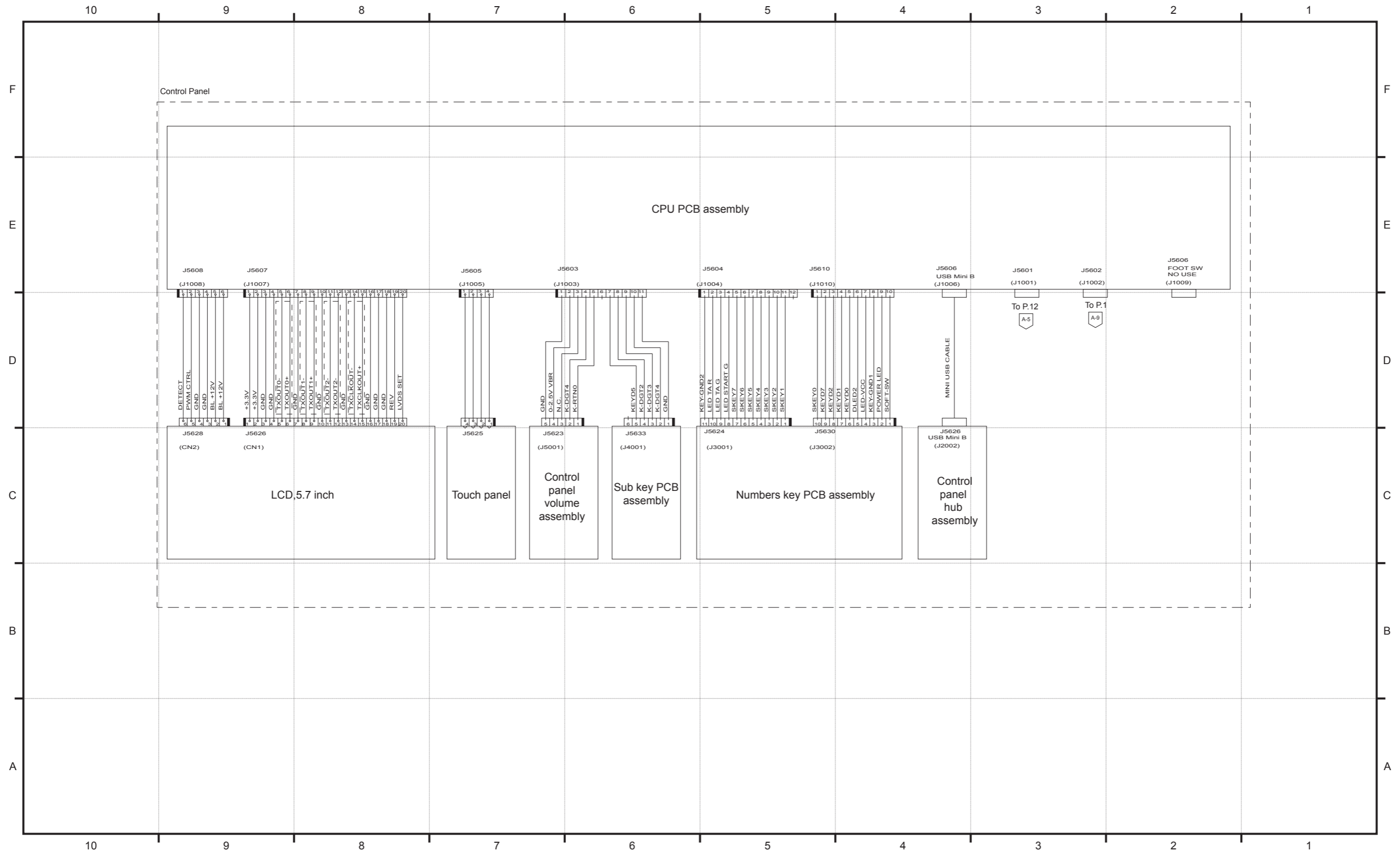
Appendix > General Circuit Diagram > General Circuit Diagram(13/14)

Appendix > General Circuit Diagram > General Circuit Diagram(13/14)

General Circuit Diagram(14/14)

Appendix > General Circuit Diagram > General Circuit Diagram(14/14)

Appendix > General Circuit Diagram > General Circuit Diagram(14/14)



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List of User Mode

Preferences

Paper Settings

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Paper Settings	Paper Source Settings: Thin, Plain*, Heavy 1, Heavy 2, Color, Recycled, Pre-Punched, Transparency, Envelope, Bond	No	No
	Plain 1 (18 bond - 21 bond (65 - 82 g/m ²)), Plain, Plain 2 (22 bond - 26 bond (83 - 99 g/m ²))* Plain 3 (27 bond - 28 bond (100 - 105 g/m ²))	No	No
A5R/STMTR Paper Selection	A5R, STMTR*	No	No
B5/EXEC Paper Selection	B5, EXEC*	No	No
Paper Type Management Settings	Details/Edit Name, Category, Basis Weight, Finish, Type, Color	Yes	Yes
	Duplicate, Delete	Yes	No
Register Envelope Drawer ^{*1}	ENV.1: COM10*, Monarch, ISO-C5, DL ENV.2: COM10*, Monarch, ISO-C5, DL	No	No
Register Multi-Purpose Tray Defaults	On, Off* Register (Paper Size/Paper Type)	No	No
Register Custom Size	S1 to S4: Register/Edit, Delete, Rename	No	Yes

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Display Settings

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Default Screen at Startup	Main Menu*, Quick Menu, Copy, Fax ^{*1} , Scan and Send, Scan and Store, Access Stored Files, Fax/I-Fax Inbox, Secured Print, Scanner, Web Access ^{*1} , Tutorial	No	No
	Open Status Monitor/Cancel: On, Off*	No	No
Default Screen (Status Monitor/Cancel)	Default Status Type: Copy/Print*, Send, Receive, Store, Consumables	No	No
	Status/Log: Job Status*, Log	No	No
	Details: Print, Send, Receive, Copy, Fax ^{*1} , Forward, Local Print, Printer, Received Job Print, Print Report	No	No
Display Fax Function ^{*1}	On*, Off	No	No
	Enable Fax in Scan and Send Function: On*, Off	No	No
Store Location Display Settings	Network: On*, Off	No	No
	Memory Media: On, Off*	No	No
Language/Keyboard Switch On/Off	On, Off*	No	No
Language/Keyboard Switch	Language, Keyboard Layout	No	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Display Remaining Paper Message	On*, Off	No	No
No. of Copies/Job Duration Status	On*, Off	No	No
Display Original Scanning Cleaning Area	On*, Off	No	No
Select Paper Screen Priority	Simple*, Detailed	No	No
mm/Inch Entry Switch	mm, Inch*	No	Yes
ID/User Name Display On/Off	On*, Off	No	No
Display Remaining Toner Error Message	On, Off*	No	No
Delete Remaining Toner Error	Delete	No	No

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■ Timer/Energy Settings

* Default Settings

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Adjust Time	00:00* to 23:59, in one minute increments	No	No
Date/Time Settings	Date and Time Setting (12 digit number)	Yes	No
	Time Zone: GMT -12: 00 to GMT +12: 00 (GMT -05: 00*)	Yes	No
	Daylight Saving Time: On, Off*	Yes	No
	Start Date (Month/Day/Time (0 to 23)), End Date (Month/Day/Time (0 to 23))	Yes	No
Time Format	24 Hour, 12 Hour*	Yes	No
Auto Reset Time	0 min=Off, 10 to 50 seconds in 10 seconds increments, 1 to 9 minutes in one minute increments (2 minutes*)	Yes	Yes
Function After Auto Reset	Initial Function*, Selected Function	Yes	Yes
Auto Sleep Time	5*, 10, 15, 20, 30, 40, 50 mins, 1 hr, 90 mins, 2, 3, 4 hrs	Yes	Yes
Sleep Mode Energy Use	Low*, High	Yes	Yes
Weekly Timer Settings	Sunday to Saturday, 00:00 to 23:59, in one minute increments	Yes	Yes
Sleep Mode Exit Time Settings	00:00 to 23:59, in one minute increments	Yes	Yes

T-10-6

■ 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.

If you are using a NetWare or AppleTalk network, you must use the TCP/IP protocol if you want to specify settings using software other than the control panel of the machine.

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Output Report	Print	Yes	No
Confirm Network Connection Set. Changes	On, Off*	No	Yes
TCP/IP Settings: IPv4 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(39 characters maximum))	Yes	No
	Prefix Length: 0 to 128 (64*)	Yes	No
	Default Router Addr. (39 characters maximum)	Yes	No
Use DHCPv6	On, Off*	Yes	Yes
PING Command	IPv6 Address (39 characters maximum)	No	No
	Host Name	No	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) (39 characters maximum)	Yes	No
	Secondary DNS Server (IPv6 Address) (39 characters maximum)	Yes	No
DNS Host/Domain Name Settings			
IPv4	Host Name:Canon***** ("*****" represents the last six digits of a MAC address.)*	Yes	No
	Domain Name:(NULL)*	Yes	No
IPv6	Use Same Host Name/Domain Name as IPv4: On, Off*	Yes	No
	Host Name:Canon***** ("*****" represents the last six digits of a MAC address.)*	Yes	No
	Domain Name	Yes	No

Item		Setting Description	Can be set in Remote UI	Device Information Delivery Available
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 Stateful Address: On, Off*	Yes	No
WINS Settings				
	WINS Resolution	On, Off*	Yes	No
	WINS Server Address	0.0.0.0*	Yes	No
	Node Type	Auto (display only)	-	No
	Scope ID	(NULL)*	Yes	No
LPD Print Settings				
	LPD Banner Page ¹	On, Off*	Yes	Yes
RAW Print Settings				
	Bidirectional Communication	On, Off*	Yes	Yes
SNTP Settings				
	Use SNTP	On, Off*	Yes	No
	Polling Interval	1 to 48 hrs, in one hour increments (24 hrs*)	Yes	No
	NTP Server Address (IP address or host name)	(NULL)*	Yes	No
	Check NTP Server	-	No	No
FTP Print Settings				
	Use FTP Printing	On, Off*	Yes	Yes
	User Name	guest*	Yes	No
	Password	7654321*	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	On, Off*	Yes	Yes
IPP Print Settings				
	Use SSL	On, Off*	Yes	No
	Use Authentication	On*, Off	Yes	No
	User Name	guest*	Yes	No
	Password	7654321*	Yes	No
Multicast Discovery Settings				
	Response	On*, Off	Yes	Yes
	Scope Name	default*	Yes	No
	Use HTTP	On*, Off	Yes	Yes
SSL Settings				
	Settings that use SSL	Settings that use SSL	Yes	No
Key and Certificate				
	Set as the Default Key	Set as the Default Key	Yes	No
	Certificate Details (Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Cert. Thumbprint(SHA1), Certificate)	Certificate Details (Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Cert. Thumbprint(SHA1), Certificate)	Yes	No
	Display Use Location (Displays what the key pair is being used for.)	Display Use Location (Displays what the key pair is being used for.)	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Proxy Settings			
Use Proxy	On, Off*	Yes	No
Server Address (IP address or FQDN)	(NULL)*	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 Name	(NULL)*	Yes	No
Password	(NULL)*	Yes	No
Confirm Dept. ID PIN	On, Off*	Yes	No
IPSec Settings ¹			
Use IPSec	On, Off*	Yes	No
Receive Non-Policy Packets	Allow*, Reject	Yes	No
Policy On, Off	On*, Off	Yes	No
Reg.			
Policy Name	(24 characters maximum) (NULL)*	Yes	No
Selector Settings			
Local Address	All IP Addr.*, IPv4 Address, IPv6 Address, IPv4 Manual Settings, IPv6 Manual Settings	Yes	No
	IPv4 Manual Settings : • Single Address*, Address Range (First Address, Last Address), Subnet Settings (Address, Subnet Mask) IPv6 Manual Settings : • Single Address (Address)*, Address Range (First Address, Last Address), Specify Prefix (Address, Prefix Length (0 to 128) (64*))	Yes	No
Remote Address	All IP Addr.*, All IPv4 Addr., All IPv6 Addr., IPv4 Manual Settings, IPv6 Manual Settings	Yes	No
	IPv4 Manual Settings : • Single Address*, Address Range (First Address, Last Address), Subnet Settings (Address, Subnet Mask) IPv6 Manual Settings : • Single Address (Address)*, Address Range (First Address, Last Address), Specify Prefix (Address, Prefix Length (0 to 128) (64*))	Yes	No
Port	Specify by Port Number*, Specify by Service Name	Yes	No
	Specify by Port Number : • Local Port (All Ports*, Single Port (1 to 65535) (0*)), Remote Port (All Ports*, Single Port (1 to 65535) (0*)) Specify by Service Name : • Service On/Off : On, Off*	Yes	No
IKE Settings			
IKE Mode	Main*, Aggressive	Yes	No
Authentication Method	Pre-Shared Key Method (Shared Key)*, Digital Sig. Method (Key and Certificate)	Yes	No
	Key and Certificate: • Set as the Default Key	Yes	No
Certificate Details	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Data, Issuer, Public key, Cert. Thumbprint (SHA1), Certificate	Yes	No
Display Use location	Key and Certificate	Yes	No

Item				Setting Description	Can be set in Remote UI	Device Information Delivery Available
			Auth./Encryption Algorithm	Auto*, Manual Settings	Yes	No
				Manual Settings : • Authentication SHA1: On*, Off MD5: On*, Off • Encryption: 3DES-CBC: On*, Off AES-CBC: On, Off*	Yes	No
			DH Group	Group1 (762), Group2 (1024)*, Group14 (2048)	Yes	No
IPSec Network Settings						
			Validity	Time : On*, Off	Yes	No
				On : • 1 to 65535 minutes (480 minutes*)	Yes	No
				Size: On, Off*	Yes	No
				On : • 1 to 65535 MB (65535 MB*)	Yes	No
			PFS	On, Off*	Yes	No
			Auth./Encryption Algorithm	Auto*, Manual Settings	Yes	No
				Manual Settings : ESP*, AH • ESP Settings: ESP Auth. • SHA1: On*, Off • MD5: On*, Off • NULL: Off* ESP Encryption: • 3DES-CBC: On*, Off • AES-CBC: On, Off* • NULL: Off* • AH Settings: AH Auth.: • SHA1: On*, Off • MD5: On*, Off	Yes	No
			Connect. Mode	Transport, display only	-	No
			Edit	-	Yes	No
			Delete	-	Yes	No
			Print List	Print	No	No
NetWare Settings						
			Use NetWare	On, Off*	Yes	Yes
			Frame Type	Auto Detect*, Ethernet II, Ethernet 802.2, Ethernet 802.3, Ethernet SNAP	Yes	No
			IPX External Network Number	Auto (display only)	-	No
			Node Number	Auto (display only)	-	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Print Service	Bindery PServer, RPrinter, NDS PServer*, NPrinter	Yes	No
	Bindery PServer : <ul style="list-style-type: none"> • Print Server Name: (NULL)* • File Server Name: (NULL)* • Print Server Password: (NULL)* • Printer Number: 0* to 15 • Polling Interval: 1 to 15 seconds (5 seconds*) • Printer Form: 0* to 255 • Buffer Size: 1 to 20 KB* • Service Mode : Service only currently mounted form, Change forms as needed, Minimize form changes across print queues, Minimize form changes within print queues* RPrinter : <ul style="list-style-type: none"> • Print Server Name: (NULL)* • File Server Name: (NULL)* • Printer Number: 0* to 15 NDS PServer : <ul style="list-style-type: none"> • Print Server Name: (NULL)* • Tree Name: (NULL)* • Context name: (NULL)* • Print Server Password: (NULL)* • Printer Number: 0* to 254 • Polling Interval: 1 to 255 seconds (5 seconds*) • Printer Form: 0* to 255 • Buffer Size: 3 to 20 KB* • Service Mode : Service only currently mounted form, Change forms as needed, Minimize form changes across print queues, Minimize form changes within print queues* NPrinter : <ul style="list-style-type: none"> • Print Server Name: (NULL)* • Tree Name: (NULL)* • Context name: (NULL)* • Printer Number: 0* to 254 	Yes	No
Packet Signature	Auto (display only)	No	No
AppleTalk Settings			
Use AppleTalk	On, Off*	Yes	Yes
Phase	Phase 2 (display only)	-	No
Service Name	Name: Model name*	Yes	No
Zone	Zone: ""**	Yes	No
Print Mode ¹	Both*, Spool, Direct	Yes	No
SMB Server Settings			
Use SMB Server	On, Off*	Yes	No
Server Name	Server Name: Canon***** ("*****" represents the last six digits of a MAC address.)*	Yes	No
Workgroup Name	Workgroup Name: WORKGROUP*	Yes	No
Comment	Comment: (NULL)*	Yes	No
LM Announce	On, Off*	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Set SMB Printer			
Use SMB	On, Off*	Yes	No
Printer Name	PRINTER*	Yes	No
SNMP Settings			
Use SNMP v. 1	On*, Off	Yes	Yes
Set Community Name 1			
Community Name 1	On*, Off	Yes	No
MIB Access Permission	Read/Write, Read Only*	Yes	No
Community Name	public*	Yes	No
Set Community Name 2			
Community Name 2	On, Off*	Yes	No
MIB Access Permission	Read/Write, Read Only*	Yes	No
Community Name	public2*	Yes	No
Use SNMP v. 3	On, Off*	Yes	No
User Settings			
User On/Off	On*, Off	Yes	No
Reg.	User Name, MIB Access Permis. (Read/Write, Read Only), Security Settings (Auth. Yes/Encry. Yes, Auth. Yes/Encry. No, Auth. No/Encrypt. No), Authent. Algorithm (MD5, SHA1), Authent. Password, Encryption Algorithm (Display Only), Encryption Password	Yes	No
Details/Edit	User Name, MIB Access Permis. (Read/Write, Read Only), Security Settings (Auth. Yes/Encry. Yes, Auth. Yes/Encry. No, Auth. No/Encrypt. No), Authent. Algorithm (MD5, SHA1), Authent. Password, Encryption Algorithm (Display Only), Encryption Password	Yes	No
Delete	-	Yes	No
Context Settings			
Register	Context name	Yes	No
Edit	Context name	Yes	No
Delete	-	Yes	No
Get Printer Mgmt Info from Host	On, Off*	Yes	Yes
Dedicated Port Settings	On*, Off	Yes	Yes
Use Spool Function	On, Off*	Yes	Yes
Startup Settings	30* to 300 seconds	Yes	No
Ethernet Driver Settings			
Auto Detect	On*, Off	Yes	No
	Off : • Communication Mode : Half Duplex*, Full Duplex • Ethernet Type : 10 Base-T*, 100 Base-TX, 1000 Base-T	Yes	No
MAC Address	Display only	-	No
IEEE802.1X Settings			
Use IEEE802.1X	On, Off*	Yes	No
Login Name	Login Name: (NULL)*	Yes	No
Use TLS	On, Off*	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Key and Certificate			
Set as the Default Key	-	Yes	No
Certificate Details	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Cert. Thumbprint(SHA1), Certificate	Yes	No
Display Use Location	Displays what the key pair is being used for.	Yes	No
Use TTLS	On, Off*	Yes	No
TTLS Settings (TTLS Protocol)	MSCHAPv2*, PAP	Yes	No
Use PEAP	On, Off*	Yes	No
User Name	Name of the user to be authenticated with IEEE802.1X authentication: (NULL)*	Yes	No
Password	Password of the user to be authenticated with IEEE802.1X authentication: (NULL)*	Yes	No
Same User Name as Login Name	On*, Off	Yes	No
Firewall Settings: IPv4 Address Filter			
IPv4 Address Filter			
TX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*, Reject	Yes	No
IPv4 Address	Register (Up to 16 IPv4 addresses), Edit, Delete	Yes	No
	Register : • Single Address*, Address Range (First Address, Last Address), Specify Prefix (Address, Prefix Length (0 to 32))	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*, Reject	Yes	No
IPv4 Address	Register (Up to 16 IPv4 addresses), Edit, Delete	Yes	No
	Register : • Single Address*, Address Range (First Address, Last Address), Specify Prefix (Address, Prefix Length (0 to 32))	Yes	No
IPv6 Address Filter			
TX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*, Reject	Yes	No
IPv6 Address	Register (Up to 16 IPv6 addresses), Edit, Delete	Yes	No
	Register : • Single Address*, Specify Prefix (IPv6 Prefix, Prefix Length (0 to 128))	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*, Reject	Yes	No
IPv6 Address	Register (Up to 16 IPv6 addresses), Edit, Delete	Yes	No
	Register : • Single Address*, Specify Prefix (IPv6 Prefix, Prefix Length (0 to 128))	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	Register (Up to 100 Mac addresses), Edit, Delete	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*, Reject	Yes	No
Mac Address	Register (Up to 100 Mac addresses), Edit, Delete	Yes	No
IP Address Block Log	Details	Yes	No

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External Interface

* Default Settings

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
USB Settings			
Use USB Device	On*, Off	Yes	Yes
Use MEAP Driver for USB Input Device	On, Off*	Yes	Yes
Use MEAP Driver for External USB Drive	On, Off*	Yes	Yes

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Accessibility

* Default Settings

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Key Repetition Settings	Standard*, Slightly Slow, Slow	No	No
Reversed Display (Color)	On, Off*	No	No

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Adjustment/Maintenance

Adjust Image Quality

* Default Settings

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Auto Adjust Gradation	Full Adjust: (Automatic after the machine prints and scans three sets of test pages): Press [Start Printing] Quick Adjust: Press [Start]	No	No
Correct Density	Copy, Black Send/Scan and Store, Color Send/Scan and Store: 9 level (5 level*)	No	No
Auto Correct Color Mismatch	Press [Start]	No	No
Full Color Printing Vividness Settings	Standard*, Level 1, Level 2	No	No
Fine Adjust Zoom	X: -1.0% to +1.0%, in 0.1% increments (0.0%*) Y: -1.0% to +1.0%, in 0.1% increments (0.0%*)	No	No

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Maintenance

* Default Settings

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Clean Inside Main Unit	Press [Start]	No	No
Clean Feeder	Press [Start]	No	No
Replace Toner While Printing Is Still Possible	Black, Cyan, Magenta, Yellow: Yes, No	No	No

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Function Settings

Common

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

*2 Sends if the number of output trays is the same for the machine that is sending device information and the device receiving the information.

*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	Can be set in Remote UI	Device Information Delivery Available
Paper Feed Settings			
Paper Drawer Auto Selection On/Off	Copy, Printer, Access Stored Files, Receive/Fax ^{*1} , Other	Yes	No
MP Tray	On, Off*	Yes	No
Other	On*, Off	Yes	No
Copy	Consider Paper Type: On*, Off	Yes	No
Feed Method Switch	MP Tray, Other: Speed Priority*, Print Side Priority	Yes	No
Suspended Job Timeout	On, Off*	Yes	Yes
	0 to 999 minutes (5 minutes*)	Yes	Yes
Paper Output Settings			
Output Tray Settings ^{*1}			
If the Tray C is not attached:			
Tray A	Copy*, Access Stored Files*, Printer, Receive, Other, Fax1 ^{*1}	Yes	No ^{*2}
Tray B	Copy, Access Stored Files, Printer*, Receive*, Other*, Fax1* ^{*1}	Yes	No ^{*2}
Tray Home Position	Tray A*, Tray B, Off	Yes	No ^{*2}
If the Inner Finisher-C1 and Copy Tray-J1 are attached:			
Tray A	Copy*, Access Stored Files*, Printer*, Receive, Other, Fax1 ^{*1}	Yes	No ^{*2}
Tray B	Copy, Access Stored Files, Printer, Receive*, Other*, Fax1* ^{*1}	Yes	No ^{*2}
Tray Home Position	Tray A*, Tray B, Off	Yes	No ^{*2}
If the Inner 2 Way Tray-F1 and Copy Tray-J1 are attached:			
Tray A	Copy*, Access Stored Files*, Printer, Receive, Other, Fax1 ^{*1}	Yes	No ^{*2}
Tray B	Copy, Access Stored Files, Printer*, Receive, Other, Fax1 ^{*1}	Yes	No ^{*2}
Tray C	Copy, Access Stored Files, Printer, Receive*, Other*, Fax1* ^{*1}	Yes	No ^{*2}
Tray Home Position	Tray A*, Tray B, Off	Yes	No ^{*2}
If the Inner Finisher-C1, Inner Finisher Additional Tray-A1, and Copy Tray-J1 are attached:			
Tray A	Copy*, Access Stored Files*, Printer, Receive, Other, Fax1 ^{*1}	Yes	No ^{*2}
Tray B	Copy, Access Stored Files, Printer*, Receive, Other, Fax1 ^{*1}	Yes	No ^{*2}
Tray C	Copy, Access Stored Files, Printer, Receive*, Other*, Fax1* ^{*1}	Yes	No ^{*2}
Tray Home Position	Tray A*, Tray B, Off	Yes	No ^{*2}
Offset Jobs ^{*1}	On*, Off	Yes	Yes
Job Separator Between Jobs	On, Off*	Yes	Yes
	Change (Select Paper)	Yes	Yes
Job Separator Between Copies	On, Off*	Yes	No
	Copies (1 to 9999) (10*)	Yes	No
	Change (Select Paper)	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Print Settings			
Print Priority			
Copy	1*, 2, 3	Yes	Yes
Printer	1, 2*, 3	Yes	Yes
Access Strd Files, Receive/ Fax ¹ , Other	1, 2, 3*	Yes	Yes
Text/Photo Priority When ACS Is Set to Black	Text Priority*, Photo Priority	Yes	Yes
Output Report Default Settings			
2-Sided Printing	On, Off*	Yes	Yes
Register Characters for Page No./Watermark	Register, Edit, Delete	Yes	Yes
Copy Set Numbering Option Settings	On, Off*	Yes	Yes
	On : <ul style="list-style-type: none"> • ID/User Name: On, Off* • Date: On, Off* • Text: On, Off* • Date Settings : mm/dd/yyyy*, yyyy/mm/dd, dd/mm/yyyy, yyyy.mm.dd, mm.dd.yyyy, dd.mm.yyyy) • Set Characters : • Alignment Settings : Align Left*, Align Center, Align Right 	Yes	Yes
Secure Watermark Settings ¹			
Forced Secure Watermark			
Copy	Set, Do Not Set*	Yes	Yes
	Select Type : Watermark (COPY, INVALID, CONFIDENTIAL*, FILE COPY, TOP SECRET, Custom), Date (yyyy/mm/dd, mm/dd/yyyy*, dd/mm/yyyy, yyyy.mm.dd, mm.dd.yyyy, dd.mm.yyyy), Copy Set Numbering (Starting Number (1 to 9999)), Serial Number (display only), ID/User Name (display only) Set Details : Background Pattern (None*, Arabesque, Fans, Polka Dots, Stars, Mesh, Clouds, Cherry Blossoms, Leaves), Color (Cyan, Magenta, Black*), Size (36.0 pt, 54.0 pt*, 72.0 pt), Print Vertically (On, Off*), White Letters on Colored Background (On, Off*)	Yes	Yes
Access Stored Files	Set, Do Not Set*	Yes	Yes
	Select Type : Watermark (COPY, INVALID, CONFIDENTIAL*, FILE COPY, TOP SECRET, Custom), Date (yyyy/mm/dd, mm/dd/yyyy*, dd/mm/yyyy, yyyy.mm.dd, mm.dd.yyyy, dd.mm.yyyy), Copy Set Numbering (Starting Number (1 to 9999)), Serial Number (display only), ID/User Name (display only) Set Details : Background Pattern (None*, Arabesque, Fans, Polka Dots, Stars, Mesh, Clouds, Cherry Blossoms, Leaves), Color (Cyan, Magenta, Black*), Size (36.0 pt, 54.0 pt*, 72.0 pt), Print Vertically (On, Off*), White Letters on Colored Background (On, Off*)	Yes	Yes
Printer	Set, Do Not Set*	Yes	Yes
	Select Type : Watermark (COPY, INVALID, CONFIDENTIAL*, FILE COPY, TOP SECRET, Custom), Date (yyyy/mm/dd, mm/dd/yyyy*, dd/mm/yyyy, yyyy.mm.dd, mm.dd.yyyy, dd.mm.yyyy), Copy Set Numbering (Starting Number (1 to 9999)), Serial Number (display only), ID/User Name (display only) Set Details : Background Pattern (None*, Arabesque, Fans, Polka Dots, Stars, Mesh, Clouds, Cherry Blossoms, Leaves), Color (Cyan, Magenta, Black*), Size (36.0 pt, 54.0 pt*, 72.0 pt), Print Vertically (On, Off*), White Letters on Colored Background (On, Off*)	Yes	Yes

Item		Setting Description	Can be set in Remote UI	Device Information Delivery Available
	Printer Driver Secure Watermark	Set, Do Not Set*	Yes	Yes
		Select Type : Watermark (COPY, INVALID, CONFIDENTIAL*, FILE COPY, TOP SECRET, Custom), Date (yyyy/mmdd, mm/dd/yyyy*, dd/mm/yyyy, yyyy.mm.dd, mm.dd.yyyy, dd.mm.yyyy), Copy Set Numbering (Starting Number (1 to 9999)), Serial Number (display only), ID/User Name (display only) Set Details : Background Pattern (None*, Arabesque, Fans, Polka Dots, Stars, Mesh, Clouds, Cherry Blossoms, Leaves), Color (Cyan, Magenta, Black*), Size (36.0 pt, 54.0 pt*, 72.0 pt), Print Vertically (On, Off*), White Letters on Colored Background (On, Off*)	Yes	Yes
Adjust Background/Character Contrast				
	Standard	Black*, Cyan, Magenta	No	No
	Relative Contrast	-7 to +7 (Black: -1*, Cyan: 0*, Magenta: 2*)	No	No
	Standard Value Set	1 to 64 (Black: 12*, Cyan: 16*, Magenta: 8*)	No	No
	Latent Area Density	1 to 36 (Black: 6*, Cyan: 9*, Magenta: 7*)	No	No
Print Settings				
	Background Pattern	None*, Arabesque, Fans, Polka Dots, Stars, Mesh, Clouds, Cherry Blossoms, Leaves	No	No
	Size	36.0 pt, 54.0 pt*, 72.0 pt	No	No
	Print Vertically	On, Off*	No	No
	White Letters on Colored Background	On, Off*	No	No
	Sample Print		No	No
	Initialize		No	No
For Printer 1200 dpi				
	Relative Contrast	-7 to +7 (Black: 2*, Cyan: 0*, Magenta: 0*)	No	No
	Standard Value Set.	1 to 64 (Black: 12*, Cyan: 20*, Magenta: 16*)	No	No
	Latent Area Density	1 to 36 (Black: 6*, Cyan: 9*, Magenta: 9*)	No	No
Print Settings				
	Background Pattern	None*, Arabesque, Fans, Polka Dots, Stars, Mesh, Clouds, Cherry Blossoms, Leaves	No	No
	Size	36.0 pt, 54.0 pt*, 72.0 pt	No	No
	Print Vertically	On, Off*	No	No
	White Letters on Colored Background	On, Off*	No	No
	Sample Print		No	No
	Initialize		No	No
Scan Settings				
	LTRR/STMT Original Selection	Select Manually, Use LTRR Format*, Use STMT Format	Yes	Yes
	Remote Scan Gamma Value	Gamma 1.0, Gamma 1.4, Gamma 1.8*, Gamma 2.2	Yes	Yes
	Auto Online	On, Off*	No	Yes
	Auto Offline	On, Off*	No	Yes
Generate File				
High Compression Image Quality Level				
	Image Level in Text/Photo Mode or Photo Mode	Data Size Priority, Normal*, Quality Priority	Yes	Yes
	Image Level in Text Mode	Data Size Priority, Normal*, Quality Priority	Yes	Yes
OCR (Text Searchable) Settings ¹				
	Smart Scan	On*, Off	Yes	Yes
	No. of OCR File Name Characters	1 to 24 characters (24 Characters*)	Yes	Yes

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Trace & Smooth Settings ¹			
Outline Graphics	On*, Off	Yes	Yes
Graphics Recognition Level	Normal*, Moderate, High	Yes	Yes
Background Image Level	Data Size Priority, Normal*, Quality Priority	Yes	Yes
Format PDF to PDF/A	On, Off*	Yes	Yes
Optimize PDF for Web	On, Off*	Yes	Yes
Rights Management Server Settings ³			
Server URL	(NULL)*	Yes	No
User Name	(NULL)*	Yes	No
Password	(NULL)*	Yes	No
Use Password for Each User	On, Off*	Yes	No

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■ Copy

* Default Settings

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Register/Edit Favorite Settings	Register, Rename, Delete, Check Content (M1 to M9)	No	No
Change Default Settings	Register, Initialize	No	No
Register Options Shortcuts			
Shortcut 1	Each mode, Unassigned (Finishing*)	No	No
Shortcut 2	Each mode, Unassigned (2-Sided*)	No	No
Shortcut 3	Each mode, Unassigned (Density*)	No	No
Shortcut 4	Each mode, Unassigned (Original Type*)	No	No
Shortcut 5	Each mode, Unassigned (Favorite Settings*)	No	No
Auto Collate	On*, Off	No	Yes
Auto Orientation	On*, Off	No	Yes
Select Color Settings for Copy			
Use Auto (Color/Black)	On*, Off	Yes	Yes
Use Full Color	On*, Off	Yes	Yes

T-10-13

■ Printer

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Output Report			
PCL ^{*1}			
Configuration Page	Print	Yes	No
Font List	Print	Yes	No
PS ^{*1}			
Configuration Page	Print	Yes	No
Font List	Print	Yes	No
RGB Test Print	Print	Yes	No
CMYK Test Print	Print	Yes	No
RGB Color Chart	Print	Yes	No
CMYK Color Chart	Print	Yes	No
Printer Settings	[Custom Settings], [Utility]	Yes	Yes
PDL Selection (Plug-n-Play)	UFR II*, PCL5c, PCL6, PS3, FAX, UFR II (XPS)	Yes	No

T-10-14

■ Send

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

*4 Displays according to the number of lines set in [No. of TX Lines].

*6 Indicates item that is not delivered as device information. Details/Edit, Delete

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Output Report			
TX/RX User Data List	Print	Yes	No
Fax User Data List ^{*1}	Print	Yes	No
Common Settings			
Register Favorite Settings			
Confirm Settings, Select Location	M1 to M18	No	Yes
Show Comment	On, Off*	No	Yes
Name, Comment		No	Yes
Edit Favorite Settings			
Delete, Check Content, Rename (Name, Comment)	M1 to M18	No	Yes
Show Comment	On, Off*	No	Yes
Display Confirmation for Favorite Settings	On*, Off	No	No
Default Screen	Standard*, One-Touch, Favorite Settings, Address Book	No	No
Change Default Settings	Register, Initialize	No	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Register Options Shortcuts			
Shortcut 1	Each mode, Unassigned: 2-Sided Original*	No	No
Shortcut 2	Each mode, Unassigned: Different Size Originals*	No	No
TX Report			
Report with TX Image	For Error Only*, On, Off	Yes	Yes
	On*, Off	Yes	Yes
Communication Management Report			
Auto Print (100 Transmissions)	On*, Off	Yes	Yes
Specify Print Time	On, Off*	Yes	Yes
Timer Setting	00:00* to 23:59	Yes	Yes
Send/Receive Separate	On, Off*	Yes	Yes
TX Terminal ID			
TX Terminal ID	Print*, Do Not Print	Yes	Yes
Print Position	Inside, Outside*	Yes	Yes
Display Destination Unit Name	On*, Off	Yes	Yes
Telephone # Mark ¹	Fax*, TEL	Yes	Yes
Delete Failed TX Jobs	On*, Off	Yes	Yes
Retry Times	0 to 5 times (3 times*)	Yes	Yes
Data Compression Ratio	High Ratio, Normal*, Low Ratio	Yes	Yes
YCbCr TX Gamma Value	Gamma 1.0, Gamma 1.4, Gamma 1.8*, Gamma 2.2	Yes	Yes
Use Divided Chunk Send for WebDav TX	On*, Off	Yes	Yes
Limit New Destination			
Fax ¹	On, Off*	Yes	Yes
E-Mail	On, Off*	Yes	Yes
I-Fax	On, Off*	Yes	Yes
File	On, Off*	Yes	Yes
Always Add Device Signature to Send ¹	On, Off*	Yes	Yes
Restrict File Formats	On, Off*	Yes	Yes
E-Mail/I-Fax Settings			
Register Unit Name	Unit Name: (NULL)*	Yes	No
Communication Settings			
Basic Settings			
E-Mail Address	(NULL)*	Yes	No
SMTP Server (Name or IP Address)	(NULL)*	Yes	No
Use POP RX	On*, Off	Yes	Yes
Use SMTP RX	On, Off*	Yes	Yes
POP Server Settings			
POP Server (Name or IP Address)	(NULL)*	Yes	No
POP Address	(NULL)*	Yes	No
POP Password	(NULL)*	Yes	No
POP Interval	0* to 99 (If the interval is set to '0', the incoming e-mail is not checked automatically.)	Yes	No
Allow SSL			
SMTP TX	On, Off*	Yes	No
SMTP RX	Always SSL, On, Off*	Yes	No
POP	On, Off*	Yes	No

Item		Setting Description	Can be set in Remote UI	Device Information Delivery Available
Authentication Settings				
	POP AUTH Method	Standard*/APOP/POP AUTH	Yes	Yes
	SMTP Authentication (SMTP AUTH)	On, Off*	Yes	No
	User Name	(NULL)*	Yes	No
	Password	(NULL)*	Yes	No
	POP Authentication Before Send	On, Off*	Yes	No
	Display Auth. Screen When Send	On, Off*	Yes	No
	Maximum Data Size for Sending	0 (Off), 1 to 99 MB (3 MB*)	Yes	Yes
	Default Subject	(Attached Image*)	Yes	Yes
	Use SMTP Authentication for Each User	On*, Off	Yes	No
	Specify Authentication User Dest. to Reply	On, Off*	Yes	No
	Set Authorized User Destination to Sender	On*, Off	Yes	No
	Allow Sending to Unregistered Destinations	On, Off*	Yes	Yes
	Full Mode TX Timeout	1 to 99 hrs (24 hrs*)	Yes	Yes
	Print MDN/DSN upon Receipt	On, Off*	Yes	Yes
	Use Send via Server	On, Off*	Yes	Yes
	Allow MDN Not via Server	On*, Off	Yes	Yes
Restrict TX Destination Domain				
	Restrict Sending to Domains	On, Off*	Yes	Yes
	Permitted Domains	Register, Details/Edit, Delete	Yes	Yes ⁶
	Domain Name Send to Subdomain	Allow, Reject	Yes	Yes
	Autocomplete for Entering E-mail Addresses	On*, Off	No	Yes
Fax Settings ¹				
	Default Screen	Standard*, One-Touch, Address Book	No	No
	Change Default Settings	Register, Initialize	No	No
Register Options Shortcuts				
	Shortcut 1	Each mode, Unassigned (Density*)	No	No
	Shortcut 2	Each mode, Unassigned (Original Type*)	No	No
	Shortcut 3	Each mode, Unassigned (2-Sided Original*)	No	No
	Shortcut 4	Each mode, Unassigned (Different Size Originals*)	No	No
	Register Sender Name (TTI)	01 to 99: Register/Edit, Delete	Yes	No
	ECM TX	On*, Off	Yes	Yes
	Set Pause Time	1 to 15 seconds (2 seconds*)	Yes	Yes
	Auto Redial	On*, Off	Yes	Yes
	Redial Times	1 to 10 times (2 times*)	Yes	Yes
	Redial Interval	2 to 99 minutes (2 minutes*)	Yes	Yes
	Redial When TX Error	Error and 1st Page*, All Pages, Off	Yes	Yes
	Check Dial Tone Before Sending	On*, Off	Yes	Yes
	Fax TX Report	For Error Only*, On, Off	Yes	Yes
	Report with TX Image	On*, Off	Yes	Yes

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Fax Activity Report			
Auto Print (40 Transmissions)	On*, Off	Yes	Yes
Specify Print Time	On, Off*	Yes	Yes
Timer Setting	00:00* to 23:59	Yes	Yes
Send/Receive Separate	On, Off*	Yes	Yes
Set Line			
Line (1 to 2)	If the Super G3 FAX Board is installed : • Line 1	Yes	No
	If the Super G3 FAX Board and Super G3 2nd Line Fax Board are installed : • Line 2	Yes	No
Register Unit telephone Number	Unit Telephone Number: (NULL*)	Yes	No
Register Unit Name	Unit Name: (NULL)*	Yes	No
Select Line Type	Pulse, Tone*	Yes	No
Select TX Line	If the Super G3 FAX Board is installed: • Line 1: Priority TX*, Prohibit TX	Yes	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	Yes	No
TX Start Speed	33600 bps*, 14400 bps, 9600 bps, 7200 bps, 4800 bps, 2400 bps	Yes	Yes
PIN Code Access	On, Off*	Yes	Yes
Confirm Entered Fax Number	On, Off*	Yes	Yes
Allow Fax Driver TX	On*, Off	Yes	Yes
Remote Fax TX Settings ¹			
Remote Fax Server Address	Host name or the IP address (48 characters maximum) (NULL)*	Yes	No
TX Timeout	1 to 99 hrs (24 hrs*)	Yes	Yes
No. of TX Lines	1* to 4 lines	Yes	No
Select Priority Line	Auto*, Line 1, Line 2 ⁴ , Line3 ⁴ , Line 4 ⁴	Yes	No

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■ Receive/Forward

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

*5 Indicates item that is not delivered as device information. Receive Type, Details/Edit, Delete, Print List, E-Mail Priority

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Output Report			
TX/RX User Data List	Print	Yes	No
Fax User Data List ^{*1}	Print	Yes	No
Common Settings			
Print on Both Sides	On, Off*	Yes	Yes
Select Drawer			
Switch A	On*, Off	Yes	Yes
Switch B	On*, Off	Yes	Yes
Switch C	On*, Off	Yes	Yes
Switch D	On*, Off	Yes	Yes
Reduce Fax RX Size	On*, Off	Yes	Yes
	On : • Reduction Mode: Auto*, Fixed • Reduction %: 75 to 97% (90%*) • Reduction Direction: Vertical & Horizontal, Vertical Only*	Yes	Yes
2 on 1 Log	On, Off*	Yes	Yes
Received Page Footer	Print, Do Not Print*	Yes	Yes
Handle Files with Forwarding Errors	Always Print*, Store/Print, Off	Yes	Yes
Forwarding Settings	Receive Method, Validate/Invalidate, Delete, Register, Other Operations, (Forward w/o Conditions, Details/Edit, E-Mail Priority, Print List), Search	Yes	Yes ^{*5}
Set Fax/I-Fax Inbox			
Set/Register Confidential Fax Inboxes			
Box No.	00 to 49	Yes	Yes
Register Box Name	(NULL)*	Yes	Yes
PIN	(NULL)*	Yes	Yes
URL Send Settings	(NULL)*	Yes	Yes
Initialize	-	Yes	No
Memory RX Inbox PIN	Set: PIN, Confirm: (NULL)*	Yes	No
Use Fax Memory Lock ^{*1}	On, Off*	Yes	Yes
Use I-Fax Memory Lock	On, Off*	Yes	Yes
Memory Lock Start Time	Everyday (1 to 5), Specify Days (Sun to Sat, 1 to 5), Off*	Yes	Yes
Memory Lock End Time	Everyday (1 to 5), Specify Days (Sun to Sat, 1 to 5), Off*	Yes	Yes
Divided Data RX Timeout	0 to 99 hrs (24 hrs*)	Yes	Yes
Always Send Notice for RX Errors	On*, Off	Yes	Yes

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Fax Settings* ¹			
ECM RX	On*, Off	Yes	Yes
Fax RX Report	For Error Only, On, Off*	Yes	Yes
Confidential Fax Inbox RX Report	On*, Off	Yes	Yes
RX Start Speed	33600 bps*, 14400 bps, 9600 bps, 7200 bps, 4800 bps, 2400 bps	Yes	Yes
RX Password	Set: Password, Confirm: (NULL)*	Yes	No

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■ Store/Access Files

* Default Settings

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Common Settings			
Scan and Store Settings			
Register/Edit Favorite Settings	Register, Rename, Delete, Check Content (M1 to M9)	No	No
Change Default Settings	Register, Initialize	No	No
Access Stored Files Settings			
Register/Edit Favorite Settings	Register, Rename, Delete, Check Content (M1 to M9)	No	No
Change Default Settings	Register, Initialize	No	No
Network Settings			
Network Place Settings	Register (Name, Location, Protocol), Details, Delete	Yes	No
Protocol for External Reference			
SMB	On*, Off	Yes	No
WebDAV	On*, Off	Yes	No

T-10-17

■ Encrypted Secure Print *¹

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Only Allow Encrypted Print Jobs	On, Off*	No	Yes

T-10-18

Set Destination

Set Destination

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

*7 Indicates item that is not delivered as device information. Details/Edit, Delete, Refining the destination, Search by Name

*8 Indicates item that is not delivered as device information. Edit, Delete

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Address Lists	Address List 1 to 10, One-Touch	Yes	No
	Print List: Print	Yes	No
Register Destinations	Register New Dest., Details/Edit, Delete, Search by Name	Yes	Yes ⁷
Rename Address List	Address List 1 to 10	Yes	Yes
	Rename	Yes	Yes
Register One-Touch	001 to 200: Register/Edit, Delete	Yes	Yes ⁸
Change Default Display of Address Book	Local*, LDAP Server, Remote	No	No
Address Book PIN	PIN: seven digits maximum: (NULL)*	Yes	Yes
Manage Address Book Access Numbers	On, Off*	Yes	Yes
Register LDAP Server	Register, Details/Edit, Delete, Register/Edit LDAP Search, Print List	Yes	No
Auto Search When Using LDAP Server	On*, Off	No	Yes
Acquire Remote Address Book			
Acquire Address Book	On, Off*	Yes	Yes
Remote Address Book Server Address	IP Address or Host Name	Yes	No
Communication Timeout	15 to 120 seconds (30 seconds*)	Yes	Yes
Fax TX Line Auto Select Adjustment ¹	On*, Off	Yes	Yes

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Management Settings

User Management

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
System Manager Information Settings			
System Manager ID	(seven digits maximum) 7654321*	Yes	Yes
System PIN	(seven digits maximum) 7654321*	Yes	Yes
System Manager	(NULL)*	Yes	Yes
E-Mail Address	(NULL)*	Yes	Yes
Contact Information	(NULL)*	Yes	Yes
Comment	(NULL)*	Yes	Yes
Department ID Management			
Department ID Management	On, Off*	Yes	Yes
Allow Printer Jobs with Unknown IDs	On*, Off	Yes	Yes
Allow Remote Scan Jobs with Unknown IDs	On*, Off	Yes	Yes
Allow Black Copy/Print Jobs	On, Off*	Yes	Yes
Allow Black Printer Jobs	On, Off*	Yes	Yes
Register PIN			
Reg.			
Dept. ID	(seven digits maximum)	Yes	Yes
PIN	(seven digits maximum)	Yes	Yes
Limit Functions			
Store/Access Files, Fax/I-Fax Inbox	On*, Off	Yes	Yes
Send/Fax ^{**1}	On*, Off	Yes	Yes
Other	On*, Off	Yes	Yes
Edit		Yes	Yes
Delete		Yes	Yes
Turn Limits On/Off and Set Page Limits			
Total Print Limit	On, Off*	Yes	Yes
Total Color Print Limit	On, Off*	Yes	Yes
Total Black Print Limit	On, Off*	Yes	Yes
Set Page Limits	0* to 999999	Yes	Yes
Set Copy Limit			
Color Copy Limit	On, Off*	Yes	Yes
Black Copy Limit	On, Off*	Yes	Yes
Set Page Limits	0* to 999999	Yes	Yes
Set Scan Limit			
Color Scan Limit	On, Off*	Yes	Yes
Black Scan Limit	On, Off*	Yes	Yes
Set Page Limits	0* to 999999	Yes	Yes

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Set Print Limit Details			
Color Print Limit	On, Off*	Yes	Yes
Black Print Limit	On, Off*	Yes	Yes
Set Page Limits	0* to 999999	Yes	Yes
Page Totals			
	Clear, Print List, Clear All Totals, Large2 Count Management	Yes	No
	All*, Total Print Only, Color Only, Black Only	No	No

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■ Device Management

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Device Information Settings			
Device Name	Model name*	Yes	No
Location	(NULL)*	Yes	No
Device Information Delivery Settings			
Register Destinations	Auto Search/Register, Reg., Details, Delete, Print List	No	No
	Auto Search/Register : • Auto Search/Register Search Depth (Router): 1* to 8 • Display Host Name: On, Off* • Start Auto Search	No	No
Set Auto Delivery	Everyday (1 to 5), Specify Days (Sun to Sat, 1 to 5), Off*	No	No
Settings/Registration Value	On, Off*(Network Settings: Include, Exclude*), Off	No	No
Dept. ID	On, Off*	No	No
Address Book	On, Off*	No	No
Web Access Favorites ^{*1}	On, Off*	No	No
Printer Settings	On, Off*	No	No
Paper Information	On, Off*	No	No
Manual Delivery			
Settings/Registration Value	On, Off* • Network Settings: Include, Exclude*	No	No
Dept. ID	On, Off*	No	No
Address Book	On, Off*	No	No
Web Access Favorites ^{*1}	On, Off*	No	No
Printer Settings	On, Off*	No	No
Paper Information	On, Off*	No	No
Set MEAP Authentication			
User Name		No	No
Password		No	No
Login Destination		No	No
Restrict Receiving Device Information	On*, Off	No	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Restore Data	Settings/Reg. Value, Dept. ID, Address Book, Web Access Favorites ¹ , Printer Settings, Paper Information : Off*	No	No
Restrict Receiving for Each Function			
Settings/Registration Value	On*, Off	No	No
Dept. ID	On*, Off	No	No
Address Book	On*, Off	No	No
Web Access Favorites ¹	On*, Off	No	No
Printer Settings	On*, Off	No	No
Paper Information	On*, Off	No	No
Use MEAP Auth. When Receive	On, Off*	No	No
Communication Log	Details, Print List, Report Settings	No	No
	Report Settings : • Report Settings Auto Print (100 Transmissions): On*, Off • Specify Print Time: On, Off* • 00:00* to 23:59 • Separate Report Type: On, Off*	No	No
Limited Functions Mode ¹	On, Off*	No	No
Confirm Device Signature Certificate ¹	Certificate Details: (Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Cert. Thumbprint(SHA1), Certificate)	Yes	No
Confirm User Signature Certificate ¹	Certificate Details: (Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Cert. Thumbprint(SHA1), Certificate)	Yes	No
Certificate Settings			
Generate Key			
Generate Network Communication Key			
Key Name	(NULL)*	Yes	No
Key Algorithm	RSA (display only)*	Yes	No
Key Length (bit)	512*, 1024	Yes	No
Validity Start Date	Month, Date, Year (01/01/2000 - 12/31/2037): (NULL)*	Yes	No
Validity End Date	Month, Date, Year (01/01/2000 - 12/31/2037): (NULL)*	Yes	No
Country/Region	Country/Region name and code (United States (US)*)	Yes	No
State	(NULL)*	Yes	No
City	(NULL)*	Yes	No
Organization	(NULL)*	Yes	No
Organization Unit	(NULL)*	Yes	No
Common Name	(IP address or FQDN) (Max 41 characters) (NULL)*	Yes	No
Generate/Update Device Signature Key	Generate Key	Yes	No
Key and Certificate List			
Key and Certificate List for This Device ¹			
Certificate Details	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Cert. Thumbprint(SHA1), Certificate	Yes	No
Delete	-	Yes	No
Display Use Location	Displays what the key pair is being used for.	Yes	No

Item		Setting Description	Can be set in Remote UI	Device Information Delivery Available
	Key and Certificate List for Users **			
	Certificate Details	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Cert. Thumbprint(SHA1), Certificate	Yes	No
	Delete	-	Yes	No
	CA Certificate List			
	Certificate Details	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Cert. Thumbprint(SHA1), Certificate	Yes	No
	Delete	-	Yes	No
	Register Key and Certificate			
	Register	-	Yes	No
	Delete	-	Yes	No
	Register CA Certificate			
	Register	-	Yes	No
	Delete	-	Yes	No
	Display Job Status Before Authentication	On*, Off	Yes	No
	Display Log	On*, Off	Yes	No
		Obtain Job Log from Management Software: Allow, Do Not Allow*	Yes	No

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■ License/Other

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Register License	24 characters, Press [Start]: (NULL)*	No	No
MEAP Settings			
Print System Information	Print	No	No
Use SSL	On, Off*	Yes	No
Remote UI	On*, Off	No	Yes
Use SSL	On, Off*	Yes	No
Use Reference Print ^{*1}	On, Off*	Yes	Yes
Delete Message Board Contents	Clear	No	No

T-10-22

■ Data Management

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Delete Existing Data Settings ^{*1}			
Timing of Deletion	During Job*, After Job	Yes	No
Overwrite Method to Delete HDD Data	Once with 0 (NULL) Data*, Once with Random Data, 3 Times with Random Data, DoD Standard	Yes	No
Initialize All Data/Settings	Initialize	No	No
TPM Settings	Backup TPM Key(password (12 characters maximum)), Restore TPM Key	No	No

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Backup Data

Data to Be Stored	Data Location	Whether to Delete or Not upon Execution												Backup			Remarks
		When Replacing HDD / Executing All Format	When Replacing Flash / Executing All Format	Main PCB When Replacing Main PCB 1	Main PCB When Replacing Main PCB 2	When Replacing TPM PCB	User mode "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	Can Data Be Backed up?	Backup Method	Location to Be Stored	
Address Book	*SRAM+Flash/HDD	Clear	Clear	---	Clear	---	Clear	Clear	---	---	---	Clear		Yes	Remote UI (Export/Import) SST/USB*1	PC(User) Flash (Service)	*1:Management information is stored in SRAM. It is backed up in Flash memory by SRAMbackup command with SST/USB menu. By this action, service engineer can restore the data without setting management information again when replacing Main PCB 2.(Caution: SRAMbackup command doesn't backup all data.)
Forwarding Settings	*SRAM+Flash/HDD	Clear	Clear	---	Clear	---	Clear	Clear	---	---	Clear	---		Yes	Remote UI (Export/Import) SST/USB*1	PC	*1:Management information is stored in SRAM. It is backed up in Flash memory by SRAMbackup command with SST/USB menu. By this action, service engineer can restore the data without setting management information again when replacing Main PCB 2.(Caution: SRAMbackup command doesn't backup all data.)
Settings/Registration																	
Preferences	Flash	---	Clear	---	---	---	Clear	Clear	---	---	Clear	---		Yes*	Remote UI (Export/Import)	PC	*Following data cannot be backed up. Timer/Energy Settings>Adjust Time, Date/Time Settings Network>SNMP Settings>Use SNMP v. 3>User Settings, Context Settings Network>Firewall Settings>IPv4 Address Filter, IPv6 Address Filter
Adjustment/Maintenance	Flash	---	Clear	---	---	---	Clear	Clear	---	---	Clear	---		Yes	Remote UI (Export/Import)	PC	
Function Settings	Flash	---	Clear	---	---	---	Clear	Clear	---	---	Clear	---		Yes*	Remote UI (Export/Import)	PC	*:Following data cannot be backed up. Receive/Forward>Common Settings>Forward Settings>Fax/I-Fax Inbox Settings
Set Destination	Flash	---	Clear	---	---	---	Clear	Clear	---	---	Clear	---		Yes	Remote UI (Export/Import)	PC	
Management Settings	Flash	---	Clear	---	---	---	Clear	Clear	---	---	Clear	---		Yes*	Remote UI (Export/Import)	PC	*:Following data cannot be backed up. User Management>Department ID Management>Page Total
Printer Settings	Flash	---	Clear	---	---	---	Clear	Clear	---	---	Clear	---		Yes	Remote UI (Export/Import)	PC	
Paper Information Settings	Flash	---	Clear	---	---	---	Clear	---	---	---	---	---		Yes	Remote UI (Export/Import)	PC	
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	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	Yes	Remote UI (Export/Import)	PC	*:Following data cannot be backed up. The data which cannot be backed up by "Export".
Default Settings	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	No	---	---	
Shortcut settings for "Options"	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	No	---	---	
Previous Settings	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	No	---	---	
Setting items for Quick Menu																	
Button Size information	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	Yes	Remote UI (Export/Import)	PC	*:Following data cannot be backed up. The data which cannot be backed up by "Export".
Wallpaper Setting	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	Yes	Remote UI (Export/Import)	PC	*:Following data cannot be backed up. The data which cannot be backed up by "Export".
Button information in Quick Menu	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	Yes	Remote UI (Export/Import)	PC	*:Following data cannot be backed up. The data which cannot be backed up by "Export".
Restrict Quick Menu	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	Yes	Remote UI (Export/Import)	PC	*:Following data cannot be backed up. The data which cannot be backed up by "Export".
Setting items for Main Menu																	
Button settings in Main Menu	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---		No	---	---	
Button settings on the top of the screen	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---		No	---	---	
Wallpaper Setting for Main Menu	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---		No	---	---	
Other settings for Main Menu	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---		No	---	---	
Setting for Advance Box																	
Network place setting information	HDD	Clear		---	---	---	Clear	---	---	---	---	---	Clear	No	---	---	It depends on CHECKTYPE for whether it is cleared with a format of Flash when you do that.
Setting for Web Access																	
Web Access Favorites	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---		Yes	Remote UI (Export/Import)	PC	Backing up available only "Favorites".

Data to Be Stored	Data Location	Whether to Delete or Not upon Execution												Backup			Remarks
		When Replacing HDD / Executing All Format	When Replacing Flash / Executing All Format	Main PCB When Replacing Main PCB 1	Main PCB When Replacing Main PCB 2	When Replacing TPM PCB	User mode "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	Can Data Be Backed up?	Method	Location to Be Stored	
Setting for MEAP																	
MEAP application	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	No	---	---	
MEAP application license file	Flash	---	Clear	---	---	---	Clear	---	---	---	---	---	Clear	Yes	SMS	PC	*:MEAP application information which registered at SMS needs reentry after clearing MN-CONT.
User authentication information registered by SSO-H (Single Sign-On H) local device authentication	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	Yes	SMS	PC	*:MEAP application information which registered at SMS needs reentry after clearing MN-CONT.
Data saved by MEAP application	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	Yes	---	PC	*:MEAP application information which registered at SMS needs reentry after clearing MN-CONT.
MEAP SMS (Service Management Service) password	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---	Clear	No	---	---	*:MEAP application information which registered at SMS needs reentry after clearing MN-CONT.
Setting for Universal Data																	
Unsent document (which is set timer transmission or reservation transmission)	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---		No	---	---	
Job log information	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---		No	---	---	
Key and server certificate which are registered in Management Settings>Device Settings>Certificate Setting	Flash/HDD	Clear	Clear	---	---	---	Clear	---	---	---	---	---		No	---	---	
Auto Adjust Gradation setting values	SRAM	---		---	Clear	---	Clear	Clear	---	---	---	---		Yes	SST/USB menu	Flash	
PS font	HDD	Clear		---	---	---	Clear	---	---	---	---	---		No	---	---	
Key information to be used for encryption when TPM is OFF	*SRAM (MCON2)	---	Clear*1	---	Clear*2	---	Clear	Clear*2	---	---	Clear*2	---	---	Yes*3	SST/USB menu	Flash	Key information is always in the Flash memory. Not HDD. *1: After clearing the backup key information in the Flash memory, it is automatically restored from the key in the SRAM(MCON2). *2: After clearing the key information in the SRAM(MCON2), it is automatically restored from the backup key in the Flash memory. *1, 2: When replacing the Flash memory 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.
Key and settings information to be used for encryption when TPM is ON	*SRAM (MCON2) Flash 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	Key information is always in the Flash memory. Not HDD. *1: When the TPM setting is "ON", the error code is displayed. After restart and initialization of all data/settings, it is restored from the error state by setting the TPM setting to "ON" again. *2: After executing each CLEAR operation, the key information in the SRAM can be automatically restored from the common backup key in the Flash memory, 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 :In early system version, only the backup for TPM PCB trouble is enabled. After system version 10, the backup for Flash memory trouble is enabled. After system version 10, the backup for key and setting information about Flash memory trouble is also enabled. Data cannot be restored to the other devices whose TPM setting is "ON".
Service mode setting values (MN-CON)	Flash	---	Clear	---	Clear	---	---	Clear	---	---	---	---		Yes	SST/USB menu	Flash	It depends on CHECKTYPE for whether it is cleared with a format of Flash when you do that.
Service mode setting values (DC-CON)	SRAM (DC-CON)	---	Clear	---	---	---	---	---	Clear	---	---	---		Yes	Service mode COPIER > FUNCTION > SYSTEM > DSRAMBUP	Flash/HDD	
Service mode setting values (R-CON)	SRAM (MN-CON)	---	---	---	---	---	---	---	---	Clear	---	---		No	---	---	

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"Flash" means that Flash model or HDD model stores the data.

"Flash/HDD" means that Flash model stores the data in Flash and HDD model stores it in HDD.

The data that there is "HDD" only at the time of HDD model.

The data of "SRAM+Flash" and "SRAM+Flash/HDD" are partly maintained by management information in SRAM, so SRAM Clear means that the data are eliminated.

Detail of HDD partition

Flash model

Partition name	CHK-TYPE	Description	Format
Whole Flash memory	0	Whole Flash memory	CHK-TYPE="1","2","3","5" are formatted at same time
f\FSTDEV	1	Image data storage area, Unsent document (which is set timer transmission or reservation transmission)	Enabled
f\APL_GEN	2	Storage area of universal data (Note: For details, see the following.)	Enabled
f\TMP_GEN		Storage area of universal data (temporary file)	
f\DBG_LOG		System log storage area	
f\PDLDEV		PDL-related file storage area (font, registration form, color correction information file for ICCProfile-PDL function)	
f\SYSDEV	4	Firmware storage area, Dictionary/RUI contents	Disabled
f\APL_MEAP	5	MEAP	Enabled
f\APL_SEND	6	Address book, Setting for Forwarding	Disabled
f\APL_KEEP	7	MEAP stored data	Disabled
f\SAFE	Out of CHK-TYPE	Safe Mode bootable partition	Out of Format
f\BOOTDEV		IPL, Loader	

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HDD model

Partition name	CHK-TYPE	Description	HDD Format
Flash	HDD		
Whole data storage	0	Whole data storage	CHK-TYPE="1","2","3","5" are formatted at same time
f\FSTDEV	1	Image data storage area, Unsent document (which is set timer transmission or reservation transmission)	Enabled
		Image data storage area (for Chasing)	
f\APL_GEN	2	Storage area of universal data (Note: For details, see the following.)	Enabled
		Storage area of universal data (temporary file)	
		PSS (temporary file)	
		System log storage area	
		Area for distribution server	
	3	PDL-related file storage area (font, registration form, color correction information file for ICCProfile-PDL function)	Enabled
f\SYSDEV		Firmware storage area, Dictionary/RUI contents	
	4	MEAP	Disabled
		Address book, Setting for Forwarding	
f\APL_KEEP	7	MEAP stored data	Disabled
	Out of CHK-TYPE	Page data temporary storage area	Out of Format
f\SAFE		Safe Mode bootable partition	
f\BOOTDEV		IPL, Loader	

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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
	Other settings for Main Menu
Setting items for each menu in Main Menu	Button settings in Main Menu
	Button settings on the top of the screen
	Wallpaper Setting for Main Menu
	Other settings for Main Menu

Category	Data
Setting for Advance 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

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Soft counter specifications

Soft counter specifications

The numbers entered for software counters are classified as follows:

No.	Counter Details
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

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Meanings of symbols in tables

- L: Large size (larger than B4 size)
- S: Small size (smaller than B4 size)
- S: Small size (smaller than B4 size)

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

No.	Counter Details
002	Remote copy (full color 1)
003	Remote copy (full color 2)
004	Remote copy (mono color 1)
005	Remote copy (mono color 2)
006	Remote copy (black and white 1)
007	Remote copy (black and white 2)
008	Remote copy (full color / large)
009	Remote copy (full color / small)
010	Remote copy (mono color / large)
011	Remote copy (mono color / small)
012	Remote copy (black and white / large)
013	Remote copy (black and white / small)
014	Remote copy (full color + mono color / large)
015	Remote copy (full color + mono color / small)
016	Remote copy (full color + mono color 2)
017	Remote copy (full color + mono color 1)
018	Remote copy (full color / large / double sided)
019	Remote copy (full color / small / double sided)
020	Remote copy (mono color / large / double sided)
021	Remote copy (mono color / small / double sided)
022	Remote copy (black and white / large / double sided)
023	Remote copy (black and white / small / double sided)
071	Toner bottle black
072	Toner bottle yellow
073	Toner bottle magenta
074	Toner bottle cyan
081	Toner bottle black + Remove the toner bottle black
082	Toner bottle yellow + Remove the toner bottle yellow
083	Toner bottle magenta + Remove the toner bottle magenta
084	Toner bottle cyan + Remove the toner bottle cyan
091	1/10 Toner bottle black
092	1/10 Toner bottle yellow
093	1/10 Toner bottle magenta
094	1/10 Toner bottle cyan
101	Total 1
102	Total 2
103	Total (large)
104	Total (small)
105	Total (full color 2)
106	Total (full color 2)
108	Total (black and white 1)
109	Total (black and white 2)
110	Total (mono color / large)
111	Total (mono color / small)
112	Total (black and white / large)

No.	Counter Details
113	Total (black and white /small)
114	Total 1(double sided)
115	Total 2(double sided)
116	large (double sided)
117	small (double sided)
118	Total (mono color 1)
119	Total (mono color 2)
120	Total (full color /large)
121	Total (full color /small)
122	Total (full color +mono color /large)
123	Total (full color +mono color /small)
124	Total (full color +mono color 2)
125	Total (full color +mono color 1)
126	Total A1
127	Total A2
128	Total A (large)
129	Total A (small)
130	Total A (full color 1)
131	Total A (full color 2)
132	Total A (black and white 1)
133	Total A (black and white 2)
134	Total A (mono color /large)
135	Total A (mono color /small)
136	Total A (black and white /large)
137	Total A (black and white /small)
138	Total A 1(double sided)
139	Total A 2(double sided)
140	large A (double sided)
141	small A (double sided)
142	Total A (mono color 1)
143	Total A (mono color 2)
144	Total A (full color /large)
145	Total A (full color /small)
146	Total A (full color +mono color /large)
147	Total A (full color +mono color /small)
148	Total A (full color +mono color 2)
149	Total A (full color +mono color 1)
150	Total B1
151	Total B2
152	Total B (large)
153	Total B (small)
154	Total B (full color 1)
155	Total B (full color 2)
156	Total B (black and white 1)
157	Total B (black and white 2)

No.	Counter Details
158	Total B (mono color /large)
159	Total B (mono color /small)
160	Total B (black and white /large)
161	Total B (black and white /small)
162	Total B1 (double sided)
163	Total B2 (double sided)
164	largeB (double sided)
165	smallB (double sided)
166	Total B (mono color 1)
167	Total B (mono color 2)
168	Total B (full color /large)
169	Total B (full color /small)
170	Total B (full color +mono color /large)
171	Total B (full color +mono color /small)
172	Total B (full color +mono color 2)
173	Total B (full color +mono color 1)
201	Copy (Total 1)
202	Copy (Total 2)
203	Copy (large)
204	Copy (small)
205	Copy A (Total 1)
206	Copy A (Total 2)
207	Copy A (large)
208	Copy A (small)
209	Local copy (Total 1)
210	Local copy (Total 2)
211	Local copy (large)
212	Local copy (small)
213	Remote copy (Total 1)
214	Remote copy (Total 2)
215	Remote copy (large)
216	Remote copy (small)
217	Copy (full color 1)
218	Copy (full color 2)
219	Copy (mono color 1)
220	Copy (mono color 2)
221	Copy (black and white 1)
222	Copy (black and white 2)
223	Copy (full color /large)
224	Copy (full color /small)
225	Copy (mono color /large)
226	Copy (mono color /small)
227	Copy (black and white /large)
228	Copy (black and white /small)
229	Copy (full color +mono color /large)

No.	Counter Details
230	Copy (full color +mono color /small)
231	Copy (full color +mono color /2)
232	Copy (full color +mono color /1)
233	Copy (full color /large/double sided)
234	Copy (full color /small/double sided)
235	Copy (mono color /large/double sided)
236	Copy (mono color /small/double sided)
237	Copy (black and white /large/double sided)
238	Copy (black and white /small/double sided)
245	Copy A (full color 1)
246	Copy A (full color 2)
247	Copy A (mono color 1)
248	Copy A (mono color 2)
249	Copy A (black and white 1)
250	Copy A (black and white 2)
251	Copy A (full color /large)
252	Copy A (full color /small)
253	Copy A (mono color /large)
254	Copy A (mono color /small)
255	Copy A (black and white /large)
256	Copy A (black and white /small)
257	Copy A (full color +mono color /large)
258	Copy A (full color +mono color /small)
259	Copy A (full color +mono color 2)
260	Copy A (full color +mono color 1)
261	Copy A (full color /large/double sided)
262	Copy A (full color /small/double sided)
263	Copy A (mono color /large/double sided)
264	Copy A (mono color /small/double sided)
265	Copy A (black and white /large/double sided)
266	Copy A (black and white /small/double sided)
273	Local copy (full color 1)
274	Local copy (full color 2)
275	Local copy (mono color 1)
276	Local copy (mono color 2)
277	Local copy (black and white 1)
278	Local copy (black and white 2)
279	Local copy (full color /large)
280	Local copy (full color /small)
281	Local copy (mono color /large)
282	Local copy (mono color /small)
283	Local copy (black and white /large)
284	Local copy (black and white /small)
285	Local copy (full color +mono color /large)
286	Local copy (full color +mono color /small)

No.	Counter Details
287	Local copy (full color +mono color 2)
288	Local copy (full color +mono color 1)
289	Local copy (full color /large/double sided)
290	Local copy (full color /small/double sided)
291	Local copy (mono color /large/double sided)
292	Local copy (mono color /small/double sided)
293	Local copy (black and white /large/double sided)
294	Local copy (black and white /small/double sided)
301	Print (Total 1)
302	Print (Total 2)
303	Print (large)
304	Print (small)
305	Print A(Total 1)
306	Print A(Total 2)
307	Print A(large)
308	Print A(small)
309	Print (full color 1)
310	Print (full color 2)
311	Print (mono color 1)
312	Print (mono color 2)
313	Print (black and white 1)
314	Print (black and white 2)
315	Print (full color /large)
316	Print (full color /small)
317	Print (mono color /large)
318	Print (mono color /small)
319	Print (black and white /large)
320	Print (black and white /small)
321	Print (full color +mono color /large)
322	Print (full color +mono color /small)
323	Print (full color +mono color /2)
324	Print (full color +mono color /1)
325	Print (full color /large /double sided)
326	Print (full color /small/double sided)
327	Print (mono color /large /double sided)
328	Print (mono color /small/double sided)
329	Print (black and white /large /double sided)
330	Print (black and white /small/double sided)
331	PDLPrint (Total 1)
332	PDLPrint (Total 2)
333	PDLPrint (large)
334	PDLPrint (small)
335	PDLPrint (full color 1)
336	PDLPrint (full color 2)
339	PDLPrint (black and white 1)

No.	Counter Details
340	PDLPrint (black and white 2)
341	PDLPrint (full color /large)
342	PDLPrint (full color /small)
345	PDLPrint (black and white /large)
346	PDLPrint (black and white /small)
351	PDLPrint (full color /large /double sided)
352	DLPrint (full color /small/double sided)
355	PDLPrint (black and white /large /double sided)
356	PDLPrint (black and white /small/double sided)
401	Copy + print (full color /large)
402	Copy + print (full color /small)
403	Copy + print (black and white/large)
404	Copy + print (black and white/small)
405	Copy + print (black and white2)
406	Copy + print (black and white1)
407	Copy + print (full color +mono color /large)
408	Copy + print (full color +mono color /small)
409	Copy + print (full color +mono color /2)
410	Copy + print (full color +mono color /1)
411	Copy + print (large)
412	Copy + print (small)
413	Copy + print (2)
414	Copy + print (1)
415	Copy + print (mono color /large)
416	Copy + print (mono color /small)
417	Copy + print (full color /large/double sided)
418	Copy + print (full color /small/double sided)
419	Copy + print (mono color /large/double sided)
420	Copy + print (mono color /small/double sided)
421	Copy + print (black and white/large/double sided)
422	Copy + print (black and white/small/double sided)
501	Scan (Total 1)
502	Scan (Total 2)
503	Scan (large)
504	Scan (small)
505	Black and white Scan (Total 1)
506	Black and white Scan (Total 2)
507	Black and white Scan (large)
508	Black and white Scan (small)
509	Color scan (Total 1)
510	Color scan (Total 2)
511	Color scan (large)
512	Color scan (small)
601	Box print (Total 1)
602	Box print (Total 2)

No.	Counter Details
603	Box print (large)
604	Box print (small)
605	Box print (full color 1)
606	Box print (full color 2)
607	Box print (mono color 1)
608	Box print (mono color 2)
609	Box print (black and white 1)
610	Box print (black and white 2)
611	Box print (full color /large)
612	Box print (full color /small)
613	Box print (mono color /large)
614	Box print (mono color /small)
615	Box print (black and white /large)
616	Box print (black and white /small)
617	Box print (full color +mono color /large)
618	Box print (full color +mono color /small)
619	Box print (full color +mono color 2)
620	Box print (full color +mono color 1)
621	Box print (full color /large/double sided)
622	Box print (full color /small/double sided)
623	Box print (mono color /large/double sided)
624	Box print (mono color /small/double sided)
625	Box print (black and white /large/double sided)
626	Box print (black and white /small/double sided)
701	Reception print (Total 1)
702	Reception print (Total 2)
703	Reception print (large)
704	Reception print (small)
705	Reception print (full color 1)
706	Reception print (full color 2)
709	Reception print (black and white 1)
710	Reception print (black and white 2)
711	Reception print (full color /large)
712	Reception print (full color /small)
715	Reception print (black and white /large)
716	Reception print (black and white /small)
721	Reception print (full color /large/double sided)
722	Reception print (full color /small/double sided)
725	Reception print (black and white /large/double sided)
726	Reception print (black and white /small/double sided)
743	Network Print(Total 1)
744	Network Print(Total 2)
745	Network Print(large)
746	Network Print(small)
747	Network Print(full color 1)

No.	Counter Details
748	Network Print(full color 2)
749	Network Print(black and white 1)
750	Network Print(black and white 2)
751	Network Print(full color/large)
752	Network Print(full color/small)
753	Network Print(mono color /large)
754	Network Print(black and white/small)
755	Network Print(full color /large/double sided)
756	Network Print(full color /small/double sided)
757	Network Print(black and white /large/double sided)
758	Network Print(black and white /small/double sided)
759	Mobile Print(Total 1)
760	Mobile Print(Total 2)
761	Mobile Print(large)
762	Mobile Print(small)
763	Mobile Print(full color 1)
764	Mobile Print(full color 2)
765	Mobile Print(black and white 1)
766	Mobile Print(black and white 2)
767	Mobile Print(full color/large)
768	Mobile Print(full color/small)
769	Mobile Print(black and white /large)
770	Mobile Print(black and white/small)
771	Mobile Print(full color /large/double sided)
772	Mobile Print(full color /small/double sided)
773	Mobile Print(black and white /large/double sided)
774	Mobile Print(black and white /small/double sided)
801	Report print (Total 1)
802	Report print (Total 2)
803	Report print (large)
804	Report print (small)
805	Report print (full color 1)
806	Report print (full color 2)
809	Report print (black and white 1)
810	Report print (black and white 2)
811	Report print (full color /large)
812	Report print (full color /small)
815	Report print (black and white /large)
816	Report print (black and white /small)
821	Report print (full color /large /double sided)
822	Report print (full color /small /double sided)
825	Report print (black and white /large /double sided)
826	Report print (black and white /small /double sided)
915	Transmission scan total 2(color)
916	Transmission scan total 2(black and white)

No.	Counter Details
917	Transmission scan total 3(color)
918	Transmission scan total 3(black and white)
921	Transmission scan total 5(color)
922	Transmission scan total 5(black and white)
929	Transmission scan total 6(color)
930	Transmission scan total 6(black and white)
937	Box scan (color)
938	Box scan (black and white)
939	Remote scan (color)
940	Remote scan (black and white)
945	Transmission scan / E-mail (color)
946	Transmission scan / E-mail (black and white)
959	Media Scan (Color)
960	Media Scan (black and white)
961	Application Scan(Total 1)
962	Application Black and white Scan(Total 1)
963	Application Color Scan(Total 1)

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