Canon

imageRUNNER ADVANCE C351/C350/C250 Series

Service Manual Rev. 3.0

Application

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

Corrections

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

The following paragraph does not apply to any countries where such provisions are inconsistent with local law.

Trademarks

The product names and company names used in this manual are the registered trademarks of the individual companies.

Copyright

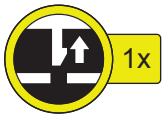
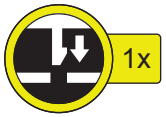
Caution

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

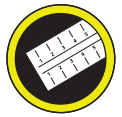
Explanation of Symbols

The following symbols are used throughout this Service Manual.

Symbols	Explanation
	Check.
	Check visually.
	Check a sound.
	Disconnect the connector.
	Connect the connector.
	Remove the cable/wire from the cable guide or wire saddle.
	Install the cable/wire to the cable guide or wire saddle.
	Remove the screw.
	Install the screw.

Symbols	Explanation
	Remove the claw.
	Insert the claw.
	Push the part.
	Connect the power cable.
	Disconnect the power cable.
	Turn on the power.
	Turn off the power.
	Loosen the screw.
	Tighten the screw.

Symbols	Explanation
	Cleaning is needed.

Symbols	Explanation
	Measurement is needed.

The following rules apply throughout this Service Manual:

1. 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.

2. 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.

Contents

3 Periodical Service

4 Disassembly/Assembly

5 Adjustment

6 Troubleshooting

7 Error•Jam•Alarm

8 Service Mode

9 Installation

Appendix

Safety Precautions

- CDRH Act
- Laser Safety
- Handling of Laser System
- Turn Power Switch ON
- Power Supply
- Safety of Toner
- Notes When Handling a Lithium Battery
- Notes Before Servicing
- Points to Note at Cleaning
- Notes On Assembly/ Disassembly

imageRUNNER ADVANCE

C351/C350/C250 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 Untied States. The label shown here indicates compliance with the CDRH regulations, and its attachment is required on all laser products that are soled in the United States.

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

MANUFACTURED :

THIS PRODUCT CONFORMS WITH DHHS RADIATION
PERFORMANCE STANDARD 21CFR CHAPTER1
SUBCHAPTER J.

F-0-1

⚠

A different description may be used for a different product.

Laser Safety

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

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

Sicherheit des Lasers
Laserstrahlen können für den menschlichen Körper gefährlich sein. Aus diesem Grund ist das optische Lasersystem mit einem Schutzgehäuse und einer Außenabdeckung dicht verschlossen und hat eine Struktur, die keine Laserstrahlen nach außen dringen lässt. Unter der Voraussetzung, dass der Benutzer dieses Gerät normal bedient, ist ein Austritt von Laserstrahlen daher ausgeschlossen.

Handling of Laser System

When servicing the area around the laser assembly, be sure to turn off the main power.
If you must service while the power is turned on, be sure to keep the followings:
- Do not use a screwdriver or tools that have a high level of reflectance in the laser path.
- Remove watches and rings before starting the work. (They can reflect the laser beam, possibly hitting the eye.)
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.

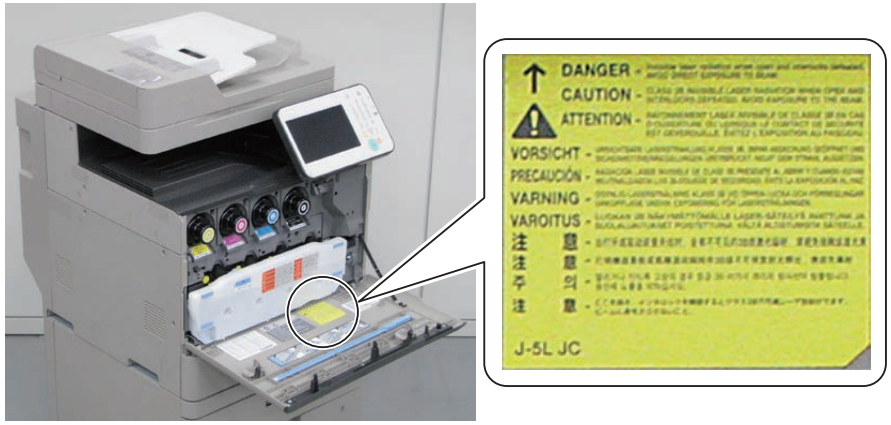
The following warnings are given to comply with Safety Principles (EN60950).

Handhabung des Laserteils
Bei servicearbeiten am oder in der Nähe des Laserteils zuerst das Hauptgerät abschalten.

Bei Servicearbeiten, die unbedingt bei eingeschaltetem Gerät durchgeführt werden müssen, auf jeden Fall die folgenden Vorsichtsmaßnahmen beachten.

- Keine stark reflektierenden Schraubenzieher oder ähnliche Werkzeuge direkt in den Lichtpfad des Laserstrahls bringen.
- Vor Beginn der Arbeit Uhren, Ringe und ähnliche Gegenstände abnehmen. (Reflektierte Laserstrahlen könnten sonst in die Augen geraten.)

Abdeckungen, die möglicherweise Laserstrahlen reflektieren, haben in der auf dem Bild gezeigten Position einen Aufkleber. Bei Servicearbeiten auf der Innenseite von Abdeckungen mit Aufkleber ist besondere Vorsicht erforderlich.



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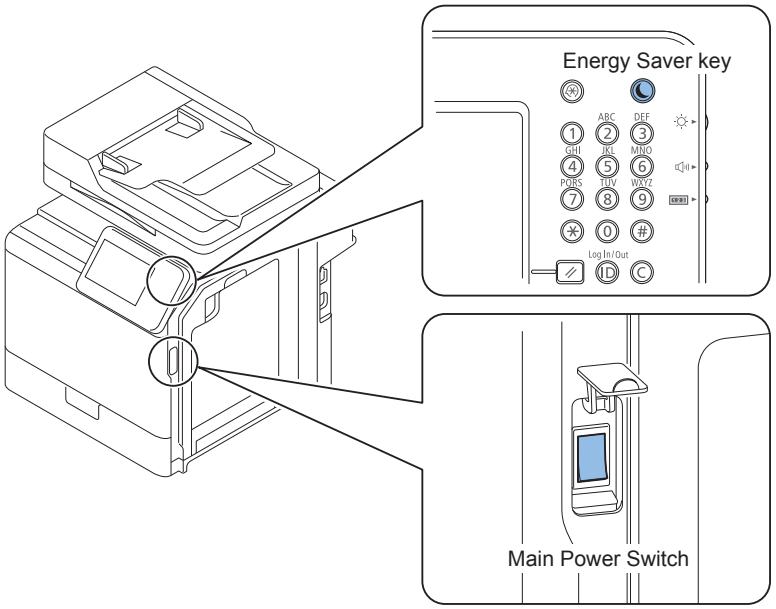
This product is certificated as a Class 1 laser product under IEC60825-1:2007.
But this product is equipped with a class 3B laser.
When you remove interlock and work, you must warn the safety.

Turn Power Switch ON

The machine is equipped with 2 power switches: main power switch and control energy saver key.

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



F-0-3

CAUTION:

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

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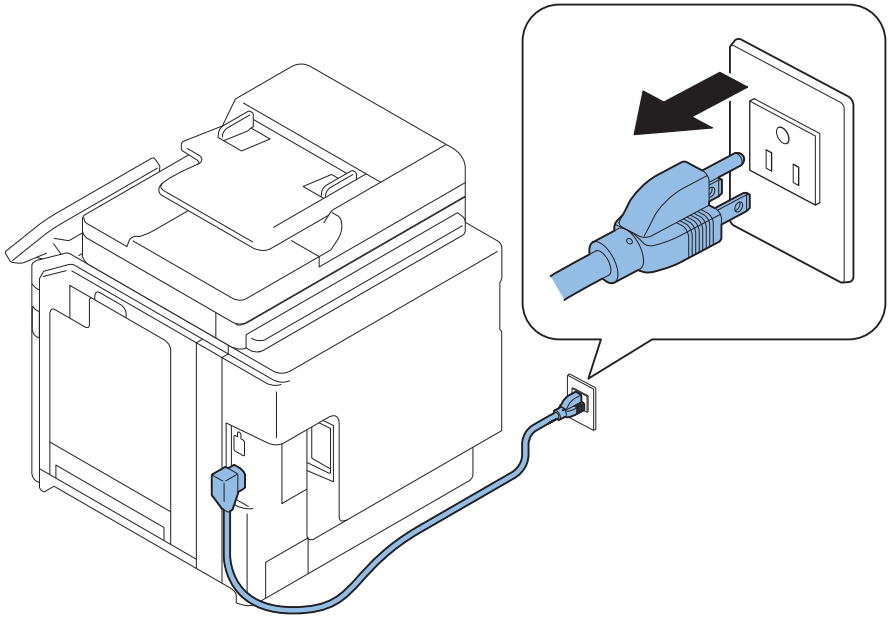
Power Supply

⚠

1. As a general rule, do not use extension cords. Using an extension cord may result in a fire or electrical shock. If an extension cord must be used, however, use one for local rated voltage and over, untie the cord binding, and insert the power plug completely into the extension cord outlet to ensure a firm connection between the power cord and the extension cord.
2. The socket-outlet shall be installed near the equipment and shall be easily accessible.



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Safety of Toner

About Toner

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

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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).

⚠ Achtung:

Wenn mit dem falschen Typ ausgewechselt, besteht Explosionsgefahr.

Gebrauchte Batterien gemäß der Anleitung beseitigen.

⚠ 警告

如果更換不正確之電池型式會有爆炸的風險

請依製造商說明書處理用過之電池

Notes Before Servicing

⚠

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.

Notes On Assembly/Disassembly

Follow the items below to assemble/disassemble the device.

1. Disconnect the power plug to avoid any potential dangers during assembling/disassembling works.
2. If not specially instructed, reverse the order of disassembly to reinstall.
3. Ensure to use the right screw type (length, diameter, etc.) at the right position when assembling.
4. To keep electric conduction, binding screws with washers are used to attach the grounding wire and the varistor. Ensure to use the right screw type when assembling.
5. Unless it is specially needed, do not operate the device with some parts removed.
6. Never remove the paint-locked screws when disassembling.

CAUTION

DOUBLE POLE/NEUTRAL FUSING

F-0-6

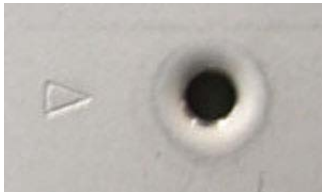
ACHTUNG

Zweipolige bzw. Neutralleiter-Sicherung

F-0-7

Points to Note when Tightening a Screw

For reduction in weight, thin plates are used in some parts of this machine.
In the case of a screw hole with a triangle mark near it as shown in the figure below, strongly tightening the screw may damage or deform the screw hole.
In the case of a screw hole with a triangle mark, take care not to apply too much force when tightening the screw.



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The recommended torque value is shown below as a reference value.

		Type of Screws							
		RS tight		W Sams		Binding		TP	
Fastened member		Metal	Resin	Metal	Resin	Metal	Resin	Metal	Resin
Tightening torque (N*m)	M4	Approx. 1.6	Approx. 1.6	Approx. 1.6	Approx. 0.8	Approx. 1.6	Approx. 0.8	Approx. 1.6	Approx. 0.8
	M3	Approx. 0.8	Approx. 0.8	Approx. 0.6	Approx. 0.6	Approx. 0.6	Approx. 0.6	Approx. 0.6	Approx. 0.6

* For PCB, refer to the tightening torque value of resin (fastened member).

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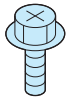
Type of Screws			
RS tight	W Sams	Binding	TP
			

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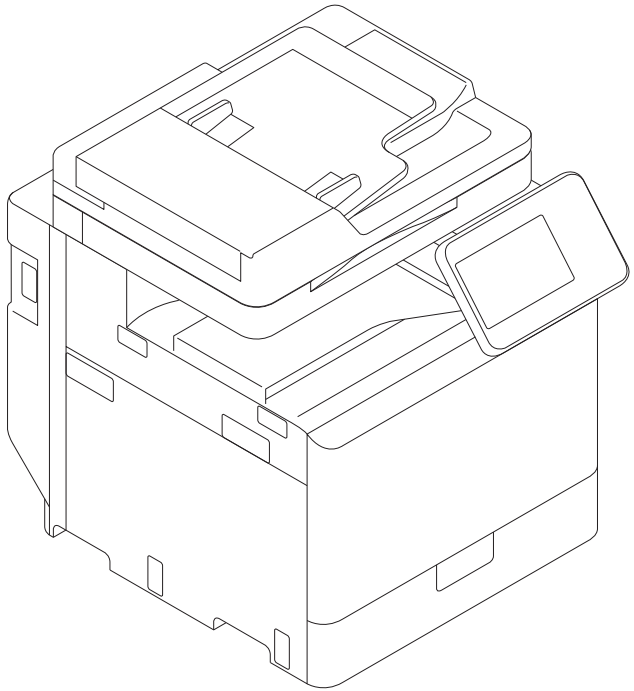
Product Overview

- Product Lineup
- Features
- Specifications
- Parts Name

Product Lineup

Host machine



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Host machine configuration

Configuration
Reader+ADF+Printer

T-1-1

Model type

	imageRUNNER ADVANCE C351/C350	imageRUNNER ADVANCE C250
Print Speed	35 ppm	25 ppm

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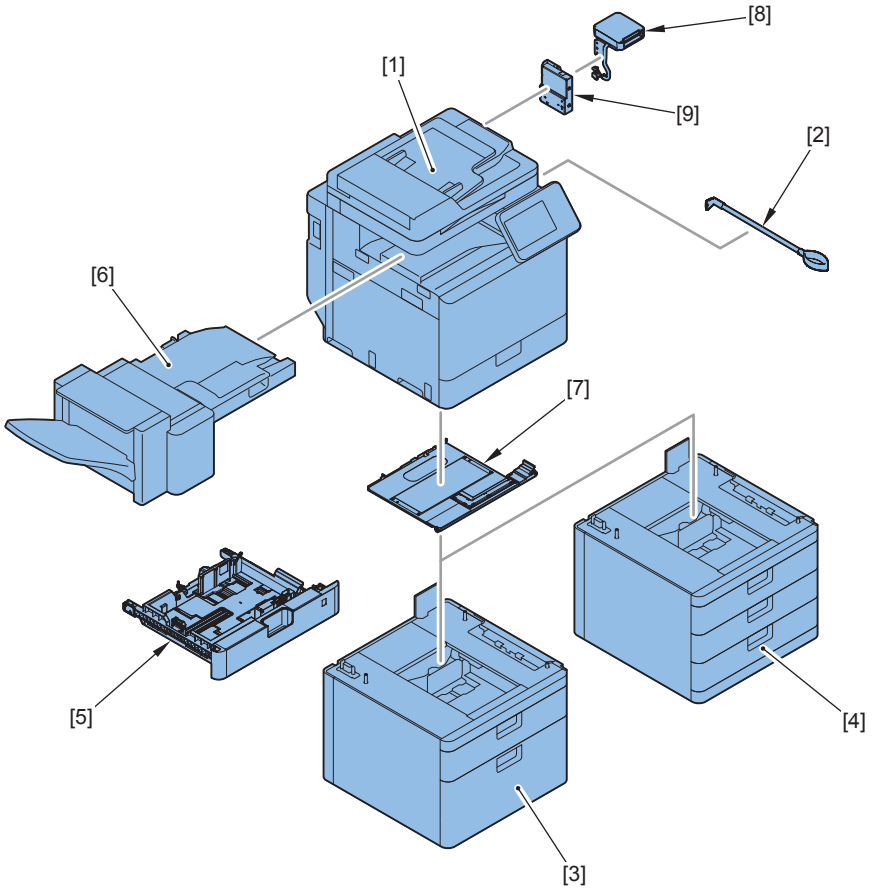
imageRUNNER ADVANCE C351/C350/C250 Series

Underlined (2-digit) numeric figures indicate print speed (ppm: print per minute).

Option

Pickup / Delivery / Image Reading System Options



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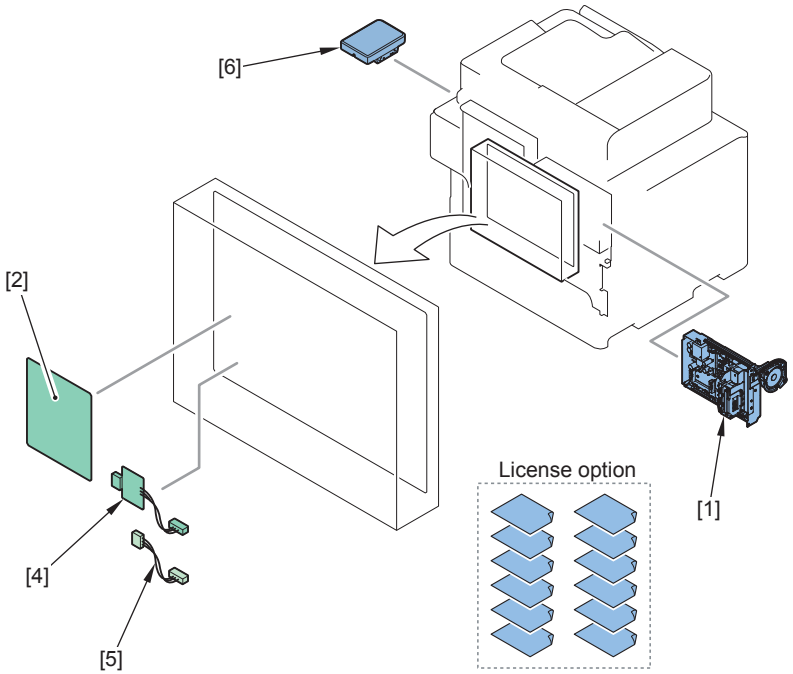
No.	Product name	Remarks and condition
1	imageRUNNER ADVANCE C351/C350/ C250 Series	
2	ADF Access Handle-A1	
3	Cassette Feeding Unit-AG1	
4	Cassette Feeding Unit-AH1	
5	Canon FL Cassette-AT1	
6	Staple Finisher-S1	
7	Cassette Heater Unit-39	
8	Copy Card Reader-F1	To install the Copy Card Reader-F1, the Copy Card Reader Attachment Kit-B4 is required. The following options cannot be used in combination with this equipment. • Copy Control Interface Kit-A1 • Copy Card Reader-F1 • IC Card Reader Box-A1
9	Copy Card Reader Attachment-B4	

T-1-3

■ Function expansion system options



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● Hardware Products

No.	Product name	Remarks and condition
1	Super G3 FAX Board-AN1	
2	HDD Data Encryption Kit-C6	
3	eM Controller-C1	
4	Serial Interface Kit-K2	The following options cannot be used in combination with this equipment. • Copy Control Interface Kit-A1 • Copy Card Reader-F1 • IC Card Reader Box-A1
5	Copy Control Interface Kit-A1	The following options cannot be used in combination with this equipment. • Serial Interface Kit-K2 • Copy Card Reader-F1 • IC Card Reader Box-A1
6	IC Card Reader Box-A1	When installing this equipment, the Card Reader (sales company's option) is required. The following options cannot be used in combination with this equipment. • Serial Interface Kit-K2 • Copy Control Interface Kit-A1 • Copy Card Reader-F1

T-1-4

License Products

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

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

Product name	Remarks and condition
PCL International Font Set-B1	
PCL Printer Kit-AX1	
PS Printer Kit-AX1	
Direct Print Kit (for PDF)-H1	
Direct Print Kit (for XPS)-H1	
Direct Print Kit (for PDF/XPS)-H1	
Barcode Printing Kit-D1	
Universal Send Trace & Smooth PDF Kit-A1	
Universal Send Advanced Feature Set-D1	
Universal Send Advanced Feature Set-E1	
Universal Send Security Feature Set-D1	
Universal Send Digital User Signature Kit-C1	
Remote Operators Software Kit-B1	
Encrypted Secure Print Software-D1	
Encrypted Printing Software-D1	
Secure Watermark-B1	
Document Scan Lock Kit-B1	
iR-ADV Security Kit-J1 for IEEE 2600.1Common Criteria Certification	
Access Management System-B1	
Web Access Software-H1	
Remote Fax Kit-A1	

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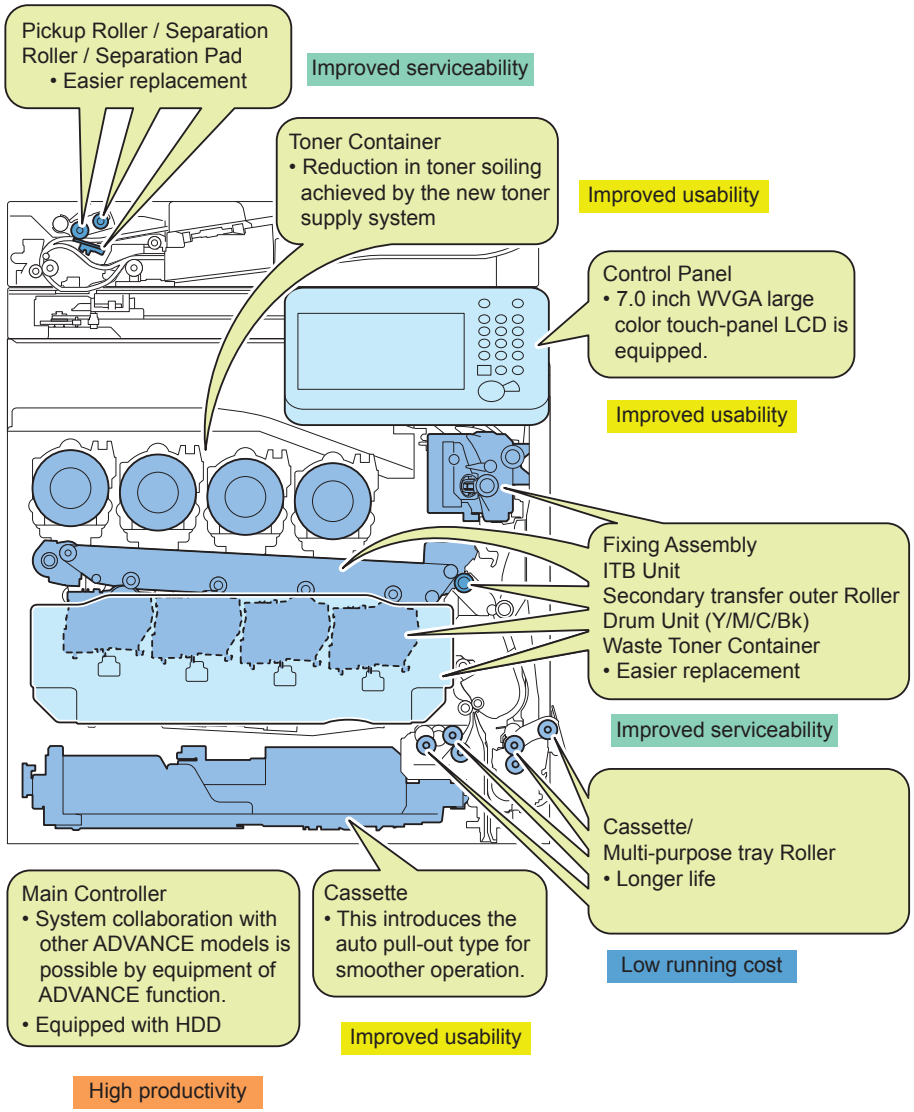
Features

Product Features



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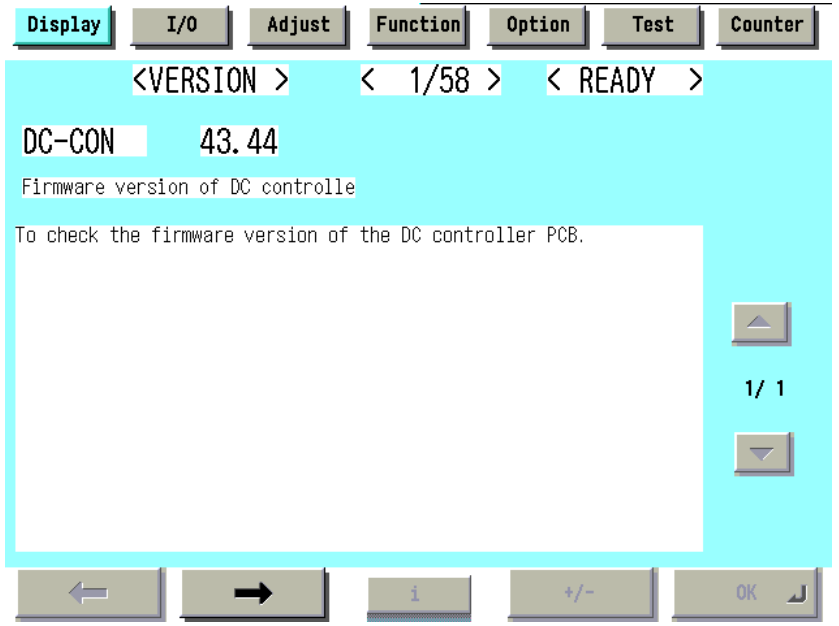
Service Feature

Service Mode

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



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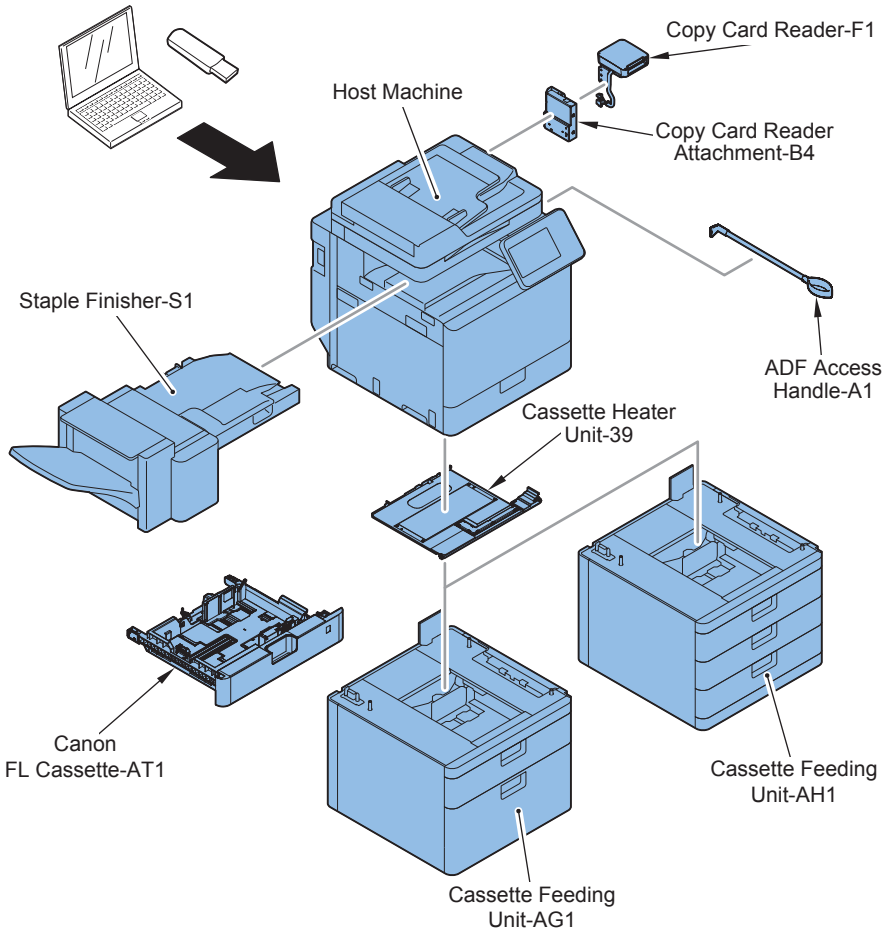
Features

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

Improved Upgrading Operability

The options can be upgraded through the host machine.
SST (Service Support Tool) or USB memory or CDS (Contents Delivery System) are used for upgrading.



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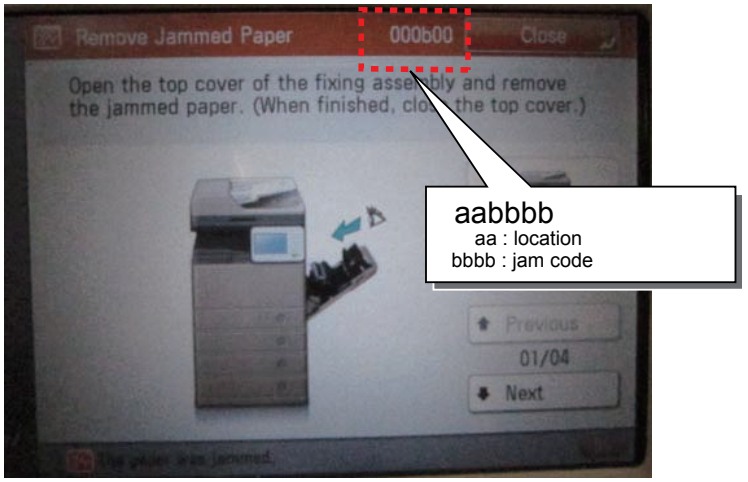
Jam/Error Code Display Specifications

Jam Code

"Jam Code" and "Location Code" are displayed on the screen when a paper jam occures.



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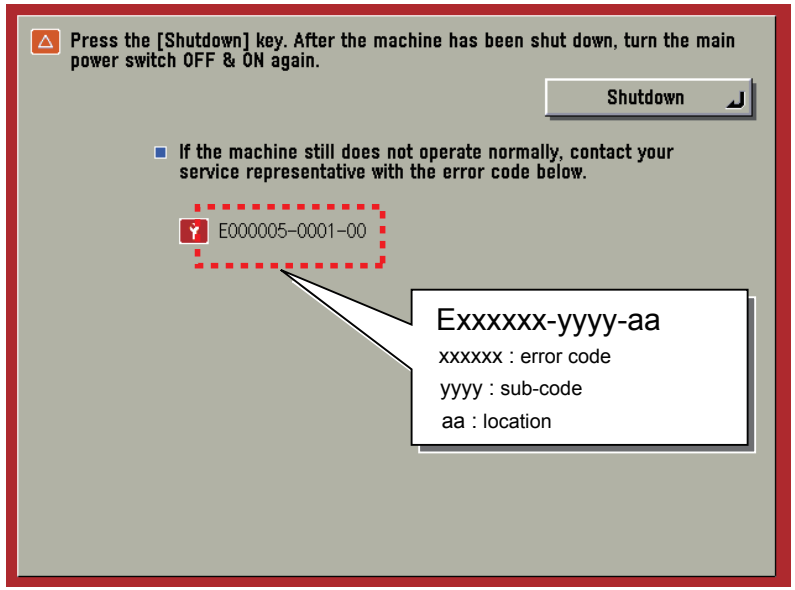
Error Code

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



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Service Advantage

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

Improved replacing major parts

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

Item	Specifications
Copyboard	Original stream reading, original fixed reading
Machine installation method	Desktop
Light source	LED (RGB)
Photosensitive medium	OPC
Image reading system	CIS
Exposure method	Laser exposure
Charging method	Roller charging
Developing method	Dry, 2-component AC developing
Transfer method	Intermediate transfer (ITB)
Separation method	Curvature separation + Static Eliminator
Pickup method	Cassette: Retard separation Multi-purpose Tray: Retard separation
Fixing method	On-demand fixing
Delivery method	Face-down
Magnification ratio	25 to 400% (in 1% increment)
Drum cleaning method	Cleaning Blade
Transfer cleaning method	Cleaning Blade
Toner type	Non-magnetic negative toner
Toner supplying method	Toner Container method
Toner level detection function	Yes
Warm-up time	• 34 sec. or less (After Powering ON :when [Quick Startup Settings for Main Power] is set to OFF) • 10 sec. or less (After Powering ON :when [Quick Startup Settings for Main Power] is set to ON) • 10 sec. or less (At recovery from sleep mode)
Image gradations	256 gradations
Resolution at writing	600 x 600dpi
First print time	Coler 8.9 sec B/W 5.9 sec
Paper type (Cassette)	Thin paper (60 to 63 g/m^2), Plain paper 1 (64 to 75 g/m^2), Plain paper 2 (76 to 90 g/m^2), Plain paper 3 (91 to 105 g/m^2), Recycled paper, Color paper, Pre-Punched paper,Heavy paper 1 (106 to 128 g/m^2), Heavy paper 2 (129 to 163 g/m^2), Envelope
Paper type (Multi-purpose Tray)	Thin paper (60 to 63 g/m^2), Plain paper 1 (64 to 75 g/m^2), Plain paper 2 (76 to 90 g/m^2), Plain paper 3 (91 to 105 g/m^2), Recycled paper, Color paper, Heavy paper 1 (106 to 128 g/m^2), Heavy paper 2 (129 to 163 g/m^2), Heavy paper 3 (164 to 220 g/m^2), Transparency, Postcard, Envelope
Paper size (Cassette)	A4, B5, A5, LGL, LTR, EXE, STMT,K16, Envelope and Custom size (98.4 x 190.5 to 215.9 x 355.6 mm)
Paper size (Multi-purpose Tray)	A4, B5, A5, LGL, LTR, EXE, STMT, K16, Postcard, Envelope and Custom size (98.4 x 148 to 215.9 x 355.6 mm)
Pickup capacity	Cassette: 550 sheets (80 g/m^2) Multi-purpose Tray: 100 sheets (80 g/m^2)
Duplexing method	Through-pass duplex
HDD capacity	160 GB
Operation noise	71.5dB or less (during printing)
Ozone volume	Max 0.001ppm or less
Rated power supply	Americas: 120 to 127 V, 60 Hz, 7.5 A Taiwan: 120 to 127 V, 60 Hz, 7.5 A Europe/Asia-Oceania/China/Korea/Latin America: 220 to 240 V, 50/60 Hz, 4.0 A
Maximum power consumption	Maximum Power Consumption: 1.5 kW or less When the machine is in the Sleep mode: 1 W When the main power switch is turned OFF: When [Quick Startup Settings for Main Power] is set to 'On': 0.5 W When [Quick Startup Settings for Main Power] is set to 'Off': 0.1 W
Dimensions (W x D x H)	511mm x 621mm x 610mm
Weight	Approx. 46kg

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Weight and Size

Product name	Width (mm)	Depth (mm)	Height (mm)	Weight Approx. (kg)
imageRUNNER ADVANCE C351/C350/C250 Series	511	621	610	46.0
Staple Finisher-S1	1066	621	610	13.3
Cassette Module-AG1	511	621	1034.9	14.3
Cassette Module-AH1	511	621	1034.9	19.1

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Productivity (Print speed)

Paper type	Size	imageRUNNER ADVANCE C351/C350				imageRUNNER ADVANCE C250			
		Cassette		Multi-purpose Tray		Cassette		Multi-purpose Tray	
		1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided
Thin paper (60 to 63 g/m^2) Plain paper1 (64 to 75 g/m^2) Recycled paper1/Color paper (64 to 75 g/m^2)	A4	35	35	30	30	25	25	22	22
	LTR	36	36	31	31	26	26	23	23
	LGL	29	16	26	15	21	11	19	11
	B5/16K	3 to 26	3 to 26	3 to 23	3 to 23	3 to 26	3 to 23	3 to 23	3 to 23
	A5R/STMTR	2 to 26	2 to 26	3 to 23	2 to 23	2 to 26	2 to 23	2 to 23	2 to 23
Plain paper2 (76 to 90 g/m^2) Recycled paper2 (76 to 90 g/m^2) Pre-Punched paper (76 to 90 g/m^2)	A4	35	35	30	30	25	25	22	22
	LTR	36	36	31	31	26	26	23	23
	LGL	29	16	26	15	21	11	19	11
	B5/16K	3 to 26	3 to 26	3 to 23	3 to 23	3 to 26	3 to 23	3 to 23	3 to 23
	A5R/STMTR	2 to 26	2 to 26	3 to 23	2 to 23	2 to 26	2 to 23	2 to 23	2 to 23
Plain paper3 (91 to 105 g/m^2) Recycled paper3 (91 to 105 g/m^2)	A4	25	25	22	22	25	25	22	22
	LTR	26	26	23	23	26	26	23	23
	LGL	21	11	19	11	21	11	19	11
	B5/16K	3 to 26	3 to 26	3 to 23	3 to 23	3 to 26	3 to 23	3 to 23	3 to 23
	A5R/STMTR	2 to 26	2 to 26	2 to 23	2 to 23	2 to 26	2 to 23	2 to 23	2 to 23
Heavy paper1 (106 to 128 g/m^2)	A4	17	17	15	15	17	17	15	15
	LTR	18	18	16	16	18	18	16	16
	LGL	14	8	13	8	14	8	13	8
	B5/16K	2 to 18	2 to 18	2 to 16	2 to 16	2 to 18	2 to 18	2 to 16	2 to 16
	A5R/STMTR	2 to 18	2 to 18	2 to 16	2 to 16	2 to 18	2 to 18	2 to 16	2 to 16
Heavy paper2 (129 to 163 g/m^2) Label paper (127 to 160 g/m^2)	A4	17	17	15	15	17	17	15	15
	LTR	18	18	16	16	18	18	16	16
	LGL	14	8	13	8	14	8	13	8
	B5/16K	2 to 18	2 to 18	2 to 16	2 to 16	2 to 18	2 to 18	2 to 16	2 to 16
	A5R/STMTR	2 to 18	2 to 18	2 to 16	2 to 16	2 to 18	2 to 18	2 to 16	2 to 16
Heavy paper3 (164 to 220 g/m^2)	A4	-	-	12	-	-	-	12	-
	LTR	-	-	12	-	-	-	12	-
	LGL	-	-	10	-	-	-	10	-
	B5/16K	-	-	2 to 12	-	-	-	2 to12	-
	A5R/STMTR	-	-	2 to 12	-	-	-	2 to12	-
Transparency	A4	-	-	5	-	-	-	5	-
	LTR	-	-	5	-	-	-	5	-
Postcard	-	-	-	2 to 16	-	-	-	2 to 16	-
Envelope	Monarch	2 to 18	-	2 to 12	-	2 to 18	-	2 to 12	-
	ISO-C5								
	COM10								
	DL								

T-1-8

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 size1	148.0 to 190.4	98.4 to 216.0
Custom paper size2-1	190.5 to 209.9	98.4 to 216.0
Custom paper size2-2	210.0 to 355.6	98.4 to 139.6
Custom paper size3	210.0 to 355.6	139.7 to 216.0

T-1-9

Pickup

Available paper types

Paper Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					Auto Duplex	2-Side Setting
				Multi	CST1	CST2	CST3	CST4		
Thin paper (60 to 63 g/m^2)	A4R	297.0	210.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257.0	182.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210.0	148.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LGL	355.6	215.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	STMTR	215.9	139.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	EXEC-R	266.7	184.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	K16R	270.0	195.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Custom paper size1	148.0 to 190.4	98.4 to 216.0	Yes	No	No	No	No	No	Yes
	Custom paper size2-1	190.5 to 209.9	98.4 to 216.0	Yes	Yes	Yes	Yes	Yes	No	Yes
	Custom paper size2-2	210.0 to 355.6	98.4 to 139.6	Yes	Yes	Yes	Yes	Yes	No	Yes
	Custom paper size3	210.0 to 355.6	139.7 to 216.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Plain paper1 (64 to 75 g/m^2) Plain paper2 (76 to 90 g/m^2) Recycled paper1 (64 to 75 g/m^2) Recycled paper2 (76 to 90 g/m^2) Color paper (64 to 75 g/m^2)	A4R	297.0	210.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257.0	182.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210.0	148.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LGL	355.6	215.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	STMTR	215.9	139.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	EXEC-R	266.7	184.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	K16R	270.0	195.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Custom paper size1	148.0 to 190.4	98.4 to 216.0	Yes	No	No	No	No	No	Yes
	Custom paper size2-1	190.5 to 209.9	98.4 to 216.0	Yes	Yes	Yes	Yes	Yes	No	Yes
	Custom paper size2-2	210.0 to 355.6	98.4 to 139.6	Yes	Yes	Yes	Yes	Yes	No	Yes
	Custom paper size3	210.0 to 355.6	139.7 to 216.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Paper Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					Auto Duplex	2-Side Setting
				Multi	CST1	CST2	CST3	CST4		
Plain paper3 (91 to 105 g/m^2) Recycled paper3 (91 to 105 g/m^2)	A4R	297.0	210.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257.0	182.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210.0	148.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LGL	355.6	215.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	STMTR	215.9	139.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	EXEC-R	266.7	184.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	K16R	270.0	195.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Custom paper size1	148.0 to 190.4	98.4 to 216.0	Yes	No	No	No	No	No	Yes
	Custom paper size2-1	190.5 to 209.9	98.4 to 216.0	Yes	Yes	Yes	Yes	Yes	No	Yes
	Custom paper size2-2	210.0 to 355.6	98.4 to 139.6	Yes	Yes	Yes	Yes	Yes	No	Yes
	Custom paper size3	210.0 to 355.6	139.7 to 216.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Heavy paper 1 (106 to 128 g/m^2) Heavy paper 2 (129 to 163 g/m^2)	A4R	297.0	210.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257.0	182.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210.0	148.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LGL	355.6	215.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	STMTR	215.9	139.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	EXEC-R	266.7	184.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	K16R	270.0	195.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Custom paper size1	148.0 to 190.4	98.4 to 216.0	Yes	No	No	No	No	No	Yes
	Custom paper size2-1	190.5 to 209.9	98.4 to 216.0	Yes	Yes	Yes	Yes	Yes	No	Yes
	Custom paper size2-2	210.0 to 355.6	98.4 to 139.6	Yes	Yes	Yes	Yes	Yes	No	Yes
	Custom paper size3	210.0 to 355.6	139.7 to 216.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Heavy paper3 (164 to 220 g/m^2)	A4R	297.0	210.0	Yes	No	No	No	No	No	Yes
	B5R	257.0	182.0	Yes	No	No	No	No	No	Yes
	A5R	210.0	148.0	Yes	No	No	No	No	No	Yes
	LGL	355.6	215.9	Yes	No	No	No	No	No	Yes
	LTRR	279.4	215.9	Yes	No	No	No	No	No	Yes
	STMTR	215.9	139.7	Yes	No	No	No	No	No	Yes
	EXEC-R	266.7	184.1	Yes	No	No	No	No	No	Yes
	K16R	270.0	195.0	Yes	No	No	No	No	No	Yes
	Custom paper size1	148.0 to 190.4	98.4 to 216.0	Yes	No	No	No	No	No	Yes
	Custom paper size2-1	190.5 to 209.9	98.4 to 216.0	Yes	No	No	No	No	No	Yes
	Custom paper size2-2	210.0 to 355.6	98.4 to 139.6	Yes	No	No	No	No	No	Yes
	Custom paper size3	210.0 to 355.6	139.7 to 216.0	Yes	No	No	No	No	No	Yes
Labels	A4R	297.0	210.0	Yes	No	No	No	No	No	No
	LTRR	279.4	215.9	Yes	No	No	No	No	No	No

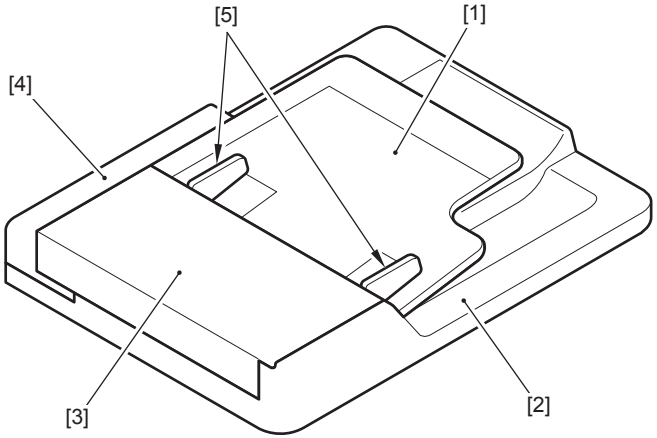
Paper Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					Auto Duplex	2-Side Setting
				Multi	CST1	CST2	CST3	CST4		
Pre-Punched paper	A4R	297.0	210.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Custom paper size1	148.0 to 190.4	98.4 to 216.0	No	No	No	No	No	No	Yes
	Custom paper size2-1	190.5 to 209.9	98.4 to 216.0	No	No	No	No	No	No	Yes
	Custom paper size2-2	210.0 to 355.6	98.4 to 139.6	No	No	No	No	No	No	Yes
	Custom paper size3	210.0 to 355.6	139.7 to 216.0	No	No	No	No	No	Yes	Yes
Transparency	A4R	297.0	210.0	Yes	No	No	No	No	No	No
	LTRR	279.4	215.9	Yes	No	No	No	No	No	No
Postcard	Postcard	148.0	100.0	Yes	No	No	No	No	No	Yes
		200.0	148.0	Yes	No	No	No	No	No	Yes
		296.0	200.0	Yes	No	No	No	No	No	Yes
Envelope	COM10	241.3	104.7	Yes	Yes	No	No	No	No	Yes
	Monarch	190.5	98.4	Yes	Yes	No	No	No	No	Yes
	ISO-C5	229.0	162.0	Yes	Yes	No	No	No	No	Yes
	DL	220.0	110.0	Yes	Yes	No	No	No	No	Yes

T-1-10

Parts Name

External View

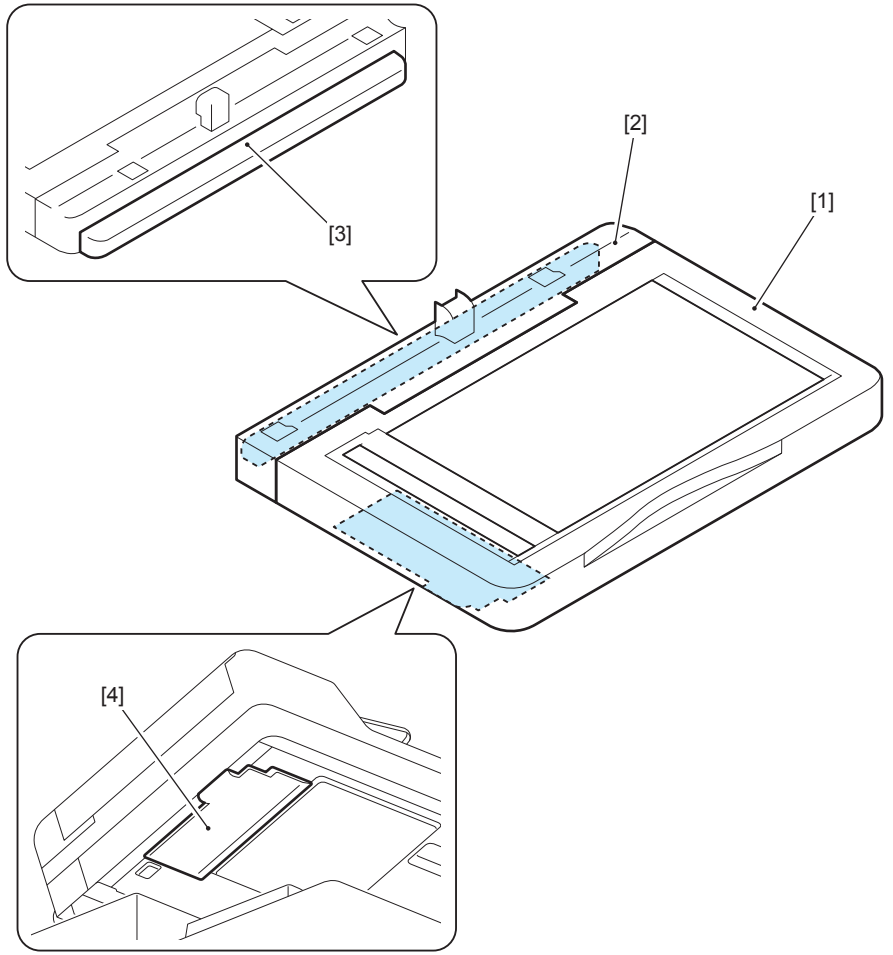
ADF



F-1-9

[1] Original Tray
[2] ADF Base
[3] Feeder Cover
[4] ADF Rear Cover
[5] Side Guide Plate

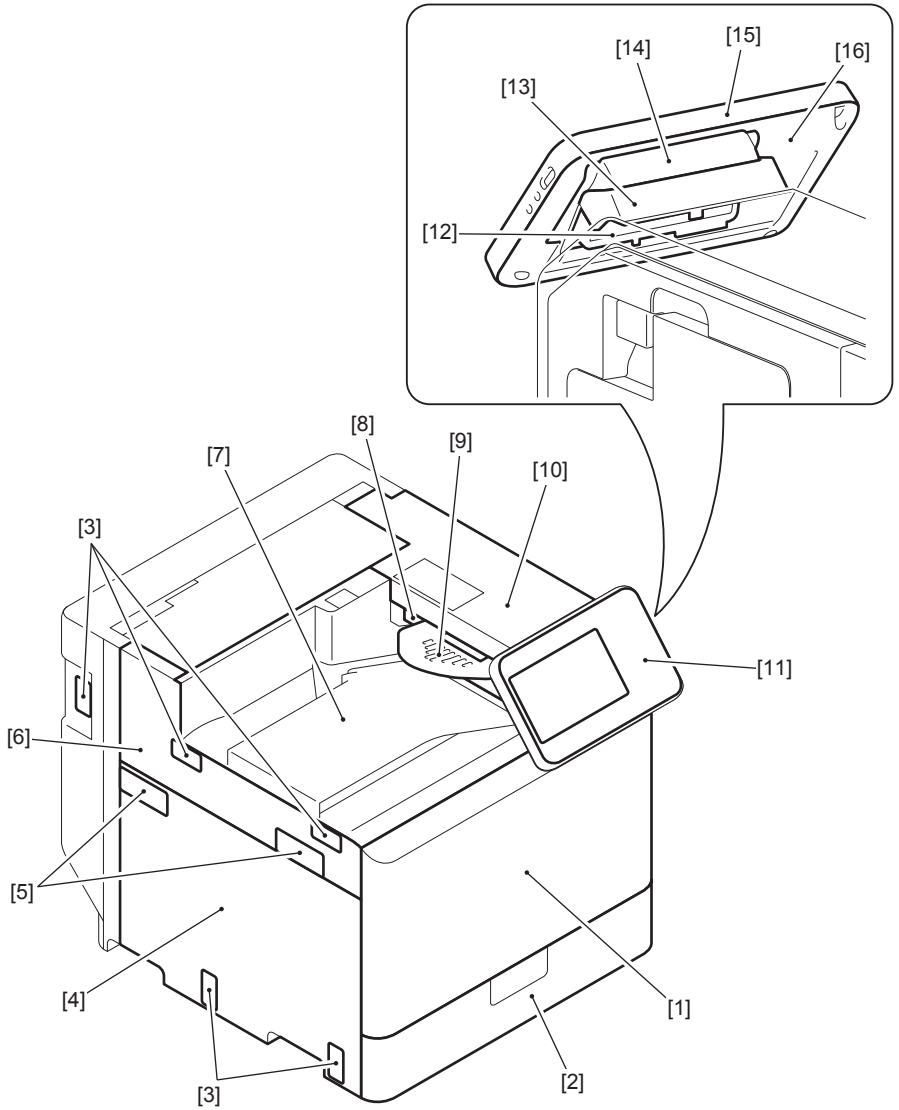
Reader



F-1-10

[1] Copyboard Glass Unit
[2] Reader Rear Cover 1
[3] Reader Rear Cover 2
[4] Reader Motor Cover

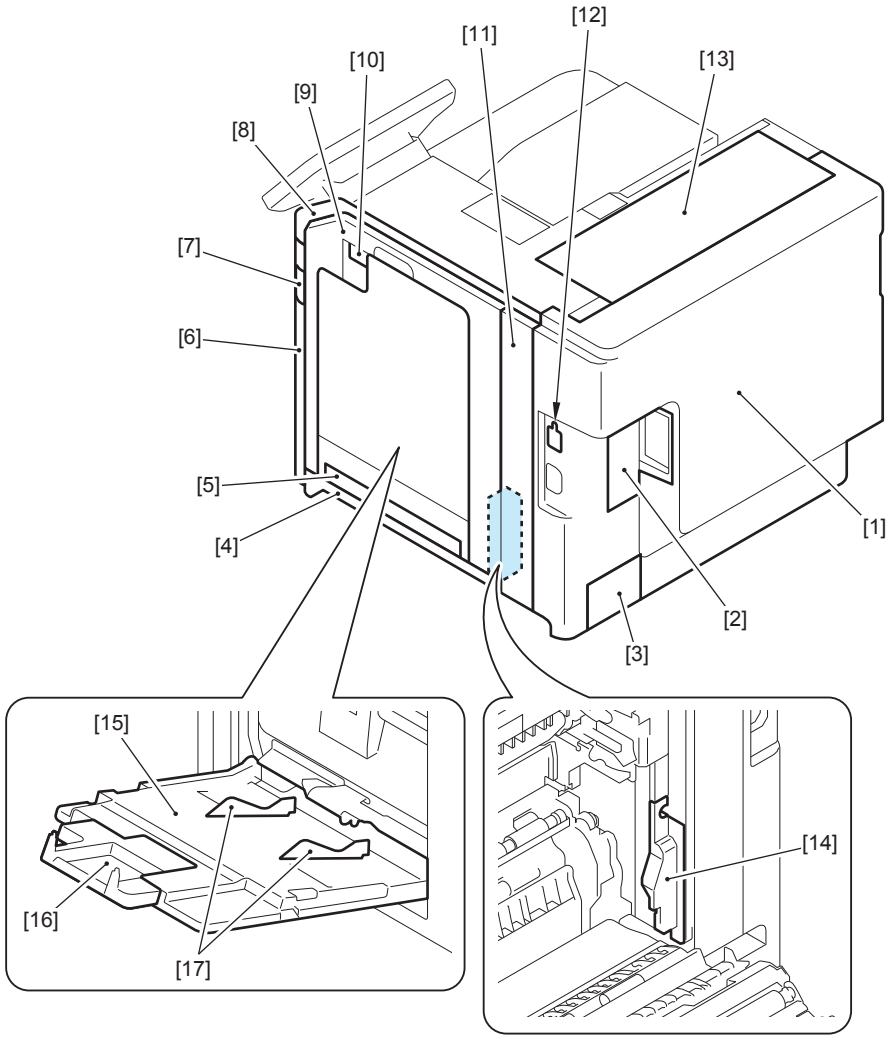
■ Front view, Left side



F-1-11

[1]	Front Cover	[2]	Cassette
[3]	Face Cover	[4]	Left Lower Cover
[5]	Face Cover	[6]	Left Upper Cover
[7]	Delivery Tray	[8]	Delivery Cover
[9]	Reverse Tray	[10]	Upper Cover
[11]	Control Panel Front Cover	[12]	Control Panel Lower Hinge Cover
[13]	Control Panel Rear Hinge Cover	[14]	Control Panel Upper Hinge Cover
[15]	Control Panel Side Cover	[16]	Control Panel Rear Cover

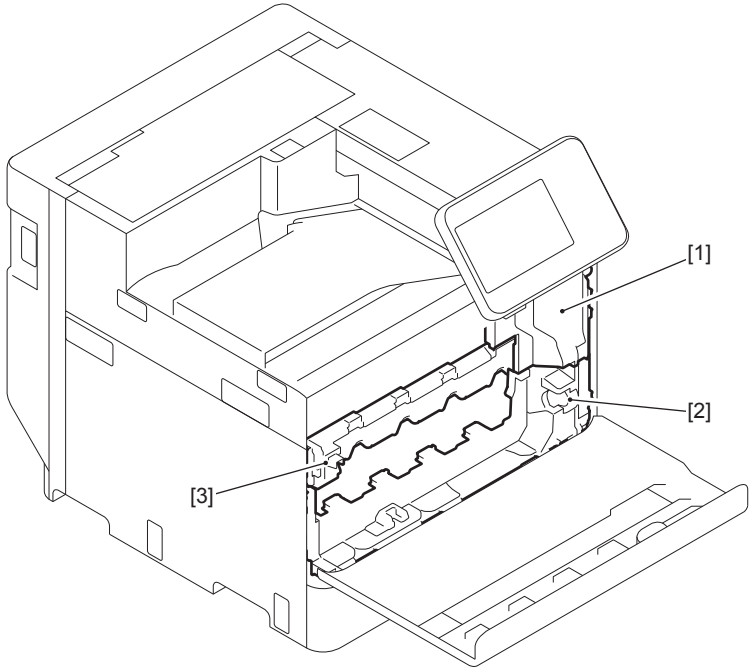
■ Rear view, Right side



F-1-12

[1] Rear Cover 1
[2] Rear Cover 2
[3] Environment Heater Cover
[4] Right Lower Cover
[5] Multi-purpose Tray Lower Cover
[6] Right Front Cover
[7] Main Power Switch Cover
[8] Right Upper Cover
[9] Right Cover
[10] Right Cover Open/Close Lever
[11] Right Rear Cover
[12] Environment Heater Switch Cover
[13] Rear Upper Cover
[14] Right Rear Lower Cover
[15] Multi-purpose Tray
[16] Multi-purpose Extension Tray
[17] Multi-purpose Tray Side Guide Plate

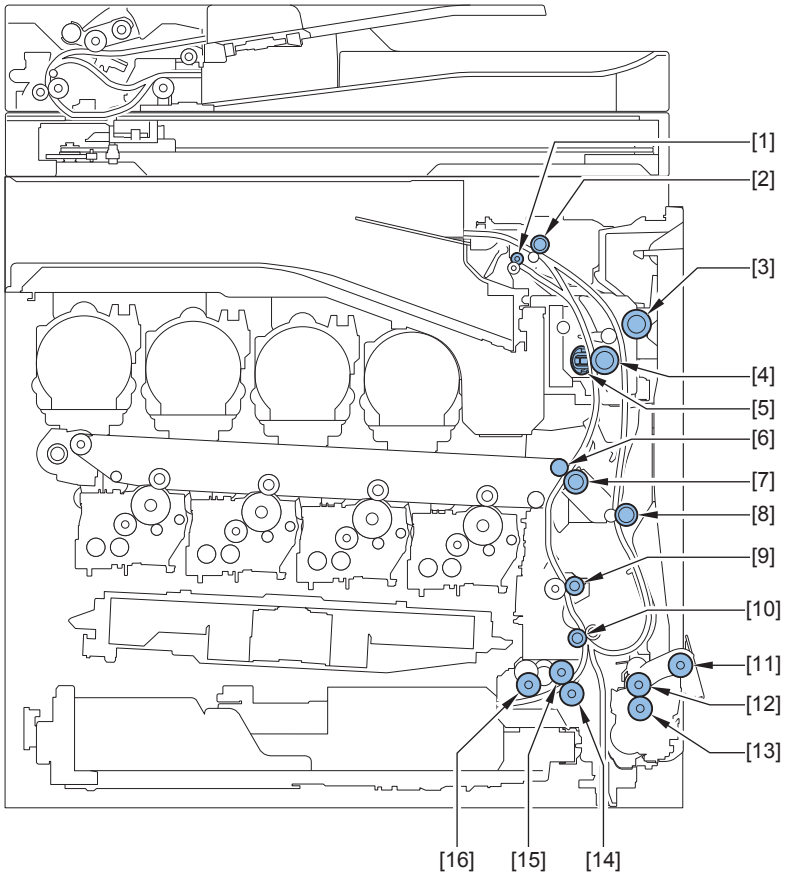
Front Inner



F-1-13

[1] Front Inner Right Cover
[2] Front Inner Lower Cover
[3] Front Inner Upper Cover

Cross Sectional View



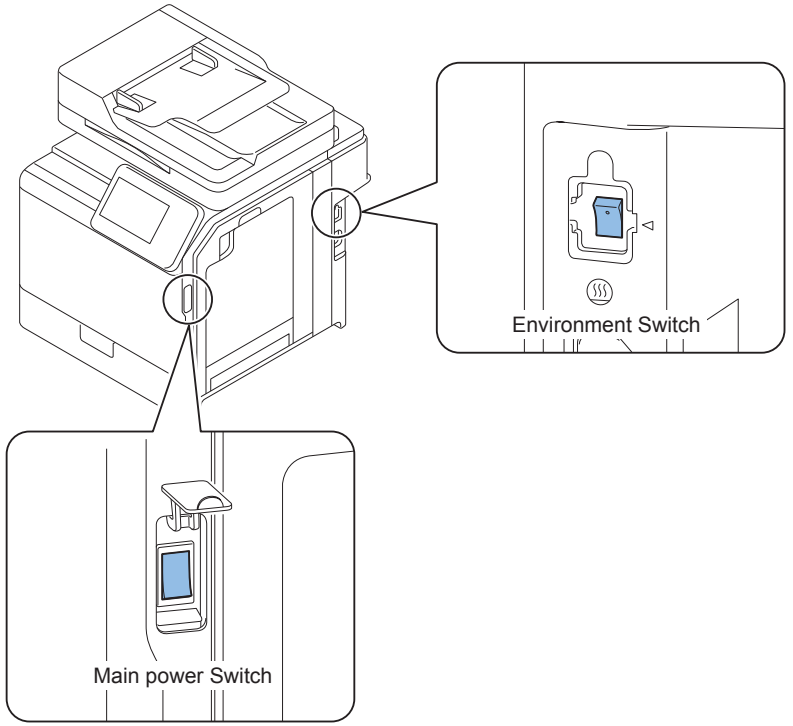
F-1-14

[1] ADF Unit
[2] Pickup Roller
[3] Separation Roller
[4] Feed Roller
[5] Separation Pad
[6] Delivery Roller
[7] Original Tray
[8] ADF Base
[9] Platen Guide
[10] Reader Unit
[11] Copyboard Glass
[12] ADF Reading Glass
[13] CIS Unit
[14] Delivery/Reverse Unit
[15] Delivery Upper Roller
[16] Reverse Roller
[17] Right Door Unit
[18] Duplex Feed Upper Roller
[19] Duplex Feed Lower Roller
[20] Fixing Assembly
[21] Pressure Roller
[22] Fixing Film
[23] Toner Container (Y)
[24] Toner Container (M)
[25] Toner Container (C)
[26] Toner Container (Bk)
[27] ITB Unit
[28] Primary Transfer Roller
[29] Secondary transfer inner Roller
[30] Secondary transfer outer Roller
[31] ITB Cleaning Unit
[32] Drum Unit (Y)
[33] Drum Unit (M)
[34] Drum Unit (C)
[35] Drum Unit (Bk)
[36] Laser Scanner Unit
[37] Registration Unit
[38] Registration Roller
[39] Pre-registration Roller
[40] Cassette 1 pickup Roller
[41] Cassette 1 feed Roller
[42] Cassette 1 separation Roller
[43] Feed Paper Pickup Unit
[44] Multi-purpose tray pickup Roller
[45] Multi-purpose tray feed Roller
[46] Multi-purpose tray separation Roller

Operation

Power Switch

Types of Power Switches



F-1-15

This machine has the Main Power Switch and the Environment Switch.

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

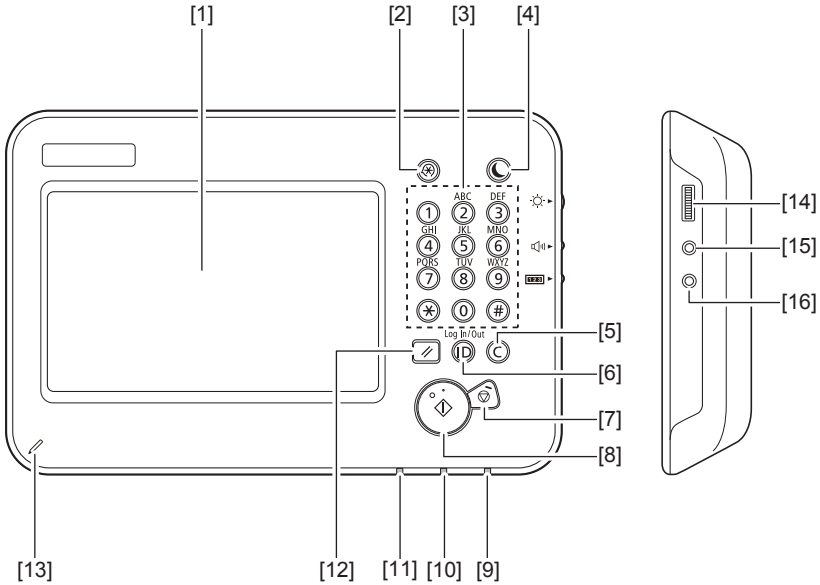
[2] Environment Switch
This switch is used to supply or shut power to Cassette Heater.

● 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.

■ Description of Control Panel

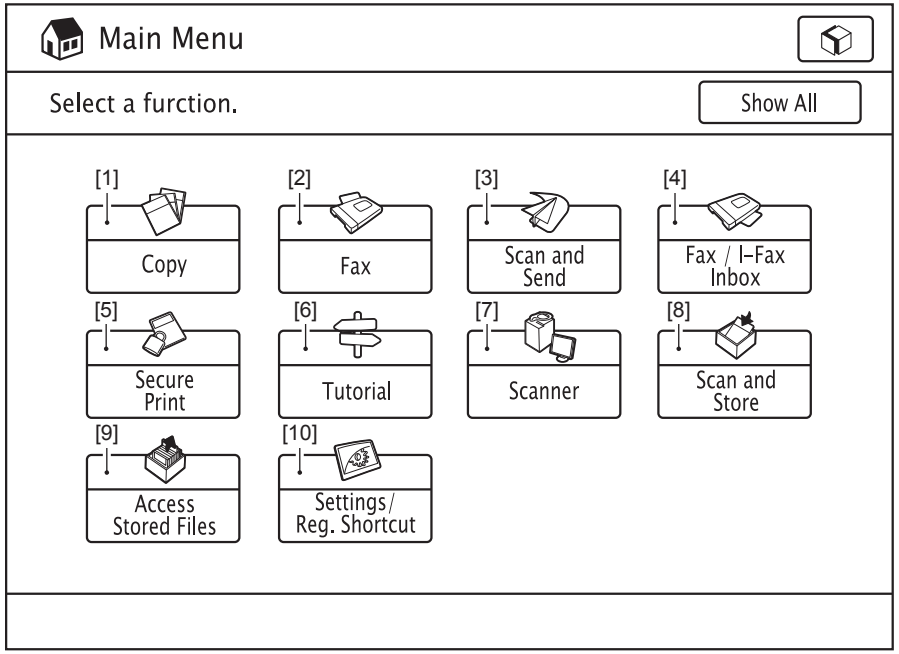
● Control Panel



F-1-16

[1]	Touch Panel Display	[9]	Main Power Indicator
[2]	Settings/Registration key	[10]	Error Indicator
[3]	Numeric key	[11]	Processing / Data Indicator
[4]	Energy Saver key	[12]	Reset key
[5]	Clear key	[13]	Edit Pen
[6]	ID (Log In/Out) key	[14]	Brightness Adjustment Dial
[7]	Stop key	[15]	Volume Settings key
[8]	Start key	[16]	Counter Check key

Main Menu

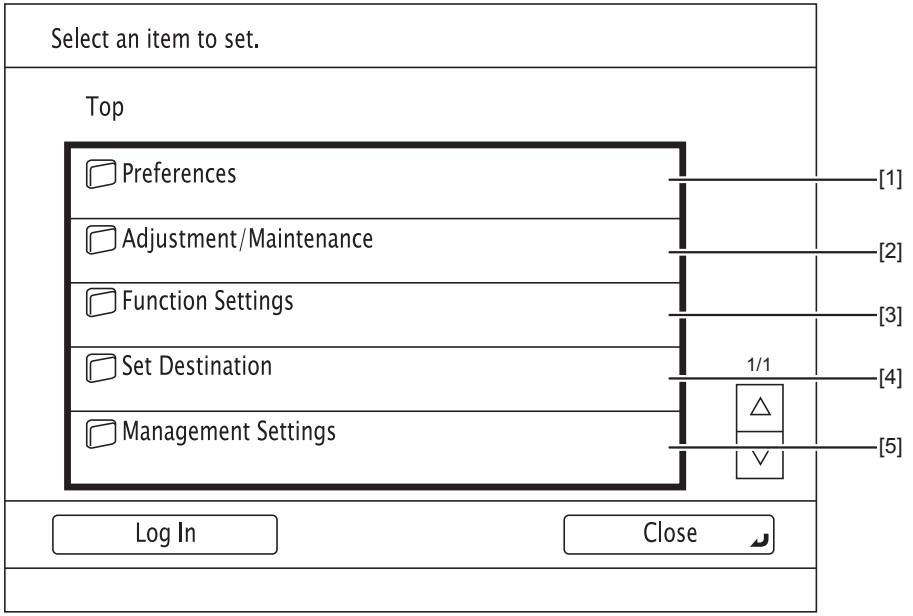


F-1-17

No	Name	Remarks
[1]	Copy	
[2]	Fax	Super G3 FAX Board-AN1 is required.
[3]	Scan and Send	
[4]	Fax / I-Fax Inbox	
[5]	Secure Print	
[6]	Tutorial	
[7]	Scanner	
[8]	Scan and Store	
[9]	Access Stored Files	
[10]	Settings / Reg. Shortcut	

T-1-11

Settings / Registration Menu



F-1-18

No	Name	Remarks
[1]	Preferences	
[2]	Adjustment / Maintenance	
[3]	Function Settings	
[4]	Set Destination	
[5]	Management Settings	To log in as an administrator is necessary.

T-1-12

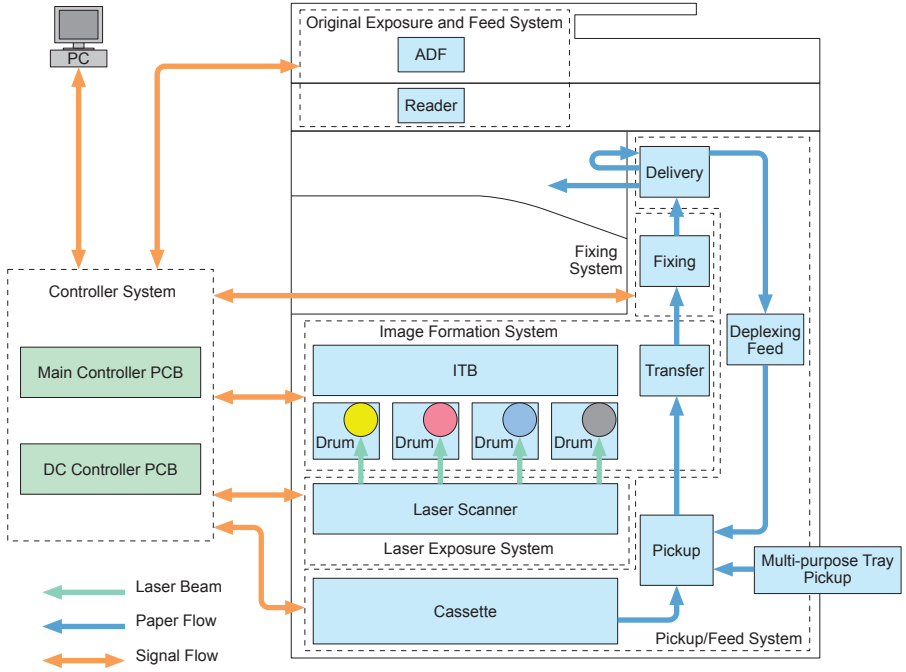
2 Technical Explanation

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

Basic Configuration

Functional Configuration

This machine consists of 6 major blocks: Original Exposure and Feed System, Controller System, Laser Exposure System, Image Formation System, Fixing System, and Pickup Feed System.



F-2-1

Original Exposure and Feed System

Construction

■ Specifications/controls/functions

The major specifications, controls and functions of the original exposure and feed system are described below.

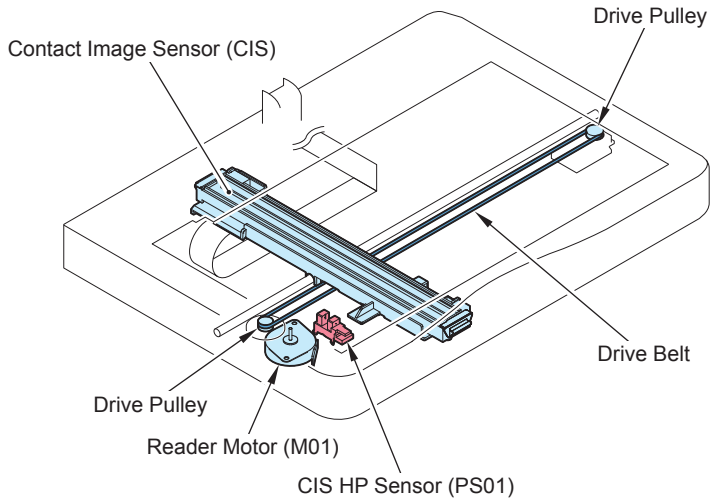
Item		Specification/function
Original exposure		LED
Original scan	In book mode	Original scan is performed by moving the contact image sensor (CIS).
	In ADF mode	Original stream reading is performed with the contact image sensor (CIS) fixed.
Read resolution		600 dpi x 600 dpi
Gradation		256 gradation
Carriage position detection		CIS HP sensor (PS01)
Magnification		25% to 400% (in 1% increment)
	Main scanning direction	Image is processed on main controller PCB (UN81).
	Sub scanning direction	Image is processed on main controller PCB (UN81).
Lens		Rod lens array
Original reading sensor		Number of lens: 1
		Number of pixels: Total 5184 (incl. 5184 effective pixels)
		Maximum original scan width: 216mm
CIS drive control		Drive control by Reader motor (M01)
Original size detection	Reader	No
	ADF	Main scanning direction: No
		Sub scanning direction: by original feeding length
ADF original pickup method		Auto pickup/delivery method
ADF setting direction of original		Face-up stacking
ADF setting position of original		Center reference
ADF separation method of original		Upper separation by separation pad
ADF scanning method of original		Stream reading
ADF weight of original	1-sided	50 to 128 g/m^2
	2-sided	64 to 105 g/m^2
ADF original size	1-sided	A4R, A5, A5R, B5R, B6, LGL, LTRR, STMT, STMTR Original width direction: 139.7 to 215.9 mm Original feed direction: 128 to 355.6 mm (In long length paper printing mode: maximum 630 mm; FAX mode only)
	2-sided	A4R, A5, A5R, B5R, LGL, LTRR, STMTR Original width direction: 139.7 to 216 mm Original feed direction: 139.7 to 355.6 mm
ADF original tray capacity		A4/LTR-R: 50 sheets (80 g/m^2) LGL: 30 sheets (80 g/m^2)
ADF original processing mode		1-sided original processing 2-sided original processing
ADF original size detection function		No
ADF mixed original mode function	Mix of same configuration mode	Yes (weight of original same as continuous feed mode) Assured combination for mix with same configuration • LTR-R/LGL
	Mix of different configuration mode	No
Book original		Supported (Heavy load up to 2 kg)
ADF done stamp function		No

T-2-1

■ Major Components

● Reader Unit

Following shows major components of reader unit.



F-2-2

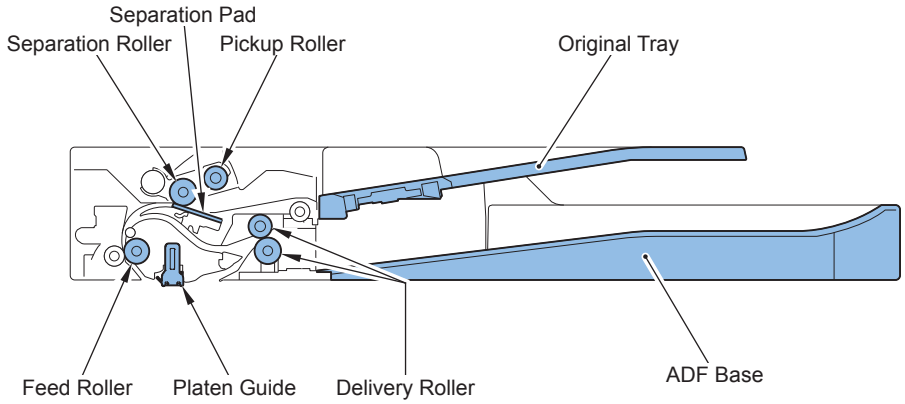
Item	Notation	Specification/function
Reader motor	M01	Pulse Motor: controls the carriage drive.
Drive Pulley, Drive Belt	-	Controls the carriage drive.
CIS HP sensor	PS01	Photo interrupter: detects the home position of CIS unit.
Contact image sensor	CIS	Reads the original. (LED + Light guide + Original reading sensor array unit)

T-2-2

● ADF unit

Following shows major components of ADF unit.

1) Layout Drawing of Major Parts

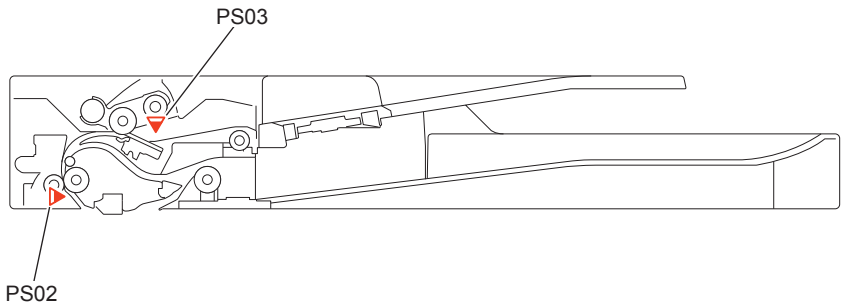


F-2-3

Item	Specification/function
Pickup roller	Picks up the original.
Separation Roller	Separates and feeds the original.
Separation pad	Separates the original.
Feed roller	Feeds the original.
Delivery Roller	Delivers and reverse feeds the originals.
Original delivery tray	Stacks the delivered originals.
ADF Base	Stacks the delivered originals.
Platen guide	Reading Assembly for originals.

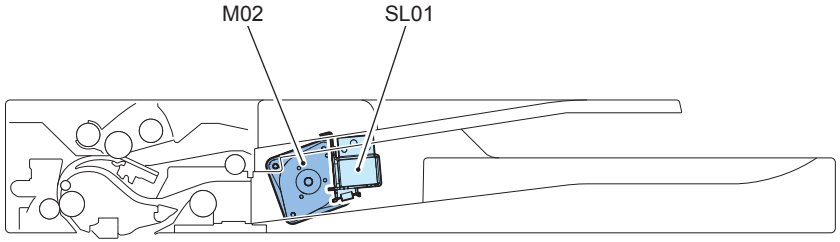
T-2-3

2) Layout Drawing of Sensors



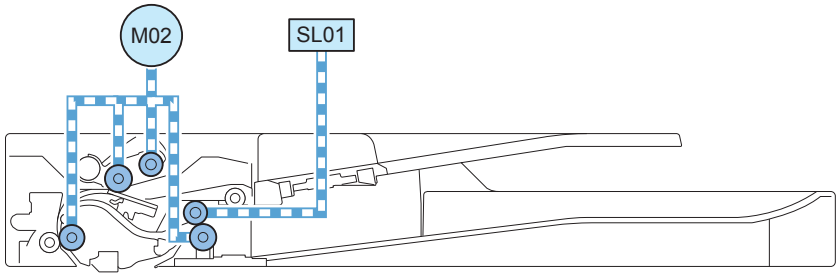
F-2-4

3) Layout Drawing of Motor and Solenoid



F-2-5

4) Drive System Drawing of Motor and Solenoid



F-2-6

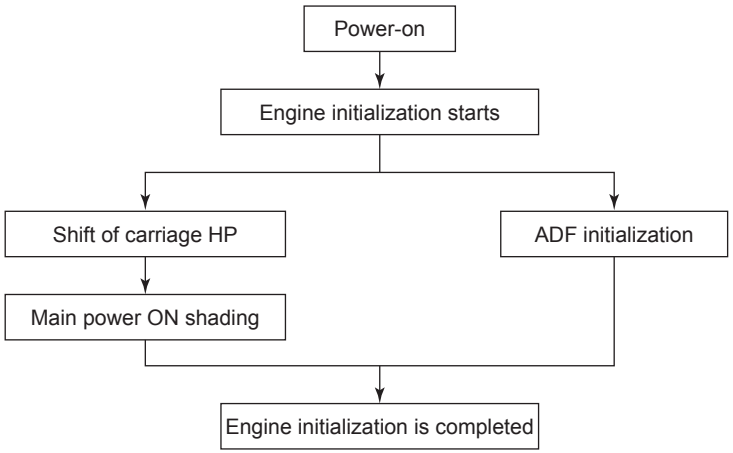
Item	Notation	Specification/function
ADF Motor	M02	Pulse Motor: Feeds originals.
Disengagement Solenoid	-	When reverse feeding in the upward direction, disengages the roller from the Delivery Reverse Roller.
Document Sensor	DS	Photo Interrupter: Detects whether an original is present.
Document End Sensor	DES	Photo Interrupter: Detects the arrival of the leading edge and the passing of the trailing edge of an original.

T-2-4

Basic Operation

Basic Sequence

Basic Sequence at Power-On



F-2-7

Shift of carriage HP

The carriage position in the vertical scanning direction is aligned.
The carriage shift behavior differs depending on the initial carriage position.

- When the carriage is on the right side of the CIS HP Sensor (PS01) (at power-on, at recovery from sleep)
  1) The Reader Motor activates and moves the carriage to the left.
  2) After the CIS HP Sensor (PS01) is turned ON, the carriage moves the designated distances and stops.

Related error code:
E202-0001: Scanner Unit HP error

3) The Reader Motor activates and moves the carriage to the right.
4) After the CIS HP Sensor (PS01) is turned OFF, the carriage moves the designated distances and stops.

Related error code:
E202-0002: Scanner Unit HP error

- When the carriage is on the left side of the CIS HP Sensor (PS02) (if the power was turned OFF in the middle of stream reading and then turned back ON, or if the carriage returned to the standby position after finishing stream reading)
  1) Step 3 above is executed.

Main power ON shading

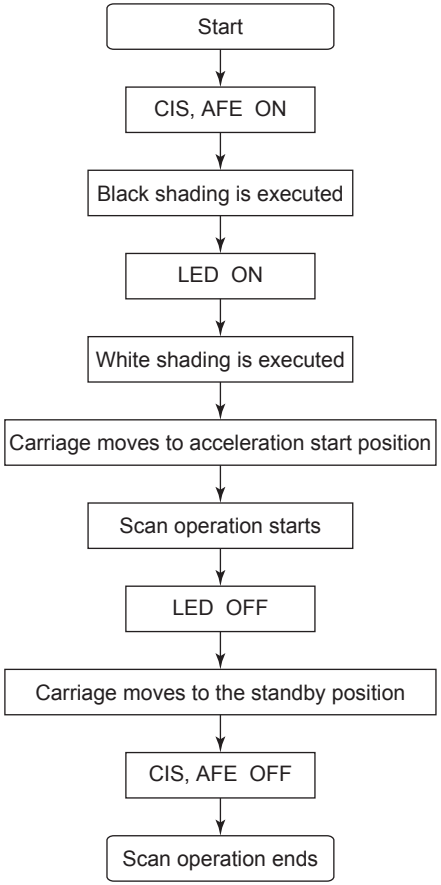
Check operation of the CIS Unit reading function is performed. (Fixed shading is executed)

1) The Reader Motor activates and moves the carriage to the left. (around the center of the White Plate)
2) The CIS is put in the ON state.
3) The White Plate is read with the LED turned off. (Black shading)
4) The LED turns ON.
5) The White Plate is read with the LED turned on. (White shading)
6) The obtained luminance is checked.
   If the luminance is too low, the procedure is repeated from step 1.
   If the luminance is still too low even after the second time, E301-0001 is displayed.
7) The CIS is put in the OFF state.
8) The Reader Motor activates and moves the carriage to the right. (Standby position)

ADF initialization

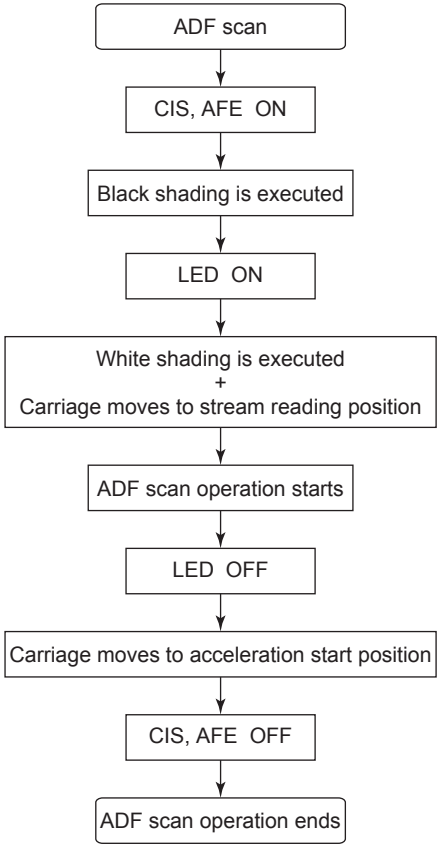
Detection of remaining paper (jam detection), ejection of remaining paper on the downstream side of the Document End Sensor, and the disengagement mechanism of the Delivery Roller are initialized in the ADF.

Basic Sequence at Start Key ON (Book mode)



F-2-8

Basic Sequence at Start Key ON (ADF mode)



F-2-9

■ ADF Operation Mode

ADF has 4 operation modes.

Operation mode names and outline of operations and associated print modes are given in the following table:

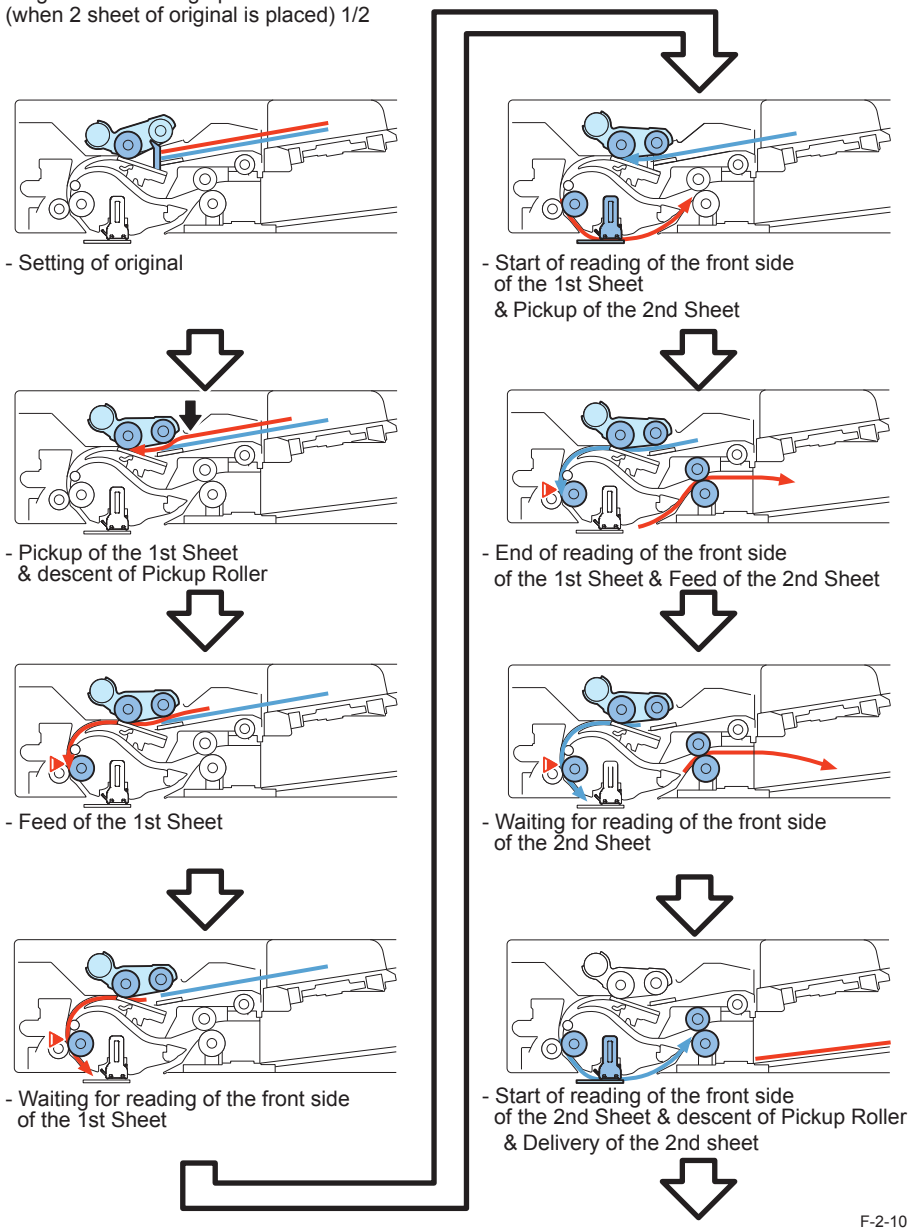
Operation mode name	Outline of operation	Associated print mode
Forward pickup/delivery	Picks up, reads, and then delivers an original.	Single-sided original -> Single-sided print
		Single-sided original -> Double-sided print
Forward pickup/reversal delivery	An original is picked up, and reversed after completing the reading of the front side. After reading the back side, the original is reversed again and delivered.	Double-sided original -> Double-sided print
		Double-sided original -> Single-sided print

T-2-5

Single-sided original reading

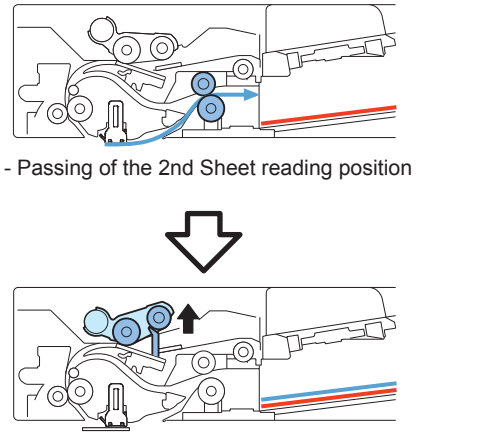
- Operation of single-sided original reading (2 originals)

Single-sided reading operation
(when 2 sheet of original is placed) 1/2



F-2-10

Single-sided reading operation
(when 2 sheet of original is placed) 2/2

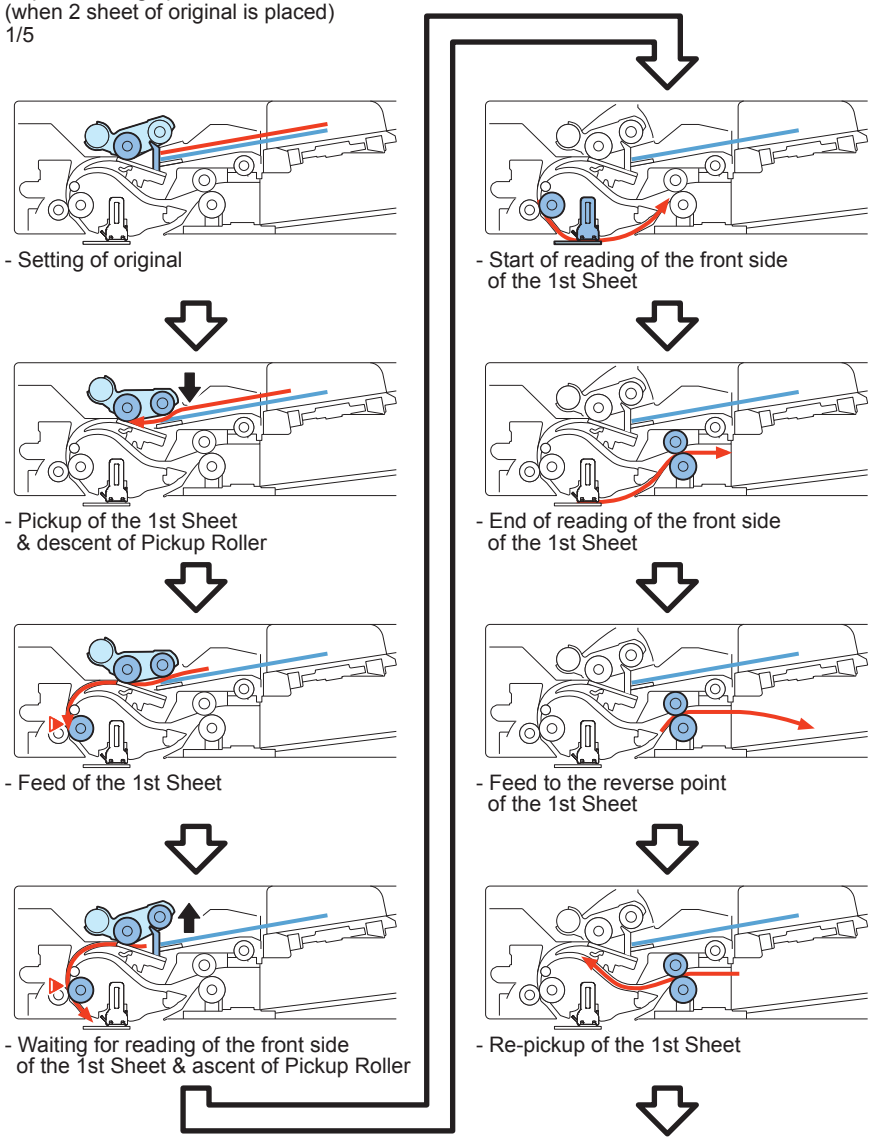


F-2-11

Double-sided original reading

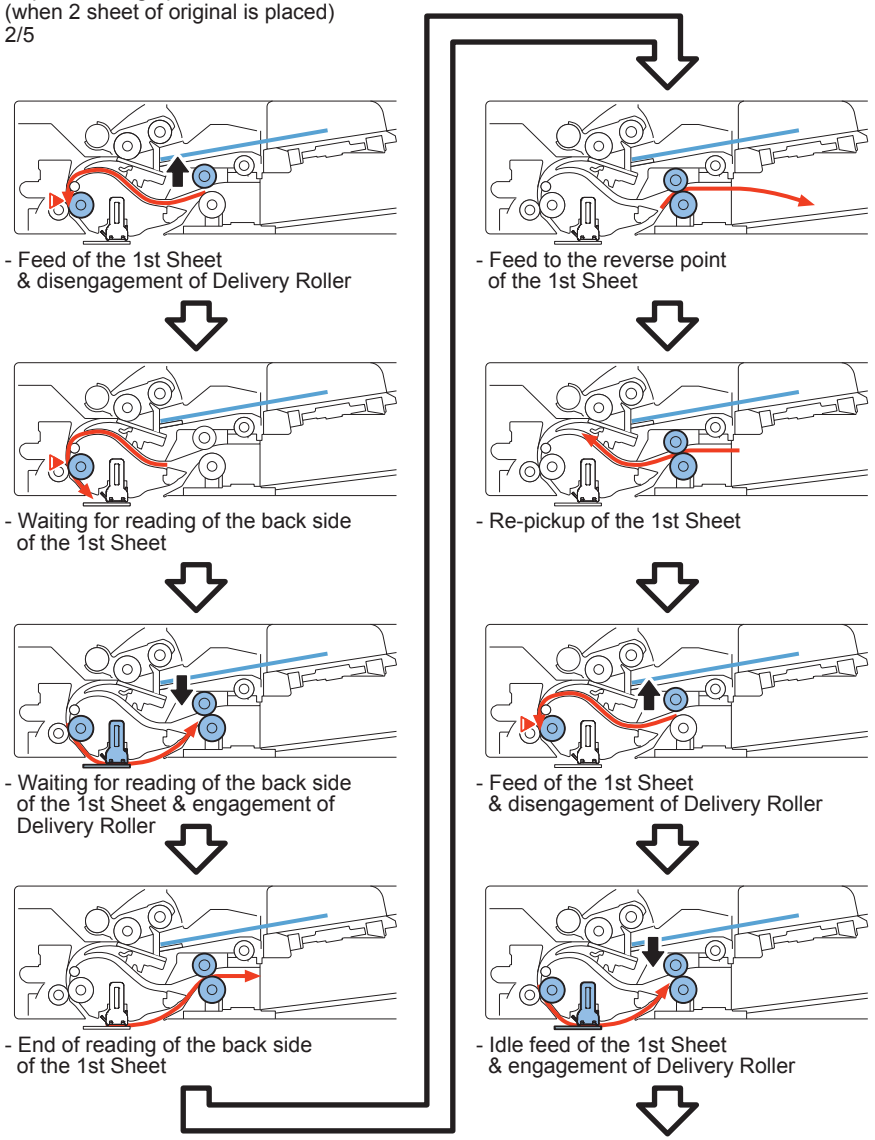
- Operation of double-sided original reading (2 originals)

Duplex reading operation
(when 2 sheet of original is placed)
1/5



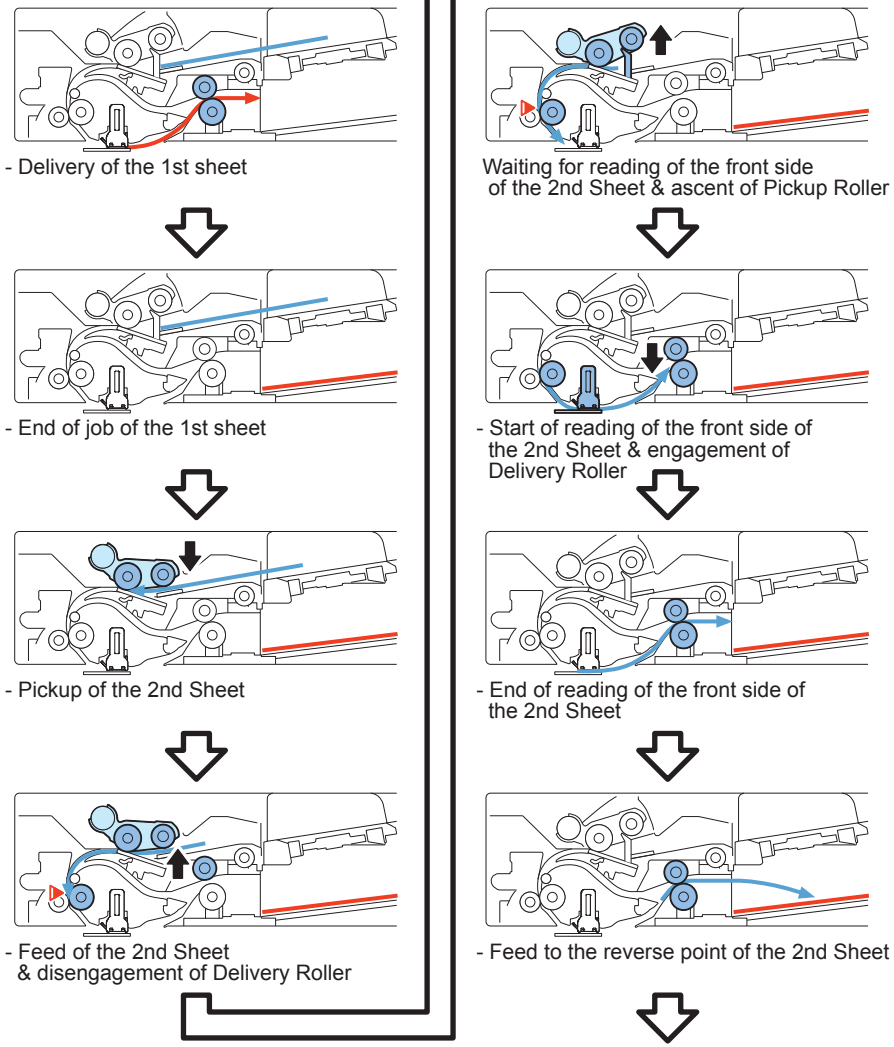
F-2-12

Duplex reading operation
(when 2 sheet of original is placed)
2/5



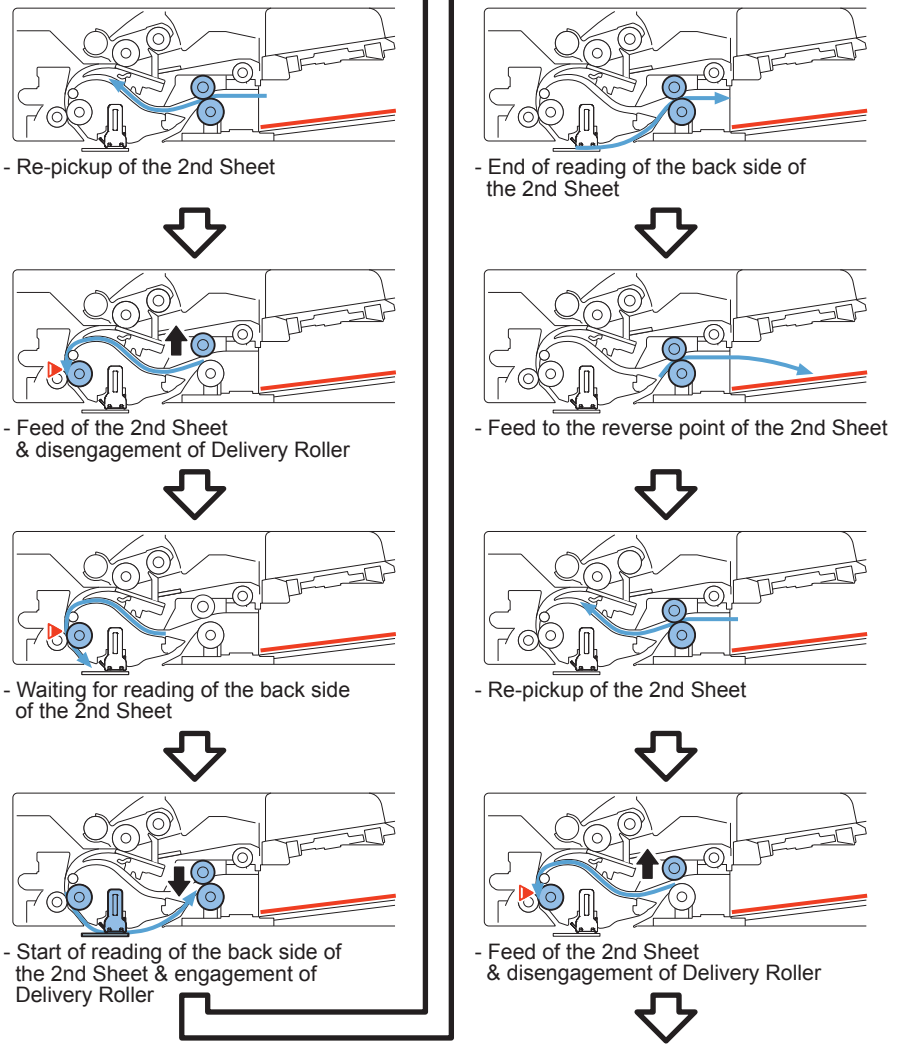
F-2-13

Duplex reading operation
(when 2 sheet of original is placed)
3/5



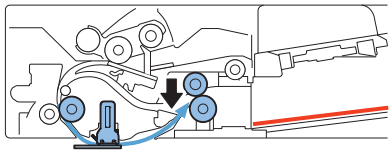
F-2-14

Duplex reading operation
(when 2 sheet of original is placed)
4/5

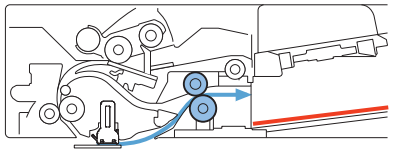


F-2-15

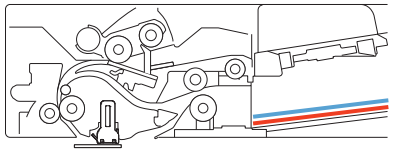
Duplex reading operation
(when 2 sheet of original is placed)
5/5



- Idle feed of the 2nd Sheet
  & engagement of Delivery Roller



- Passing of the 2nd Sheet reading position



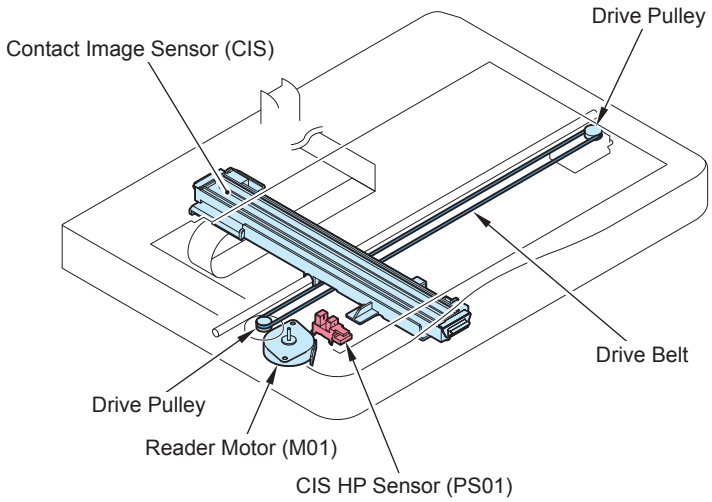
- Delivery of the 2nd sheet & End of job

Reader Unit controls

Scanner Drive Control

Configuration of Drive System

The following shows the configuration of parts related to the scanner drive system.



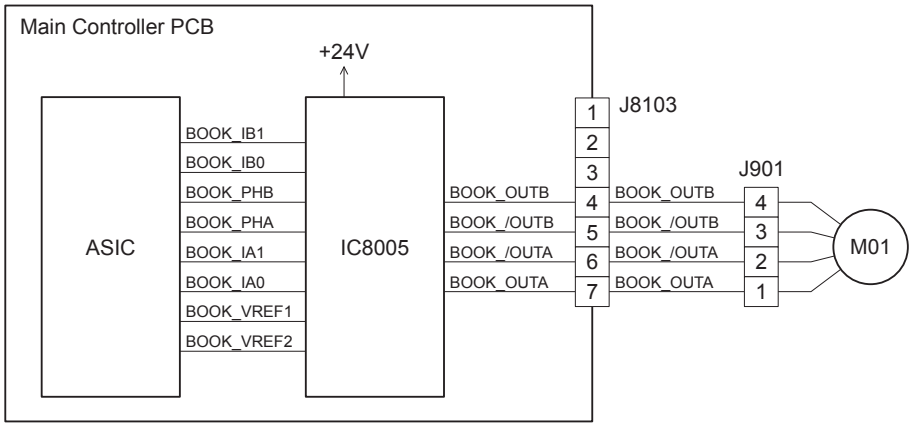
F-2-16

Item	Notation	Specification/function
Reader motor	M01	Pulse Motor: controls the carriage drive.
Drive Pulley, Drive Belt	-	Controls the carriage drive.
CIS HP sensor	PS01	Photo interrupter: detects the home position of CIS unit.
Contact image sensor	CIS	Reads the original. (LED + Light guide + Original reading sensor array unit)

T-2-6

Reader Motor Control

The rotation/stopping and rotation direction/speed of Reader Motor (M01) are controlled based on signals from the ASIC.



F-2-17

NOTE:
300dpi × 600dpi: 150.1 mm/sec (iR-ADV C250)
10.2 mm/sec (iR-ADV C351/C350)
600dpi × 600dpi: 93.3 mm/sec (iR-ADV C250)
35.8 mm/sec (iR-ADV C351/C350)

Magnification Ratio

For BOOK Mode/When Using ADF

This equipment does not vary the scanning speed according to copy magnification ratio. For an image scanned at the 300 dpi (horizontal scanning) x 600 dpi (vertical scanning) or 600 dpi (horizontal scanning) x 600 dpi (vertical scanning) resolution instructed by the controller, data processing is performed in the Main Controller PCB according to the copy ratio.

Original Detection

Original detection and original size detection are not performed in the Reader Assembly.

Image Processing

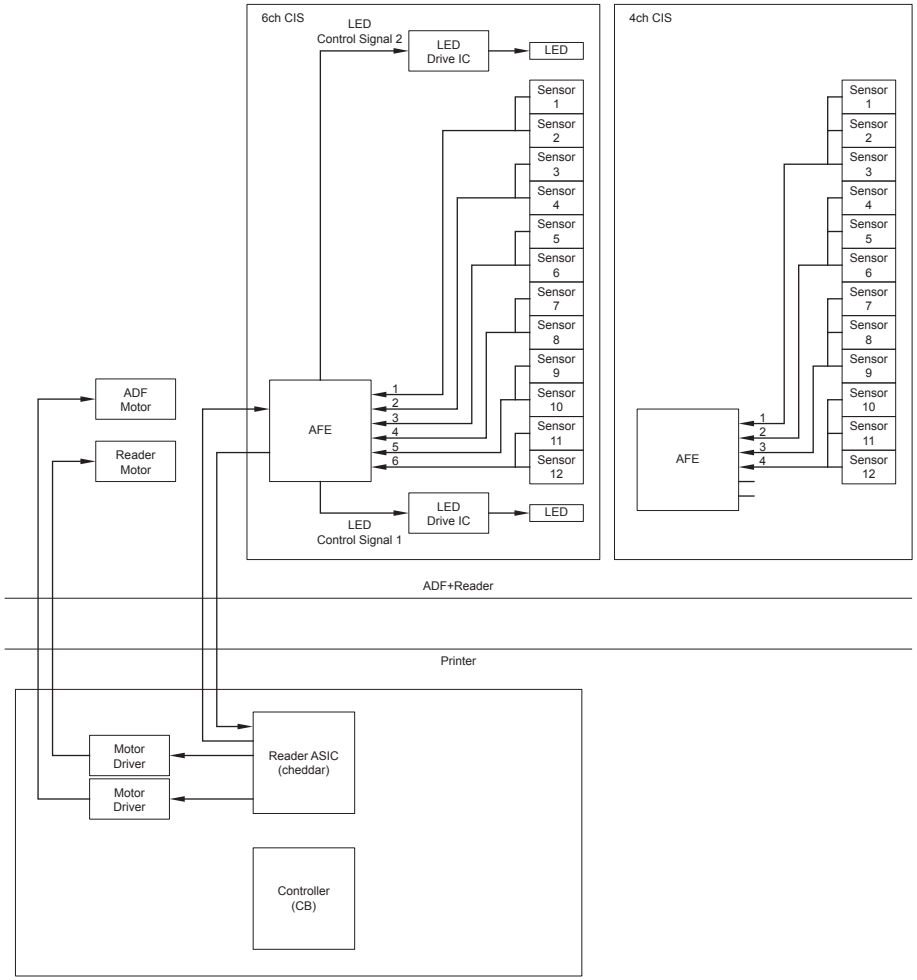
Overview

The image processing is executed by the CIS Unit (AFE) and the Main Controller PCB.

The functions related to the image processing are shown below:

Processing part	Function
CIS Unit (AFE)	Contact Image Sensor (CIS)
	Original Reading Sensor Drive
	LED Intensity Adjustment
	Analog Control Performed by the CIS
	Original Reading Sensor Output Gain Correction and Offset Correction
	Original Reading Sensor Output A/D Conversion
Main Controller (Reader ASIC)	Communication with CIS Unit (AFE)
	Shading Correction
	Dust Detection Control

T-2-7



F-2-18

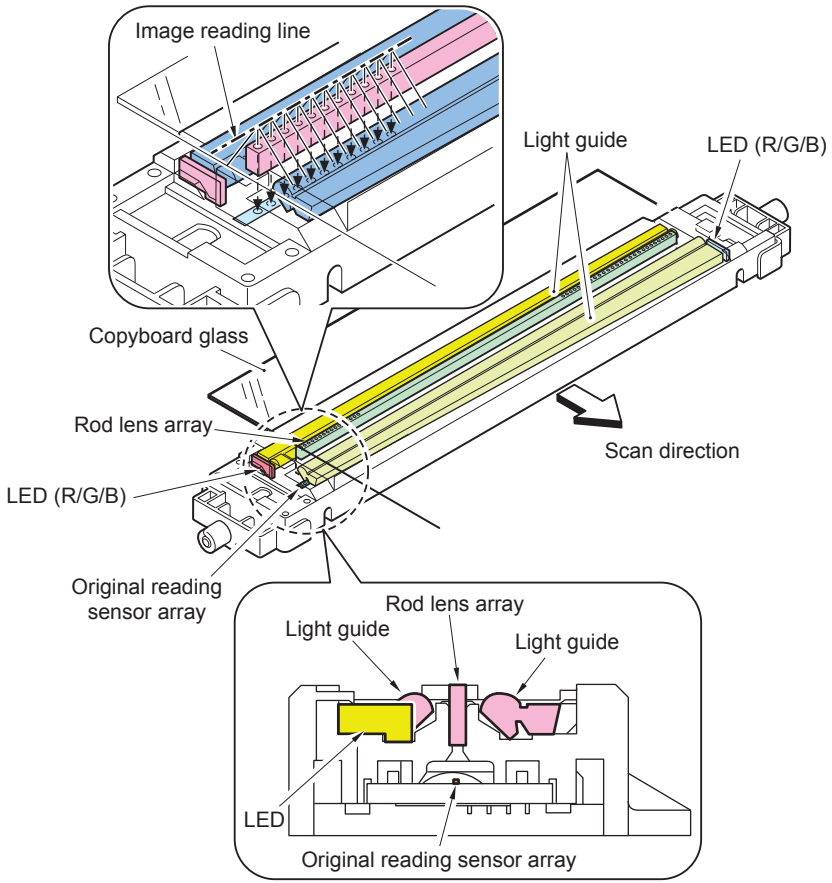
Image Processing by the CIS Unit (AFE)

Contact Image Sensor (CIS)

The original is exposed to light and read using the contact image sensor (CIS) to read the image on a line-by-line basis.

In iR-ADV C351/C350, the total of 6 signals are output to the AFE in the CIS. Each signal consists of the output from 2 sensors (6 channels).

In iR-ADV C250, the total of 4 signals are output to the AFE in the CIS. Each signal consists of the output from 3 sensors (4 channels).



F-2-19

Component	Function
LED	Illuminates the original.
Light guide	Illuminates the entire image line with the LED light.
Rod lens array	Collects the light reflected by the original.
Original reading sensor	Receives the light that passed through the rod lens array.
IC (AFE)	IC inside CIS

T-2-8

Related error code:
E280-0004: Scanner Unit communication error
E280-0005: Scanner Unit communication error

Original Reading Sensor Drive

The Image Reading Sensor installed in this machine consists of 5,184 light-receiving cells. The signals which are converted to photoelectricity in the light-receiving part are output to the Main Controller for each channel of the 12 Image Reading Sensor arrays.

LED Intensity Adjustment

The machine adjusts the length of time during which the LED turns on for each scan so that the image scan level of the original reading sensor will be specific level.

Variations in the light intensity between each color and the LED colors are prevented by changing the LED illumination duration of each color.

Related Service Mode:
- COPIER > ADJUST > CCD > GAIN2CL0 (Gain level adjustment of the CIS)
- COPIER > ADJUST > CCD > GAIN-CL0 (Gain level adjustment of the CIS)
- COPIER > FUNCTION > CCD > DF-WLVL2 (Copyboard scan, Color)
- COPIER > FUNCTION > CCD > DF-WLVL2 (Stream reading scan, Color)
- COPIER > FUNCTION > CCD > CL-AGC (B&W reference level adjustment)

Analog Control Performed by the CIS

The flow of analog image processing performed by the contact image sensor (CIS) is as follows:

a. The light reflected by the original is collected by the rod lens array.
b. The light is received by the original scan sensor.
c. The original scan sensor converts the received light to an electric signal and outputs it.
d. Gain correction and offset correction of the Image Reading Sensor.
e. A/D conversion of the Image Reading Sensor.

The Image Reading Sensor consists of 12 sensors.
Each channel is provided with an output correction table to output an image signal after performing gain correction for the input brightness signal.

Original Reading Sensor Output Gain Correction and Offset Correction

The analog video signals output from the original reading sensor are corrected so that they will have a specific gain level (gain correction), and the output voltages generated in the absence of incident light are also corrected so that they will have a specific offset level (offset correction).

Original Reading Sensor Output A/D Conversion

After completion of the gain correction and offset correction, the analog video signals are converted to digital signals corresponding to individual pixel voltage levels by the A/D converter.

Image Processing by the Main Controller PCB (Reader ASIC)

Outline of Shading Correction

The original reading sensor outputs are necessary even for the following reasons even when the density of the original is uniform:

1) Variations in sensitivity of pixels of the Image Reading Sensor
2) Uneven light intensity of the Rod Lens array
3) Differences in transmission light intensity in the center and periphery of the lens
4) Differences in light intensity in the center and periphery of the LEDs
5) Deterioration of the LEDs

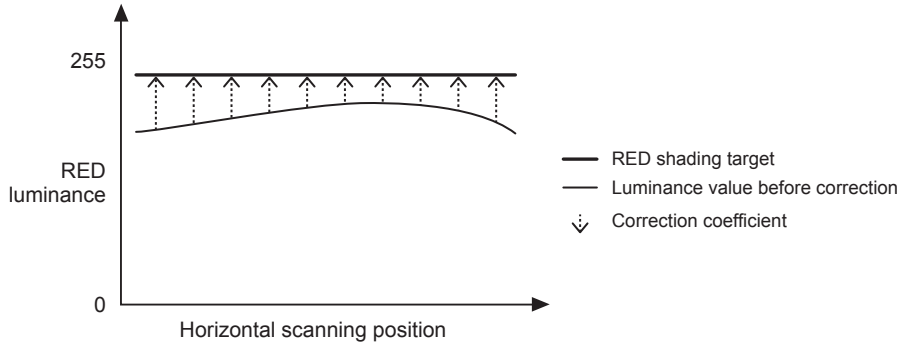
The machine performs shading correction to even out the original reading sensor output.
There are two types of shading correction: shading adjustment performed in the service mode and shading correction performed for each job.

Shading Correction

Due to the characteristics of each of the elements in the CIS, variations occur in the reading level in the horizontal scanning direction.
Reading is therefore performed with the LED on and with the LED off to correct the white and black levels for each horizontal scanning position and obtain a uniform reading level.
There are two types of shading correction: white shading and black shading.

White shading (for copyboard reading)

The White Plate is illuminated by switching between R, G, and B at designated intervals to read and the luminance.
The reading of the white level in the horizontal scanning direction is made uniform by calculating the correction coefficient of the white level for each horizontal scanning position.



F-2-20

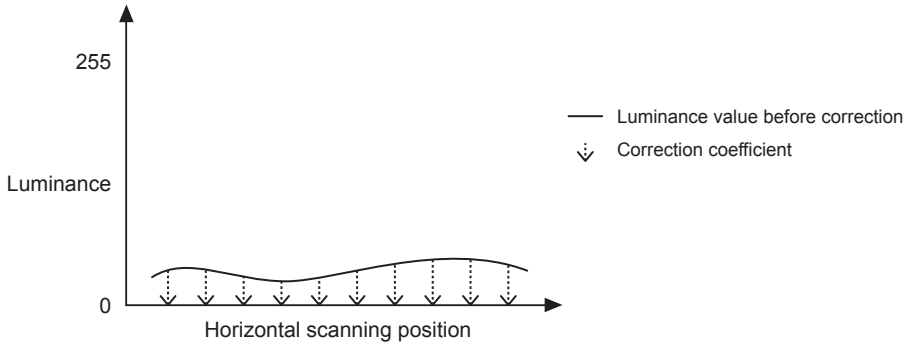
Related error code:
E301-0001: Surface light intensity error

White shading (for stream reading)

The shading correction of stream reading is performed using the white level adjustment value (factory adjustment value).
White level correction of each horizontal scanning position is performed so that the value will match the factory adjustment value, which is regarded as a target value.

Black shading

The White Plate is read with the LED off, and the correction coefficient of black level for each horizontal scanning position is calculated to make the black level reading in the horizontal scanning direction uniform.



F-2-21

Related error code:
E301-0002: Surface light intensity error

Dust Detection Control

Overview

When an original is read in ADF mode, image correction or change in the original reading position is performed depending on the presence of dust on the ADF Reading Glass, and a control is executed by using the whiteness of the Platen Guide to prevent the dust from being captured in the image.

The control of dust detection is as follows:

1) Dust detection correction control
2) Dust detection preventive process

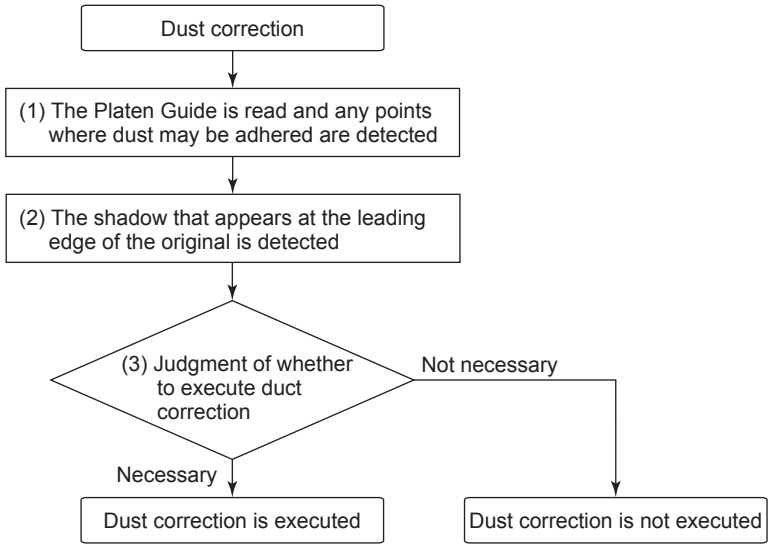
Dust Detection Correction Control

When dust is detected on the ADF Reading Glass, the image is corrected so that the dust is not captured.

Execution timing:

From when the original reaches the position immediately before reading until reading of the original is finished (each page) in stream reading jobs

Executed behavior:



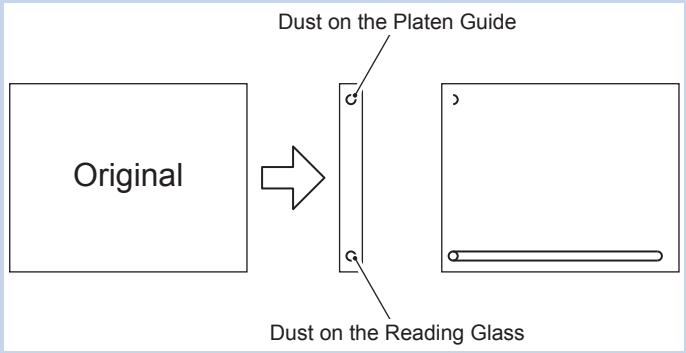
F-2-22

1) Before the original is fed, the Platen Guide is read through the Reading Glass to detect points where there is a possibility of dust.
2) The shadow that appears at the leading edge of the original is detected to detect the leading edge of the original.
3) If no dust is found at the points of dust detected in step 1) after comparing the results of dust detection before and after the shadow of the leading edge of the original appears on the Reading Glass, it is judged to be dust on the Platen Guide, and thus no dust correction is executed. If dust is found at the points detected in 1), it is judged to be dust on the Reading Glass, and therefore dust correction is performed.

NOTE:

- Dust on the Platen Guide is hidden by paper, and does not affect images. Because of this, dust correction is not performed.
- Dust on the Reading Glass affects images, and so dust correction is performed.

  Size of dust that can be detected: 1 to 6 pixels
  Number of dust locations that can be detected: 20 locations



F-2-23

Dust Detection Preventive Process

If dust is detected in paper of the last job, the reading position of the following stream reading jobs is changed to avoid the dust.

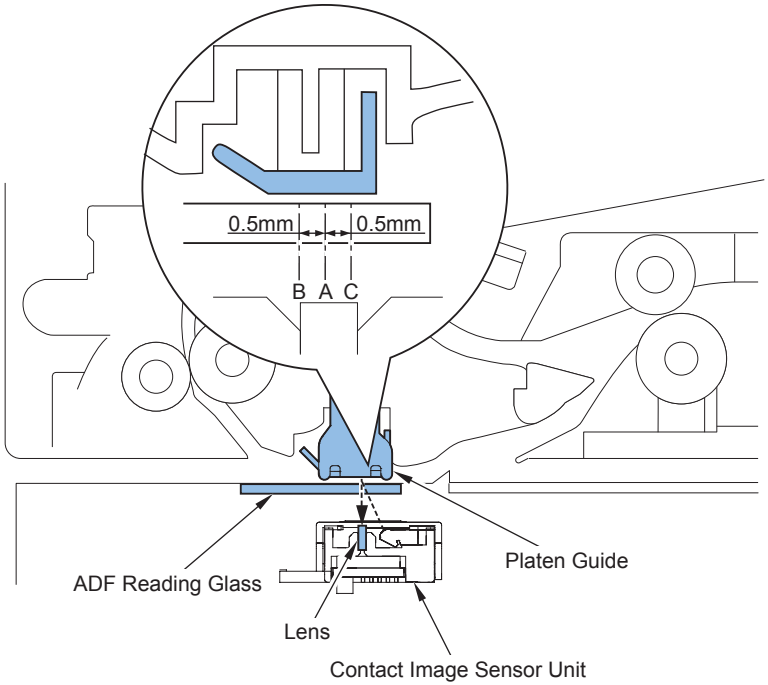
Executed behavior:

The amounts of adjustment for avoiding dust are -0.5 mm, 0 mm, and +0.5 mm.
Each time dust is detected in the last sheets of paper of a stream reading job, the reading position moves to the three positions in the order of 0 mm, -0.5 mm, +0.5 mm, and 0 mm.
At this time, if the following conditions are detected 6 times in a row, the Reading Glass is judged to be dirty and a message prompting for cleaning of the Reading Glass is displayed on the Control Panel.

Condition:

- Dust of 1 pixel or more and less than 5 pixels is detected in 11 locations
- Dust of 5 pixels or more is detected in 14 locations

Related Service Mode:
(Lv1) COPIER > OPTION > IMG-RDR > DFDST-L1
Adjustment of dust detection level when using DADF (between originals)



F-2-24

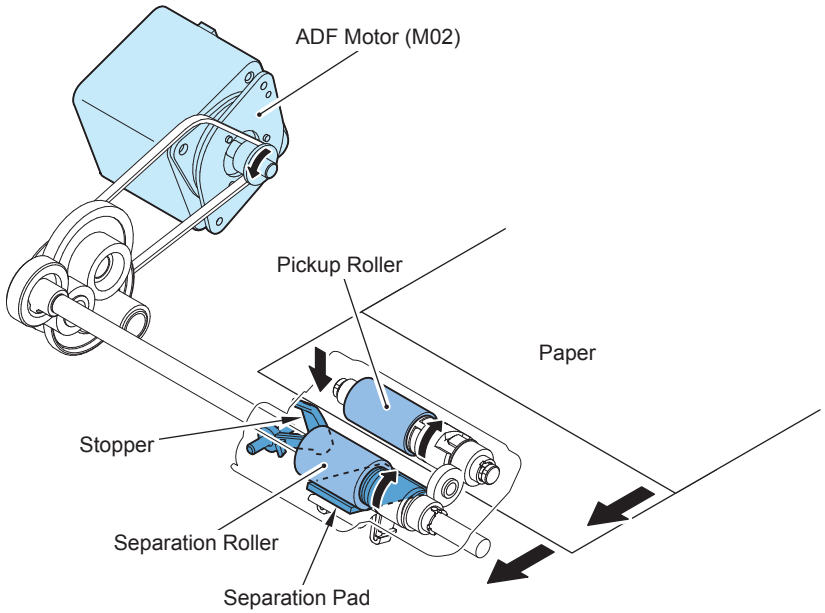
Position	Description
A	Reference position for read
B	About 0.5 mm to the left of the reference position A
C	About 0.5 mm to the right of the reference position A

T-2-9

Control of ADF

Pickup Control

Pickup Mechanism

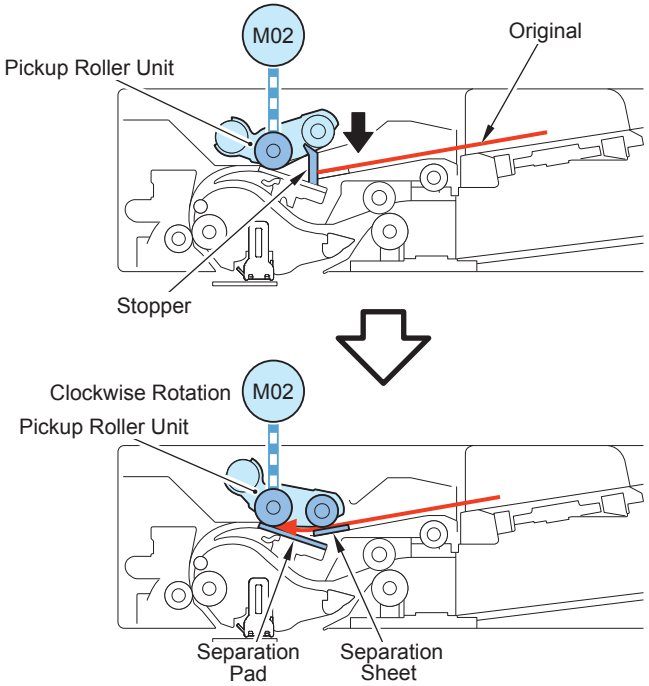


F-2-25

Pickup operation (1-sided/2-sided stream reading)

When the key to start printing is pressed while an original is placed on the Original Tray, the Pickup Roller is lowered by the drive of the ADF Motor (M02), causing the original to be picked up and fed.

At this time, double feed at pickup is prevented by the Separation Roller and Separation Pad.

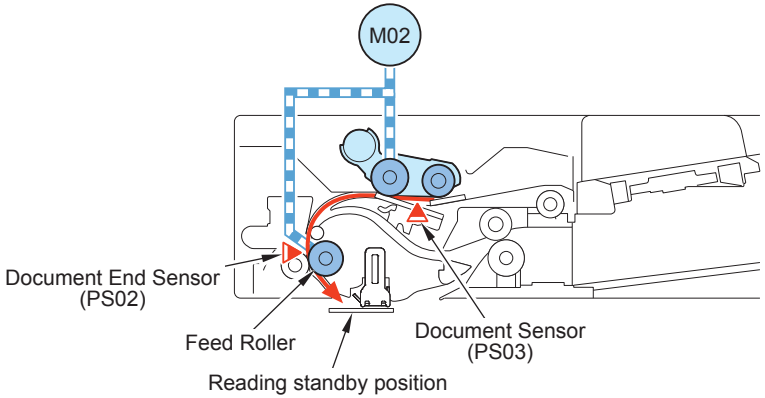


F-2-26

Feed Control

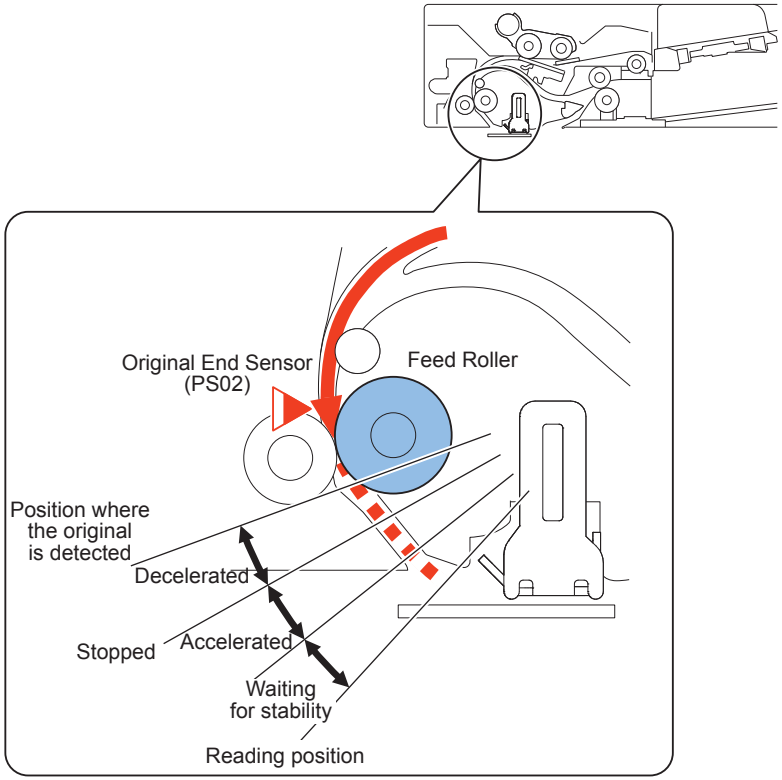
At 1-sided stream reading

The drive of the ADF Motor (M02) rotates the Feed Roller, and feeds an original to the reading position.



F-2-27

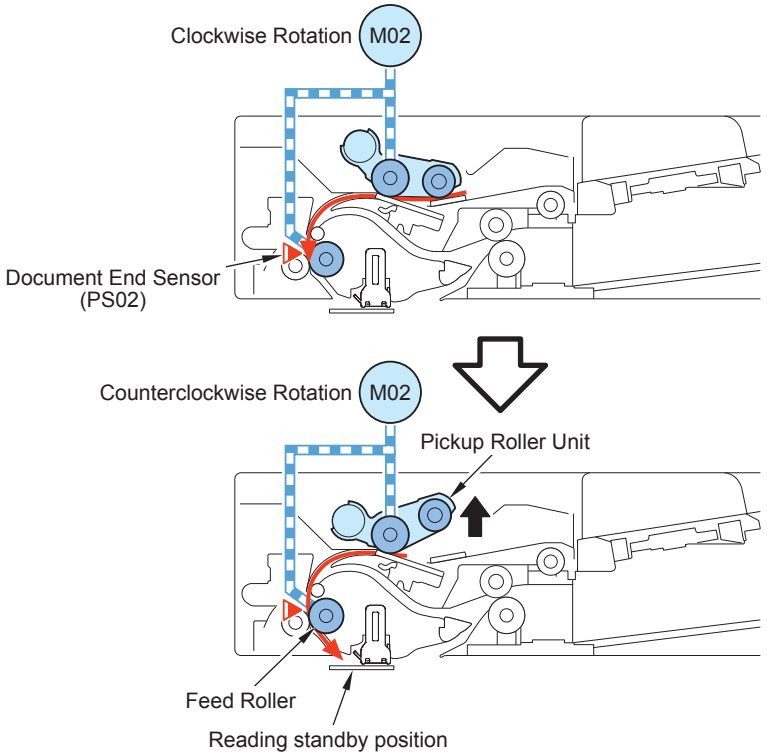
NOTE:
Preparation of the Main Controller may not be completed (the memory may not have been secured) when an original passes the Document End Sensor (PS02). When it is not completed, the original is stopped before the reading position. When the preparation of the Main Controller is completed, the original is fed to the reading position.



F-2-28

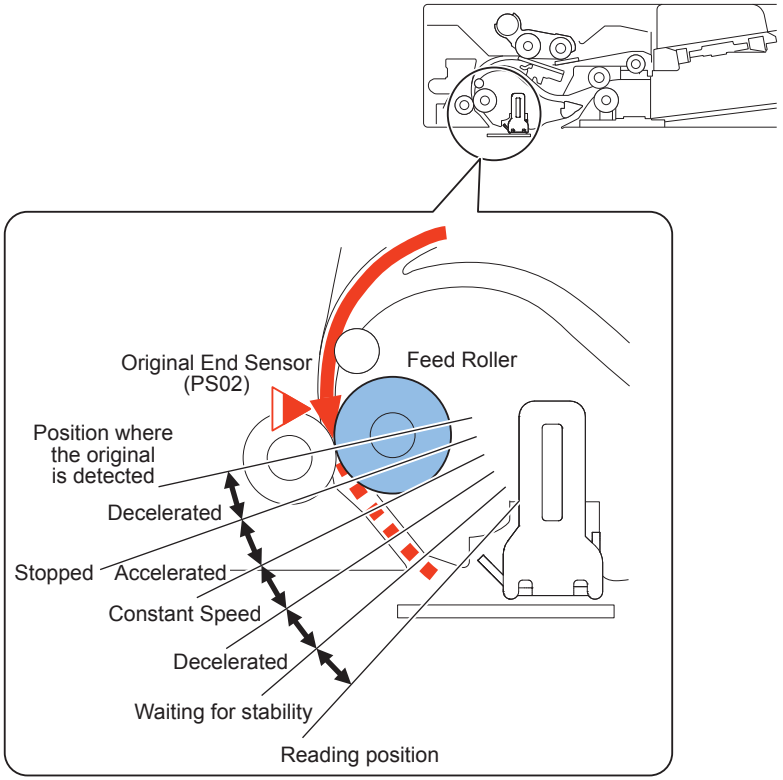
At 2-sided stream reading

The drive (clockwise rotation) of the ADF Motor (M02) rotates the Feed Roller, and feeds an original. When the Document End Sensor (PS02) is turned ON, the ADF Motor (M02) is stopped to stop the original.
After a specified period of time, the drive (reverse rotation) of the ADF Motor (M02) rotates the Feed Roller, and feeds the original to the reading position. At this time, the Pickup Roller is lifted up.



F-2-29

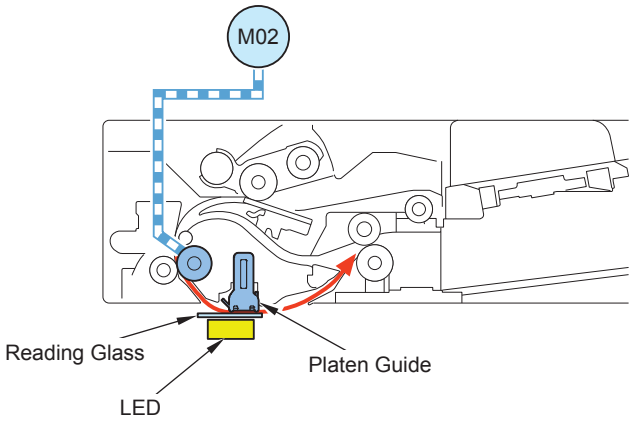
NOTE:
Preparation of the Main Controller may not be completed (the memory may not have been secured) when an original passes the Document End Sensor (PS02). When it is not completed, the original is stopped before the reading position. When the preparation of both the memory allocation and ascend of the Pickup Roller is completed, the original is fed to the reading position.



F-2-30

Read Control

When the edge of an original reaches the reading position, stream reading is started by sending the image leading edge signal to the host machine. Stream reading is a mode to move an original on the host machine's fixed scanner glass by the Feed Roller and scan it. The read original is stored in the machine's memory.



F-2-31

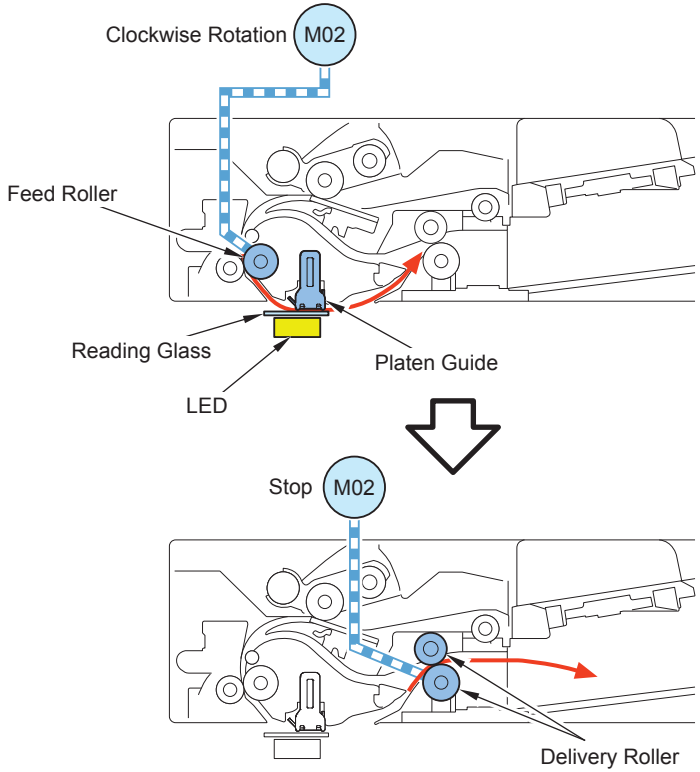
Reverse Control

Basic operation

There are 2 types for the reverse operation of original: From the front side to the back side, and from the back side to the front side.
Here, the reverse operation from the front side to the back side is explained as the above 2 types of reverse operation are basically the same.

Pickup of front side

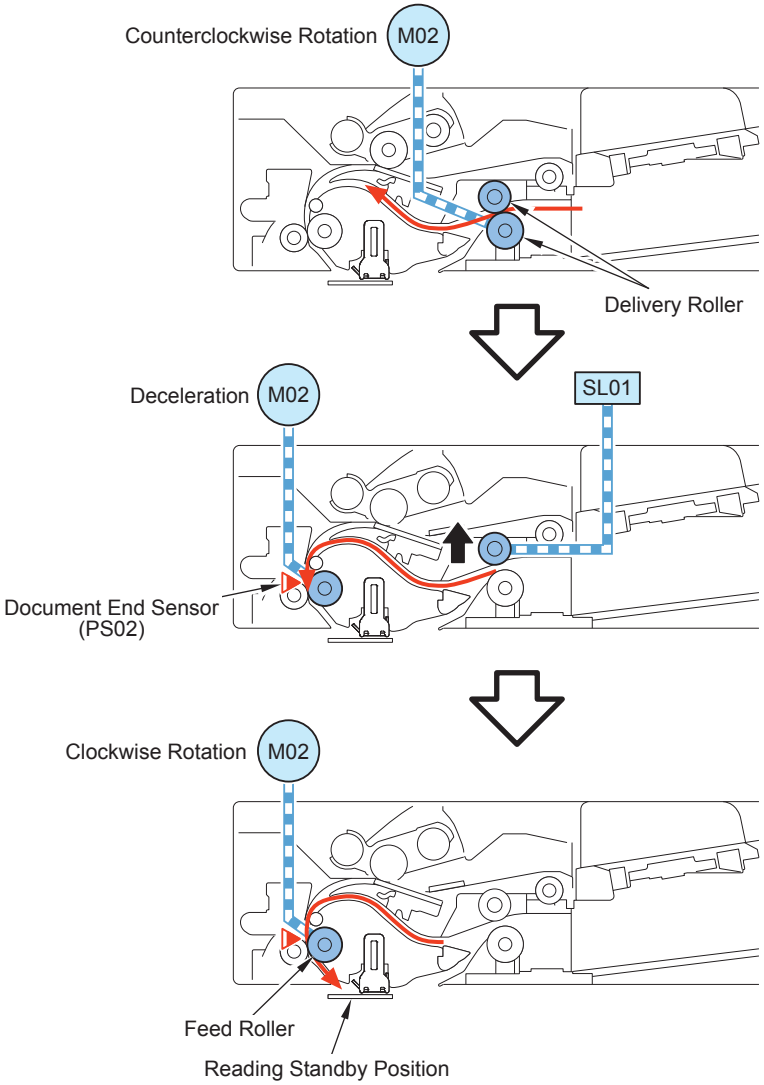
1) The drive (clockwise rotation) of the ADF Motor (M02) rotates the Feed Roller, and reads the front side of an original.
2) When reading is completed, the Delivery Roller rotates to feed the original to the ejection area.
3) When the original has been fed for a certain distance, the ADF Motor (M02) stops.



F-2-32

Reverse/Feed

1) The drive (counterclockwise rotation) of the ADF Motor (M02) rotates the Feed Roller, and feeds an original.
2) When the Document End Sensor (PS02) is turned ON, the ADF Motor (M02) is stopped to stop the original. At this time, the Separation Solenoid (SL01) is turned ON to release the pressure of the Delivery Reverse Roller.
3) The drive (clockwise rotation) of the ADF Motor (M02) rotates the Feed Roller, and feeds the original to the reading position.

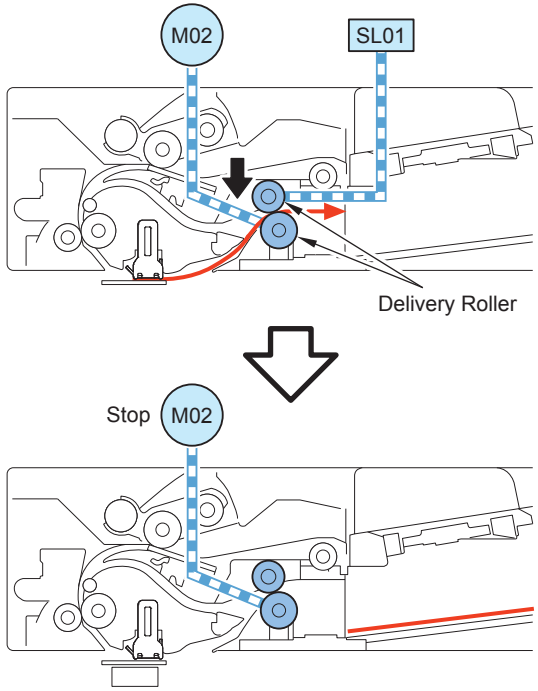


F-2-33

Feed/Delivery of Original

Basic Operation

After stream reading on the Copyboard Glass is completed, the Feed Roller rotates to send an original to the Delivery Tray. Then, the ADF Motor (M02) stops.



F-2-34

NOTE:
For single-sided reading after delivery, a processing to ascend the Pickup Roller is performed.
For duplex reading, it is not performed because it has already been executed.

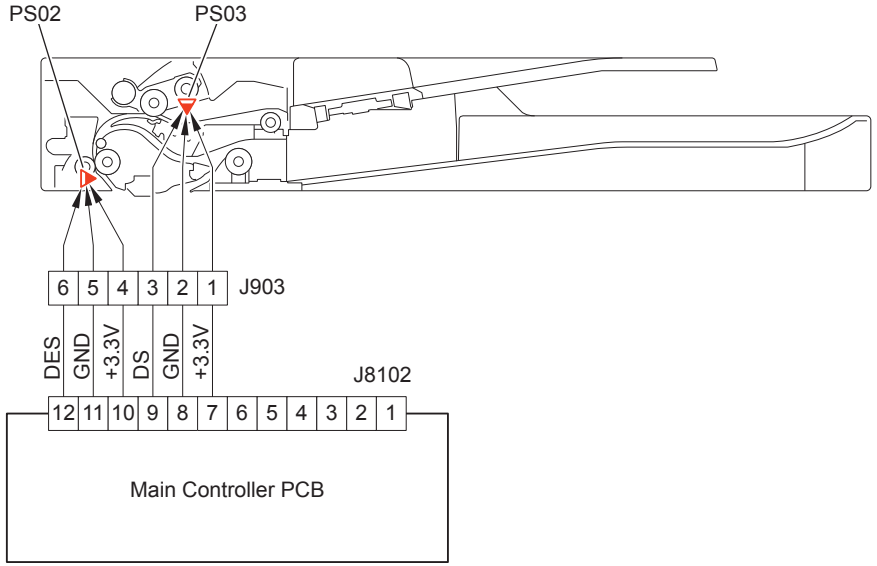
Original Detection

Detection of presence/absence of original

As the actuator is pushed up by placing an original on the Original Tray, the Original Sensor (PS03) is turned ON (light is transmitted -> light is blocked) so that the presence of an original is detected.

Original size detection

The original size is determined by the time required from when the Document End Sensor (PS02) detects the original's leading edge to when it detects its trailing edge.
As the actuator is pushed up by the leading edge of the fed original, the Document End Sensor (PS02) is turned ON (light is blocked -> light is transmitted) so that the arrival of the original's leading edge is detected. In addition, when the trailing edge of the original passes the position of the actuator, the actuator returns to the original position, which causes the Document End Sensor (PS02) to turn OFF (light is transmitted -> light is blocked). The trailing edge of the original is detected by the time required for the Document End Sensor (PS02) to turn OFF from when it was turned ON.



F-2-35

Jam Detection

This machine detects jam using the Document End Sensor (PS02) and the Document Sensor (PS03). The check timing to detect jam is already stored in the Main Controller PCB, which determines the occurrence of a jam by the presence of an original in the areas of corresponding sensors.
When a jam occurs, the machine stores the information by the code.
This machine's jam code can be checked by printing out a jam error history report from service mode.

ACC ID	Jam Code	Type	Sensor Name	Sensor ID
01	0001	Delay	Document End Sensor	PS02
01	0002	Stationary	Document End Sensor	PS02
01	0004	Delay (at the time of reversing)	Document End Sensor	PS02
01	0005	Stationary (at the time of reversing)	Document End Sensor	PS02
01	0021	Timing	Document End Sensor	PS02
01	0071	Timing Error	Timing Error Jam	-
01	0094	Power-on	Document End Sensor	PS02
			Document Sensor	PS03
01	0096	Limited function mode	DF Job Error Jam	-

T-2-10

Service Tasks

Periodically Replaced Parts

None.

Consumable Parts

No.	Parts name	Parts number	Quantity	Estimated life	Remarks
1	ADF Pickup Unit	FM4-9859	1	50,000 sheets	
2	Separation Pad	FM4-9857	1	50,000 sheets	

T-2-11

Periodical Servicing

None.
Perform as needed.

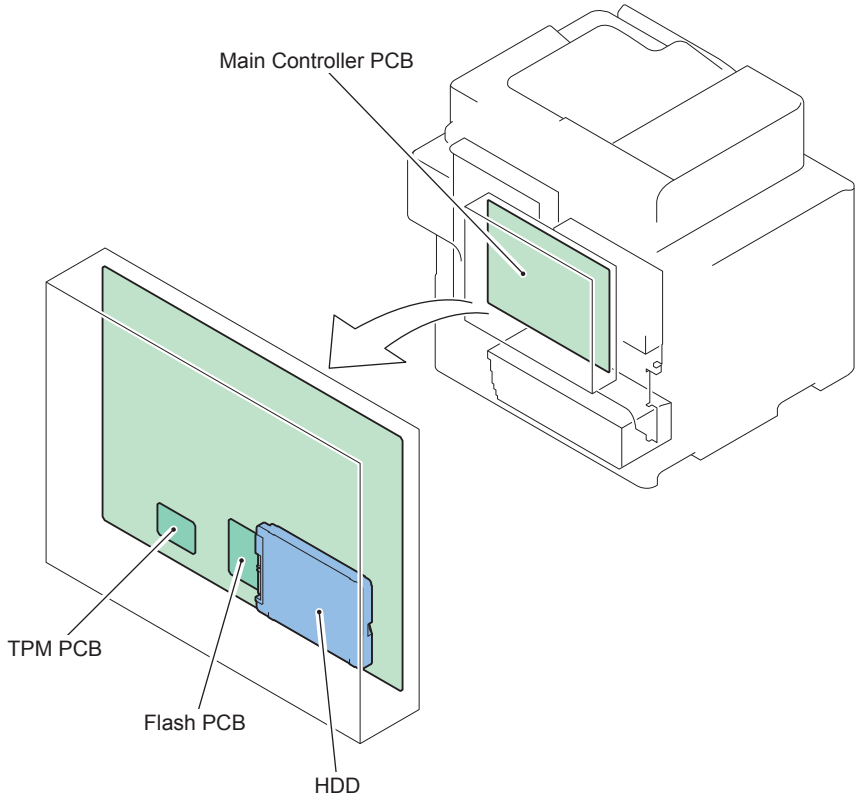
Actions at Parts Replacement

- Actions at Copyboard Glass Unit Replacement
- Actions at Scanner Unit (Reader side CIS) Replacement
- Actions at ADF Unit Replacement

Main Controller

Overview

■ Configuration / Function

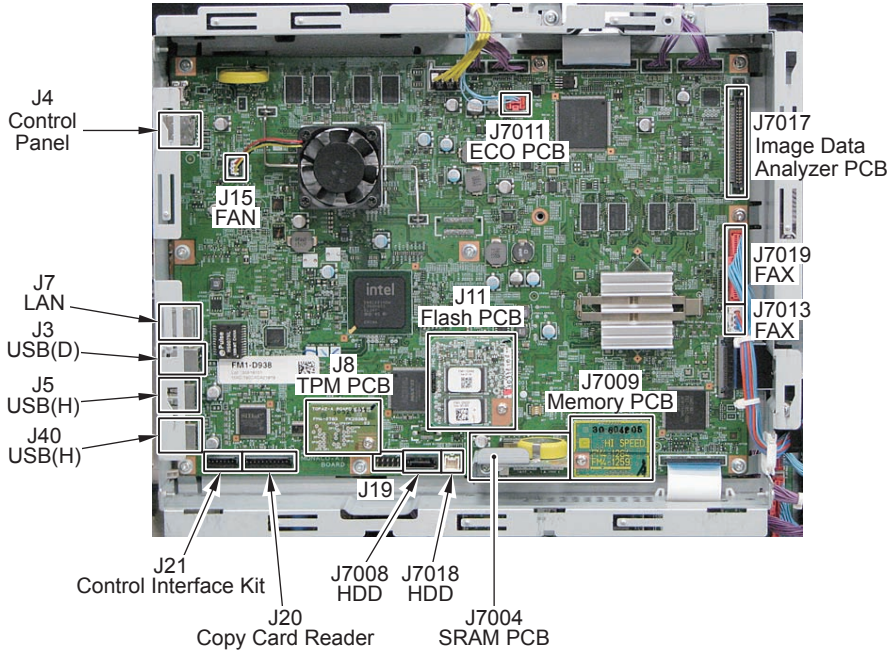


F-2-36

Item		Function
Main Controller PCB		System Control / Memory Control / Printer Output Image Processing Control, Reader Image Input Processing, Card Reader Connection I/F, Image Processing for FAX, USB Expansion HUB Connection I/F
	RAM	Temporarily saving image data Capacity 1GB (for controller control) + 512MB (for image processing control)
	USB port	USB2.0 Device I/F, USB2.0 Host I/F
HDD		2.5 inch SATA I/F Standard: 160GB (80GB usable area) Address book, Security information (password, certificate), Image data, Preference data
Flash PCB		Retains the system data: 1GB
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)

T-2-12

Main controller PCB



F-2-37

No.	Function
J3	USB I/F (Device)
J4	UI: Control Panel I/F
J5	USB I/F (Host)
J7	LAN I/F
J8	TPM PCB
J11	FLASH PCB
J15	FAN: Fan I/F
J19	-
J20	CARD: Card Reader I/F
J21	CC-VI: Control Interface Kit I/F
J40	USB I/F (Host)
J7004	SRAM PCB
J7008	HDD Serial I/F
J7009	Memory PCB
J7011	ECO PCB I/F
J7013	1st Line FAX Unit I/F (Power)
J7017	Image Data Analyzer PCB
J7018	HDD Power Supply I/F
J7019	1st Line FAX Unit I/F

T-2-13

Boot Sequence

Power Supply Switch ON

Standby screen display

[ ] : Program storage location

- Initializing process of hardware
- Starting BIOS
  [Main Controller PCB]
- Starting IPL, OS, system software for the main/sub CPU
  [Flash PCB]
  [Main Controller PCB]
- Starting application

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
		HDD failed to be Ready, or HDD was not formatted. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
E614		Flash error
	0001	Flash PCB detection error
		The Flash PCB could not be recognized, or the Flash PCB was not formatted.
	0002	Error in file system on the Flash PCB
		The file system could not be initialized normally at startup. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
	0006	Error in file system on the Flash PCB
		Bootable was not found on the Flash PCB.
	4000	Error in file system on the Flash PCB
		The OS could not be recognized. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
	4001	Error in file system on the Flash PCB
		The OS boot file was not found. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
E748		Flash PCB error / HDD error
	2010	IPL (startup program) was not found, or the HDD could not be recognized.

T-2-14

Shutdown Sequence

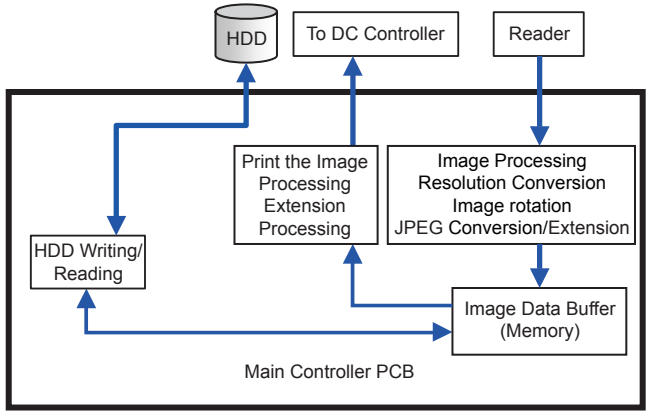
Before shutting OFF the power supply, it is necessary to perform the HDD completion process (for the HDD models only. Purpose: to prevent damage on the HDD) and execute the fixing disengagement operation. This sequential process is called "shutdown sequence". The shutdown sequence has been manually executed 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 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.

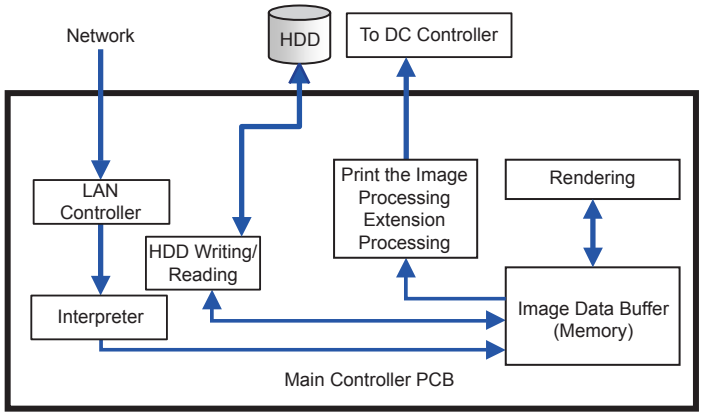
Controls

Copy



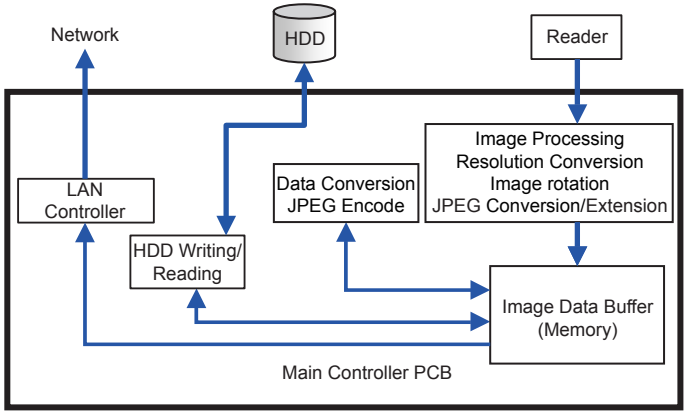
F-2-38

Print



F-2-39

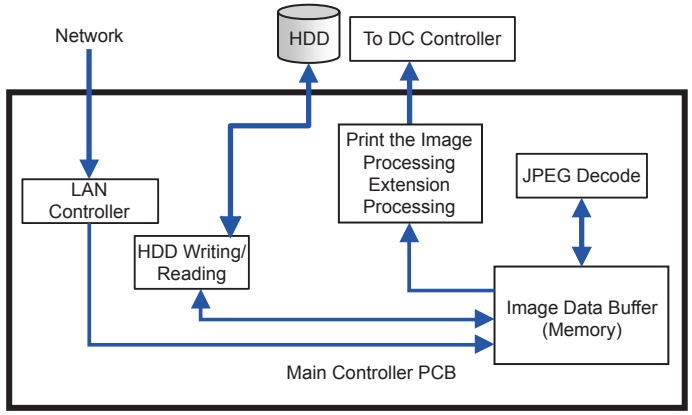
SEND



F-2-40

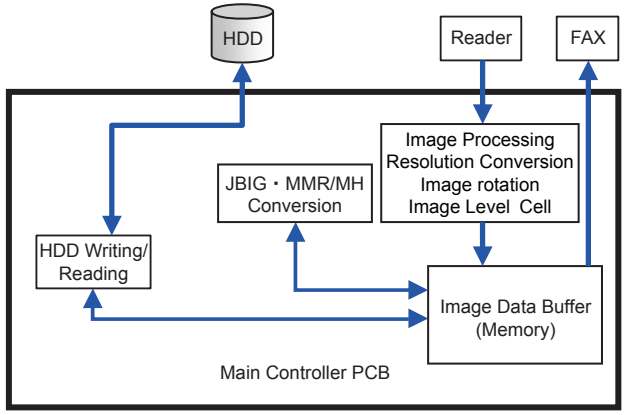
*Same as Remote FAX.

Network(Advanced Box / Space Client)



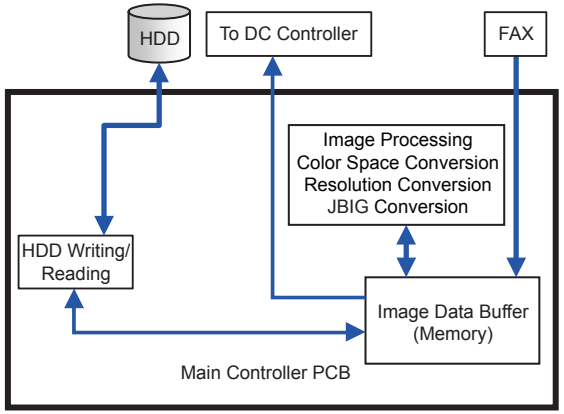
F-2-41

Fax SEND



F-2-42

Fax Receive



F-2-43

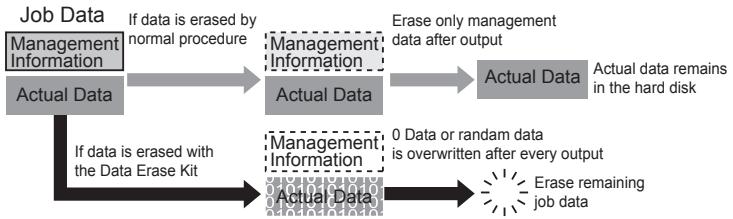
Security

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

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-2-44

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:

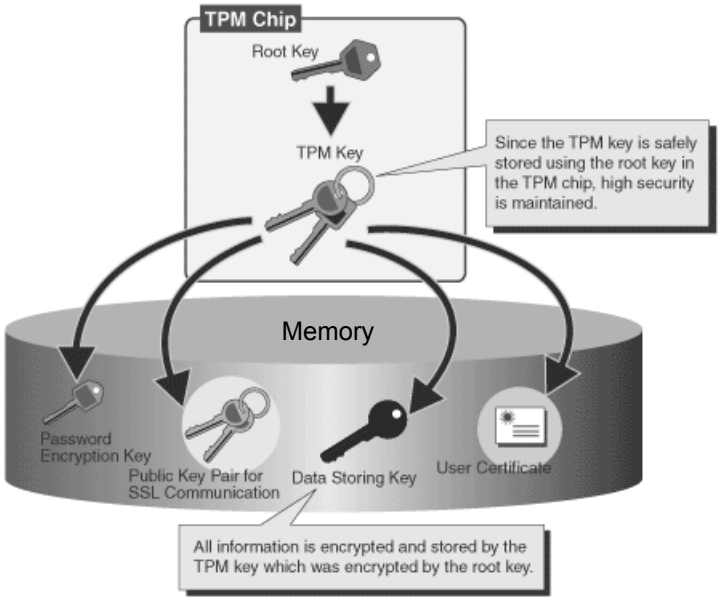
This “Initialize All Data/Settings” setting is equipped without adding Data Erase Kit and executed voluntarily by a user when the machine is disposed. The effect is different from complete deletion of the job data and the user management information is deleted as well; therefore, take note not to explain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

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

■ 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 Plattform Module, and is the chip name which generates and stores the encryption key and has the encryption calculation function for the public key.

TPM PCB can protect the security information(password, certificate and encriptiion key) stored in the Flash 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-2-45

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.

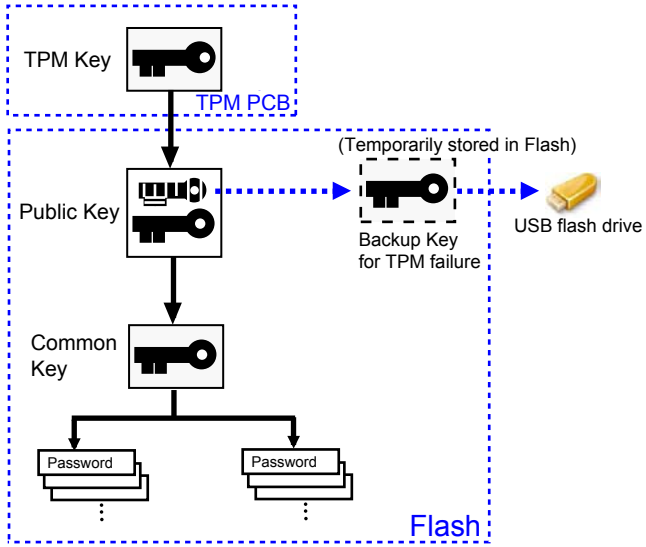
- HDD or Main Controller PCB is taken out
- System of the main body is intruded through the network

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-2-46

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 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. 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 Settings/Registration to set the TPM setting to OFF.

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

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 ONThe security functionality is enabled in 4 levels (TPM key, public key, common key and password).
- When the TPM setting is OFFThe 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 neeeds 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 retoration 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

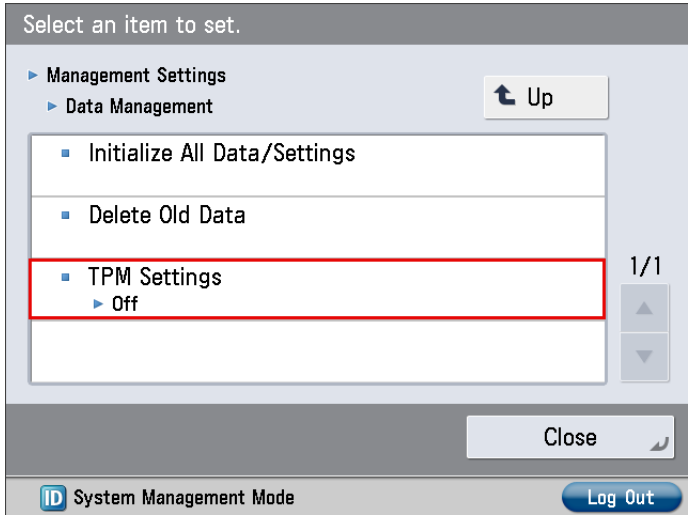
Caution:

Setting of “system management encryption number”

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

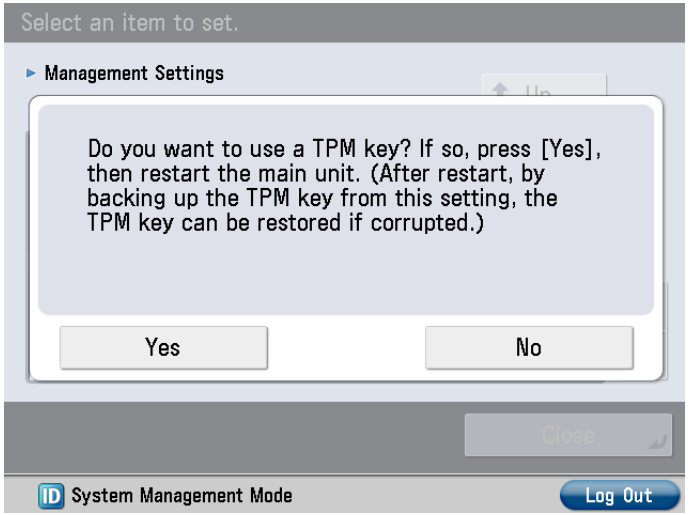
Backup of TPM key is performed after selecting “ON” for TPM settings, however, backup is available only once. Therefore, it is efficient to set the system management encryption number as a mean to avoid incidents, such as when backup file is obtained by anyone other than the administrator, etc.

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



F-2-47

2) Click “Yes”, and then reboot this machine.



F-2-48

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-2-49

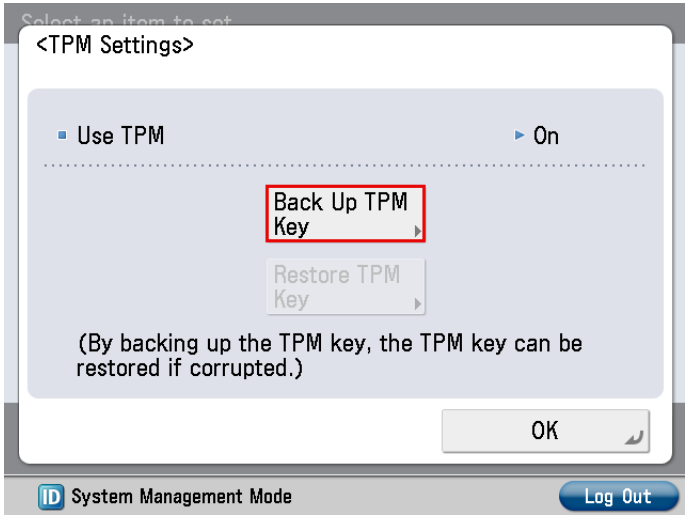
1) Connect the USB memory to the main unit.
There are two USB I/F (host): one at the side of the control panel and the other at the side of main controller PCB 1.

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.

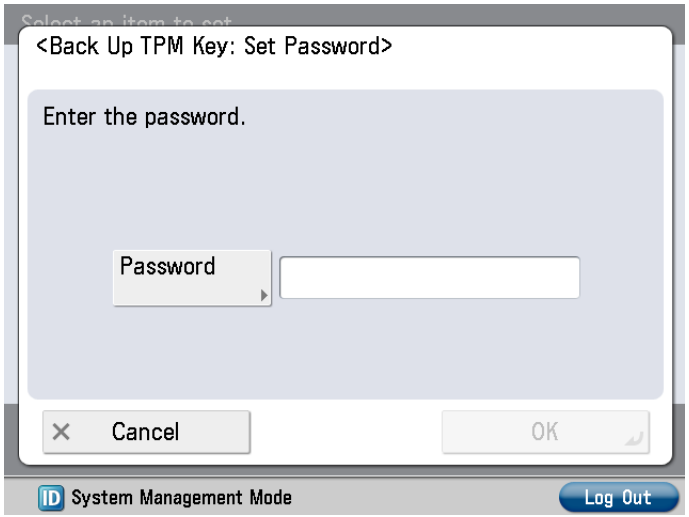
NOTE:
The USB memory can save multiple backup files for TPM key.

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



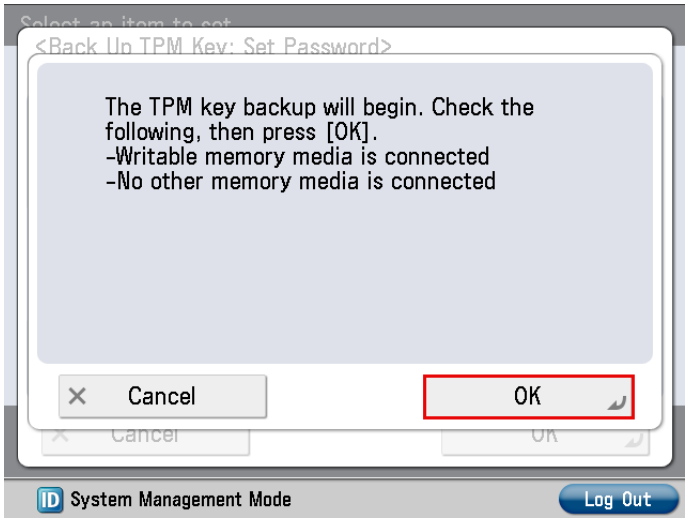
F-2-50

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



F-2-51

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



F-2-52

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.

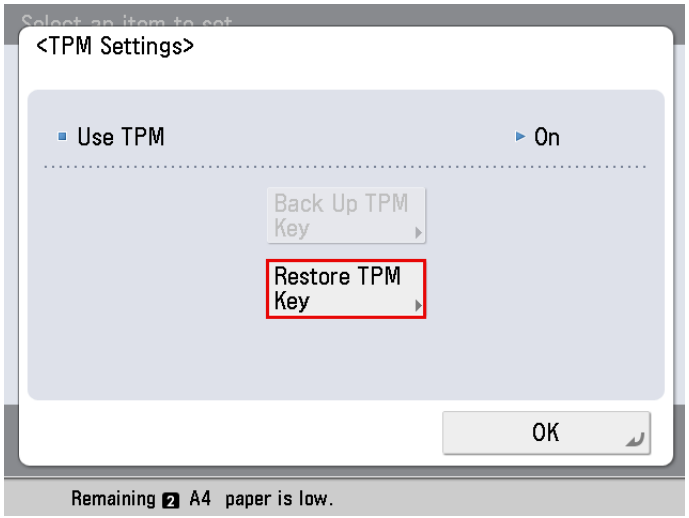
3. Restore of TPM Key

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].



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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

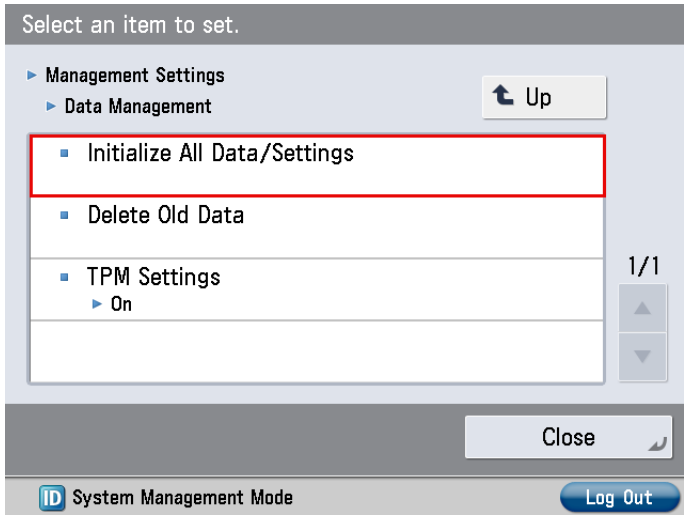
In the case of the following, a message is shown indicating restore failure and its cause.

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 Flash is faulty.

4. Disable the feature

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



F-2-54

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 FLASH 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.

Related Error Code

Error Code		Error title, description, remedy	
E746		TPM PCB error	
	0031	TPM error	
		Description	Hardware error
		Remedy	Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. 2. After turning OFF the main power, replace the TPM PCB (UN82). 3. If the TPM key was backed up, restore the key. 3-1. Connect the USB memory device which stores the TPM key. 3-2. Execute "Settings/Registration> Log In> Management Settings> Data Management> TPM Settings> Restore TPM Key". [CAUTION] Ask the customer to enter "System Manager ID" and "Password" when logging in. 3-3. Enter the password set at backup operation. 3-4. When the restoration completion screen is displayed, click "OK". Remove the USB memory device, and turn OFF and then ON the main power.
	0032	TPM error	
		Description	TPM key mismatch
		Remedy	Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. 2. Format the system. 2-1. Enter download mode using (2+8) startup, and execute [4]: Clear/Format > [2] Flash Format (Flash format) using SST or a USB memory device. 2-2. Reinstall the system software using SST or a USB memory device. 3. Replace the TPM PCB (UN82). 4. If the TPM key was backed up, restore the key. 4-1. Connect the USB memory device which stores the TPM key. 4-2. Execute "Settings/Registration> Log In> Management Settings> Data Management> TPM Settings> Restore TPM Key". [CAUTION] Ask the customer to enter "System Manager ID" and "Password" when logging in. 4-3. Enter the password set at backup operation. 4-4. When the restoration completion screen is displayed, click "OK". Remove the USB memory device, and turn OFF and then ON the main power.

Error Code		Error title, description, remedy	
	0033	TPM error	
		Description	It was detected that data in TPM was inconsistent
		Remedy	Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. 2. Perform the appropriate remedy according to the status whether the TPM key was backed up. a. If the TPM key was backed up, restore the key. 1. Connect the USB memory device which stores the TPM key. 2. Execute "Settings/Registration> Log In> Management Settings> Data Management> TPM Settings> Restore TPM Key". [CAUTION] Ask the customer to enter "System Manager ID" and "Password" when logging in. 3. Enter the password set at backup operation. 4. When the restoration completion screen is displayed, click "OK". Remove the USB memory device, and turn OFF and then ON the main power. b. If the TPM key was not backed up, format the system. 1. Enter download mode using (2+8) startup, and execute [4]: Clear/Format > [2] Flash Format (Flash format) using SST or a USB memory device. 2. Reinstall the system software using SST or a USB memory device.

Error Code		Error title, description, remedy	
	0034	TPM auto recovery error	
		Description	The error occurred when clearing HDD while TPM setting was ON
		Remedy	Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. a. If the error is cleared, execute "Settings/Registration> Log In> Management Settings> Data Management> Initialize All Data/ Settings". b. If the error is not cleared, format the system. 1. Enter download mode using (2+8) startup, and execute [4]: Clear/Format > [2] Flash Format (Flash format) using SST or a USB memory device. 2. Reinstall the system software using SST or a USB memory device. 2. If the TPM key was backed up, restore the key. 2-1. Connect the USB memory device which stores the TPM key. 2-2. Execute "Settings/Registration> Log In> Management Settings> Data Management> TPM Settings> Restore TPM Key". [CAUTION] Ask the customer to enter "System Manager ID" and "Password" when logging in. 2-3. Enter the password set at backup operation. 2-4. When the restoration completion screen is displayed, click "OK". Remove the USB memory device, and turn OFF and then ON the main power.
	0035	TPM version error	
		Description	TPM PCB which cannot be used in this machine was installed
		Remedy	Install the TPM PCB (UN82) for this model

T-2-15

● Data to be encrypted / decoded(reference)

Type	Application/feature	Security information	Saving destination
Password/encryption number	FAX Box	Password for FAX Box	HDD
	Send	Password for File destination in Address Book	HDD
		Password of LDAP server	FLASH
		Password of POP3 server	FLASH
		Time stamp PDF password	FLASH
		Password of Adobe ES Rights Management server	FLASH
		Password for address (destination) registration	FLASH
	UI	Password for Service Mode	FLASH
	Network	Password for IPP authentication	FLASH
		Password for FTP authentication	FLASH
		User name and password of Proxy authentication client	FLASH
		Login password of NetWare print server	FLASH
		Policy common key for IPSec	FLASH
		User name and password for PEAP/TTLS authentication	FLASH
	Others	Login user information of device	HDD
		Password for FAX reception	FLASH
		Department management data (including administrator password)	FLASH
Encryption key	MIB	Authentication key and encryption key for SNMPv3	FLASH
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-2-16

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.

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.

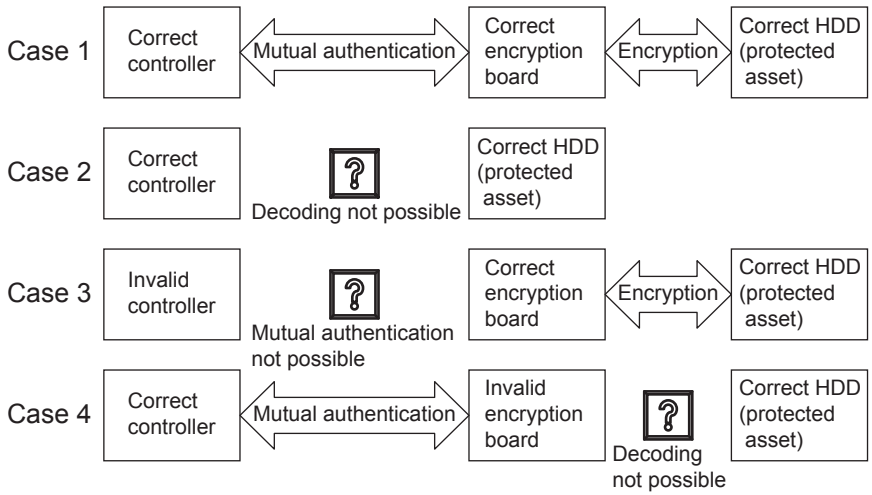
Conditions for Encryption Board operation

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-2-55

● 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 replacement	cleared	Clear the key for HDD data encryption kit	1) Initialize the encryption board
			2) Format the HDD
Main controller clear	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-2-17

● Relevant Error Codes

E602 and detailed codes

Error Code	Error title, description, remedy	
E602-2000	Authentication error between the host machine and the Encryption Board	
	Description	I/O error occurred in the file system after startup
	Remedy	Perform the following in the order while checking whether the error is cleared. 1. Check that the HDD Encryption Board is installed properly by removing and then installing it again. 2. Turn ON the main power, and check whether the error is cleared. 3. Execute the key clear using SST (to make an unformatted disk). [CAUTION] E602-0001 will be indicated if activating the machine with the unformatted disk. Therefore, be sure to format the HDD. 4. Enter download mode using (2+8) startup, and execute [4]: Clear/Format > [1] Disk Format (HDD format) using SST or a USB memory device. 5. Reinstall the necessary application software.

T-2-18

Service Tasks

■ Periodically Replaced Parts

None.

■ Consumable Parts

None.

■ Periodical Servicing

None.

Perform as needed.

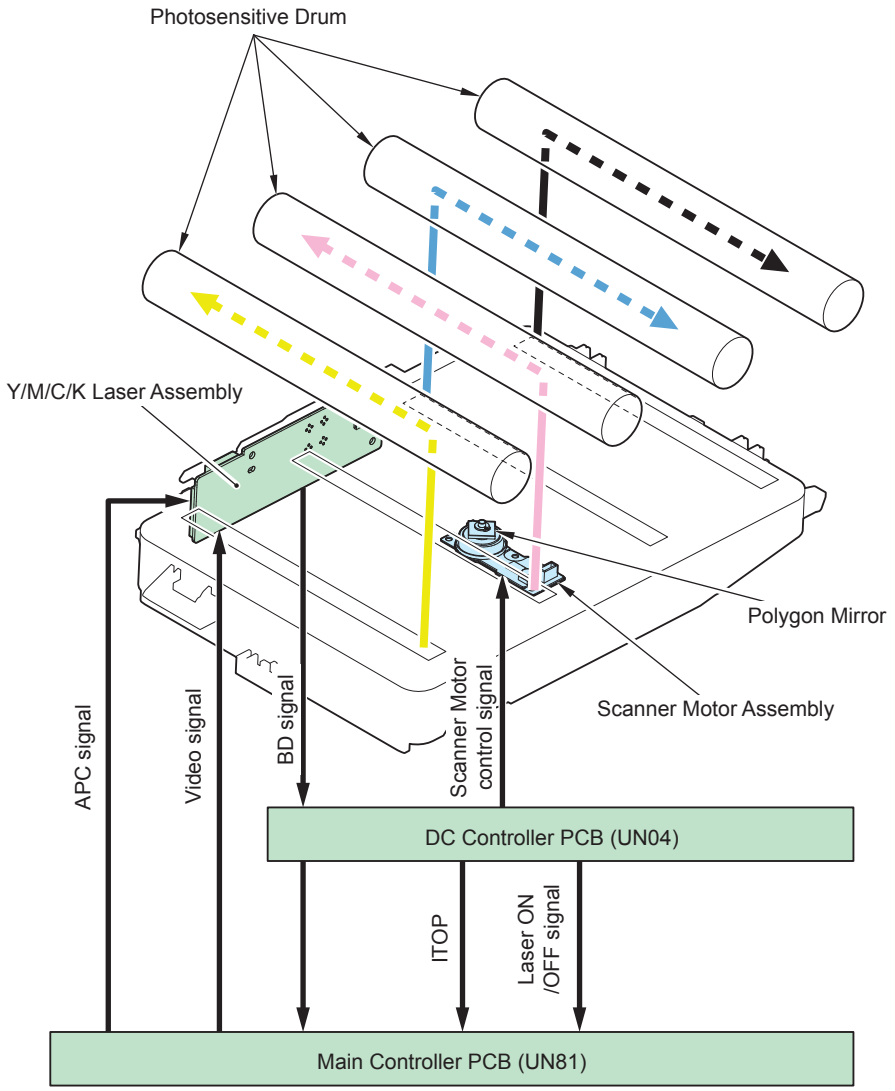
■ Actions at Parts Replacement

- Actions at HDD Replacement
- Actions at Main Controller PCB Replacement
- Actions at DC Controller PCB Replacement
- Actions at TPM PCB Replacement
- Actions at FLASH PCB Replacement
- Actions at Control Panel CPU PCB/LCD Panel Replacement

Laser Exposure System

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.
This machine uses the 2-beam method that enables the exposure of 2 beams per scanning, and uses the 1-polygon 4-laser method in order to achieve a compact size.



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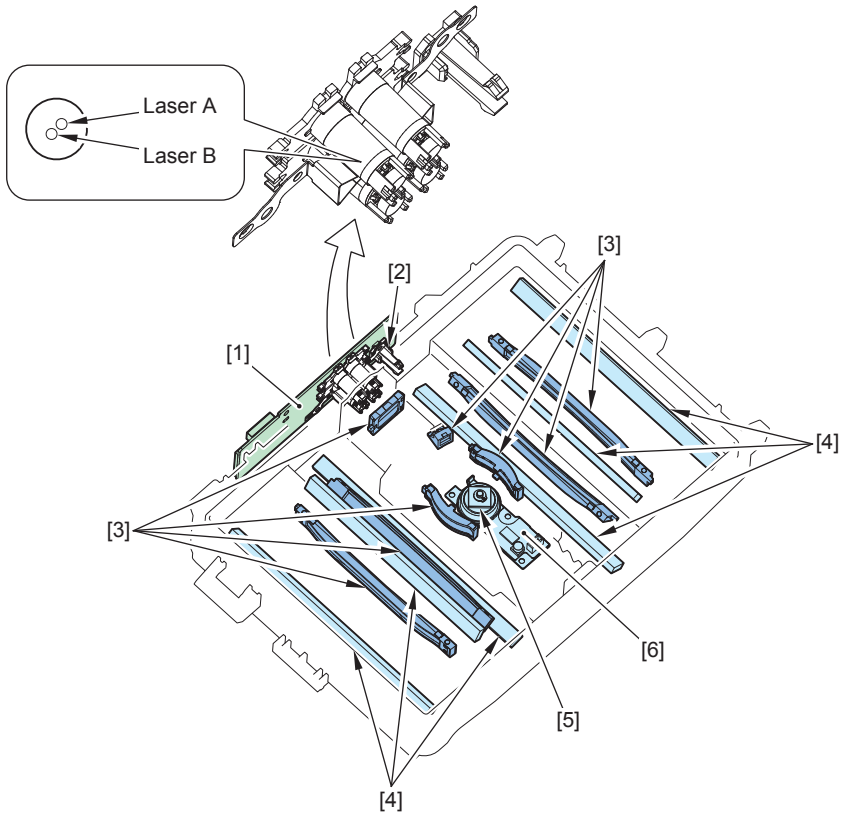


F-2-57

[1] Y/M/C/Bk Laser Driver PCB
[2] BD Circuit
[3] Imaging Lens
[4] Reflection Mirror
[5] Polygon Mirrors
[6] Scanner Motor

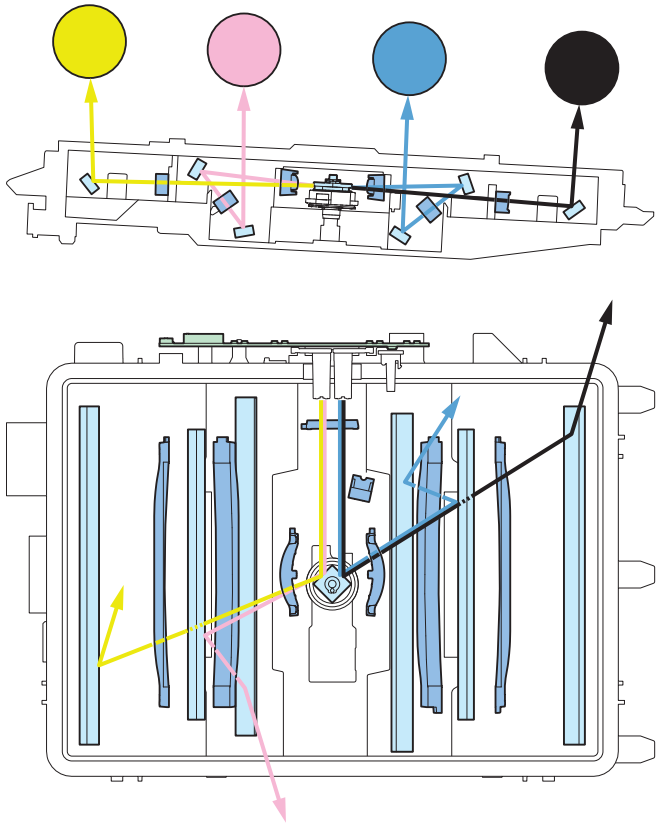
Specification

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	2 beam for each color
Resolution	600dpi
Motor type	Brushless motor
Number of motor rotation	imageRUNNER ADVANCE C350: Approx.35433 rpm imageRUNNER ADVANCE C250: Approx.23917 rpm
Number of scanner mirror facet	4 facet (phi 20)

T-2-19

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.



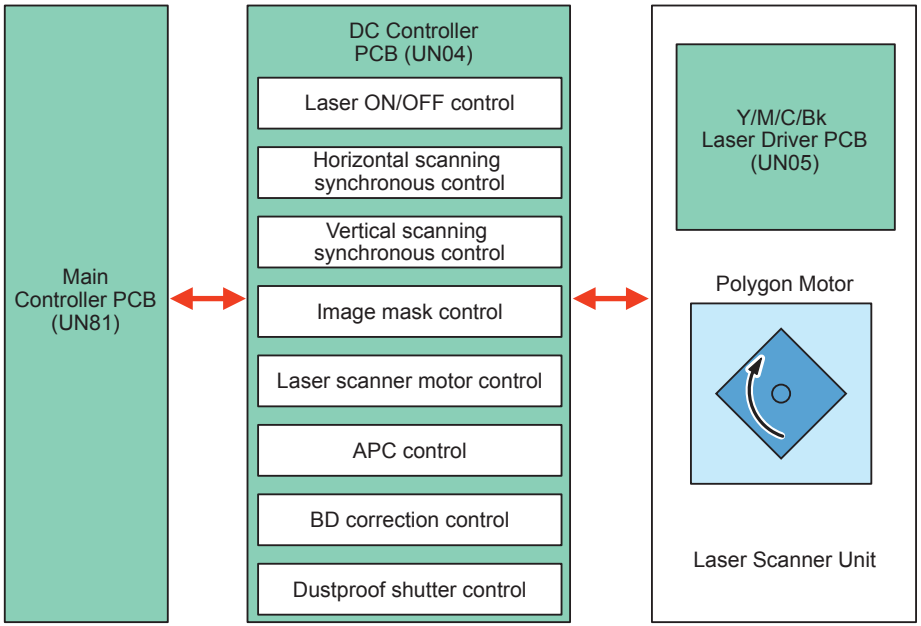
F-2-58

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.

T-2-20



F-2-59

Laser ON/OFF control

Purpose

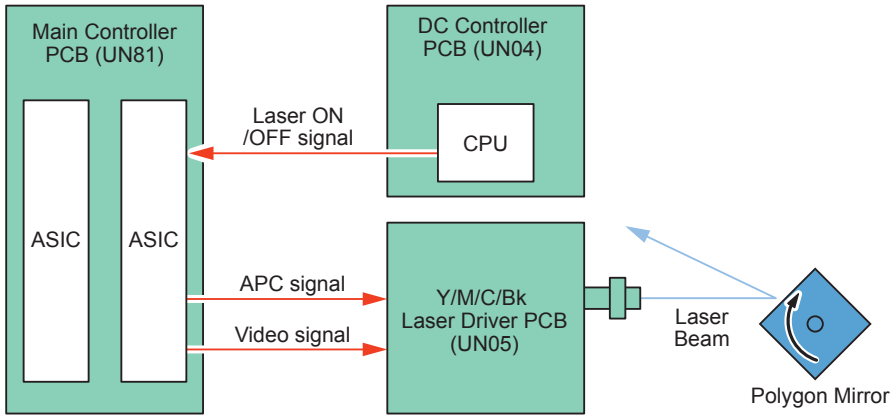
Laser light is turned ON / OFF according to the combination of laser control signal.

Execution timing

After the power ON

Control detail

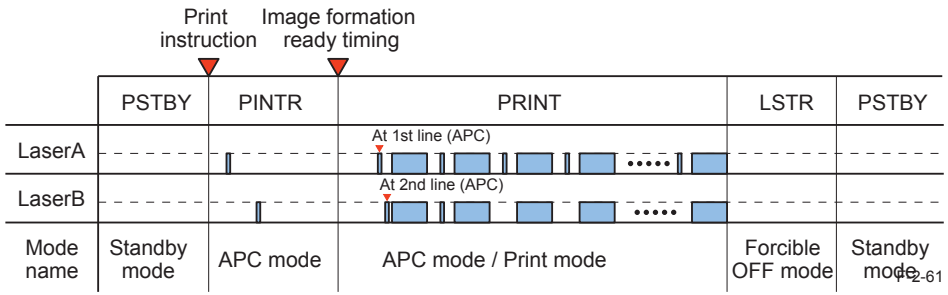
DC Controller switches the 4 modes (forcible OFF mode, APC mode, Print mode and standby mode) according to the laser control signal.



F-2-60

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-2-21



F-2-61

Horizontal scanning synchronous control

Purpose

To align the writing start position in horizontal scanning direction.

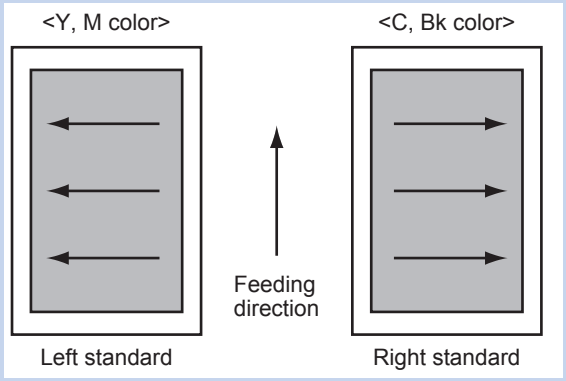
Execution timing

When printing starts (per line)

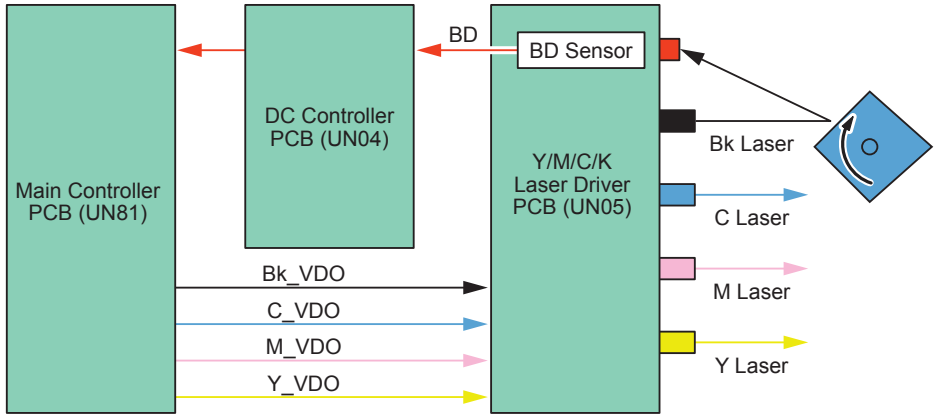
Control detail

1) DC Controller forcibly emits the laser diode on Y/M/C/Bk Laser Driver PCB by setting the laser control signal of Bk -laser to APC mode.
2) The BD Circuit is located on the scanning light path of the laser beam of the Laser Bk, and the laser beam is emitted to the BD Circuit.
3) The BD Circuit detects the laser beam and then generates a BD signal, and sends it to the DC Controller.
4) The DC Controller performs synchronization based on this signal, and then sends a reference BD signal to the Main Controller as the horizontal scanning synchronous signal (BD) for every line.
5) When the Main Controller receives these signals, it outputs the video signals (Y_VDO, M_VDO, C_VOD, and Bk_VDO) to the DC Controller. This enables the Y/M/C/Bk Laser Driver PCB to emit a laser beam from a fixed position for every line.

NOTE:
- Since the BD signal is the horizontal scanning synchronous signal of the Bk color, the Bk color is the reference for horizontal scanning of each color.



F-2-62



F-2-63

Vertical Scanning Synchronous Control

Purpose

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

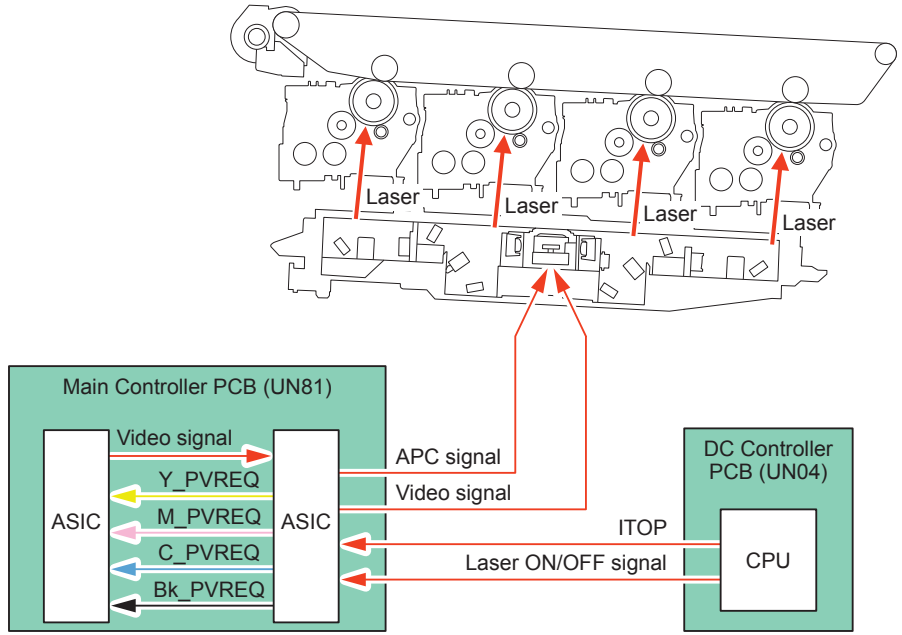
Execution timing

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.



F-2-64

Laser scanner motor control

Purpose

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

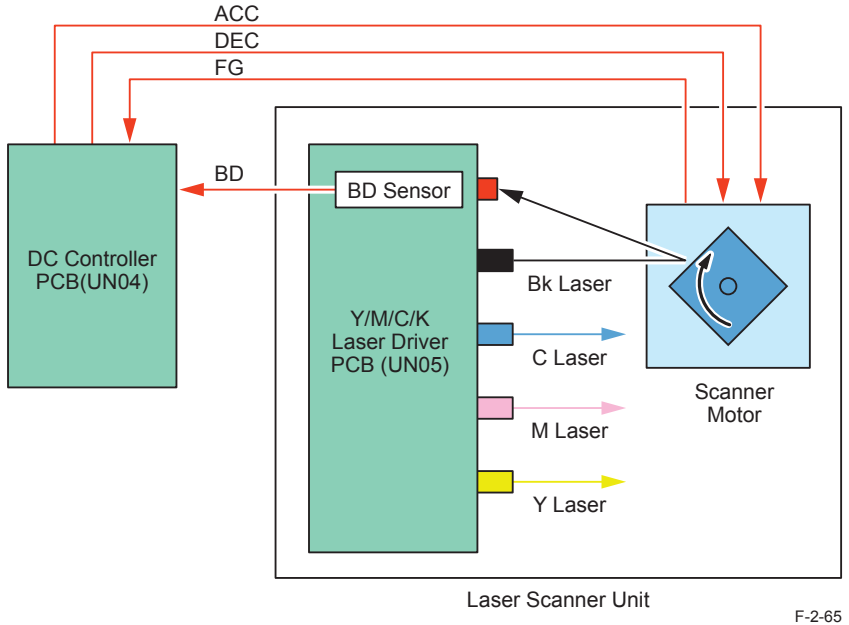
Execution timing

At power ON, Per printing

Control detail

The rotation speed of the Scanner Motor is controlled by the DC Controller.

1) The DC Controller outputs the Scanner Motor control signals (acceleration signal: ACC, deceleration signal: DEC) to the Scanner Motor to rotate the Polygon Mirror.
2) The DC Controller controls the rotation speed of the Scanner Motor to keep it constant by using the Scanner Motor rotation speed signal (FG signal) as a reference. (During the period from the Scanner Motor rotating until the motor reaches the target revolution and the printer starts the image formation process)
3) If the laser is emitted during image formation, the DC Controller detects the BD signal.
4) The DC Controller controls the Scanner Motor control signals (acceleration signal: ACC, deceleration signal: DEC) based on the input timing of the BD signal to control the rotation speed of the Scanner Motor.



F-2-65

APC(Auto Power Control) Control

Purpose

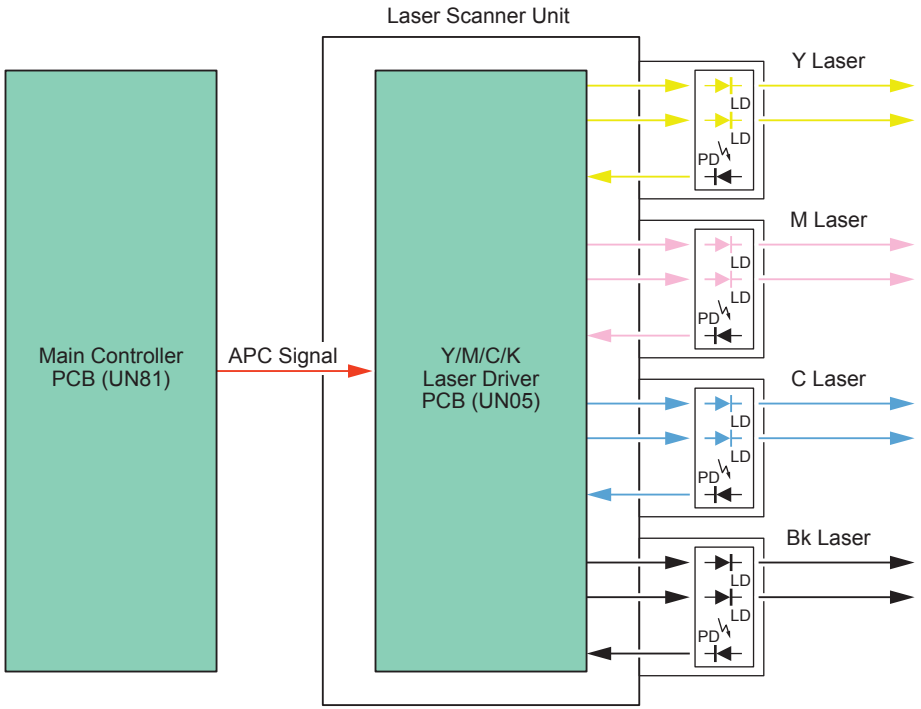
This is to make the laser light for 1 line consistent amount.

Execution timing

Per 1 line. (before print writing)

Control detail

1) The Main Controller outputs the APC signal to the Laser Driver IC in the Y/M/C/Bk Laser Driver PCB.
2) The Y/M/C/Bk Laser Driver PCB IC is set in APC mode, and forcibly emits laser diode of each color. The photo diode (PD) monitors the laser diode (LD), and each Laser Driver IC adjusts the output of laser diode until the laser light intensity reaches a specified level.



F-2-66

Related error code

- E100-0100: BD error
  The BD lock was unlocked although it had been locked once.
- E110-0001: Scanner Motor error (FG lock)
  The speed was not locked by FG control within 5.5 sec after startup.
- E110-0002: Scanner Motor error (BD speed lock)
  The speed was not locked by BD control within 5.5 sec after startup.
- E110-0003: Scanner Motor error (BD phase lock)
  The phase was not locked by BD control within 5.5 sec after startup.

BD correction control

Purpose

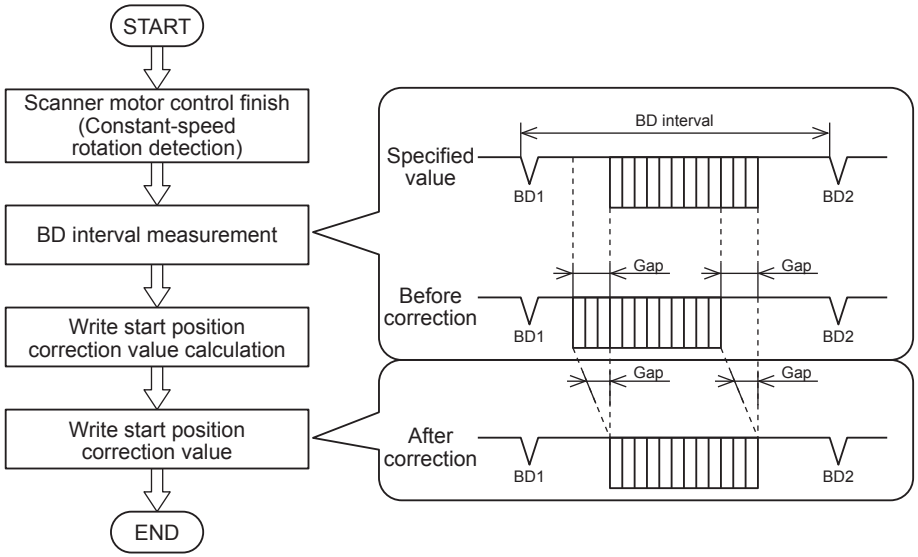
This is to correct the displacement of writing start position of each color laser due to the angle variation of Polygon Mirror facet.

Execution timing

At power-ON, per printing

Control detail

1) The DC Controller measures the BD interval after the completion of constant speed rotation control of the Scanner Motor.
2) The DC Controller calculates the correction value from the offset of the BD interval.
3) The write start position is corrected by correcting the write start timing based on the above correction value.



F-2-67

Dustproof shutter control

Purpose

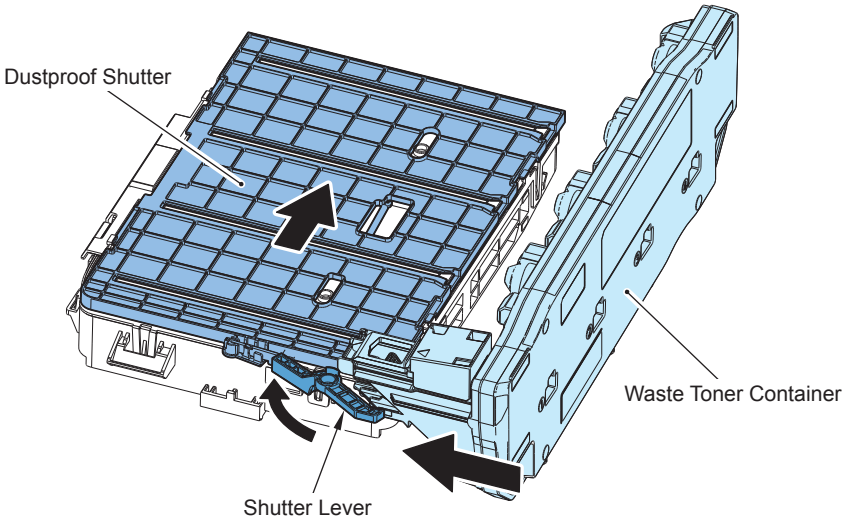
This is to prevent the residue toner from sticking to the dust-prevention glass. Or to prevent the laser light from emitting to the machine inside when the front cover / right cover is opened.

Execution timing

At image formation and when the Waste Toner Container is removed and then installed.

Control detail

The Waste Toner Container and the Shutter Lever of the Laser Scanner Assembly operate in conjunction with each other to open/close the Dustproof Shutter.
When the Waste Toner Container is inserted, the Dustproof Shutter opens, and when the Waster Toner Container is removed, the Dustproof Shutter closes.



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Servicing

Periodically Replaced Parts

None.

Consumable Parts

None.

Periodical Servicing

None.
Perform as needed.

Actions at Parts Replacement

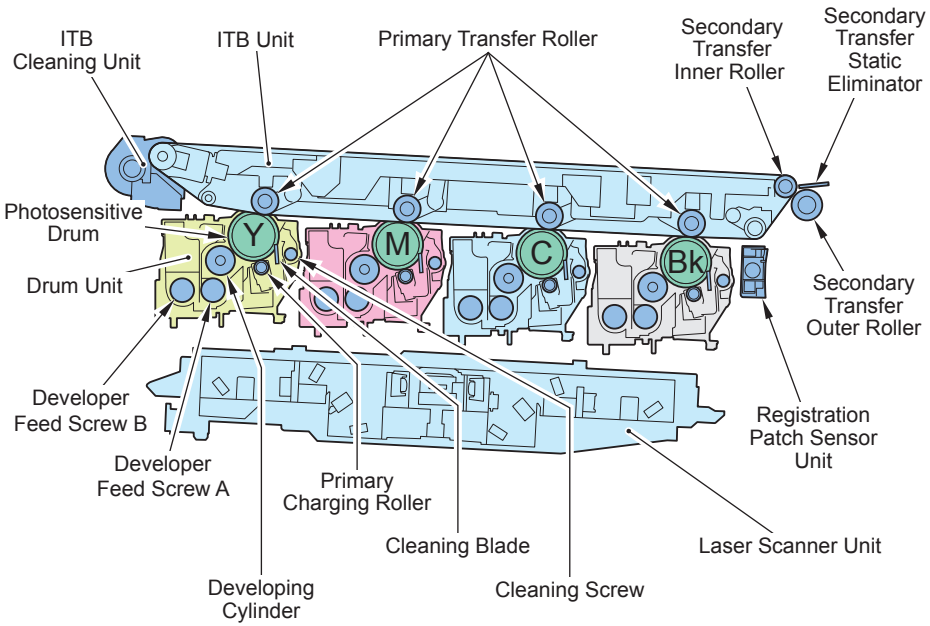
- Actions at Laser Scanner Unit Replacement

Image Formation System

Overview

Overview

Image formation system of this machine uses the Dry, 2-component AC developing 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.



F-2-69

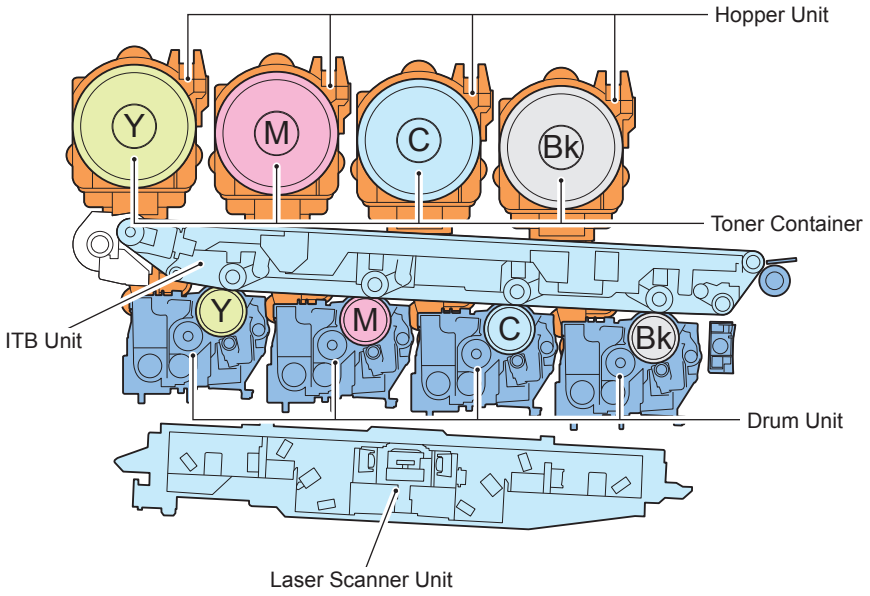
Specifications

Item		Function/Method
Photosensitive Drum	Material	OPC
	Drum diameter	30mm dia
	Cleaning	Cleaning blade
	Process speed	imageRUNNER ADVANCE C350 : 200 mm/s imageRUNNER ADVANCE C250 : 135 mm/s
	Drum Heater	None
Developing Assembly	Developing Cylinder	1 cylinder (single-developing method)
	Developing method	Dry, 2-component AC developing
	Toner	Non-magnetic negative toner
	Toner level detection	Yes (with the use of ATR Sensor)
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	Inner perimeter length: 791.9 mm
	Cleaning	Cleaning Blade
	Belt displacement correction	Yes (controlled by hardware configuration)
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-2-22

Parts Configuration

Major Parts



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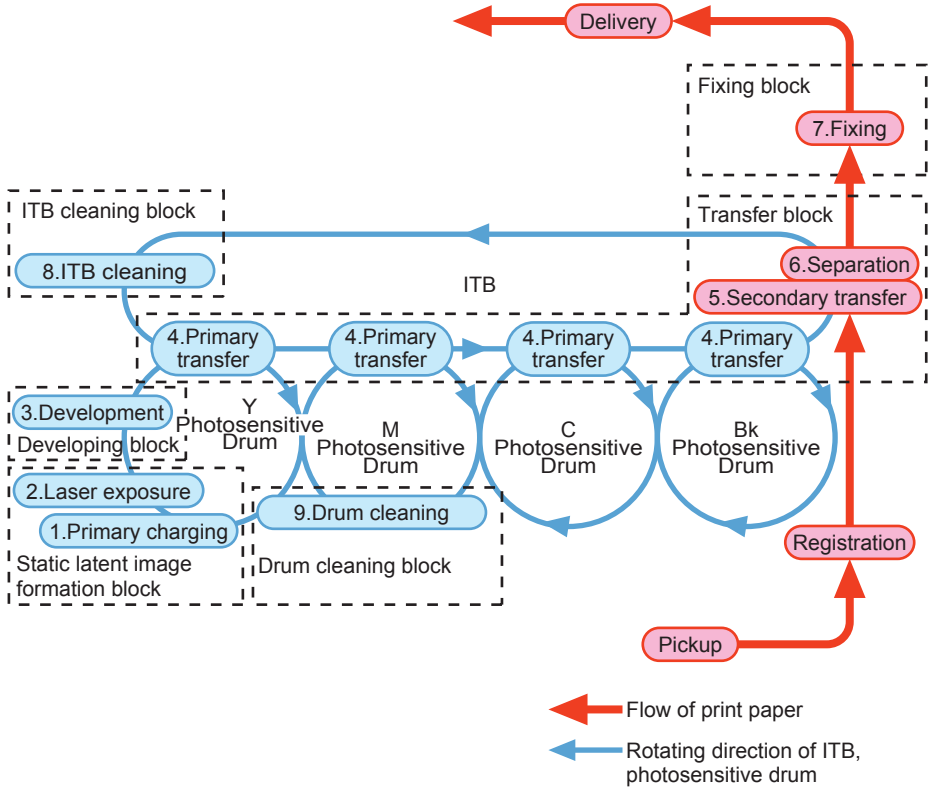
Print Process

Overview



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Static latent image formation block	1	Primary charging	To charge the surface of photosensitive drum to be uniformed negative potential
	2	Laser exposure	To create static latent image on the surface of photosensitive drum by emitting laser light (image exposure: laser exposure area becomes image area)
Developing block	3	Developing	To attach negatively-charged toner from the developing cylinder to the photosensitive drum by Dry, 2-component AC developing.
Transfer block	4	Primary transfer	To apply positively-charged potential from the back surface of ITB to transfer toner on the surface of photosensitive drum to ITB.
	5	Secondary transfer	To apply positively-charged potential to the secondary transfer outer roller to transfer toner on the ITB to the paper.
	6	Separation	To separate paper from the ITB by curvature separation method. In the case of thin paper which has low elastic force, the static eliminator reduces potential on the surface of paper to separate thin paper more easily.
Fixing block	7	Fixing	To fix toner on the paper with heat and pressure.
ITB cleaning block	8	ITB cleaning	To remove residual toner on the ITB by the cleaning blade.
Drum cleaning block	9	Drum cleaning	To remove residual toner on the photosensitive drum by the cleaning blade.

T-2-23

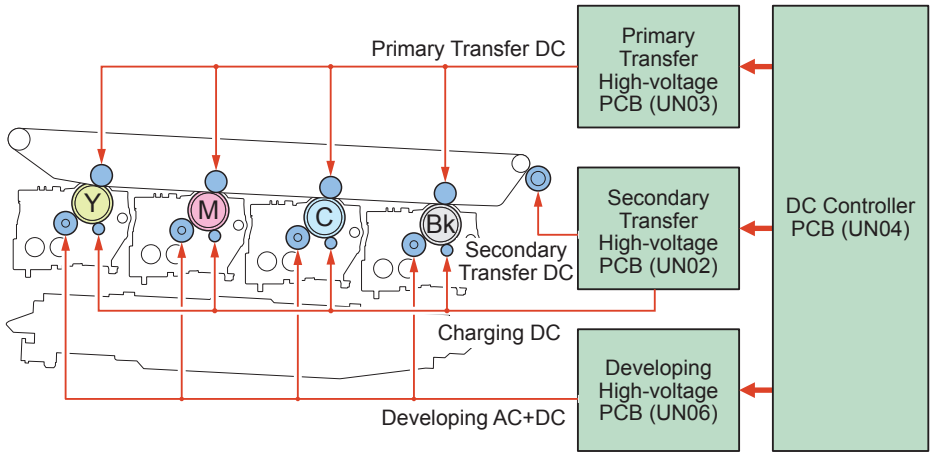
Bias Types

The following 5 types of bias are used with this machine.

Bias name	Bias types	Bias value (Reference value)	Application location	Control PCB
Primary charging bias (DC)	DC	-1600 to 0 V	Primary Charging Roller	Secondary Transfer High-voltage PCB (UN02)
Developing bias (DC)	DC	-700 to 0 V	Developing Cylinder	Developing High-voltage PCB (UN06)
Developing bias (AC)	AC	Amplitude: 1750 V		
Primary transfer bias	DC	0 to 3500 V	Primary Transfer Roller	Primary Transfer High-voltage PCB (UN03)
Secondary transfer bias	DC	-1600 to 6000 V	Secondary Transfer Outer Roller	Secondary Transfer High-voltage PCB (UN02)

T-2-24

The abovementioned biases are generated by the 3 High Voltage PCBs and are also supplied to the loads used in printing process.



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Controls

Overview

Primary charging	
	Primary charging bias control

Image stabilization control	
	D-max control
	PASCAL control
	D-half control
	ARCDAT control
	Color displacement correction control

Drum Unit (Developing/Drum)	
	Developing bias control
	Drum Unit detection
	Drum Unit Life Detection

Toner supply	
	Toner Cap opening
	Toner supply control/Toner level detection
	Toner Log Detection
	ATR control
	Toner supply control
	Toner level detection control

Transfer/Separation	
	Primary Transfer Roller disengagement control
	ATVC control
	Primary transfer bias control
	Secondary transfer bias control
	ITB cleaning
	Secondary Transfer Outer Roller cleaning control

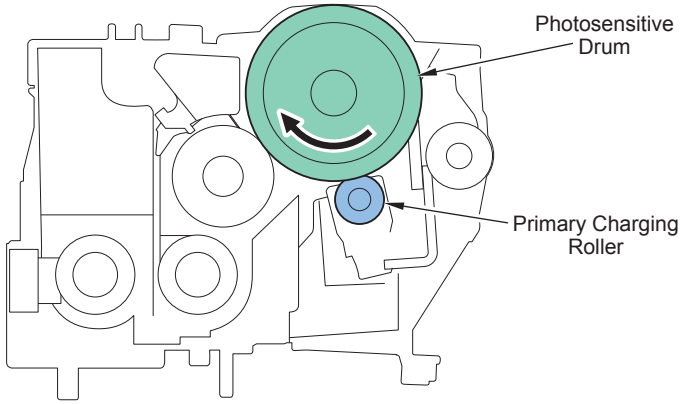
Waste toner feeding	
	Waste toner full level detection
	Waste Toner Container detection

Drum cleaning	
	Drum cleaning control

Primary Charging

Overview

This machine uses the roller charging method for primary charging.



F-2-73

● Primary Charging Bias Control

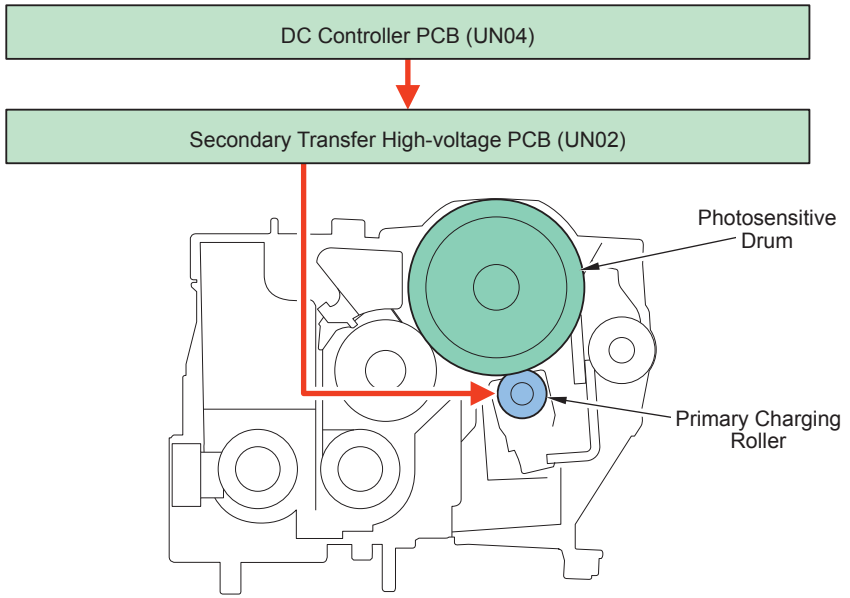
DC charging (no AC charging) is a distinguishing feature of the primary charging of this machine.

The surface of the Photosensitive Drum is charged to make a uniform negative potential.

The primary charging bias (DC negative), which has been generated by the Secondary Transfer High-voltage PCB (UN02), 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 (UN33))
- Life of the Photosensitive Drum

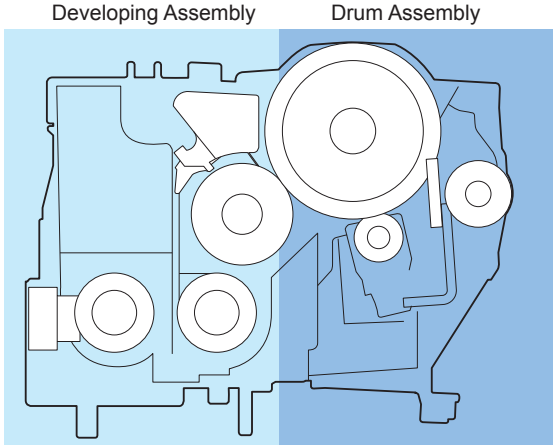


F-2-74

■ Drum Unit (Developing/Drum)

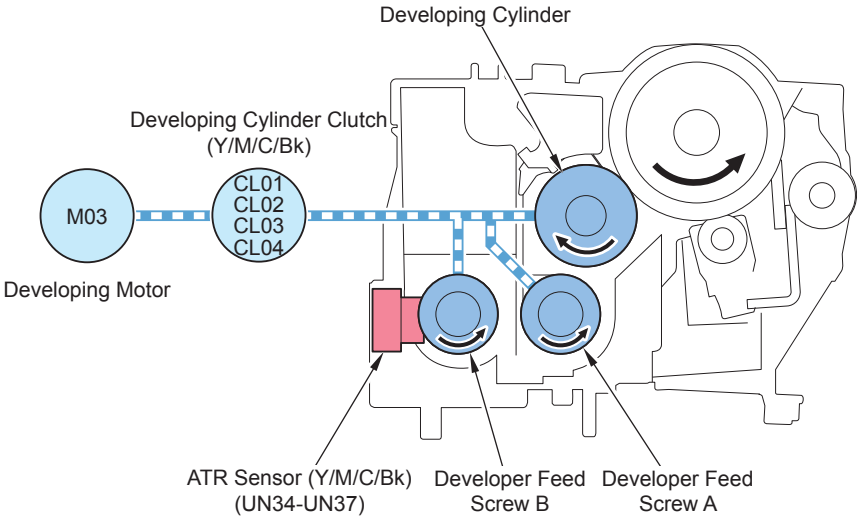
● Drum Unit Overview

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



F-2-75

Developing Overview/ Drive Configuration



F-2-76

Parts name	Function
Developing Assembly	To develop toner fed from the Hopper Unit to the Photosensitive Drum.
Developing Cylinder	The toner and carrier inside the Developer Container are supported on the surface and the toner is developed on the Photosensitive Drum.
Developer Feed Screw A	Toner and carrier in the Developer Container are supplied to the Developing Cylinder.
Developer Feed Screw B	Toner and carrier in the Developer Container are stirred and supplied to the Developer Feed Screw A.

T-2-25

Parts name		Function
M03	Developing Motor	To rotate the Y/M/C Developing Cylinder and the Developer Feed Screw.
UN34 to UN37	ATR Sensor (Y,M,C,Bk)	To detect the ratio of developer (toner + carrier) in the Developing Assembly.

T-2-26

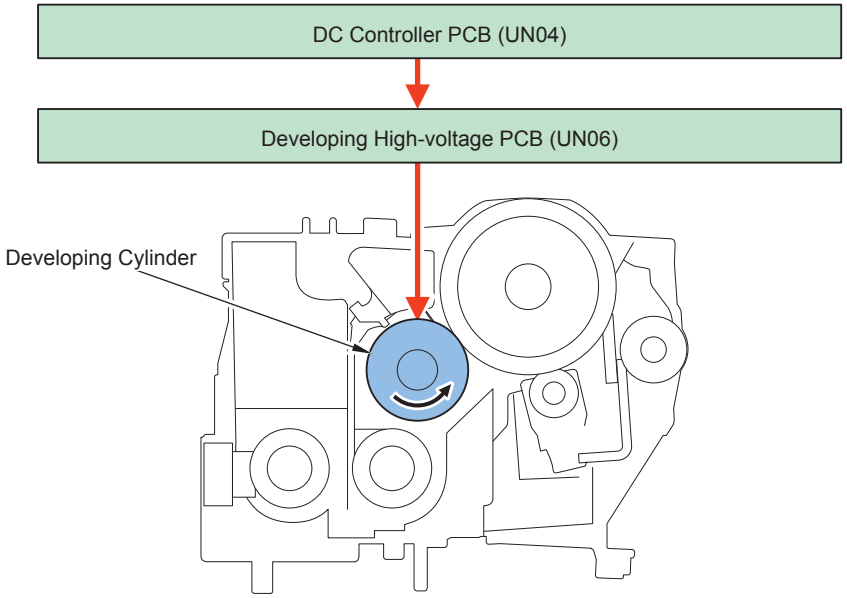
Developing bias control

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

Control description

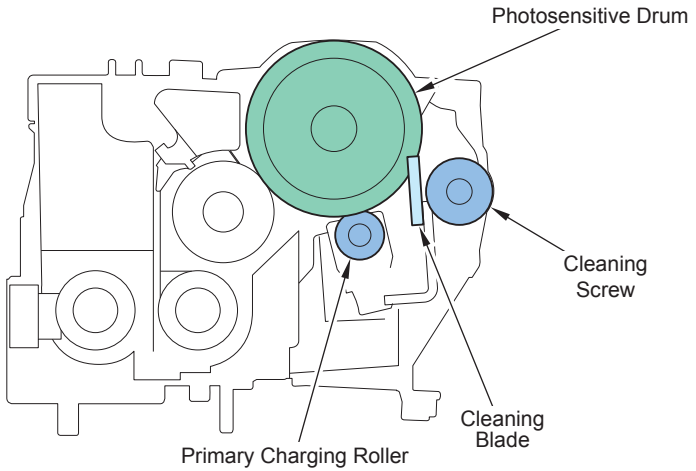
The developing bias (AC, DC negative), which has been generated on the Developing High-voltage PCB (UN06), is applied to the Developing Cylinder.

- Developing DC bias: The bias to generate potential difference with the Photosensitive Drum.
  The bias value is determined based on the Environment Sensor (UN33).
- Developing AC bias: The bias to improve image quality.



F-2-77

Drum Overview

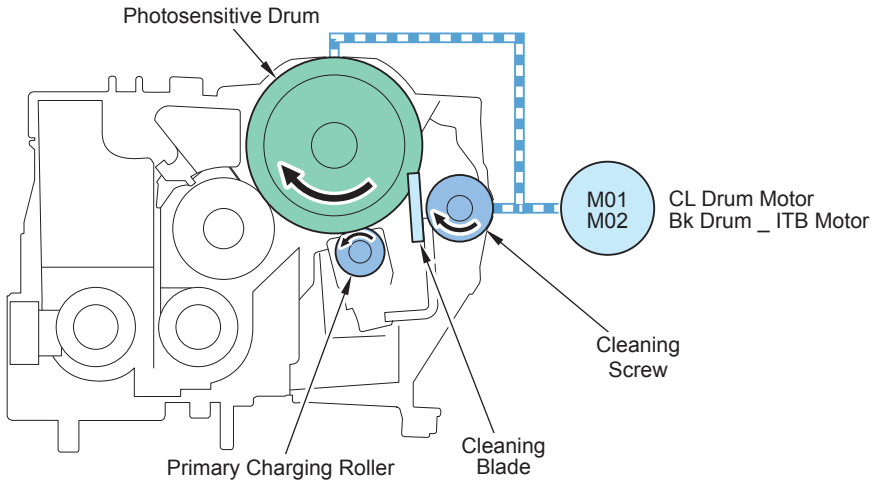


F-2-78

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.
Drum cleaning blade	To remove residual toner on the photosensitive drum.
Waste toner screw	To feed residual toner.

T-2-27

Drive Configuration



F-2-79

Parts name		Function
M01	CL Drum Motor	Rotation of the Photosensitive Drum (Y/M/C)
M02	Bk Drum _ ITB Motor	Rotation of the Photosensitive Drum (Bk)

T-2-28

Related error codes
E010-0001 Bk Drum_ITB Motor startup error
E010-0002 Bk Drum_ITB Motor speed error
E010-0003 Bk Drum_ITB Motor lock detection error
E012-0001 CL Drum Motor startup error
E012-0002 CL Drum Motor speed error
E012-0003 CL Drum Motor lock detection error

Drum Unit Detection

Whether the Drum Unit is installed or not is detected.

Detection timing

1) At power-on, at recovery from sleep mode (of 4 or more hours), when the Front Door and Right Door are opened/closed.

Detection description

This machine detects the presence/absence of a Drum Unit in the following order.

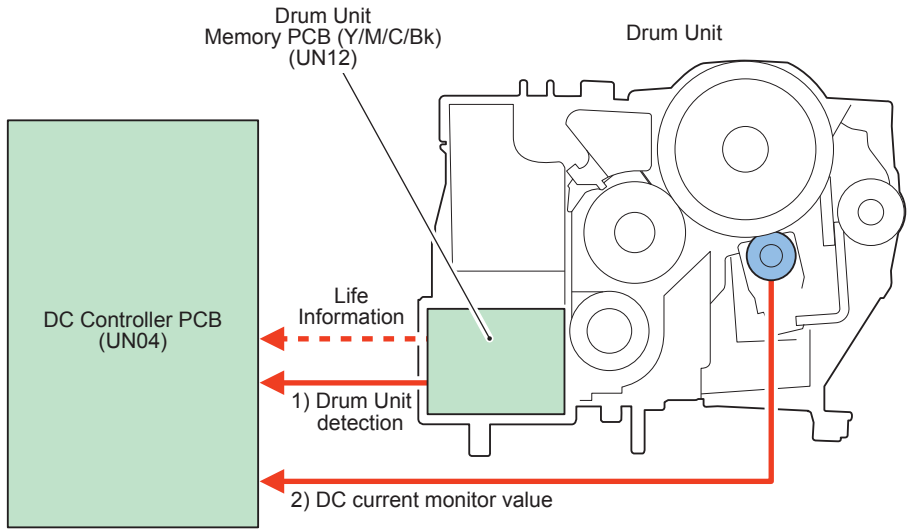
1) The Drum Unit Memory PCB of the Drum Unit is detected.
   If the Drum Unit Memory PCB can be detected, it is judged that the Drum Unit is attached.
   If the Drum Unit Memory PCB cannot be detected, step 2 is executed.
2) It is determined by the DC current monitor value at warm-up rotation.
   When the current monitor value is less than the specified value (5 micro A): Drum Unit absent
   When the current monitor value is the specified value (5 micro A) or higher: Drum Unit present

Execution time

Within 1 second

Operation of the host machine

The machine is stopped and “No drum unit” is displayed on the Control Panel at the same time.



F-2-80

NOTE:
Drum Unit detection may not be executed at times such as at recovery from sleep mode (of 4 or more hours).
"No drum jam" is detected when a print job is executed with no Drum Unit installed in the machine.

Related jam codes
00-0B0D: No drum jam

Drum Unit Life Detection

Life of the Drum Unit (Photosensitive Drum) is detected.
This machine does not have a Photosensitive Drum film thickness detection mechanism so the change in the film thickness is calculated by the rotation time of the Photosensitive Drum + time that the primary charging DC bias is applied.

Detection timing

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

Detection description

1) The count value for the drum life is calculated by the rotation time of the Photosensitive Drum + time that the primary charging DC bias is applied as well as the time that the developing AC bias is applied.
2) The count value calculated in step 1 of "Control description" is added to the drum count value stored in the Drum Unit Memory PCB of the Drum Unit.

NOTE:
The life (displayed in %) can be checked by the following service mode:

- Drum counter life display (Y)
  COPIER > COUNTER > LF > Y-DRM-LF
- Drum counter life display (M)
  COPIER > COUNTER > LF > M-DRM-LF
- Drum counter life display (C)
  COPIER > COUNTER > LF > C-DRM-LF
- Drum counter life display (Bk)
  COPIER > COUNTER > LF > K-DRM-LF

	Pre-toner Low Alarm	Display to prompt replacement	Completion of replacement
Timing	• Y/M/C/K-DRM-LF (*1) = 100% (initial value) The value can be changed in service mode.(*2)	7 days after pre-toner low alarm is sent (Default: Hide (*3))	When the Drum Unit is detected
Detected to (location)	Drum Unit Memory PCB	-	Drum Unit Memory PCB
Message (Operation of the host machine)	None	Replace the Drum Unit.	None
Alarm code	40-0070 (Y), 0071 (M), 0072 (C), 0073 (Bk) (*4)	None	35-0070 (Y), 0071 (M), 0072 (C), 0073 (Bk) (*5)

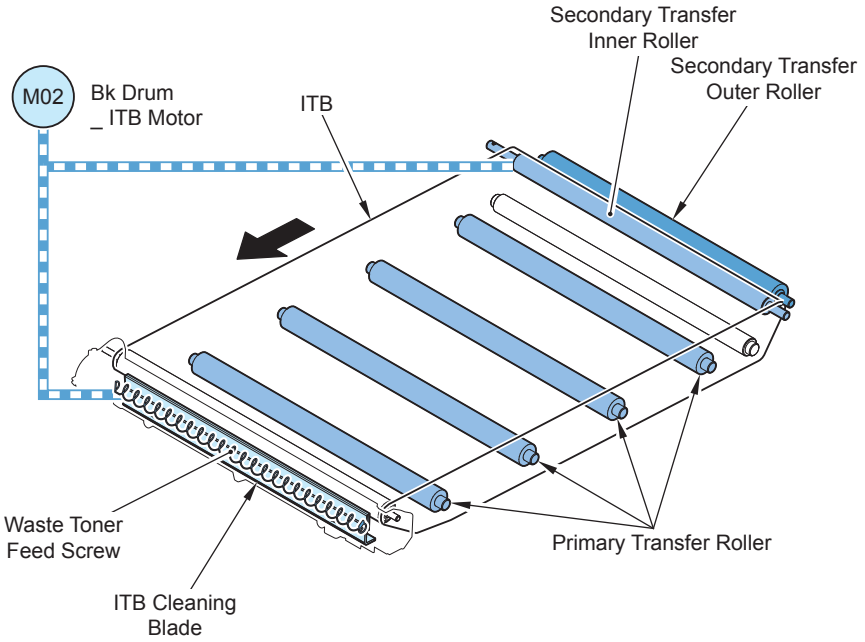
T-2-29

*1: (Lv.1) COPIER > COUNTER> LF > Y/M/C/K-DRM-LF
*2: (Lv.1) COPIER > OPTION > FNC-SW > D-DLV-CL/BK
*3: Display/Hide can be switched in (Lv.2) COPIER > OPTION > USER > P-CRG-LF (0: Hide)
*4: During the period from when a pre-toner low alarm is sent to when a replacement completion alarm is sent, the next pre-toner low alarm is not sent. It is displayed in COPIER > DISPLAY > ALARM-2.
*5: It is displayed in COPIER > DISPLAY > ALARM-3.

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.

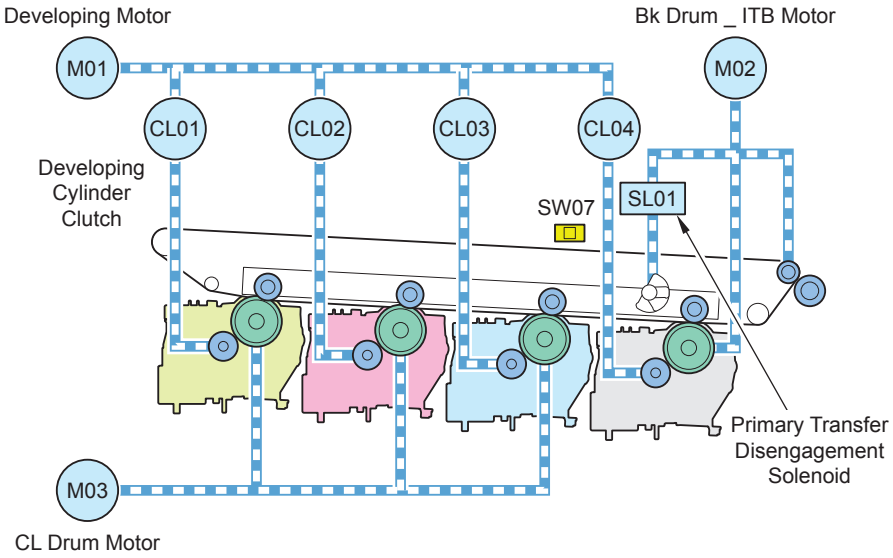


F-2-81

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-2-30

Drive Configuration



F-2-82

Parts name		Function
M2	ITB Motor	Rotation of the ITB, the Photosensitive Drum (Bk) and the Waste Toner Screw. The Primary Transfer Roller (Y/M/C/Bk) is engaged.
SL01	Primary Transfer Disengagement Solenoid	The Primary Transfer Roller (Y/M/C/Bk) is engaged. The disengagement status is switched.
SW07	ITB Pressure Release Switch	The Primary Transfer Roller (Y/M/C/Bk) is engaged. The status of disengagement is detected.

T-2-31

Related error codes
E010-0001: Bk Drum_ITB Motor startup error
E010-0002: Bk Drum_ITB Motor speed error
E010-0003: Bk Drum_ITB Motor lock detection error

Primary Transfer Roller Disengagement Control

The Primary Transfer Roller is usually disengaged.

Timing of engagement

- When image formation is executed

Related service mode:
- Execution of the Primary Transfer Roller disengagement

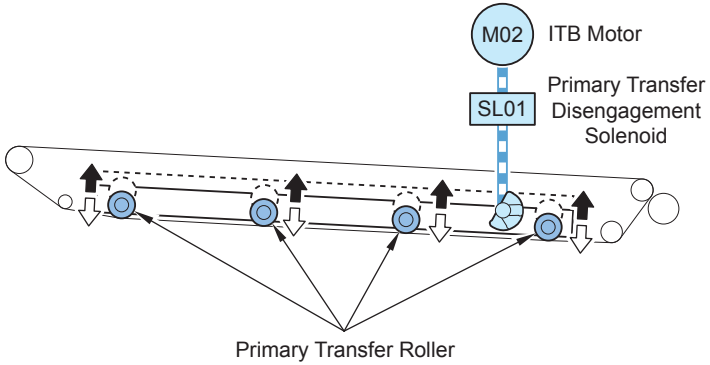
COPIER > FUNCTION > MISC-P > T1-UP

- ON/OFF of init after ITB rplce:UI menu

COPIER > OPTION > DSPLY-SW > ITB-DSP:
To set whether to display "ITB" on Initialization screen after replacing parts in UI menu. When allowing the user to replace the ITB, set 1.

Timing of disengagement

- At power-on
- At recovery from sleep mode
- When the Front Door or the Right Door is opened or closed (if not disengaged)
- When image formation is completed



F-2-83

ATVC Control

Primary Transfer ATVC

The transfer voltage required to prevent transfer failure due to environmental changes and to obtain the target transfer current value is set.

Control timing

1) At power-on (when the fixing temperature is 80 deg C or higher)
2) At power-on (when the Right Door is opened/closed at times other than at jam removal)
3) When the internal temperature has been changed from the time of previous ATVC control by 3 deg C
4) At paper interval (equivalent to 80 images) during continuous printing
5) At last rotation after accumulated 50 images

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

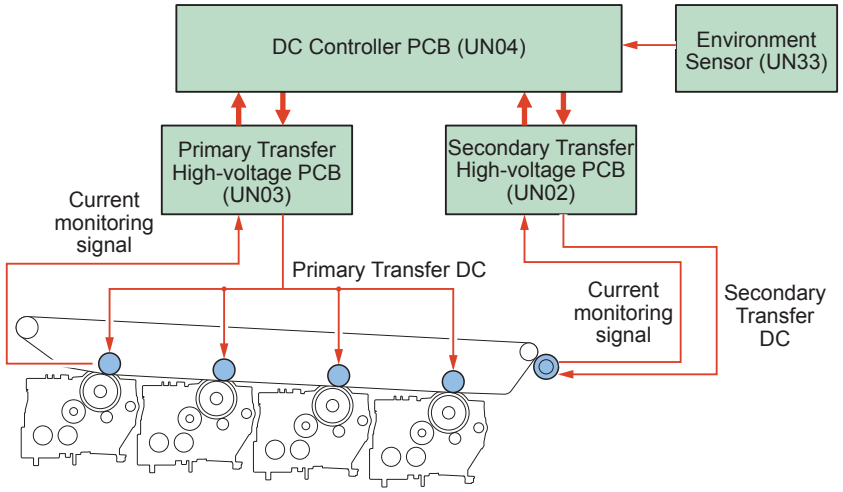
The transfer voltage required to prevent transfer failure due to environmental changes or paper type and to obtain the target transfer current value is set.

Control timing

1) At the same timing as the paper interval (equivalent to 80 images) during continuous printing of the Primary Transfer ATVC
2) At initial rotation
3) At paper interval on a specified print basis (100 sheets or more)

Control description

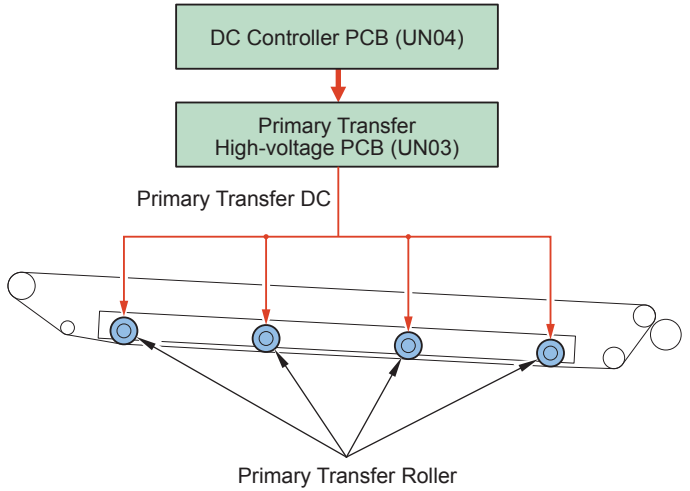
1) Monitor current value of the secondary transfer DC bias is detected.
2) Optimal target current value is determined based on temperature/humidity data of the Environment Sensor and paper type.
3) The secondary transfer DC bias is determined that is to be applied to the Secondary Transfer Roller.



F-2-84

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 though the Primary Transfer Roller.



F-2-85

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

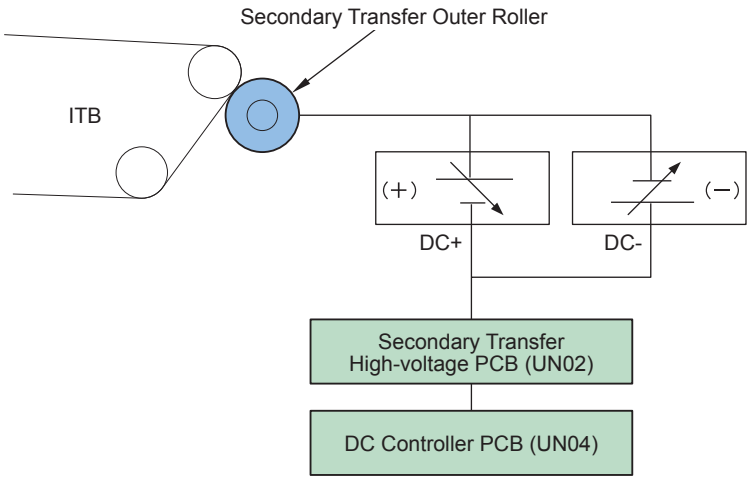
Toner on the ITB is transferred to a paper.

The secondary transfer bias, which has been generated on the Secondary Transfer High-voltage PCB (UN02), 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 though the Secondary Transfer Outer Roller.



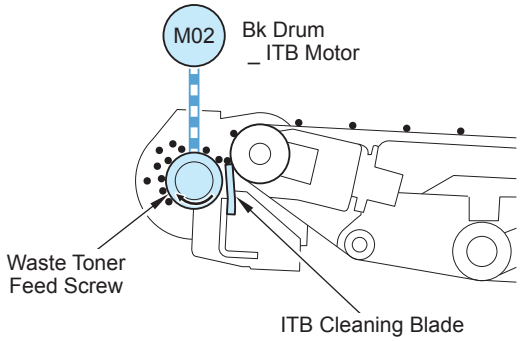
F-2-86

ITB Cleaning

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-2-87

Related service mode:

- Setting of the interval (number of sheets) to conduct ITB cleaning
- Setting of the number of transparencies to execute ITB cleaning

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.

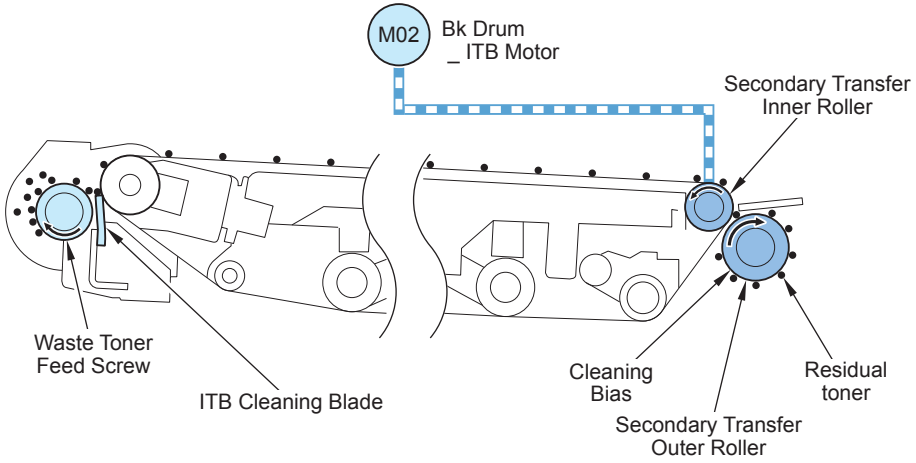
Control timing

1) When image stabilization control (generation of patch image on the ITB) is executed during warm-up rotation
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 (DC minus + DC plus), which has been generated on the Secondary Transfer High-voltage PCB (UN02), 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.



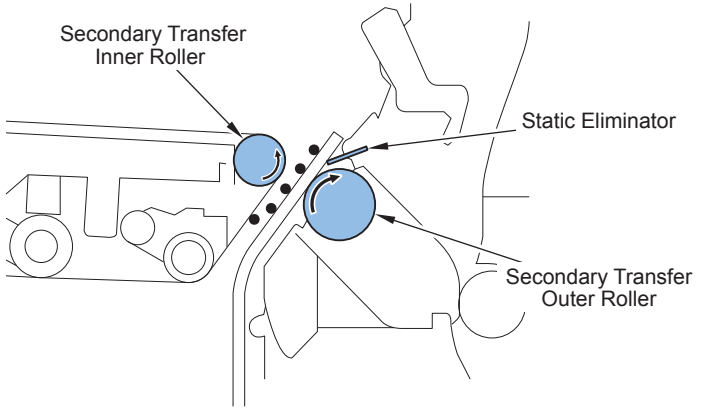
F-2-88

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-2-89

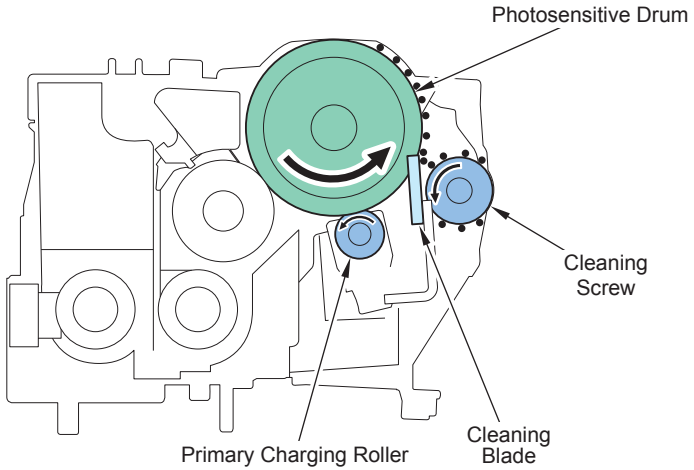
Drum Cleaning

Drum cleaning control

To clean residual toner on the photosensitive drum

Residual toner on the drum is scraped by the drum cleaning blade.

Then, rotation of the waste toner screw feeds the residual toner to the waste toner case.

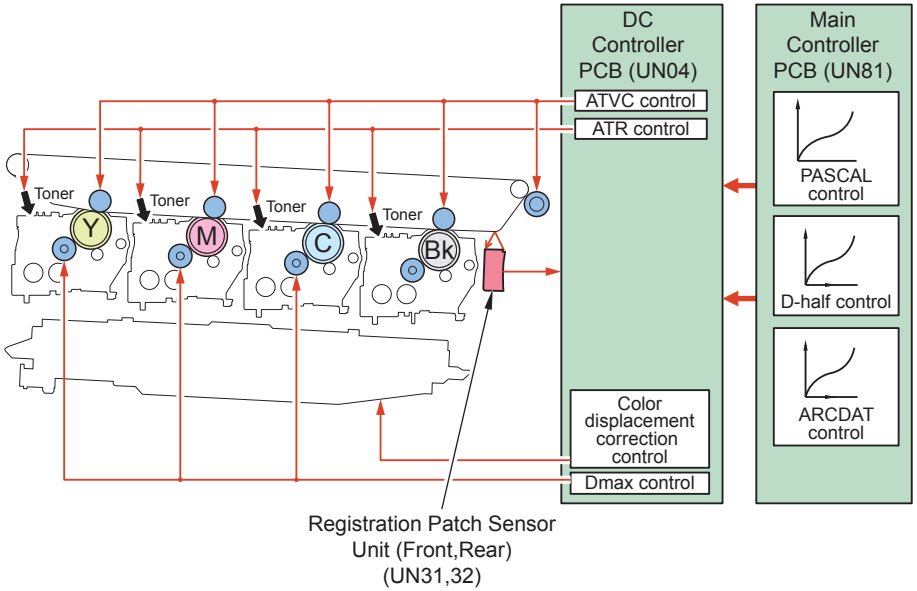


F-2-90

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-2-91

Related alarm codes
- 10-0006: Patch Sensor error 1
- 10-0007: Patch Sensor error 2

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	Control type				
		D-max Control	PASCAL control	D-half Control	ARCDAT Control	Color Displacement Correction Control
At power-on	At power-on					○
At recovery from sleep mode	At recovery from sleep mode					○
At initial rotation	At initial rotation of PASCAL control or D-half control	○				
At paper interval	At paper interval on a specified print basis (80 sheets or more)				○	
	At paper interval on a specified print basis (200 sheets or more)	○				
At last rotation	At last rotation on a specified print basis (30 sheets or more)				○	
	At last rotation on a specified print basis (200 sheets or more)	○				
	At last rotation on a specified print basis (1000 sheets or more)			○		
	At last rotation after printing when the designated temperature difference or humidity difference from the previous execution has been exceeded	○				
	At last rotation when PASCAL control is executed			○		
	At last rotation of PASCAL control or D-half control				○	
At installation or during parts replacement	When replacing the Drum Unit	○			○	
	During installation and when replacing the Drum Unit			○		
When UI menu is executed	When calibration is executed (When "auto gradation adjustment -> full adjustment" is executed)		○			
	When "Auto color displacement correction" is executed*					○

T-2-32

* 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.

D-max Control

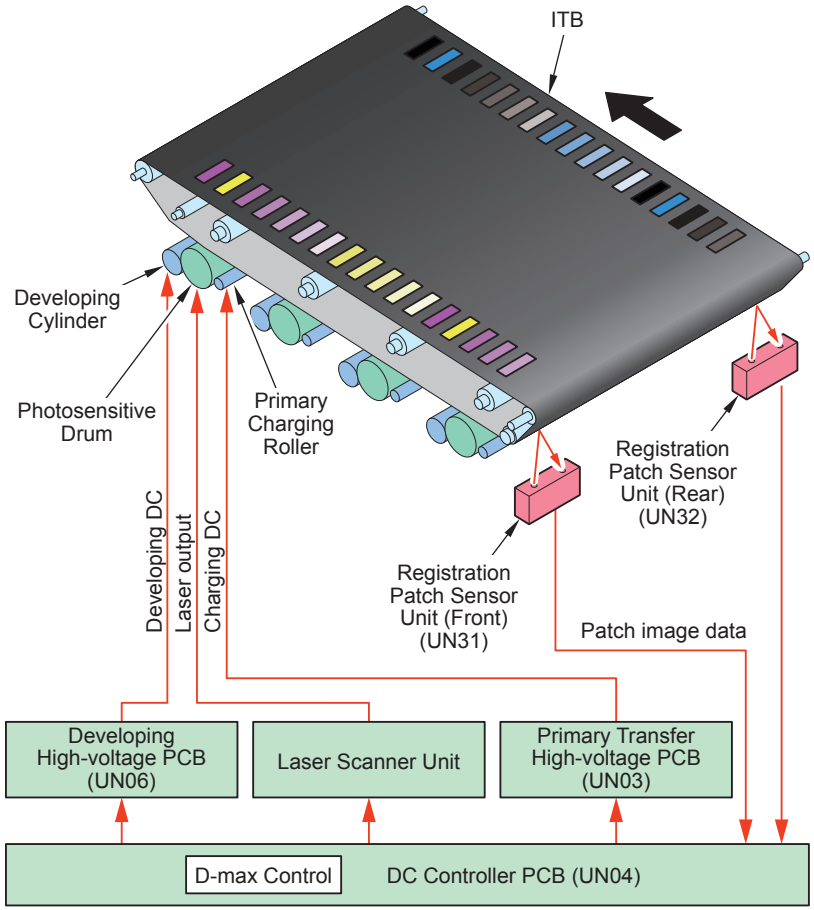
The optimal laser output is determined.

Control timing

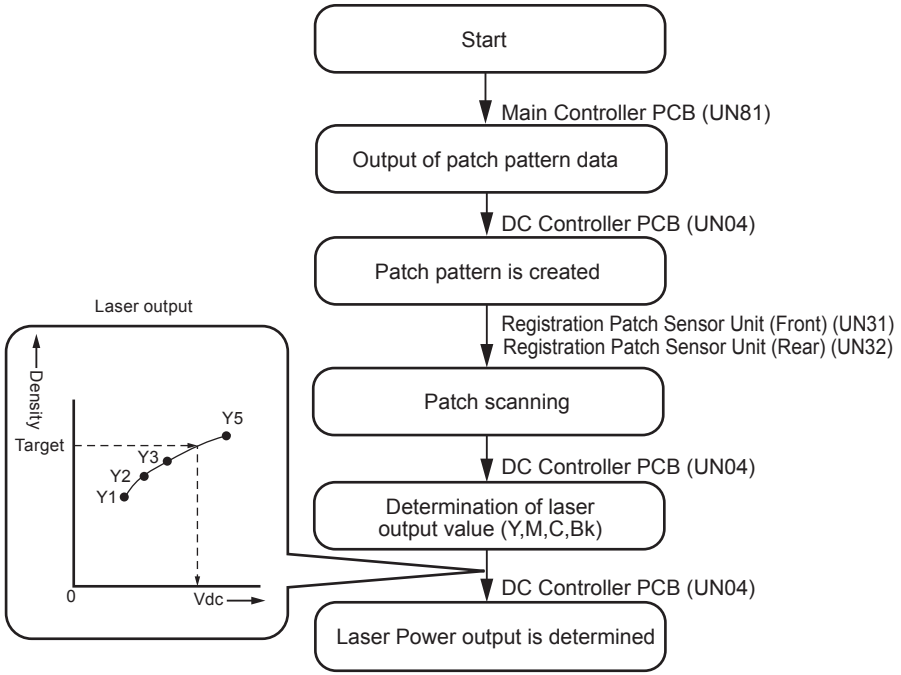
1) When replacing the Drum Unit
2) At last rotation or paper interval on a specified print basis (200 sheets or more)
3) At last rotation after printing when the designated temperature difference or humidity difference from the previous execution has been exceeded
4) At initial rotation of PASCAL control or D-half Control

Control description

1) Main Controller PCB forms patch pattern in the target color on the ITB.
2) The DC Controller measures patch density by the Registration Patch Sensor Unit (Front) (UN31)/Registration Patch Sensor Unit (Rear) (UN32) to correct developing bias, primary charging bias and laser output in each color to meet the target density.


ITB
Developing Cylinder
Photosensitive Drum
Primary Charging Roller
Registration Patch Sensor Unit (Rear) (UN32)
Registration Patch Sensor Unit (Front) (UN31)
Developing DC
Laser output
Charging DC
Patch image data
Developing High-voltage PCB (UN06)
Laser Scanner Unit
Primary Transfer High-voltage PCB (UN03)
D-max Control
DC Controller PCB (UN04)

F-2-92


Start
Main Controller PCB (UN81)
Output of patch pattern data
DC Controller PCB (UN04)
Patch pattern is created
Registration Patch Sensor Unit (Front) (UN31)
Registration Patch Sensor Unit (Rear) (UN32)
Patch scanning
DC Controller PCB (UN04)
Determination of laser output value (Y,M,C,Bk)
DC Controller PCB (UN04)
Laser Power output is determined
Laser output
Density
Target
Y1
Y2
Y3
Y5
0
Vdc

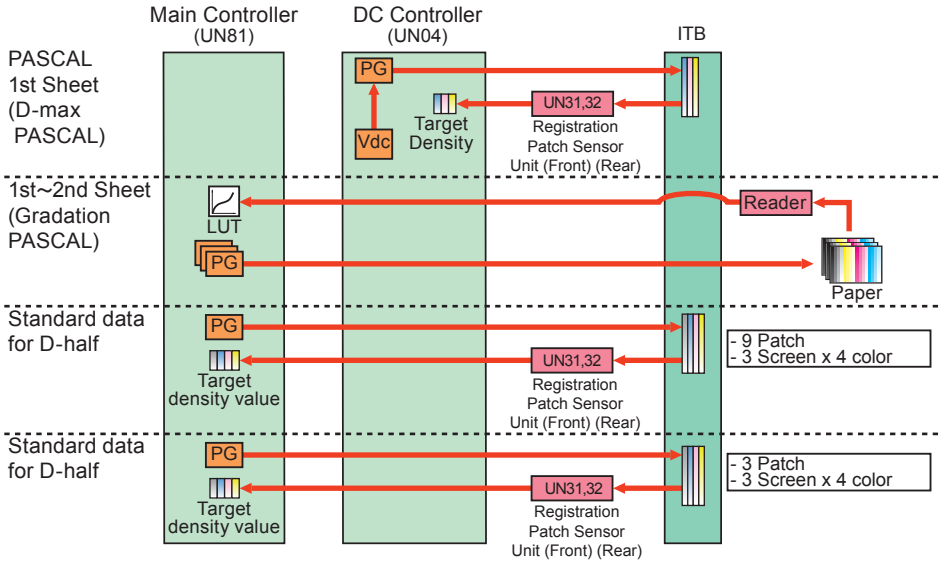
F-2-93

PASCAL control

Gradation density characteristics on the image are stabilized.

This control is executed when the following is selected in UI menu: 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-2-94

Control timing

When executing calibration (during execution of “Auto Gradation Adjustment > Full Adjustment” in UI menu)

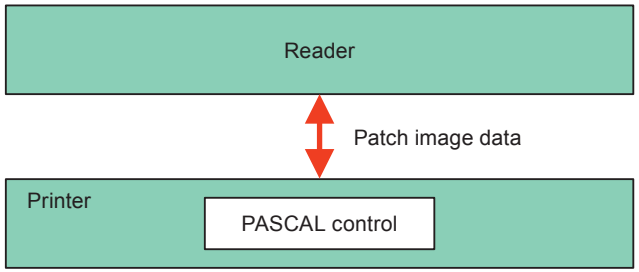
Control description

1) When the specified conditions are satisfied, the Main Controller PCB 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 creates an image gradation density correction table from the gradation density data of patch pattern scanned by the Reader.

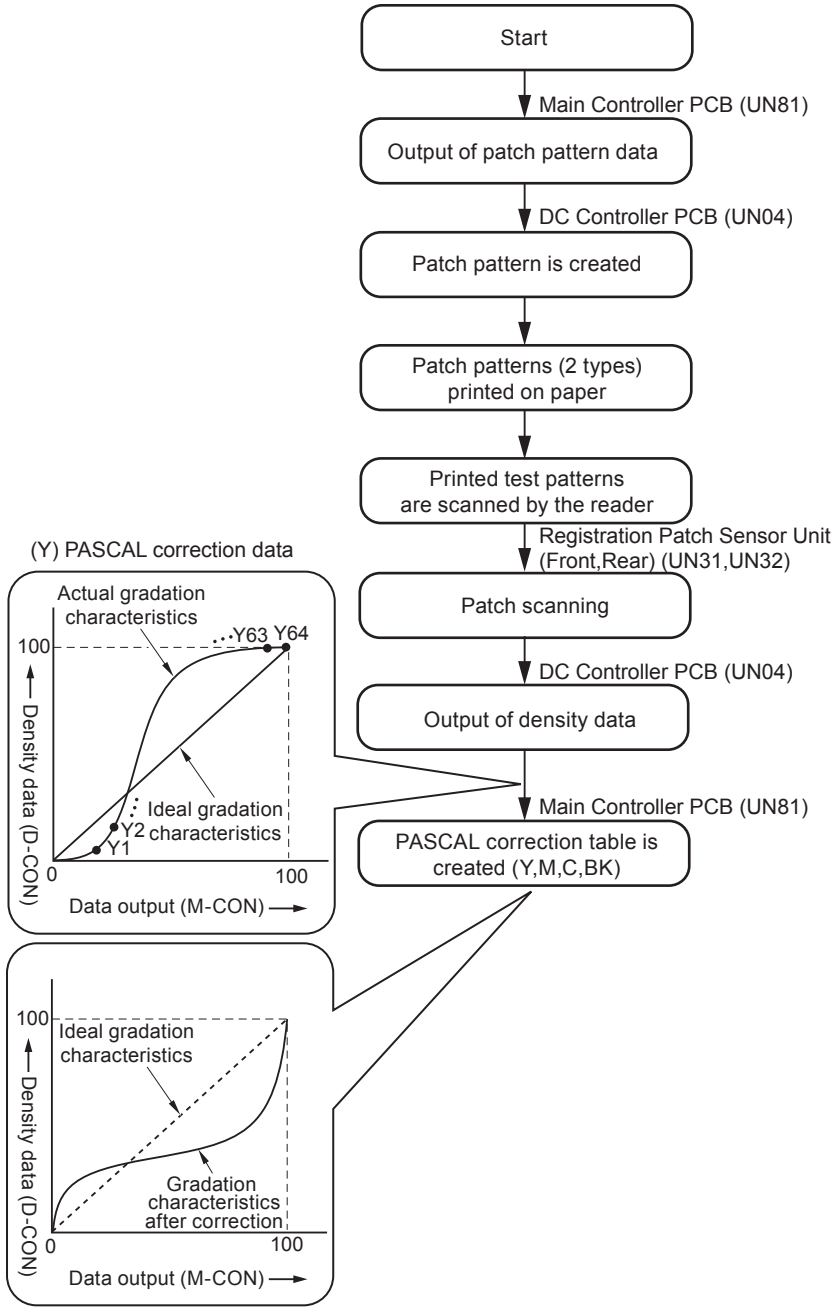
NOTE:
The following 3 types of patch patterns are formed with this control:
- A pattern for copy (39 patches for each color)
- A pattern for text (39 patches for each color)
- A pattern for photo (39 patches for each color)

Related service mode:
To set whether to display the modes for plain paper 3, recycled paper 3, heavy paper 1/2/3 on the Auto Adjust Gradation screen at the time of full adjustment.

COPIER > OPTION > DSPLY-SW > HPFL-DSP
0: OFF
1: Display plain paper 1,2/recycled paper 1,2 and plain paper 3/recycled paper 3
2: Display plain paper 1,2/recycled paper 1,2, plain paper 3/recycled paper 3, and heavy paper 1,2,3



F-2-95



F-2-96

D-half Control

Optimal image gradation is determined.

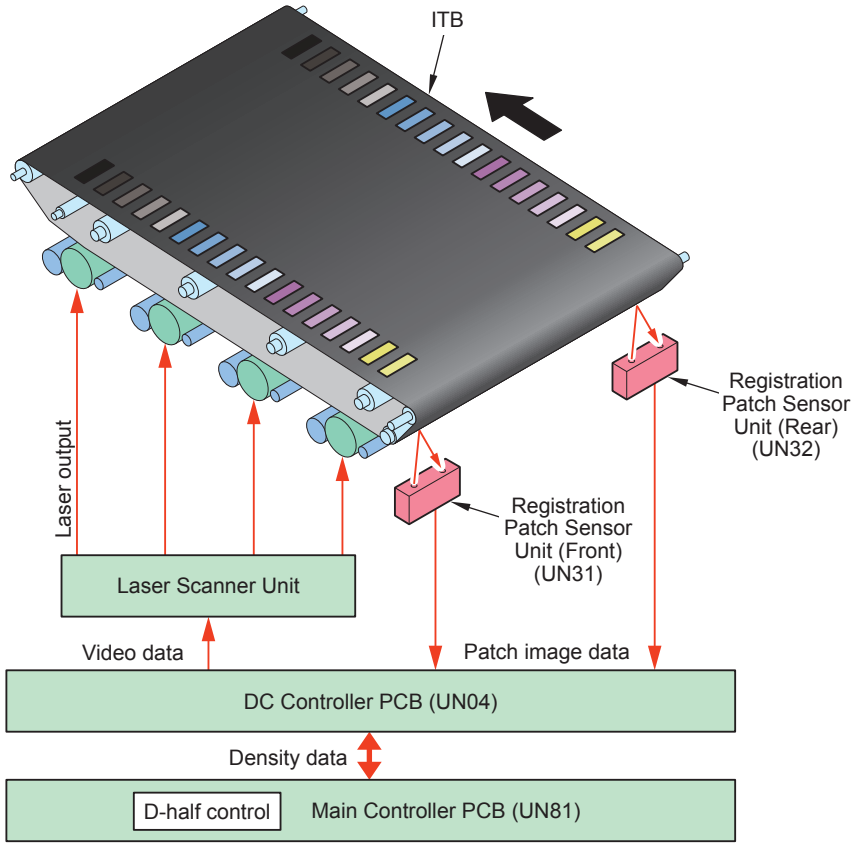
Control timing

1) During installation and when replacing the Drum Unit
2) At last rotation on a specified print basis (1000 sheets or more)
3) At last rotation when PASCAL control is executed

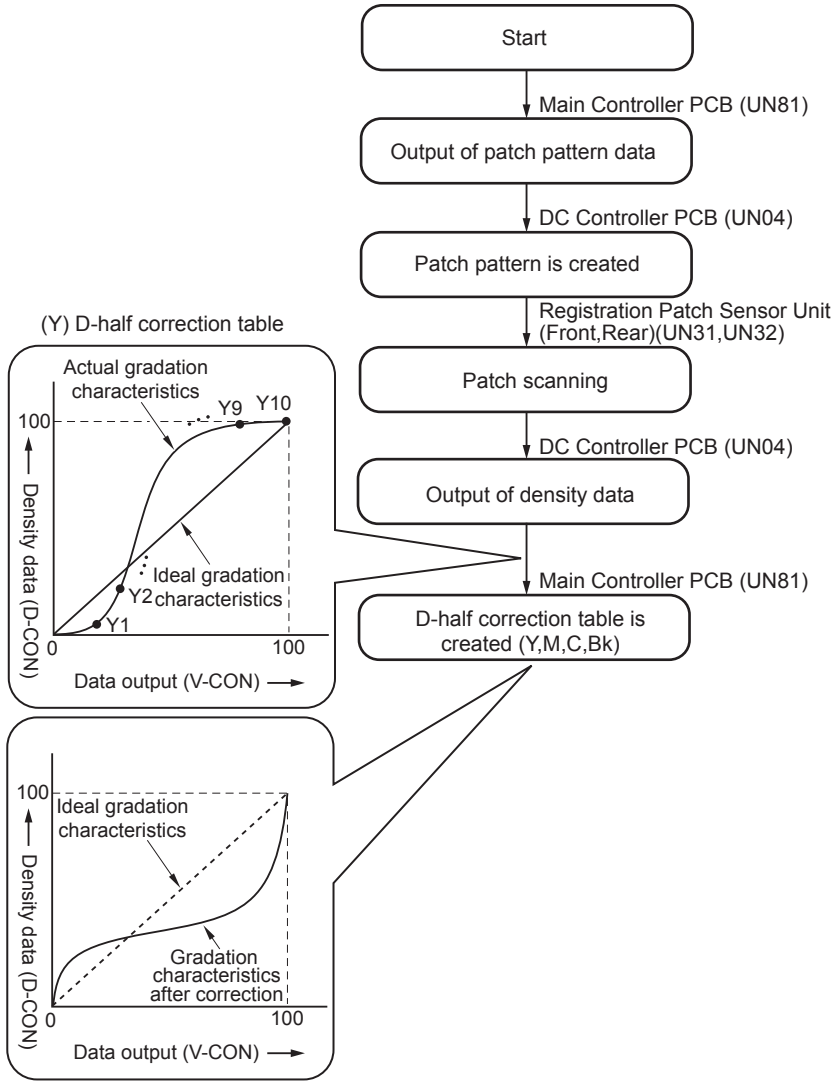
Control description

1) Main Controller PCB 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 Registration Patch Sensor Unit (Front) (UN31) and the Registration Patch Sensor Unit (Rear) (UN32) and the result is returned to the Main Controller PCB.
4) Based on the data above, the Main Controller PCB executes gradation correction to obtain ideal halftone image.

NOTE:
The following 3 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)

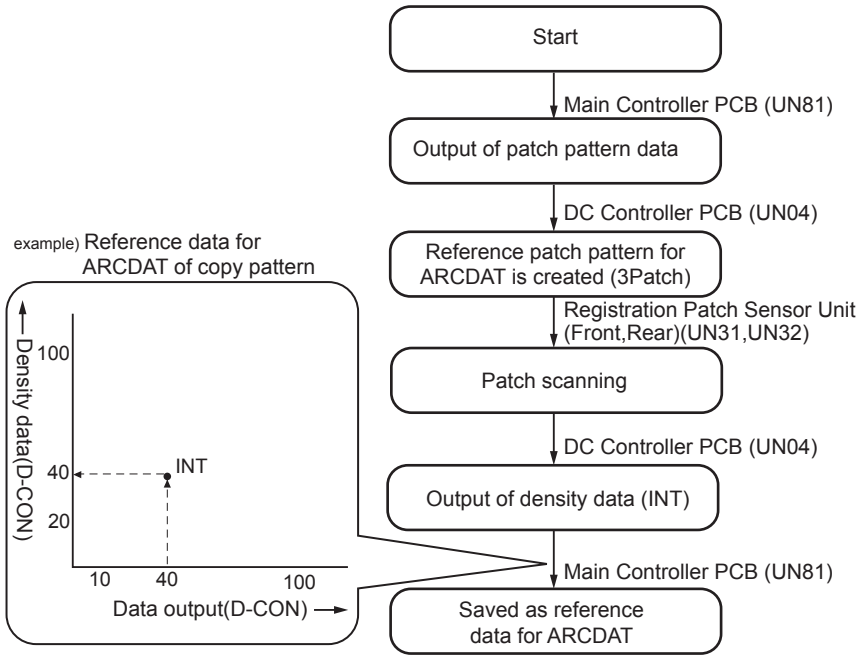

ITB
Registration Patch Sensor Unit (Rear) (UN32)
Registration Patch Sensor Unit (Front) (UN31)
Laser output
Laser Scanner Unit
Video data
Patch image data
DC Controller PCB (UN04)
Density data
D-half control
Main Controller PCB (UN81)

F-2-97


Start
Main Controller PCB (UN81)
Output of patch pattern data
DC Controller PCB (UN04)
Patch pattern is created
Registration Patch Sensor Unit (Front,Rear)(UN31,UN32)
Patch scanning
DC Controller PCB (UN04)
Output of density data
Main Controller PCB (UN81)
D-half correction table is created (Y,M,C,Bk)
(Y) D-half correction table
Actual gradation characteristics
Y9
Y10
100
Density data (D-CON)
Ideal gradation characteristics
Y2
Y1
0
100
Data output (V-CON)
100
Ideal gradation characteristics
Density data (D-CON)
Gradation characteristics after correction
0
100
Data output (V-CON)

F-2-98

The flow to calculate correction value for ARCDAT control



F-2-99

ARCDAT Control (Automatic and Reciprocal Color Density Adjustment Technology)

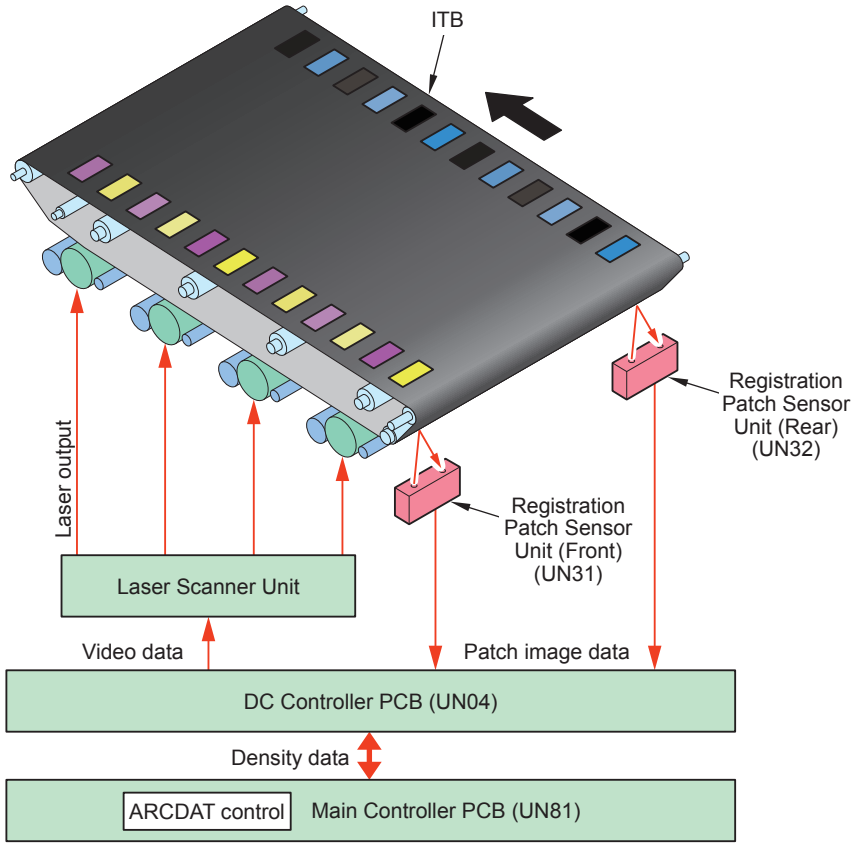
While reducing downtime, the ideal gradation characteristics are realized.

Control timing

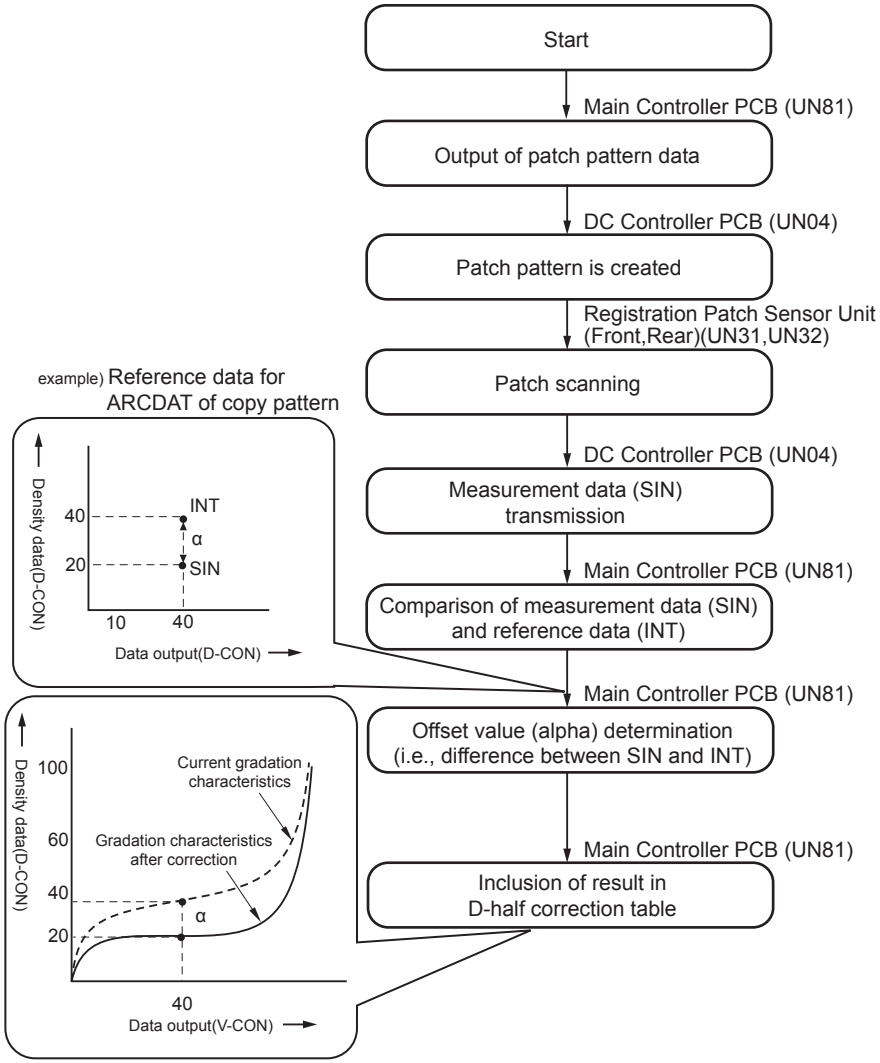
1) When replacing the Drum Unit
2) At paper interval on a specified print basis (80 sheets or more)
3) At last rotation on a specified print basis (30 sheets or more)
4) At last rotation of PASCAL control or D-half control

Control description

1) Main Controller PCB 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.
4) Main Controller PCB 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.


ITB
Registration Patch Sensor Unit (Rear) (UN32)
Registration Patch Sensor Unit (Front) (UN31)
Laser output
Laser Scanner Unit
Video data
Patch image data
DC Controller PCB (UN04)
Density data
ARCDAT control
Main Controller PCB (UN81)

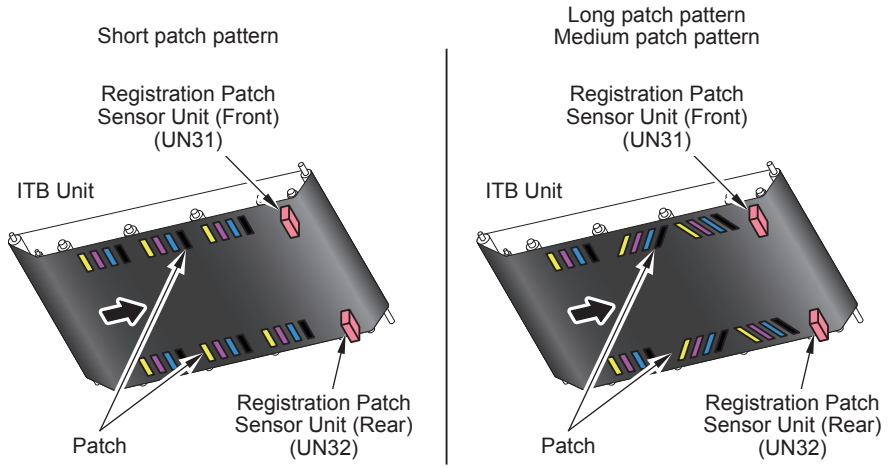
F-2-100


Start
Main Controller PCB (UN81)
Output of patch pattern data
DC Controller PCB (UN04)
Patch pattern is created
Registration Patch Sensor Unit (Front,Rear)(UN31,UN32)
Patch scanning
DC Controller PCB (UN04)
Measurement data (SIN) transmission
Main Controller PCB (UN81)
Comparison of measurement data (SIN) and reference data (INT)
Main Controller PCB (UN81)
Offset value (alpha) determination (i.e., difference between SIN and INT)
Main Controller PCB (UN81)
Inclusion of result in D-half correction table
example) Reference data for ARCDAT of copy pattern
Density data(D-CON)
40
20
INT
α
SIN
10
40
Data output(D-CON)
Density data(D-CON)
100
60
40
20
Current gradation characteristics
Gradation characteristics after correction
α
40
Data output(V-CON)

F-2-101

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-2-102

Startup timing

1) Execution of this control is determined according to the status of the host machine at power-on or recovery from sleep mode.
2) When execution 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.

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 Registration Patch Sensor Unit (Front) (UN31) and the Registration Patch Sensor Unit (Rear) (UN32) to detect the degree of color displacement comparing to the reference color (Y).
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 MCBk is adjusted with reference to Y.
3) The color displacement correction is performed with the patch pattern above.

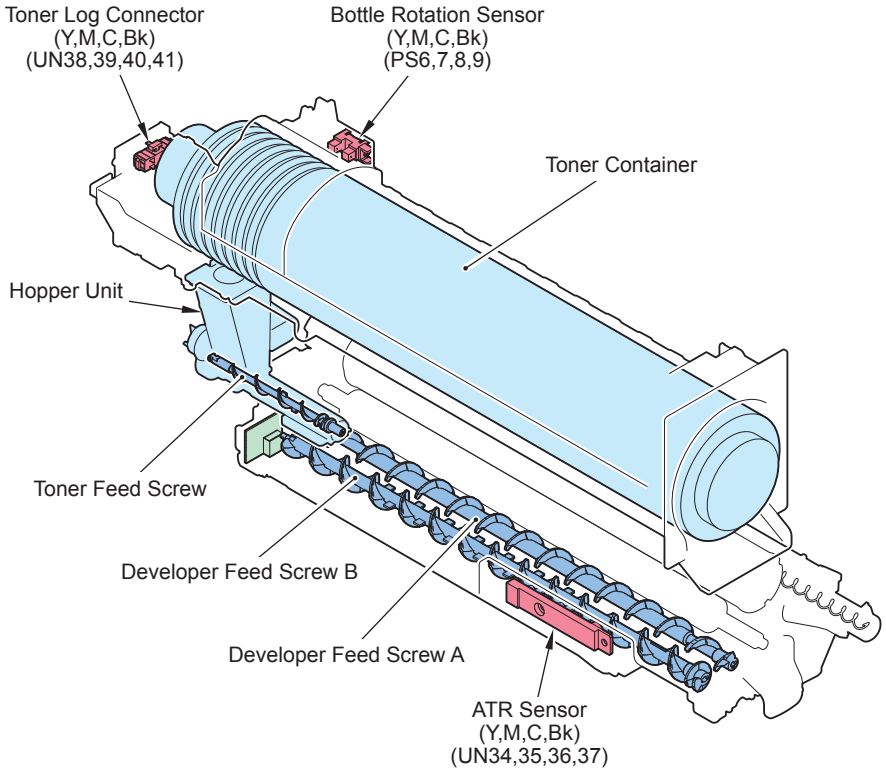
Control type		Correction description
Correction in horizontal scanning direction	Write start correction	Write-start timing in horizontal scanning direction is changed.
	Entire magnification ratio correction	Pixels in horizontal scanning direction is increased/reduced (at the both edges of the image)
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-2-33

Toner Supply Assembly

Overview

Toner is supplied from the Toner Container to the Developing Assembly. The toner level of the Toner Container is detected at the same time.



F-2-103

Parts name	Function
Hopper unit	To supply toner in the hopper unit to the developing assembly.
Toner Feed Screw	Toner is supplied from the Hopper Unit to the Developing Assembly.
Toner Log Connector (Y/M/C/Bk)	Detects a Toner Log.
Bottle Rotation Sensors (Y/M/C/Bk)	Detects presence/absence of Toner Container.

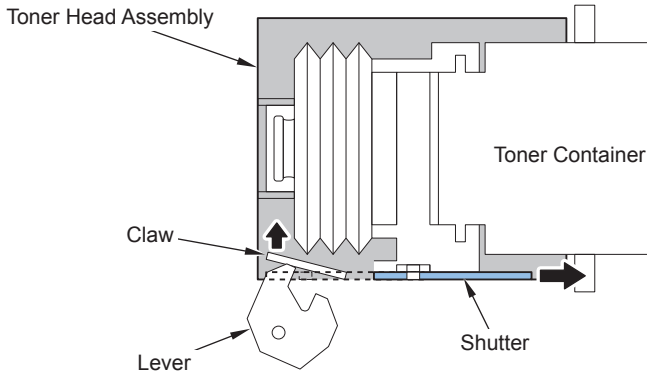
T-2-34

Toner Head Assembly Opening

This control automatically opens/closes the head assembly of toner container.

Control timing

When replacing a toner container

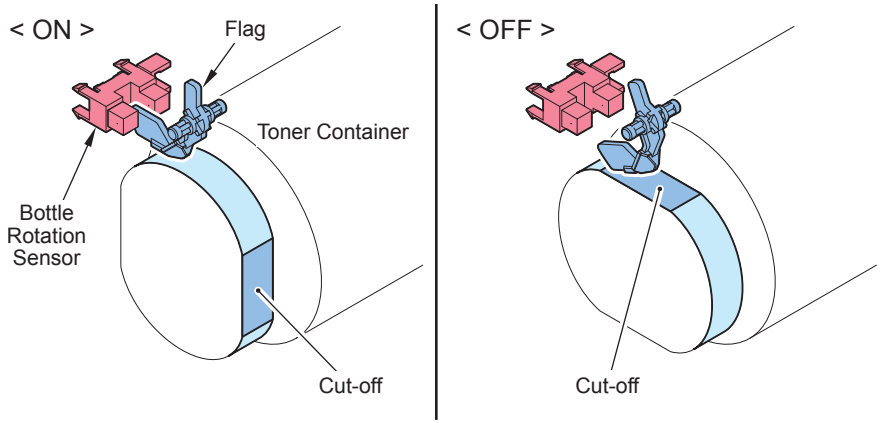


F-2-104

Toner Container Detection

The presence/absence of the Toner Container is detected.

The Bottle Rotation Sensors (Y/M/C/Bk) (PS06/PS07/PS08/PS09) are located as shown in the figure below, which turn ON when a Toner Container is inserted to detect the presence of the Toner Container.



F-2-105

Toner Log Detection

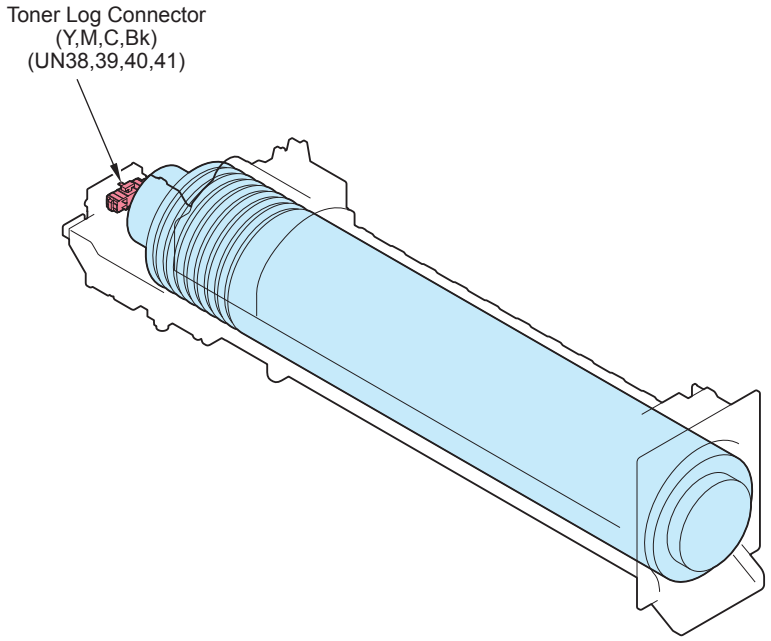
A Toner Log is detected.

Detection timing

When replacing Toner Container

Detection description

The Toner Log Connector (Y/M/C/Bk) (UN38, UN39, UN40, UN41) detect a Toner Log.



F-2-106

ATR Control (Auto Toner Replenishment)

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

Control timing

- At every print job (each page)

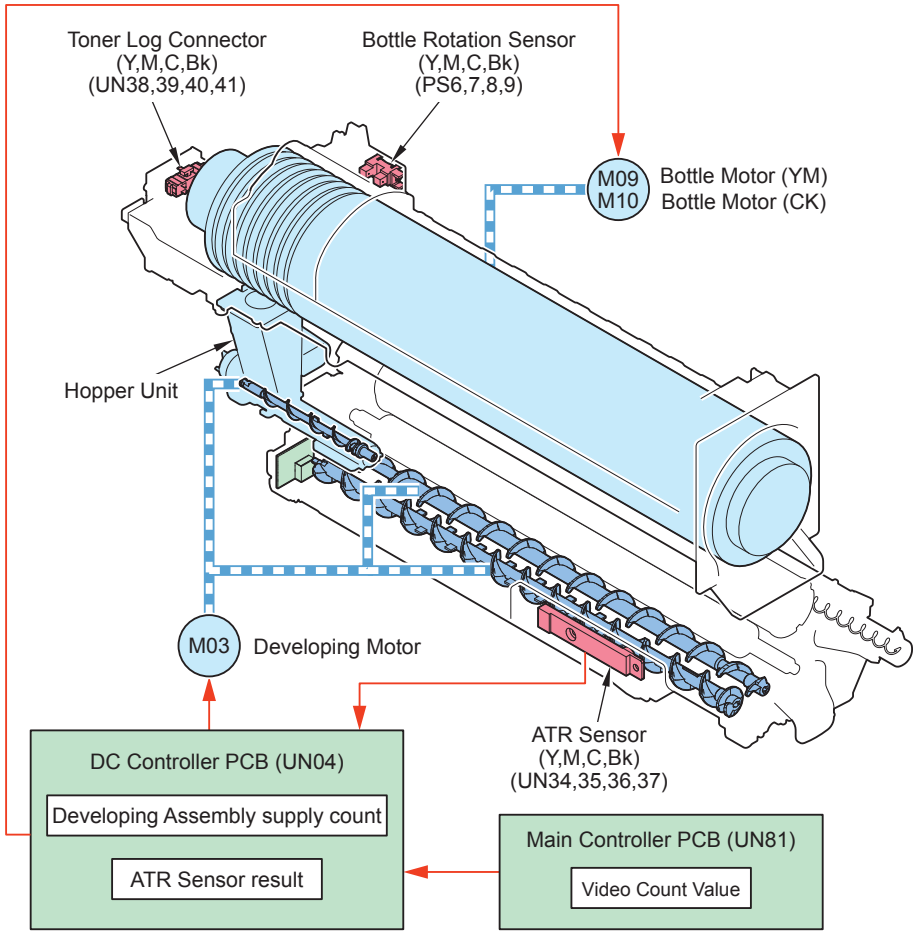
Control description

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 2 data:

- ATR Sensor output value (DC Controller)
- Video count value (Main Controller)

The DC Controller PCB turns ON the Bottle Motor (YM) (M09) and Bottle Motor (CK) (M10) when it determines that toner supply is necessary.

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

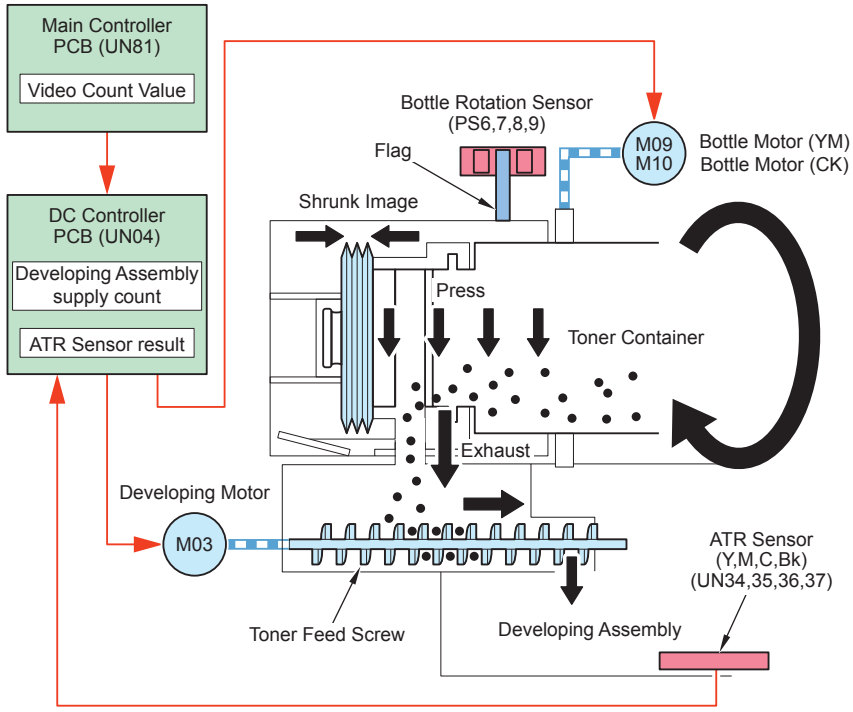


F-2-107

Related error codes
X indicates the target color (1=Y, 2=M, 3=C, 4=Bk)
E020-0XA8: ATR Sensor (Y/M/C/Bk) output error (during printing)
E020-0XB8: ATR Sensor (Y/M/C/Bk) output error (at initialization)
E020-0XC0: Error in take-up of Sealing Member (Y/M/C/Bk)
E020-0XF0: When the ATR Sensor cannot be detected, Toner density error

Toner Supply Control

Toner is supplied from the Toner Container to the Developing Assembly.
This machine uses a Toner Container that has a bellows mechanism at the edge. The Toner Bottle is rotated and the bellows section is operated by driving the Bottle Motor. At that time, air pressure is used to supply toner to the Hopper Unit.



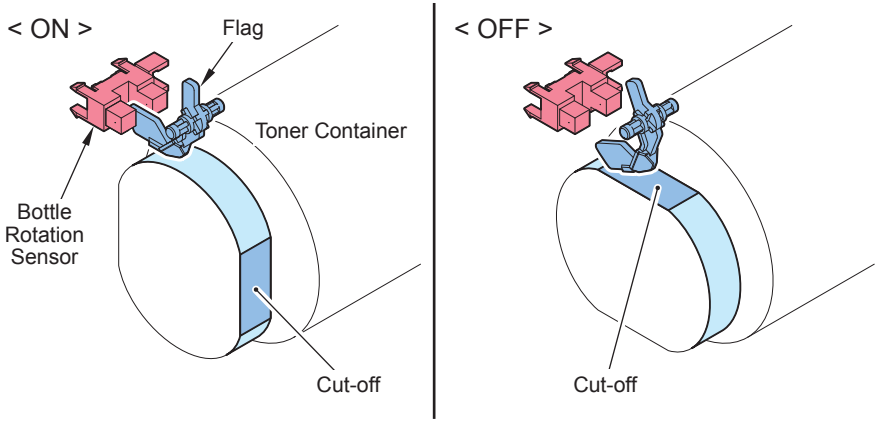
F-2-108

Title	Supply to the Hopper	Supply to the Developing Assembly
Description	Toner is supplied from the Toner Container to the Hopper Unit.	Toner is supplied from the Hopper Unit to the Developing Assembly.
Supply timing	Toner is supplied when supply is determined necessary from the result of ATR control.	Toner supply from the Hopper Unit to the Developing Assembly is synced with the Toner Feed Screw.
Operation of the host machine	The Bottle Motor (YM) (M09) and the Bottle Motor (CK) (M10) are driven*.	The Toner Feed Screw is turned to supply toner to the Developing Assembly.

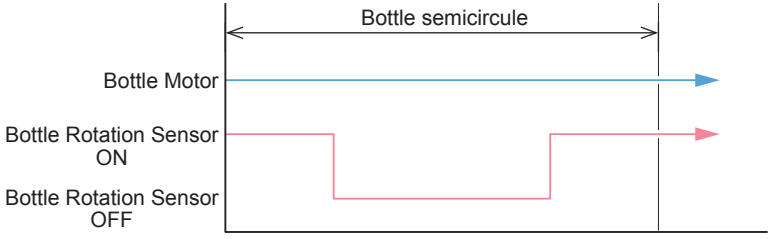
T-2-35

*) The supply amount is determined based on the output value at the time of ATR Sensor output and the time of video count.

The Bottle Rotation Sensor (Y/M/C/Bk) (PS06/PS07/PS08/PS09) starts while it is turned ON at the time of feeding. Driving the Bottle Motor (YM) (M09) or the Bottle Motor (CK) (M10) rotates the Toner Bottle, causing the flag of the Bottle Rotation Sensor to drop to the cut-off part of the Toner Bottle as shown in the figure below, which in turn switches OFF the sensor. When the flag then moves away from the cut-off part of the Bottle Rotation Sensor, the sensor is switched ON.
While the Bottle Rotation Sensor is in turned OFF, 1 block's worth of toner is supplied to the Hopper Unit.



F-2-109



F-2-110

Toner Level Detection

Detection description	Prior delivery alarm	Display Remaining Toner error (*5)	Empty toner
The residual quantity of the toner	Default: xx %* The value can be changed in service mode. (*1)	Default: xx %* The value can be changed in service mode. (*2)	0%
Detection timing	Prediction from the toner supply count (Judged from the number of supplying toner to the Hopper Unit.)		When the output signal from the ATR Sensor does not fall below the designated value even after performing a toner supply operation.
Detecting to (location)	Developing Assembly supply count. *3		ATR Sensor
Message (machine operation)	None	Please prepare a toner container(Continuous printing is enabled.)	Replace the toner cartridge. (Host machine is stopped.)
Alarm Code	10-0017 (Y) 10-0018 (M) 10-0019 (C) 10-0020 (Bk)	10-0001 (Bk) *4 10-0002 (C) *4 10-0003 (M) *4 10-0004 (Y) *4	None

T-2-36

*: The default differs depending on the country.
*1: (Lv.1) COPIER > OPTION > FNC-SW > T-DLV-CL/BK
*2: (Lv.2) COPIER > OPTION > DSPLY-SW > T-LW-LVL

Caution:

Toner-out message may be displayed before remaining toner error message is displayed if the value of (Lv.2) COPIER>OPTION>DSPLY-SW>T-LW-LVL is lowered than the initial value due to the margin of the developing supply count.

*3: The toner supply count shows the amount of toner supplied from the Toner Container to the Developing Assembly.
*4: Alarms generated by UGW are not recorded in the alarm log of LUI.
*5: Whether or not to display the Remaining Toner Error Message can be set in COPIER > OPTION > DSPLY-SW > TNR-WARN (Lv.1).

● Detection of the completion of toner replacement

	Detection of the completion of replacement
Detection timing	When a replacement of Toner Container is detected
Alarm Code	10-0100
Remarks	The toner supply count is reset at the same time.

T-2-37

NOTE:
The Hopper Assembly of this machine is extremely small, so printing will not be possible after detecting the absence of toner since there will be no toner in the Hopper Assembly. Therefore, the 3-level display, which is available with, for example, imageRUNNER ADVANCE C5051 series, is not available.
* Whether or not to display the Remaining Toner Error Message can be set in COPIER > OPTION > DSPLY-SW > TNR-WARN (Lv.1).

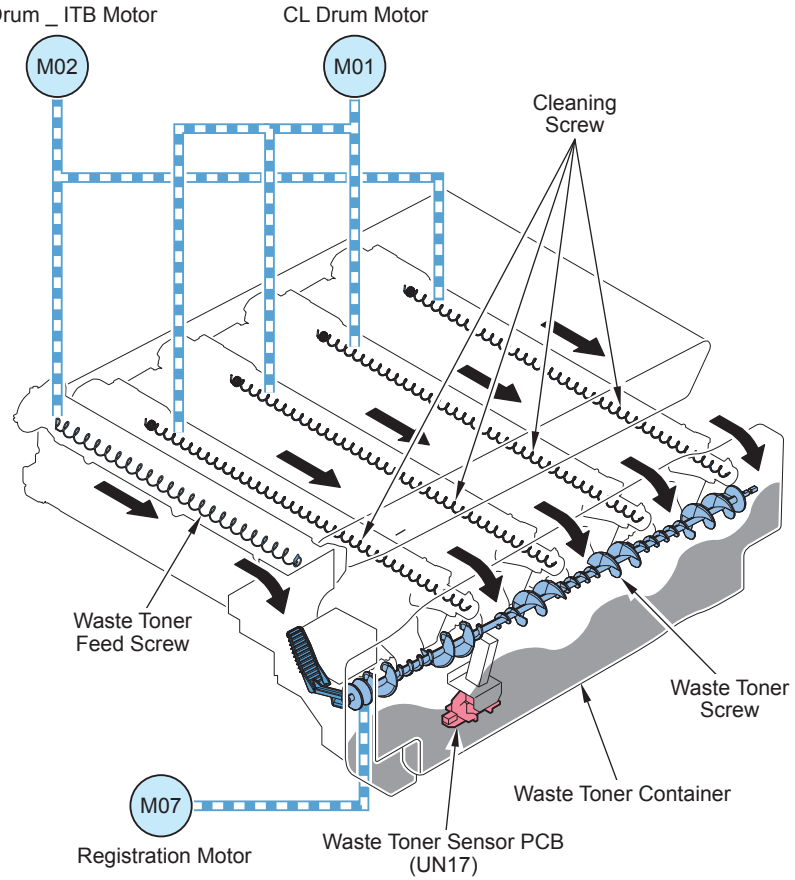
Related error codes:
E025-0110 Bottle Motor (YM) lock detection error (Y)
E025-0210 Bottle Motor (YM) lock detection error (M)
E025-0310 Bottle Motor (CK) lock detection error (C)
E025-0410 Bottle Motor (CK) lock detection error (Bk)

E025-0168 No toner detection error (Y)
E025-0268 No toner detection error (M)
E025-0368 No toner detection error (C)
E025-0468 No toner detection error (Bk)

■ Waste Toner Feeding Area

● Overview

To feed waste toner of the drum cleaning unit and the ITB cleaning unit to the Waste Toner Container.



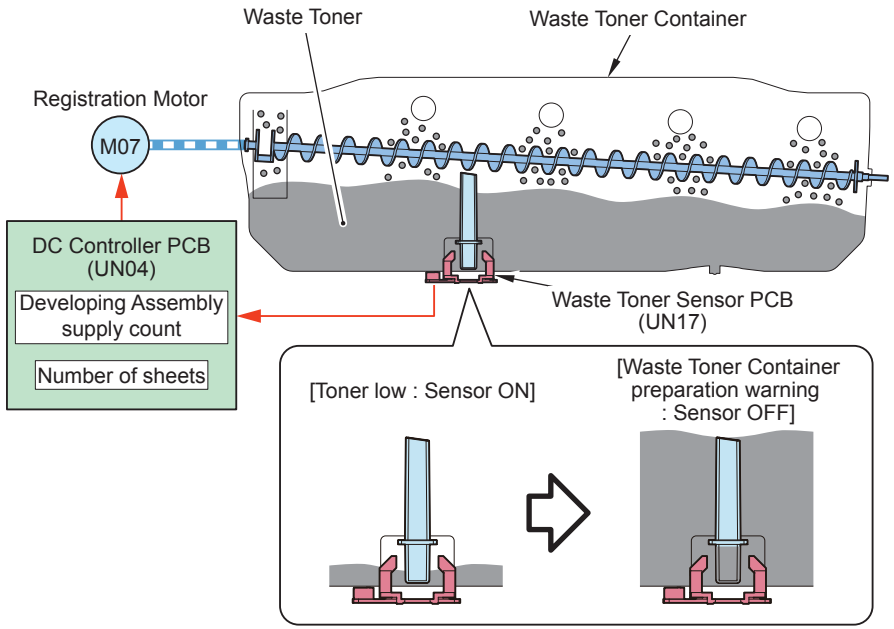
F-2-111

Parts name	Function
Waste Toner Feed Screw	Waste toner from the ITB Cleaning Unit is fed.
Waste Toner Container	Waste toner is collected.
Cleaning Screw	Residual toner is fed.
Waste Toner Screw	Waste toner inside the Waste Toner Container is raked.
Registration Motor	Rotates the Waste Toner Feed Screws.
Waste Toner Sensor PCB	Detects the toner amount in the Waste Toner Container.

T-2-38

Waste Toner Container Full Level Detection

To detect toner level accumulated in the waste toner case.



F-2-112

Detection description	Auto delvry alarm/Waste Toner Container preparation warning (*1)	Full level of waste toner
Detection timing	When the output result of the Waste Toner Sensor PCB (UN17) changed from ON to OFF	Either of the following cases that comes first: When approx. 1000 sheets (full color, calculated at the image ratio of 5%) have been fed since the preparation warning, or when 1000 sheets (default value) have been fed since the preparation warning (the Waste Toner Container may not have reached full level depending on the toner density). (*2)
Detecting to (location)	Waste Toner Sensor PCB (UN17)	Developing supply count value, or the number of sheets fed
Message (machine operation)	Please prepare a waste toner container (Continuous printing is enabled.)	Replace the waste toner container. (Host machine is stopped.)
Alarm code	11-0010	11-0001

T-2-39

*1: Whether to display or hide the Waste Toner Container preparation warning message can be set in COPIER > OPTION > DSPLY-SW > WT-WARN (Lv.1).

*2: The setting for the number of sheets to be fed after the waste toner full detection can be changed in COPIER > OPTION > FNC-SW > WT-FL-LM (Lv.2).

Detection of the completion of waste toner replacement

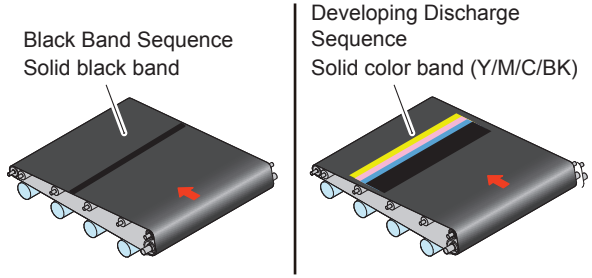
Detection timing	When the Waste Toner Sensor PCB (UN17) is turned ON for 3 seconds after the Front Door is opened/closed while "preparation warning" or "waste toner full level" is detected
Remarks	The parts counter is automatically cleared.

T-2-40

■ Other Controls

● Special Controls

This machine has the following sequences as the special sequence.



F-2-113

Black Band Sequence

Control timing: If the travel distance of the drum or the ITB has exceeded the designated value

If you perform continuous printing while toner is not being fed to the Drum Cleaning Blade and ITB Cleaning Blade, the cleaning blades may become warped.

Toner (solid image of each color, width: full width of the developing area, length: 20 mm) is therefore transferred onto the drum and ITB to supply toner to the Drum Cleaning Blade and ITB Cleaning Blade.

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.

■ Warm-up Rotation

● Operation overview

This operation is performed to check the status of sensor/motor at power-on or recovery from sleep mode. According to the conditions, one of the following 3 patterns of warm-up rotation is performed: none, short, or long.

Conditions	Fixing temperature	
	255 deg C or more	less than 80 deg C
At power-on	None	Long
24 hours or more in sleep mode	-	Long
4 hours or more but less than 24 hours in sleep mode	-	Short
Less than 4 hours in sleep mode	None	None

T-2-41

Warm-up rotation control	Long	Short	None
Primary Transfer Roller Disengagement Control	Yes	Yes	No
Waste Toner Container stirring	Yes	Yes	No
Idle rotation of the Developing Assembly	Yes	Yes	No
Drum Unit Detection	Yes	Yes	No
Drum Unit Life Detection	Yes	Yes	No
Primary Transfer ATVC	Yes	Yes	No
Primary Transfer Roller Disengagement Control	Yes	No	No

T-2-42

Service Tasks

Periodically Replaced Parts

None.

Consumable Parts

No.	Parts name	Parts number	Quantity	Estimated life	Remarks
1	ITB Unit	FM1-A153	1	150,000 sheets	
2	Secondary transfer outer Roller	FC0-5848	1	150,000 sheets	
3	Waste Toner Container	FM0-0015	1	30,000 sheets	

T-2-43

Periodical Servicing

None.

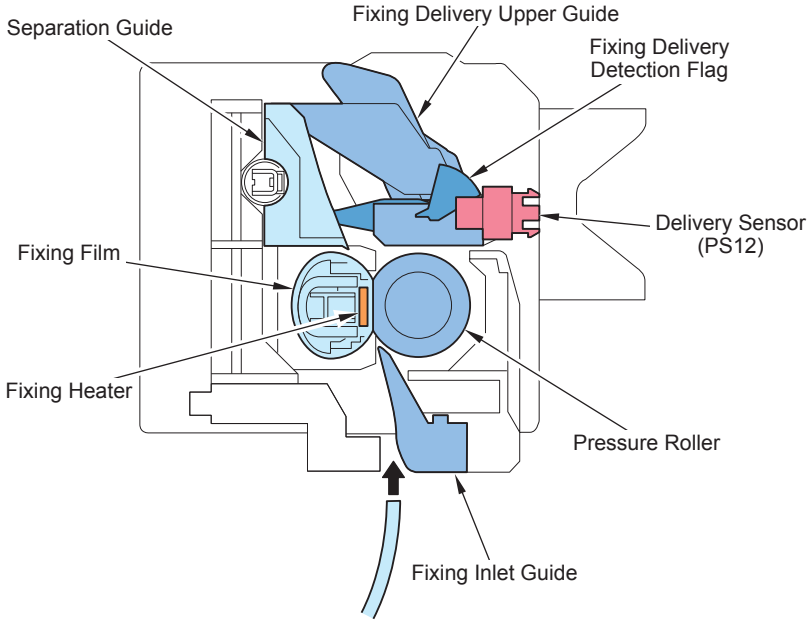
Perform as needed.

Fixing System

Overview

Features

This machine uses the on-demand fixing method.



F-2-114

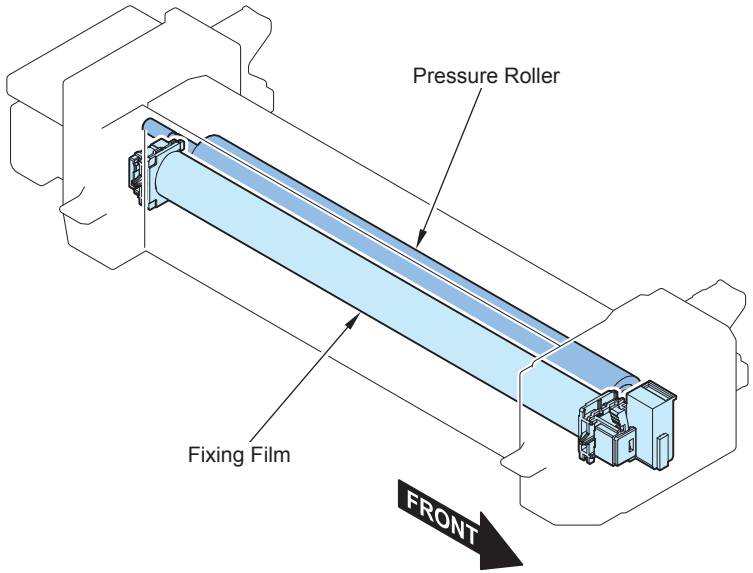
Specifications

Item	Function/method			
Fixing method	On-demand fixing			
Fixing speed	iR-ADV C350	35-ppm machine	1/1 speed	200 mm/sec
			2/3 speed	135 mm/sec
			1/2 speed	100 mm/sec
	iR-ADV C250	25-ppm machine	1/1 speed	-
			2/3 speed	135 mm/sec
			1/2 speed	100 mm/sec
Fixing Heater	Ceramic Heater			
Control temperature	iR-ADV C350	plain paper 1	Full Color: 200 deg C* Black: 195 deg C*	
		plain paper 2	Full Color: 210 deg C* Black: 205 deg C*	
	iR-ADV C250	plain paper 1	Full Color: 175 deg C* Black: 170 deg C*	
		plain paper 2	Full Color: 185 deg C* Black: 180 deg C*	
Temperature Control	Main Thermistor			
Edge temperature rising control	Down sequence			
Fixing Arch Control	Arch Sensor			
Protection function	Main Thermistor (Rated operational temperature: 265 deg C)			
	Sub Thermistor (Rated operational temperature: 290 deg C)			
	Thermoswitch (Rated operational temperature: 240 deg C)			

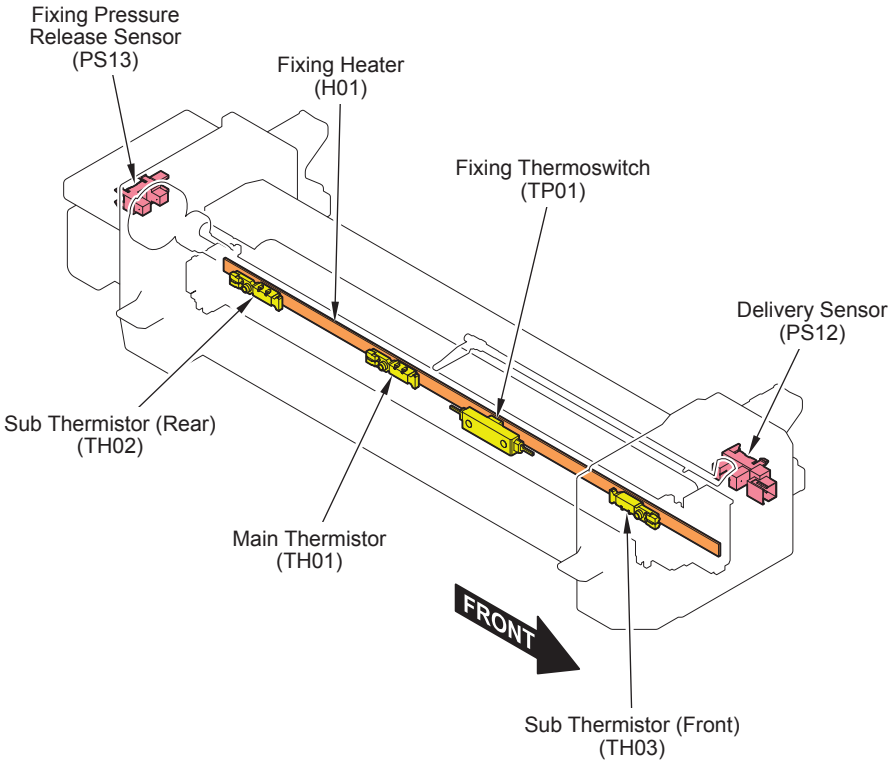
T-2-44

* If the temperature is under 50 deg C at the start of startup or the environment temperature is 23 deg C
Varies depending on the temperature at the start of startup and environment temperature +10 deg C if the paper width is A4R or larger

Major Components



F-2-115



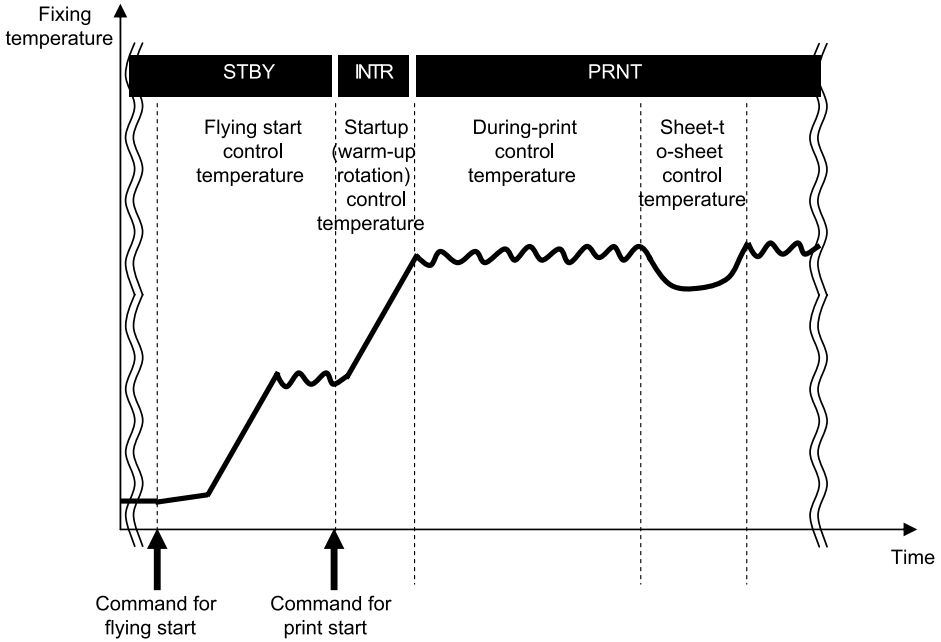
F-2-116

Part name		Function / method
---	Fixing Film	A toner image on paper is fixed by applying heat/pressure.
---	Pressure Roller	
H01	Fixing Heater	Ceramic Heater
TH01	Main Thermistor	Engaged with the heater Temperature control and abnormal temperature rising detection
TH02	Sub Thermistor (Rear)	Engaged with the heater Temperature control, abnormal temperature rising detection, edge temperature-rising/cooling control
TH03	Sub Thermistor (Front)	
TP01	Thermoswitch	A kind not engaged with the heater. AC power supply is blocked at detection of a failure.
PS13	Fixing Pressure Release Sensor	Detection of pressure application/release to the Film Unit
PS12	Delivery Sensor	Jam Detection

T-2-45

Controls

Fixing Temperature Control (temperature control)



F-2-117

Standby Temperature Control

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

- Flying Start

Print Temperature Control

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

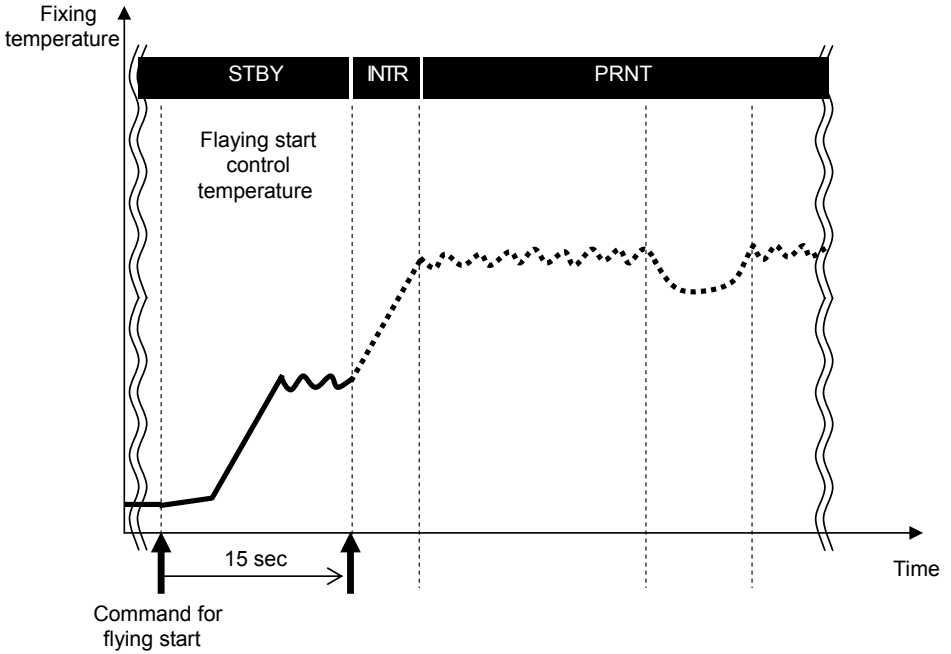
- Startup (initial rotation) temperature control
- Print temperature control
- Paper interval temperature control

Down Sequence Control

This is a control to prevent fixing failure due to temperature increase at the edge or temperature decrease. Productivity (throughput) decreases.

- Down sequence when feeding small-size paper
- Down sequence when switching paper size

■ Standby Temperature Control



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● Flying Start

Purpose:

To reduce time to print the first sheet (FCOT).

Startup conditions:

- When Control Panel Numeric Keypad/Touch Panel is pressed
- When the Main Power Switch is turned ON*1
- When recovering from sleep mode to standby mode*1
- When the jam process completes*1
- When the Right Door is opened/closed*1

*1: This control is performed regardless of setting whether to execute Service Mode COPIER > OPTION > IMG-FIX > FLYING.

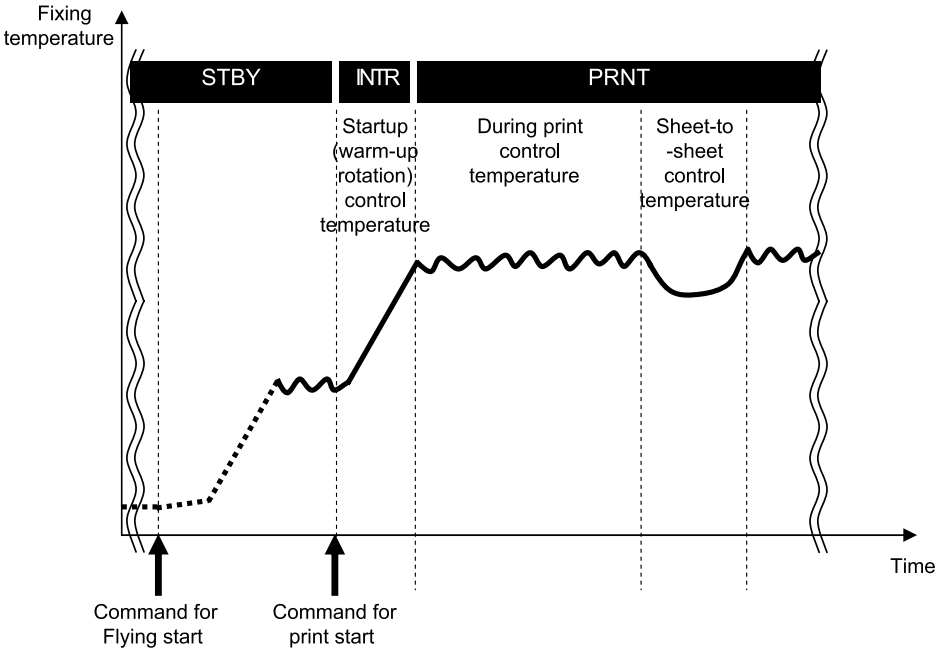
Control description:

The temperature control target is set at 105 to 170 deg C and the Fixing Motor is controlled at half-speed to start operation. The control continues for 15 sec at most until the machine receives a command to start printing.

Related Service Mode
- To set ON/OFF of flying start temperature control.
  (Lv.2) COPIER > OPTION > IMG-FIX> FLYING

<Setting value>
0 to 1
0: ON, 1: OFF

■ Print Temperature Control



F-2-119

● Startup (initial rotation) Temperature Control

A fixing temperature is increased to a printable temperature after receiving a command to start printing.

● Print Temperature Control

To set optimal target temperature to prevent fixing failure or offset, and keep the specified target temperature during printing

A. Setting the target temperature

A target temperature is determined according to the paper type/size, time which elapsed from when fixing temperature control (including standby control) finished the last time, and fixing temperature when startup control started.

B. Temperature control during printing

When the paper passes through the Fixing Assembly, temperature is controlled to keep the target temperature (see the next page) according to the detected temperature of the Main Thermistor.

C. Paper interval temperature control

A paper interval temperature is decreased to prevent temperature increase when the paper interval became wider than a normal condition during the down sequence (*1).
Paper Interval Temperature = Target temperature during printing - (0 to 20 deg C)*2

*1: At down sequence

- The interval between the first side and the second side at 2-sided printing
- At execution of various controls (ATR control, registration control, and ATVC control)
- At continuous printing of small size paper (smaller than A4R and LTR in width direction)
- When the target temperature cannot be maintained due to low power
- When the Sub Thermistor detects abnormally high temperature even for A4R size or larger

*2: The fixing temperature is determined depending on the elapsed time since the time paper has passed through the fixing nip.

Target temperature during printing

The control temperature is determined according to the fixing mode and fixing temperature at the start of Startup control. 11 fixing modes are available according to the selected pickup cassette and paper type.

The following shows an example of control temperature when the fixing temperature at the start of Startup control is 65 deg C or higher and lower than 70 deg C: (Temperature at standby with 20 deg C room temperature)

Model	Paper type	Fixing speed	Target temperature	Remarks
iR-ADV C350	Thin paper (60 to 63 g/m^2)	1/1speed 200 mm/s	183 to 219 deg C	• For B&W, target temperature is -5 deg C • If the paper width is A4R or larger, target temperature +10 deg C • For the 2nd side of 2-sided print, target temperature is -3 deg C
	Plain paper 1 (64 to 75 g/m^2) Recycled paper 1 (64 to 75 g/m^2) Color paper (64 to 75 g/m^2) Pre-punched paper (64 to 75 g/m^2)		188 to 224 deg C	
	Plain paper 2 (76 to 90 g/m^2) Recycled paper 2 (76 to 90 g/m^2)		198 to 234 deg C	
	Plain paper 3(91 to 105 g/m^2) Recycled paper 3(91 to 105 g/m^2)	2/3speed 135 mm/s	183 to 221 deg C	
	Heavy paper 1 (106 to 128 g/m^2)	1/2speed 100 mm/s	168 to 201 deg C	• If the paper width is A4R or larger, target temperature +10 deg C • For envelope DL size, target temperature is +10 deg C • For the 2nd side of 2-sided print, target temperature is -3 deg C
	Heavy paper 2 (129 to 163 g/m^2) Label paper (127 to 160 g/m^2)		183 to 216 deg C	
	Heavy paper 3 (164 to 220 g/m^2) Bond paper Postcard		188 to 221 deg C	
	Envelope		168 to 201 deg C	
	Transparency		180 to 215 deg C	
iR-ADV C250	Thin paper (60 to 63 g/m^2)	2/3speed 135 mm/s	158 to 194 deg C	• For B&W, target temperature is -5 deg C • If the paper width is A4R or larger, target temperature +10 deg C • For the 2nd side of 2-sided print, target temperature is -3 deg C
	Plain paper 1(64 to 75 g/m^2) Recycled paper 1(64 to 75 g/m^2) Color paper (64 to 75 g/m^2) Pre-punched paper (64 to 75 g/m^2)		163 to 199 deg C	
	Plain paper 2 (76 to 90 g/m^2) Recycled paper 2 (76 to 90 g/m^2)		173 to 209 deg C	
	Plain paper 3(91 to 105 g/m^2) Recycled paper 3(91 to 105 g/m^2)		183 to 221 deg C	
	Heavy paper 1 (106 to 128 g/m^2)	1/2speed 100 mm/s	168 to 201 deg C	• If the paper width is A4R or larger, target temperature +10 deg C • For envelope DL size, target temperature is +10 deg C • For the 2nd side of 2-sided print, target temperature is -3 deg C
	Heavy paper 2 (129 to 163 g/m^2) Label paper (127 to 160 g/m^2)		183 to 216 deg C	
	Heavy paper 3 (164 to 220 g/m^2) Bond paper Postcard		188 to 221 deg C	
	Envelope		168 to 201 deg C	
	Transparency		180 to 215 deg C	

T-2-46

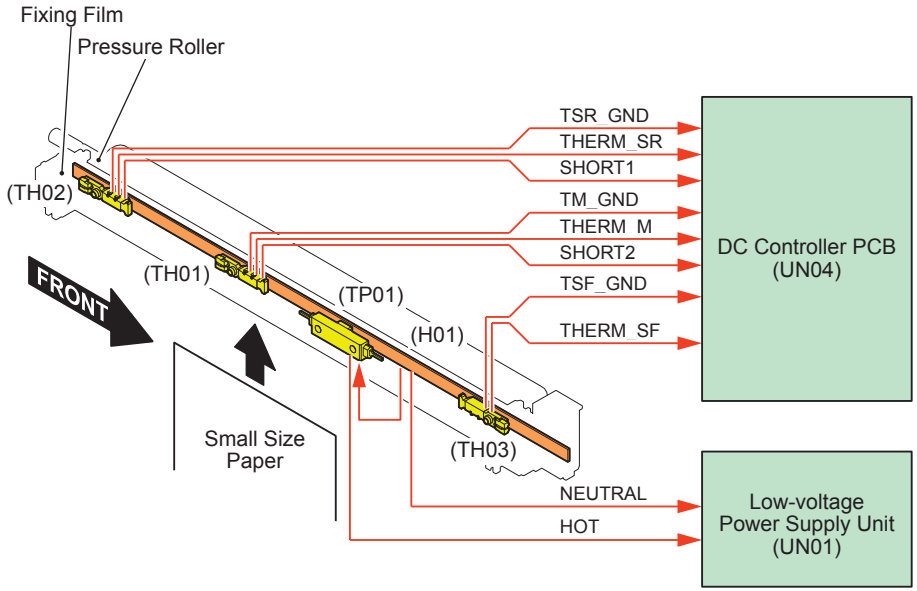
Related Service Mode:
(Lv.1) COPIER > DISPLAY > ANALOG
> FIX-E (To display the center temperature of the Fixing Heater detected by the Main Thermistor.)
> FIX-E2 (To display the front edge temperature of the Fixing Heater detected by the Sub Thermistor (Front).)
> FIX-E3 (To display the front edge temperature of the Fixing Heater detected by the Sub Thermistor (Rear).)

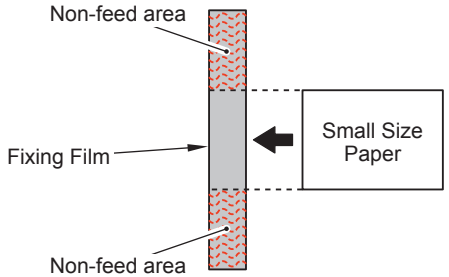
(Lv.1) COPIER > OPTION > CUSTOM
> TEMP-TBL Plain paper 1
> TMP-TBL2 Heavy paper 1
> TMP-TBL3 Heavy paper 2
> TMP-TBL4 Heavy paper 3
> TMP-TBL5 Thin paper
> TMP-TBL6 Envelope
> TMP-TBL7 Plain paper 2
> TMP-TBL8 Transparency

<Setting value>
-2: - 10 degrees C
-1: - 5 degrees C
0: 0 degrees C [default]
+1: + 5 degrees C
+2: +10 degrees C

■ Down Sequence Control

● Down sequence when feeding small-size paper





F-2-120

Purpose:

To prevent fixing offset and deterioration of the Fixing Film by controlling temperature increase at a non paper feed area at continuous printing of small-size paper (paper that has smaller than A4R/LTR of width-direction length)

Startup conditions:

When the temperature detected by the Sub Thermistor (Rear) (TH02) or the Sub Thermistor (Front) (TH03) is at the specified temperature or higher for at least 1 second, the down sequence starts.

Down sequence is performed in a stepwise manner. If the Sub Thermistor detection temperature exceeds the designated temperature during printing, the down sequence increases by one level and the number of prints (ppm) decreases each time this condition continues for a period of 1 second.

Operation:

Increasing paper interval (to make longer temperature control at a temperature lower than that of normal print) to reduce fixing temperature in 6 stages at most.

Paper size	Speed	Paper type	Detected temperature ppm					
			1st stage	2nd stage	3rd stage	4th stage	5th stage	6th stage
A4 </= * </= LTR	200 (mm/s) 35 (ppm)	Thin paper (60 to 63 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			35 ppm	15 ppm	8 ppm	6 ppm	4 ppm	1 ppm
		Plain paper 1 (64 to 75 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			35 ppm	15 ppm	8 ppm	6 ppm	4 ppm	1 ppm
		Plain paper 2 (76 to 90 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			35 ppm	15 ppm	8 ppm	6 ppm	4 ppm	1 ppm
		Recycled paper 1 (64 to 75 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			35 ppm	15 ppm	8 ppm	6 ppm	4 ppm	1 ppm
		Recycled paper 2 (76 to 90 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			35 ppm	15 ppm	8 ppm	6 ppm	4 ppm	1 ppm
	135 (mm/s) 25 (ppm)	Thin paper (60 to 63 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			25 ppm	12 ppm	8 ppm	4 ppm	2 ppm	1 ppm
		Plain paper 1 (64 to 75 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			25 ppm	12 ppm	8 ppm	4 ppm	2 ppm	1 ppm
		Plain paper 2 (76 to 90 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			25 ppm	12 ppm	8 ppm	4 ppm	2 ppm	1 ppm
		Plain paper 3 (91 to 105 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			25 ppm	12 ppm	8 ppm	4 ppm	2 ppm	1 ppm
		Recycled paper 1 (64 to 75 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			25 ppm	12 ppm	8 ppm	4 ppm	2 ppm	1 ppm
		Recycled paper 2 (76 to 90 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			25 ppm	12 ppm	8 ppm	4 ppm	2 ppm	1 ppm
		Recycled paper 3 (91 to 105 g/m^2)	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	240 to 265 deg C	-
			25 ppm	12 ppm	8 ppm	4 ppm	2 ppm	1 ppm
	100 (mm/s) 17 (ppm)	Heavy paper 1 (106 to 128 g/m^2)	240 deg C	240 deg C	240 deg C	240 deg C	240 deg C	-
			17 ppm	8 ppm	6 ppm	4 ppm	2 ppm	1 ppm
		Heavy paper 2 (129 to 163 g/m^2)	240 deg C	240 deg C	240 deg C	240 deg C	240 deg C	-
			17 ppm	8 ppm	6 ppm	4 ppm	2 ppm	1 ppm

Paper size	Speed	Paper type	Detected temperature ppm					
			1st stage	2nd stage	3rd stage	4th stage	5th stage	6th stage
A4 </= * </= LTR	100 (mm/s) 15 (ppm)	Heavy paper 3 (164 to 220 g/m^2)	240 deg C	240 deg C	240 deg C	240 deg C	240 deg C	-
			15 ppm	8 ppm	6 ppm	4 ppm	2 ppm	1 ppm
	100 (mm/s) 5 (ppm)	Transparency	240 deg C	240 deg C	240 deg C	240 deg C	240 deg C	-
			5 ppm	5 ppm	5 ppm	4 ppm	2 ppm	1 ppm
B5 </= * < A4	135 (mm/s) 25 (ppm)	Thin paper (60 to 63 g/m^2)	250 deg C	250 deg C	250 deg C	240 deg C	240 deg C	-
			25 ppm	15 ppm	12 ppm	8 ppm	6 ppm	3 ppm
		Plain paper 1 (64 to 75 g/m^2)	250 deg C	250 deg C	250 deg C	240 deg C	240 deg C	-
			25 ppm	15 ppm	12 ppm	8 ppm	6 ppm	3 ppm
		Plain paper 2 (76 to 90 g/m^2)	250 deg C	250 deg C	250 deg C	250 deg C	244 deg C	-
			25 ppm	15 ppm	12 ppm	8 ppm	6 ppm	3 ppm
		Plain paper 3 (91 to 105 g/m^2)	250 deg C	250 deg C	245 deg C	240 deg C	240 deg C	-
			25 ppm	15 ppm	12 ppm	8 ppm	6 ppm	3 ppm
		Recycled paper 1 (64 to 75 g/m^2)	250 deg C	250 deg C	250 deg C	240 deg C	240 deg C	-
			25 ppm	15 ppm	12 ppm	8 ppm	6 ppm	3 ppm
		Recycled paper 2 (76 to 90 g/m^2)	250 deg C	250 deg C	250 deg C	250 deg C	244 deg C	-
			25 ppm	15 ppm	12 ppm	8 ppm	6 ppm	3 ppm
		Recycled paper 3 (91 to 105 g/m^2)	250 deg C	250 deg C	245 deg C	240 deg C	240 deg C	-
			25 ppm	15 ppm	12 ppm	8 ppm	6 ppm	3 ppm
	100 (mm/s) 17 (ppm)	Heavy paper 1 (106 to 128 g/m^2)	250 deg C	250 deg C	245 deg C	240 deg C	240 deg C	-
			17 ppm	10 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Heavy paper 2 (129 to 163 g/m^2)	250 deg C	250 deg C	250 deg C	250 deg C	240 deg C	-
			17 ppm	10 ppm	8 ppm	6 ppm	4 ppm	2 ppm
	100 (mm/s) 15 (ppm)	Heavy paper 3 (164 to 220 g/m^2)	250 deg C	250 deg C	250 deg C	250 deg C	244 deg C	-
			15 ppm	10 ppm	8 ppm	6 ppm	4 ppm	2 ppm
	100 (mm/s) 17 (ppm)	Envelope	250 deg C	250 deg C	250 deg C	245 deg C	245 deg C	-
			17 ppm	10 ppm	8 ppm	6 ppm	4 ppm	2 ppm

Paper size	Speed	Paper type	Detected temperature (ppm)					
			1st stage	2nd stage	3rd stage	4th stage	5th stage	6th stage
A5 </= * < B5	135 (mm/s) 25 (ppm)	Thin paper (60 to 63 g/m^2)	235 deg C	230 deg C	230 deg C	230 deg C	230 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Plain paper 1 (64 to 75 g/m^2)	235 deg C	230 deg C	230 deg C	230 deg C	230 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Plain paper 2 (76 to 90 g/m^2)	235 deg C	235 deg C	229 deg C	229 deg C	229 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Plain paper 3 (91 to 105 g/m^2)	235 deg C	235 deg C	235 deg C	235 deg C	228 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Recycled paper 1 (64 to 75 g/m^2)	235 deg C	230 deg C	230 deg C	230 deg C	230 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Recycled paper 2 (76 to 90 g/m^2)	235 deg C	235 deg C	229 deg C	229 deg C	229 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Recycled paper 3 (91 to 105 g/m^2)	235 deg C	235 deg C	235 deg C	235 deg C	228 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
	100 (mm/s) 17 (ppm)	Heavy paper 1 (106 to 128 g/m^2)	235 deg C	230 deg C	230 deg C	230 deg C	230 deg C	-
			17 ppm	8 ppm	6 ppm	4 ppm	3 ppm	2 ppm
		Heavy paper 2 (129 to 163 g/m^2)	235 deg C	235 deg C	235 deg C	230 deg C	230 deg C	-
			17 ppm	8 ppm	6 ppm	4 ppm	3 ppm	2 ppm
	100 (mm/s) 15 (ppm)	Heavy paper 3 (164 to 220 g/m^2)	235 deg C	235 deg C	235 deg C	230 deg C	230 deg C	-
			15 ppm	8 ppm	6 ppm	4 ppm	3 ppm	2 ppm
	100 (mm/s) 17 (ppm)	Envelope	235 deg C	235 deg C	235 deg C	230 deg C	230 deg C	-
			17 ppm	8 ppm	6 ppm	4 ppm	3 ppm	2 ppm

Paper size	Speed	Paper type	Detected temperature (ppm)					
			1st stage	2nd stage	3rd stage	4th stage	5th stage	6th stage
< A5	135 (mm/s) 25 (ppm)	Thin paper (60 to 63 g/m^2)	235 deg C	230 deg C	230 deg C	230 deg C	230 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Plain paper 1 (64 to 75 g/m^2)	235 deg C	230 deg C	230 deg C	230 deg C	230 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Plain paper 2 (76 to 90 g/m^2)	235 deg C	235 deg C	229 deg C	229 deg C	229 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Plain paper 3 (91 to 105 g/m^2)	235 deg C	235 deg C	235 deg C	235 deg C	228 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Recycled paper 1 (64 to 75 g/m^2)	235 deg C	230 deg C	230 deg C	230 deg C	230 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Recycled paper 2 (76 to 90 g/m^2)	235 deg C	235 deg C	229 deg C	229 deg C	229 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
		Recycled paper 3 (91 to 105 g/m^2)	235 deg C	235 deg C	235 deg C	235 deg C	228 deg C	-
			25 ppm	12 ppm	8 ppm	6 ppm	4 ppm	2 ppm
	100 (mm/s) 17 (ppm)	Heavy paper 1 (106 to 128 g/m^2)	235 deg C	230 deg C	230 deg C	230 deg C	230 deg C	-
			17 ppm	8 ppm	6 ppm	4 ppm	3 ppm	2 ppm
		Heavy paper 2 (129 to 163 g/m^2)	235 deg C	235 deg C	235 deg C	230 deg C	230 deg C	-
			17 ppm	8 ppm	6 ppm	4 ppm	3 ppm	2 ppm
	100 (mm/s) 15 (ppm)	Heavy paper 3 (164 to 220 g/m^2)	235 deg C	235 deg C	235 deg C	230 deg C	230 deg C	-
			15 ppm	8 ppm	6 ppm	4 ppm	3 ppm	2 ppm
	100 (mm/s) 17 (ppm)	Envelope	235 deg C	235 deg C	235 deg C	230 deg C	230 deg C	-
			17 ppm	8 ppm	6 ppm	4 ppm	3 ppm	2 ppm

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Termination condition:

The termination condition is when the job ends.

Related Service Mode:

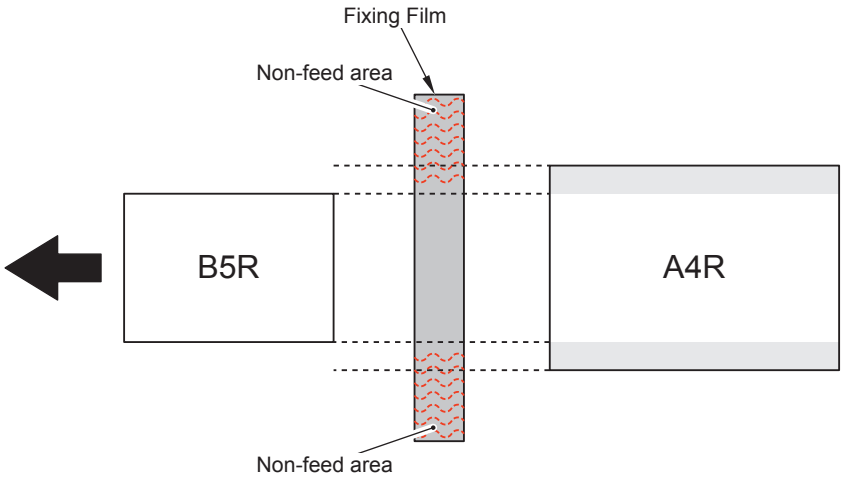
- Set small paper down sequence start temp
  (Lv.1) COPIER > OPTION > IMG-SPD > FX-D-TMP

<Setting value>
-4: -8 deg C
-3: -6 deg C
-2: -4 deg C
-1: -2 deg C
0: 0 deg C
1: 2 deg C
2: 4 deg C
3: 6 deg C
4: 8 deg C

Down sequence when switching paper size

Purpose:

When feeding a sheet with a wider width than a preceding sheet during continuous printing, temperature at the non paper-feed area of the preceding sheet increases, and it can cause fixing offset and wrinkles when feeding the succeeding sheet. This down sequence controls temperature increase at the non paper feed area.



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Starting conditions:

The difference between the higher temperature detected by either Sub Thermistor (Rear) (TH02) or Sub Thermistor (Front) (TH03) and the temperature of the Main Thermistor (TH01) has become higher than the specified temperature (5 deg C).

Operation:

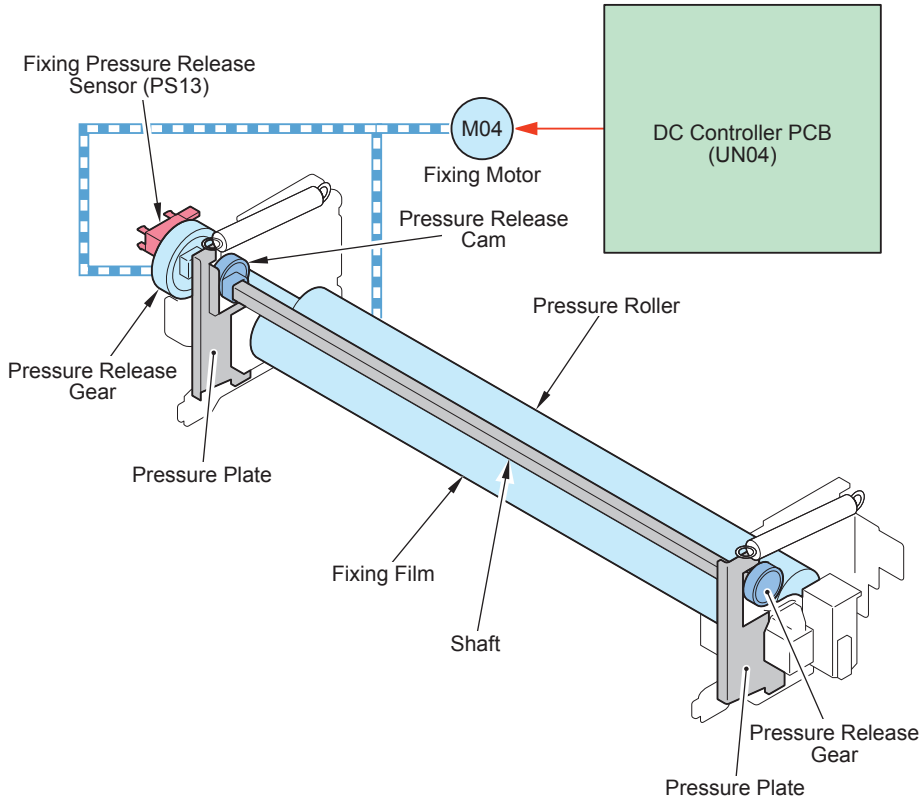
This is a control to stop pickup of the succeeding sheet and power distribution to the Fixing Heater to reduce fixing temperature.

Termination conditions:

- When the highest of the temperatures detected by the Sub Thermistor (Rear) (TH02) and the Sub Thermistor (Front) (TH03) has become the specified temperature (150 deg C) or less.
- 30 seconds at maximum have elapsed since the preceding sheet passed the Fixing Nip.
- When the difference between the highest of the temperatures detected by the Sub Thermistor (Rear) (TH02) and the Sub Thermistor (Front) (TH03) and the temperature detected by the Main Thermistor (TH01) has become the specified temperature (5 deg C) or less.

Film unit engagement / disengagement control

The Fixing Film Unit is disengaged from the Pressure Roller under a specific conditionfor 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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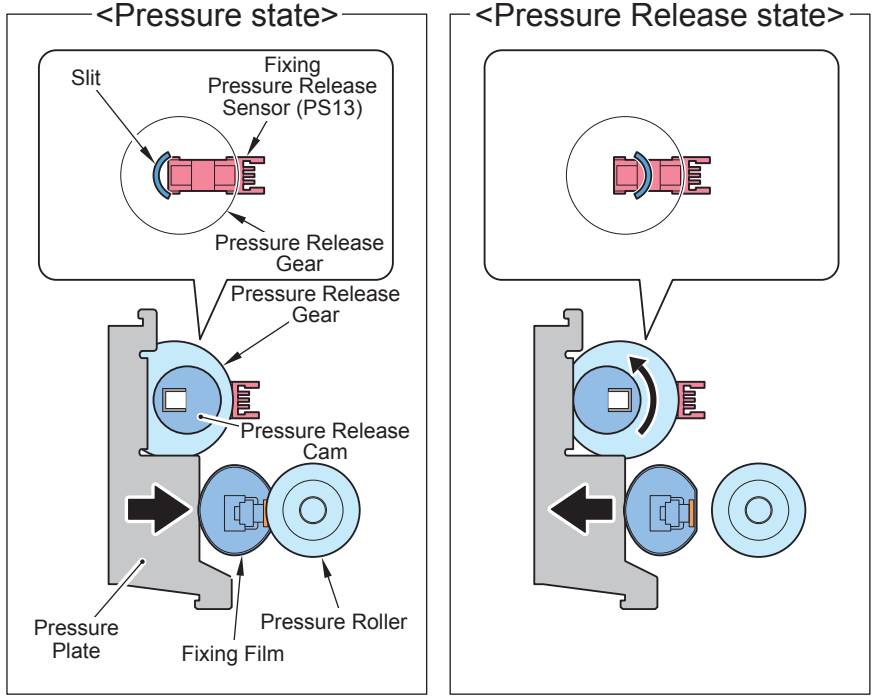

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Execution conditions/timing of pressure application operation:

- In case of disengaged state during printing

Execution conditions/timing of disengagement operation:

- When the Front/Right door is opened
- At power-off
- When a jam occurs
- When an error occurs
- When the specified time elapses after printing ends

Pre-fixing arch level control

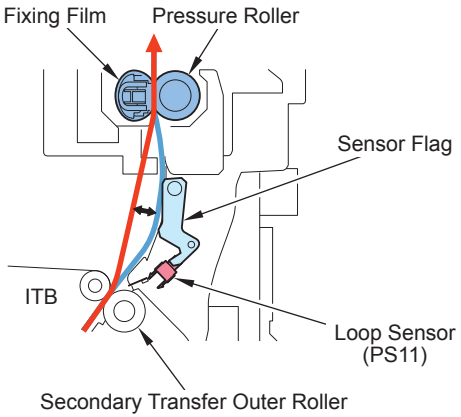
Purpose:

To prevent image failure and feeding failure

Since the feeding speed of the Pressure Roller and that of the Secondary Transfer Outer Roller are not the same when a sheet is fed to the Fixing Assembly, image failure, paper wrinkle, image stretching, etc. occur. To prevent these symptoms, Arch Sensors located at downstream of the Secondary Transfer Unit detect the slack of paper, and the rotation speed of the Fixing Motor is adjusted. This keeps an appropriate level of paper slack.

Starting conditions:

This control is performed every time the paper is fed.



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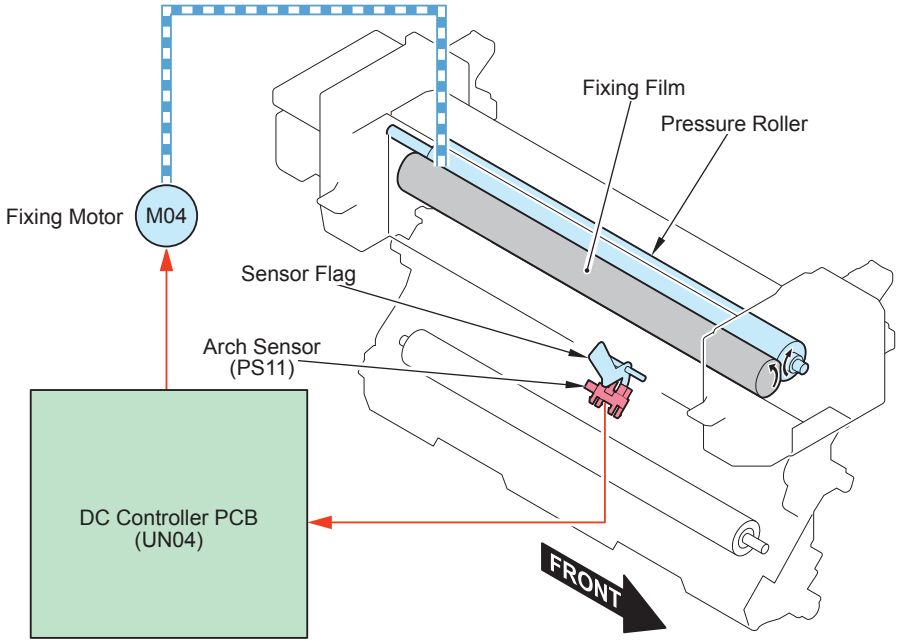

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Arch Sensor control

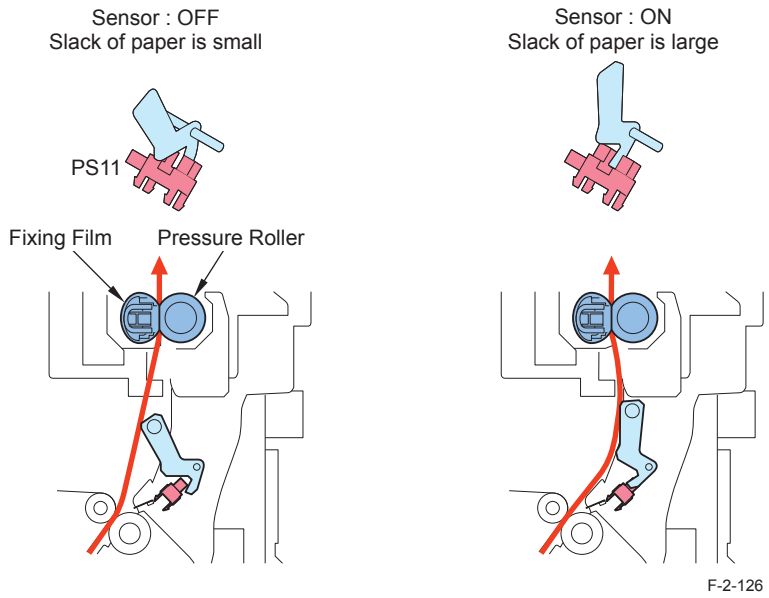
Operation:

The Arch Sensor (PS11) detects a paper arch between the transfer nip and fixing nip to change the drive speed of the Fixing Motor.

1) When the paper's leading edge goes over 65 mm from the secondary transfer nip area by 65 mm, drive speed of the Fixing Motor is reduced by 1.0% against the process speed. The reduced speed is maintained until the paper leading edge goes over 80 mm from the secondary transfer nip area.
2) When Arch Sensor (PS11) is ON:
   After ON has been detected for consecutive 16 msec or longer, drive speed of the Fixing Motor is increased by 1.0% against the process speed.
   When Arch Sensor (PS11) is OFF:
   After OFF has been detected for consecutive 16 msec or longer, drive speed of the Fixing Motor is reduced by 5.0% against the process speed.
3) The Fixing Motor drive speed switches depending on whether the Arch Sensor (PS11) is ON or OFF. (Arch Sensor (PS11) repeatedly turns ON and OFF)
4) When the paper's trailing edge goes over the designated distance* from the secondary transfer nip area, drive speed of the Fixing Motor is increased by 0.8% against the process speed.

NOTE:
* The value of the designated distance varies depending on the process speed (paper type).
When the process speed is 200 mm/sec:
When the paper trailing edge is 10 mm before passing through the secondary transfer nip area
When the process speed is 135 mm/sec:
When the paper trailing edge is 5 mm before passing through the secondary transfer nip area
When the process speed is 100 mm/sec (other than envelopes):
When the paper trailing edge passes through the secondary transfer nip area
When the process speed is 100 mm/sec (envelopes):
When the paper trailing edge goes over 10 mm from the secondary transfer nip area

5) Go back to step 1 in the case of continuous printing. In case of printing a single sheet, the Fixing Motor is stopped after the paper trailing edge passes through the Delivery Sensor. The machine shifts to perform the last rotation operation in case of printing small size paper.



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Protection function

Code		Description	Clearing of error
E001	Fixing Assembly high temperature error		
	A001	Main Thermistor detected a temperature of 265 deg C or higher for 0.1 sec or longer (software).	Not required
	A002	Sub Thermistor (Front) detected a temperature of 290 deg C or higher for 0.1 sec or longer (software).	Not required
	A003	Sub Thermistor (Rear) detected a temperature of 290 deg C or higher for 0.1 sec or longer (software).	Not required
	A004	Main Thermistor detected a temperature of 270 deg C or higher (hardware).	Not required
	A005	Sub Thermistor (Front) detected a temperature of 295 deg C or higher (hardware).	Not required
	A006	Sub Thermistor (Rear) detected a temperature of 295 deg C or higher (hardware).	Not required
E002	Fixing Assembly temperature rise error		
	A004	Main Thermistor detected a temperature increase of 1 deg C for less than 5 sec from startup until start of PI control.	Not required
	A005	Main Thermistor detected a temperature of 40 deg C or lower for 3 sec or longer from startup until start of PI control.	Not required
	A006	Sub Thermistor (Front) detected a temperature of 40 deg C or lower for 3 sec or longer from startup until start of PI control.	Not required
	A007	Sub Thermistor (Rear) detected a temperature of 40 deg C or lower for 3 sec or longer from startup until start of PI control.	Not required
E003	Fixing Assembly temperature decrease error		
	A001	Main Thermistor detected a temperature of 80 deg C or lower for 1 sec or longer from start of PI control until completion of the last rotation (the Fixing Heater is turned OFF).	Not required
	A002	Sub Thermistor (Front) detected a temperature of 80 deg C or lower for 1 sec or longer from start of PI control until completion of the last rotation (the Fixing Heater is turned OFF).	Not required
	A003	Sub Thermistor (Rear) detected a temperature of 80 deg C or lower for 1 sec or longer from start of PI control until completion of the last rotation (the Fixing Heater is turned OFF).	Not required
E004	Thermistor disconnection detection error		
	0001	Zero cross interruption was detected although the Fixing Relay was not turned ON.	Not required
	0002	Connection could not be detected within 0.5 sec when power was supplied to the Fixing Heater.	Not required

Code		Description	Clearing of error
E009	Film unit engagement / disengagement error		
	0001	The pressure release sensor signal could not be detected at pressure application operation, and the operation was not completed within the specified period of time from the start of counterclockwise rotation of the Fixing Motor.	Not required
	0002	The pressure release sensor signal could not be detected at pressure release operation, and the operation was not completed within the specified period of time from the start of counterclockwise rotation of the Fixing Motor.	Not required
	0003	The pressure release sensor signal could not be detected at pressure application operation, and the operation was not completed within the specified period of time from the start of counterclockwise rotation of the Fixing Motor.	Not required
	0004	The pressure release sensor signal could not be detected at pressure release operation, and the operation was not completed within the specified period of time from the start of counterclockwise rotation of the Fixing Motor.	Not required
E808	Error in zero cross signal		
	0001	An electrical trouble caused by zero cross signal error.	Not required
	0002	An electrical trouble caused by zero cross signal error.	Not required

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Remedy at occurrence of the Fixing Assembly error (E001/E002/E003)

Previously, if the error (E001/E002/E003) relating to the Fixing Assembly occurred, a service visit was necessary to clear the error in service mode (COPIER > FUNCTION > CLEAR > ERR). (This included an incidental error occurrence.)

This machine treats E001/E002/E003 errors as follows to avoid a service visit just for clearing these errors.

- 1st error detection: The error avoidance jam (00-0CF1) is displayed.
- 2nd and later error detection: An error code (E001/E002/E003) is displayed. (Detail Code: Axxx*)
  - If the issue occurred incidentally: The error can be recovered by turning OFF and then ON the main power switch.
  - If there is an issue with the Fixing Assembly: The same error is displayed after turning OFF and then ON the main power switch.

* 1st digit of detail code is "A": This indicates that "clearing the error in service mode (COPIER > FUNCTION > CLEAR > ERR) is unnecessary".

Service Tasks

Periodically Replaced Parts

None.

Consumable Parts

No.	Parts name	Parts number	Quantity	Estimated life	Remarks
1	Fixing Assembly	FM0-0033(100V)	1	150,000 sheets	
		FM0-0072(120V)			
		FM0-0073(230V)			

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Periodical Servicing

None.

Perform as needed.

Pickup / Feed System

Overview

Specifications

Item		Description
Paper storage method		Front-loading method
Pickup method	Cassette	Retard separation
	Multi-purpose Tray	Retard separation
Stacking capacity	Cassette	550 sheets (80 g/m^2)
	Multi-purpose Tray	100 sheets (80 g/m^2)
Paper feed reference		Center reference
Paper size	Cassette	Width: 98.4 to 216.0 mm Length: 148.0 to 355.6 mm A4-R, A5-R, B5-R, LGL, LTR-R, STMT-R, EXEC-R, 16K, special standard-size
	Multi-purpose Tray	Width: 98.4 to 216.0 mm Length: 148.0 to 355.6 mm * A4-R, A5-R, B5-R, LGL, LTR-R, STMT-R, EXEC-R, 16K-R, Envelopes (No.10 (COM10), ISO-C5, Monarch, DL, Nagagata 3, Yougatanaga 3)
Paper weight	Cassette	60 to 163 g/m^2
	Multi-purpose Tray	60 to 220 g/m^2
Paper size switching	Cassette	Auto switching
	Multi-purpose Tray	Manual switching
Supported size for 2-sided print	Cassette	Width: 98.4 to 216.0 mm Length: 148.0 to 355.6 mm
	Multi-purpose Tray	Width: 98.4 to 216.0 mm Length: 148.0 to 355.6 mm
2-sided print method		Through-pass duplex
Transparency Detection		None

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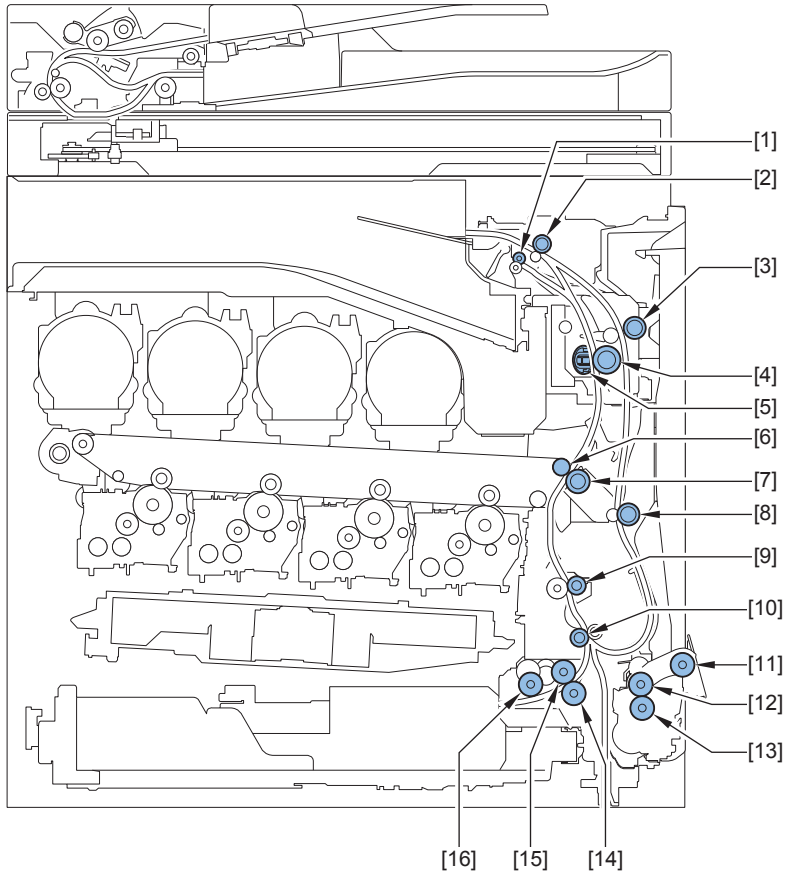
*: Long length paper is not supported by this machine.

Parts Configuration

Rollers Layout drawing



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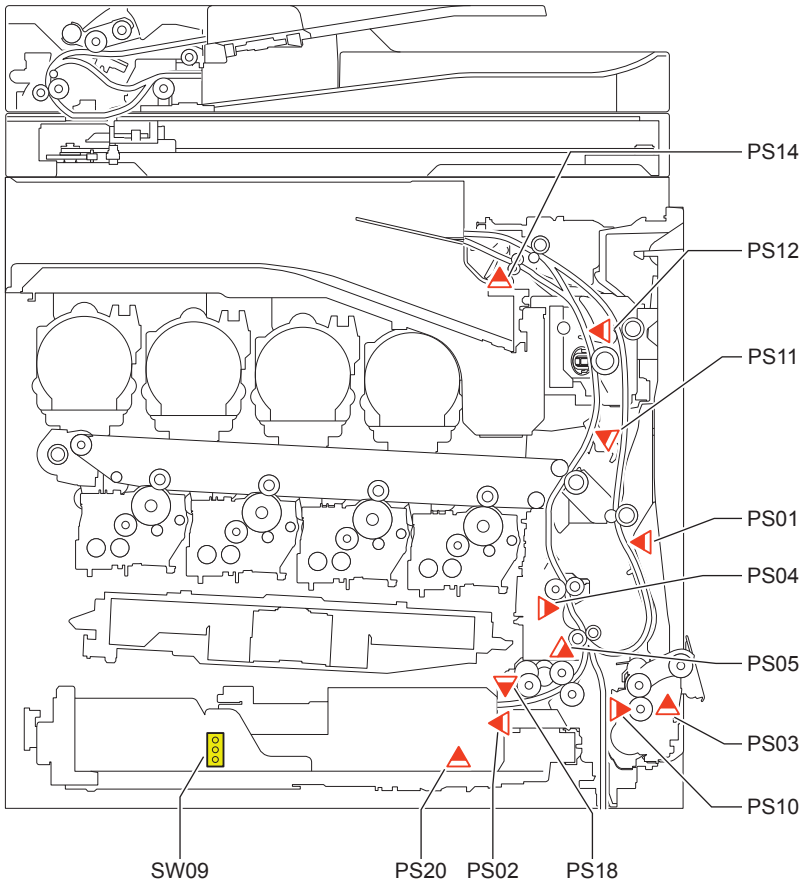
[1] Delivery Upper Roller
[2] Reverse Roller
[3] Duplex Feed Upper Roller
[4] Pressure Roller
[5] Fixing Film
[6] Secondary transfer inner Roller
[7] Secondary transfer outer Roller
[8] Duplex Feed Lower Roller
[9] Registration Roller
[10] Pre-registration Roller
[11] Multi-purpose tray pickup Roller
[12] Multi-purpose tray feed Roller
[13] Multi-purpose tray separation Roller
[14] Cassette 1 separation Roller
[15] Cassette 1 feed Roller
[16] Cassette 1 pickup Roller

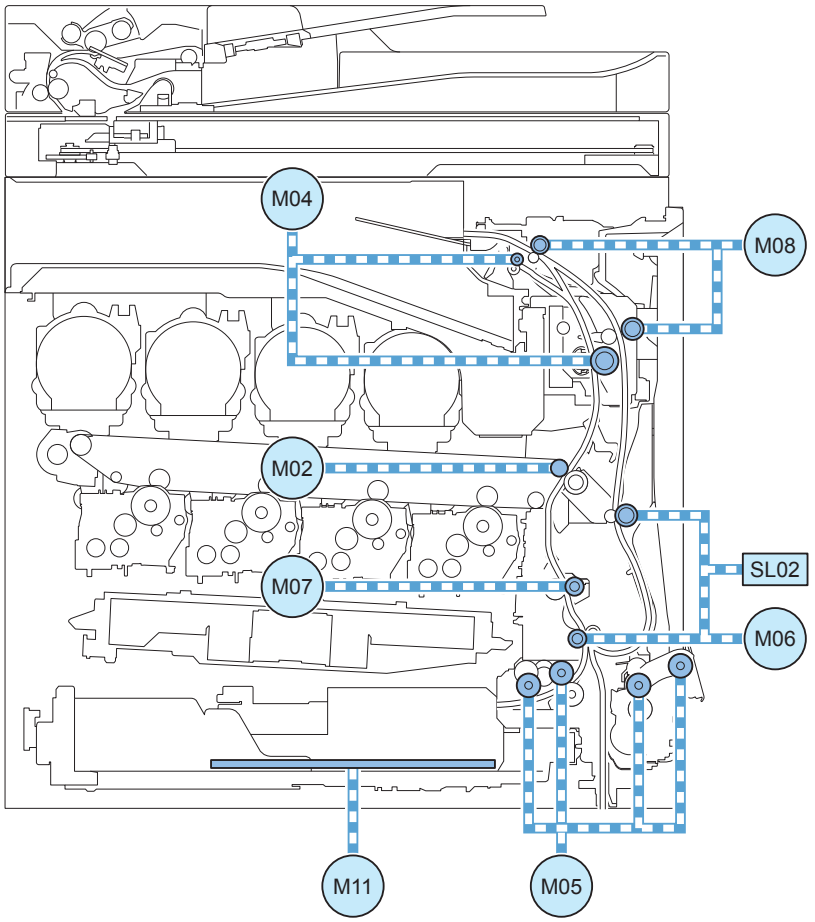
Sensors Layout Drawing



F-2-128

PS01 Duplex Sensor
PS02 Cassette 1 Paper Sensor
PS03 Multi-purpose Tray Paper Sensor
PS04 Pre-Registration Sensor
PS05 Cassette 1 Pickup Sensor
PS10 Multi-purpose Tray HP Sensor
PS11 Arch Sensor
PS12 Delivery Sensor
PS14 Delivery Paper Full Sensor
PS18 Cassette 1 Paper Surface Sensor
PS20 Cassette 1 Paper Level Sensor
SW09 Cassette 1 size switch

Route of Drive



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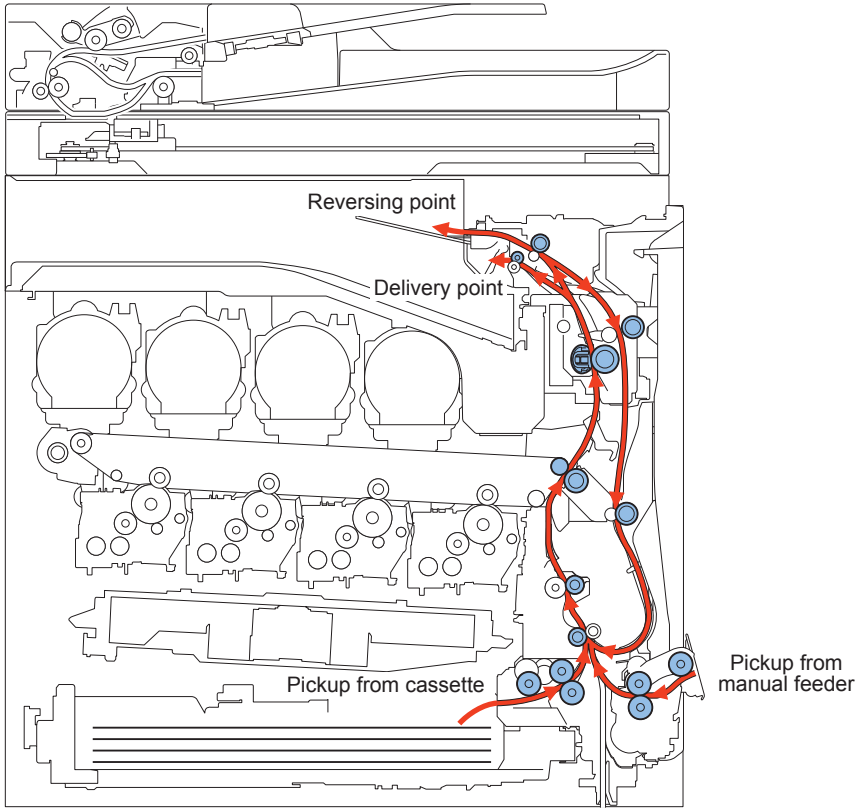
M02 Bk Drum _ ITB Motor
M04 Fixing Motor
M05 Cassette 1 _ Multi-purpose Tray Pickup Motor
M06 Pre-registration Motor
M07 Registration Motor
M08 Reverce Motor
M11 Cassette 1 Lifter Motor
SL02 Duplex Solenoid

Paper Path



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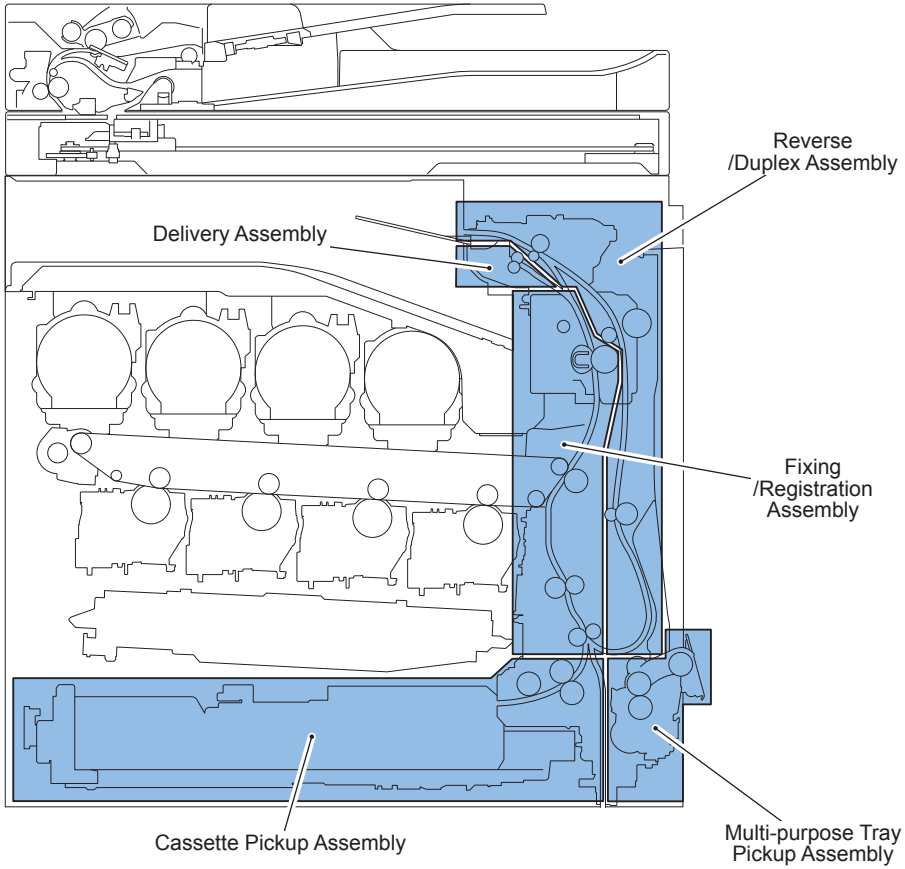
Controls

Overview



F-2-131

Area	Detection/Control	
Cassette Pickup Assembly	Pickup Retry Control	Paper Detection Control
	Paper Size Detection Control	Paper Level Detection Control
	Lifter Control	-
Multi-purpose Tray Pickup Assembly	Pickup Retry Control	Paper Size Detection
	Paper Detection	-
Fixing/Registration Assembly	Registration Control	Stop Registration Control
	Non-stop Registration Control	Size Mismatch Detection Control
Delivery Assembly	Delivery Control	Delivery Full Detection
Reverse/Duplex Assembly	Reverse Flapper Operation	Duplex Re-pickup Control
	Duplex Reverse Control	Duplex Circulation
Jam Detection	List of Jam Codes	Forcible Paper Feed Control

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Cassette Pickup Assembly

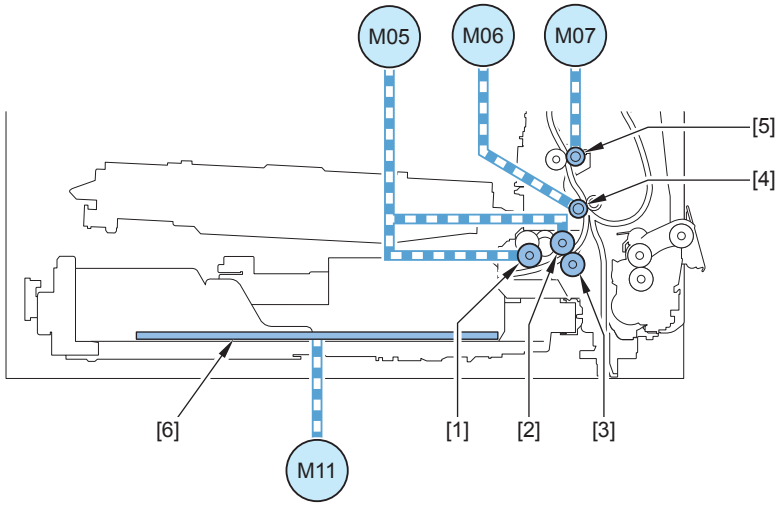
Overview

Paper inside a cassette is lifted up by the Lifter Plate.

The Lifter Plate rises by the rotation of the Cassette 1 Lifter Motor (M11). When the Pickup Roller comes in contact with the surface of paper, paper is picked up by rotation of the Cassette 1_Multi-purpose Tray Pickup Motor (M05), and only a single sheet of paper is moved to the feed path by the Cassette Feed Roller and the Cassette Separation Roller. Then, it is moved from the Pre-registration Roller to the Registration Roller by the rotation of the Pre-registration Motor (M06).

If the Cassette 1 Pickup Sensor (PS05) is ON when starting pickup (in the case that the succeeding paper is also picked up when a paper is picked up and fed), the feed speed is decreased.

The Cassette 1 Pickup Roller, the Cassette 1 Feed Roller and Cassette 1 separation Roller are driven by the Cassette 1_Multi-purpose Tray Pickup Motor (M05) while the Pre-registration Roller is moved by the rotation of the Pre-registration Motor (M06).



F-2-132

[1] Cassette 1 pickup Roller
[2] Cassette 1 feed Roller
[3] Cassette 1 separation Roller
[4] Pre-registration Roller
[5] Registration Roller
[6] Lifting Plate

Pickup Retry Control

If the Cassette 1 Pickup Sensor (PS05) is not turned ON within a specified period of time after the start of pickup operation of the top paper, operation of the Cassette 1 Multi-purpose Tray Pickup Motor (M05) is suspended once, and the pickup operation is executed again.

NOTE:
It is executed only on the first page of B&W jobs.

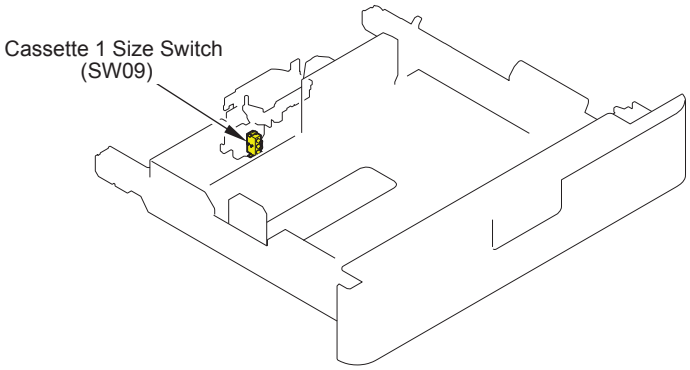
Paper Size Detection Control

The paper size in the cassette is automatically detected by the "Cassette 1 Size Switch (SW09)" after the position of the Guide Plate is adjusted and the cassette is installed in the host machine.

By shifting the Guide Plate, concavo-convex area of the Cassette Size Dial is switched and the Cassette Size Switch at the printer side is switched. The switch consists of 3 microswitches, and the length is detected in accordance with the combination of ON/OFF. (When the switch is pressed: ON) For standard size paper, any of AB configuration, inch configuration, or AK configuration can be used. However, distinction between A5-R and STMT-R should be made manually on the check screen.

Distinction between EXEC-R and 16K-R, and between LTR-R and 16K-R is automatically made according to the country setting.

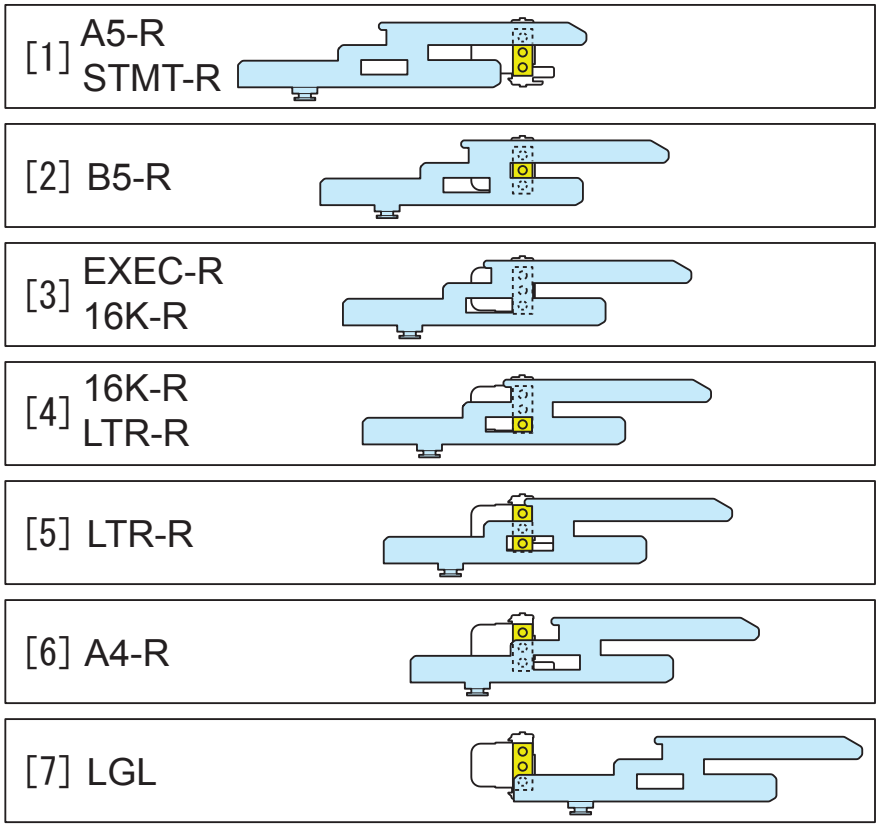
*: Whether to select A5-R or STMT-R can be registered in the UI menu setting.
Settings/Registration > Preferences > Paper Settings > A5R/STMTR Paper Selection
Setting value per cassette: A5R. STMTR



F-2-133

		Length Detection		
Size	Length	1	2	3
A5-R	210.0	ON	OFF	OFF
STMT-R	215.9	ON	OFF	OFF
B5-R	257.0	ON	OFF	ON
EXEC-R	267.0	ON	ON	ON
16K-R	270.0	ON	ON	ON
		ON	ON	OFF
LTR-R	279.4	ON	ON	OFF
		OFF	ON	OFF
A4-R	297.0	OFF	ON	ON
LGL	355.6	OFF	OFF	ON
(No cassette)	-	OFF	OFF	OFF

T-2-52



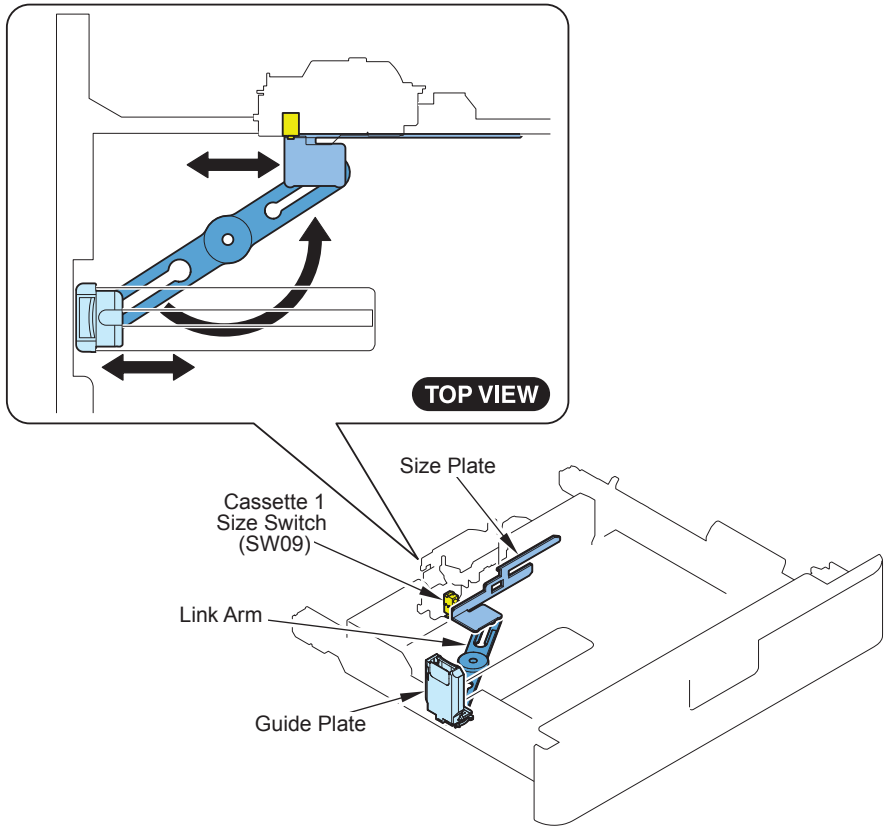
F-2-134

Paper size*1		All modes	AB configuration	Inch-configuration	AK configuration
A5-R	210.0	[1]	[1]	-	[1]
STMT-R	215.9		-	[1]	-
B5-R	257.0	[2]	[2]	Paper load error	Paper load error
EXEC-R	267.0	[3]	Paper load error	[3]	-
16K-R	270.0	[3]	Paper load error	-	[3]
		[4]	Paper load error	-	[4]
LTR-R	279.4	[4]	Paper load error	[4]	-
		[5]	Paper load error	[5]	Paper load error
A4-R	297.0	[6]	[6]	Paper load error	[6]
LGL	355.6	[7]	Paper load error	[7]	Paper load error
(No cassette)*2	-	[8]	-	-	-

T-2-53

*1 Paper sizes can be registered in UI menu setting.
[Settings/Registration] > [Preferences] > [Paper Settings] > [Paper Type Settings]

*2 Presence of the cassette is detected when the size switch is pushed.
(If no switch is pushed, it is judged as no cassette.)



F-2-135

Paper Level Detection Control

Paper level inside the cassette is detected by the sensors shown in the following table.
The paper level in the cassette is detected by the Cassette 1 Lifter Motor (M11), Cassette 1 Paper Sensor (PS02), Cassette 1 Paper Surface Sensor (PS18), and Cassette 1 Paper Level Sensor (PS20).

Cassette 1 Paper Sensor (PS02)	Cassette 1 Paper Surface Sensor (PS18)	Cassette 1 Paper Level Sensor (PS20)	Paper level	Display on the Control Panel
OFF	ON	OFF*	100% to 50%*	
OFF	ON	OFF	Approx. 50% to approx. 50 sheets	
OFF	ON	ON	Approx. 50 sheets or less	

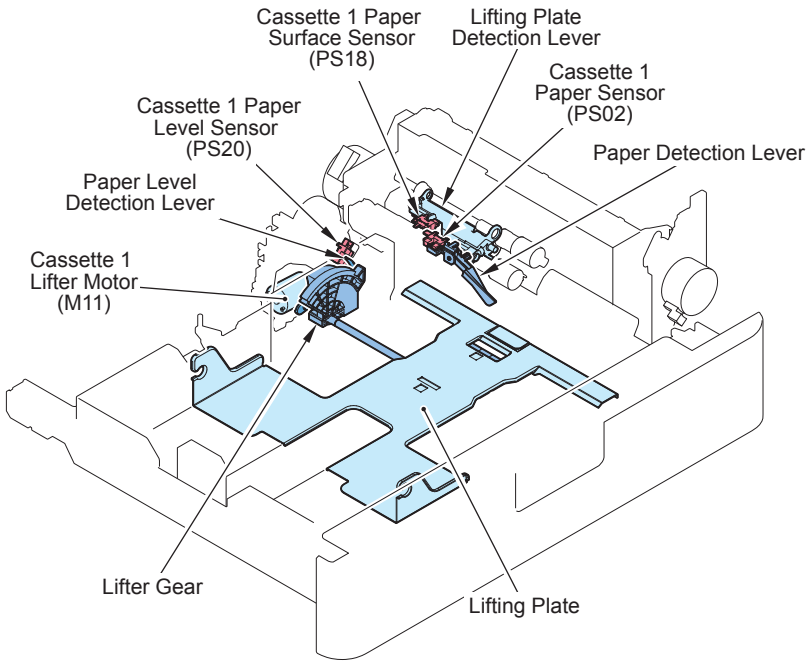
T-2-54

The control that switches the paper level display on the Control Panel is as follows:

- From 3 bars to 2 bars on the Control Panel:
  The paper level is detected based on the time for which Cassette 1 Lifter Motor is continuously turned ON. Or, it is detected based on the time from when the Cassette 1 Paper Sensor (PS02) is turned ON to when the Cassette 1 Paper Surface Sensor (PS18) is turned ON.
  The paper level during paper feed is detected based on the number of times the Cassette 1 Lifter Plate is lifted up.

Related Service Mode
*: The paper level in the cassette is displayed by executing the following service mode. You can adjust the timing of switching the scale from "3" to "2".
Lv.2) COPIER > ADJUST > CST-ADJ > CST-VLMX (Threshold adjustment for detecting the level in the cassette X)
X indicates the cassette number (1 to 4).

- From 2 bars to 1 bar on the Control Panel:
  The Control Panel switches to display 1 bar when the Cassette 1 Paper Level Sensor (PS02) is turned ON.



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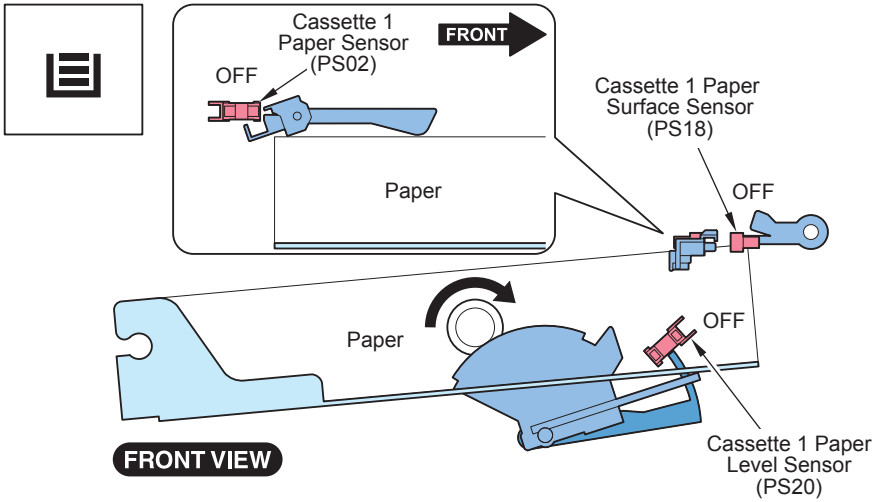
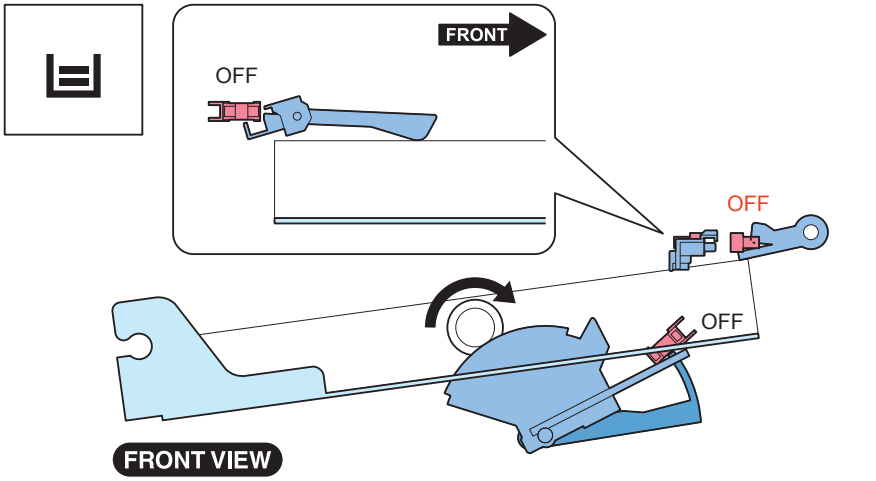
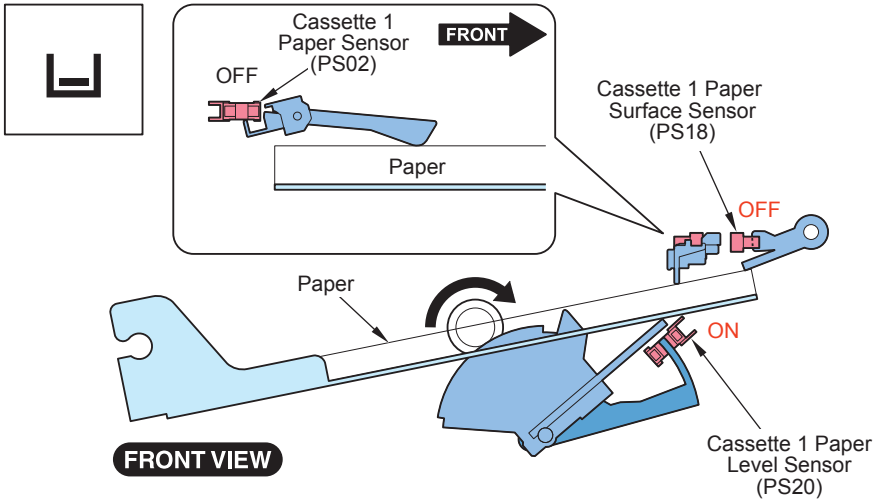

Cassette 1
Paper Sensor
(PS02)
FRONT
OFF
Cassette 1 Paper
Surface Sensor
(PS18)
Paper
OFF
Paper
OFF
Cassette 1 Paper
Level Sensor
(PS20)
FRONT VIEW


FRONT
OFF
OFF
OFF
FRONT VIEW

F-2-137


Cassette 1
Paper Sensor
(PS02)
FRONT
OFF
Cassette 1 Paper
Surface Sensor
(PS18)
Paper
OFF
Paper
ON
Cassette 1 Paper
Level Sensor
(PS20)
FRONT VIEW

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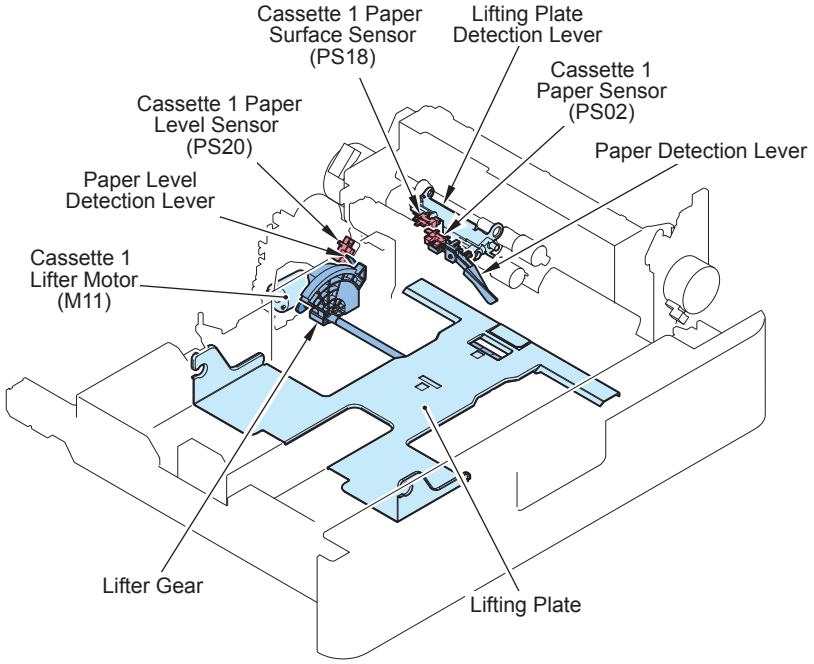
Paper Detection Control

Paper is detected by the Cassette 1 Size Switch (SW09), Cassette 1 Paper Surface Sensor (PS18) and Cassette 1 Paper Sensor (PS02).

The absence of paper is notified when the Cassette 1 Paper Sensor (PS02) is turned ON at the time the Cassette 1 Size Switch (SW09) is turned ON (it is detected that the Cassette is in the host machine) and the Cassette 1 Paper Surface Sensor (PS18) is turned OFF (the Lifter Plate is raised to the pickup position).



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Lifter Control

When Cassette is set

When the cassette is set, the Cassette 1 Lifter Motor (M11) rotates to raise the Lifter Plate so that the paper is raised to the position to be picked up.

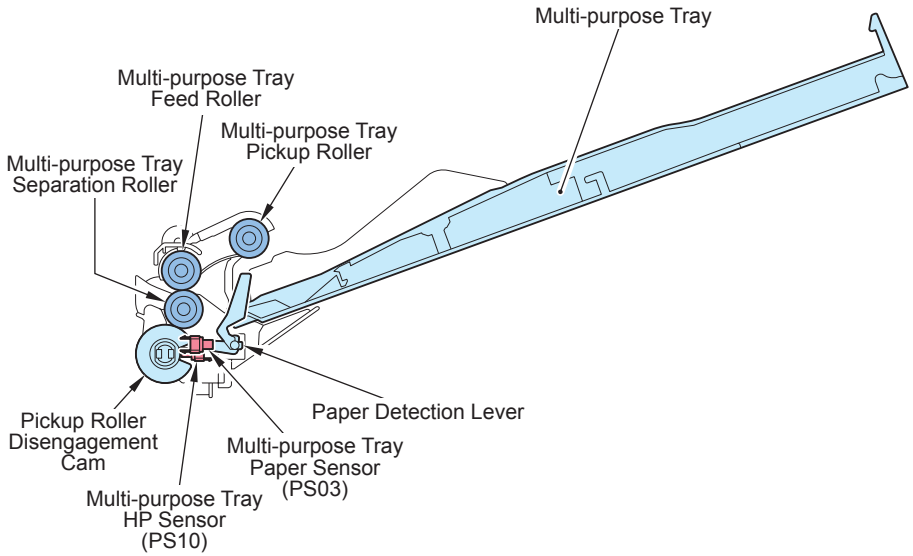
Multi-purpose Tray Pickup Assembly

Overview

Paper on the Multi-purpose Tray Pickup Tray of the Multi-purpose Tray Pickup Unit is picked up by the rotation of the Cassette 1_Multi-purpose Tray Pickup Motor (M05).

The Multi-purpose Tray Pickup Roller is lowered by the rotation of the Cassette 1_Multi-purpose Tray Pickup Motor. When the Multi-purpose Tray Pickup Roller comes in contact with the surface of paper, a sheet of paper is picked up by rotation of the Cassette 1_Multi-purpose Tray Pickup Motor (M05), and is moved to the feed path by the Multi-purpose Tray Feed Roller and the Multi-purpose Tray Separation Roller. Then, it is moved from the Pre-registration Roller to the Registration Roller by the rotation of the Pre-registration Motor (M06).

The Multi-purpose Tray Pickup Roller and the Multi-purpose Tray Feed Roller are driven by the Cassette 1_Multi-purpose Tray Pickup Motor (M05) while the Pre-registration Roller is moved by the rotation of the Pre-registration Motor (M06).



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Pickup Retry Control

If the Pre-Registration Sensor (PS03) is not turned ON within the specified period of time after the start of pickup operation, the Cassette 1_Multi-purpose Tray Pickup Motor (M05) is suspended once, and the pickup operation is executed again.

NOTE:
This control is executed in the following cases:
- The top paper of a B&W job
- Envelope/Heavy Paper 3/Label Paper/Transparency whose length is 190 mm or more

Paper Detection

Presence/absence of paper is detected by the Multi-purpose Tray Paper Sensor (PS03).
When absence of paper is detected but the same size and same type of papers exist in another paper source, auto cassette change is executed.

Paper Size Detection

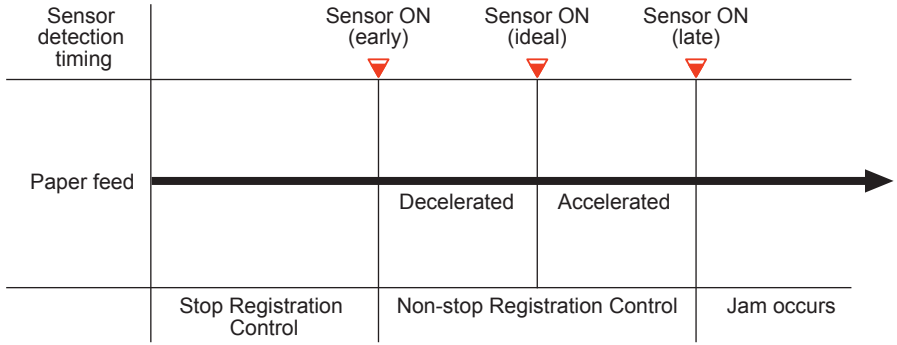
The machine does not have the paper size detection function. The user has to specify the paper size in the Multi-purpose Tray using the Control Panel.
In addition, the user has to register the fixed size in UI menu.

Fixing/Registration Assembly

Registration Control

It is a control to align paper and image on the ITB at a specified timing.
Based on the leading edge detection by the Pre-Registration Sensor (PS04), the following 2 controls are used:
- Non-stop registration control
- Stop registration control

Basically, the non-stop registration control is used.
However, if paper passes the Pre-registration Sensor (PS04) earlier than a specified timing, stop registration control is executed to align paper and image on the ITB at the specified timing.
Meanwhile, if the paper passes the Pre-registration Sensor (PS04) significantly later than a specified timing, paper and image on the ITB cannot be aligned at the specified timing, and therefore jam is generated. (Jam code: 0A90)



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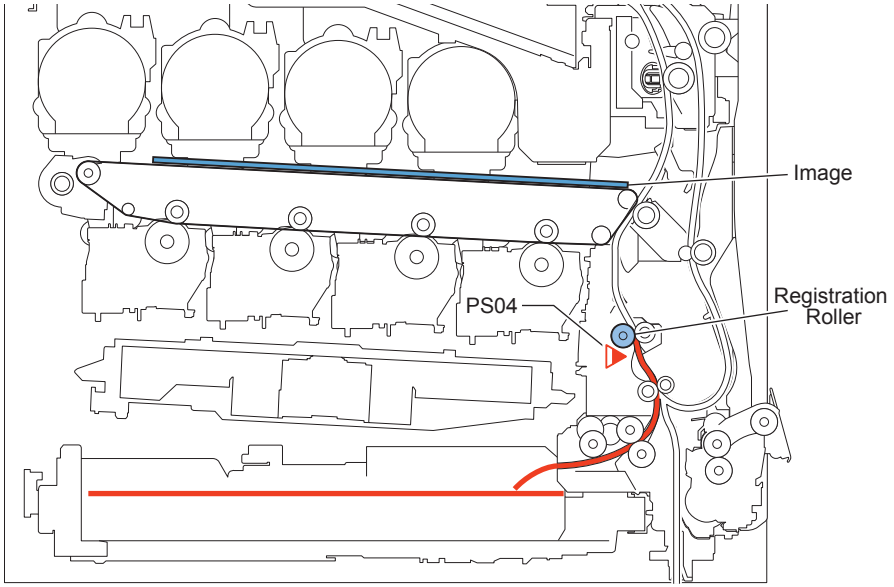
Non-stop Registration Control

It is a control to align paper and image on the ITB at a specified timing by increasing or decreasing the paper feed speed.
Since paper is not stopped at the registration position, paper interval can be shortened and productivity can be improved.

Stop Registration Control

It is a control to stop paper at the registration position, align paper and image on the ITB at a specified timing, and then resume paper feed.

Stop registration control stops the Pre-registration Roller. Paper fed by the Pre-registration Roller after being picked up from the cassette or Multi-purpose Tray generates an arch due to being pushed against the Registration Roller which has been stopped. This control stops paper while an arch is still generated to align paper and image on ITB at a specified timing, aligns paper and image on the ITB at a specified timing, and then resumes paper feed.



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Size Mismatch Detection Control

Whether the size is mismatched is determined by paper length.

The time a paper passes through the Pre-Registration Sensor (PS04) is converted into distance. The converted distance and the paper size (specified by the user in case of the Multi-purpose Tray Pickup Tray) detected by the Cassette Size Detection Switch are compared, and if there is a difference of 20 mm or more between the two, it is judged that the size is mismatched.

In this case, paper is not delivered, but stopped instead with a jam detected. (Jam code: 0D91)

Delivery Assembly

Delivery Control

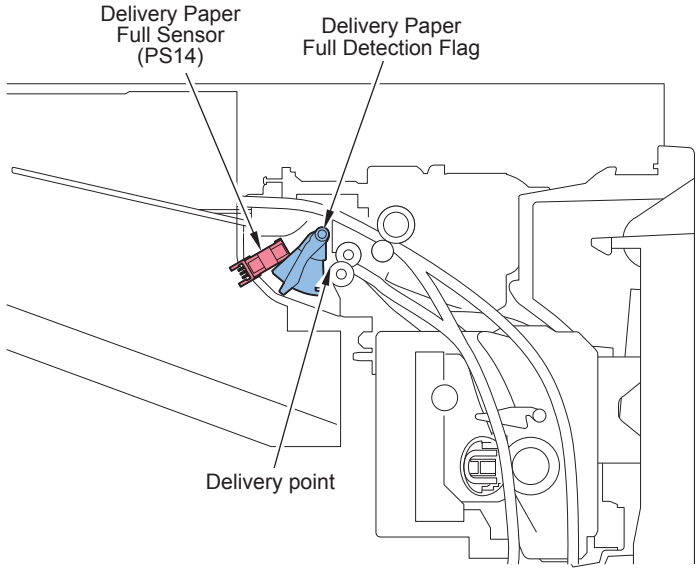
This machine executes face-down delivery (delivers paper to the machine's Delivery Tray with printed surface down).

When face-up delivery (delivering paper to the Delivery Tray with printed surface up) is specified in a job, image is created on the front side of the paper, and then the paper is passed through the duplex path and delivered with no image created on the back.

Delivery Full Detection

If the Delivery Paper Full Sensor (PS14) is ON for a specified period of time, it is notified to the Main Controller PCB.

After notification, printing stops.



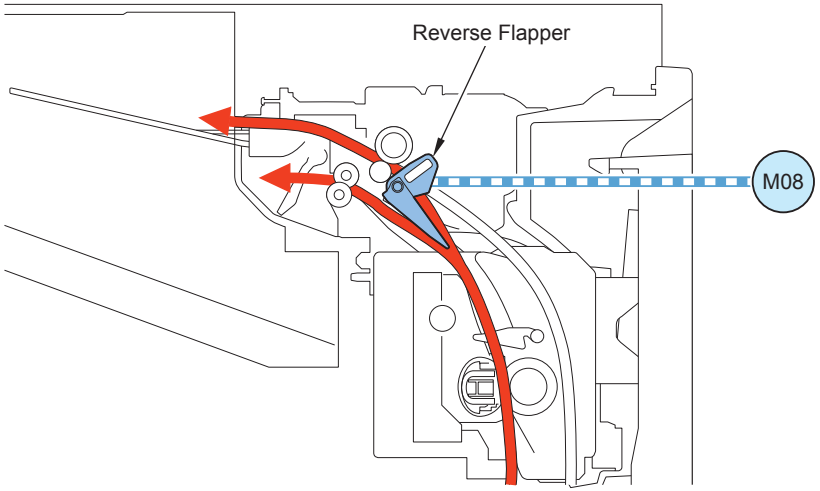
F-2-143

Reverse/Duplex Assembly

Reverse Flapper Operation

The Reverse Flapper operates in accordance with the Reverse Motor (M08).

- When the Reverse Motor is stopped: Feed to the Delivery Outlet
- When the Reverse Motor is operating: Feed to the Reverse Mouth

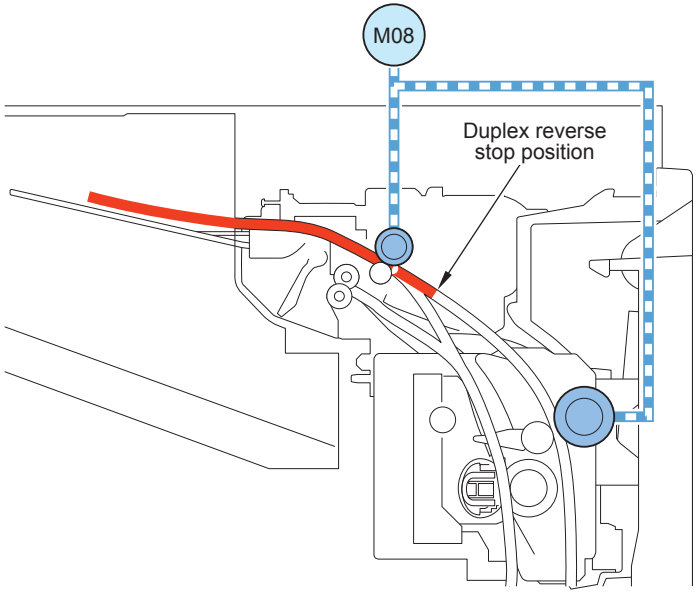


F-2-144

Duplex Reverse Control

Paper is reversed outside the machine using the Reverse Mouth.

Paper stops at the duplex reverse stop position after a specified time has elapsed since passing the Delivery Sensor (PS12). After a specified time has elapsed, paper is reversed, and duplex feed starts.

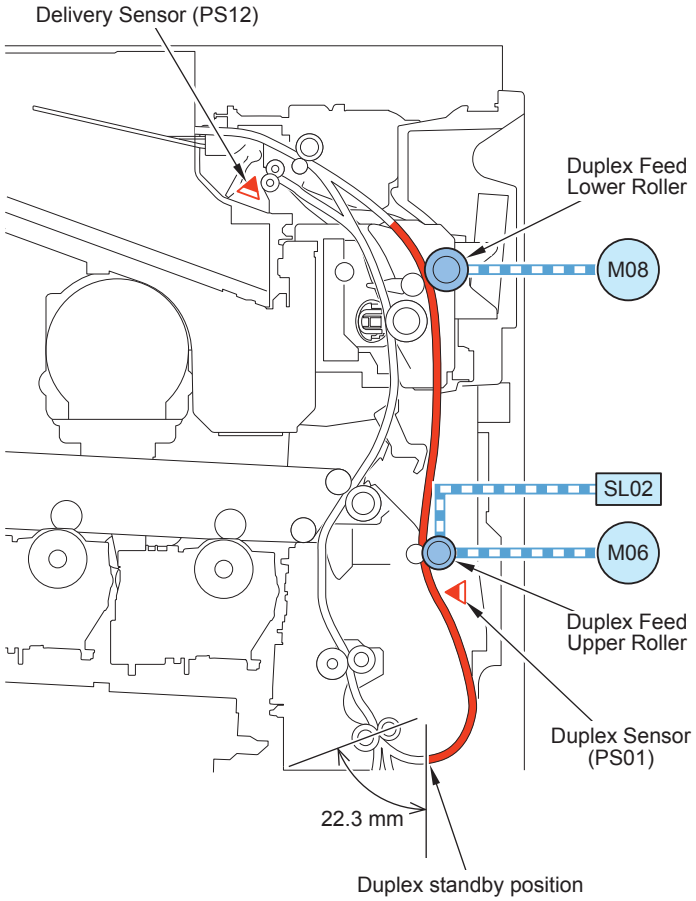


F-2-145

Duplex standby control

If it is possible to secure necessary paper interval by estimating the paper interval with the preceding paper when the Duplex Sensor (PS01) is ON, the paper is re-picked up to the pre-registration.

If the necessary paper interval cannot be secured, the paper stays at the duplex standby position (22.3 mm downstream from the Pre-registration Roller). After recalculated standby time has passed, re-pickup is executed.

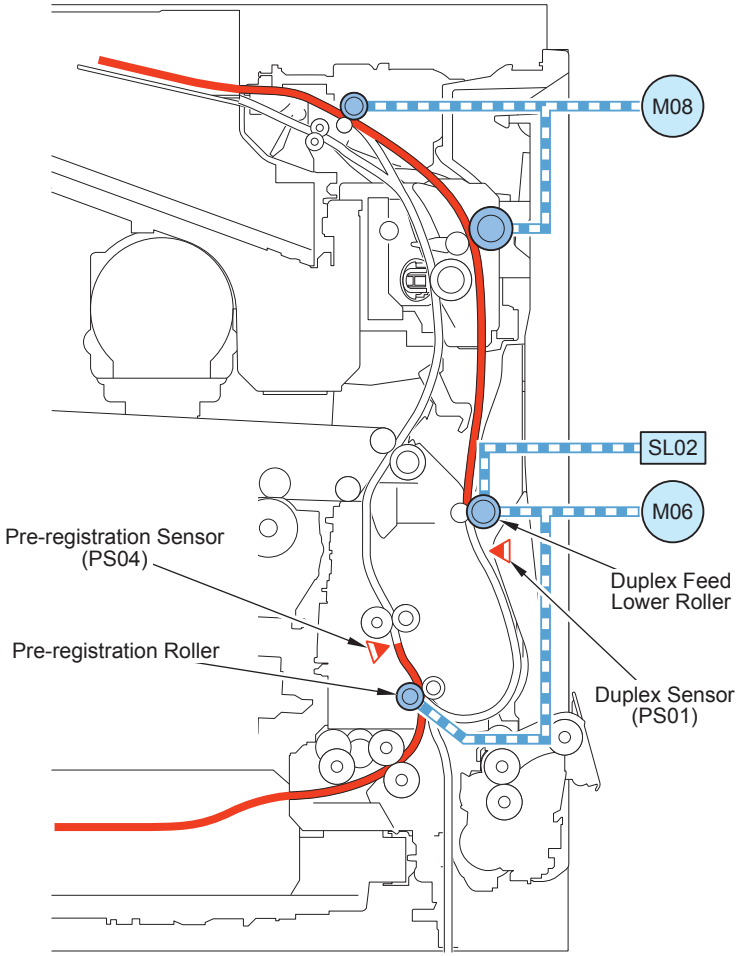


F-2-146

Duplex Pre-standby control

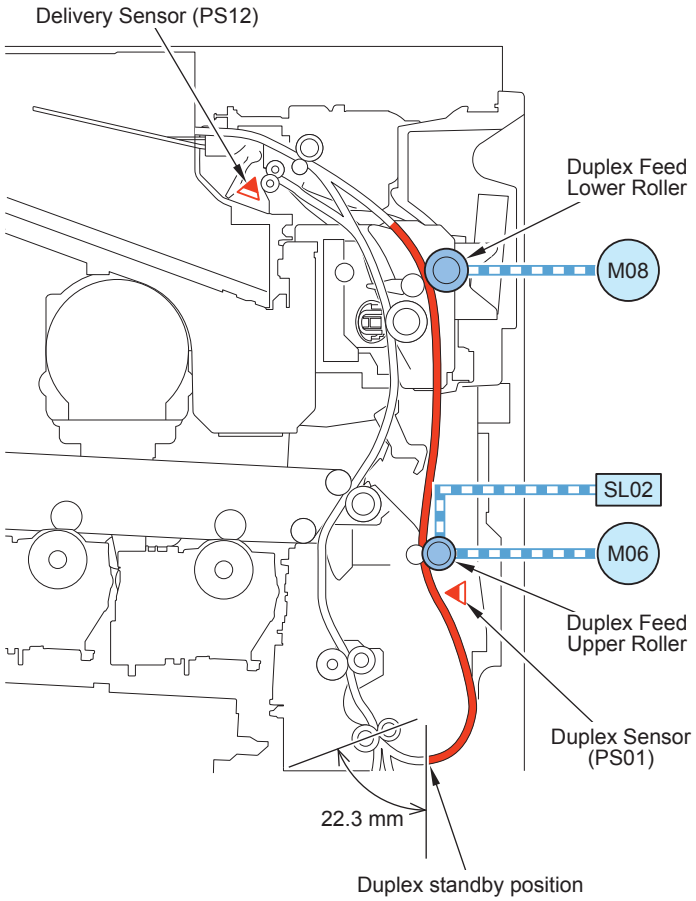
When the succeeding paper has not finished the registration control (non-stop registration control and stop registration control), the paper stops before the nip of the Duplex Feed Lower Roller (15 mm downstream from the Duplex Feed Lower Roller).

When the speed changes to the process speed after the succeeding paper finishes the registration control, the Reverse Motor (M08) is rotated to start the paper feed.



F-2-147

The Duplex Solenoid (SL02) is turned ON 100 msec before the leading edge of the fed paper reaches the duplex standby position. After the Duplex Solenoid (SL02) is turned ON, the drive of the Duplex Feed Lower Roller is terminated, and the paper stops at the duplex standby position. After the designated time has elapsed, the Duplex Solenoid is turned OFF, the Duplex Feed Lower Roller is driven, and then the paper is picked up again.



F-2-148

Duplex Circulation

The following shows the number of circulating sheets at the 2-sided print.

Length in paper feed direction	Number of circulating sheets
297.0 mm or less	3
Greater than 297.0 mm	1

T-2-55

Jam Detection

List of Jam Codes

A jam code consists of 4 alphanumeric characters.

The upper 2 digits indicate the jam type, and the lower 2 digits indicate the sensor that detected a jam.

ACC ID	Jam Code	Type	Sensor Name	Sensor ID
00	0101	Delay	Cassette 1 Pickup Sensor	PS5
00	0102	Delay	Cassette 2 Pullout Sensor	PS101
00	0103	Delay	Cassette 3 Pullout Sensor	PS102
00	0104	Delay	Cassette 4 Pullout Sensor	PS103
00	0105	Delay	Pre-Registration Sensor	PS4
00	0106	Delay	Delivery Sensor	PS12
00	0107	Delay	Duplex Sensor	PS1
00	0202	Stationary	Cassette 2 Pullout Sensor	PS101
00	0203	Stationary	Cassette 3 Pullout Sensor	PS102
00	0204	Stationary	Cassette 4 Pullout Sensor	PS103
00	0205	Stationary	Pre-Registration Sensor	PS4
00	0206	Stationary	Delivery Sensor	PS12
00	0706	Fixing paper wrapping	Fixing paper wrapping jam	-
00	0709	Fixing paper wrapping	Fixing paper wrapping jam	-
00	0A01	Power ON	Cassette 1 Pickup Sensor	PS5
00	0A02	Power ON	Cassette 2 Pullout Sensor	PS101
00	0A03	Power ON	Cassette 3 Pullout Sensor	PS102
00	0A04	Power ON	Cassette 4 Pullout Sensor	PS103
00	0A06	Power ON	Delivery Sensor	PS12
00	0A07	Power ON	Duplex Sensor	PS1
00	0A08	Power ON	Arch Sensor	PS11
00	0A90	Power ON	Pre-Registration Sensor	PS4
00	0A91	Power ON	Multi-purpose Tray HP Sensor	PS10
00	0A92	Power ON	Multi-purpose Tray HP Sensor	PS10
00	0B00	Door Open	-	-
00	0B0D	No drum jam*	-	-
00	0CA1	Sequence	Software sequence (Feed status cannot be returned)	-
00	0CA2	Sequence	Software sequence (ImageReady cannot be sent)	-
00	0CA3	Sequence	Software sequence (Stop due to jam is not possible)	-
00	0CA4	Sequence	Software sequence (Finisher-related)	-
00	0CA9	Sequence	Software sequence error (Automatic adjustment-related)	-
00	0CAF	Sequence	Finisher sequence jam	-

ACC ID	Jam Code	Type	Sensor Name	Sensor ID
00	0CC1	Sequence	Software sequence error (Automatic adjustment: Transfer-related)	-
00	0CC2	Sequence	Software sequence error (Automatic adjustment: Image formation-related)	-
00	0CC3	Sequence	Software sequence error (Automatic adjustment: Last rotation-related)	-
00	0CC5	Sequence	Software sequence error (Transfer-related)	-
00	0CC6	Sequence	Software sequence error (Prevention of ITB displacement)	-
00	0CF1	Sequence	Error avoidance jam	-
00	0CF2	Sequence	Software sequence error (Vsync error)	-
00	0D91	Size Error	Wrong size (small)	-
00	1CF1	Error avoidance	Finisher error avoidance jam	-

*:Drum Unit detection may not be executed at times such as at recovery from sleep mode (or 4 or more hours).
"No drum jam" is detected when a print job is executed with no Drum Unit installed in the machine.

T-2-56

Work of Service

Periodically Replaced Parts

None.

Consumables

None

Periodical Servicing

None.
Perform as needed.

External Auxiliary System

Controls

Software counter

Count-up timing differs depending on the following conditions:

- Print mode (1-sided/2nd side of 2-sided print, 1st side of 2-sided print)
- Differs depending on the delivery position (Staple Finisher)

Delivery position		Print mode	
		1-sided print/2nd side of 2-sided print	1st side of 2-sided print
		Count-up timing	
Host machine	Delivery Tray	Delivery Sensor (PS12)	Duplex Sensor (PS01)
Staple Finisher		Feed Path Sensor (S2)	

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Default counters for each country (model) are listed below.

Target	Display number of each counter (in service mode) / item								Country Code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	Counter 7	Counter 8	
100V JP model type1 (Conventional method)	Total 1	Total (Black 1)	Copy (Full Color + Single Color1)	Total A (Full Color + Single Color 1)	*1	*1	*1	*1	JP
	101	108	232	149	000	000	000	000	
100V JP model type2 (New method)	Total 2	Copy (Full Color + Single Color 2)	Total A (Full Color + Single Color 2)	Copy (Black 2)	Total A (Black 2)	*1	*1	*1	JP
	102	231	148	222	133	000	000	000	
120V Taiwan model	Total 1	Total (Black 1)	Copy + Print (Full Color/ Small)	Total (Single Color 1)	*1	*1	*1	*1	TW
	101	108	402	118	000	000	000	000	
120V UL model type1 (Conventional method)	Total 1	Total (Black 1)	Copy (Full Color + Single Color/ Small)	Print (Full Color + Single Color/ Small)	*1	*1	*1	*1	US
	101	108	230	322	000	000	000	000	
120V UL model type2 (New method)	Total 2	Total (Black 2)	Copy (Full Color + Single Color/ Small)	Print (Full Color + Single Color/ Small)	*1	*1	*1	*1	US
	102	109	230	322	000	000	000	000	
230V General model	Total 1	Total (Black 1)	Copy + Print (Full Color/ Small)	Total (Single Color 1)	Total1 (2-Sided)	*1	*1	*1	SG/KO/ CN
	101	108	402	118	114	000	000	000	
240V UK model type1 (Conventional method)	Total (Black/ Small)	Total (Full Color + Single Color/ Small)	Scan (Total 1)	Print (Total 1)	*1	*1	*1	*1	GB
	113	123	501	301	000	000	000	000	
240V UK model type2 (New method)	Total 1	*1	*1	*1	*1	*1	*1	*1	GB
	101	000	000	000	000	000	000	000	
240V CA model	Total 1	Total (Black 1)	Copy (Full Color + Single Color/ Small)	Print (Full Color + Single Color/ Small)	*1	*1	*1	*1	AU
	101	108	230	322	000	000	000	000	
230V FRN model type1 (Conventional method)	Total (Black/ Small)	Total (Full Color + Single Color/ Small)	Scan (Total 1)	Print (Total 1)	*1	*1	*1	*1	FR
	113	123	501	301	000	000	000	000	

Target	Display number of each counter (in service mode) / item								Country Code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	Counter 7	Counter 8	
230V FRN model type2 (New method)	Total 1	*1	*1	*1	*1	*1	*1	*1	FR
	101	000	000	000	000	000	000	000	
230V GER model type1 (Conventional method)	Total (Black/ Small)	Total (Full Color + Single Color/ Small)	Scan (Total 1)	Print (Total 1)	*1	*1	*1	*1	DE
	113	123	501	301	000	000	000	000	
230V GER model type2 (New method)	Total 1	*1	*1	*1	*1	*1	*1	*1	DE
	101	000	000	000	000	000	000	000	
230V AMS model type1 (Conventional method)	Total (Black/ Small)	Total (Full Color + Single Color/ Small)	Scan (Total 1)	Print (Total 1)	*1	*1	*1	*1	ES/SE/ PT/NO/ DK/FI/ PL/HU/ CZ/SI/ GR/EE/ RU/NL/ SK/RO/ HR/BG/ TR
	113	123	501	301	000	000	000	000	
230V AMS model type2 (New method)	Total 1	*1	*1	*1	*1	*1	*1	*1	ES/SE/ PT/NO/ DK/FI/ PL/HU/ CZ/SI/ GR/EE/ RU/NL/ SK/RO/ HR/BG/ TR
	101	000	000	000	000	000	000	000	
230V ITA model type1 (Conventional method)	Total (Black/ Small)	Total (Full Color + Single Color/ Small)	Scan (Total 1)	Print (Total 1)	*1	*1	*1	*1	IT
	113	123	501	301	000	000	000	000	
230V ITA model type2 (New method)	Total 1	*1	*1	*1	*1	*1	*1	*1	IT
	101	000	000	000	000	000	000	000	

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<Explanation of the list>

- Large: Large size paper (when paper length exceeds 324 mm in paper feed direction)
- Small: Small size paper (when paper length is 324 mm or less in paper feed direction)
- Total: Copy + Print; 1 count up
- 2-Sided: 1 count up when auto 2-sided copy
- Country code change of CONFIG is executed from COPIER > OPTION > FNC-SW > CONFIG.
- Three-digit number in the counter column shows the setting value of the following service mode items.
  (Lv.1) COPIER > OPTION > USER > COUNTER 1 to 8
- COUNTER2 to 8 can be changed from the service mode (COPIER > OPTION > USER).
- The change of the counter display type (New method/Conventional method) can be changed from the service mode (COPIER > OPTION > USER> CNT-SW).

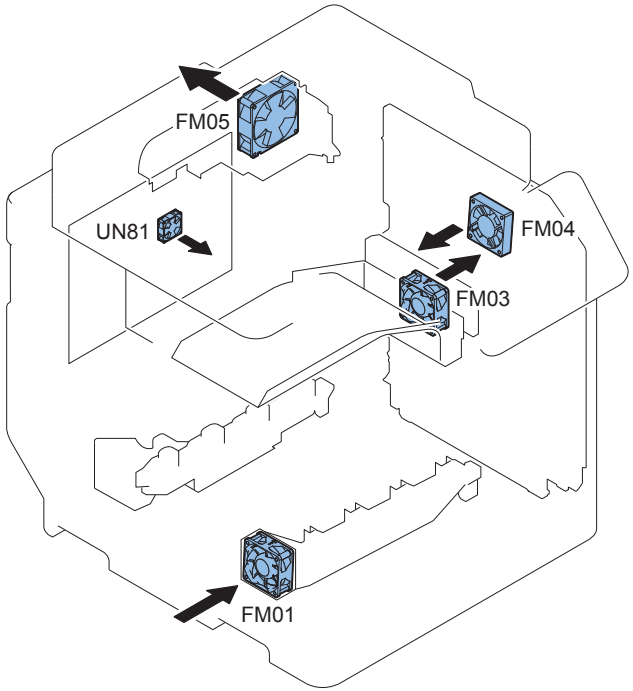
*1: Nothing is displayed as default. However, you can change this setting from the service mode.

Country Code		
JP: Japan	FR: France	CZ: Czech
TW: Taiwan	DE: Germany	SI: Slovenia
US: North America	ES: Spain	GR: Greece
SG: Singapore	SE: Sweden	EE: Estonia
KR: Korea	PT: Portugal	RU: Russia
TH: Thailand	NO: Norway	SK: Slovak
VN: Vietnam	DK: Denmark	RO: Romania
CN: China	FI: Finland	HR: Croatia
GB: The U.K.	PL: Poland	BG: Bulgaria
AU: Australia	HU: Hungary	TR: Turkey
		IT: Italy

T-2-59

Fan

Location of Fans



F-2-149

No.	Name	Function	Error codes
FM01	Drum Unit Suction Cooling Fan	To cool the Developing Assembly and laser	E806-0100 E806-0101
FM03	Delivery Cooling Fan	To cool the Delivery Assembly	E806-0300 E806-0301
FM04	Duplex Cooling Fan	To cool the Duplex Feed Assembly and Fixing Assembly	E806-0400 E806-0401
FM05	Power Supply Cooling Fan	To cool the power supply	E804-0000
UN81	Controller Cooling Fan	To cool the Main Controller	E880-0001

T-2-60

No.	Service name	Pre rotation	Initial rotation	Stand by	Copy/print 1-	Copy/print 2-	Post rotation	JAM	ERR	Reader	Sleep1	Deep Sleep
FM1	Drum Unit Suction Cooling Fan											
					▒	■	■					
FM3	Delivery Cooling Fan											
					▒	■	■					
FM4	Duplex Cooling Fan											
		▒	▒		■	■	■					
FM5	Power Supply Cooling Fan											
		■	■		■	■	■	▒	▒	■		
UN81	Controller Cooling Fan											
		■	■	▒	■	■	■	▒	▒	■	▒	

■ : Full speed

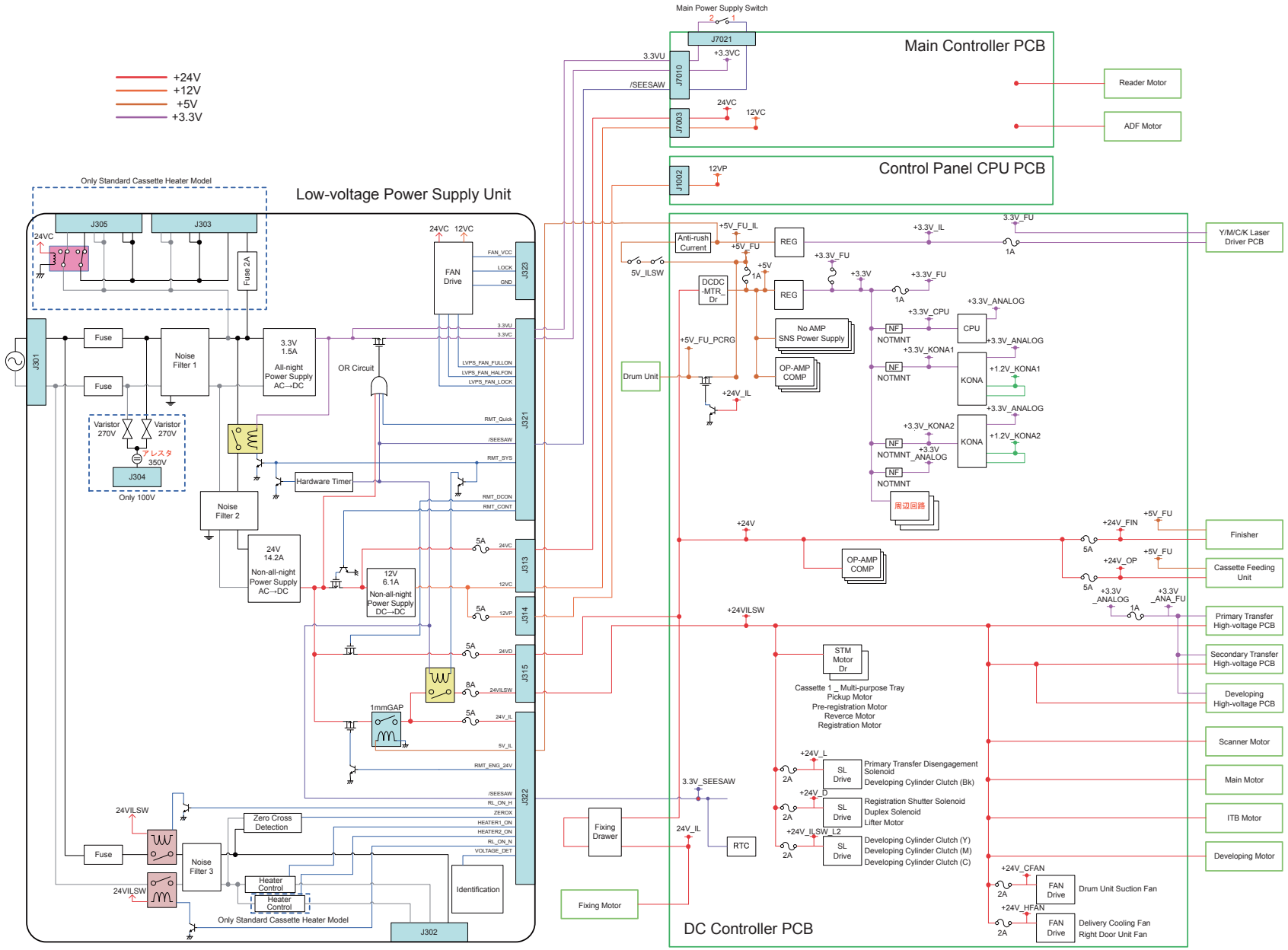
▒ : Half speed

F-2-150

*: Fan drive sequence in an environment with a temperature of 27 deg C or lower

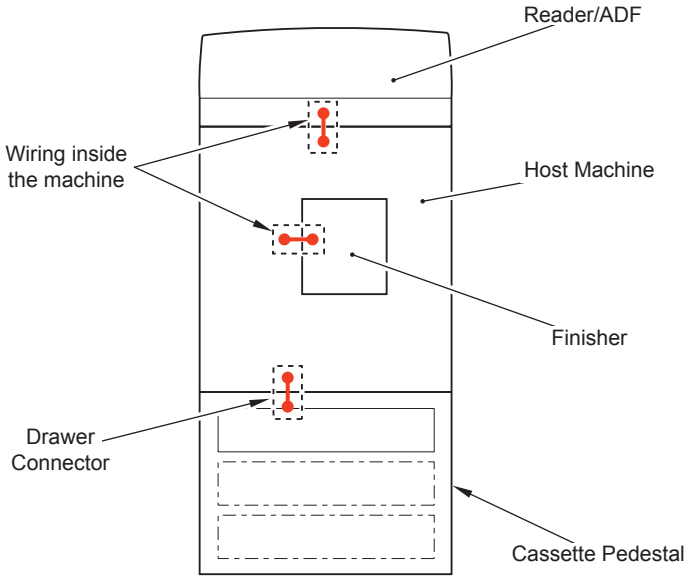
Power supply

Internal power supply



F-2-151

● Power supply connection with the options



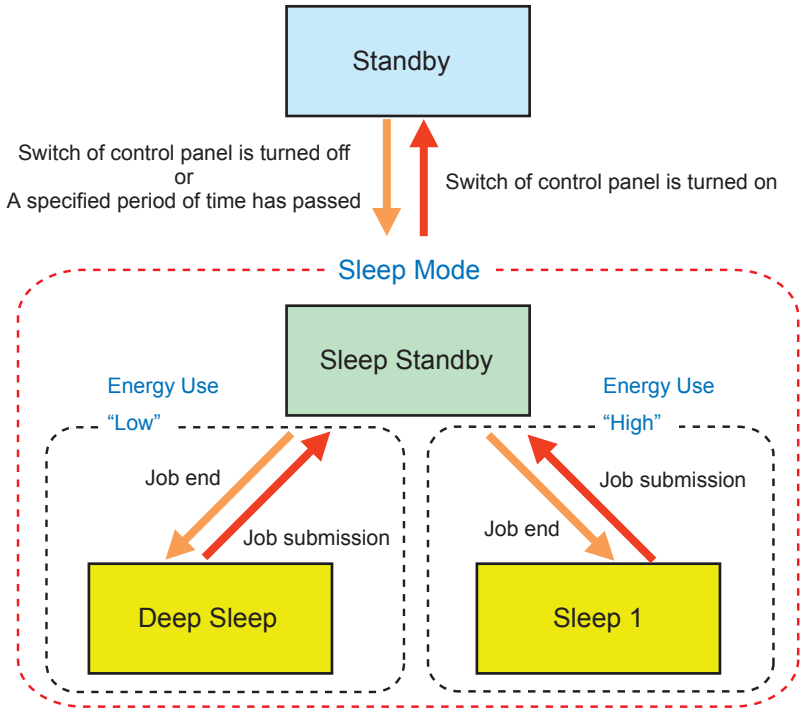
F-2-152

The Drawer Connectors connect to the 1-cassette Pedestal and 3-cassette Pedestal.
An external cable is used to connect to the ADF and Finisher.

■ Energy Saving Function

● Overview

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-2-153

* The time specified in Settings/Registration> Preferences> Timer/Energy Settings> Auto Sleep Time.
By default, it takes a minute after completion of printing, scanning or fax job.

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:
Settings/Registration > 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”.

- The device is connected to the IC CARD READER BOX-A1.
- Any mode other than “Auto” is specified for fax reception (RX) mode.

Deep Sleep

In the case of the following:
Settings/Registration > 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
	• Settings/Registration > Preferences > Timer/Energy Settings > Sleep Mode Energy Use is set to "High". • Settings/Registration > Preferences > Timer/Energy Settings > Sleep Mode Exit Time Settings is set (and not blank).
	Network
	• Settings/Registration > Preferences > Network > TCP/IP Settings > IPSec Settings > Use IPSec is set to "ON". • Settings/Registration > Preferences > Network > SMB Server Settings >Use SMB Server is set to "ON". • Settings/Registration > Preferences > Network > NetWare Settings > Use NetWare is set to "ON". • Settings/Registration > Preferences > Network > Ethernet Driver Settings > Auto Detect is set to "OFF" and "1000 Base-T" is set for "Ethernet Type". • Settings/Registration > Preferences > Network > IEEE802.1X Settings > Use IEEE802.1X is set to "ON".
	Fax
	• Settings/Registration > Function Settings > Receive/Forward > Fax Settings > Selecting Reception Mode is not set to "Auto RX". • Settings/Registration > Function Settings > Receive/Forward > Fax Settings > Auto Reception Switching is set to "ON". • Settings/Registration > Function Settings > Receive/Forward > Fax Settings > Remote Reception is set to "ON". • Settings/Registration > Function Settings > Send > Fax Settings > Set Line > Modem Dial in Settings > Line 1 or Line 2 is set to "ON". • Settings/Registration > Function Settings > Receive/Forward > Fax Settings > Number Display Settings > Line 1 or Line 2 is set to "ON".

T-2-61

Hardware status	
	• Copy Control Interface Kit-A1 is connected. • The host machine (such as a PC) is connected to the USB Device. • The storage 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.

T-2-62

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 / inported. • A Remote Operation Kit 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. • The printer is in a limited operation. • The scanner is in a limited operation.

System Performance Status
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 • Settings/Registration > Function Settings > Receive/Forward > Common Settings > Fax/I-Fax Inbox > Memory Lock Start Time • Settings/Registration > Function Settings > Receive/Forward > Common Settings > Fax/I-Fax Inbox > Memory Lock End Time • - Output of the scheduled report • Settings/Registration > Function Settings > Send > Common Settings > Communication Management Report > Specify Print Time (when not set to "Off") • Settings/Registration > Function Settings > Send > Fax Settings > Fax Activity Report > Specify Print Time (when not set to "Off") • Settings/Registration > 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 • Settings/Registration > 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 Settings/Registration > 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).

T-2-63

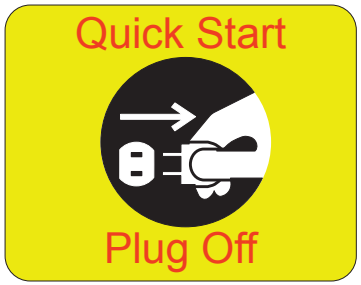
Quick Startup

To realize faster startup, power configuration has been changed to always supply power to the AC Driver PCB. Thereby, the main menu can be displayed after 7 seconds from turning ON the Main Power Supply Switch.
Although when the Main Power Supply Switch is OFF, power is supplied to the following PCBs.

- AC Driver PCB
- All-night Power Supply PCB
- Main Controller PCB

Disconnect the plug from outlet when performing work with the possibility to come in contact with the PCBs above. PCBs may get damage. If a conductive material comes in contact with the PCB, short circuit may occur in the PCB, and may cause damage on it.

The following illustration is used at the place where attention needs. When the following label is affixed, be sure to disconnect the plug from outlet.



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In addition, quick startup is not performed under the following conditions.

At first startup after the AC Power Plug is connected to the outlet
Under the following conditions (settings), the machine always starts up normally (even quick startup is ON).
When any of the following devices is connected.
• Serial Interface Coin Vendor
When any of the following network settings is set to "ON".
• RARP
• BOOTP
• IPsec
• IPv6
• NetWare

As for startup right after shutting down of the machine under any of the following conditions, it starts up normally (even quick startup is ON).
FAX
• There is a fax transmission reservation.
• Within a specified period of time (10 seconds) from disconnection of a fax line
• Within a specified period of time (10 seconds) from non-detection of reception from a fax line
• Within a specified period of time (10 seconds) from putting down the fax sub device or handset
MEAP
During execution of MEAP application which prohibits moving to Deep Sleep
A scheduled processing is reserved on MEAP.
Job processing
• During print/scan job processing
• During SEND job processing
• During I-Fax communication/job processing
• During report job processing
• During forwarding transmission job/reception job processing
• During fax communication/phone communication
• During distribution of device information
• During export/import by RUI
• During rebuilding with the HDD Data Encryption installed
Others
• When the machine state remains unchanged for more than 110 hours after turning ON the power as quick startup or turning OFF the power. -> At the time of shutdown, it will be normal shutdown. * This is to prevent a risk of UI freeze caused by memory leak.
• Within a specified period of time (20 seconds) from turning OFF the Main Power Supply Switch -> In such a case, the machine reboots and then starts up normally at startup. Therefore, it will take a few more seconds compared with the normal startup. * This is for starting up the machine normally at the time of failure (UI freeze, etc.).
• After moving to the Settings/Registration screen of service mode or RUI
• After changing the Settings/Registration that requires restart
• The machine is shut down from RUI
• When an error occurs
• When resource downloader is active
• In printer/scanner limited functions mode
• When a login application is switched by SMS
• A license has been registered.
• Startup by pressing the Control Panel Key

T-2-64

Effects of Spanning Tree-supported Hub

If you set the network as a loop, data keeps staying in this loop and efficiency of data transfer might be decreased. In order to prevent this symptom, some hubs have the function called “spanning tree”. If this function is enabled, the device newly connected to the hub can make data communication with network 10 to 50 seconds (time changes due to the conditions) after the connection. When the machine enters Deep sleep mode and restores from the sleep mode, the machine electrically disconnects with the network once. Therefore, if the machine connects with the spanning tree-installed hub, the machine cannot communicate with network for approximately 1 minute at a maximum after restoring from the Deep sleep mode.
For this reason, right after restoring from the Deep sleep mode, the following symptoms might occur: Device status cannot be collected, printing cannot be made, and login using a login application cannot be made. If such symptoms become any problems, perform the following operations.

- Using Settings/Registration, set not to enter the Deep sleep mode.
  Preferences > Timer/Energy Settings > Sleep Mode Energy Use > High
- Disable the spanning tree function of hub.
- Request users to use the hub which supports Rapid Spanning-Tree
- Protocol (RSTP) that resolved such problems.

Conditions to operate the heater

		Drum Heater
When the Environment Switch is turned ON	At standby	ON
	At printing	OFF
	When the Main Power Switch is turned OFF	ON
	At sleep state	ON

T-2-65

Service Tasks

Periodically Replaced Parts

None.

Consumable Parts

None.

Periodical Servicing

None.
Perform as needed.

MEAP

Preparation for Using SSO-H

Outline

When using Single Sign-On H (hereinafter referred to as SSO-H) for the login service, required system environments are different in server authentication or local device authentication.
See the following for system requirements in each of authentication methods:

Server authentication management

The system requirements necessary when using server authentication by SSO-H vary depending on the authentication server.
The system requirements for using each authentication server are shown below.

Active Directory authentication

In order to use Active Directory authentication in SSO-H, the following system environments are required.

1) Authentication server (Active Directory : Windows server)

- Active Directory and Domain Name System (DNS) should be installed.
- A group named "Canon Peripheral Admins" should be created on the Active Directory.
- The OS should be one of the followings.
  - Microsoft Windows Server 2003 SP2 *
  - Microsoft Windows Server 2003 R2 SP2 *
  - Microsoft Windows Server 2008 SP2 *
  - Microsoft Windows Server 2008 R2 SP1
  - Microsoft Windows Server 2012
  - Microsoft Windows Server 2012 R2

  * 64-bit version is not supported.

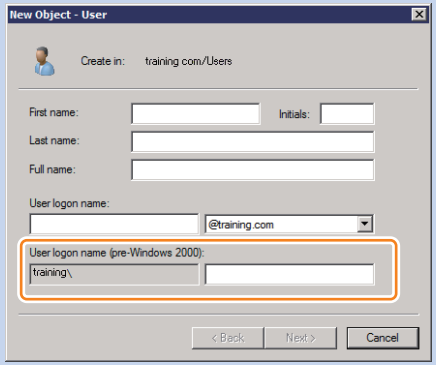
2) Users accessing the authentication server (Active Directory: Windows Server)

- The user should belong to the "Canon Peripheral Admins" group on the Active Directory.
- The user name should contain only single-byte alphanumeric characters, - (hyphen), _ (low line), and % (percent).

Note:
The difference in time setting between the authentication server (Active Directory) and the machine (and the computer for login) should be within 5 minutes. (If the difference in time setting is 5 minutes or longer, an error will occur at the time of login for the server authentication.)

Note:
As for the user name for logging into the machine, use the name registered as "User logon name (pre-Windows 2000)" in the Active Directory.

An example of the user registration screen (Windows Server 2003)



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● LDAP authentication

When using LDAP authentication by SSO-H, the following conditions need to be satisfied.

1) LDAP server

- Novell eDirectory V8.8 SP6 for Windows
- Lotus Domino V8.5 for Windows

2) OS where the LDAP server runs

- It should comply with the specifications of the LDAP server product.

Operation check has been conducted for the following OS.

- Microsoft Windows Server 2003 Enterprise SP2
- Microsoft Windows Server 2008 Enterprise

Note:
When an LDAP server other than the server shown above is used, SSO-H may not work properly.
Windows Active Directory works also as an LDAP server, but is not supported.

■ PC Environment of Administrator Users and General Users

The following environment is required to use this machine (managed by SSO-H) from a PC on the network.

● OS of the PC and Other Environments

Classification	Operating System	IPv6	Supported browser	Java Runtime Environment
Client OS	Windows XP Professional SP3	✓	Internet Explorer 7 Internet Explorer 8	JRE5.0/JRE6/JRE7 (Exclude JRE6 update4/5.)
	Windows Vista SP2	✓	Internet Explorer 7 Internet Explorer 8 Internet Explorer 9	
	Windows 7 SP1	✓	Internet Explorer 8 Internet Explorer 9 Internet Explorer 10 Internet Explorer 11	
	Windows 8	✓	Internet Explorer 10 Internet Explorer 11	
	Windows 8.1	✓	Internet Explorer 11	
Server OS	Windows Server 2003 SP2 Windows Server 2003 R2 SP2	✓	Internet Explorer 7 Internet Explorer 8	
	Windows Server 2008 SP2	✓	Internet Explorer 7 Internet Explorer 8 Internet Explorer 9	
	Windows Server 2008 R2 SP1	✓	Internet Explorer 8 Internet Explorer 9	
	Windows Server 2012 R2	✓	Internet Explorer 11	
Mac OS	Mac OS X v10.5		Safari 4.0.5 Safari 5.0.5	J2SE5.0 Java SE 6
	Mac OS X v10.6		Safari 4.0.5 Safari 5.0.5 Safari 5.1	Java SE 6
	Mac OS X Lion		Safari 5.1	Java SE 6 Java SE 7
	Mac OS X Mountain Lion		Safari 6.0	Java SE 7
	Mac OS X Mavericks		Safari 7.0	Java SE 7

JRE : Java Runtime Environment
J2SE : Java 2 Platform Standard Edition

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Note: common to browsers
- The browser should support Java. (The environment such as Modern UI version of Internet Explorer on Windows 8 in which Java add-on cannot be used is not applicable.)
- JavaScript should be enabled.
- Refer to the website of JAVA (http://java.com/) for how to obtain the Java environment.

Note: Internet Exproler-related
- In order to use JRE6 Update24 with Internet Explorer 9/10, JRE6 Update24 or later is required.
- The ActiveX plug-in should be enabled in Internet Explorer.
- In Internet Explorer, if [Run ActiveX controls and plug-ins] is disabled in [Internet Options] > [Security] > [Custom level], a warning message that JRE has not yet been installed is displayed.
- When using Windows XP in an IP v6 environment, IP v6 may need to be installed manually in some cases.

Note: MacOS-related
- Java does not work in the case of combination of MacOS 10.6.8, Java SE 6 update6 (Java for MacOS X 10.6 Update 6) and Safari5.0.5. Either of the following measures needs to be taken to make it run.
- Not installing Java SE 6 update6 (Java for MacOS X 10.6 Update 6) (it is however not possible to uninstall it if it is already installed and running)
- Providing a symbolic link again using the command of ln -s /System/Library/Frameworks/JavaVM.framework/Resources/JavaPluginCocoa.bundle
- Upgrading Safari to version 5.1

Network ports used

	Port No.	Application
Connecting	53	Communication with DNS server (fixed)
	88	Kerberos authentication with KDC (Key Distribution Center)
	1-65535 (default:389)	Communication with directory service using LDAP (default is 389, may be changed to any port on LDAP service side)
Listening	10000 - 10100	-

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Preparation for Using SMS

To use SMS, a PC and browser used to access SMS are required, and the network settings need to be set up on the device.

Preparation of PC for Accessing SMS

Checking of operation environment

In order to access SMS using password authentication, the PC and browser need to comply with the following system environment.

Combination of the Browser and the OS

Operating System	Supported browser
Windows XP Professional SP3	Internet Explorer 7 Internet Explorer 8
Windows Vista SP2	Internet Explorer 7 Internet Explorer 8 Internet Explorer 9
Windows 7 SP1	Internet Explorer 8 Internet Explorer 9
Windows 8	Internet Explorer 10
Windows 8.1	Internet Explorer 11
Mac OS X v10.5	Safari 4.0.5 Safari 5.0.5
Mac OS X v10.6	Safari 4.0.5 Safari 5.0.5 Safari 5.1
Mac OS X Lion	Safari 5.1
Mac OS X Mountain Lion	Safari 6.0 Safari 6.1
Mac OS X Mavericks	Safari 7.0

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In order to access SMS using RLS authentication, the environment should comply with the environment for using SSO-H as the login service. (For details, refer to "PC Environment of Administrator Users and General Users".)

PC and Browser Settings

The PC and browser used to access SMS need to satisfy the following conditions.

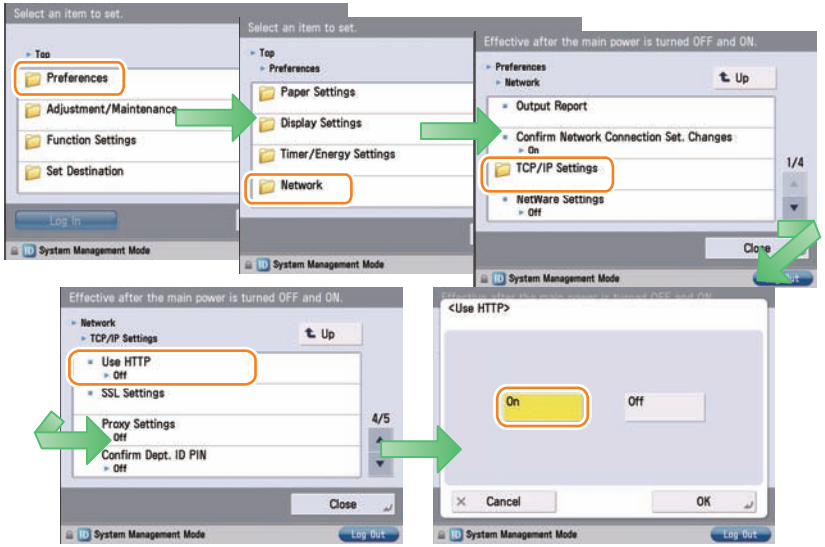
- The supported browser language should be the same with the language of the OS.
- Java Script should be enabled.
- The supported screen size should be 800 x 600 or larger (recommended size: 1024 x 768).
- Session cookie should be enabled.
- Only alphanumeric characters and some of the symbols ("-" or ".") should be used as the machine domain name and host name.
- If an invalid character string such as a low line ("_") is included in the host name, cookies cannot be enabled.

Settings on the Device Side

Network configuration process

In order to provide support for the machine via network such as SMS, the network settings need to be made from the touch panel of the machine. (this setting is [ON] by default).

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



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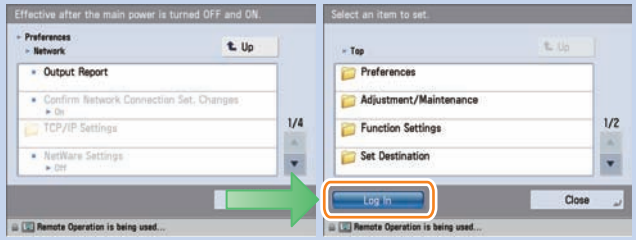
Note:
In iR-ADV series, the System Manager ID and the System PIN are configured by default, so "Network" and the items that follow are grayed out and cannot be selected. Return to the top screen, press [Login] at the lower left of the screen, login as the system manager, and configure the settings.
The default setting for the System Manager ID is "7654321", and the password is" 7654321".



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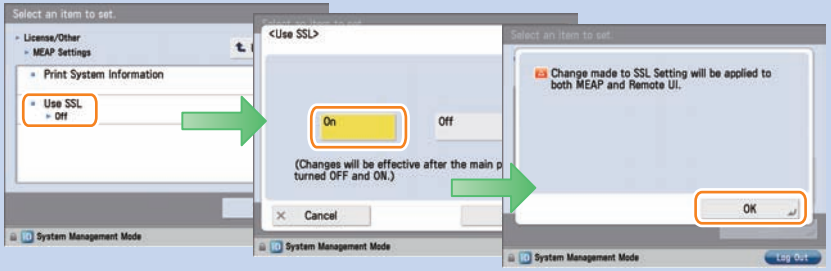
Note:
When using SSL, press [Settings/ Registration], select [Management Settings]>[License / Other] > [MEAP Settings] > [SSL Settings] and press [On]. (This setting is applied to SSL setting on RUI. Vice versa, [On] set for SSL on RUI is also applied to the touch panel.)
When [Use SSL] is set to On, the message dialog, [The Default Key is not set. Check the Key and Certificate List settings in Certificate Setting.], is shown. Press [OK] for this message.



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2) Press [OK] to return to Main Menu screen.

3) Restart this 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 device.

Key Pair and Server Certificate when Using Encrypted SSL Communication

To use SMS via SSL connection, it is required to specify a key pair and server certificate as the key to be used.
Since a key (default key) that can be used for encrypted SSL communication is installed as standard on the device, advance setting of the key pair and server certificate is not required.
In order to use an encryption key other than the default key, follow the procedure "Generating a key pair" shown below to make settings for the key pair and server certificate necessary for encrypted SSL communication.

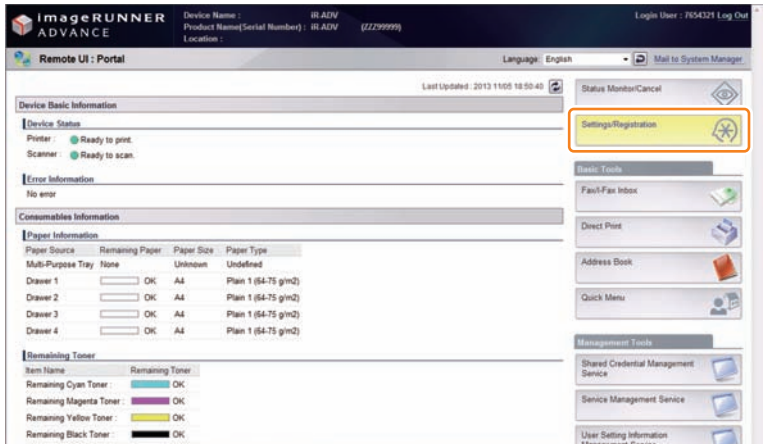
Note:

- MFP has a server certificate registered as standard.
- For detailed procedures of the Default Key setting, refer to e-Manual > [Security].
- As for SMS, by setting a Default Key, encrypted SSL communication is always executed regardless of the following setting: [Settings/Registration] > [Management Settings] > [License/Other] > [MEAP Settings] > [SSL Settings]: ON/OFF.

Generating a key pair

1) From a PC on the same network as the device, use a web browser to access the remote UI's portal page. Then, select [Settings/Registration] from the menu on the right side of the screen.

URL to access: http://<device's IP address>:8000/



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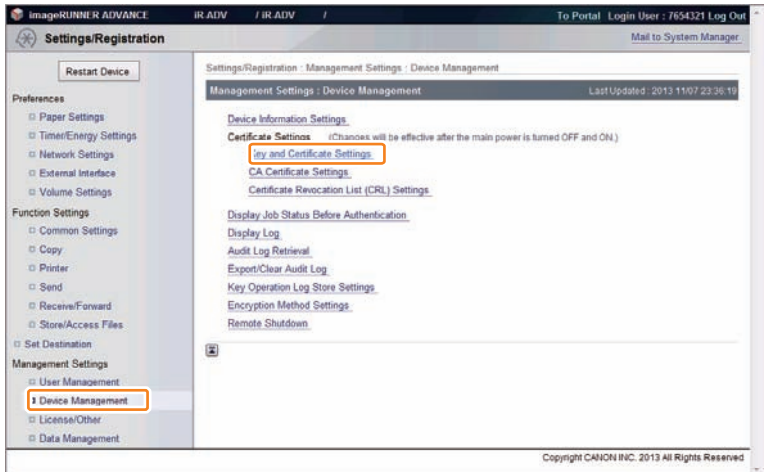
2) Click [Management Settings] > [Device Management] > [Certificate Settings] > [Key and Certificate Settings].



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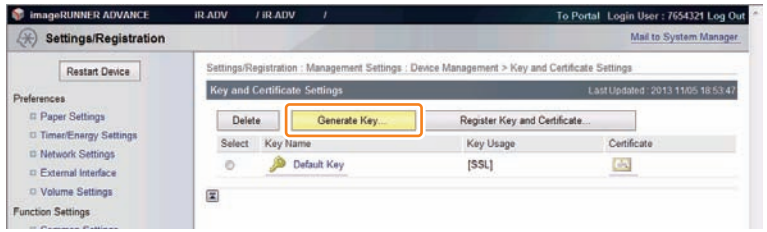
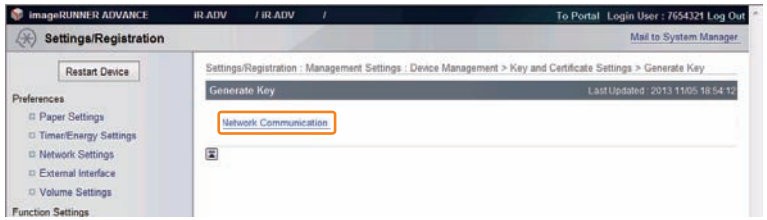
3) Click [Generate Key].



F-2-161

4) Click [Network Communication].



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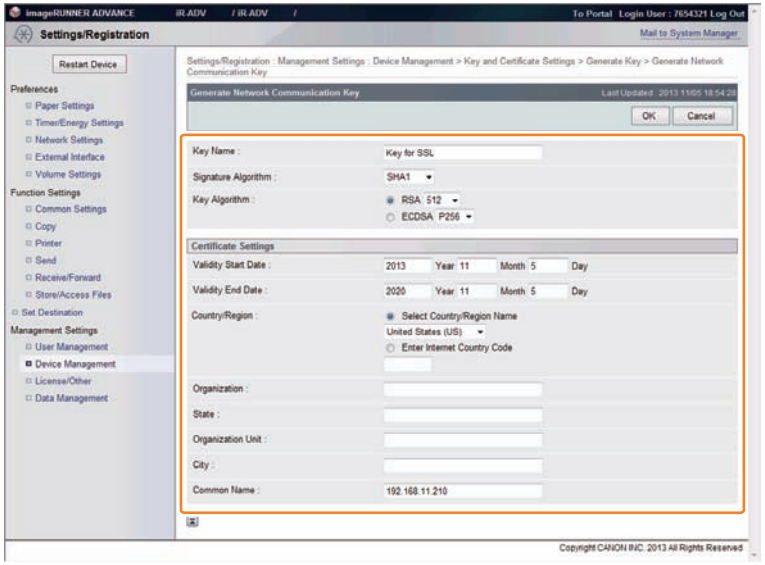
5) Enter the necessary information, and then click the [OK].



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Input example

Item name	Type	Content	Entry
Key Settings			
Key Name	Compulsory	An arbitrary character string	Default Key
Signature Algorithm	Compulsory	Selected from:SHA1/SHA256/SHA384/ SHA512	SHA1
Key Algorithm	Compulsory	Selected from:RSA 512/1024/2048/4096 ECDSA P256/P384/P512	RSA 1024
Certificate Settings			
Validity Start Date	Compulsory	Date	24/12/2013
Validity End Date	Compulsory	Date	23/12/2021
Country/Region	Compulsory	Country or region name	United States(US)
State	Arbitrary	State name	-
City	Arbitrary	City name	-
Organization	Arbitrary	Organization name	-
Organization Unit	Arbitrary	Organization unit	-
Common Name	Arbitrary	Common name* or IP address	192.168.1.210

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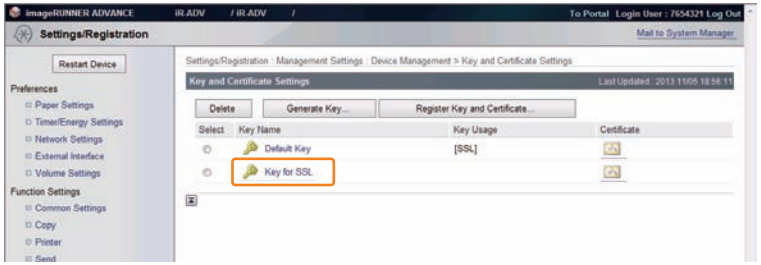
Note:
When the IP address of the device has been entered in the [Common Name] entry field, if you install a server certificate to the browser (see "Installing a server certificate (reference information)"), the message "Certificate Error" that usually appears when access is made from Internet Explorer 7 or later will not be displayed.

6) Check to see that the generated key appears in [Registered Key and Certificate].



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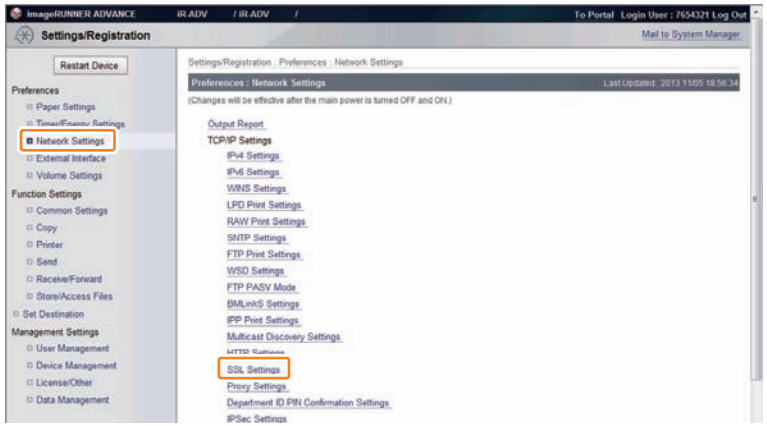
Default Key Settings

1) Click [Preferences] > [Network Settings] > [TCP/IP Settings] > [SSL Settings].



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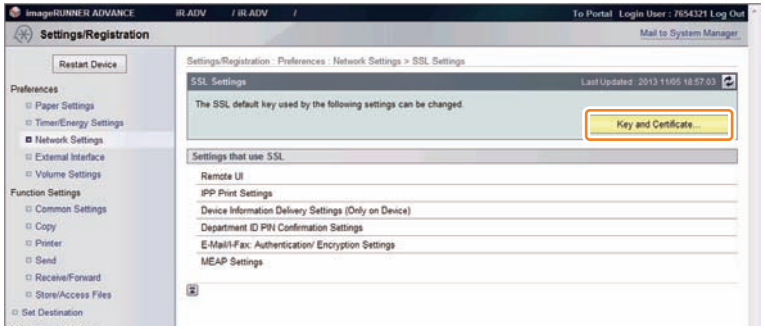
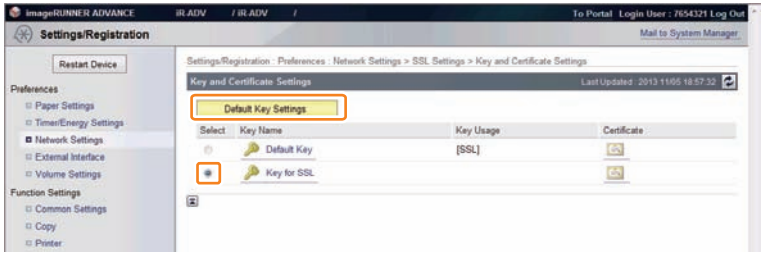
2) Click [Key and Certificate].



F-2-166

3) Select the generated key, and then click the [Default Key Settings].



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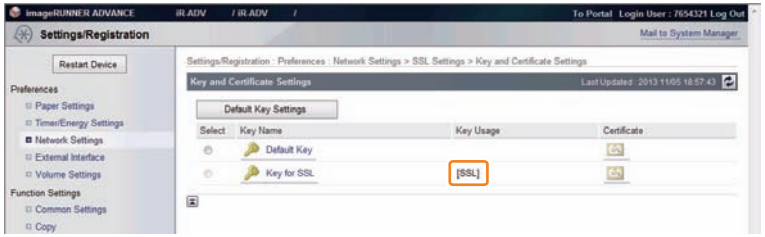
4) Check that [SSL] is displayed in the [Key Usage] entry field.



F-2-168

5) Log out from the remote UI, and then restart the device.

Installing a server certificate (reference information)

When you access a device where the key installed as standard [default key] is set as the key for SSL, "Certificate Error" appears if the version of Internet Explorer (IE) is Version 7 or later.

Error display example

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To disable display of "Certificate Error", use the following procedure (for IE8) to set the key generated in "Key Pair and Server Certificate when Using Encrypted SSL Communication" (i.e. the key with the IP address of the device specified as the shared name) as an SSL key.

1) Access SMS from the browser, and then click "Certificate Error" in the URL entry field.

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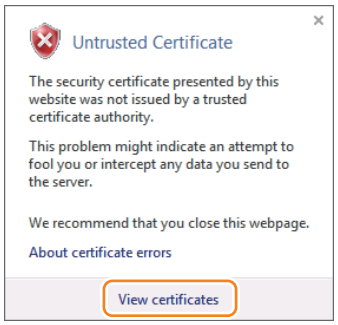
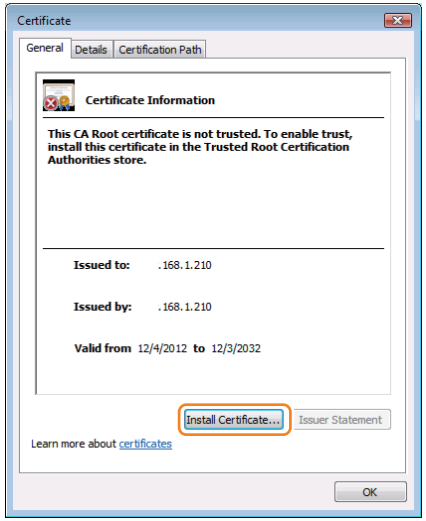
2) Click [View certificates].



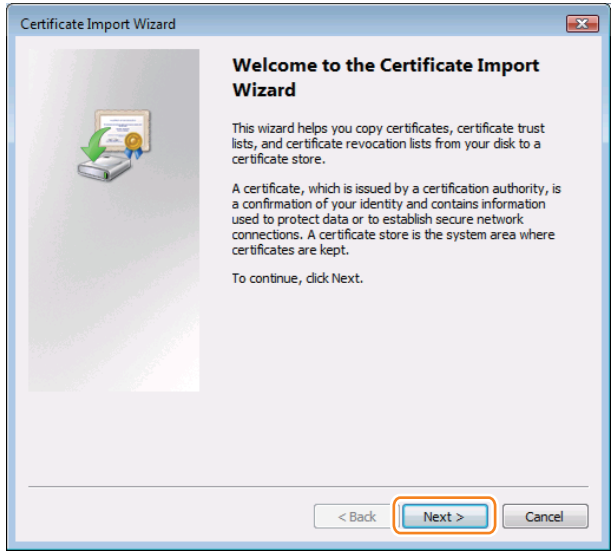
F-2-171

3) Click the [Install Certificate] on the [General] tab.



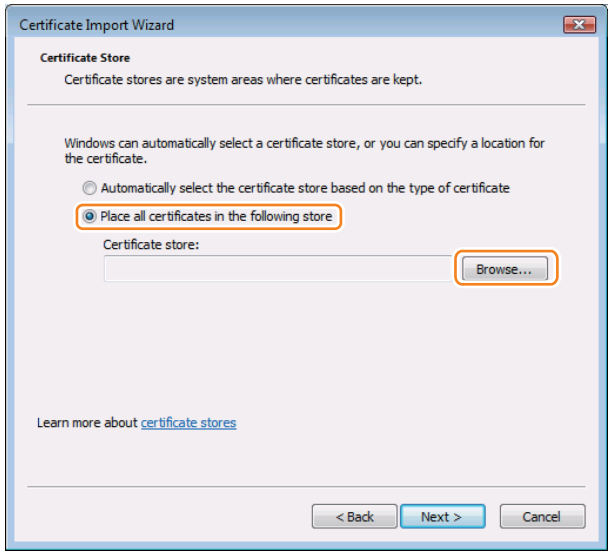
F-2-172

4) [Certificate Import Wizard] will appear. Click the [Next].



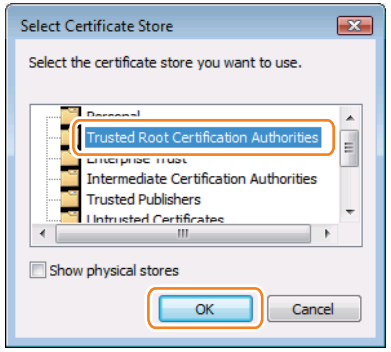
F-2-173

5) In [Certificate Store], select the [Place all certificates in the following store] option, and then click the [Browse].



F-2-174

6) In [Select Certificate Store], select [Trusted Root Certification Authorities], and then click the [OK].



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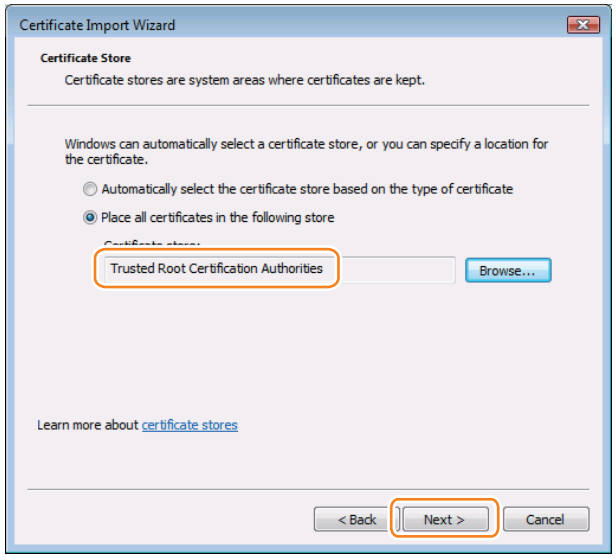
7) You will return to the [Certificate Store] dialog. Check that "Trusted Root Certification Authorities" appears in [Certificate], and then click the [Next].



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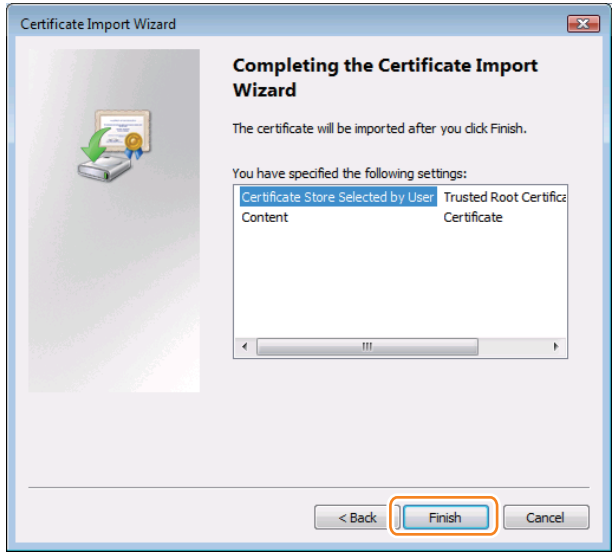
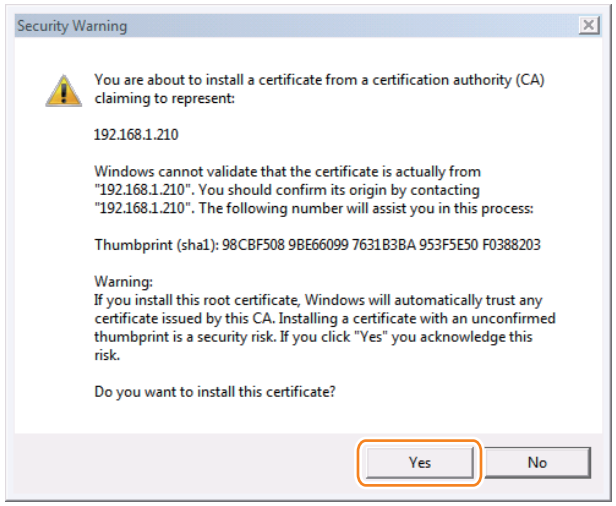
8) [Completing the Certificate Import Wizard] will appear. Click the [Finish].



F-2-177

9) If the [Security Warning] appears, click the [Yes]. (It does not appear when installing the same certificate again.)



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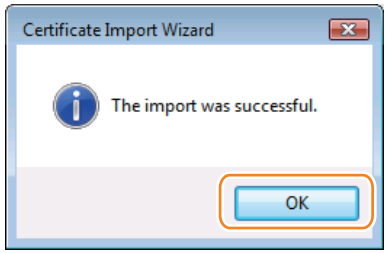
10) A message will appear to indicate that import has been completed successfully. Click the [OK].

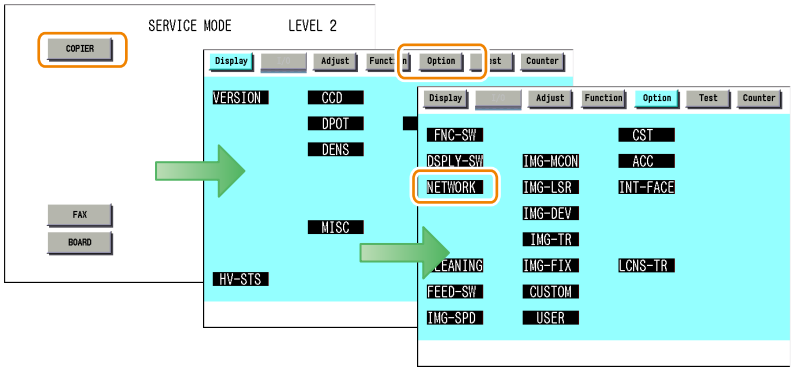


F-2-179

Network Port Settings

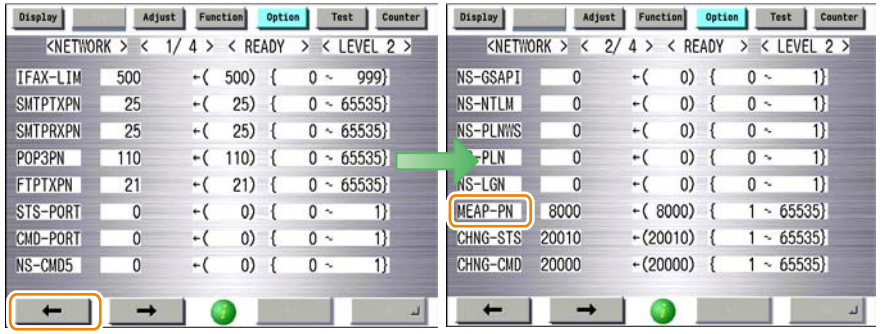
The default port of the HTTP server used for MEAP and MEAP applications to provide the servlet function is 8000, and the HTTPS server's default port is 8443. In the case that these ports have already used by the customer who is to introduce this application, the MEAP application cannot use the HTTP (or HTTPS) server(s).
By changing the following ports to use, however, the MEAP application can be used as well as the existing system.

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



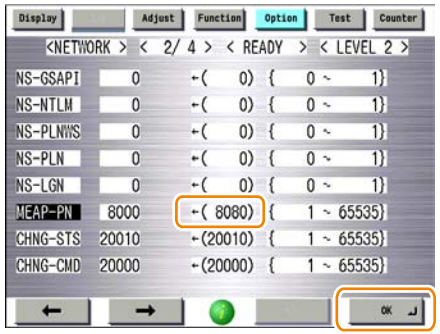
F-2-180

3) To set up the HTTP server port, select [MEAP-PN]. To set up the HTTPS server port, select [MEAP-SSL].



F-2-181

4) Press the port number to specify on the control panel (the numerical value input in the field is displayed), and press [OK].



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Note:
A port number can be any integer from 0 to 65535. To avoid port numbers that are frequently used, do not use any integer from 0 to 1023.

Server	Setting value	Default value / Value after RAM clear
HTTP Server	1024 to 65535	8000
HTTPS Server	1024 to 65535	8443

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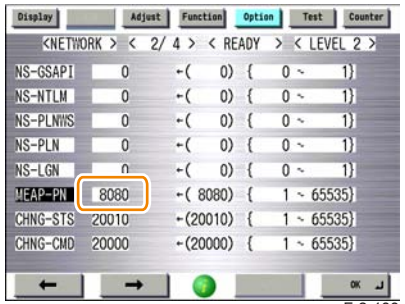
Note:
- If Print Server is connected, do not specify port 8080.
  If port 8080 is specified, it is not possible to access the remote UI of the device where the MEAP authentication application is running. (Port 8080 is reserved to allow the PS Print Server Unit to redirect to the device.)
- As for port on HTTPS server, it only applies to the device that supports SSL function.

5) Restart the device if the port number is set.



F-2-183

How to Check the Serial Number

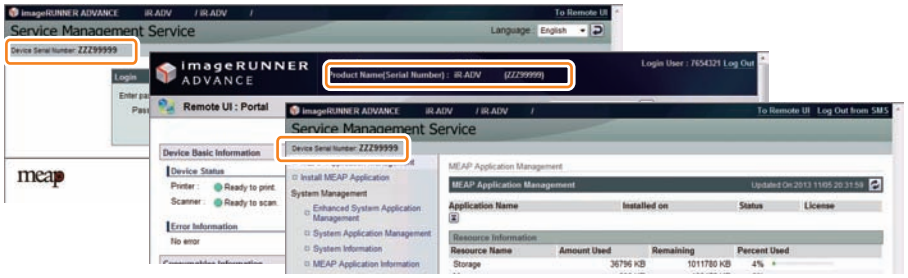
When performing MEAP device support, the serial number of the device is necessary in some cases.

Examples of where the serial number is necessary
- When initializing SMS login password (obtaining a switch license)
- When obtaining a MEAP application license from LMS
- When obtaining a transfer license of MEAP application
- When obtaining a special license for reinstalling MEAP application

If a problem occurs in the MEAP device and you want to contact the support department of the sales company, you need to provide the serial number. Perform the following procedure to get the serial number.

Checking from the PC browser

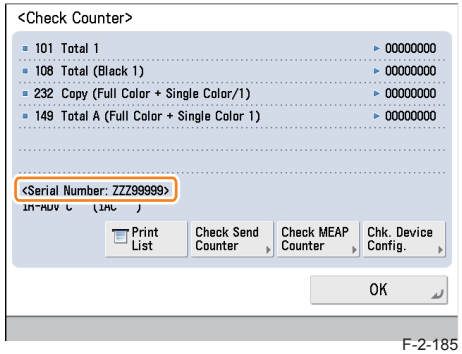
The serial number of the device is displayed on the SMS login screen, SMS screen, and remote UI portal screen.



F-2-184

Checking from the device's Touch Panel

You can see the number by pressing the counter key on the Control Panel of the machine.



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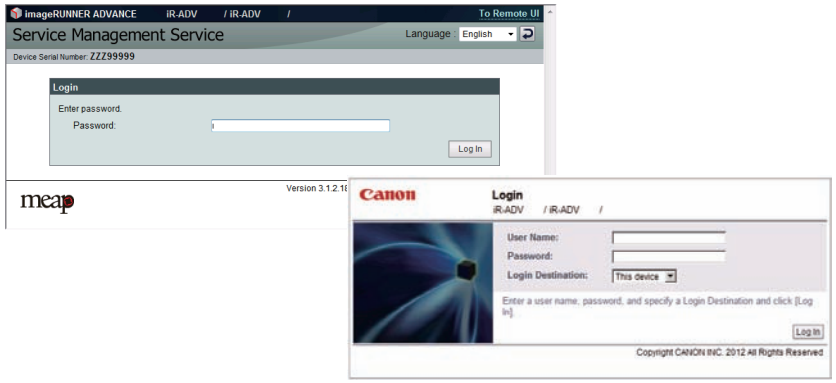
Login to SMS

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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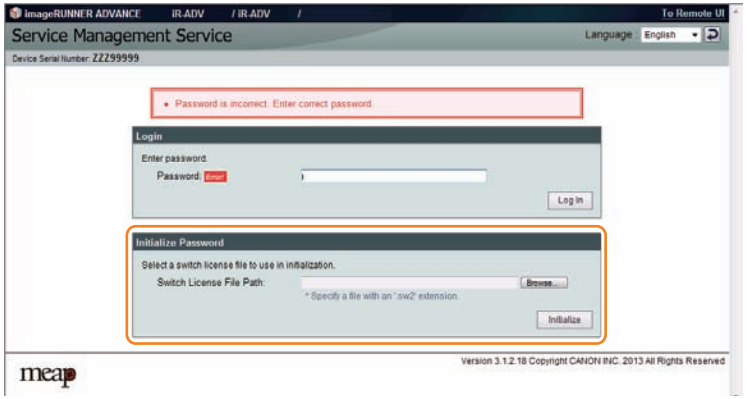
Note:
If Default Authentication is selected as the device authentication method, "RLS Authentication" is not selectable as SMS Login method. Also, if "RLS Authentication" is selected, the device authentication method (Default Authentication, SDL, SSO) cannot be changed.

When SMS Cannot Be Accessed

If you forgot the password (SMS login password initialization)

After changing the default SMS login password, if you forgot the new password and cannot log in to SMS, you can use a switch license for password initialization to change the password back to the default value "MeapSmsLogin".
Note that there is no special password for service.

1) Obtain a switch license file for password initialization.
   Contact the person in charge of support at the sales company, give the device's serial number, and have a switch license file for password initialization issued.
2) Load the switch license file.
   With nothing entered, click the [Log in] to display the area for specifying a switch license file for password initialization.



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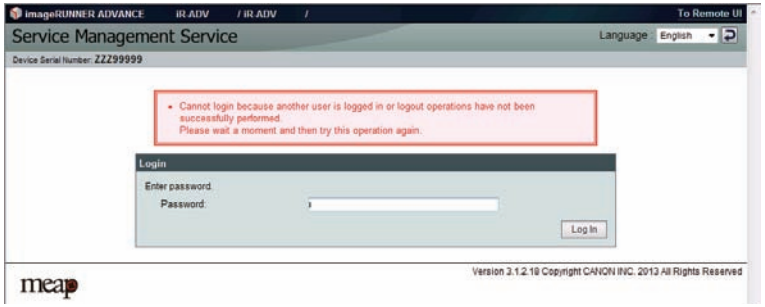
3) Specify the switch license file.
   Click the [Browse] and specify the switch license file.
4) Initialize the login password.
   Click the [Initialize] to display an initialization confirmation page, and click the [OK].

Note:
- The default password is "MeapSmsLogin." (The password is case-sensitive.)
- If you click [Cancel], the Login page opens without initializing the password.

If login is not possible due to exclusive control

Since access to SMS is under exclusive control, you cannot log in if another user has already logged into the SMS of the same device.

An example of the exclusive control message



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If you cannot log in due to exclusive control, you need to ask the other user to log out before you can try again.

Note:
If you close the browser without logging out, the session remains active. In that case, you cannot log in again.
If this problem occurs, you can wait for 5 minutes so that the session is disconnected. Or, you can restart the device to force the session to disconnect.

If [Key and Certificate Settings] is not set

If [Key and Certificate Settings] is not set correctly, you cannot access the URL for SMS (https://<device's IP address>:8443/sms/). In that case, perform the following procedure.

1) Go to http://<device's IP address>:8000/sms/, and check to see that "HTTP 500 Internal Server Error" appears.
2) If it appears, perform the procedure "Key Pair and Server Certificate when Using Encrypted SSL Communication" in this chapter.

Note:
In the case of SMS, by setting the key to be used, encrypted SSL communication is always executed regardless of the following setting: [Settings/Registration] > [Management Settings] > [License/Other] > [MEAP Settings] > [Use SSL] > ON/OFF.

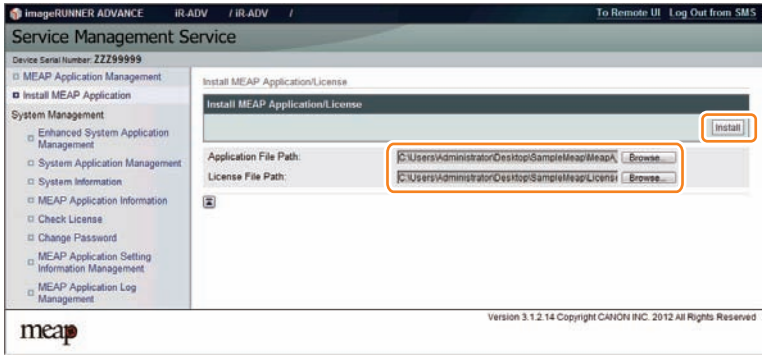
How to Deal with a Message "Certificate Error" That Appears at the Time of Access

When accessing from the browser to SMS, a message "Certificate Error" appears in some cases. In that case, perform the procedure "Installing a server certificate (reference information)" in this chapter.

Installing an MEAP Application

Outline

From the MEAP application installation screen, you can install the MEAP application as well as the license file.



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Before installing the MEAP application, be sure to check the following items.

Device compatibility with the MEAP application

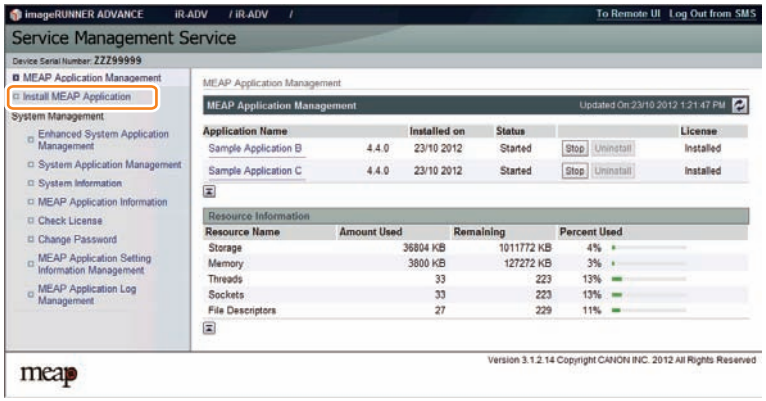
To find out whether the device is compatible with the MEAP application, check the devices supported by the MEAP application. Depending on the application, the device's firmware may require version upgrade.

Resources availability (remaining amount)

The necessary resources (free storage space and free memory available) must be secured for an MEAP application to run; otherwise, you cannot install the MEAP application.
To check the resource information, see "Device's resources" in this manual.

Procedure to install applications

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



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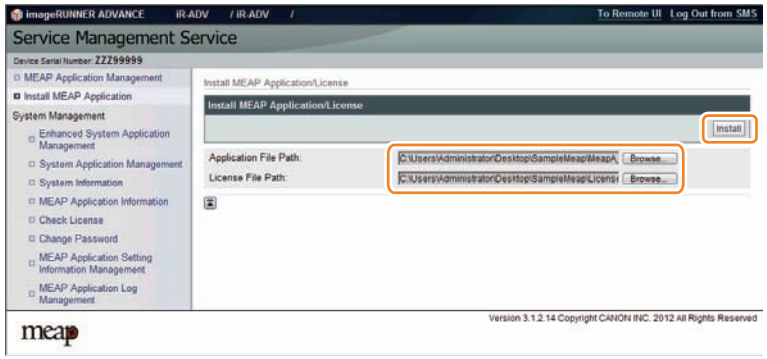
3) Check [Install MEAP Application/License]page appears.
4) Click [Browse], and select the application file and the license file of the application; then, click [Install].

Note:
Application File: identified by the extension "jar".
License File: identified by the extension "lic".

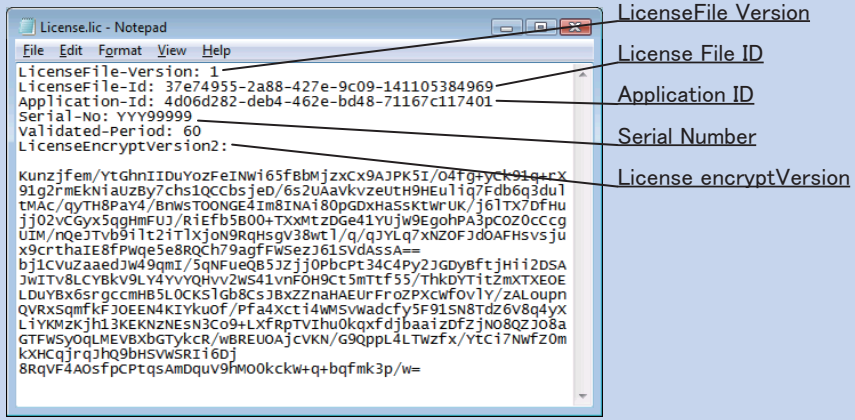


CAUTION:

- 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 "Procedure adding a license file".
- 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.

Note:
The license file is provided in text file format, enabling to view in a text editor. The application ID and device serial number shown in the file allow users to confirm which device to install with the license file.
Note that any changes added to the license file may disable installation. Cares should be taken when confirming the contents of the license file.

Sample file



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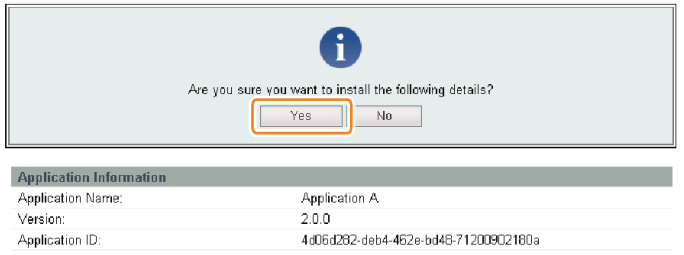
5) Check the contents of the Confirm page; then, click [OK].



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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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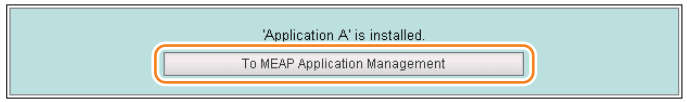
8) Upon installation completed, click [To MEAP Application Management] shown on the screen to view MEAP Application Management page.



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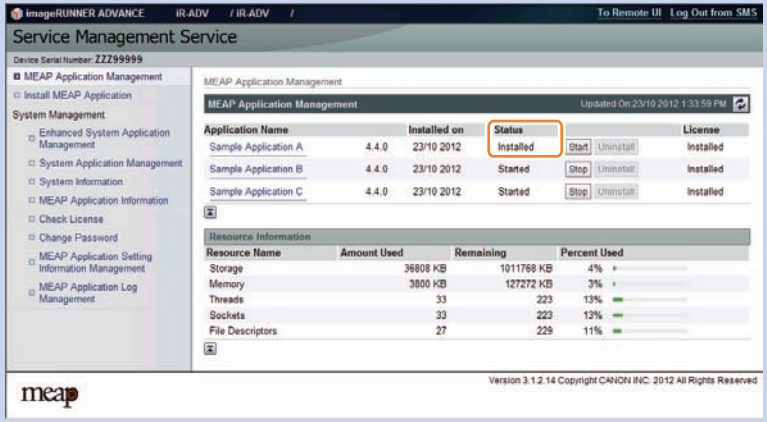
Note:
As for an application that has just been installed, the status is "Installed". In order to use the application, it is necessary to click the [Start] to change the status to [Started].



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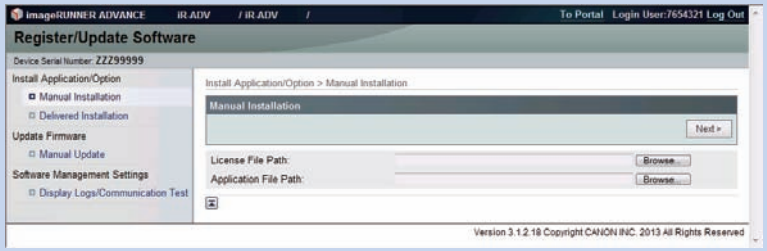
Note:
There are two ways to install an MEAP application. You can install using SMS, or install using the [Register/Update Software] screen of the remote UI.
Screen example



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[Register/Update Software] provides two types of installations. One is [Manual Installation] where you specify a jar file and a license file and then install. The other is [Delivered Installation] where you enter a license access number.
For details of the procedures, please refer to the e-Manual.

Resource Information

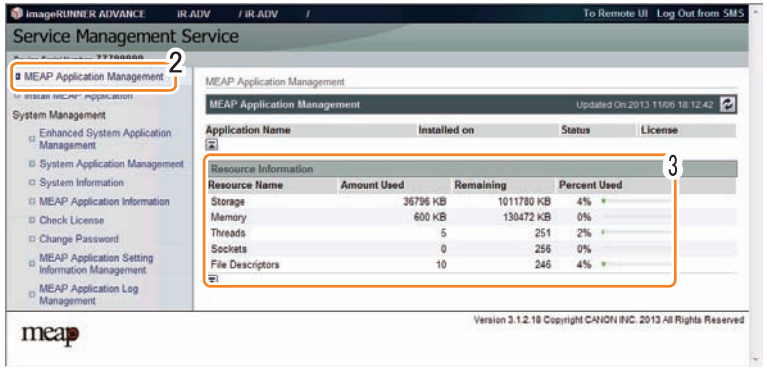
Outline

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

If the hard disk does not have enough free space for the application, the application cannot be installed.
Moreover, if the free space of any of the resources (Memory, Thread, Socket, and File Descriptor) is insufficient, the application cannot be started.
The following procedure shows how to check the resource information.

1) Log in to SMS.
2) Click [MEAP Application Management].
3) Check [Resource Information] for information of the whole device resources.



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Device's resources

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 series	Flash model	220MB	32MB	162	128	128
	HDD model	1024MB	128MB	256	256	256
iR-ADV 4045 series		1024MB	128MB	256	256	256
iR-ADV C5255 series		1024MB	128MB	256	256	256
iR-ADV C2230 series	Flash model	220MB	32MB	162	128	128
	HDD model	1024MB	128MB	256	256	256
iR-ADV 500 series		1024MB	128MB	256	256	256
iR-ADV C350 series		1024MB	128MB	256	256	256

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Note:
- Among the resources, the free space of Storage is checked when installing an application. For other resources, the free space is checked when the application is started.
- 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/

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

The displayed name for Meap Specifications differs depending on the screen or the location where the name is displayed.
In this document, it is referred to as "Meap Specifications".

The location where the name is displayed/shown	Displayed name
Platform Information : SMS > [System Management] > [System Information] > [Platform Information]	MEAP Specifications
System Information Print : Local UI [Settings/Registration] > [Management Settings] > [License/Other] > [MEAP Settings] > [System Information Print]	
Manifest file of the MEAP application	MeapSpecVersion
SDK documents	

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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 series	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 Ver.65.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, 74
iR-ADV C9075 series	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 Ver.65.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, 74
iR-ADV 6075 series	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 Ver.42.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, 74
iR-ADV 8105 PRO series	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, 1, 32, 33, 34, 35, 36, 37, 38, 39, 40 , 41, 44, 45, 46, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59 Ver.42.xxor 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, 74
iR-ADV C2030 series	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 Ver.29.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, 74
iR-ADV 4045 series	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	Ver.11.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, 74
iR-ADV C5255 series	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, 64, 65, 66, 67, 68, 69, 70, 71, 72, 74, 78, 80	-

Product Name	Initial MEAP SpecVer	Remarks
iR-ADV C2230 series	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, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 66, 67, 69, 70, 72, 74, 78, 79, 80	-
iR-ADV 500 series	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, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 66, 67, 69, 70, 72, 73, 74, 78, 79, 80, 82	-
iR-ADV C350 series	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, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65,66, 67, 69, 70, 72, 73, 74, 78, 79, 80, 82	-

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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

Ver	Description
47	Addition of API which executes a print order from the MEAP application of the IMI encryption PDF document
48	ID expressing the scan function for iR-ADV C2030/C2025/C2020 series
49	Reserved
50	SecurityOptionalPackage
51	IMI function expansion of iR-ADV C5051 series (Ver.50.xx or later) or later
52	(iR-ADV C5051 series (Ver.50.xx or later)) Addition of registered API to enable SSL communication setting (On/Off) for each URL
53	Disclosure of registration/deletion function to/from Quick Menu
54	Function to notify an event to the application at recovery from the sleep mode.
55	System account release function
56	MEAP User Preference Service
57	MEAP Application Configuration Service
58	MEAP Application Log Service
59	Reserved
59	Integrated authentication service
60	SFP basic functions
61	AVS (Lightweight Applet Viewer Service) for LBP
62	SIS (Lightweight System Interface Service) for LBP
63	LDT
64	IMI customization
65	Extension of MEAP User Preference Service (Ver56) (preference shared among applications)
66	Reserved
68	Addition of Office Open XML's Word creation API
69	Extension of the encryption PDF function (AES 128-bit/256-bit)
70	Addition of 3 formats (uncompressed searchable PDF, XPS, and linearized searchable PDF)
71	Reserved
72	Reserved
73	API that supports A4 scanners and allows for specifying of the direction of the original image
74	Support for addition of the CN validation function
75	Reserved
76	Addition of the SFP ExtendedTextInputView class
77	Reserved
78	Reserved
79	Reserved
80	Reserved
81	Reserved
82	API to recover from Sleep 1

T-2-75

MEAP Application Management

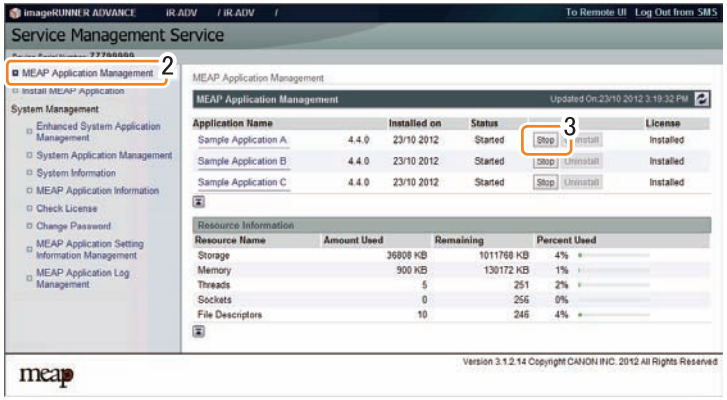
Outline

You can use the MEAP application management screen to perform basic management tasks of the MEAP application (start, stop, uninstall), or check the device's resource information.

Starting, Stopping, or Uninstalling the MEAP Application

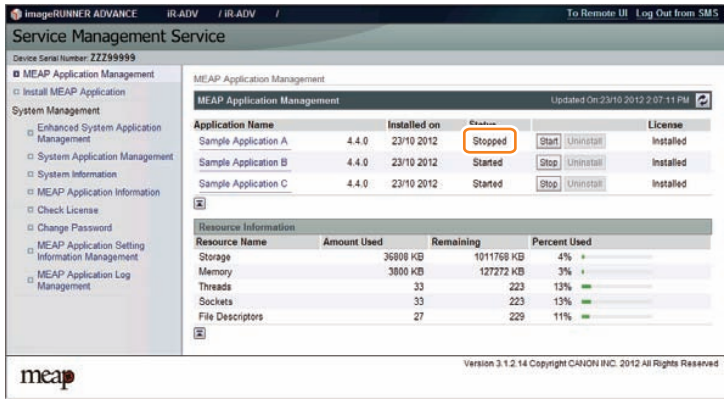
Procedure to start and stop a MEAP application

1) Log in to the SMS. (Refer to "Login to SMS" in this manual.)
2) Click [MEAP Application Management].
3) Click [Start] or [Stop] shown for the MEAP application to be started or stopped.



F-2-198

4) Check to see that the status of the MEAP application in question is either [Started] or [Stopped].



F-2-199

If the MEAP application cannot be started

If the conditions to start the MEAP application are not satisfied, the MEAP application cannot be started.

If the MEAP application cannot be started, check the following items.

Is a valid license installed?

If the license has expired, you cannot start the application. If the license has already expired, obtain a new license and then update the license. (See "Managing the License File" in this manual.)

Are the necessary resources available?

If the resources such as memory capacity or number of threads are not sufficient, the application also cannot be started.

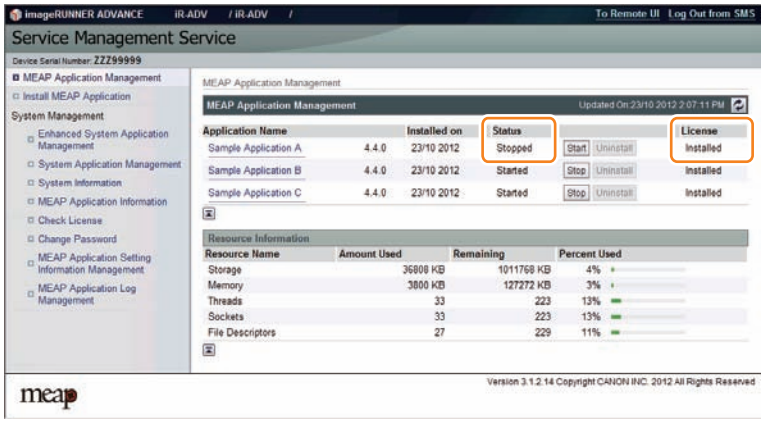
Delete any unnecessary data to secure sufficient resources.

If the application still cannot be started after checking the foregoing conditions, contact the support department of the sales company.

Procedure to uninstall the MEAP application

Before uninstalling the MEAP application, check that the following conditions are met.

- The MEAP application has stopped.
- The license has been disabled or deleted. (The status is "Not Installed".)

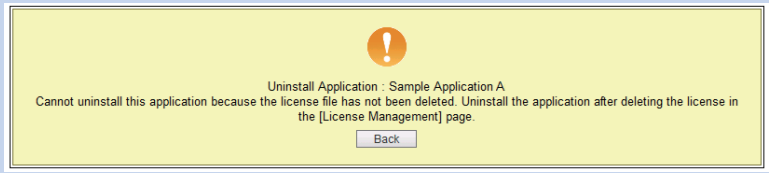


F-2-200

For information on the procedure to stop the MEAP application, see the previous section "Procedure to start and stop a MEAP application".

For information on the procedure to delete the license file, see the following section "Managing the License File".

Note:
When a user tries to uninstall an application before deleting the license, the following message is shown.



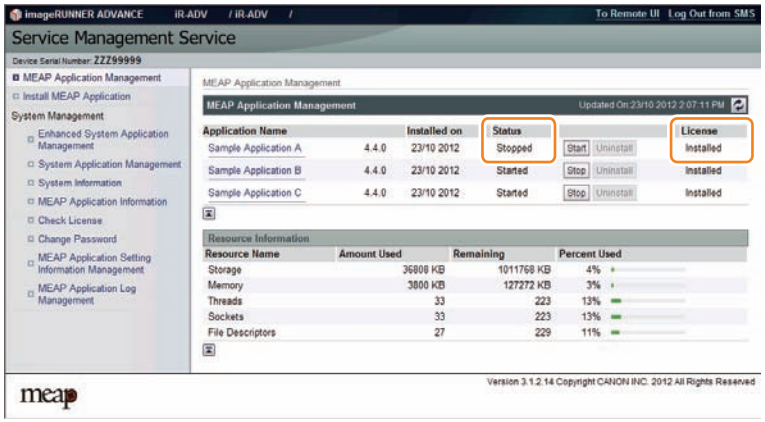
F-2-201

If the license file of the selected application cannot be deleted, the [Uninstall] is grayed out and therefore the application cannot be uninstalled.

CAUTION:

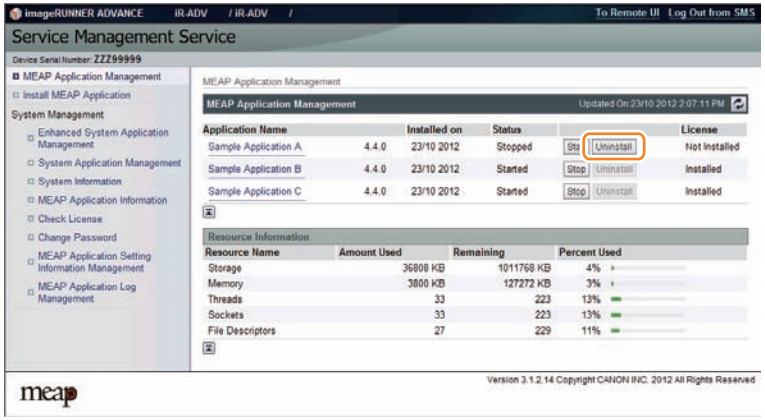
If the application you are uninstalling is associated with another application, a message will appear to indicate that the package exported by the application will no loner be available. Uninstalling such an application may also disable its associated applications.

1) Log in to SMS to click [MEAP Application Management] on the menu.
2) Check that the status of the application you want to uninstall is [Stop] and the license has been disabled. (The status is "Not Installed".)



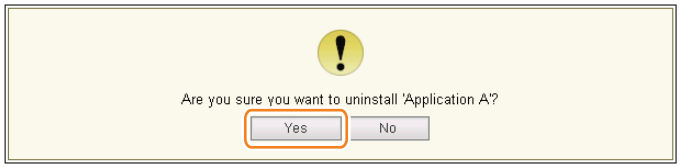
F-2-202

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



F-2-203

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



F-2-204

■ Managing the License File

● Outline

The license file management functions allow you to perform the following operations related to the license file necessary for the MEAP application to run.

- Update the license which has already expired.
- Disable or delete the license file in order to uninstall the MEAP application.

These license management functions can be performed from the [MEAP Application Management] screen.
The main license management functions are as follows:

Adding a license

When the license has expired, you can add a license file.

Disabling a License File

Before uninstalling the MEAP application, the license needs to be deleted. In that case, you must first disable the license file because a license file which has not been disabled cannot be downloaded or deleted.

Downloading / Removing an Invalidated License File

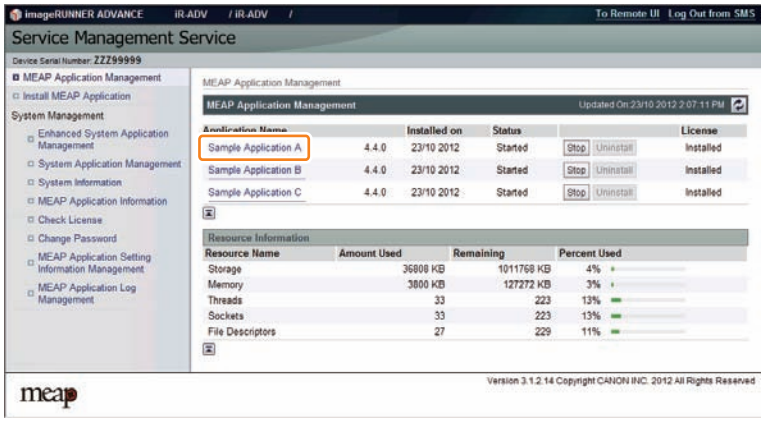
Before uninstalling the MEAP application, you need to delete its license file which has already been disabled.
By downloading the license file to your PC before it is deleted, you can use it when installing the application again to the same device.

CAUTION:
After deleting the license file which has been disabled, you can no longer download the license file.

Procedure adding a license file

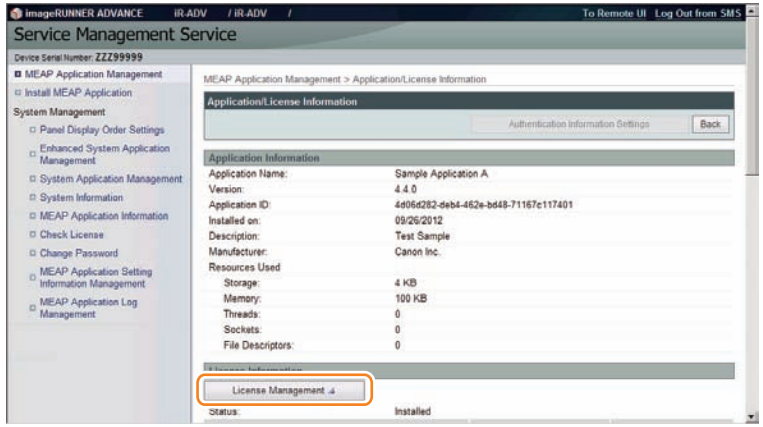
1) Log on to SMS.

2) On MEAP Application Management, click the name of the application to which you want to add a license file.



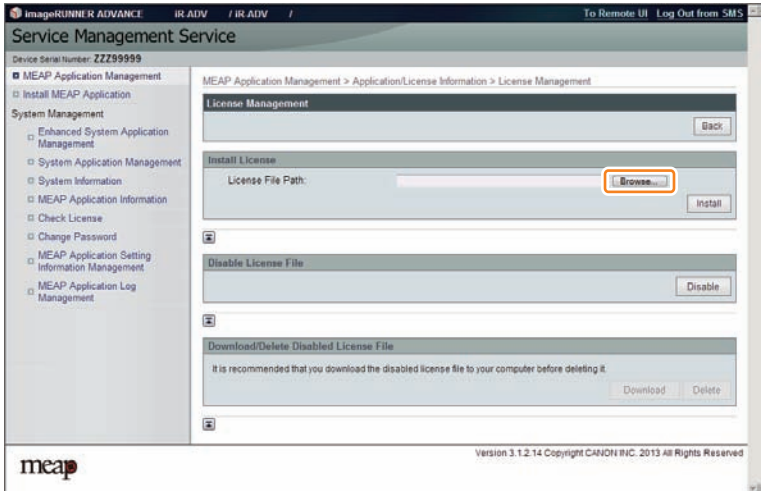
F-2-205

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



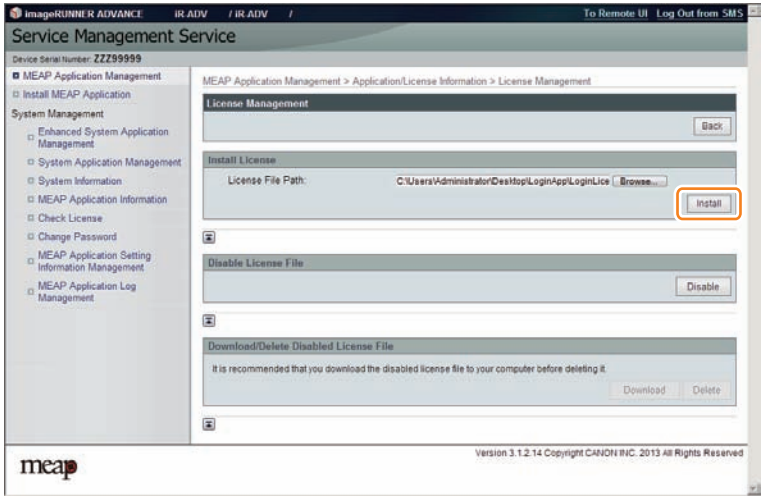
F-2-206

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



F-2-207

5) Click [Install].



F-2-208

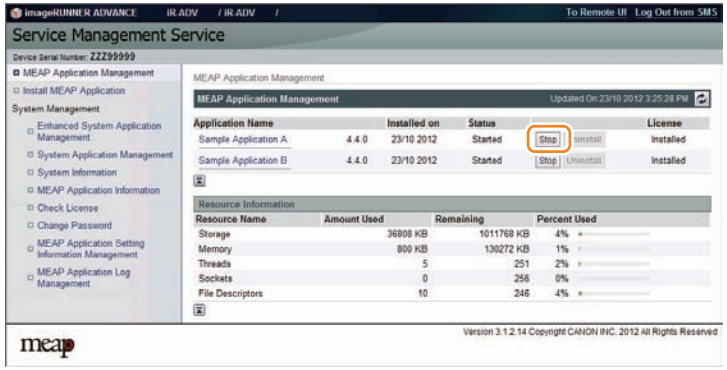
6) Check the content of the confirmation page, and click [OK].

Procedure disabling a license file (suspending a license)

CAUTION:

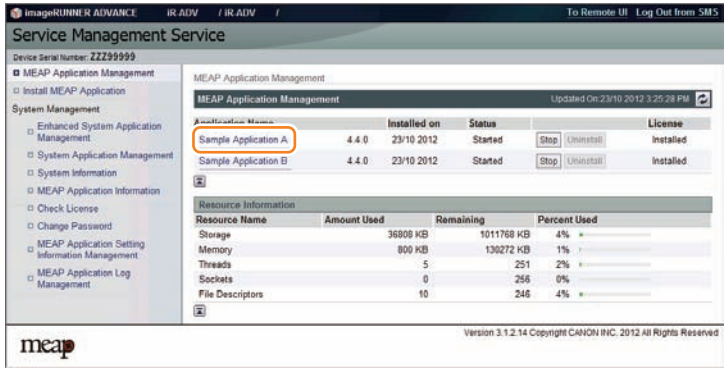
- Since the license file cannot be disabled when the application is still running, the application needs to be stopped before disabling the license file.
- Once suspended, the status of the license will be "Not Installed", and its application will no longer be available for use.
- You can later restore a suspended license file as long as you are doing so on the same iR, the device with the same device serial number.
- If the machine needs to be replaced due to a device failure, use the transfer license during the replacement. (See "License for forwarding")

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



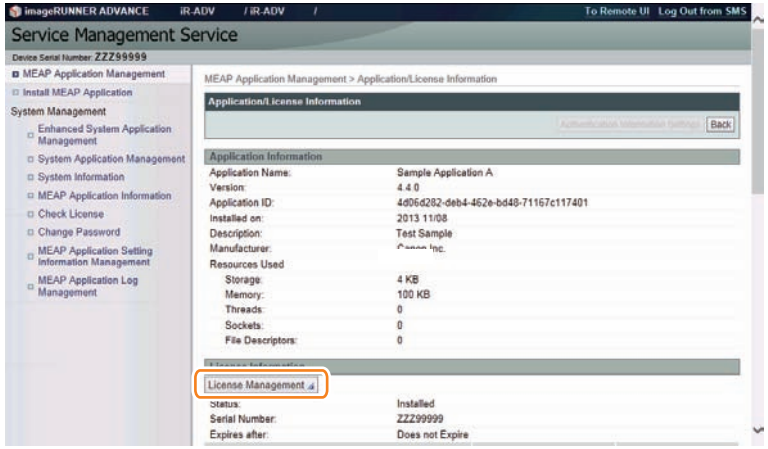
F-2-209

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



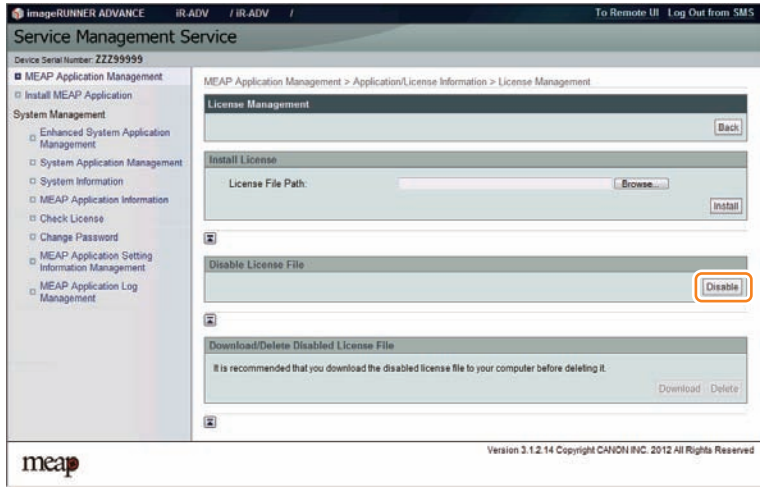
F-2-210

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



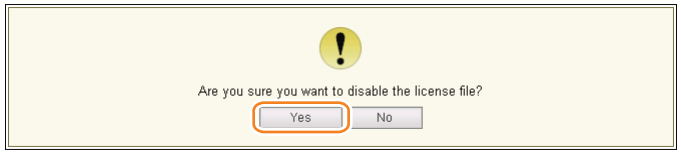
F-2-211

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



F-2-212

5) Click [Yes].

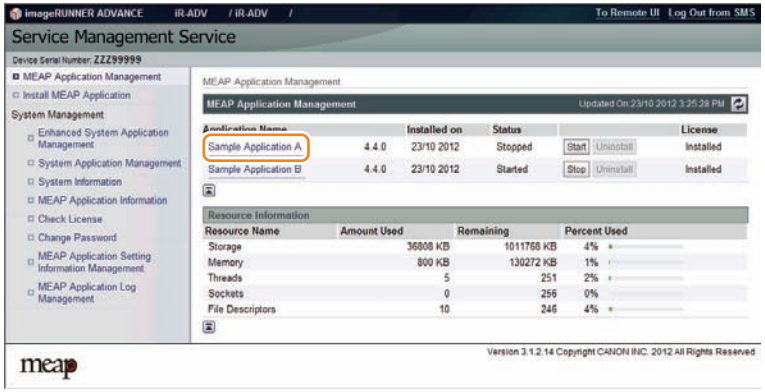


F-2-213

Procedure downloading / removing an invalidated license file

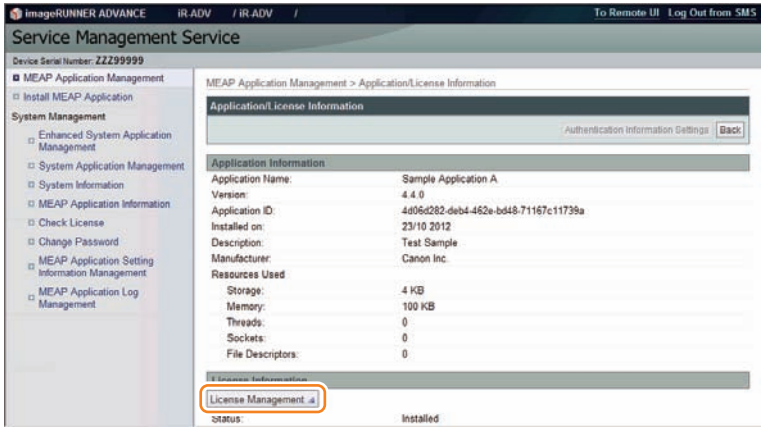
Note:
The downloaded license file can be used for reinstallation only in the same device (with the same device serial number).

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



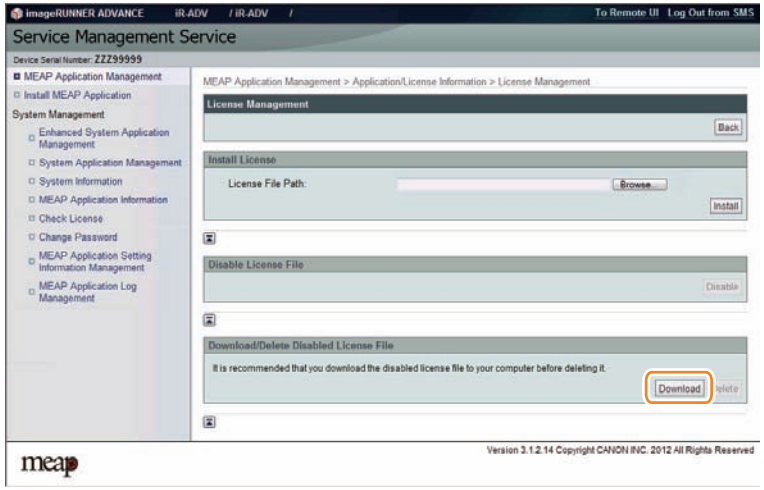
F-2-214

3) Check Application/ License Information page appears.
4) On Application / License Information page, click [License Management].



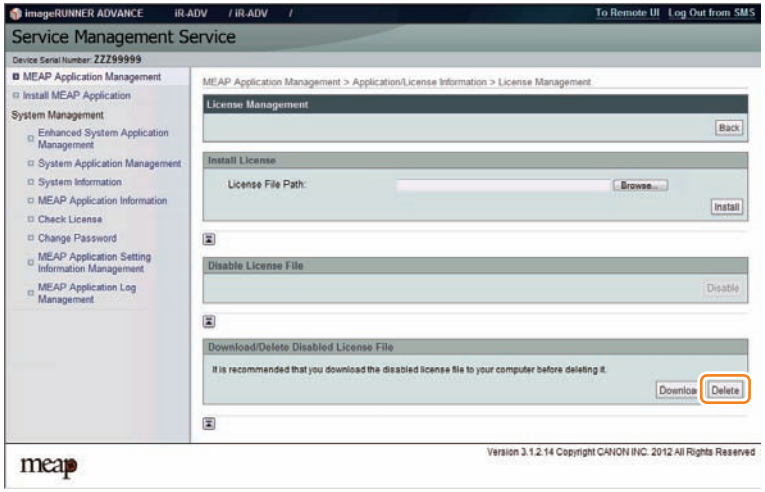
F-2-215

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



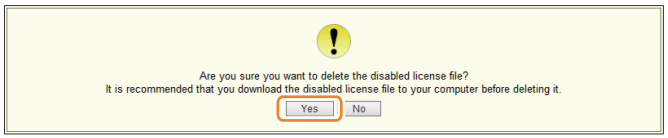
F-2-216

6) When you have selected [Download], specify where you want to store the file by following the instructions on the screen.
7) To delete, click [Delete].



F-2-217

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



F-2-218

CAUTION:

Without the license file, an application cannot be reinstalled even to the MEAP device that the application had been installed last time. Download and save the license file before deleting the application.

■ Other License File Management Functions

● Reusable license

When reinstalling, Disable License file should be downloaded (see "Procedure disabling a license file (suspending a license)" and see "Procedure 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.

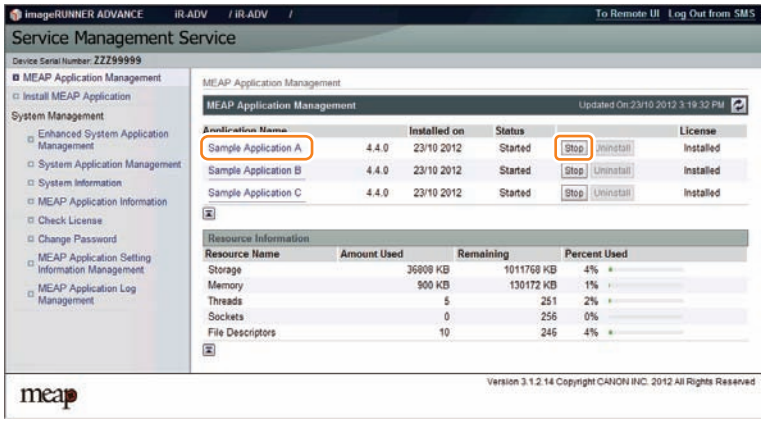
To increase convenience of users, only application with unlimited validity date and application counter (e.g. Portal Service, SDL, SSO) has been made to be able to install as many times as needed by the same license file. This kind of license is called "Reusable license".

● License for forwarding

If the machine needs to be replaced due to a device failure, you can transfer the license information used in the MEAP application to the new machine and continue its usage. Service engineers are responsible for license transfer as this task requires the SMS hidden page (not open to users).

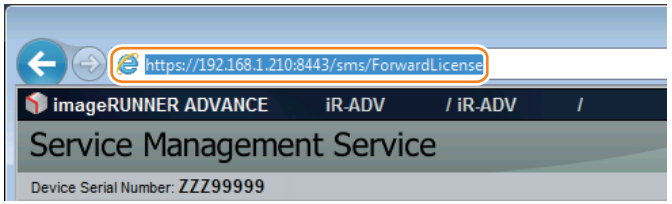
The procedure is shown below.

1) Log in to SMS, stop the application to be forwarded. (see "Starting, Stopping, or Uninstalling the MEAP Application".)



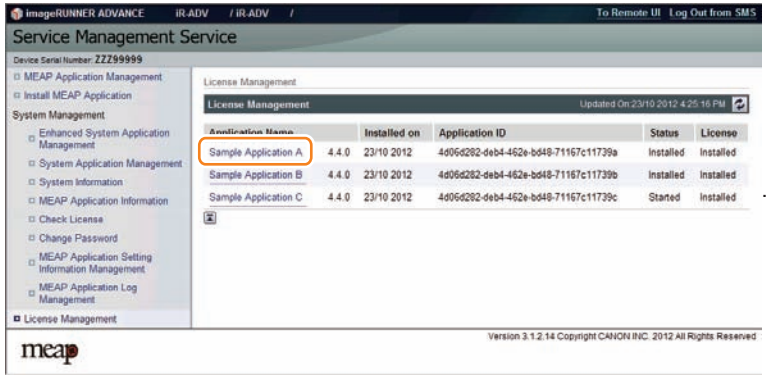
F-2-219

2) Move to the download page of license forwarded for the device as sender (https:// IP address of device: 8443/sms/ForwardLicense).



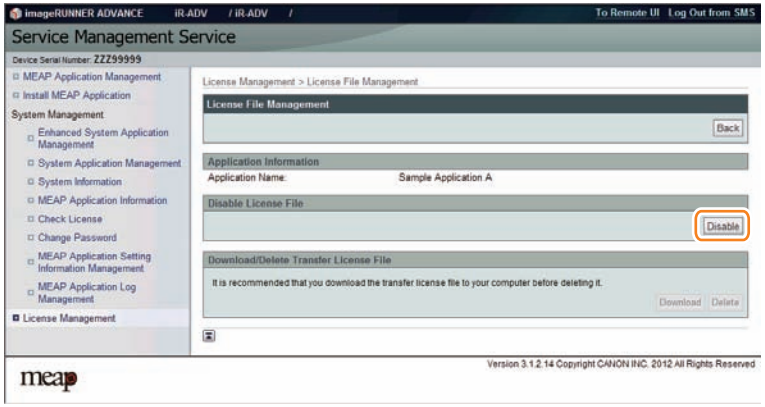
F-2-220

3) Specify the application to be forwarded.



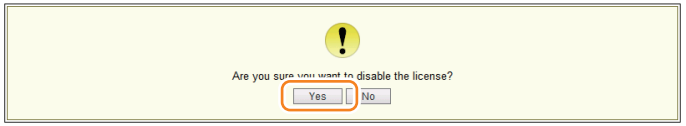
F-2-221

4) Click [Disable] on the [Disable License File].



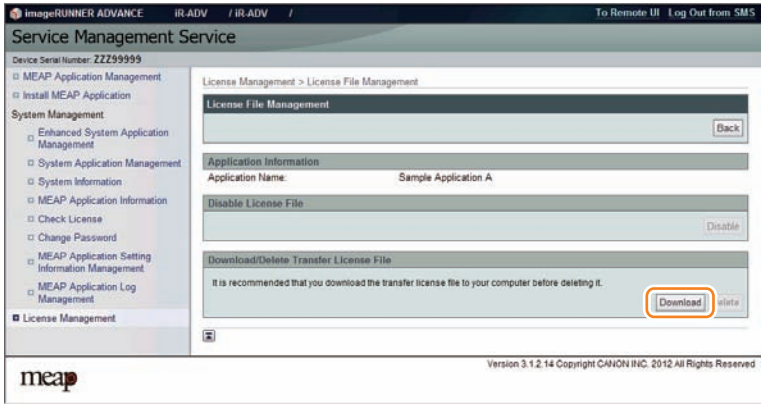
F-2-222

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



F-2-223

6) When [Download] on the [Download / Delete Transfer License File] becomes effective, click [Download].

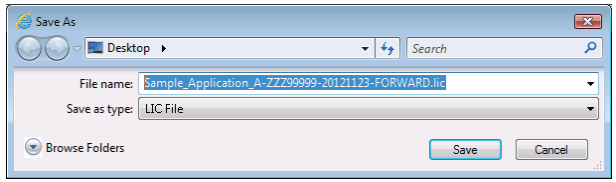


F-2-224

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

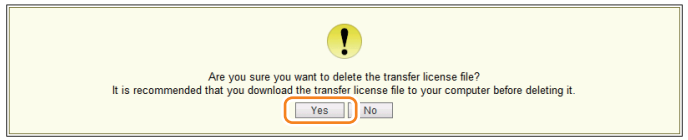
F-2-225

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



F-2-226

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-2-227

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.

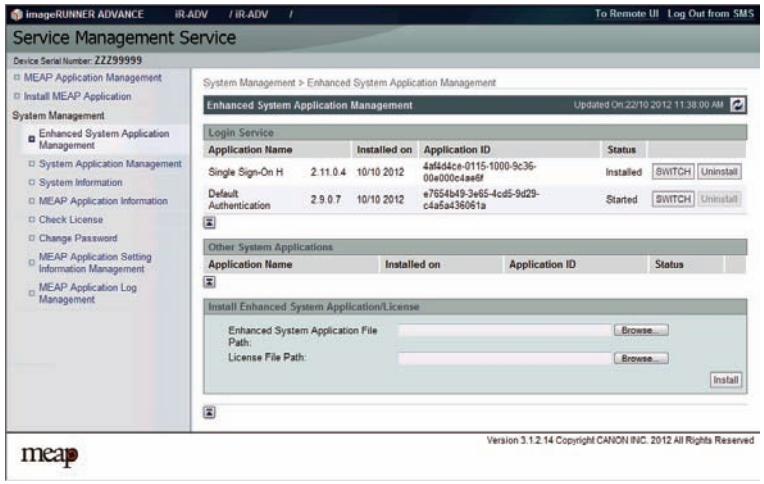
12) Install application using the license for forwarding issued by the sales company.

Enhanced System Application Management

Outline

[Enhanced System Application Management] mainly manages the login services for logging in to devices.

- Installing and uninstalling Enhanced System Application Management (login services, etc.)
- Switching login services (switching the method to log in to devices)
- Checking installation status of other System Applications



F-2-228

About Login Service

The login service is started up to authenticate the user when MEAP-enabled device is booted up. Login service changes and install/ uninstall are carried out from the [System Management] page.
The preinstalled login applications are Default Authentication and Single Sign On-H, and Default Authentication is enabled by default.

CAUTION:

- This device does not support SDL, conventional SSO and Security Agent.

Default Authentication overview

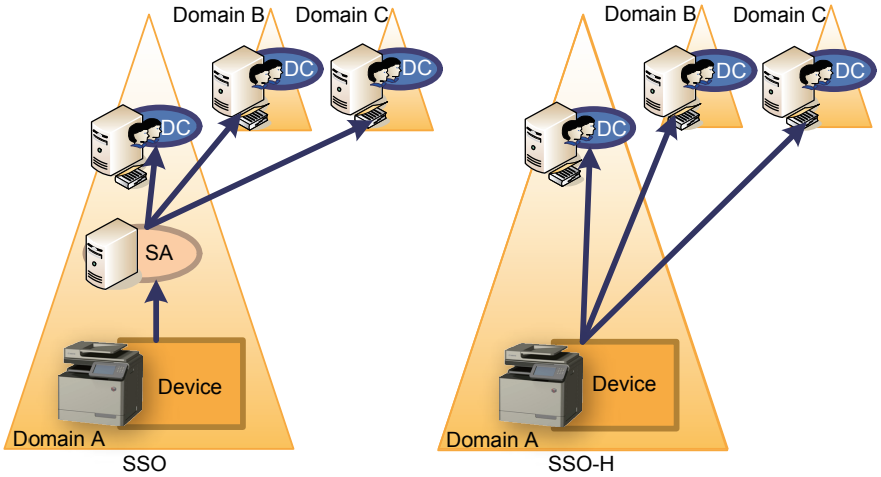
This login service is selected when the department ID management is enabled or no authentication function is set. Set the department ID management to [ON] on [Settings / Registration] of this device and register 7-digit ID and PIN by department. This setting restricts the use of this device only to users 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.

- The following three authentication methods may be selected from.
  - Server authentication
  - Server authentication and local authentication
  - Local device authentication
- Active Directory or LDAP can be used as the server for server authentication.
- It is not necessary to prepare a server for Security Agent (SA). (In the case of SSO, SA is necessary.)

Differences from conventional SSO



F-2-229

CAUTION:

- When the setting is SSO-H, the card reader for the option controller card cannot be used.
- 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.
- 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.

Environment confirmation

Refer to the section of "Preparation for Using SSO-H" 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		Active Directory : 200 domains ("this device" not included)
IPv6		Authentication provided in IPv6 supports AD/KDC/DNS of Windows Server 2008 only)
Resource used		Memory : 3600KB Storage : 27000KB File Description : 27 Thread : 33 Socket : 33
Network ports used	Connecting	88 : KDC 53 : DNS 1 - 65535 (Default : 389) : LDAP
	Listening	10000 - 10100
Supported authentication server		Active Directory : Microsoft Windows Server 2003 SP2 * Microsoft Windows Server 2003 R2 SP2 * Microsoft Windows Server 2008 SP2 * Microsoft Windows Server 2008 R2 SP1 Microsoft Windows Server 2012 Microsoft Windows Server 2012 R2 *64-bit OS is not supported. LDAP : Novell eDirectory V8.8 SP6 for Windows Lotus Domino V8.5 for Window
Availability of Department Management Linkage		Available only in local authentication

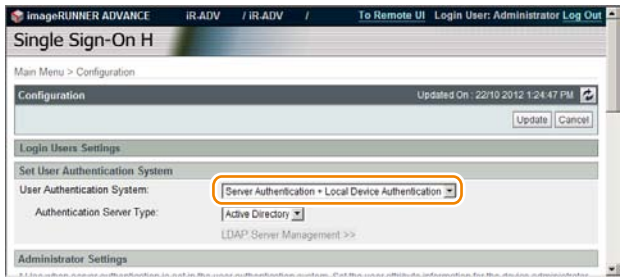
T-2-76

SSO/SDL handling

This model does not support older versions of SSO or SDL released in the past.

Setting the Authentication Method

In the case of SSO-H, it is possible to use a combination of multiple authentication methods. The combination can be changed from the SSO-H setting screen. (For details, refer to e-Manual > MEAP > Menu for Administrators > Setting the SSO-H > "Setting the User Authentication System".)



F-2-230

Note:
The default settings are shown below.
- User authentication method : "Server Authentication + Local Device Authentication"
- Type of authentication : "Active Directory"

CAUTION:
- To ensure the security, it is recommended to change the password and the user name of the Local Device Authentication administrator from those at the time of shipment immediately after you have started using SSO-H.
- Since department ID and password are not assigned to domain users, distributing setting information where the department ID is enabled to a device where the server authentication is enabled may make the device unable to be logged in. If the device has become unable to be logged in, follow "Remedy to Be Performed When the Device Has Become Unable to Be Logged in" in this manual.

Using an Accounting Product When SSO-H Is Used

SSO-H has collaborative linkage with NetSpot Accountant, imageWARE / iW Accounting Manager, imageWARE Enterprise Management Console / iW Management Console Access Management Plug-in, imageWARE Enterprise Management Console / iW Management Console Accounting Management Plug-in.
For details on the combination, refer to the User's Manual or Service Manual of the product.

Conducting Department ID Management When SSO-H Is Used

Department ID Management can be conducted also when SSO-H is used for login service.

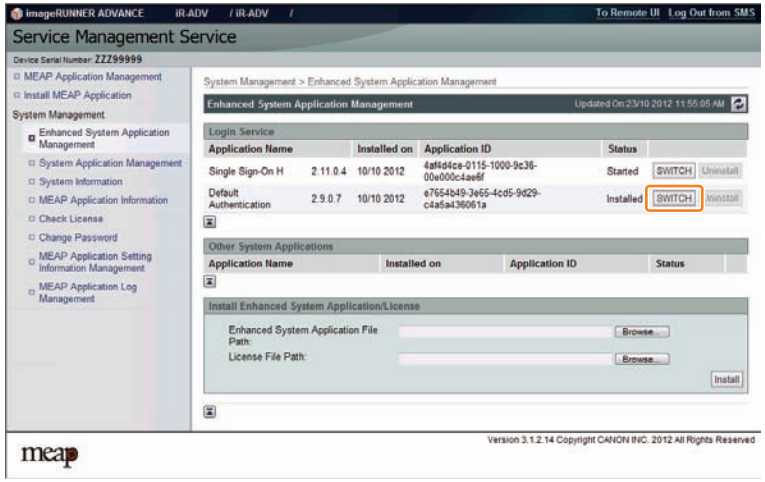
Usage Conditions

In order to allow coexistence of SSO-H and Department ID management, the following conditions need to be satisfied.
- Only "Local Device Authentication" can be used as the user authentication method.
- The department ID and password have been already set for the SSO-H login user before enabling department ID management.
- The information (the department ID and password) set for the login user coincides with the information registered in Department ID Management.

Setting Procedure

In order to allow coexistence of SSO-H and Department ID management, the following procedure needs to be performed to enable the setting.

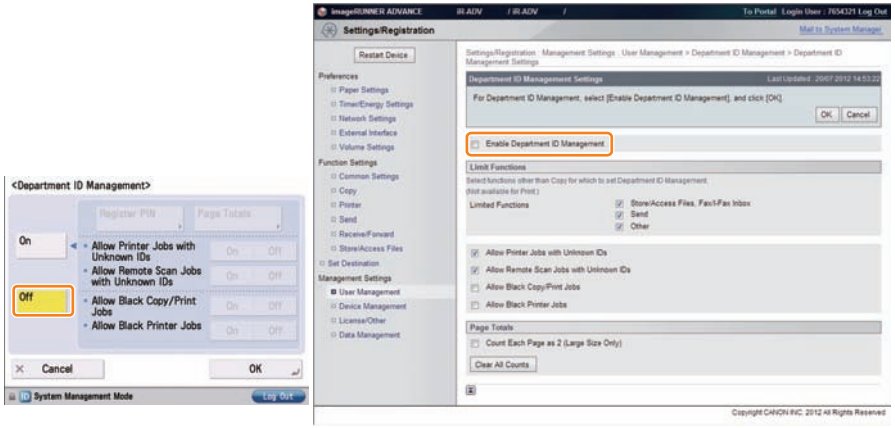
1) Change the authentication method to DA (Default Authentication).
Access SMS, and select [Default Authentication] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "Login to SMS".)



F-2-231

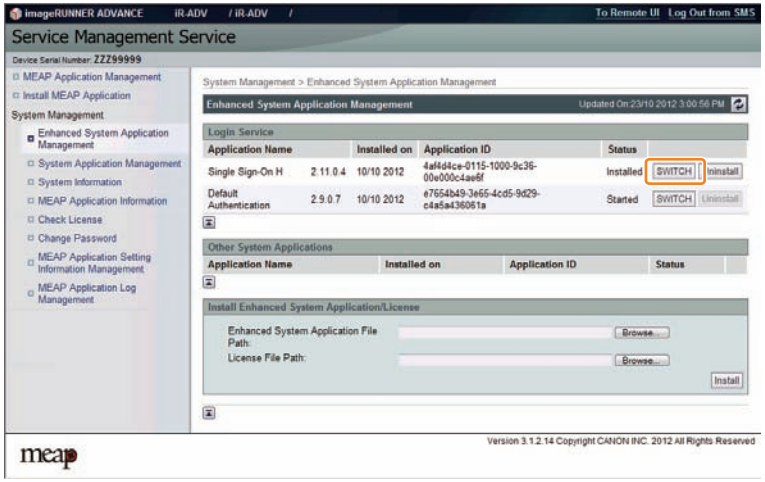
2) Restart the device.
Restart the device in order to reflect the changes in login service.

3) Disable Depart ID Management.
In [Settings/Registration], select [Management Settings] > [User Management] > [Department ID Management] > [OFF]. In the case of remote UI, access [Settings/Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and deselect [Enable Department ID Management].



F-2-232

4) Change the authentication method back to SSO-H authentication.
Access SMS, and select [Single Sign-On H] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "Login to SMS".)

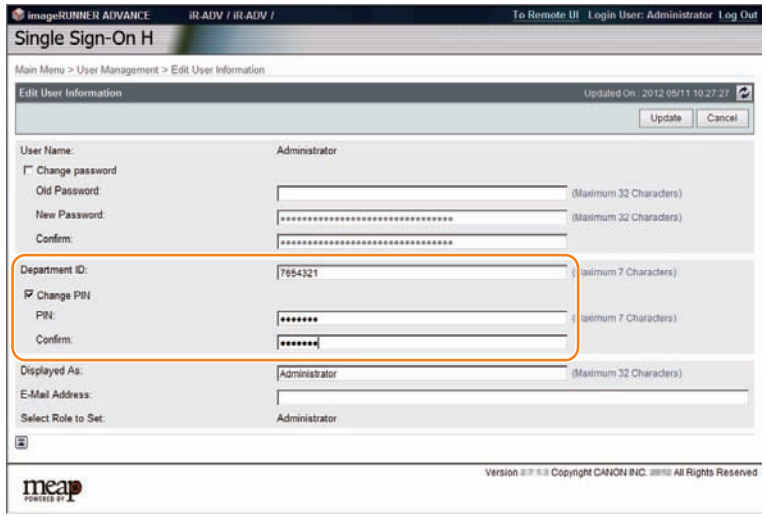


F-2-233

5) Restart the device.
Restart the device in order to reflect the changes in login service.

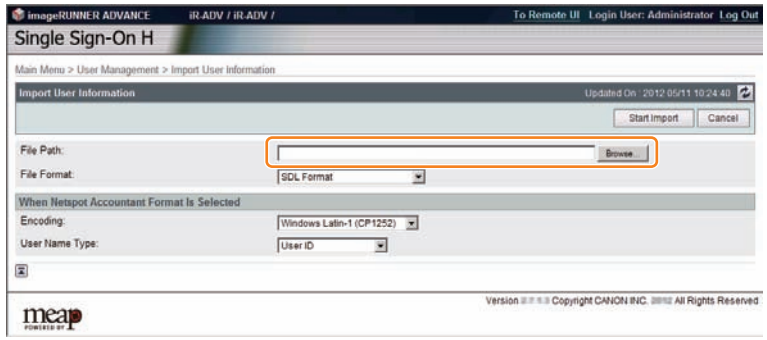
6) Change the user registration information of SSO-H.
Access the URL shown below, and change the content to the information registered in Department ID Management.
Or, import the setting file whose content you want to use.

SSO-H user registration information edition screen
(SSO management screen [Main Menu] > [User Management] > [Edit User Information] or https://<IP address>:8443/sso/Edit).



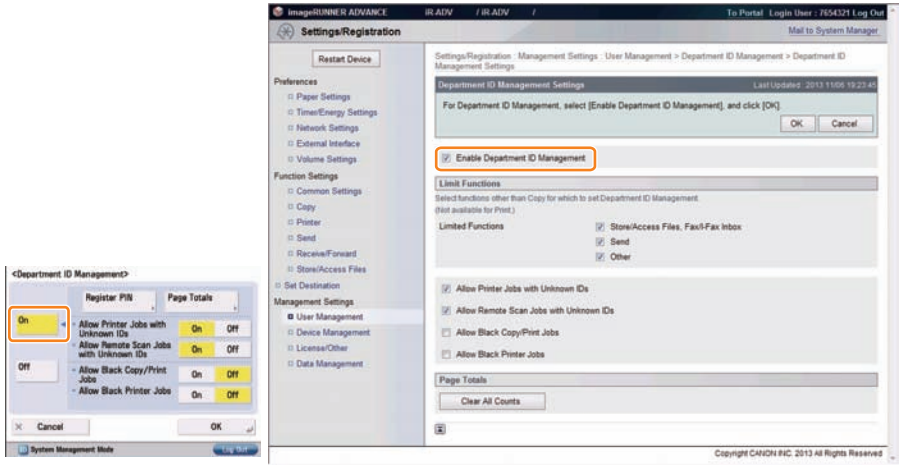
F-2-234

SSO-H user registration information import screen
(SSO management screen [Main Menu] > [User Management] > [Import User Information] or (https://<IP address>:8443/sso/Import).



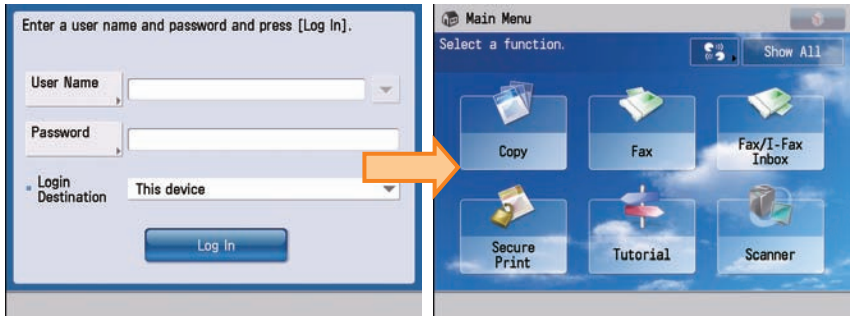
F-2-235

7) Enable Depart ID Management.
In [Settings/Registration], select [Management Settings] > [User Management] > [Department ID Management] > [ON]. In the case of remote UI, access [Settings/Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and select [Enable Department ID Management].



F-2-236

8) Check that the device can be logged in.
Log off and then log on to check that the device can be logged in with an environment where Local Device Authentication and Department ID Management are enabled.



F-2-237

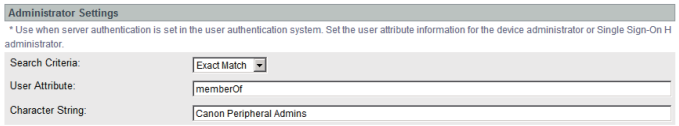
Note:
In the case of conventional SSO, department management can be conducted also when server authentication is used provided that iWAM/iW EMC account management is used, which is not supported by SSO-H.

Setting the Administrator for Server Authentication

When using Server Authentication, the user who satisfies the specified conditions (user attribute and its match criteria) becomes the administrator (the device administrator and the SSO-H administrator).
The default user attribute and whether the setting value can be changed or not are shown below.

Item	Default value	Active Directory	LDAP
Search Criteria:	Exact Match	Not Available	Available
User Attribute:	memberOf	Not Available	Available
Character String:	Canon Peripheral Admins	Available	Available

The settings of the administrator can be changed on the following screen: remote UI > Single Sign-On H > Configuration (http://device's IP address:8000/sso/ActionSet)



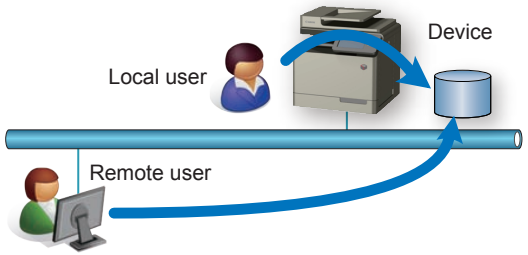
F-2-238

System Manager Linkage (automatic ID allocation to SystemManagers)

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.

Local device authentication

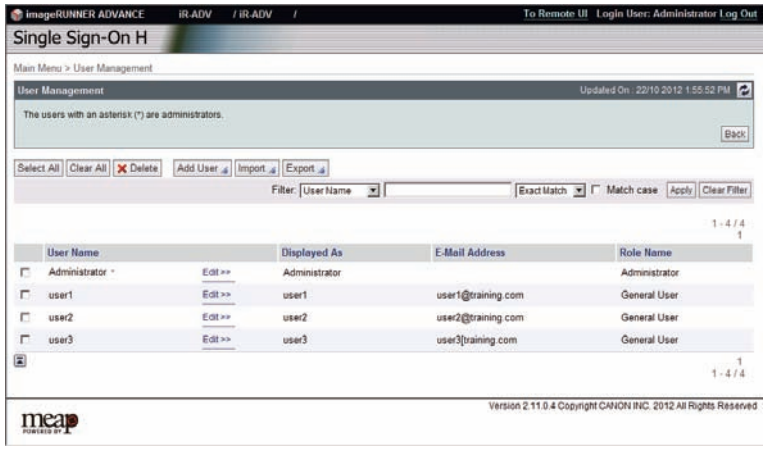
It is one of the user authentication methods using SSO-H, and is used for an device on a stand-alone basis.



F-2-239

Register the user to be authenticated on the database in the device.
User management can be performed from the User Management screen (http://device's IP address:8000/sso/) or imageWARE Enterprise Management Console. The login destination is [This device].

User Management screen

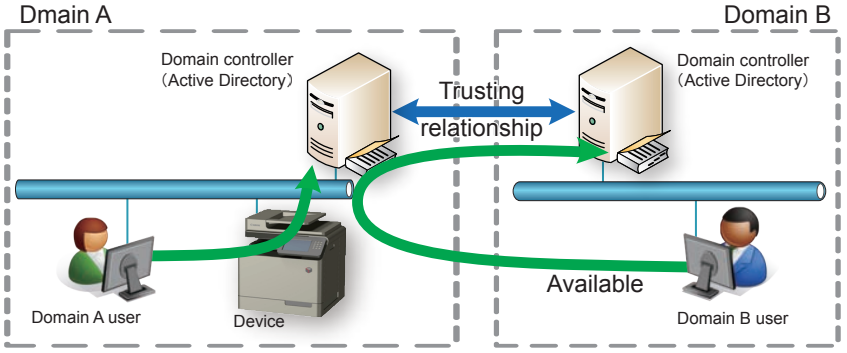


F-2-240

Server authentication (Active Directory authentication)

Outline

It is one of the user authentication methods using SSO-H. User authentication is performed with the device linked with a domain controller on the network in an Active Directory environment. It is a user authentication where the user is authenticated by the domain on the network when the user logs into the device. In addition to users belonging to the domain that includes the 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.
Using one of the options (Net Spot Accountant, imageWARE Accounting Manager, or imageWARE EMC Accounting Management Plug-in) makes it possible to analyze/manage the device usage.



F-2-241

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.

CAUTION:

In the case of using Server Authentication (Active Directory authentication), it is necessary to synchronize the time settings of the Active Directory server and the machine (and the PC for login). If the difference in time setting is 5 minutes or longer, an error will occur at the time of login. (The setting of the allowable difference in time can be changed.)

CAUTION:

Since department ID and password are not assigned to domain users, distributing setting information where the department ID is enabled to a device where the server authentication is enabled may make the device unable to be logged in. If the device has become unable to be logged in, follow "Remedy to Be Performed When the Device Has Become Unable to Be Logged in" in this manual.

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 subnet.
- 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 Di rectory 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

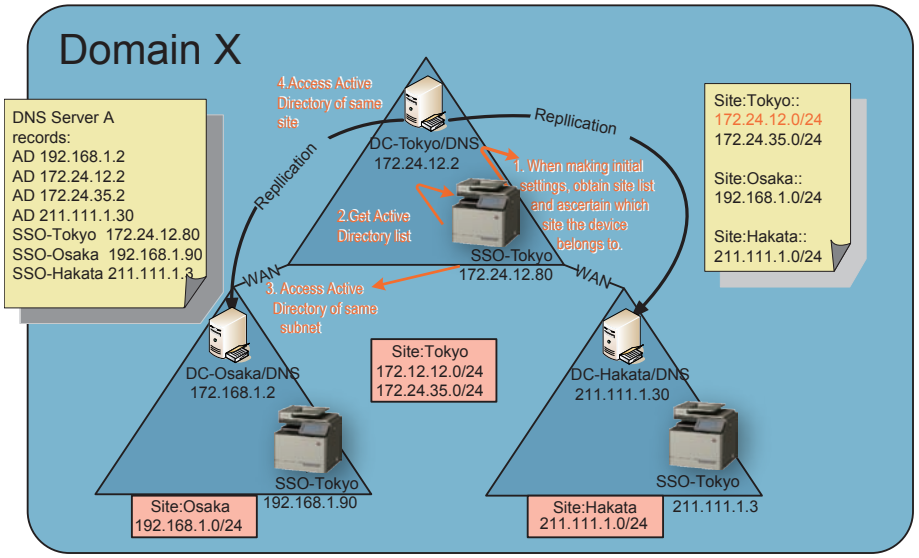
Switching between site internal access mode/ non site internal access mode, as well as detailed mode settings, are done via DMS or iWEMC.

Site internal access mode settings window (DMS)

F-2-242

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

Sample of Processing Access Mode in Sites



F-2-243

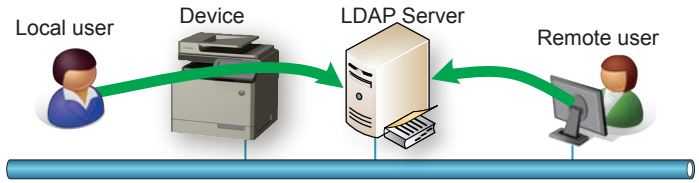
1) SSO-Tokyo acquires site lists from Active Directories.
   Note, however, that the Active Directories accessed in order to acquire site lists are in the order in which they were returned by DNS, so there is no guarantee that the same Active Directory will be accessed as in the initial settings (upon 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.

Server Authentication (LDAP Authentication)

It is one of the user authentication methods using SSO-H. User authentication is performed with the device linked with the LDAP Server on the network in an LDAP environment.



F-2-244

LDAP server authentication can be used for devices that support MEAP User Preference Service (MEAP Specification Ver.56) and MEAP Application Setting Information Management (MEAP Specification Ver.57).
As for models that do not support MEAP User Preference Service and MEAP Application Setting Information Management , [LDAP Server] cannot be selected as the type of the authentication server on the SSO-H Configuration page. Moreover, it is not possible to access the LDAP Server Management screen and the Add Server screen.

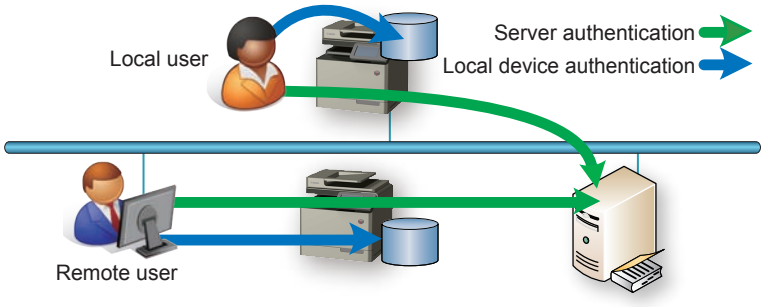
Simple bind (a method where the password is not encrypted) is used as the bind (authentication) between SSO-H and LDAP server. It is therefore strongly recommended to always use SSL connection from a security standpoint.
As for the version of LDAP, only Ver.3 is supported.

ON/OFF of SSL connection can be changed on the LDAP Server Management page.
The time-out value of connection is 60 seconds.
In the case of using LDAP server authentication, the characters entered as the user name are not case-sensitive, but the characters entered as the password are case-sensitive.
In the case of SSO-H, authentication is not allowed when the user name includes "* (asterisk)". If authentication is performed with "* (asterisk)" used in the user name, an authentication error occurs.

CAUTION:
Since department ID and password are not assigned to domain users, distributing setting information where the department ID is enabled to a device where the server authentication is enabled may make the device unable to be logged in. If the device has become unable to be logged in, follow "Remedy to Be Performed When the Device Has Become Unable to Be Logged in" in this manual.

Server authentication and local device authentication

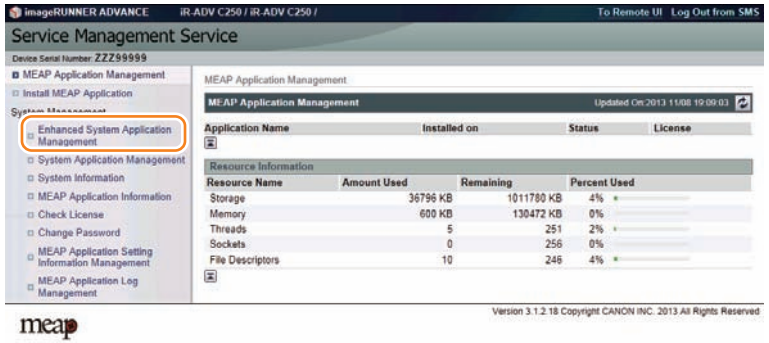
It is a user authentication method provided with both the "server authentication" function and the "local device authentication" function.
It is possible to use server authentication to authenticate the users registered on the authentication server under normal conditions and use local device authentication when a user who cannot be added to the authentication server needs to be temporarily authenticated.
If a trouble occurs in the authentication server, local device authentication can be used as an emergency measure until recovery from the trouble.



F-2-245

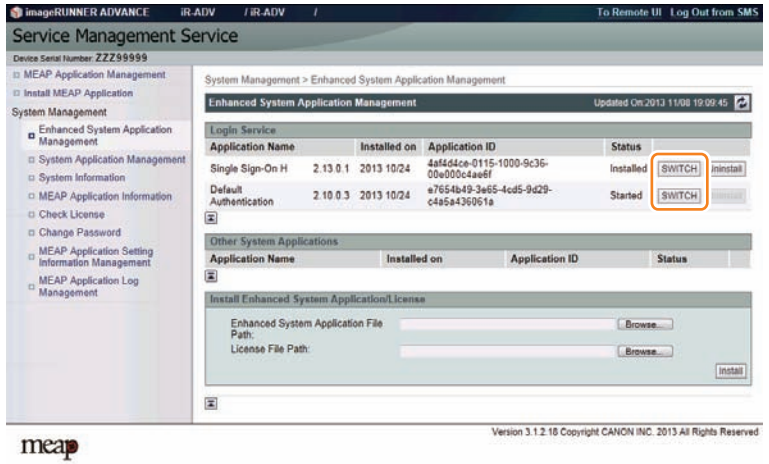
■ Steps to Change Login Services

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



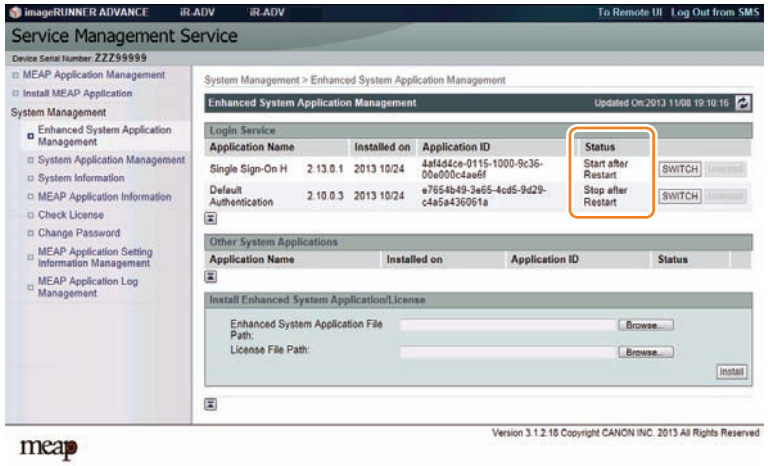
F-2-246

2) A page will appear showing the various selections you can make for the login service. Click [SWITCH] for the login service to be used.



F-2-247

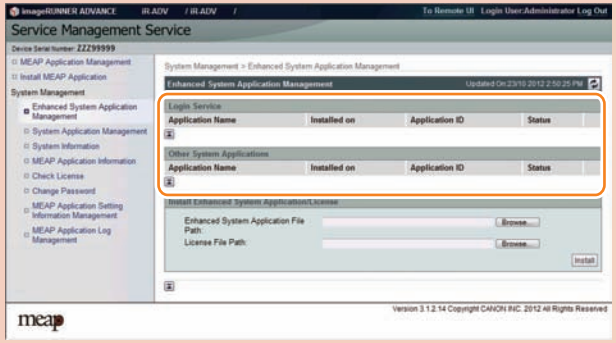
3) When login service application you have selected turns to Start after Restart, restart the device.



F-2-248

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-2-249

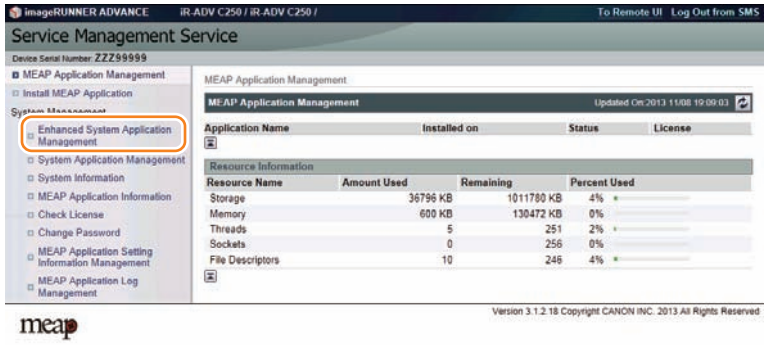
This is the specification to prevent the inconsistent setting which enables to stop SMS Installer Service (Password Authentication) by changing the login method to Default Authentication.

When you want to change the login method to a device, log in the SMS with the password authentication.

■ Login Service Installation Procedure

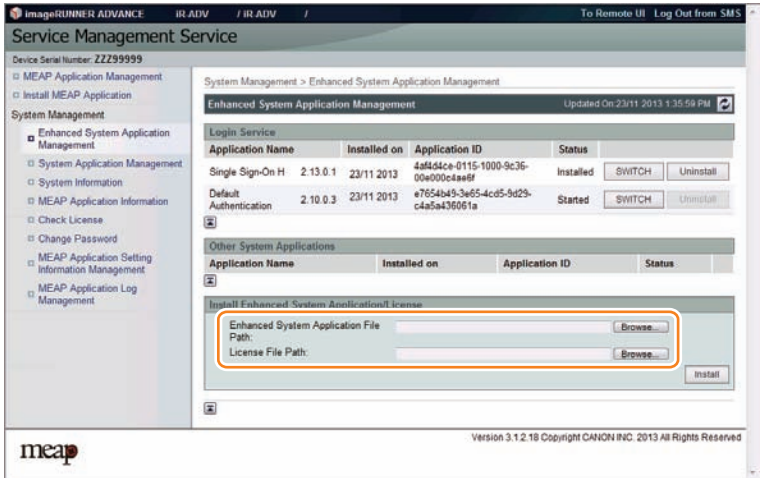
Follow the procedure show below to install login services.

1) Access SMS, and select [System Management] > [Enhanced System Application Management].



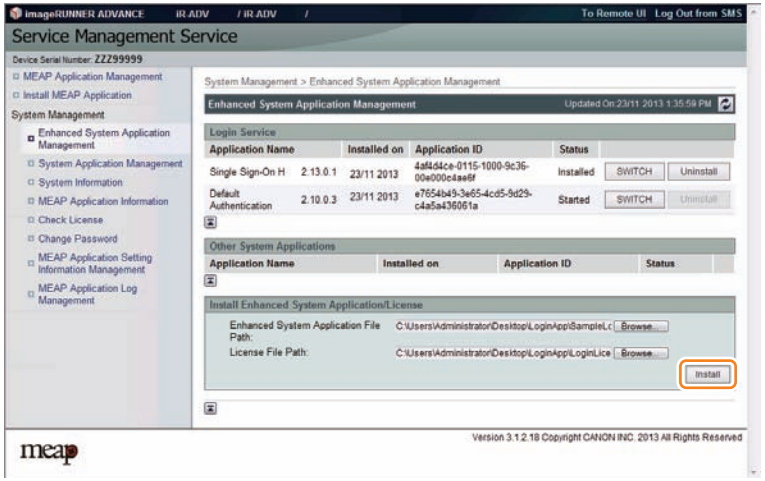
F-2-250

2) Click the [Browse], and specify the enhanced system application file and license file.



F-2-251

3) Click [Install].

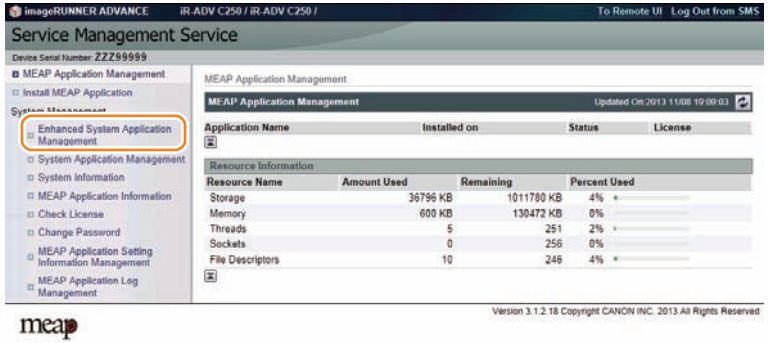


F-2-252

Login Service Uninstallation Procedure

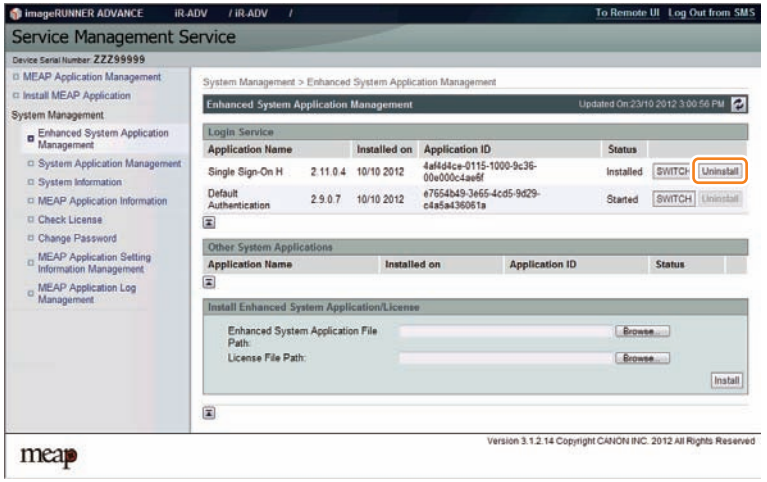
Follow the procedure show below to uninstall login services.
In order to uninstall a login service, the service needs to be stopped ("Installed" status).
Default Authentication cannot be uninstalled even when the service is stopped.

1) Access SMS, and select [System Management] > [Enhanced System Application Management].



F-2-253

2) Click the [Uninstall] of the login service you want to uninstall.



F-2-254

System Application Management

This function manages the login services for logging in to SMS.
There are two login methods: one is "password authentication" where you enter the password for SMS on the SMS login screen and log in, and the other is "RLS authentication" where you do not use the SMS login screen but enter the user ID and password on the RLS (Remote Login Service) screen for authentication.

Password authentication

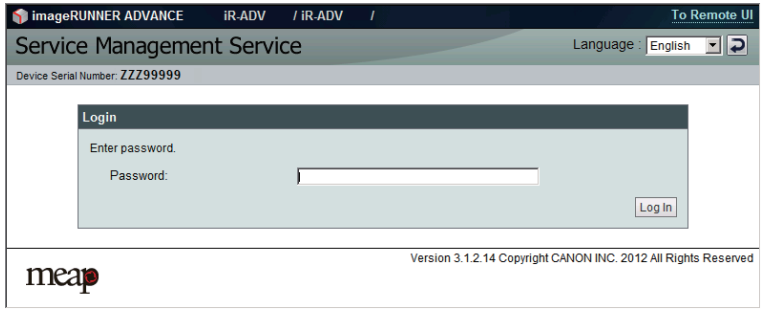
Enter the password on the SMS login screen for authentication. Only one password can be set for SMS.
The login procedure is shown below.

1) Access SMS from the browser of a PC on the same network as the MEAP device. The URL is as follows.

URL: https://<IP address of MEAP device>:8443/sms/
Ex.) https://172.16.188.240:8443/sms/

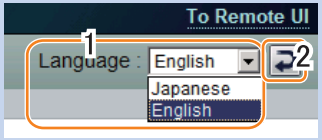
Note:
To encrypt the password information input when logging in, SSL of the login screen was made effective. However, it is redirected to new URL (effective SSL) even when accessing with URL (non-SSL) before.

2) Enter the password in the password entry field, and click the [Log In]. The default password is "MeapSmsLogin." (The password is case-sensitive.)



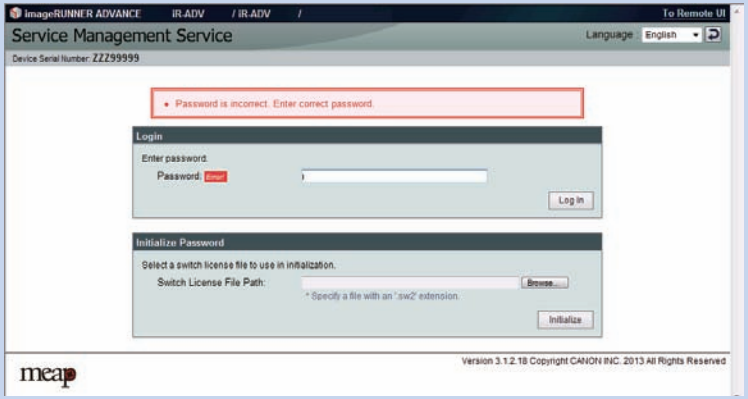
F-2-255

Note:
If you want to change the display language, select the language from the drop-down list of [Language] at the upper right of the login screen, and click the update button.



F-2-256

Note:
If the wrong password is entered, the following window is displayed. The user's system administrator may have changed the password, so confirm the password with the system administrator. Note that there is no special password for service.



F-2-257

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 server authentication or local device authentication. The login procedures are as follows.

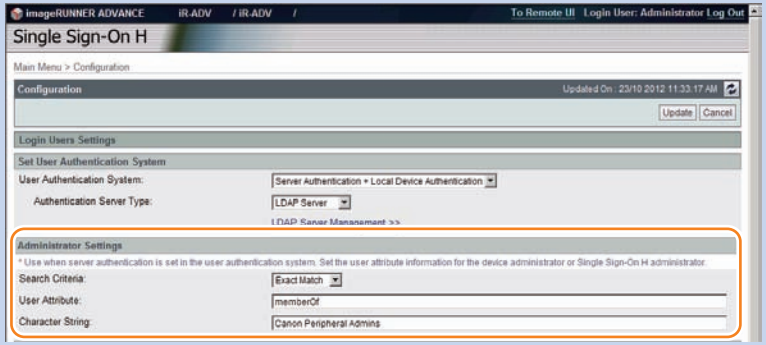
1) Access SMS by RLS Authentication from the PC browser on the same network as the MEAP device.
URL: https://<IP address of MEAP device>:8443/sms/rls/
Ex.) https://172.16.188.240:8443/sms/rls/

Note:
- To encrypt the password information input when logging in, SSL of the login screen was made effective. However, it is redirected to new URL (effective SSL) even when accessing with URL (non-SSL) before.

F-2-258

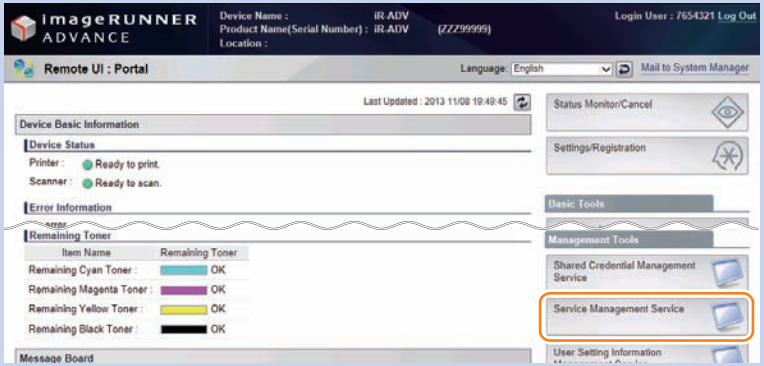
Note:
- When the device authentication method used is server authentication, enter the user name, password and login destination registered with authentication server and then click "Log In".
- If the authentication method used is local device authentication, enter the user name, password and login destination registered in the device and click "Log In" button.
  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 us SMS via RLS.
- For local device authentication, users with Administrator or Device Admin authority.
- In the case of server authentication, the users who belong to the group (default: Canon Peripheral Admins) specified as the device administrator on the SSO-H Configuration screen.



F-2-259

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-2-260

Setting the method to login to SMS

Outline

The method to log into SMS can be specified by one of the following methods.
- If you want to change the password authentication settings: Use RLS authentication to log in, and change the settings.
- If you want to change the RLS authentication settings: Use password authentication to log in, and change the settings.

The following table shows the start/stop combinations of the two login methods.

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-2-78

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 server 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.

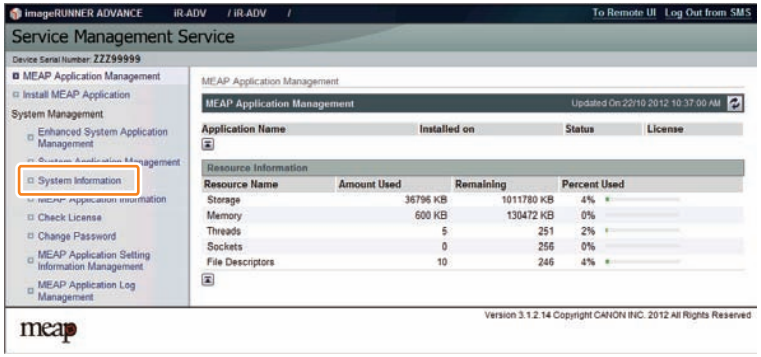
1) Access SMS login screen by RLS Authentication from the PC browser on the same network as the MEAP device.
URL: https://<IP address of MEAP device>:8443/sms/rls/
Ex.) https://172.16.188.240:8443/sms/rls

2) Enter the user name and the password of the user registered as an administrator, select the login destination, and then click the [Log In].

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

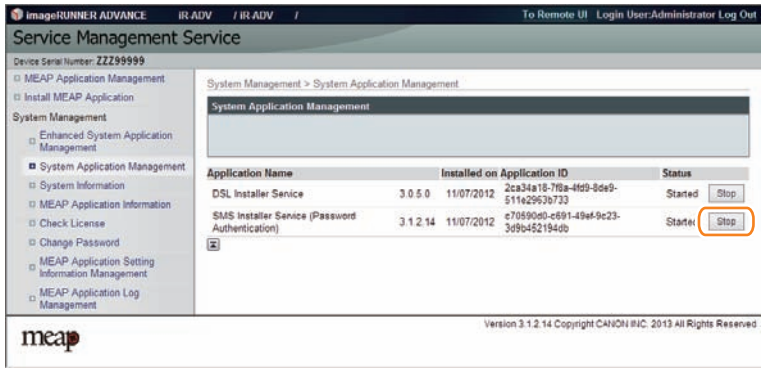
F-2-261

3) Select [System Application Management]



F-2-262

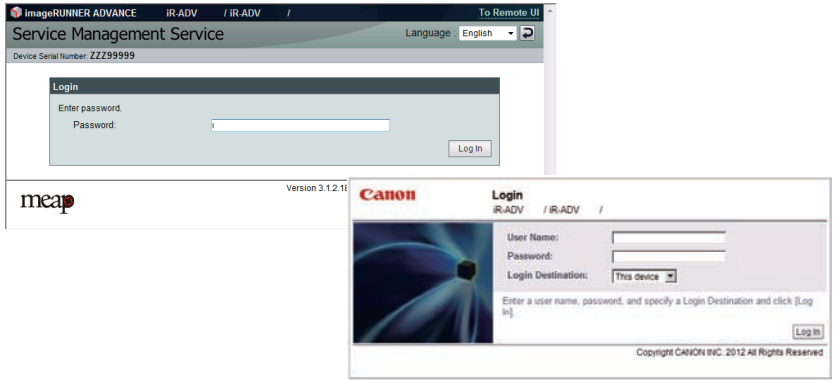
4) Click [Start] or [Stop] shown in Status field of SMS Installer Service (Password Authentication) to check if the status is changed.



F-2-263

5) 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



F-2-264

Setting for login by RLS Authentication

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

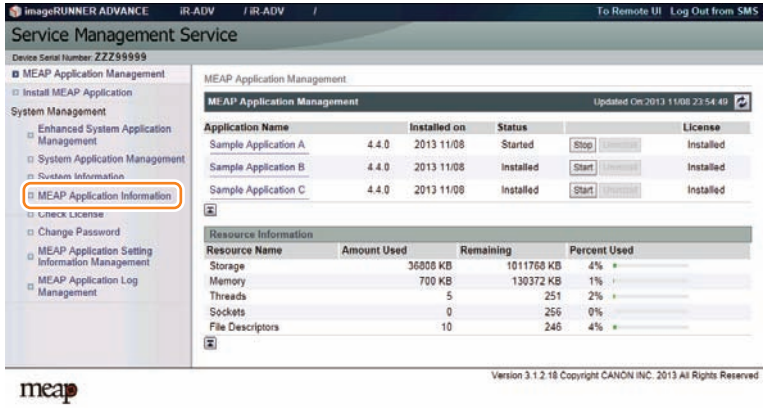
1) Access the SMS login screen using the normal method (password authentication). The URL is shown below.
URL: https://<IP address of MEAP device>:8443/sms/rls/
Ex.) https://172.16.188.240:8443/sms/rls

2) Enter the password in the password entry field, and click the [Log In]. The default password is "MeapSmsLogin". (Case sensitive)

Login screen by Password Authentication

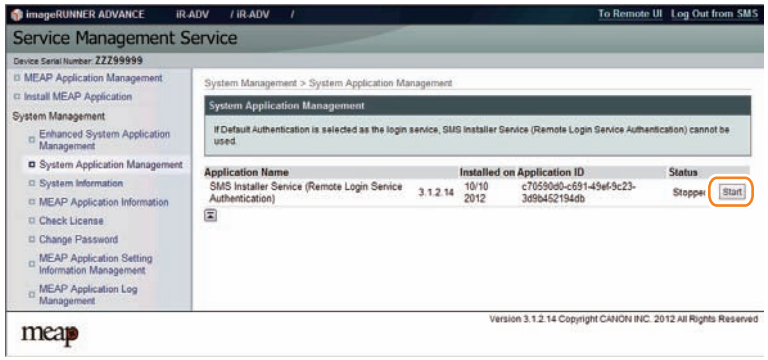
F-2-265

3) Select [System Application Management] on System Management menu.



F-2-266

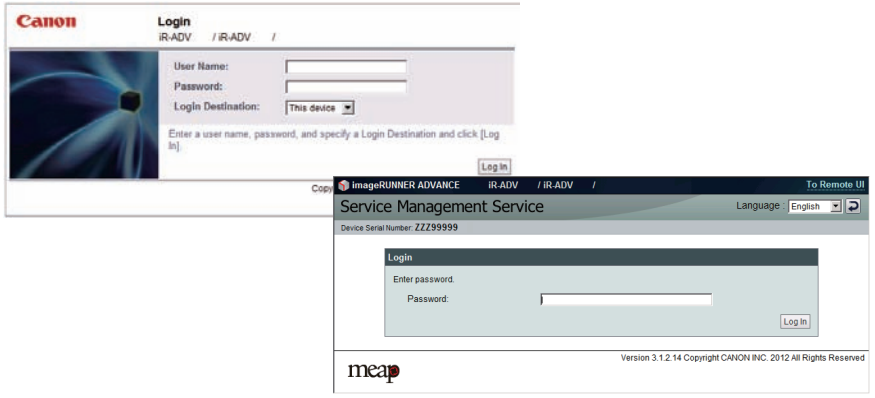
4) Click on [Start] or [Stop] shown on Status field of SMS Installer Service (Remote Login Service Authentication) to check if the status is changed.



F-2-267

5) 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.

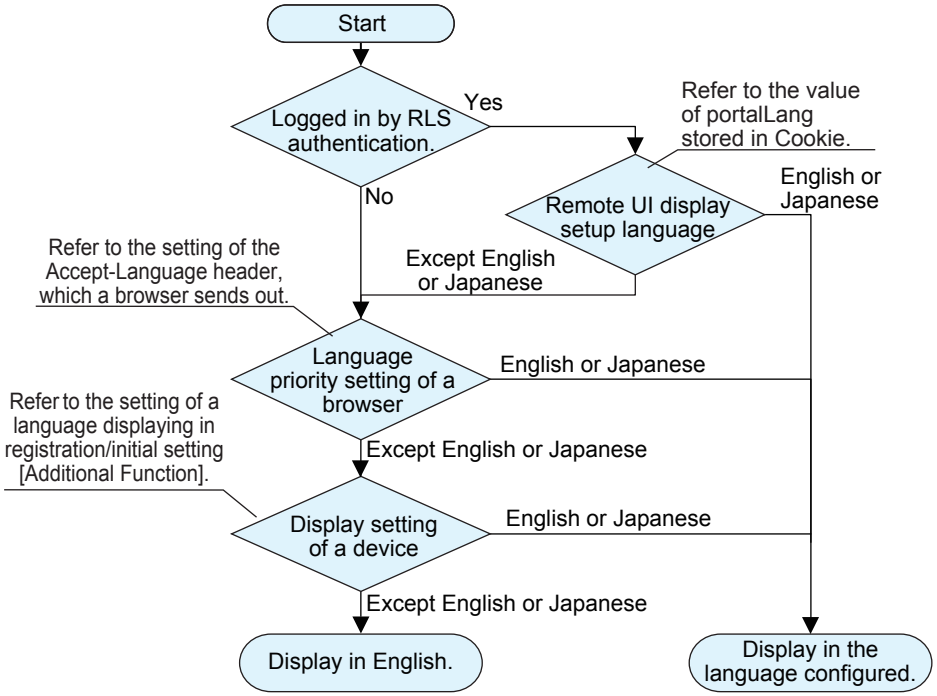
RLS authentication started screen and RLS authentication stopped screen



F-2-268

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.



F-2-269

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 [Settings/Registration]. 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.

MEAP Application System Information

Outline

You can check the device's platform information and the MEAP application's system information.

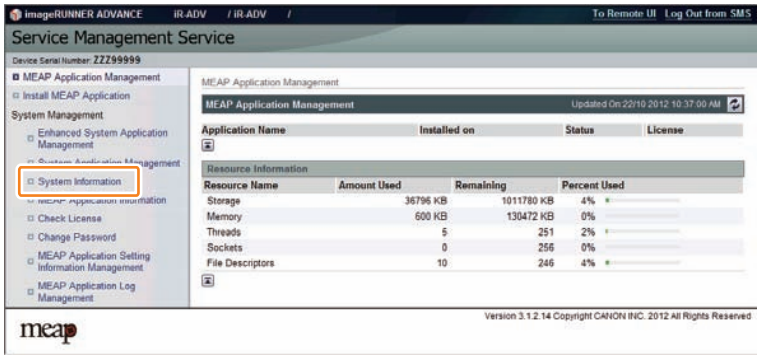
Checking the System Information

System information that can be checked from the screen

- MEAP Specifications version (MEAP Spec Ver)
  - MEAP Contents version
  - Java Virtual Machine version
  - System application information
- The name of the installed system application
  - The installation date of the installed system application
  - Application ID of the installed system application
  - The status of the installed system application

The checking procedure is shown below.

1) Log in to SMS.
2) Select [System Management] > [System Information] on System Management menu.

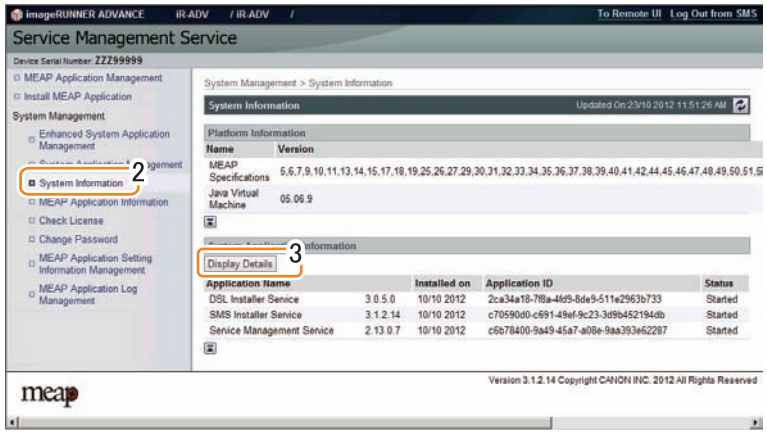


F-2-270

Display of System Information Details

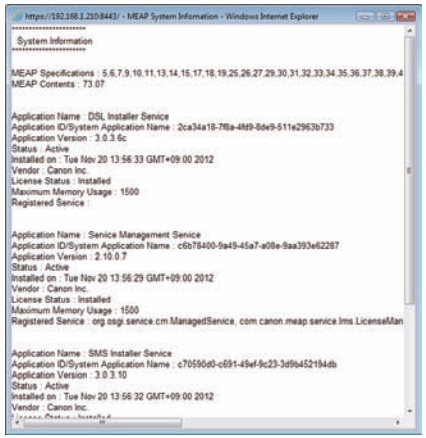
The system information details can be displayed to check more than one pieces of information all at the same time: platform information, system application information, information on the installed MEAP applications, etc.

1) Log in to SMS.
2) Select [System Info] on System Management menu.
3) Click [Display Details].



F-2-271

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.



F-2-272

Printing the System Information of a MEAP Application

MEAP system information can be printed out with device for confirmation.

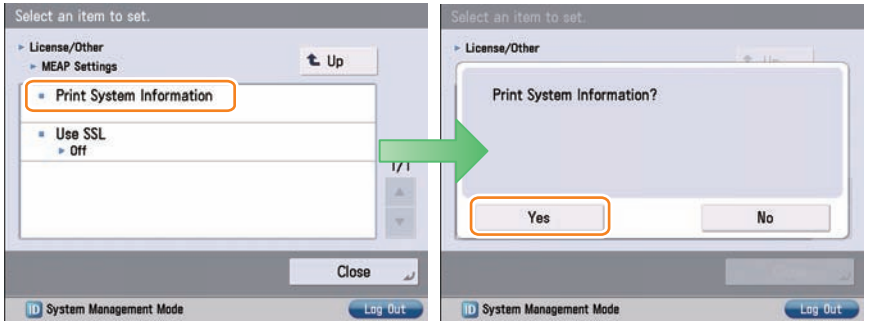
> Note:
> The system information of the MEAP application that you checked in the previous section is exactly the same as the system information of the MEAP application that is output.

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].



F-2-273

> 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 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 :

item	content
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. Overlimt: 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.

T-2-79

MEAP Application Information

Outline

You can check the MEAP application installed on the device.
The following information can be checked on the MEAP application information screen.

Application Information

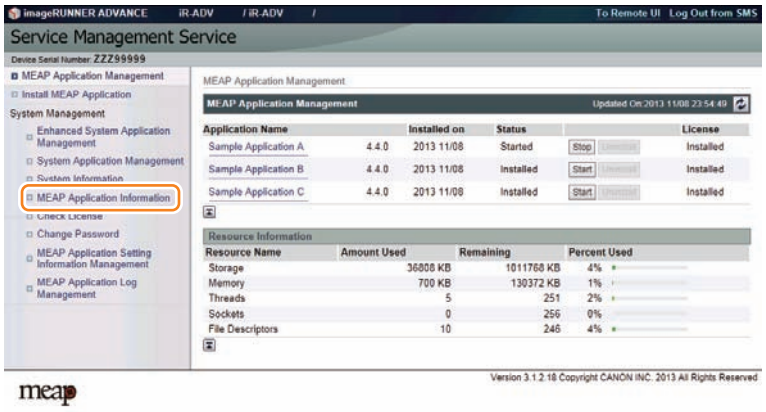
- Application Name
- Application ID
- Installed on
- Applet Number
- Description
- Manufacturer
- ContactAddress
- Category
- Version
- Copyright
- Applet-Name
- URL
- Export Package
- Export Service
- Import Package
- Import Service
- Resources Used (Storage, Memory, Threads, Sockets, File Descriptors)

License Information

- Status
- Serial Number
- Expires after

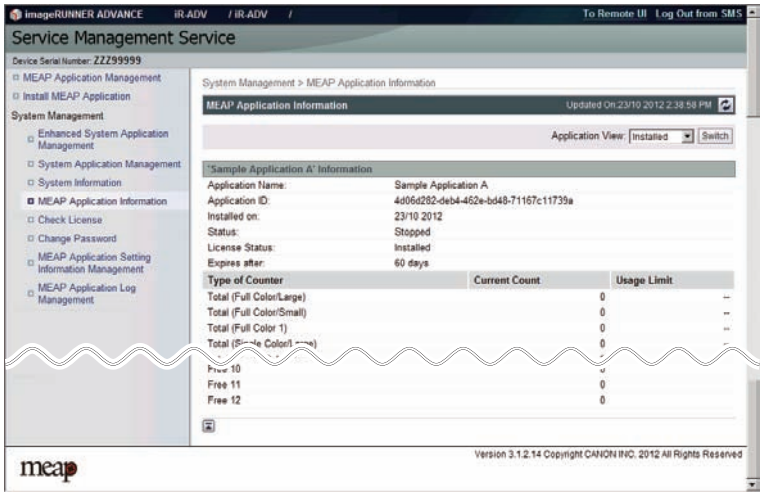
Procedure to Check MEAP Application Information

1) Log in to SMS.
2) Select [System Management] > [MEAP Application Information] on System Management menu.



F-2-274

3) The MEAP application information screen appears. Scroll the screen and check the information of the target application.



F-2-275

Check License

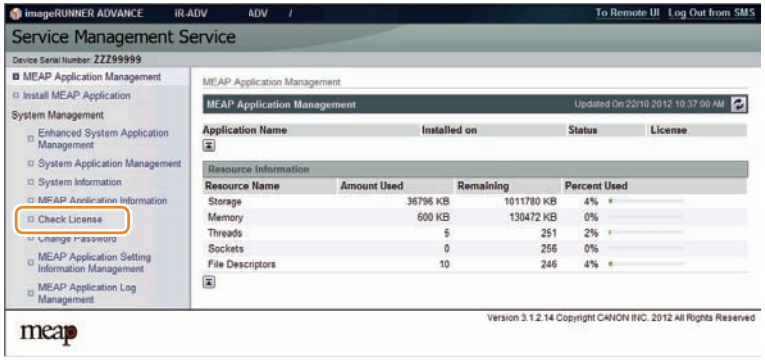
Outline

You can check the contents of the license file.

Procedure to Check the License File

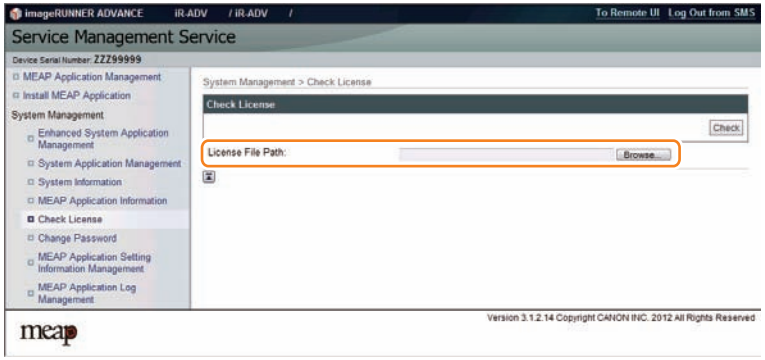
1) Log in to SMS.

2) Select [System Management] > [Check License] on System Management menu.



F-2-276

3) Click the [Browse], specify a license file, and click the [Check].



F-2-277

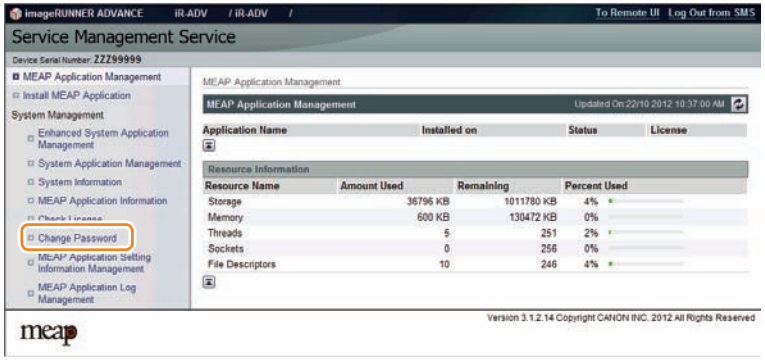
Changing SMS Login Password

Outline

You can change the password for logging into SMS.
If you forgot the login password and you want to change the password back to the default value (MeapSmsLogin), see "If you forgot the password (SMS login password initialization)" in this chapter.

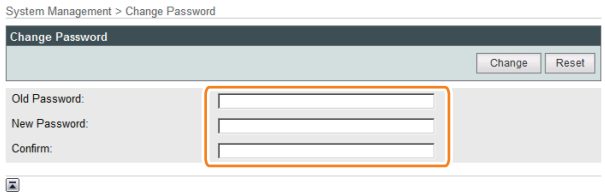
Procedure to Change the SMS Login Password

1) Log in to SMS.
2) Select [System Management] > [Chage Password] on System Management menu.



F-2-278

3) Enter the current password and a new password, and then click the [Change].



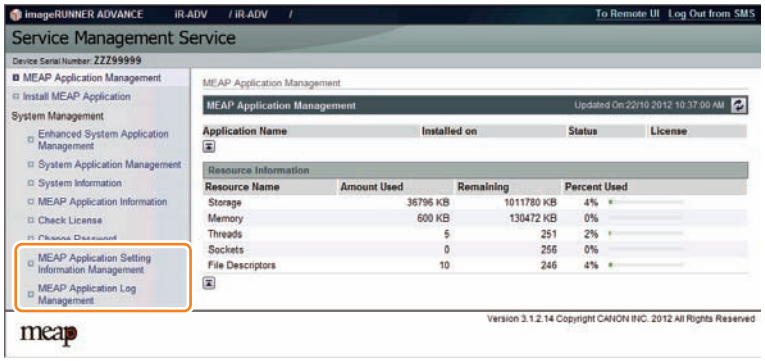
F-2-279

Note:
The [Reset] on the [Change Password] screen is used to clear the value entered in the text field. It is not a button for changing the SMS login password back to the default value.

MEAP Application Setting Information Management and Log Management

Outline

The MEAP Application Setting Information Management page and the MEAP Application Log Management page provide menu related to "MEAP Application Configuration Service" for managing MEAP application setting information and menu related to "MEAP Application Log Service" for managing log information respectively.



F-2-280

MEAP Application Configuration Service

This service is used to manage the MEAP application setting information. It has functions such as saving setting information to the MEAP area. Ver 57 of MEAP Specifications supports this service.

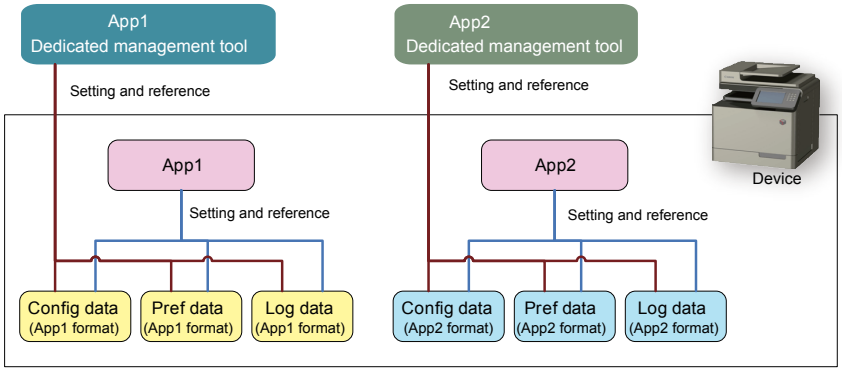
MEAP Application Log Service

This service is used to collect MEAP application logs (debug logs and authentication logs). Ver 58 of MEAP Specifications supports this service.
The collected logs can be downloaded or deleted in SMS.
The settings such as the log level to be saved cannot be made from SMS.
These settings depend on the MEAP application. For detailed information, refer to the manual for the application.

Advantages Obtained When Using the Services

By using MEAP Application Setting Information Management and MEAP Application Log Service, as long as the MEAP application supports these services, you can collectively perform data management tasks.

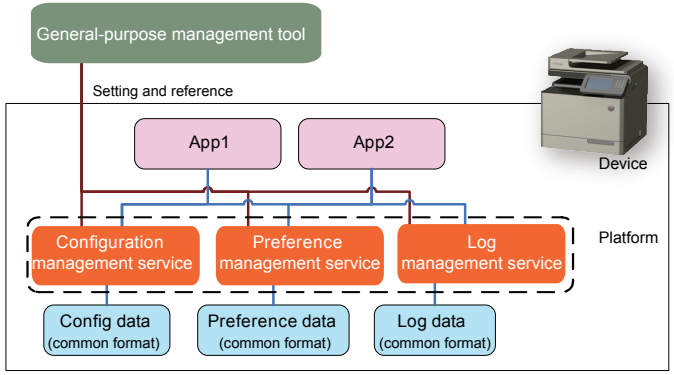
Devices and MEAP applications which do not support new functions



F-2-281

As for devices and MEAP applications that do not support the service, the setting information and log data are managed on an application-by-application basis.

Devices and MEAP applications which support new functions



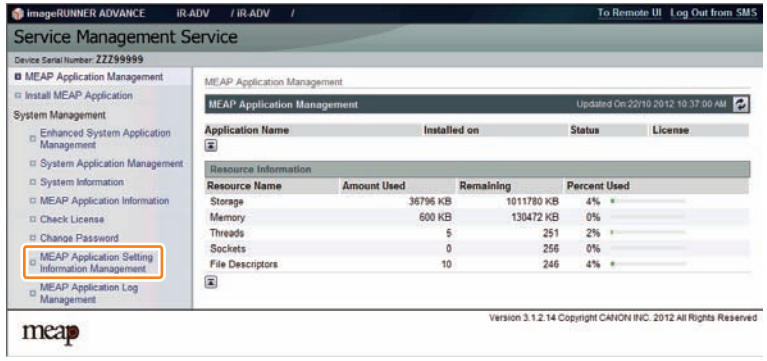
F-2-282

As for devices and MEAP applications that support the service, information can be collectively managed.

MEAP Application Setting Information Management

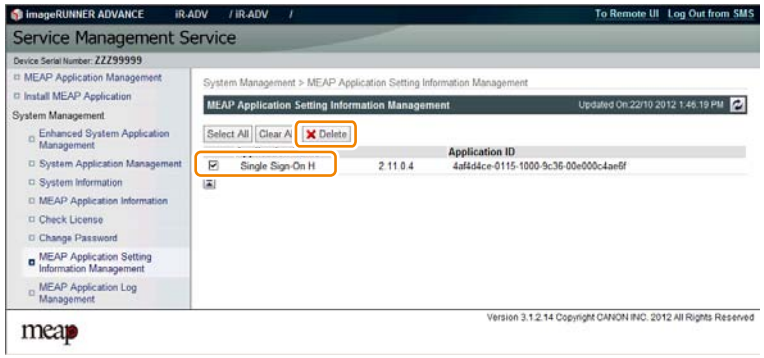
The setting data (stored on the device) of the MEAP applications which support MEAP Application Setting Information Management can be deleted. The procedure is shown below.

1) Log in to SMS.
2) Select [System Management] > [MEAP Application Setting Information Management] on System Management menu.



F-2-283

3) Select an application you want to delete, and click the [Delete].



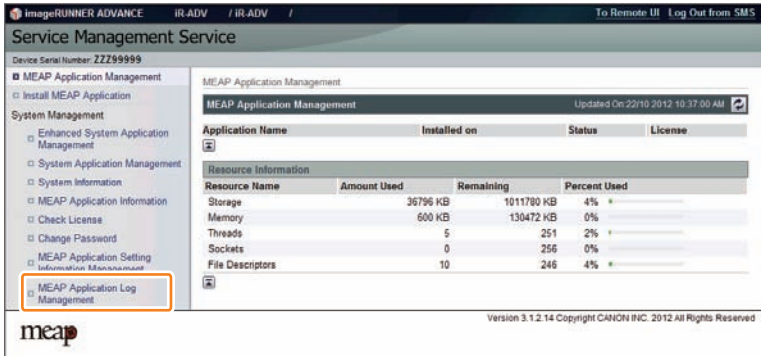
F-2-284

Note:
If a MEAP application that contains setting data which can be shared (not dedicated to the application) is installed, the application name [Shared Setting Information of Applications] is displayed.

MEAP Application Log Management

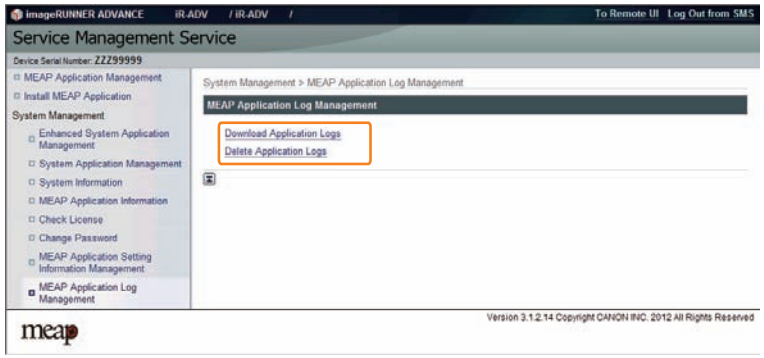
The log data (stored on the device) of the MEAP applications which support MEAP Application Log Service can be downloaded or deleted. The procedure is shown below.

1) Log in to SMS.
2) Select [System Management] > [MEAP Application Log Management] on System Management menu.



F-2-285

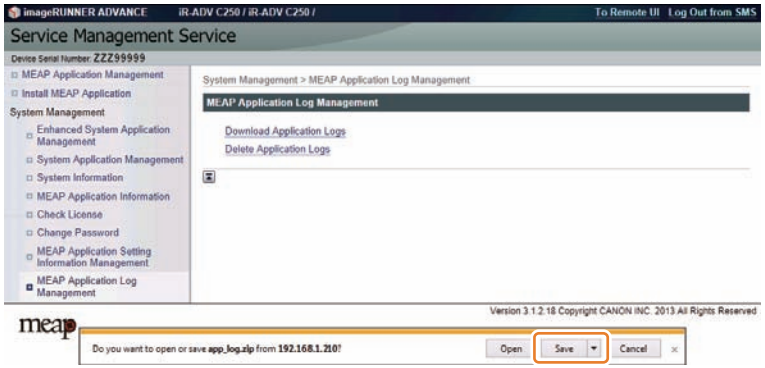
3) Select [Download Application Logs] or [Delete Application Logs].



F-2-286

4) To download the logs

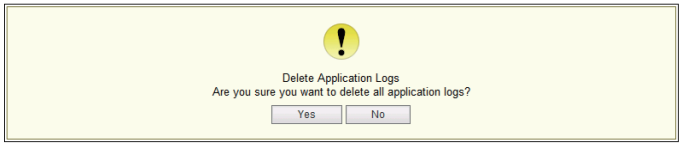
The file save dialog for the log file will appear. Specify the destination and save the file.



F-2-287

5) To delete the logs

The confirmation screen will appear to prompt you to delete the logs. Click the [Yes] to delete the logs.



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Maintenance

Backup of the MEAP Application Area and Recovery of the Backup Data Using SST

Outline

When replacing or formatting the HDD, the data in the MEAP application area needs to be temporarily saved to your PC.
This chapter describes information on backing up the data in the MEAP application area and recovering the backup data.

In the case of MEAP-installed devices, the application is license-managed, so the application needs to be reinstalled and reconfigured when replacing or formatting the HDD.
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 device has the same serial number.

CAUTION:

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

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

Backup Item Automatically Copied

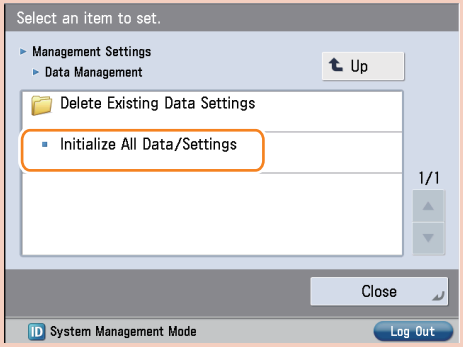
The following data are backed up using SST:

The following data are backed up (saved as Meapbackup.bin) using SST.

- MEAP applications.
- Setup data generated by MEAP applications (Note that image data stored in BOX will not be saved for MEAP applications using BOX function).
- User information data registered for local device authentication in SSO-H
- SMS password

CAUTION:

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



F-2-289

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 you inadvertently executed [Initialize All Data/Settings] and can no longer access SMS, 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 series iR-ADV C2230 series iR-ADV 500 series iR-ADV C350 series	Boot ROM is not equipped.	Already supported since the 1st version.	The version supporting the corresponding devices.
imageRUNNER ADVANCE series other than above	Already supported since the 1st version.	Already supported since the 1st version.	The version supporting the corresponding devices.

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2) SST Version

Version 4.2.x or later. An earlier version will not permit the use of the function. If needed, upgrade the SST.

3) Space for backup

To back up the HDD of the iR, the PC must have approx 1024MB of free space at maximum. Sizes of backup files depend on actual data capacities to be backed up.

Procedure for backing up the MEAP application area using SST

1) Switching Login Service / Backup of Login User Information

If SSO-H is used for the login service, switch to default authentication before backing up the user information. Although SST will back up local device user information, it is recommended to export the user information just in case. For local device user information backup, go to User Management page of SSO-H site and export the data. (The SSO-H login page opens with the URL "https://<device IP address>:8443/sso/").

CAUTION:

- If a HDD 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

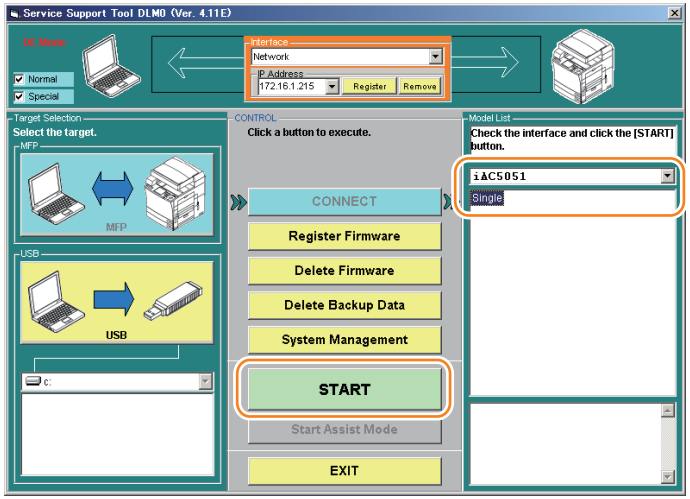
Press [2] and [8] at the same time on the control panel and turn on the main power switch to start the device in Download Mode. Note that SST backup function is enabled only in Download Mode.

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].



F-2-290

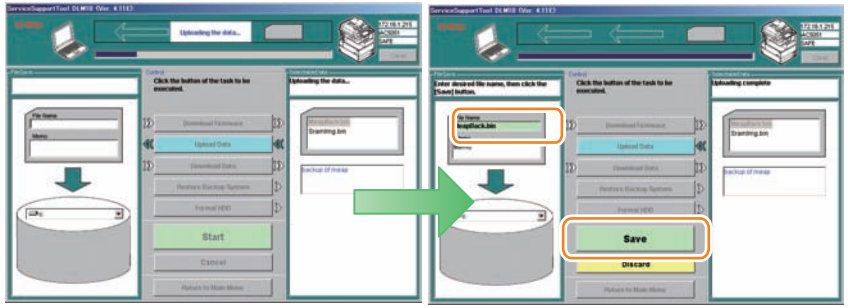
5) Generating backup data to transfer it to the PC (uploading)

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

F-2-291

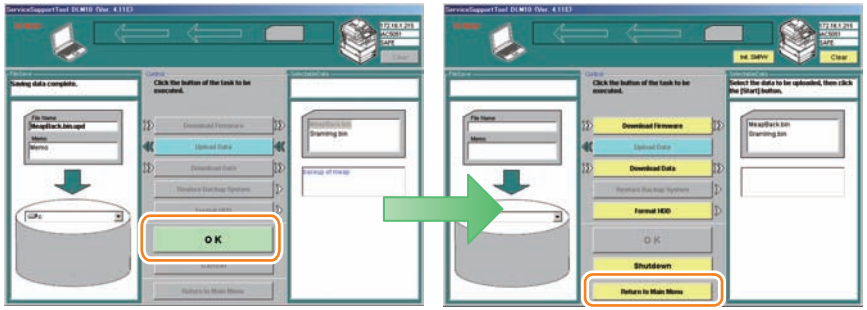
6) Saving backup data

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-2-292

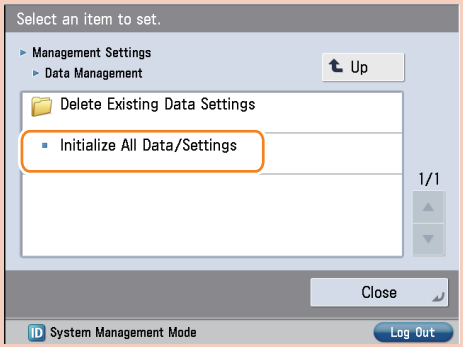
When the file is successfully saved, click [OK], and then click [Return to Menu].



F-2-293

CAUTION:

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



F-2-294

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 you inadvertently executed [Initialize All Data/Settings] and can no longer access SMS, 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.

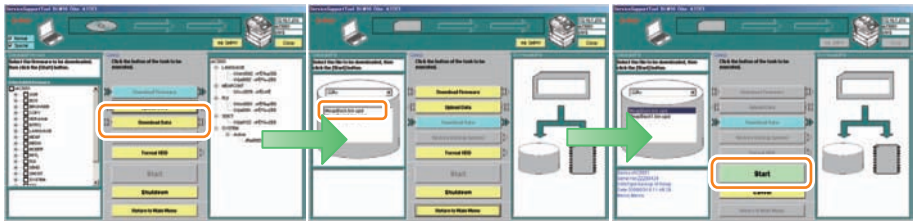
Procedures to Restore Backup Data

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 [Download Data] 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-2-295

3) Transferring Data

When the data is successfully transferred, click the [OK] shown on the screen. To continue other jobs, click [Return to Menu].

F-2-296

4) Turn off and on the main power switch of the device to gain access in SMS to check that MEAP applications are surely restored.

5) Restore the backup data and setting saved. Note that the user information of the local device is included in the backup data, thus does not need to be restored.

■ Formatting and Replacing the HDD

● Outline

If the HDD is broken or does not function correctly due to failure of the system (excluding the MEAP application), it needs to be formatted or replaced.
When the HDD is formatted or replaced, the files of the MEAP application stored in it will be lost, so make a backup of the MEAP application area according to "Procedure for backing up the MEAP application area using SST" if possible. If a backup cannot be made, the MEAP application and the license files need to be reinstalled.
As for the MEAP counter information, it will not be lost because it is backed up just like the conventional counter.

If a backup cannot be made, a special license file (a license file for installation with the expiration date carried over from the current counter value) is required to reinstall the MEAP application. This special license file is treated as a service tool and cannot be obtained by a general user.
In order to obtain a special license file, a service technician needs to contact a person in charge of support of a sales company.
When contacting the person in charge of support, the service technician also needs to provide the serial number of the device and the name of the MEAP application installed.

In the support departments of regional headquarters of Canon, all license files of the applications that have been issued are filed according to device serial numbers, enabling you to obtain a series of license files through a single screen as long as you can identify the serial number of the device in question.

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

● Formatting the HDD

Procedure to format the hard disk

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 flash drive and executing formatting from the displayed menu.

HDD replacement procedure

Outline

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

If the MEAP application area cannot be backed up

If the HDD does not function correctly due to failure or for other reason, the MEAP application area cannot be backed up. It is therefore necessary to reinstall the application after replacing the HDD. The procedure is shown below.

1) Preparation for replacement
   Copy a set of license files for reinstalling the MEAP application (special licenses and reusable licenses) to a laptop for service operation.
   Register a set of system files of a target product to SST. Or, prepare USB thumb drive of the System file transfer settlement.

2) Replacing the drive
   Prepare the necessary service parts of the HDD, and replace the drive.

3) Formatting HDD
   Format the HDD referring to Procedure to format the hard disk.

4) Reinstalling the MEAP application
   When the device has started normally, obtain the jar files of the MEAP applications from the user, and install them using the license files for reinstallation.
   Installation method is the same as normal installation.

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

Note:
When you replace the HDD without uninstalling MEAP applications, make sure to reinstall the previously installed applications. Unless reinstalling them, MEAP counter will not be released and the message "The number of applications that can be installed has exceeded the limit. Try to install this application after uninstalling other applications." is displayed so that the installation of new applications may not be accepted. If you want to install new applications in this case, once reinstall the applications installed 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, so it is not necessary to prepare the special licenses for reinstallation.

1) Preparation for replacement
   Back up the MEAP application area of the device according to the procedure for backing up the MEAP application area using SST.

2) Replacing the drive
   Prepare the necessary service parts of the HDD, and replace the drive.

3) Formatting HDD
   Format the HDD referring to Procedure to format the hard disk.

4) Restorering the backup file
   Restore the backup data referring to the Procedures to Restore Backup Data.

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

MEAP Safe Mode (level 2)

Outline

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

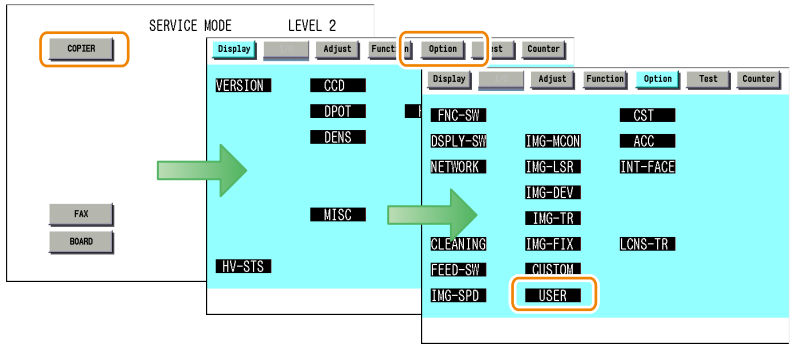
When you have made changes and restart the device, the control panel will indicate "MPSF" in its lower right corner. The MEAP applications that may have been active before you shut down the equipment will not start up on their own. Make use of safe mode when restoring the system software as when MEAP applications or services cause a fault as the result of a conflict or wrong sequence of registration/use. You can access to SMS in this condition so that you can take necessary measures, for example, you can stop application that may cause the trouble.

If default authentication has been selected, the mode of authentication remains valid; otherwise, the message "The login service must be set again with SMS" appears. Change the login service as necessary.

Starting in Safe Mode

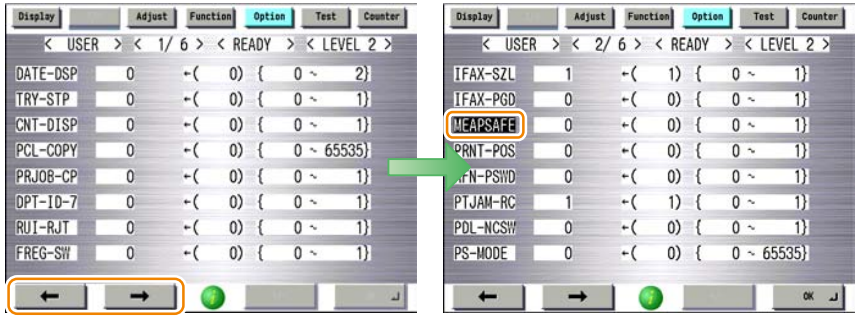
1) Startup [SERVICE MODE] in level 2.

2) Press [COPIER] >[Option] > [USER].



F-2-297

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

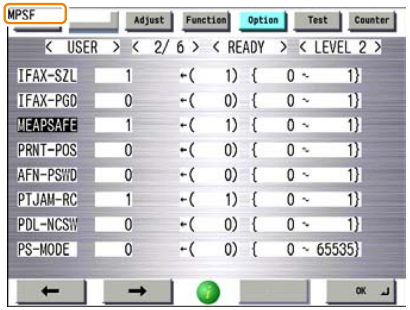


F-2-298

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

F-2-299

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

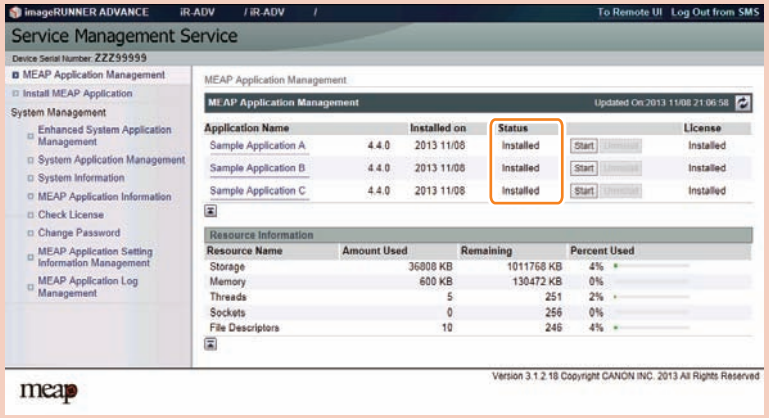


F-2-300

CAUTION:

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

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

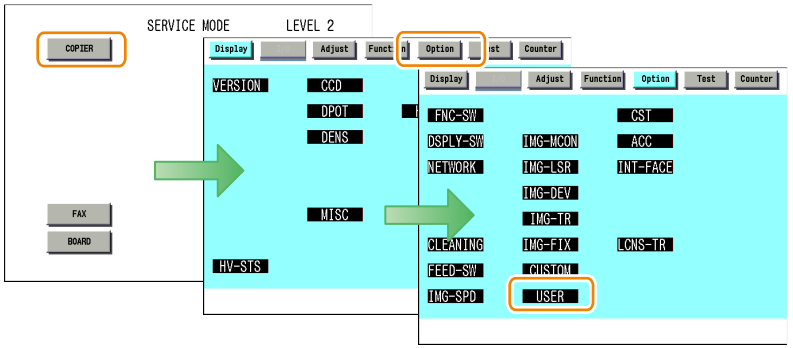


F-2-301

How to cancel MEAP SAFE mode

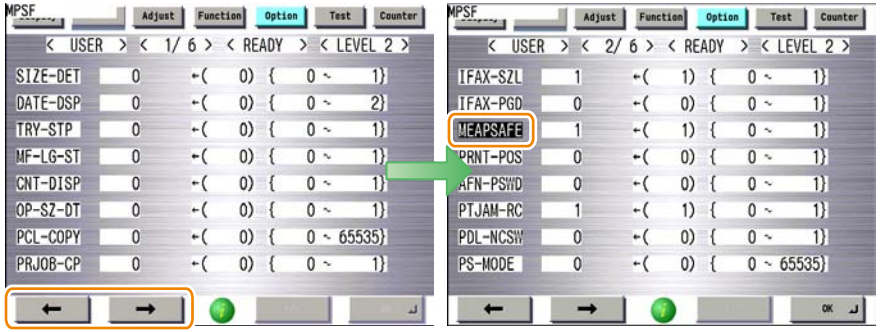
1) Startup [SERVICE MODE] in level 2.

2) Press [COPIER] >[Option] > [USER].



F-2-302

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



F-2-303

4) Press the 0 key on the control panel keypad to change the setting to "0"; then, press [OK].

F-2-304

5) Start service mode again after rebooting the device, and check that the displayed setting value has changed to "0" and that [MPSF] is no longer displayed at the upper left of the screen.

F-2-305

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

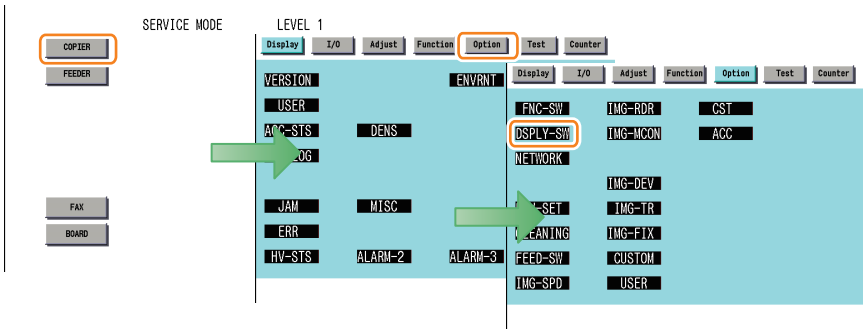
- PC connected with the same network as the device
- Commercially available terminal software

Note:
In the procedure shown in this manual, "Tera Term Pro" and "Hyper Terminal" are used as the terminal software.

Work Procedure

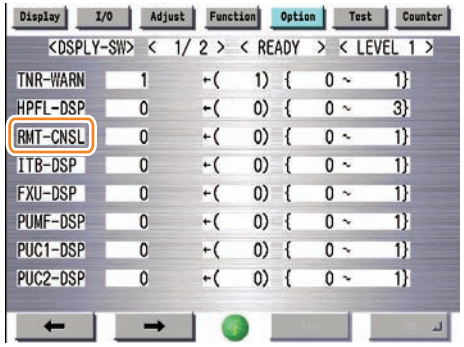
Device Setting Procedure

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



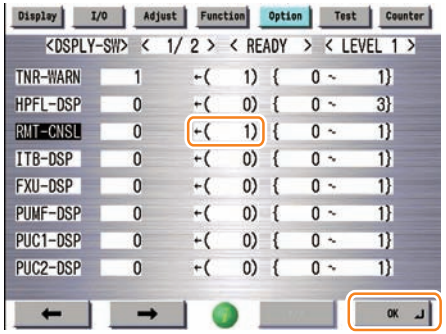
F-2-306

3) Press [RMT-CNSL].



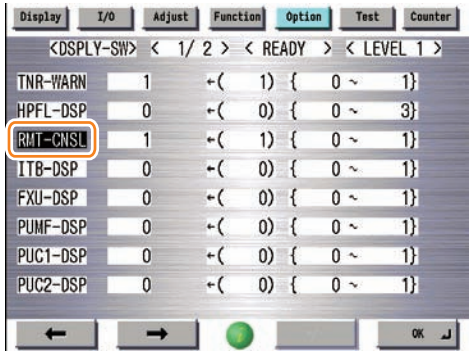
F-2-307

4) Press either 1 (activate remote console function) on control panel (the numerical value input in the field is displayed), and press [OK].



F-2-308

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

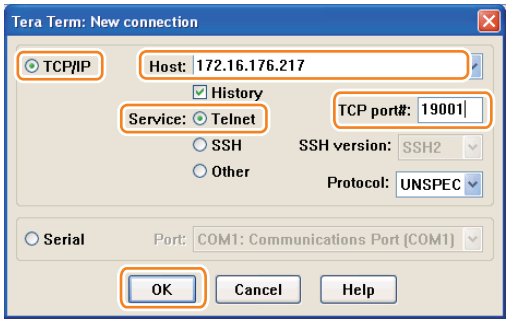


F-2-309

PC setting procedure (when Tera Term is used)

1) Install the terminal software on the PC.

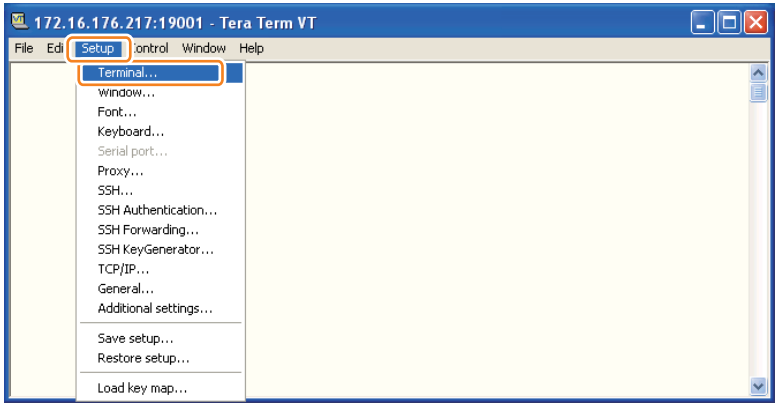
2) Start the terminal software, make the following settings, and then click the [OK].



F-2-310

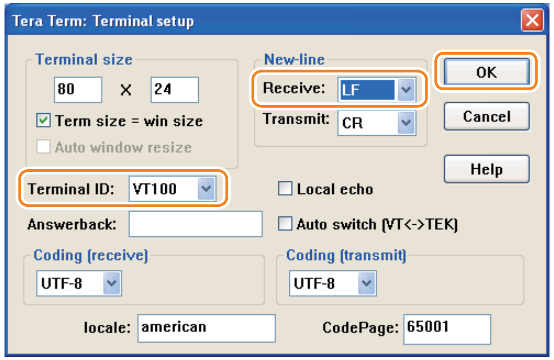
Connection	: Select [TCP/IP] (Default)
Host	: Device Host Name or IP Address
Service	: Select "Telnet"
TCP port#	: Enter 19001

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



F-2-311

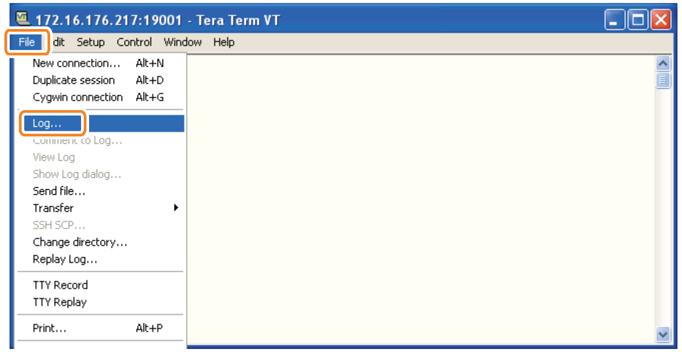
4) The terminal setting screen will appear. Make the following settings, and then click the [OK].



F-2-312

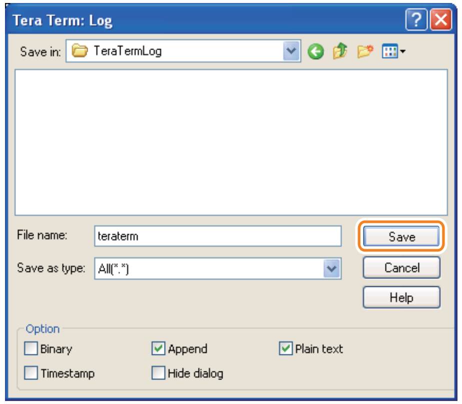
Terminal ID : VT100
New-line Receive : LF

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



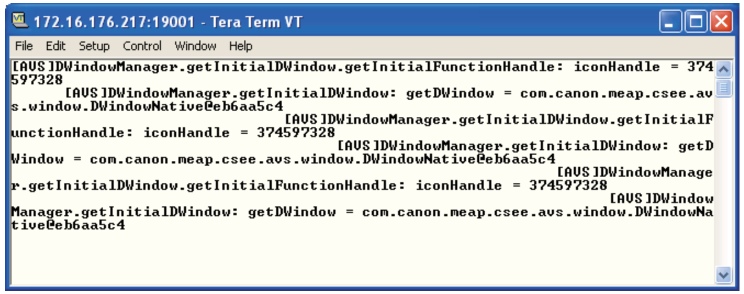
F-2-313

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].



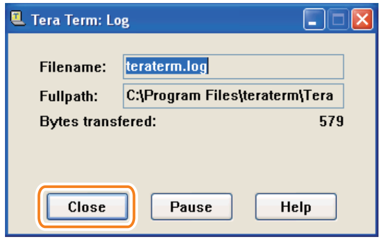
F-2-314

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



F-2-315

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

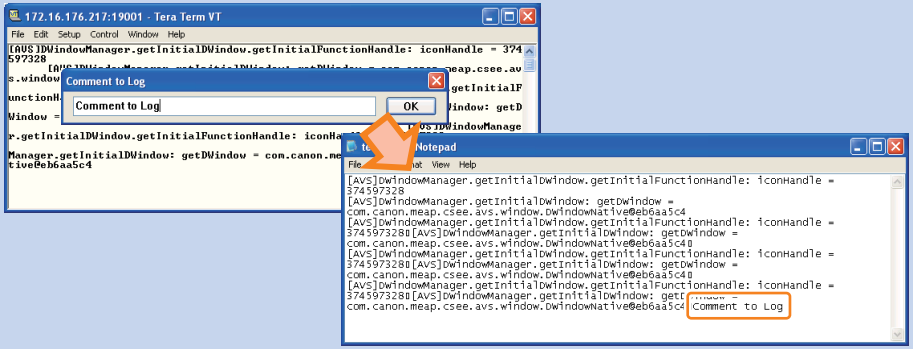


F-2-316

Note:
To suspend log collection, click the [Pause].

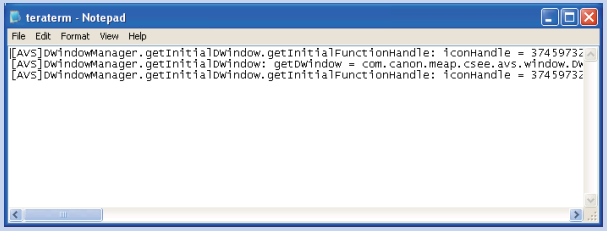
Note:
While collecting logs, the following operations are available from the [File] menu.

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



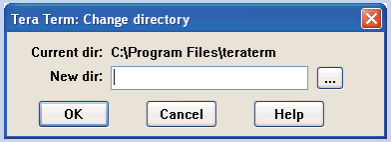
F-2-317

Show Log dialog... :
The logs that have been collected are pasted on Notepad and displayed.



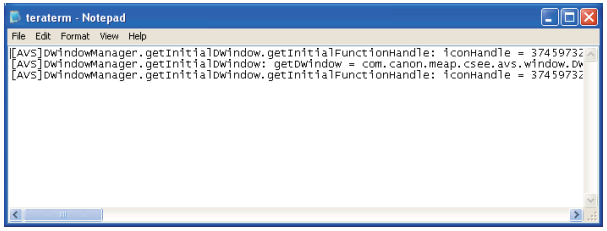
F-2-318

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



F-2-319

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



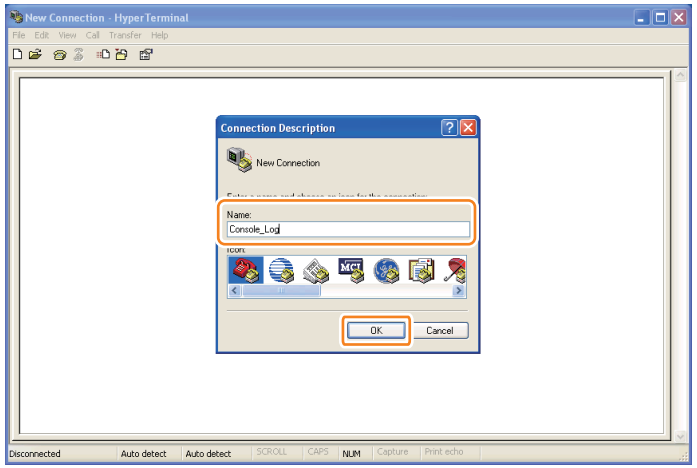
F-2-320

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].

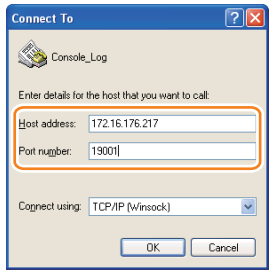


F-2-321

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

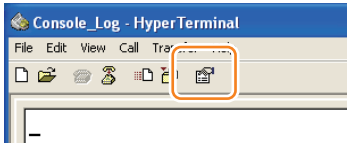
F-2-322

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



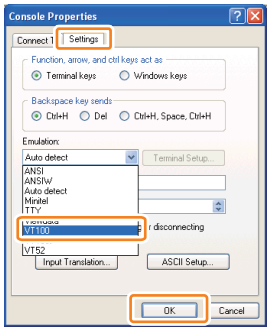
F-2-323

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



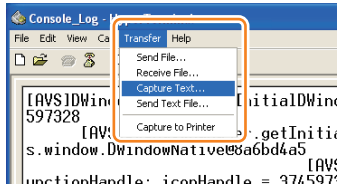
F-2-324

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



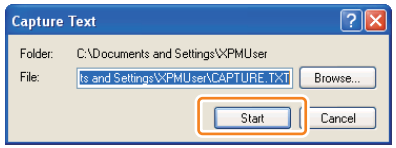
F-2-325

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



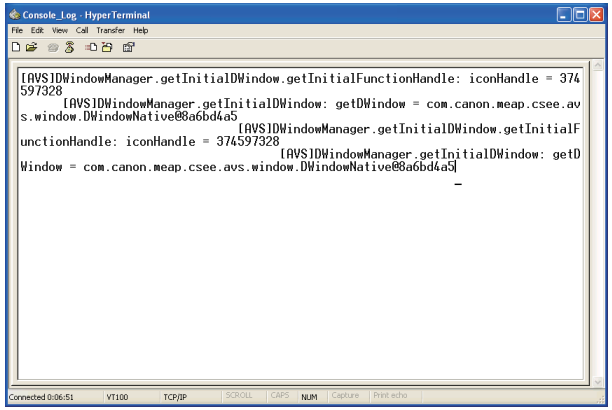
F-2-326

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



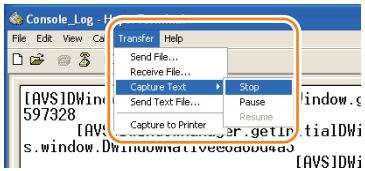
F-2-327

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



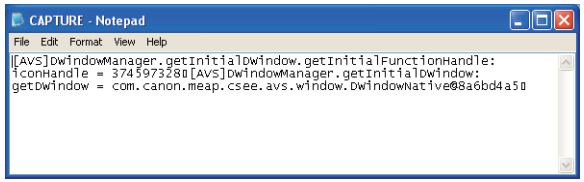
F-2-328

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



F-2-329

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



F-2-330

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).

■ 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):

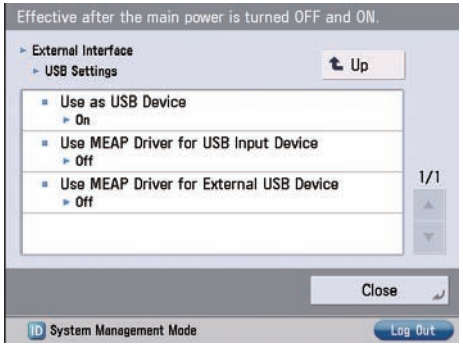
System driver is active by default in iR-ADV series.

The driver can be changed in [Settings/Registration].

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.

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
OFF (*default) * Native driver	Cannot use USB keyboards. (Device cannot be detected.)	Can use USB keyboards.	Can use USB keyboards. Via software keyboards only.

T-2-81

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 idProdutc(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 device

Registration status of USB device A	When the HID keyboard is installed > USB Settings: [Use MEAP Driver for USB Input Device] When the Mass Storage is installed > USB Settings: [Use MEAP Driver for External USB 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

T-2-82

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 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-2-83

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 device, 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.)

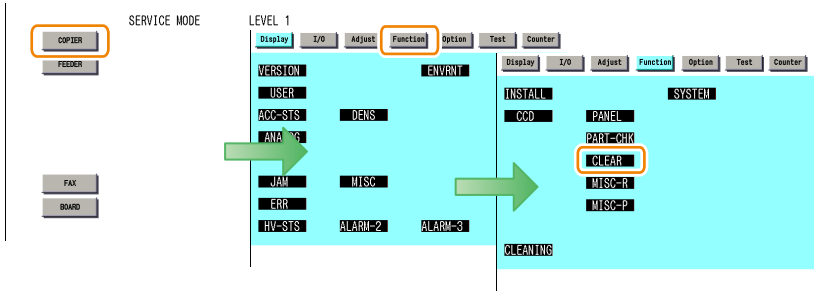
Note:
The factory shipment default setting is to enable the use of native (main unit functionality) USB keyboards. Therefore, in order to use MEAP application keyboards, [Use MEAP driver for USB input device] in [Settings/Registration] needs to be set to ON (factory shipment setting is OFF).
Operations 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].



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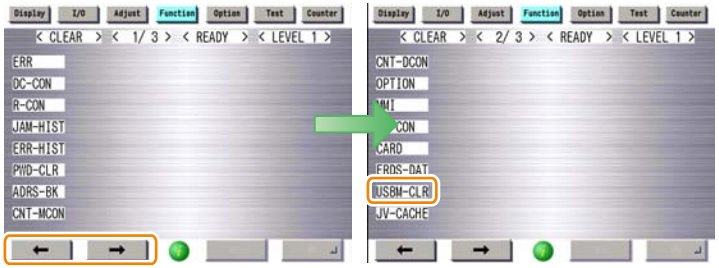
3) Press ← or → button for several times until [USBM-CLR] is shown on the screen. Press [USBM-CLR].



F-2-333

4) Press [OK] to restart this device.

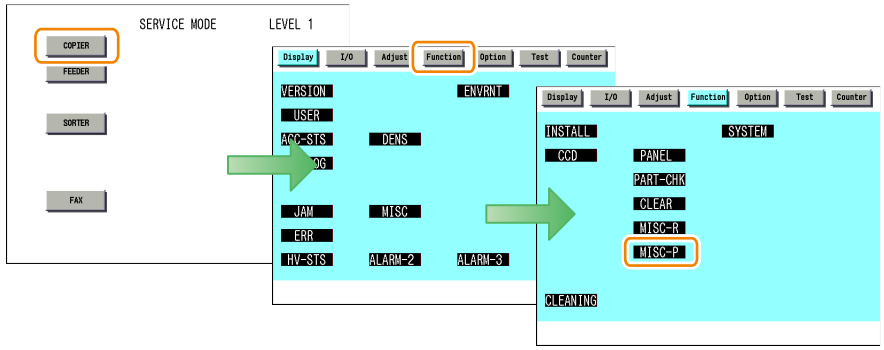
F-2-334

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 repot report print.

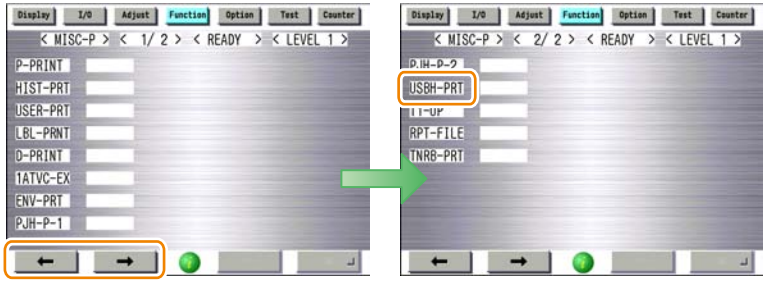
Steps to output the USB Device report print

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



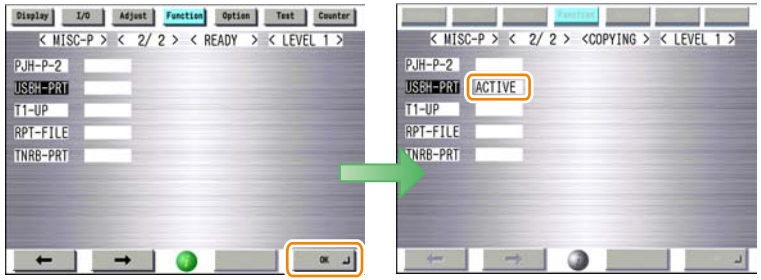
F-2-335

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



F-2-336

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



F-2-337

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

F-2-338

Example of output result

```
**********************************
*** USB Device report print ***
**********************************

USB device information

T: Bus=01 Lev=02 Prnt=03 Port=01 Cnt=01 Dev#= 5 Spd=480 MxCh= 0
D: Ver=2.00 Cls=00(>ifc) Sub=00 Prot=00 MxPS=64 #Cfgs= 1
P: Vendor=066f ProdID=4210 Rev=10.02
S: Manifacturer=SigmaTel, Inc.
S: Product=STIr42xx
S: SerialNumber=0002F0F7261287A5
C:* #Ifs= 1 Cfg#= 1 Atr=80 MxPwr=100mA
I: If#= 0 Alt= 0 #EPs= 2 Cls=fe(app.) Sub=02 Prot=00 Driver=irda-usb
E: Ad=81(I) Atr=02(Bulk) MxPS=512 Ivl=0ms
E: Ad=01(O) Atr=02(Bulk) MxPS=512 Ivl=0ms
```

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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 flash drive 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.

T-2-84

E:Endpoint

The Endpoint information of a USB device is shown.

Right or wrong of report output

Connecting device		Report printing
HID		Yes
Storage		Yes
FAX		No
USB Device Port	IrDA	Yes
	Multimedia Card Reader	Yes
	IC Card Reader	Yes
Image Data Analyzer Board-A1		No
Hub	Internal Hub*	No
	External Hub	Yes

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

T-2-85

Note:
Some connecting devices such as the Image Data Analyzer Board and USB Device Port are not installed depending on the model.

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

Note:
By starting, stopping or uninstalling a MEAP application, the driver settings of the USB device may be changed. If the device needs to be restarted following this setting change, a message prompting the user to restart the device is displayed.

Integrated Authentication Function

Sharing the Authentication Information

Separately managing the authentication information at login and the authentication information for MEAP applications creates inconveniences such as that the authentication process is executed many times.
In order to solve this problem, the device has an integrated authentication function. This function allows authentication information to be shared between MEAP applications in a MEAP environment.
The supported version of MEAP Specifications is Ver.59, which needs to be supported by both the device and the MEAP application in order to use this function.
There are 2 types of authentication information that can be shared: Volatile Credential whose registered information is discarded at the time of logout or shutdown of the device and Persistent Credential whose registered information is not discarded at the time of logout.

Volatile Credential

Volatile Credential is used in cases where the authentication information is shared between applications which use the same security domain for authentication.
The credential is registered mainly by the login application, therefore the applications which access the security domain that was used for authentication by the login application can use the credential.

Persistent Credential

Persistent Credential is used to help entry of authentication information when accessing a different security domain for authentication.
The credential is registered mainly by general MEAP applications, and the authentication information can be reused when the same user logs in for the second time or later.

Comparison of Functions

		Volatile Credential	Persistent Credential
Registered information		Character strings and arbitrary Java objects	Character strings only User ID/Password/ Domain/Arbitrary character strings
Lifetime	Registration	At login (the login application), and at any timing of registration by an application	At any timing of registration by an application
	Deletion	Can be used until logout/shutdown.	Can be used until deletion by the application or management tool.
Encryption of credential data		Not supported	Data retained on the HDD is encrypted.
Store (Save) to		Memory in the device	HDD in the device

T-2-86

Disabling the Integrated Authentication Function

If you do not want Volatile Credential to be used from a security standpoint, the function can be disabled.

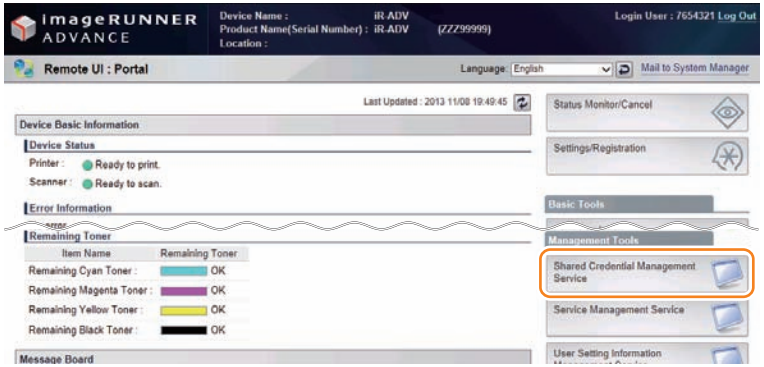
The function can be disabled from remote UI or service mode.

Persistent Credential cannot be disabled.

On the setting screen of remote UI, the function can be disabled on a protocol-by-protocol basis.

Remote UI

You can access the setting screen on remote UI for disabling integrated authentication as shown below.



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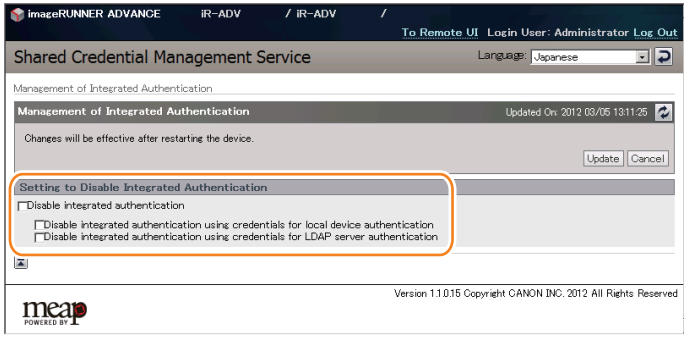
Select the item you want to disable, and click the [Update].



F-2-341

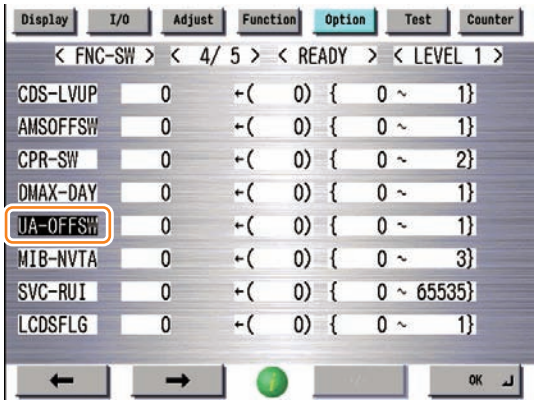
- [Disable integrated authentication]: The integrated authentication function is disabled regardless of the authentication method.
- [Disable integrated authentication using credentials for local device authentication]: The integrated authentication function is disabled only at the time of local device authentication.
- [Disable integrated authentication using credentials for LDAP server authentication]: The integrated authentication function is disabled only at the time of LDAP server authentication.

Service mode

The location of the service mode setting for disabling integrated authentication:

[SERVICE MODE] LEVEL1 > [COPIER] > [Option] > [FNC-SW] >[UA-OFFSW]

Setting value: 0 = Disabled, 1 = Enabled



F-2-342

■ Points to Note When Enabling the [Quick Startup Settings for Main Power] Setting

If some of the MEAP applications are running on the device, the following problems will occur.

● The [Quick Startup Settings for Main Power] setting cannot be enabled.

If a MEAP application that restricts the device from shifting to deep sleep mode is running, even when the setting of [Quick Startup Settings for Main Power] is enabled (On), the device starts normally instead of quick startup.
In that case, it does not affect the behavior of the MEAP application.

● Changes made in the settings of a MEAP application are not reflected.

If the startup setting [Quick Startup Settings for Main Power] is enabled (On), even when the Main Power Supply Switch of the machine is turned OFF, a shutdown process is not executed internally.
Therefore, in the case of a MEAP application where changes in settings are enabled when the device is restarted, changes in settings are not reflected just by changing the settings.
Follow either of the restart procedures shown below to enable the changes made in the settings.

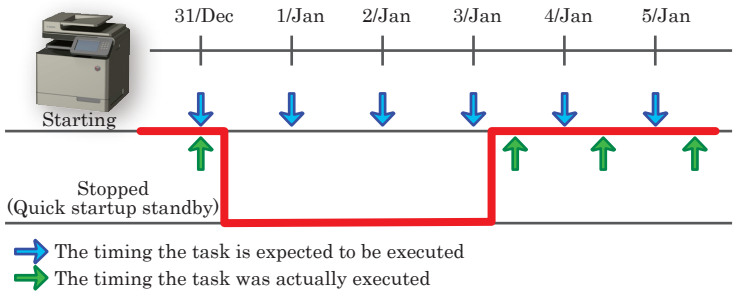
- Execute restart from remote UI.
- Turn OFF the Main Switch, and then turn it ON within 20 seconds.

● After recovery from quick startup, MEAP applications do not work properly.

MEAP applications that are scheduled to execute processes at specified times may not work properly after recovery from quick restart.
Unexpected problems such as that the application executes a task at an unexpected timing may occur.
Problems may occur in the following two cases.

In the case of "Schedule: Execute the task every 24 hours"

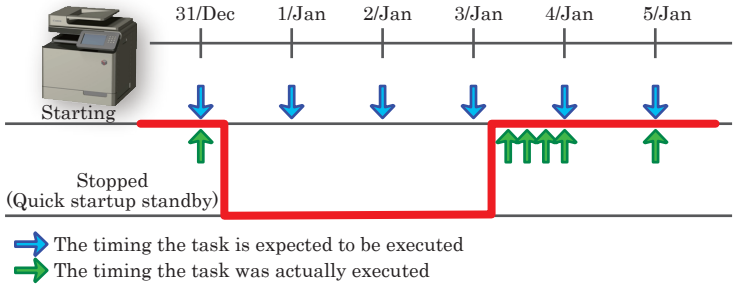
A schedule is set to start the specified task at the specified time and repeat "fixed-delay execution".
If execution is delayed for some reason, the delay time is ignored.
Problem: If 24 hours have passed since the last execution of the task, the task is executed only once.
=> The task may be executed at a timing other than the time the user expects it to be executed.



F-2-343

In the case of "Schedule: Execute the task at 00:00 every day"

A schedule is set to start the specified task at the specified time and repeat "fixed-rate execution".
If execution was delayed for some reason, two or more tasks are continuously executed to "make up for the delay".
Problem: The tasks of Jan. 1, Jan. 2, and Jan. 3 are executed after quick startup.

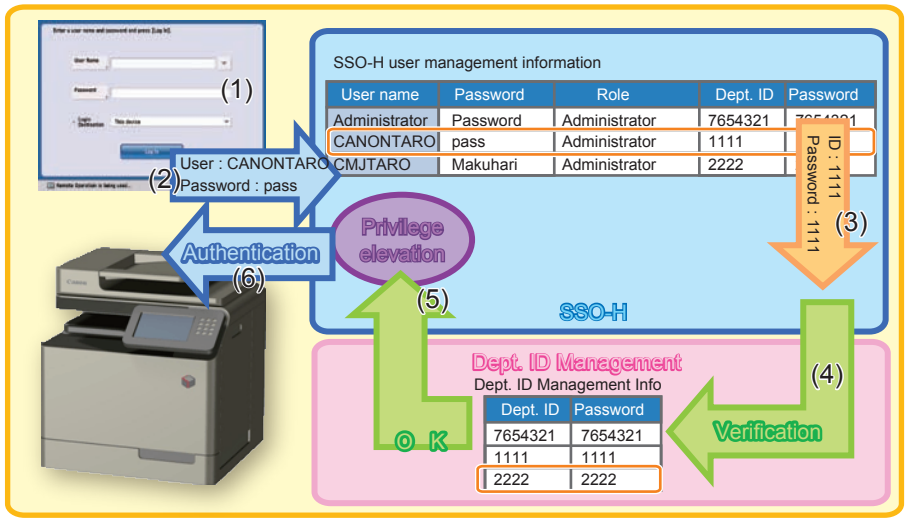


F-2-344

■ Remedy to Be Performed When the Device Has Become Unable to Be Logged in

● Overview

Department ID Management and SSO-H (Local Device Authentication) manage user information separately. Therefore, in order to allow coexistence of Department ID Management and SSO-H, it is necessary that the information of SSO-H and the information of Department ID Management are the same.



F-2-345

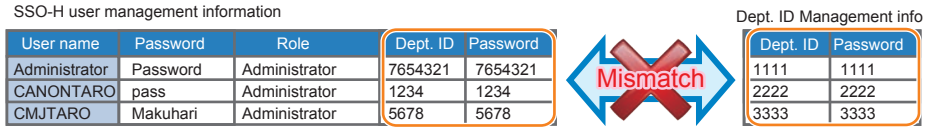
1) The user enters the ID and password of SSO-H to a device where both SSO-H and Department ID Management are enabled.
2) SSO-H checks the entered ID and password with the SSO-H user information table.
3) SSO-H sends the department ID and password which correspond to the entered ID and password to the department ID management function.
4) The department ID management function checks the department ID and password sent from SSO-H with the user information table.
5) The user is elevated to the corresponding privilege.
6) The user is authenticated.

If the department ID and password registered in the user information of SSO-H do not coincide with the department ID and password registered in the Department ID Management, the authentication ends in failure and the user can no longer log in to the device.

Note :
Even if the department ID and password registered in the user information of SSO-H do not coincide with the department ID and password registered in the Department ID Management, login is possible when all of the following conditions are satisfied.
- System manager information of the device ([Settings/Registration] > [Management Settings] > [User Management] > [System Manager Information Settings]) is set.
- Login is performed as a user with the administrator right of SSO-H.

The user information of SSO-H does not coincide with the user information of Department ID Management in the following cases:

- The user information of SSO-H was different from that of Department ID Management when Department ID Management was enabled.
  Department ID Management was enabled before changing the department ID and password registered in SSO-H to match with the information of Department ID Management.



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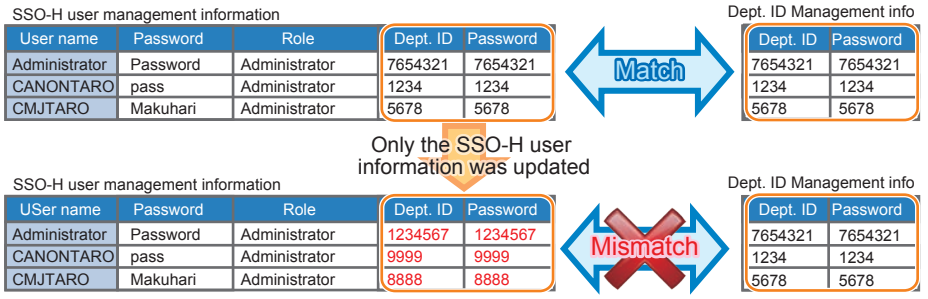
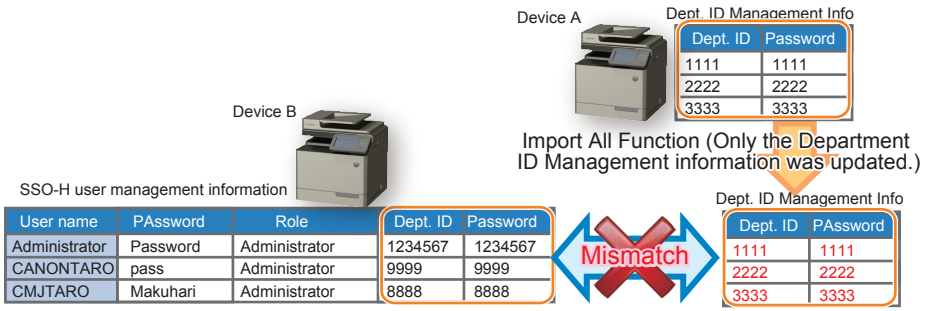
- Only one of information was updated, resulting in mismatch.
  Only the department ID and password registered in SSO-H or those in Department ID Management were changed.



F-2-347

- Only the information of Department ID Management was updated, resulting in mismatch.
  Only the Department ID Management information was changed in "Import All Function", resulting in mismatch. (The SSO-H user information cannot be changed in Import All Function.)



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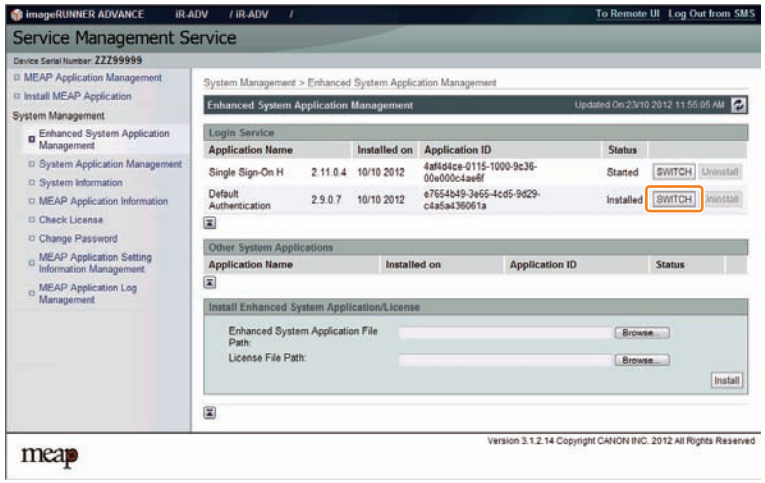
Remedy

If the device became unable to be logged in due to mismatch of the department ID/password, perform the following remedy.

Note :
Since the device can be logged in if all of the following conditions are satisfied, performing only the step 6 of this section can clear the mismatch of the department ID/password.
- System manager information of the device ([Settings/Registration] > [Management Settings] > [User Management] > [System Manager Information Settings]) is set.
- Login is performed as a user with the administrator right of SSO-H.

Procedure

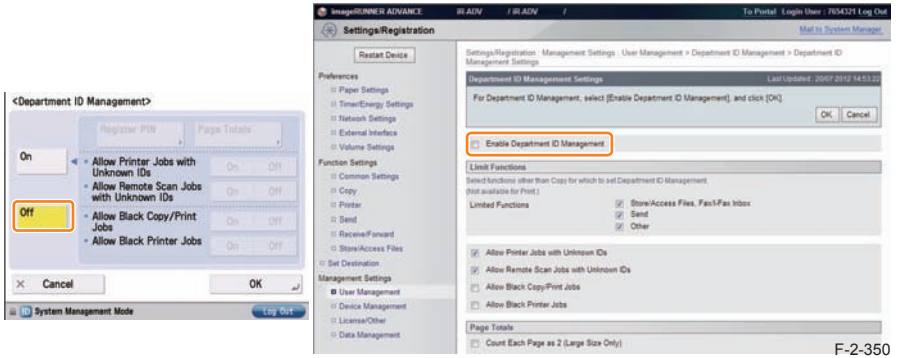
1) Change the authentication method to DA (Default Authentication).
Access SMS, and select [Default Authentication] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "Login to SMS".)



F-2-349

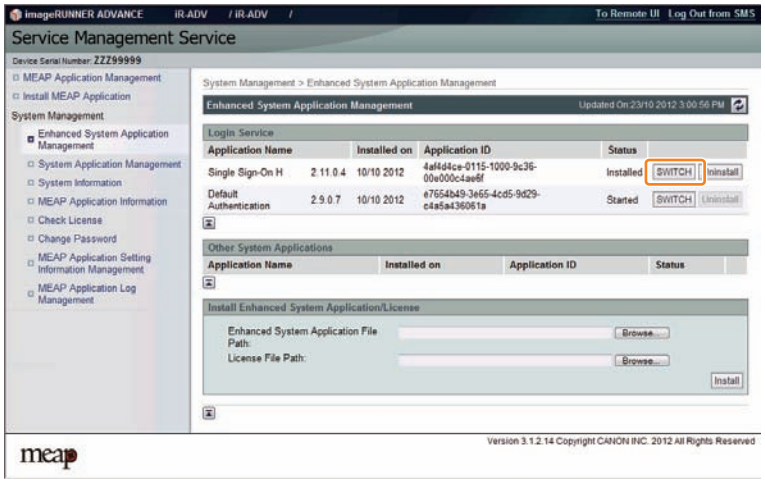
2) Restart the device.
Restart the device in order to reflect the changes in login service.

3) Disable Depart ID Management.
In [Settings/Registration], select [Management Settings] > [User Management] > [Department ID Management] > [Off]. In the case of remote UI, access [Settings/Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and deselect [Enable Department ID Management].



F-2-350

4) Change the authentication method back to SSO-H authentication.
Access SMS, and select [Single Sign-On H] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "Login to SMS".)

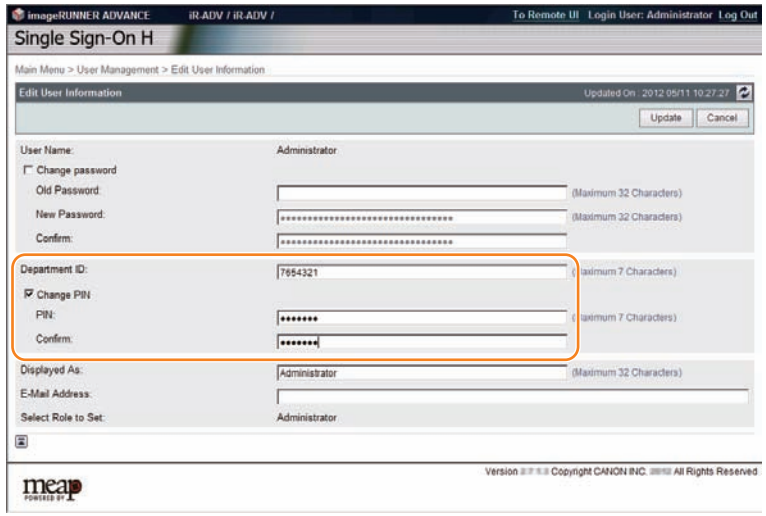


F-2-351

5) Restart the device.
Restart the device in order to reflect the changes in login service.

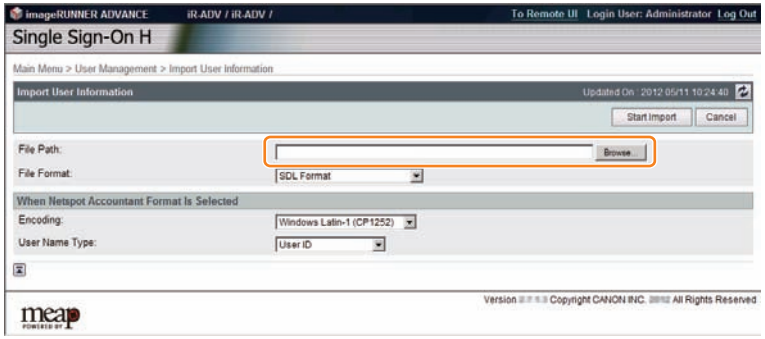
6) Change the user registration information of SSO-H.
Access the URL shown below, and change the content to the information registered in Department ID Management.
Or, import the setting file whose content you want to use.

SSO-H user registration information edition screen:
(SSO management screen [Main Menu] > [User Management] > [Edit User Information] or https://<IP address>:8443/sso/Edit).



F-2-352

SSO-H user registration information import screen:
(SSO management screen [Main Menu] > [User Management] > [Import User Information] or (https://<IP address>:8443/sso/Import).



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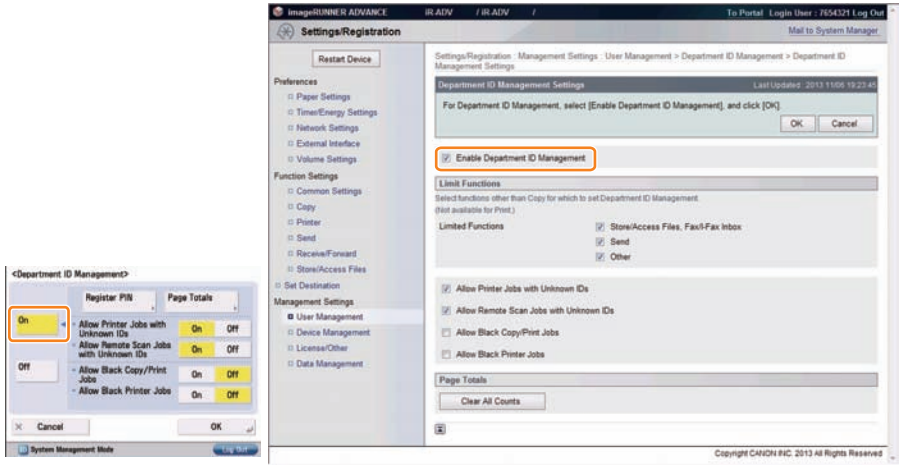
7) Enable Depart ID Management.
In [Settings/Registration], select [Management Settings] > [User Management] > [Department ID Management] > [On]. In the case of remote UI, access [Settings/Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and select [Enable Department ID Management].



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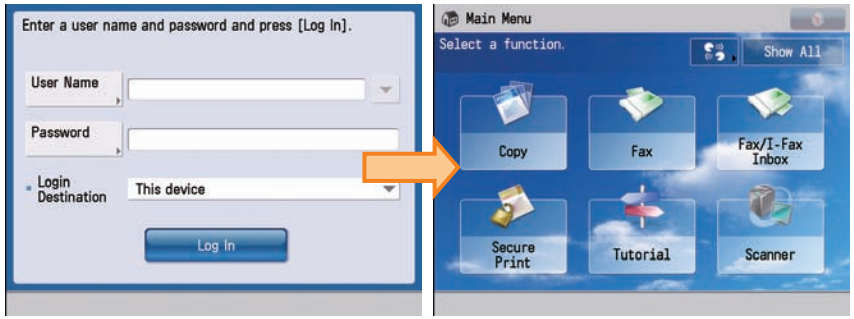
8) Check that the device can be logged in.
Log off and then log on to check that the device can be logged in with an environment where Local Device Authentication and Department ID Management are enabled.



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■ 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 deices. A client can control a device by creating or modifying objects in the device.
CPCA Java CL (Class Library)	CPCA Java Class Library. A Java class library, which is used to control a device.
Default Authentication -Department ID Management	The login service used when the department ID control is used but other authentication controls are not used. When the Department ID control is turned on, the login dialog prompts the users to enter the department ID and password. The dialog appears the initial screen of both the control panel on the MEAP device and Remote UI
Device Specification ID	ID allocated to each device type. This represents CPCA API specification and the version number to use MFP generic functions or obtain information including maximum allowable copies.
Esplet (Esplet Type Application)	A MEAP application type created in Java. This type of applications do not show user interfaces either on Local UI or Web. Esplet is a coined word created by Canon, consisting of [Espresso] or Italian coffee and [let] derived from Applet/Service.
File Description	An identifier for the OS to identify the destination file requested by a program. A program descriptor includes an identifier and information such as a file name and size, which helps OS to judge the file to be edited.
HID class	HID stands for Human Interface Device, representing man-machine interfaces of PC components and peripheral devices. HID class means USB class classified as HID.
iR Native application	The functionalities that existing imageRUNNER has such as Copy, Universal Send and Mailbox.
ISV (Independent Software Vendor)	Independent Software Vender. Software manufacturer who develops and/or sells applications and tools but does not entire computer systems. Refers application developer in this document.
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.

Terms & Acronyms	Definitions and Explanations
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 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.
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 device	imageRUNNER (iR) devices with built-in MEAP platform.

Terms & Acronyms	Definitions and Explanations
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: • FTP: File Transfer Protocol. This is a communication protocol or protocolimplemented 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.
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.

Terms & Acronyms	Definitions and Explanations
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 device independently authorizes users; whereas the latter is that 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

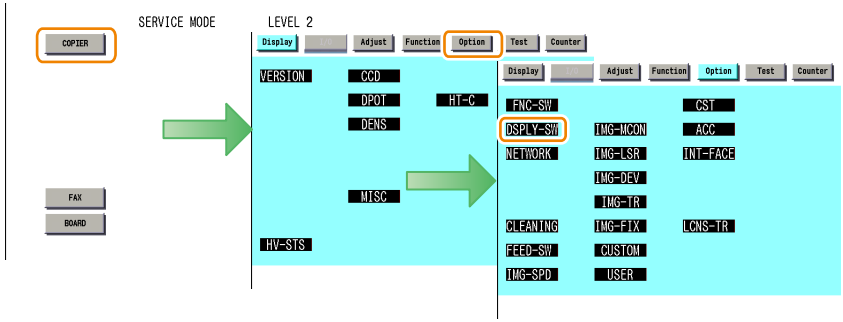
● Display Setting of Copy Icon (level2)

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 1.
2) Press [COPIER] > [Option] > [DSPLY-SW].



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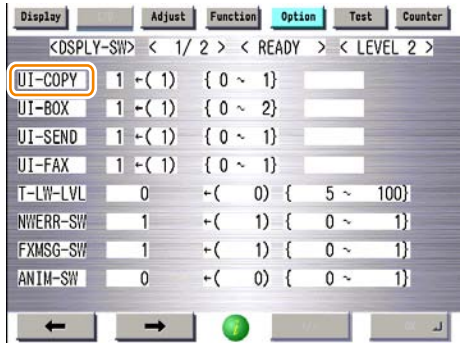
3) Press [UI-COPY].



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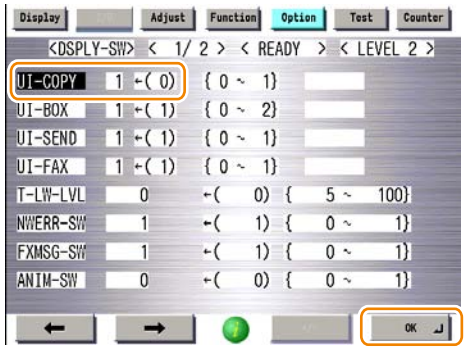
4) Press either 0 (hide) or 1 (display) on control panel (the numerical value input in the field is displayed), and press [OK].



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

Embedded RDS

Product Overview

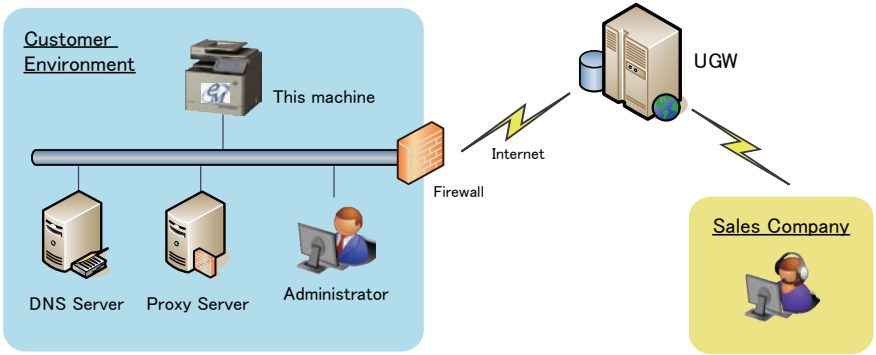
Overview

Embedded RDS (hereinafter referred to as E-RDS) is a monitoring program that runs on the host machine. When the monitoring option is enabled by making the setting on this machine, information such as the status change of the machine, counter information, and failure information are collected. The collected device information is sent to a remote maintenance server called UGW (Universal Gateway Server) via Internet, thus allowing for e-Maintenance/ imageWARE Remote (Remote Diagnosis System).

The following device information/ status can be monitored.

- Billing counts
- Parts counter
- Firmware info
- 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 this machine and the UGW using HTTPS/ SOAP protocol.



The e-Maintenance/ imageWARE Remote system configuration

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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 Browser

Service browser is a web browsing functionality only for service technicians in charge, and is used for referring to the FAQ contents which is connected to UGW.
In order to grasp on which devices the service browser is enabled, when the status of the service browser is changed from disabled (0: OFF) to enabled, E-RDS sends the browser information to the UGW.

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. Alarm codes for transmission: 0x060002, // Fixing 0x060004 - 0x069999, // Fixing 0x090005 - 0x099999, // Dram 0x100006 - 0016, 0x100022 - 0099, 0x100101 - 9900, // Development 0x300001 - 0x309999 // High voltage	COPIER	Display	ANALOG	No
			HV-STS	
			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-STS	
			CCD	
			DPOT	
			DENS	
			FIXING	
			SENSOR	
			MISC	
			HT-C	
			HV-TR	
			P-PASCAL	
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-STS	
			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

1) In the following cases, service mode menu data is not transmitted.
   - When an unsent alarm log or service call log has been detected by E-RDS at power-on
   - When an alarm log or service call log to be resent due to a transmission failure is detected
   - When transmission of service mode menu executed at the time of detection of an alarm or a service call error ended in failure
   - If a new alarm or service call error occurs while service mode menu data is being obtained after detection of an alarm or a service call error, the data being obtained is not sent.

2) If alarms/service call errors successively occur, and if the time of the host machine is corrected or changed while the log is being sent, service mode menu data may not be properly sent. It is because a Link No.* may be applied to the old log although it should be applied to the new log.

   * Link No.:
   A common number for linking the service mode menu data with the alarm log/service call log data to be sent
   After completion of log transmission, the service mode menu data is obtained, and is sent with this number attached.

3) Transmission of the data of changes made in service mode menu settings is not performed instantly, but performed when a specified period of 60 minutes elapse after the change of service mode menu settings is detected or when a communication test is performed at the time of power-on. (There is a time lag.)

4) When service mode menu settings ([COPIER] > [Adjust]) are made, transmission is performed even when no change is made in the target data to be transmitted.
Transmission of service mode data is also performed when changes are made in the service mode setting value not subject to transmission (items other than Level 1, 2) or when settlement of a value is performed without changing the setting value.

Service cautions

1) After clearing RAM of the Main Controller PCB, initialization of the E-RDS setting (ERDS-DAT) and a communication test (COM-TEST) need to be performed.
Failure to do so will result that the counter transmitting value to the UGW may become unusual.
Also, after replacing the main controller board, all settings must be reprogrammed.

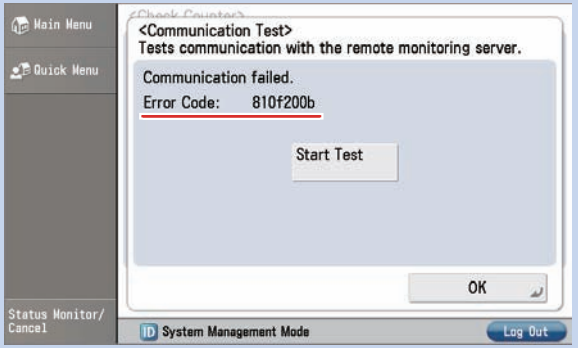
2) The following settings in service mode must not be change unless there are specific instructions to do so. Changing these values will cause error in communication with UGW.
   - Set port number of UGW
     [SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [RGW-PORT]
     Default : 443

   - URL setting of UGW
     [SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [RGW-ADR]
     Default : https://a01.ugwdevice.net/ugw/agentif010

3) If the e-Maintenance/ imageWARE Remote contract of the device is invalid, be sure to turn OFF the E-RDS setting (E-RDS : 0).

4) With this machine, a communication test can be conducted from the [Counter Check] on the Control Panel.* When conducting a communication test from the [Counter Check] on the Control Panel, pay attention on the following points:
   - During a communication test, do not take any actions such as pressing a key. Actions are not accepted until the communication test is completed (actions are ignored).
   - When a communication test is being conducted from service mode or from the [Counter Check] on the Control Panel, do not conduct a communication test from the other. These operations are not guaranteed.

NOTE:
*The user can conduct a communication test and seen the communication test result. If the communication results in failure, an error code (a hexadecimal number, 8 digits) appears on the touch panel display.



E-RDS Setup

Confirmation and preparation in advance

To monitor this machine 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

The following network-related information needs to be obtained from the user's system administrator in advance.

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 this machine network related settings.

See Users' Guide for detailed procedures.

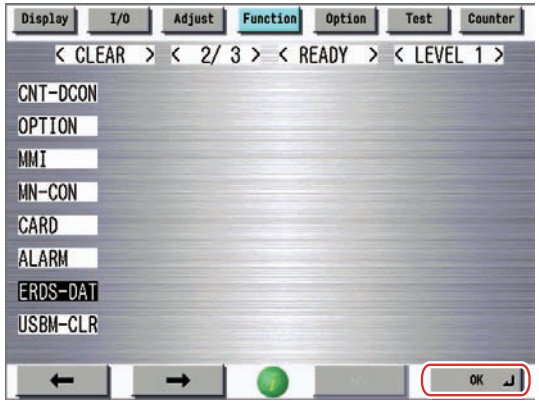
CAUTION:

When changes are made to the above-mentioned network settings, be sure to turn OFF and then ON the main power of this machine.

Steps to E-RDS settings

1) Start [Service Mode] at Level 1.
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".



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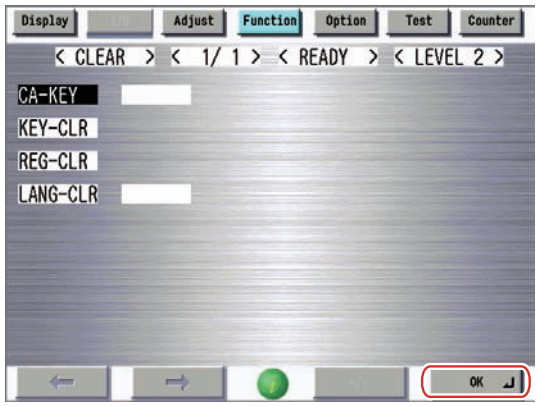
3) Perform installation or deletion of the CA certificate if necessary, and turn OFF and then ON the main power of this machine.

- Installation of the CA certificate: Perform installation from SST or Remote UI.
- Deletion of the CA certificate: When the following operation is performed, the CA certificate in the factory setting is automatically installed.

CAUTION:
After following procedure, the registered key and CA certificate are deleted, and only the CA certificate installed at the time of shipment is registered.
It is therefore necessary to check with the user in advance.

(a) Start [Service Mode] at Level 2.

(b) Select [COPIER] > [Function] > [CLEAR] > [CA-KEY] and touch the [OK] button.



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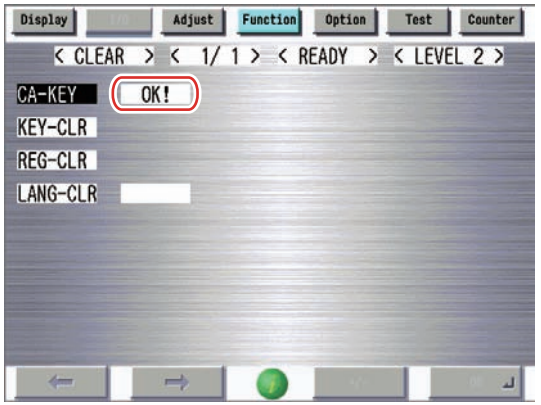
"OK!" is displayed if the CA certificate is initialized. When "NG!" is displayed, see the section of "Troubleshooting" to execute the remedy, and then perform initialization of the CA certificate again and check to see if the CA certificate is initialized.



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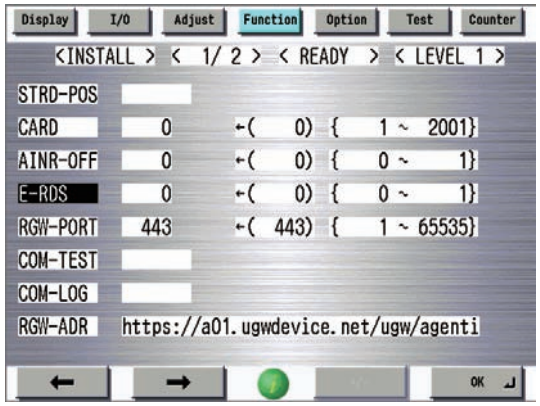
(c) Turn OFF and then ON the main power of this machine.

CAUTION:
If a key and a CA certificate have been registered in order to use a function other than E-RDS, it is necessary to register again from SST or Remote UI.

4) Start [Service Mode] at Level 1.
5) Select [COPIER] > [Function] > [INSTALL] > [E-RDS].



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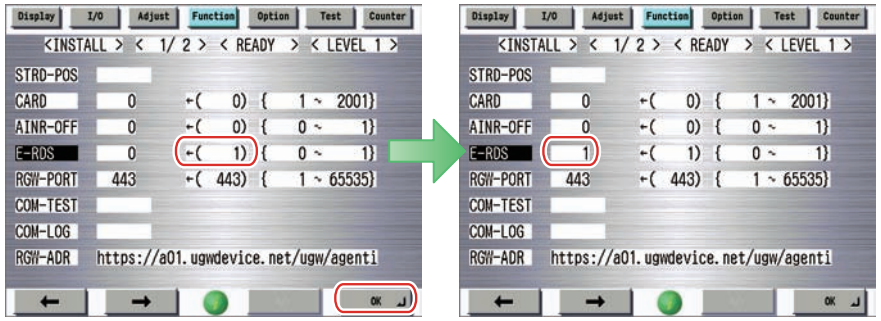
6) Press the numeric key [1] on the control panel (the setting value is changed to 1) and touch the [OK] button. (The data is reflected to the setting value field.)

NOTE:
This operation enables the communication function with UGW.



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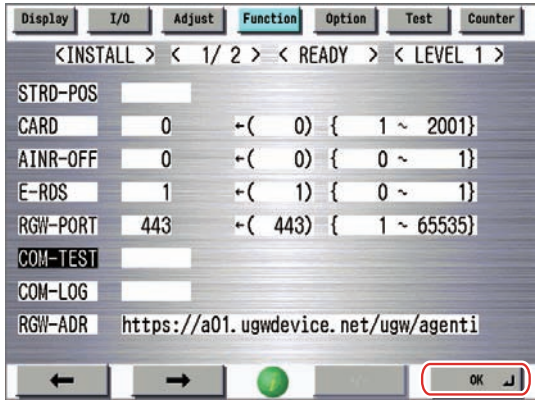
CAUTION:
The following settings i.e. RGW-PORT and RGW-ADR in Service mode must not be change unless there are specific instructions to do so.
Changing these values will cause error in communication with UGW.

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

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



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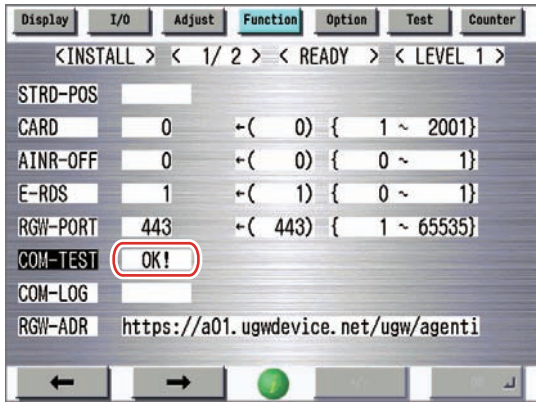
If the communication is successful, "OK!" is displayed. If "NG!" (failed) appears, refer to the "Troubleshooting" and repeat until "OK!" is displayed.



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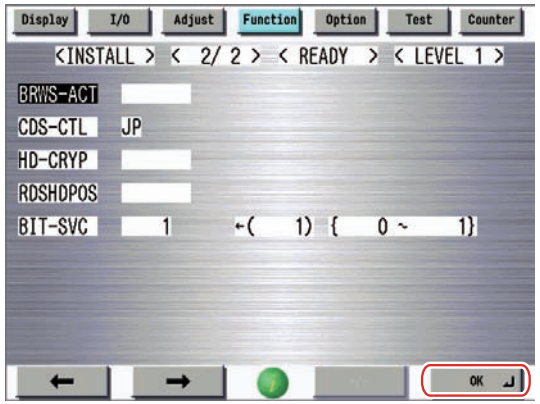
NOTE:
The communication results with UGW can be distinguished by referring to the COM-LOG. By performing the communication test with UGW, E-RDS acquires schedule information and starts monitoring and meter reads operation.

Steps to Service Browser settings

1) Start [Service Mode] at Level 1.
2) Select [COPIER] > [Function] > [INSTALL] > [BRWS-ACT] and then touch [OK].

NOTE:
When the status of the service browser is changed to enabled, E-RDS sends the browser information to the UGW at this timing.



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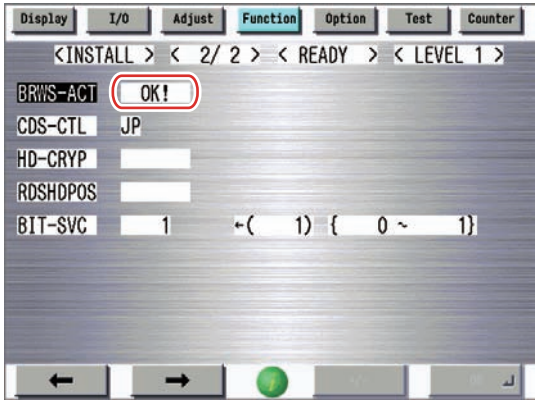
If the connection is established with UGW successfully, "OK!" is displayed. When "NG!" is displayed, perform the steps referring to "Troubleshooting" until connection is established with UGW.



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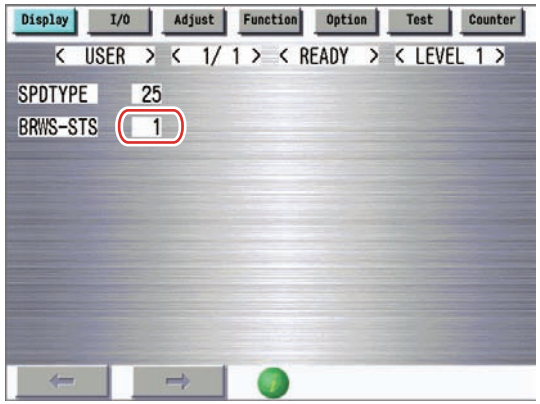
3) Turn OFF and then ON the main power of this machine.

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



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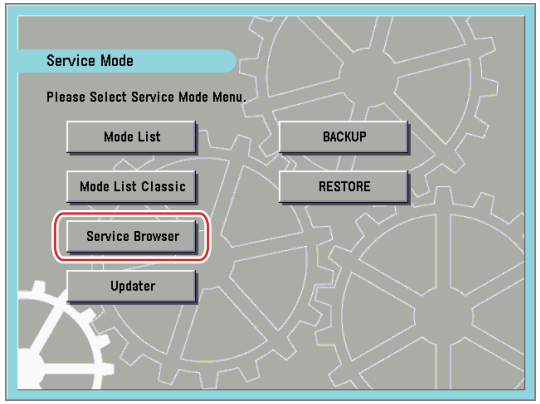
5) When the above-shown setting values are enabled, [Service Browser] is displayed in the Service Mode screen.



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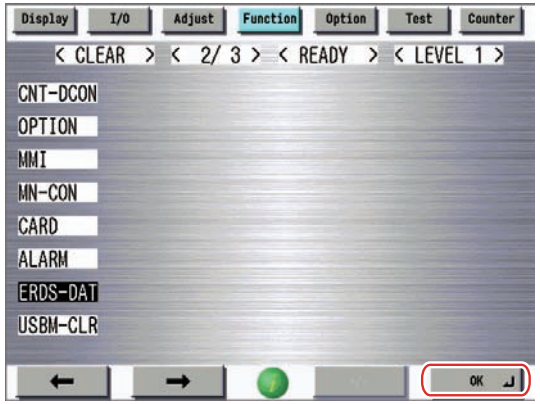
NOTE:
Generally, once service browsing is enabled, to stop the service browsing, execute BRWS-ACT again, turn OFF and then ON the main power of this machine.

Initializing E-RDS settings

It is possible to clear the FLASH data of E-RDS and change the E-RDS setting back to the default value.

Initialization procedure

1) Start [Service Mode] at Level 1.
2) Select [COPIER] > [Function] > [CLEAR] > [ERDS-DAT] and then touch [OK].



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Setting values and data to be initialized

The following E-RDS settings, internal data, and Alarm filtering information are initialized.

- COPIER > Function > INSTALL > E-RDS
- COPIER > Function > INSTALL > RGW-ADR
- COPIER > Function > INSTALL > RGW-PORT
- COPIER > Function > INSTALL > COM-LOG

CAUTION:

In case of replacing the CA certificate file, even if initialization of E-RDS is executed, the status is not returned to the factory default.

When installing the certificate file other than the factory default CA certificate file, it is required to delete the certificate file after E-RDS initialization and install the factory default CA certificate file.

For detailed procedures, see "Steps to E-RDS settings - step 3.".

FAQ

No.1

Q: In what case does a communication test with UGW fail?

A: The following cases can be considered in the becoming "NG!" case.

- Name resolution was failed due to an incorrect host name or DNS server has been halted.
- Network cable is blocked off.
- Proxy server settings is not correct.

No.2

Q: When does E-RDS send counter information to UGW? How many data is sent?

A: The schedule of data transmitting, the start time are determined by settings in the UGW side. The send time cannot be specified on the E-RDS side. Data is sent once every 16 hours.
The data size of counter information is approx. 285 KB.

No.3

Q: Will data which failed to be sent due to an error in communication with UGW be resent?

A: Data shown below will be resent.

- Jam log
- Service call log
- Alarm log
- Service mode menu
  The newest data is resent only when the settings are changed in service mode.
- Browser information
  It is resent only when the web browser option is enabled.

Data is resent endlessly (after 5, 10, 15, 20, 25, and 30 minutes since the occurrence of communication error; once 30 minutes have passed, it is resent at 30-minute intervals) until it is sent successfully. Resend continues even if the power is turned OFF and then ON.

No.4

Q: What is the upper limit of the number of COM-LOGs? What is the upper limit of the number of characters of error information displayed in a COM-LOG?

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 this machine 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 this machine 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 this machine 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 this machine 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 Department counter?

A: No, E-RDS does not support Department 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 turn OFF and then ON the main power of this machine)	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: Counter information could not be sent at the scheduled send time due to the power of this machine being turned OFF. Will the counter information be sent later when the power of this machine is turned ON?

A: Yes. When a scheduled send such as that for counter could not be executed due to the power of this machine being turned OFF, etc., and the scheduled send time has already passed at power-on, the send is executed immediately.

The following shows data send according to the status of this machine.

Send types	Status of this machine		
	Power ON	Power OFF	Sleep
Scheduled send	Sent	Not sent*1	Sent*2
Immediate send (Service call log / Alarm log / Jam log)	Sent	-	Sent*2

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*1: Immediately sent if the send time has already passed at power-on.

*2: Sent after recovery from sleep mode.

No.13

Q: What is the number of the network port used by E-RDS?

A: The port number used by E-RDS for communication with UGW is "443".
If this setting is changed, an error occurs during communication with UGW. Therefore this setting should not be changed unless otherwise instructed.

No.14

Q: After the setting for E-RDS was made, the IP address of the host machine was changed. In that case, is it necessary to execute COM-TEST again?

A: It is not necessary to execute COM-TEST again because the IP address used by E-RDS is automatically changed. However, it is necessary to turn OFF and then ON the main power of this machine to reflect the change in the setting of the IP address

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

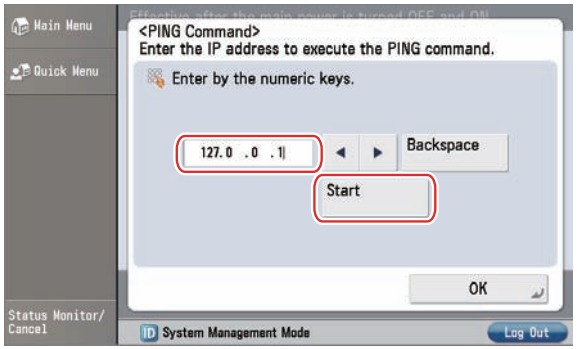
Is the status indicator LED for the HUB port to which this machine is connected ON?

YES: Proceed to Step 2).

NO: Check that the network cable is properly connected.

2) Confirm loop back address (* In case of IPv4)

Select [Settings/Registration] > [Preferences] > [Network] > [TCP/IP Settings] > [IPv4 Settings] > [PING Command], enter "127.0.0.1", and touch the [Start] button.



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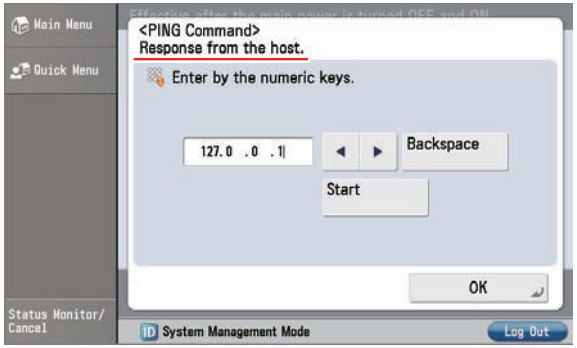
Does the screen display "Response from the host."? (See the next figure.)

YES: Proceed to Step 3).

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



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3) Confirmation from another PC connected to same network.

Request the user to ping this machine from a PC connected to same network.

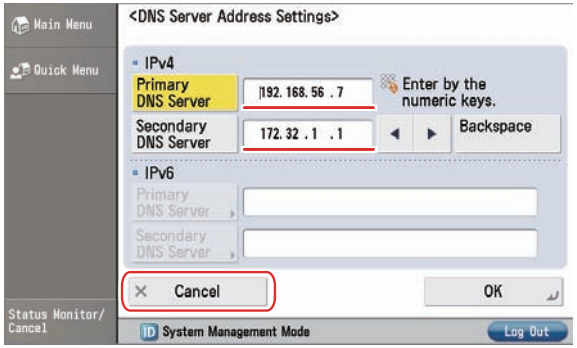
Does this machine respond?

YES: Proceed to Step 4).

NO: Confirm the details of this machine's IP address and subnet mask settings.

4) Confirm DNS connection

(a) Select [Settings/Registration] > [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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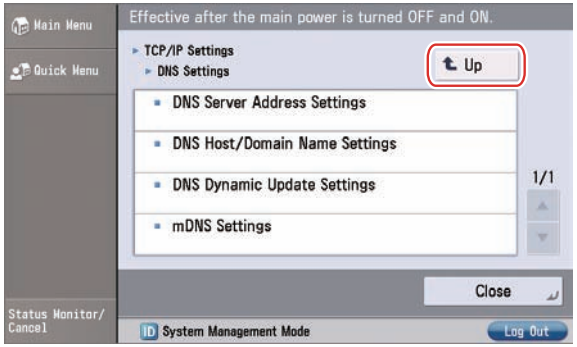
(b) Touch the [Up] button.



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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 the [Start] button.

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

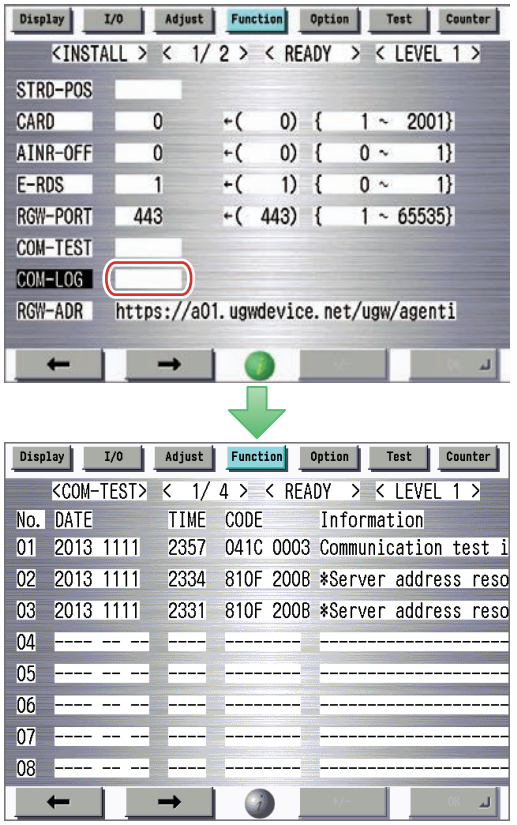
YES: Proceed to Remedy 2.

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 error log (COM-LOG)

1) Start [Service Mode] at Level 1.

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



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NOTE:

- Only the initial part of error information is displayed in the communication error 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 error log detailed screen is displayed as shown in the figure below. (Example: No. 02)

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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 communication error log list 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.

Cause: 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 error 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 "Service cautions".

No.3

Symptom: Registration information of the E-RDS machine was deleted from the device information on Web Portal, and then registered again. After that, if a communication test is left unperformed, the device setting in the UGW becomes invalid.

Cause: When the registration information of the E-RDS machine is deleted, information related to E-RDS is also deleted.
Therefore, when 7 days have passed without performing a communication test after registering the E-RDS machine again, the device setting becomes invalid.

Remedy: Perform a communication test before the device setting becomes invalid.

No.4

Symptom: There was a log, indicating "Network 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 this machine 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 UGW 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: The display indicates that the service browser is enabled (BRWS-STS: 1), but the service browser fails to be activated.
Cause: The main power switch of this machine has not been turned OFF and then ON. ON/OFF of the service browser is enabled after turning OFF and then ON the main power of this machine.
Remedy: Turn OFF and then ON the main power of this machine.

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.

No.9
Symptom: When a communication test (COM-TEST) is repeatedly executed, an error occurs.
Cause: During communication conducted after execution of a COM-TEST, another COM-TEST was executed again.
Remedy: When repeatedly executing COM-TEST, execute COM-TEST at intervals of 5 minutes or more.

Error code and strings

The following error information is displayed on the communication error log details screen. (Here, "server" means UGW.)

- The error information are displayed in the following form.
  [*] [Character strings] [Functional classification (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	Character strings	Cause	Remedy
1	0000 0000	SUSPEND: mode changed.	Unmatched Operation Mode	Initialize the E-RDS setting (ERDS-DAT).
2	0500 0003	SUSPEND: Communication test is not performed.	Turning OFF and then ON the main power of this machine while the communication test had not been performed although E-RDS is enabled.	Perform a communication test (COM-TEST).
3	0xxx 0003	Server schedule is not exist	Blank schedule data have been received from UGW.	Perform and complete a communication test (COM-TEST).
4	0xxx 0003	Communication test is not performed	Communication test has not completed.	Perform and complete a communication test (COM-TEST).
5	84xx 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).
6	8600 0002 8600 0003 8600 0101 8600 0201 8600 0305 8600 0306 8600 0401 8600 0403 8600 0414 8600 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)
7	8700 0306	SRAM version unmatch!	Improper value is written in at the head of the NVMEM domain (nonvolatile memory domain) of E-RDS.	Turn the device OFF/ ON.

No.	Code	Character strings	Cause	Remedy
8	8700 0306	SRAM AeRDS version unmatch!	Improper value is written in at the head of the NVMEM domain (nonvolatile memory 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 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.	Perform and complete a communication test (COM-TEST).
11	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. After the UGW side has responded, try the communication test again.
12	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).
13	8xxx 0221	Server specified list is too big	Alarm/Alert filtering error: The number of elements of the list specified by the server is over restriction value.	Alert filtering is not supported by UGW.
14	8xxx 0222	Server specified list is wrong	Alarm filtering error: Unjust value is included in the element of the list specified by the server.	Alert filtering is not supported by UGW.
15	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.
16	8xxx 0709	Tracking ID is not match	When upgrading firmware, the TrackingID notified by Updater differs from the thing of UGW designates.	Obtain the sublog, and contact the support department of the sales company.
17	8xxx 2000	Unknown error	Some other kind of communication error has occurred.	Perform and complete a communication test (COM-TEST).
18	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.
19	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.
20	8xxx 2003	Network is not ready, try later	Communication attempted without confirming network connection, just after turning OFF and then ON the main power of this machine 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.
21	8xxx 2004	Server response error ([Hexadecimal]) [Error detailed in 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.
22	8xxx 200A	Server connection error	• 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. • When proxy is used, make the settings for proxy, and check the status of the proxy server.
23	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. • Check that Internet connection is available in the environment.
24	8xxx 2014	Proxy connection error	Could not connect to proxy server due to improper address.	Check proxy server address / port and re-enter as needed.
25	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. • Specify the IP address as the proxy server name.
26	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.

No.	Code	Character strings	Cause	Remedy
27	8xxx 2028	Server certificate error	• 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. • The date and time of the device is not correct.	• Install the latest device system software. (Upgrade) • Correctly set the date and time of the device. • Execute CLEAR > CA-KEY, and turn OFF and then ON the device. (The CA certificate at the time of shipment is automatically installed.)
28	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.
29	8xxx 2046	Server certificate expired	• 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.
30	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.
31	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.
32	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.
33	8xxx 2058	Unknown error	SOAP Client fails to obtain SOAP Response. Possibility of a problem in UGW or of a temporary problem in the network load.	Perform and complete a communication test (COM-TEST).
34	8xxx 2063	SOAP Fault	SOAP communication error has occurred.	Check that the value of port number of UGW (RGW-PORT) is 443.
35	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)
36	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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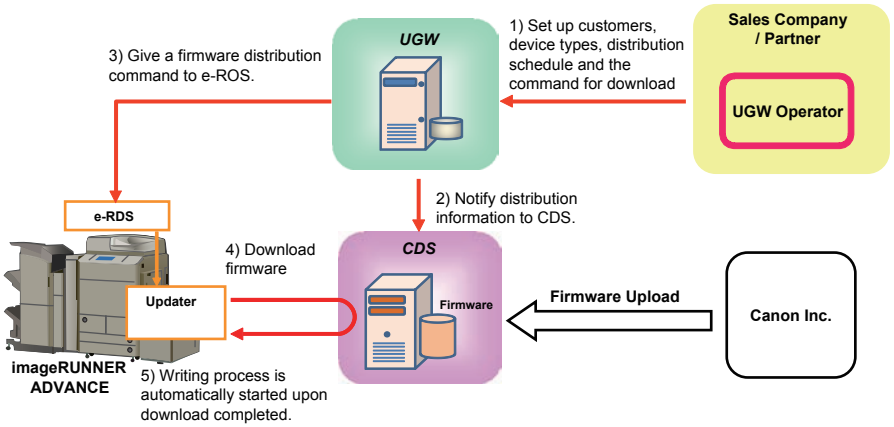
a. UGW-linked Download and Update (Full-Remote Update)
If the device is linked to UGW and the distribution schedule and update setting are registered on UGW in advance, full remote firmware update is available on an imageRUNNER ADVANCE-series device. Upon downloaded from CDS, the firmware is updated on the device.



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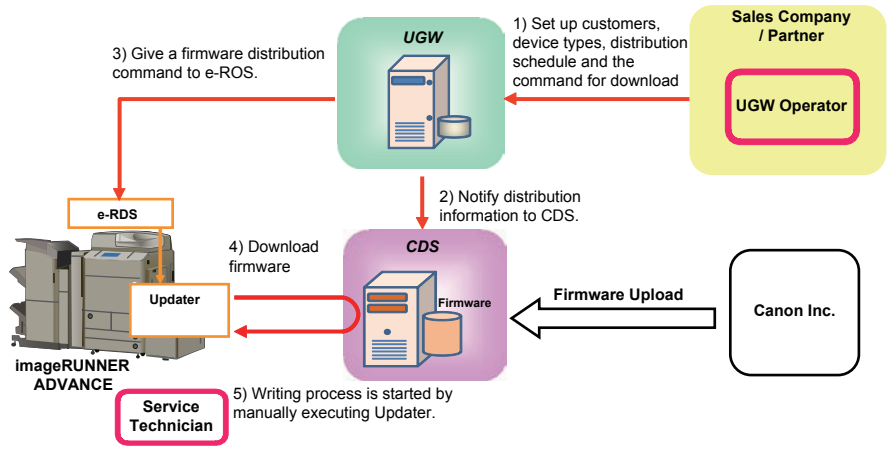
b. UGW-linked Download (Remote Distribution / Update)
If the device is linked to UGW and the distribution schedule is registered on UGW in advance, firmware can be distributed to an imageRUNNER ADVANCE-series device before a service technician actually visits the customer site. This allows the service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



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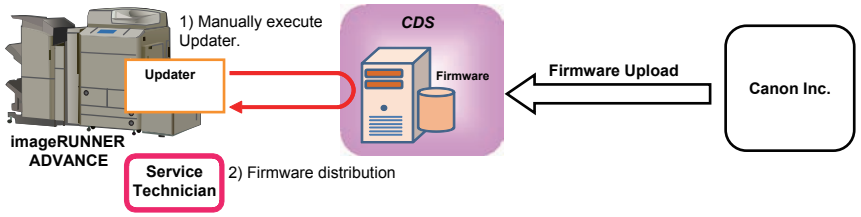
c. Manual Download and Update (On-site Update via Service Mode)

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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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.

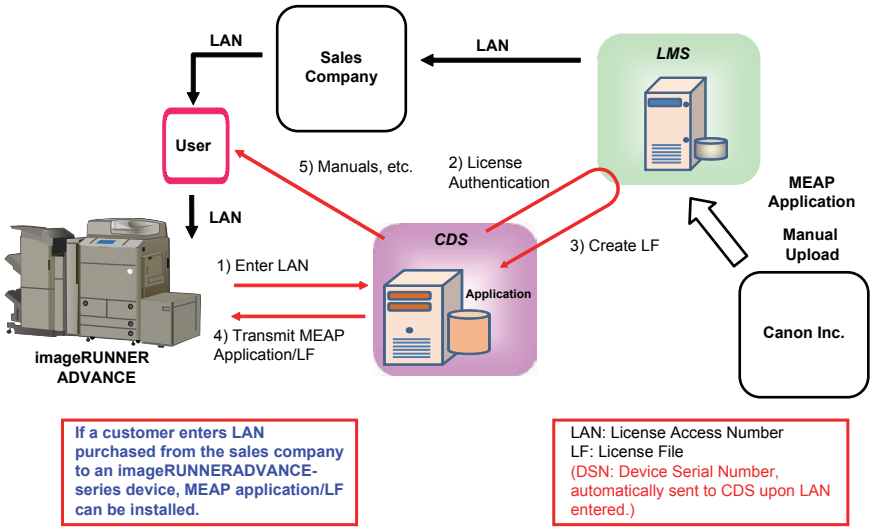
Installing MEAP Application/System Option

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 [Settings/Registration] to install a MEAP application or a system option.

Installing MEAP Application



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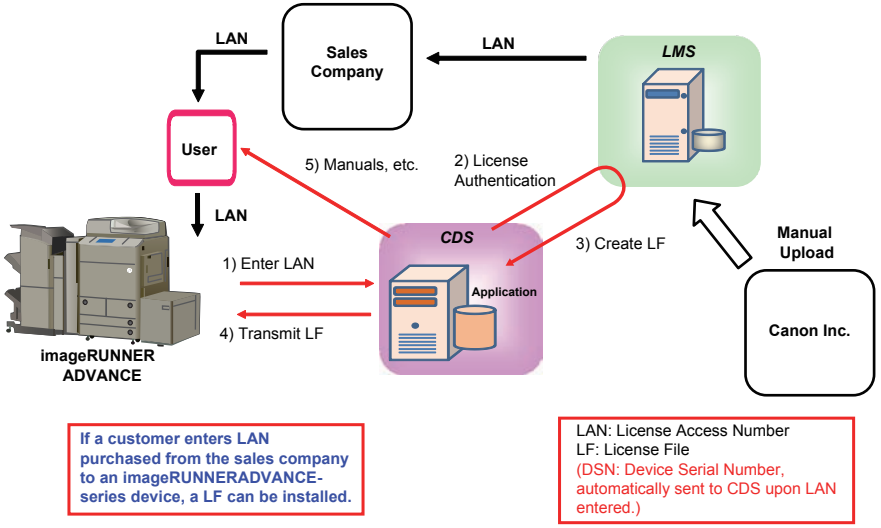
Installing System Option



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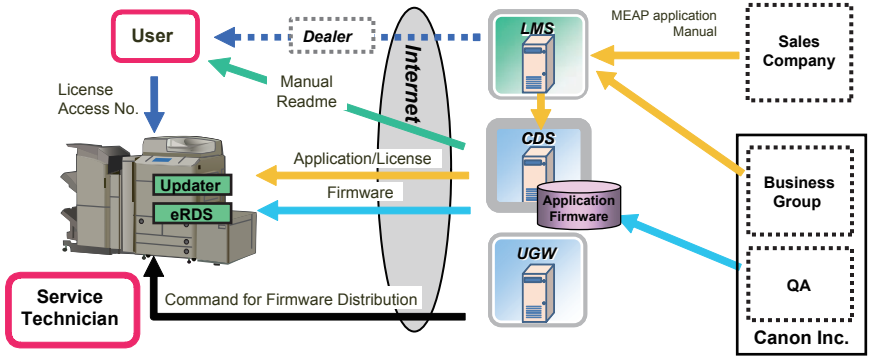
System Configuration

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	[Settings/ Registration]	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	-
	Displaying system logs	Yes	Yes	Yes	-
Internal system error notification	Notifying internal system error occurrence to distribution server	Yes	Yes	Yes	Yes

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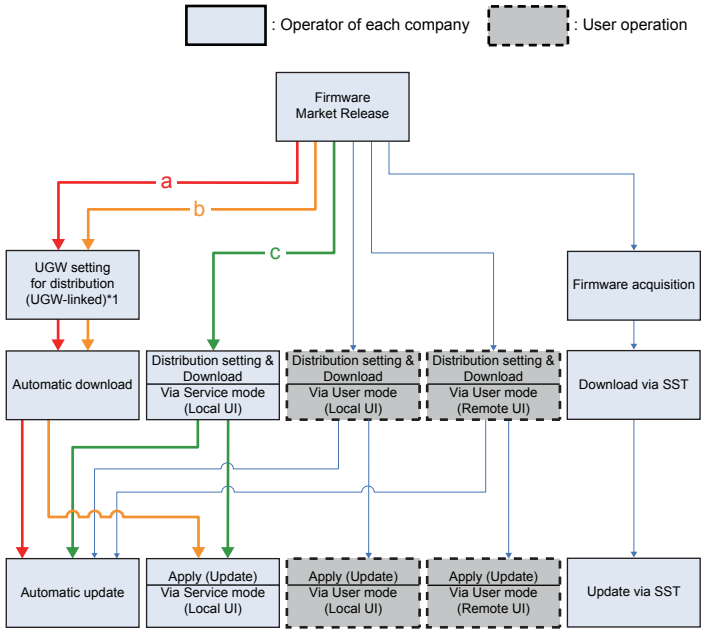
Distribution Flow

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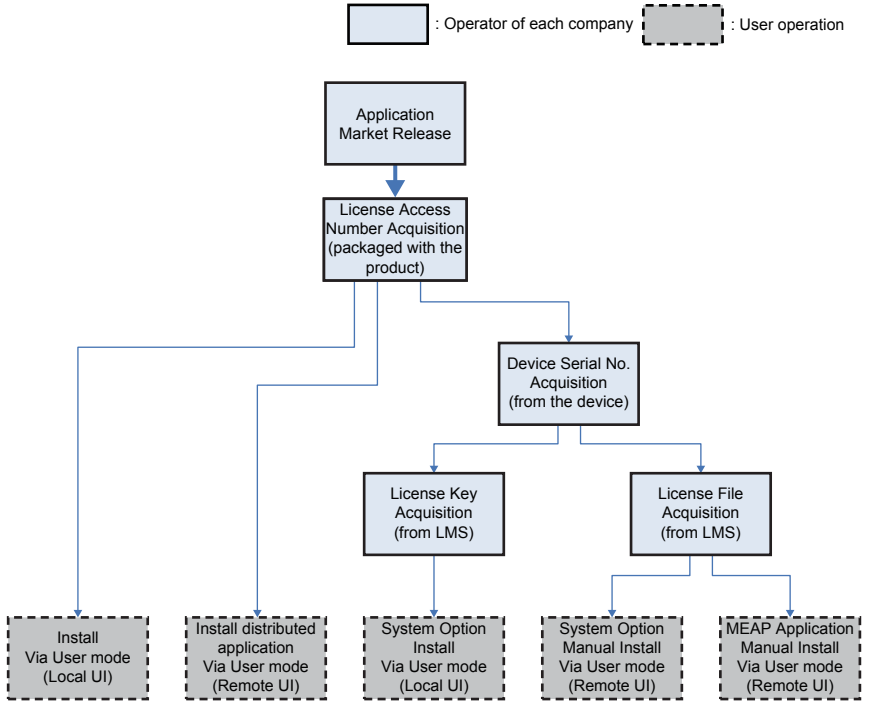
*1: Schedules for UGW-linked distribution are maintained on CDS.

MEAP Application/System Option Installation Flow

MEAP application/system option installation method using service mode is not provided.
Be sure to use the [Settings/Registration] 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	Enabling [Manual Update] Button of 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 of Application

Installation Method	Network Settings	Enabling [Install Application/ Options] Button
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

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Setting Sales Company's HQ

When using devices input in the markets listed below, the default setting of Sales Company's HQ should be changed before obtaining firmware distributed from CDS. Unless the setting is changed properly, the desired firmware may not be able to be selected.

Market	Default Setting of Sales Company's HQ	Setting of Sales Company's HQ after Change
Canada	US	CA
Latin America	US/SG	LA
Hong Kong	SG	HK

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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
USA = US
Singapore = SG
Europe = NL
Korea = KR
China = CN
Hong Kong = HK
Australia = AU
Canada = CA
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 [Settings/Registratoin] screen, see the sections below to prepare as required.
  - "Enabling UGW Link"
  - Enabling [Update Firmware] Button
  - Enabling [Install Application/Options] Button

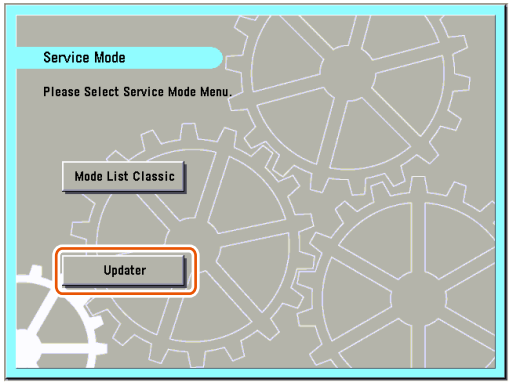
NOTE:
“External Network” here means the network connecting the device to CDS via Internet.

● 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.



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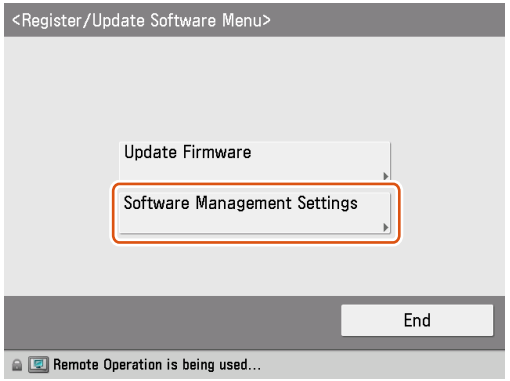
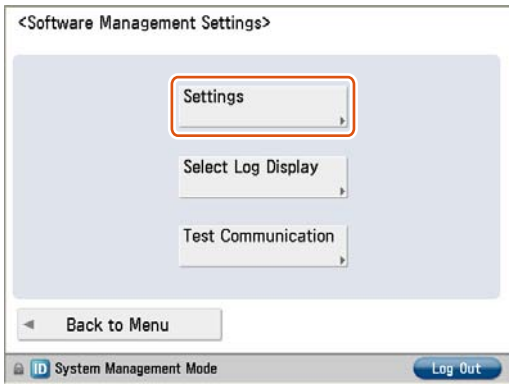
3. Press [Software Management Settings] button.



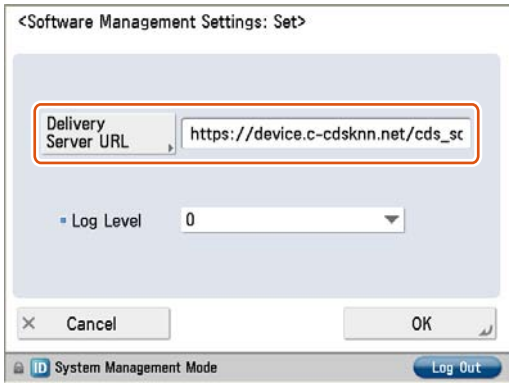
F-2-387

4. Press [Settings] button.



F-2-388

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.



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

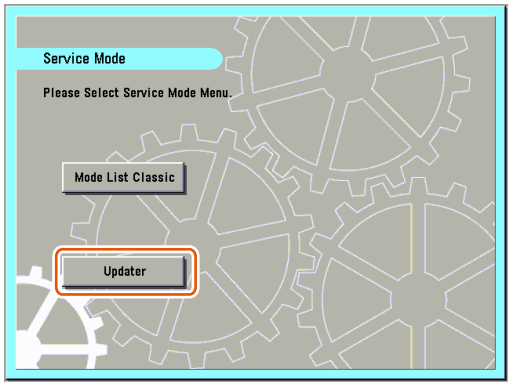
Communication Test

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.

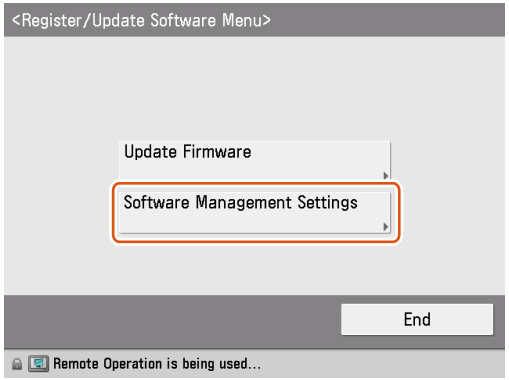
1. Start [Service Mode] at Level 1.

2. Press [Updater] button.



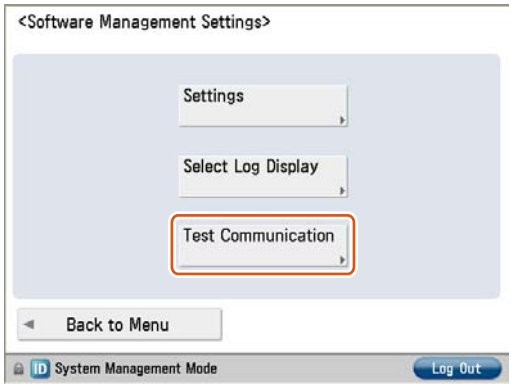
F-2-390

3. Press [Software Management Settings] button.



F-2-391

4. Press [Test Communication] button.



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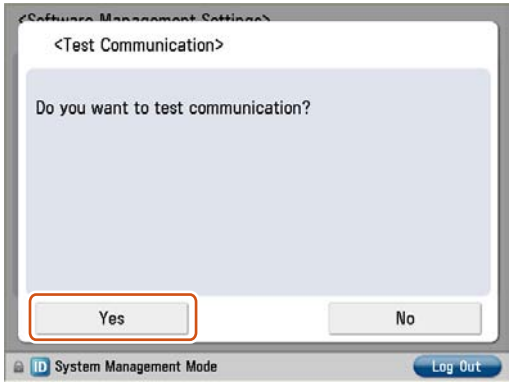
5. Press [Yes] button.



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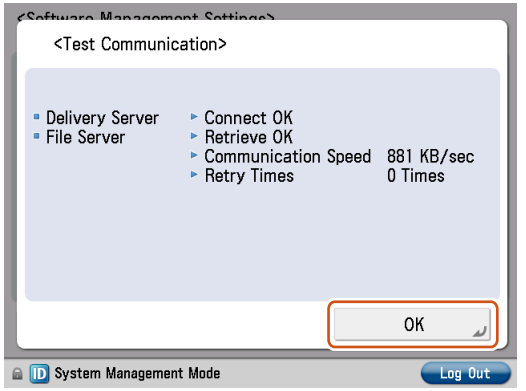
Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).
Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown. Press [OK] button to exit this operation.



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Enabling UGW Link

When installing the firmware in the method of “UGW-linked Download and Update” or “UGW-linked Download”, the following should be set before actually using UGW link.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-UGW (0 -> 1)
	Setting of UGW WebPortal	In [Customer Management] screen, set [Do not distribute firmware] to [Distribute firmware].
Sales Company's HQ	Setting of Authorities on UGW WebPortal	See "Analysis>Firmware Distribution Information" to grant the appropriate authorities to each account.

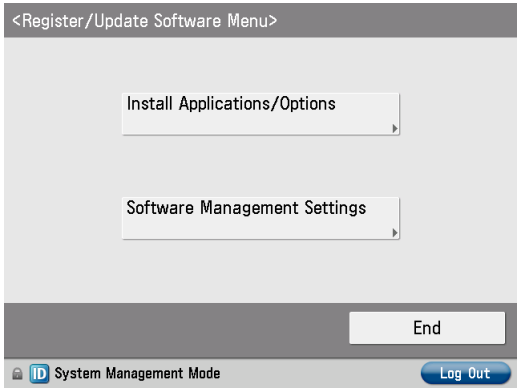
NOTE:
- See “imageWARE Remote Operator’s Manual / e-Maintenance Business Operation Manual“ for how to operate UGW WebPortal.
- [Distribute Firmware] should be set on [Customer Management] screen for staff in charge of setting for [Enter customer information] or [Command for firmware distribution] in order to allow them to select the desired device on [Firmware Distribution Information] screen.
- 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

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)

- [Settings/Registration] screen for Updater when the setting is not enabled (CDS-FIRM(0)):



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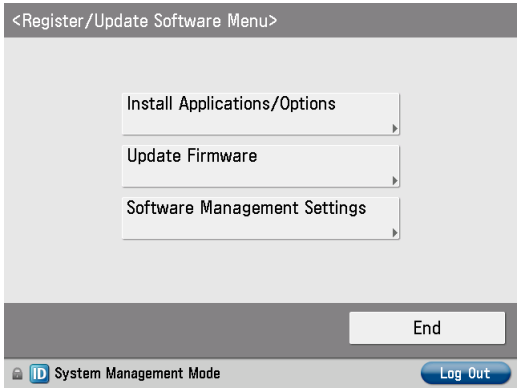
- [Settings/Registration] screen for Updater when the setting is enabled (CDS-FIRM(1)):



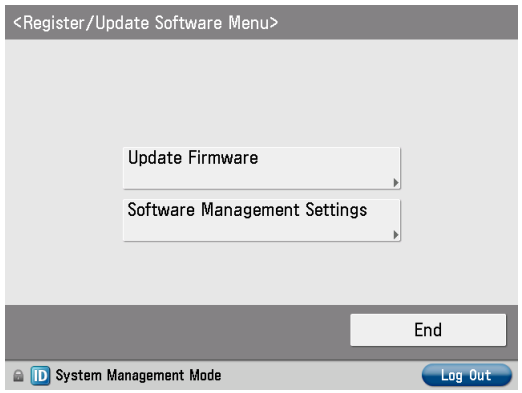
F-2-396

Enabling [Install Application/Options] Button

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)

- [Settings/Registration] screen of Updater when the setting is not enabled (CDS-MEAP(0)):



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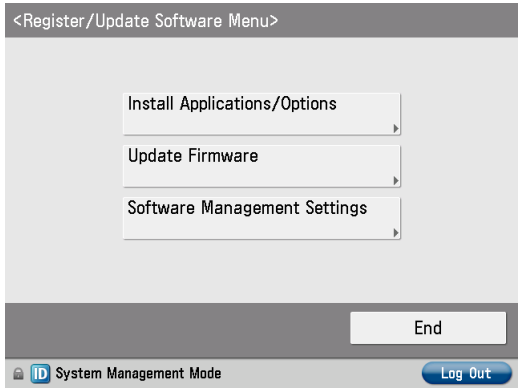
- [Settings/Registration] screen of Updater when the setting is enabled (CDS-MEAP(1)):



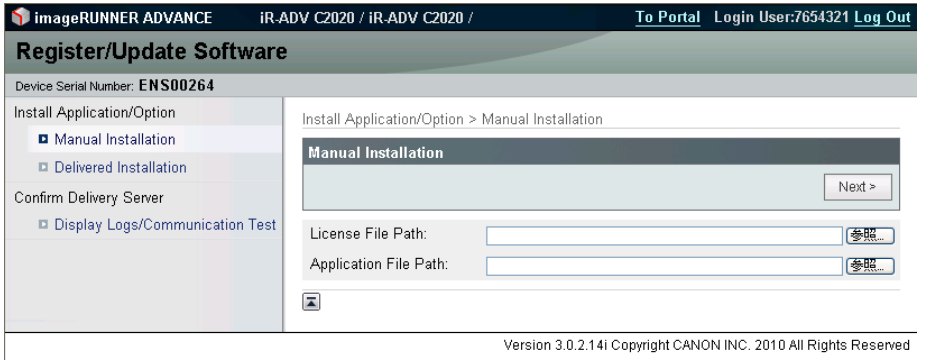
F-2-398

Enabling [Manual Update] Button of 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)):



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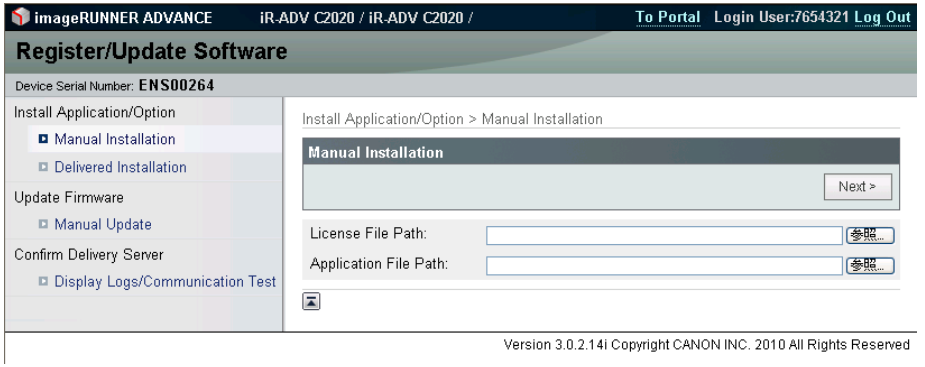
- Remote UI screen of Updater when the setting is enabled (LOCLFIRM (1)):



F-2-400

System Management Operations

Various Setting

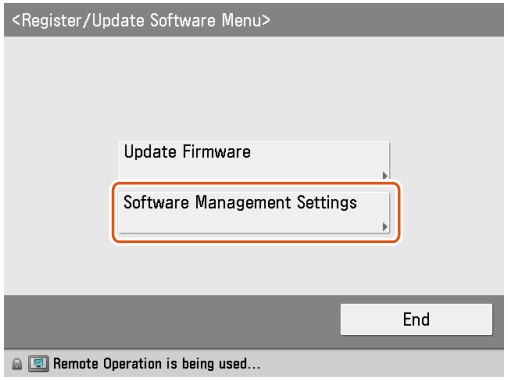
Setting URL of Distribution Server

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.



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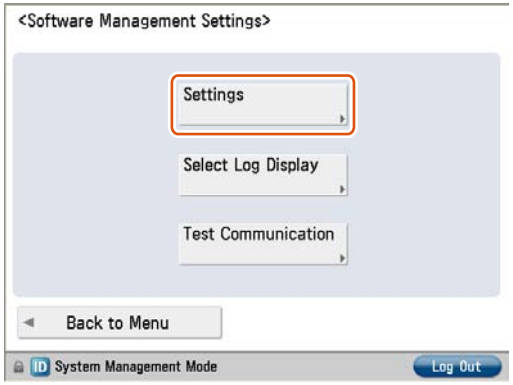
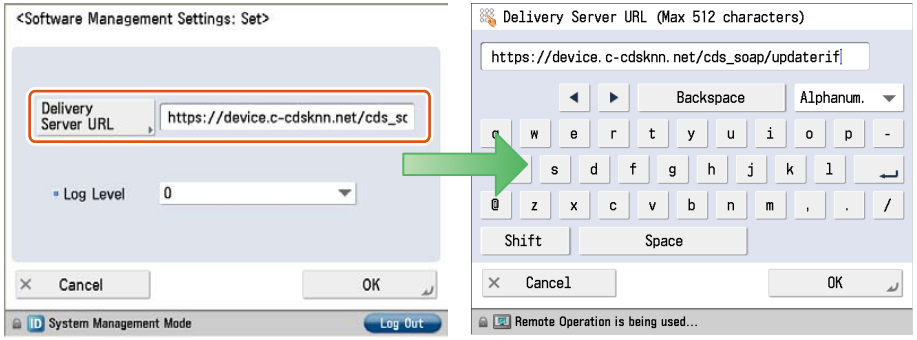
4. Press [Settings] button.



F-2-402

5. Press [Delivery Server URL] to show the virtual keypad. Enter the URL.



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- [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.

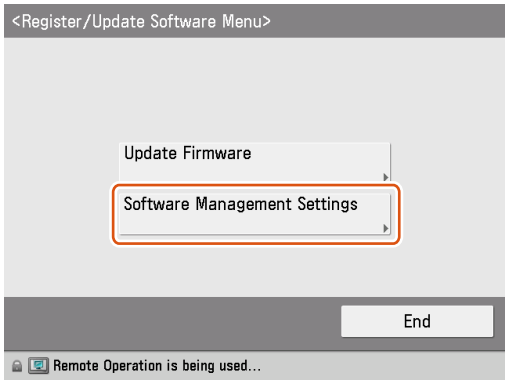
Setting Log Level

This section describes how to set system log levels.

1. Start [Service Mode] at Level 1.

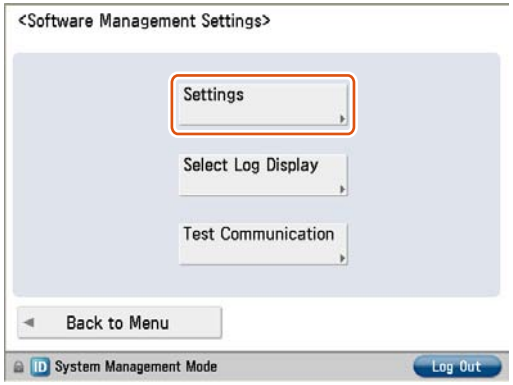
2. Press [Updater] button.

3. Press [Software Management Settings] button.



F-2-404

4. Press [Settings] button.



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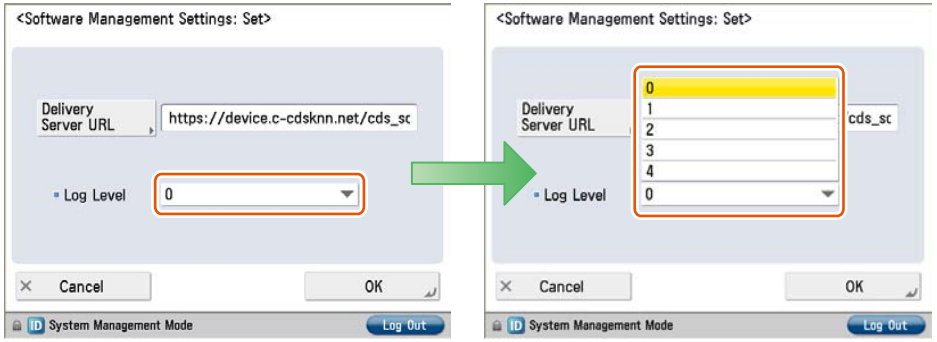
5. Select a log level from [Log Level] dropdown list.



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- [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

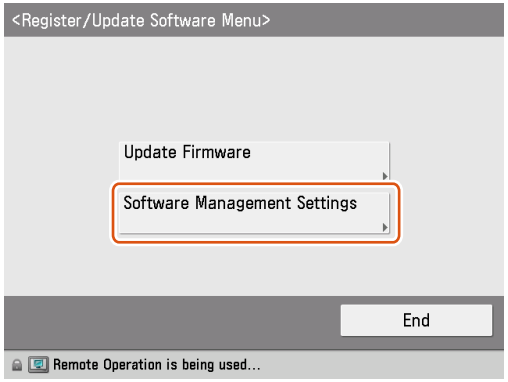
● Update Logs

This section describes how to confirm System Option/MEAP Application Installation Logs and Firmware Update Logs.

1. Start [Service Mode] at Level 1.

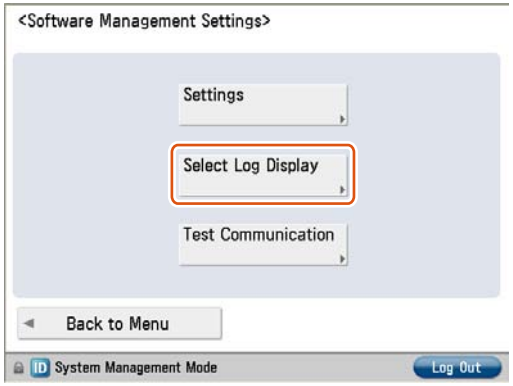
2. Press [Updater] button.

3. Press [Software Management Settings] button.



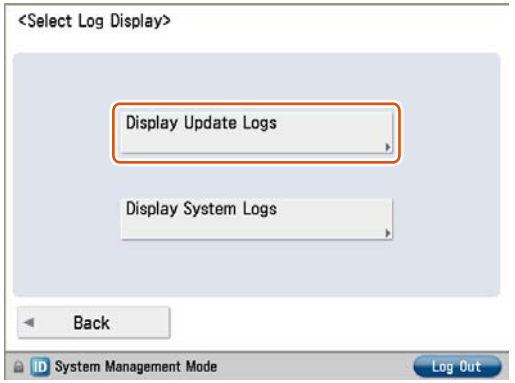
F-2-407

4. Press [Select Log Display] button.



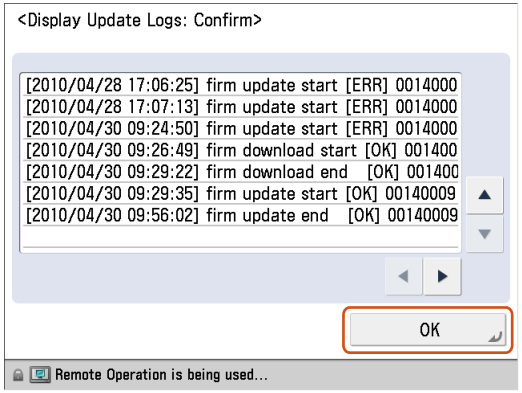
F-2-408

5. Press [Display Update Logs] button.



F-2-409

6. System Option/MEAP Application Installation Logs and Firmware Update Logs are shown. Press [OK] button to exit this operation.



F-2-410

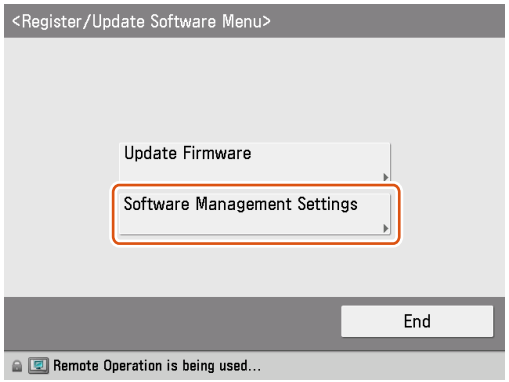
System Logs

This section describes how to confirm System Logs.

1. Start [Service Mode] at Level 1.

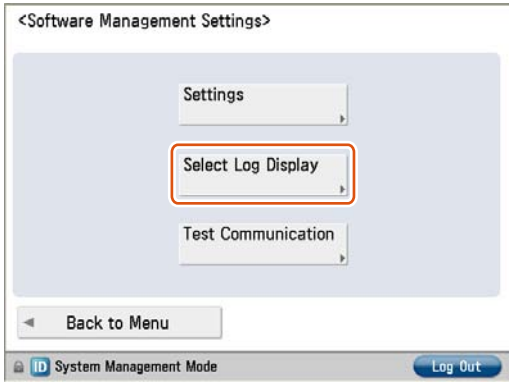
2. Press [Updater] button.

3. Press [Software Management Settings] button.



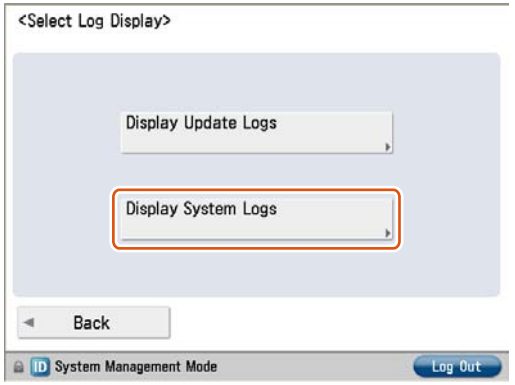
F-2-411

4. Press [Select Log Display] button.



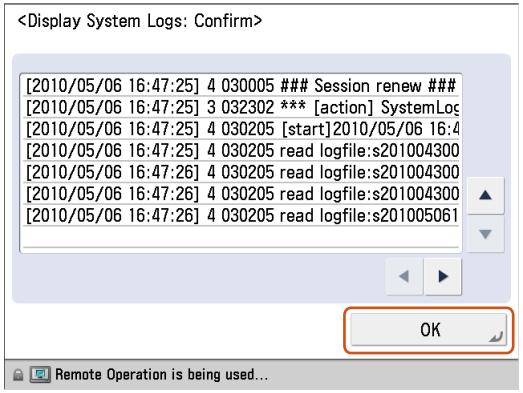
F-2-412

5. Press [Display System Logs] button.



F-2-413

6. Updater internal logs are displayed.
   Press [OK] button to exit this operation



F-2-414

NOTE:
See the section of "Debug Logs" under “Version Upgrade via CDS”, “Version Upgrade” of Chapter 6 “Troubleshooting” for more detailed information.

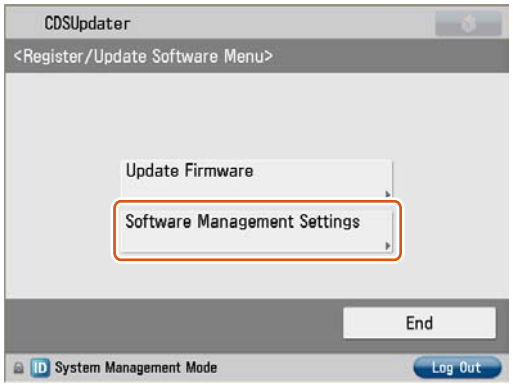
Communication Test

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.

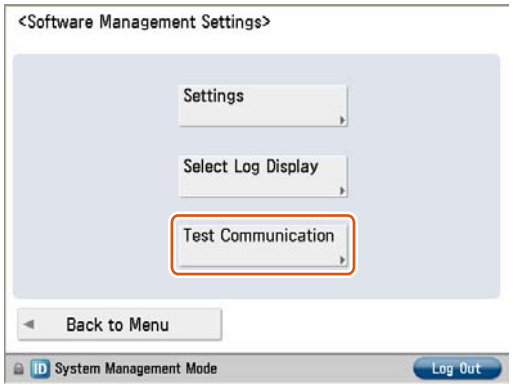
2. Press [Updater] button.

3. Press [Software Management Settings] button.



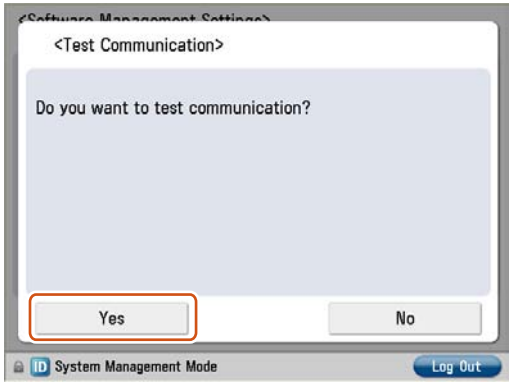
F-2-415

4. Press [Test Communication] button.



F-2-416

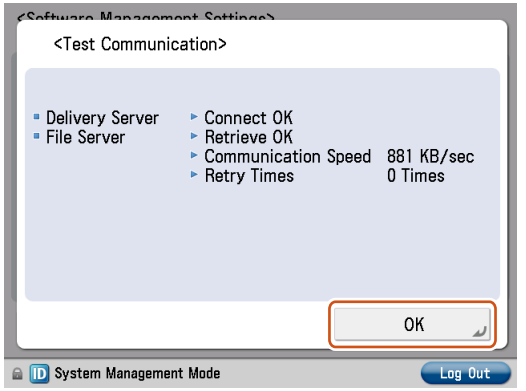
5. Press [Yes] button.



F-2-417

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-2-418

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” 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" of Chapter 2 for further information.
The settings initialized in format or replacement should be restored. See the section of "Preparation" 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

- Main Controller Board PCB
  The network and service mode setting should be set again after initialization. See the section of "Preparation" for more detailed information.

How to Replace Devices

All settings should be set again because no data are inherited. See the section of "Preparation" 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

T-2-99

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 [Settings/Registration] screen, 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

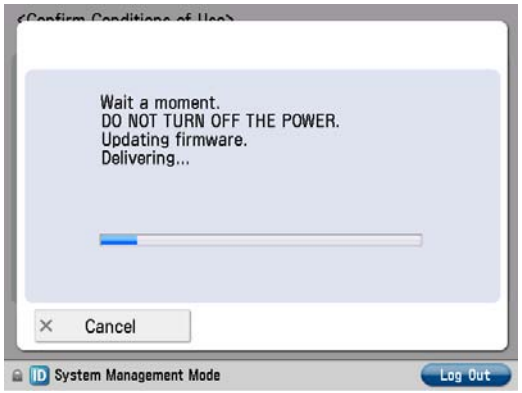
Q: If the device is down during firmware download, is it possible to download the firmware again?

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.



F-2-419

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.

DCM

DCM

Overview

DCM (Device Configuration Management) is a function to migrate the device settings infomation (e.g.: Settings/Registration Basic Information and Service Mode Settings). In terms of the description in the User's Guide, it is synonymous with "Import/Export All". Service mode setting values can be exported from the screen of service mode.
While the existing method supported only the case of backing up setting values for the same machine, DCM now supports the following 3 cases:

- The same machine (backup for the purpose of providing against emergency)
- A different machine of the same model (setting values are migrated collectively to multiple machines when replacing a host machine)
- A different model (e.g.: the setting values are copied from an old model to a new model)

Items to be Exported

The following shows the items to be exported.
Only setting values are exported. Image data such as scanned image cannot be exported.

	Export by remote UI	Export by service mode
Settings/Registration Basic Information	Yes	-
Paper Type Management Settings	Yes	-
Forwarding Settings	Yes	-
Department ID Management Settings	Yes	-
Main Menu Settings	Yes	-
Web Access Settings	Yes	-
Favorite Settings	Yes	-
Address Book	Yes	-
Quick Menu Settings	Yes	-
MEAP Application Setting Information	Yes	-
User Setting Information	Yes	-
Workflow Composer Settings	Yes	-
Service Mode Settings	Yes *	Yes

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* Not exported by default in the case of export by remote UI

For items to be imported, refer to "List of items which can be imported".

Method of Import/Export

The following shows the methods to import/export DCM files.

- Import/Export by remote UI
- Import/Export by service mode
- Import/Export using iW Management Console DCM Plug-in

Store the backup data in the following location.

- Export by remote UI > PC
- Export by service mode > USB flash drive/internal HDD

Even if data has been exported by one method, it can be exported by another one.
(E.g.: Data which was exported by remote UI can be imported by service mode)

For details of iW Management Console DCM Plug-in, refer to the e-Manual of iW Management Console DCM Plug-in.

Limitations on DCM General

- With DCM, stored data in Box, MEAP application, and system option license cannot be migrated.
- A DCM file exported to the internal HDD is not deleted even when the machine is restarted. Only 2 files at a maximum are stored in HDD. When there are more than 2 files, the oldest file are deleted.
- After importing a file, the machine must be restarted. If executing import without restart, NG is displayed and a file is not imported. This operation is not guaranteed.
- When importing DCM file including "Service Mode Settings" and "Settings/Registration Basic Information" separately, perform it in the following procedures.
  1. Perform the import of the DCM file including "Service Mode Settings" earlier
  2. Restart the host machine
  3. Import the DCM file including "Settings/Registration Basic Information"
- As include "Service Mode Settings", if the process is not completed within 5 minutes in the case of export and 15 minutes in the case of import, the item performed at that time is continued until it ends, but the final result becomes ERROR.
- DCM files to which no password is set when exporting by service mode cannot be loaded from collective import by remote UI. When assuming to perform collective import by remote UI, password must be set to data to be exported.

- Following limitations are applied to password for DCM file.
  - Character string of software keyboard: 0 to 32 characters
  - No password is set when 0 character is entered (The setting in which no password is set is allowed only export by service mode)
  - No space is allowed in the middle of a password
  - Password is case sensitive
- At the time of following setting, host matchine does not recognize USB flash drive. The DCM function is not usable, too.
  [Settings/Registration] > [Preferences] > [External Interface] > [USB Settings] > [Use MEAP Driver for External USB Device] = "On"

Limitations about Import/Export by Remote UI

- An import/export process ends with error while the following specific job is executed.
  - Send job
  - Forwarding job
  - FAX reception job
  - IFAX reception job
- If this function is executed with a print job simultaneously, it affects the operation such as; UI is locked, or a print job is cleared by restart after import. So it requires careful operation.
- A device rejects an import/ export request during shutdown.
- If this function is executed with device information distribution or remote UI import/ export (Individually) simultaneously, the first coming job takes priority and they are controlled exclusively.
- If this function is executed with a firmware update by a CDS (Updater) simultaneously, a firmware update process takes priority, and this function is stopped temporarily by restart.
- When error code is issued, this function ends with error.
- If the display language before import differs from that after import,, a setting value of a text corrupts in some cases. The character corruption can be solved by changing the display language to the appropriate one.

Export All by Remote UI

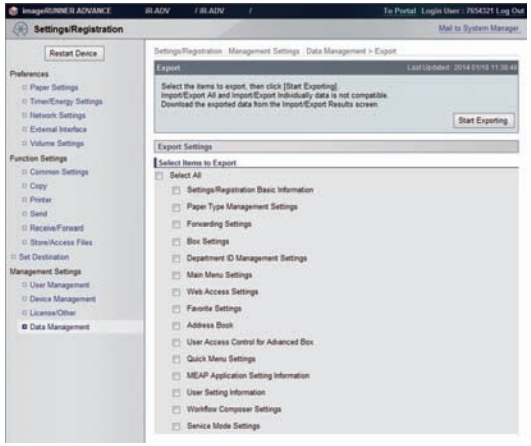
Changing the value of a related service mode item can include items of "Service Mode Settings" in a DCM file that is to be exported by remote UI.
A DCM file exported by remote UI can also be imported by service mode without using remote UI.
For details of import/export by remote UI, refer to the this machine's e-Manual.

Preparation

PC and web browser
USB flash drive to store the data of reference machine

Overall flow

1. Complete the device setting as a reference machine.
2. Change the setting value of the following service mode to [1] to display "Service Mode Settings" on remote UI.
   Service mode L1 > Copier > Option > USER > SMD-EXPT
   - [0]: Hide the "Service Mode Settings" (Def.)
   - [1]: Display the "Service Mode Settings"
3. Export including "Service Mode Settings" from remote UI.



F-2-420

4. Copy the DCM file to the root folder of the USB flash drive using a PC.
5. Connect the USB flash drive to the copy destination machine.
6. Execute import by specifying the target files from [RESTORE] in service mode. (Refer to "Import Procedure" of "Import/Export by Service Mode (External)")

■ Import/Export by Service Mode (External)

Import/export by service mode allows the selection between USB flash drive and internal HDD for the save destination of DCM files.
The procedure of import/export when USB flash drive is selected is shown below.

The DCM files to be exported contain only the items of "Service Mode Settings"
The DCM files to be imported can have been exported either by service mode or by remote UI.

● Export Procedure

Preparation

USB flash drive

* Required when exporting to USB flash drive.
It needs to have been formatted to be recognized by the device. No firmware registration is necessary.

Overall flow

Here, a method to export to a USB flash drive is mentioned below.

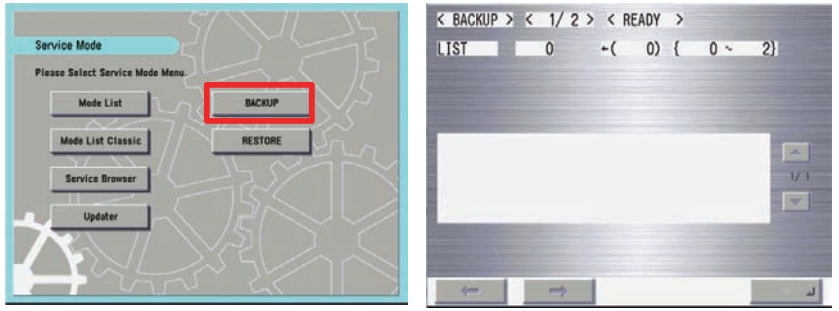
(1) Select USB flash drive as save destination (LIST=1)
(2) Set the password
(3) Export to USB flash drive
(4) Remove USB flash drive

Procedure

1. Connect the USB flash drive and check that it has been mounted.

F-2-421

2. Log in to service mode and press [BACKUP].

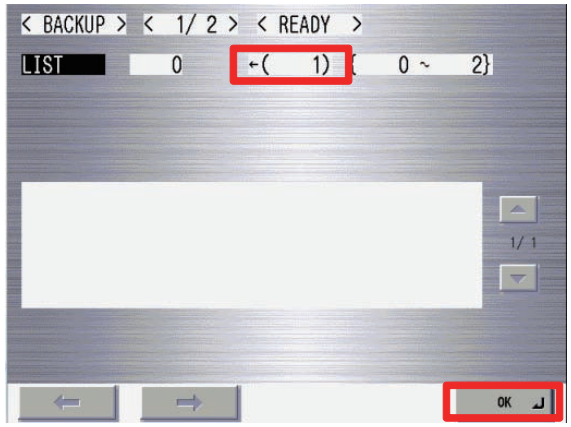


F-2-422

3. Select [LIST] after the screen moves to <BACKUP>.

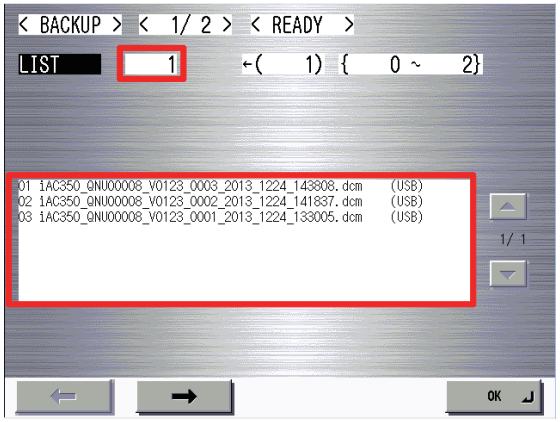
F-2-423

4. When saving to USB flash drive, enter "1" and press [OK].



F-2-424

5. The names of DCM files saved in USB flash drive are displayed. Press [->].



F-2-425

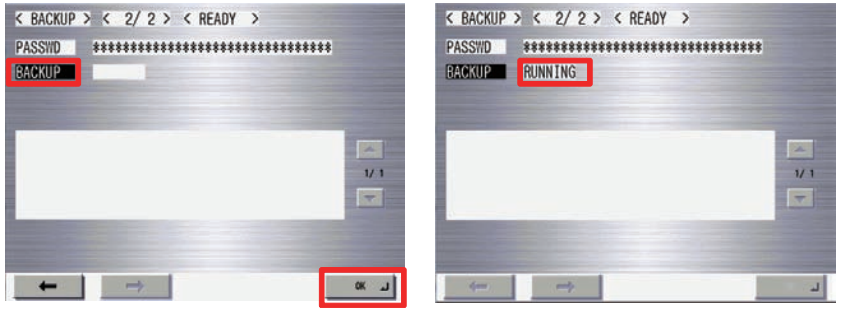
6. Select [PASSWD], enter a password from the software keyboard, and then press [OK].

F-2-426

Note:
Limitations regarding the password
- Character string of software keyboard: 0 to 32 characters
- No password is set when 0 character is entered
- No space is allowed in the middle of a password
- Password is case sensitive

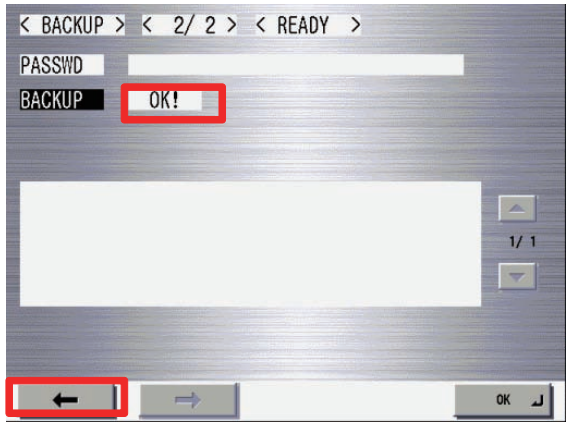
Limitations regarding the DCM file no password
DCM files exported without password can only be imported by service mode. They cannot be imported by remote UI.

7. After entering the password, select [BACKUP]. Press [OK] to execute export.



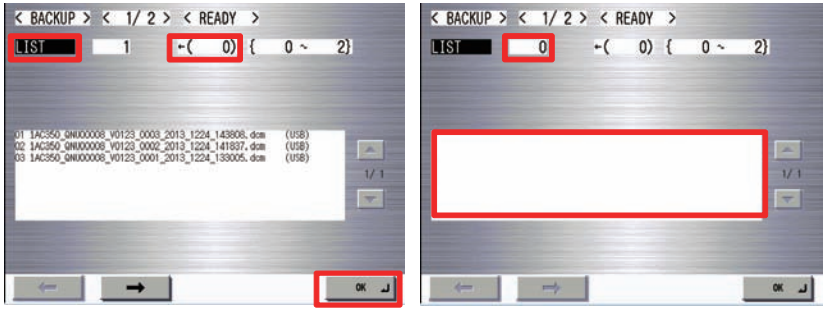
F-2-427

8. "OK!" is displayed in the status column when the processing is successfully completed. Press [<-].



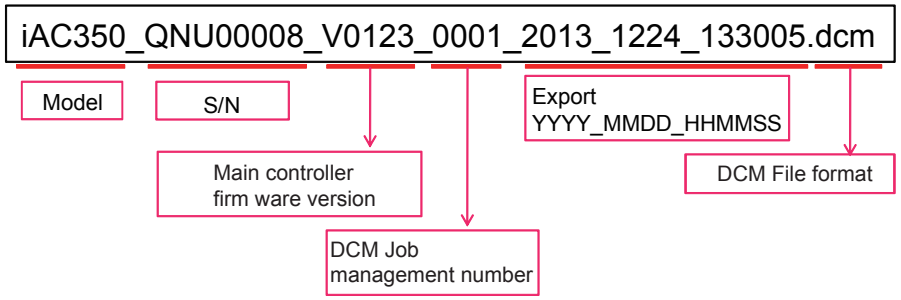
F-2-428

9. Select [LIST], enter "0" and press [OK]. Unmount the USB flash drive.
It can also be removed by pressing the Remove button on the main menu.



F-2-429

Reference:



F-2-430

● Import Procedure

Preparation

USB flash drive

Note:
- It needs to have been formatted to be recognized by the device. No firmware registration is necessary
- When necessary, copy the files which you want to import using a PC in advance. Be sure to store them in the root folder of the USB flash drive
- Do not change the extension from ".dcm" (only ".dcm" files can be recognized)
- It is desirable to connect the USB flash drive before entering service mode

Overall flow

Procedure for importing from USB flash drive.

(1) Select USB flash drive as save destination (LIST=1)
(2) Select the saved DCM file
(3) Enter the password
(4) Import from USB flash drive
(5) Remove USB flash drive

Procedure

1. Connect the USB flash drive.

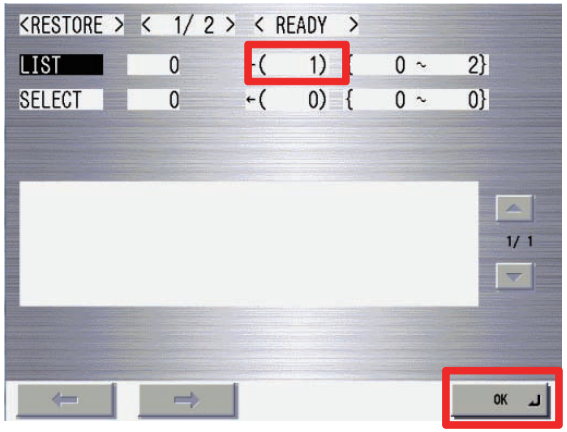
2. Log in to service mode and press [RESTORE].

F-2-431

3. Select [LIST] after the screen moves to <RESTORE>.

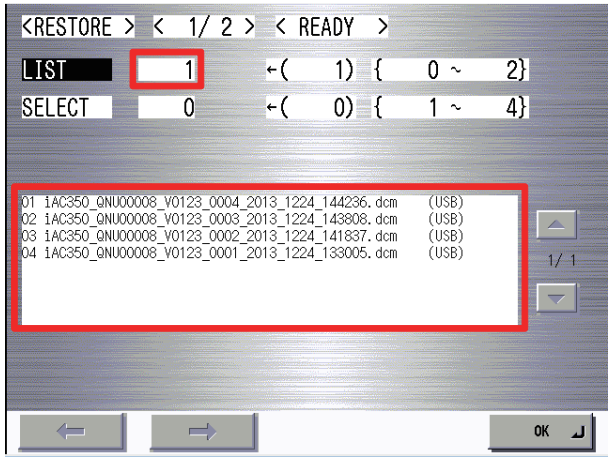
F-2-432

4. When referring to USB flash drive, enter "1" and press [OK].



F-2-433

5. The names of DCM files saved in USB flash drive are displayed.

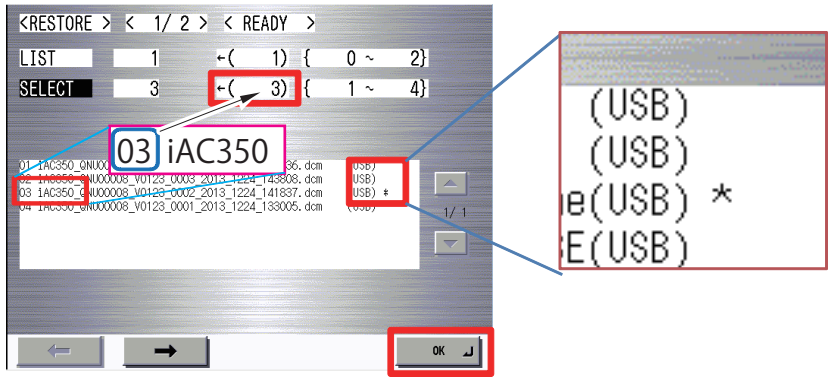


F-2-434

6. Select [SELECT].

Enter the selection number displayed on the left side of the file to be selected and press [OK].

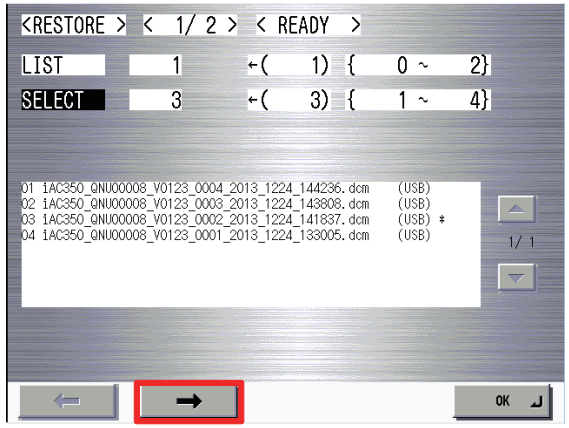
"*" is displayed on the right side of the file to indicate that the file has been selected.



F-2-435

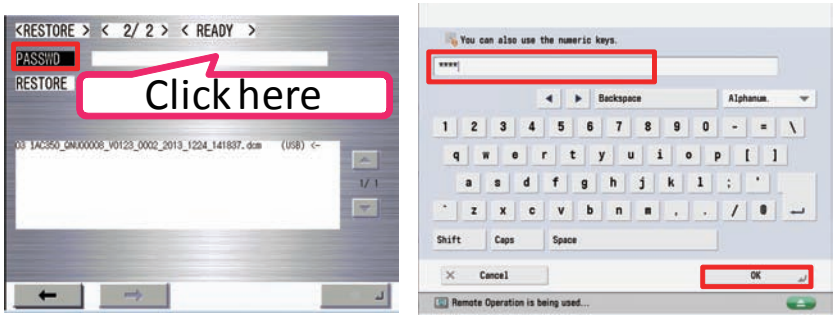
Note:
Up to 8 DCM files are displayed in one screen. It is necessary to switch screens when there are more than 8 files.

7. When the correct file is displayed, press [->].



F-2-436

8. Select [PASSWD], enter a password from the software keyboard, and then press [OK].



F-2-437

F-2-438

Note:
"<-" is displayed on the right side of the file to indicate that the selection of the file has been confirmed.
"***" is displayed after the password is entered.

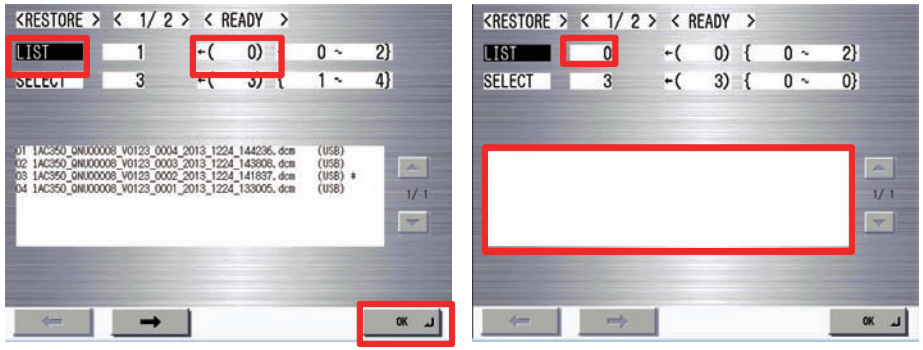
9. After entering the password, select [RESTORE]. Press [OK] to execute import.

F-2-439

10. "OK!" is displayed in the status column when the processing is successfully completed. Press [<-].

F-2-440

11. Select [LIST], enter "0" and press [OK]. Unmount the USB flash drive. It can also be removed by pressing the Remove button on the main menu.



F-2-441

■ Import/Export by Service Mode (Internal)

Import/export by service mode allows the selection between USB flash drive and internal HDD for the save destination of DCM files.
The procedure of import/export when internal HDD is selected is shown below.
It can be used when recovering the initial status after having tried multiple setting changes temporarily for troubleshooting, etc.

Note:
- DCM must not be used when replacing PCBs. Be sure to perform backup of DCON/RCON in service mode
- Maximum of 2 files can be saved in the host machine's HDD

● Export Procedure

Preparation

There is no need to newly prepare for saving to internal HDD.

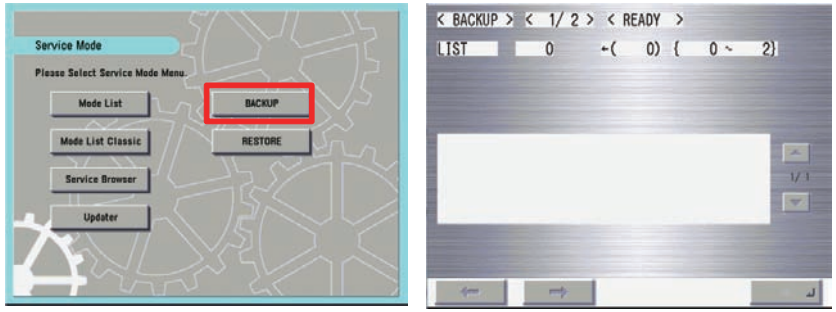
Overall flow

Here is a procedure for exporting to internal HDD.

1. Select internal HDD as save destination (LIST=2)
2. Set the password
3. Export to internal HDD

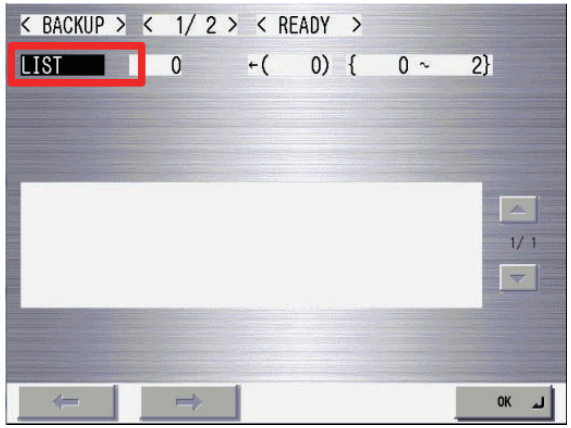
Procedure

1. Log in to service mode and press [BACKUP].



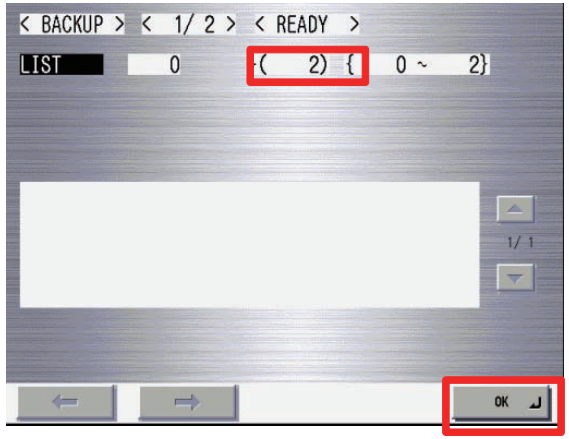
F-2-442

2. Select [LIST] after the screen moves to <BACKUP>.



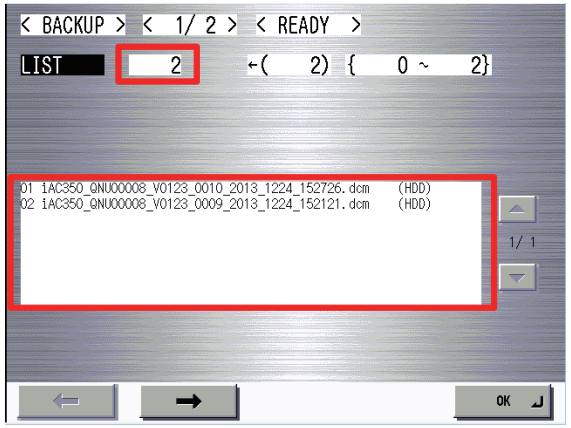
F-2-443

3. When saving to the internal HDD, enter "2" and press [OK].



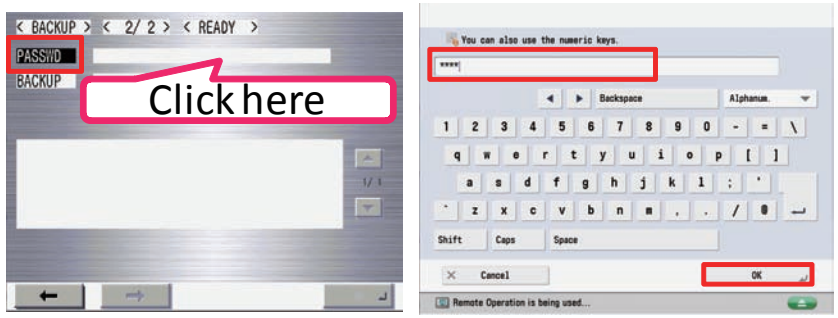
F-2-444

4. The names of DCM files saved in internal HDD are displayed. Press [->].



F-2-445

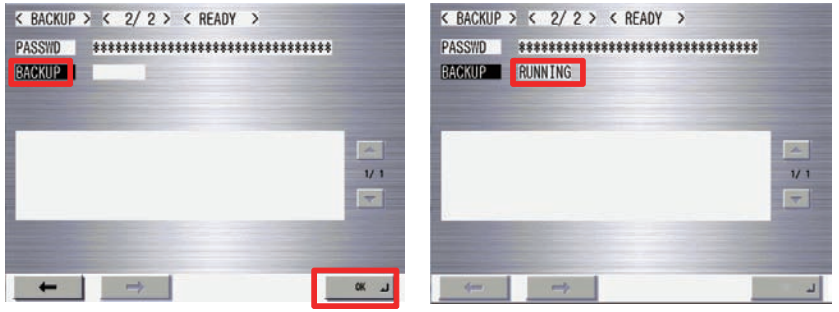
5. Select [PASSWD], enter a password from the software keyboard, and then press [OK].



F-2-446

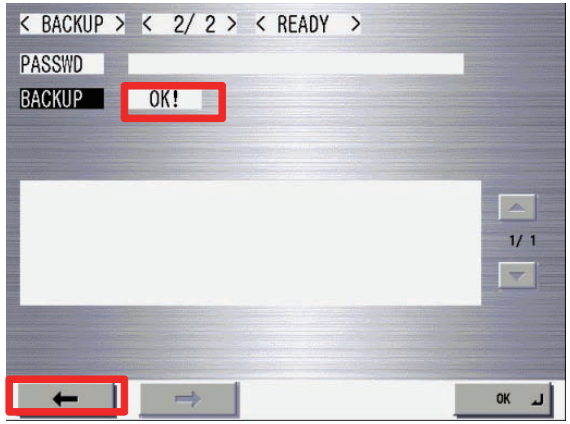
Note:
Limitations regarding the password
- Character string of software keyboard: 0 to 32 characters
- No password is set when 0 character is entered
- No space is allowed in the middle of a password
- Password is case sensitive

6. After entering the password, select [BACKUP]. Press [OK] to execute export.



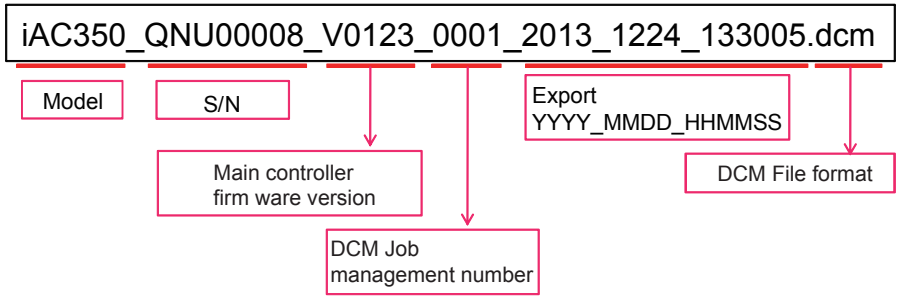
F-2-447

7. "OK!" is displayed in the status column when the processing is successfully completed. Press [<-].



F-2-448

Reference:



F-2-449

● Import Procedure

Preparation

There is no need to newly prepare for saving to internal HDD.

Overall flow

Here is a procedure for Importing from internal HDD.

(1) Select internal HDD as save destination (LIST=2)
(2) Select the saved DCM file
(3) Register password
(4) Import from the internal HDD

Procedure

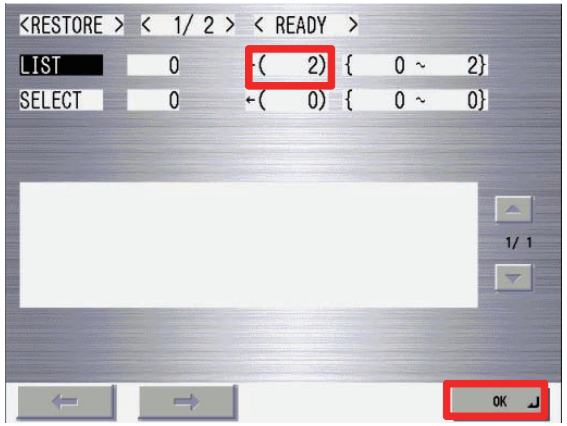
1. Log in to service mode and press [RESTORE].

F-2-450

2. Select [LIST] after the screen moves to <RESTORE>.

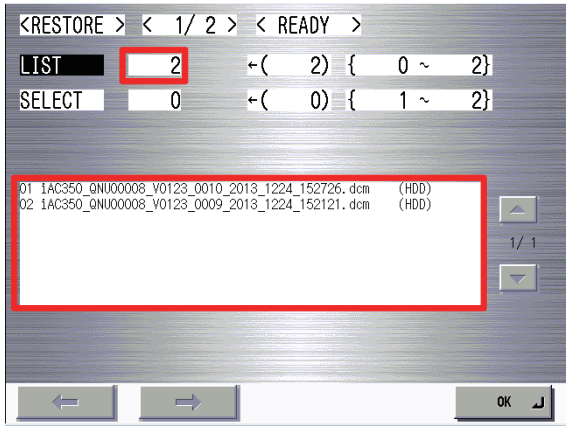
F-2-451

3. When referring to internal HDD, enter "2" and press [OK].



F-2-452

4. The names of DCM files referred to in internal HDD are displayed.

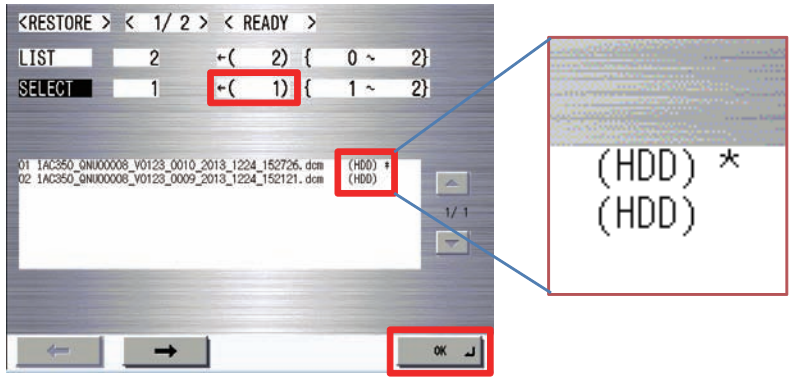


F-2-453

5. Select [SELECT].

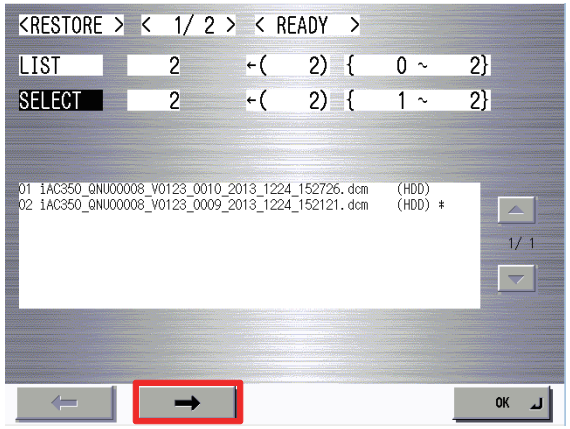
Enter the selection number displayed on the left side of the file to be selected and press [OK].

" *" is displayed on the right side of the file to indicate that the file has been selected.



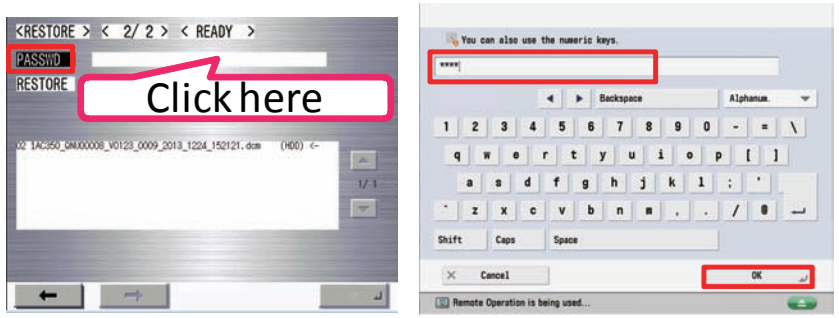
F-2-454

6. When the correct file is displayed, press [->].

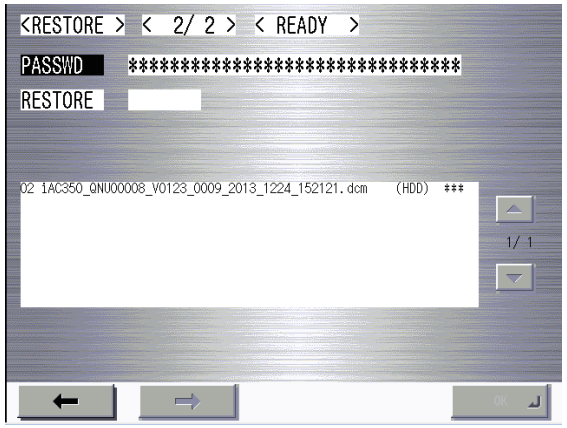


F-2-455

7. Select [PASSWD], enter a password from the software keyboard, and then press [OK].



F-2-456

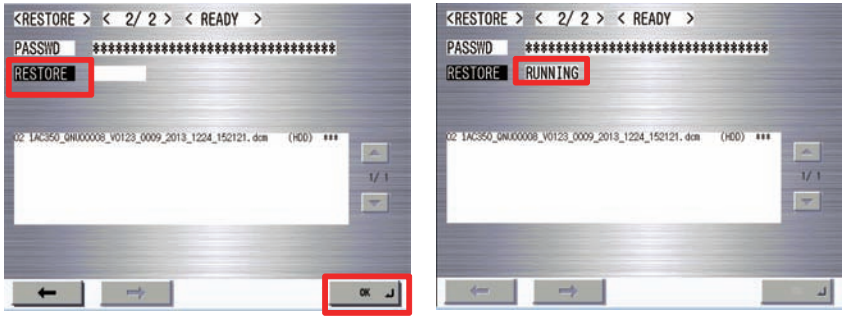


F-2-457

Note:

- "<-" is displayed on the right side of the file to indicate that the selection of the file has been confirmed.
- "****" is displayed after the password is entered.

8. After entering the password, select [RESTORE]. Press [OK] to execute import.



F-2-458

9. "OK!" is displayed in the status column when the processing is successfully completed. Press [<-].

F-2-459

List of items which can be imported

The following shows the items to be imported for this model.
Note that the setting values are not imported in cases such as below:

- Items which are originally not included in a DCM file (E.g.:"Settings/Registration Basic Information" of a DCM file exported by service mode)
- Items not defined in the target import range (below cases A through C)
- The options and functions related to the setting values do not exist

The following cases may be possible for the Import function.

	Target import range	Description
Case A	The same machine	Import to the same machine (on the assumption of backup and restoration)
Case B	The same model	Import to a different machine of the same model (the same series)
Case C	Different model	Import to a different machine of a different model (a different series)

T-2-103

Settings/Registration Basic Information

Setting Information			Case A	Case B	Case C
Preferences	Paper Settings	Paper Settings	Yes	Yes	No
		Paper Size Group for Auto Recog. in Drawer	Yes	Yes	No
		A5/STMT Paper Selection	Yes	Yes	No
		Register Custom Size	Yes	Yes	No
	Display Settings	Default Screen after Startup/Restoration	Yes	Yes	Yes
		Default Screen (Status Monitor/Cancel)	Yes	Yes	Yes
		Display Fax Function	Yes	Yes	Yes
		Store Location Display Settings	Yes	Yes	Yes
		Language/Keyboard Switch On/Off	Yes	Yes	Yes
		Language/Keyboard Switch	Yes	Yes	Yes
		Use Keyboard Shift Lock Feature	Yes	Yes	Yes
		Display Remaining Paper Message	Yes	Yes	Yes
		No. of Copies/Job Duration Status	Yes	Yes	Yes
		Display Original Scanning Cleaning Area	Yes	Yes	Yes
		Paper Type Selection Screen Priority	Yes	Yes	Yes

Setting Information				Case A	Case B	Case C
Preferences	Display Settings	mm/Inch Entry Switch		Yes	Yes	Yes
		ID/User Name Display On/Off		Yes	Yes	Yes
		Display Remaining Toner Error Message		Yes	Yes	Yes
	Timer/Energy Settings	Date/Time Settings		Yes	Yes	Yes
		Time Format		Yes	Yes	Yes
		Quick Startup Settings for Main Power		Yes	Yes	Yes
		Auto Reset Time		Yes	Yes	Yes
		Restrict Auto Reset Time		Yes	Yes	Yes
		Function After Auto Reset		Yes	Yes	Yes
		Auto Sleep Time		Yes	Yes	Yes
		Sleep Mode Energy Use		Yes	Yes	Yes
		Auto Sleep Weekly Timer		Yes	Yes	Yes
		Sleep Mode Exit Time Settings		Yes	Yes	Yes
	Network	Confirm Network Connection Set. Changes		Yes	Yes	Yes
		TCP/IP Settings				
		IPv4 Settings	Use IPv4	Yes	Yes	Yes
			IP Address Settings			
			• IP Address	Yes	No	No
			• Subnet Mask	Yes	Yes	Yes
			• Gateway Address	Yes	Yes	Yes
			• DHCP	Yes	Yes	Yes
			• Auto IP	Yes	Yes	Yes
			DHCP Option Settings	Yes	Yes	Yes
		IPv6 Settings	Use IPv6	Yes	Yes	Yes
			Stateless Address Settings	Yes	Yes	Yes
			Manual Address Settings	Yes	No	No
			Use DHCPv6	Yes	Yes	Yes
		DNS Settings	DNS Server Address Settings	Yes	Yes	Yes
			DNS Host/Domain Name Settings	Yes	No	No
			DNS Dynamic Update Settings	Yes	Yes	Yes
			mDNS SettingsUse mDNS/mDNS Name	Yes	Yes	Yes
		WINS Settings		Yes	Yes	Yes
		LPD Print Settings		Yes	Yes	Yes
		RAW Print Settings		Yes	Yes	Yes
		SNTP Settings		Yes	Yes	Yes
		FTP Print Settings		Yes	Yes	Yes
		WSD Settings		Yes	Yes	Yes
		Use FTP PASV Mode		Yes	Yes	Yes
		Multicast Discovery Settings		Yes	Yes	Yes
		Use HTTP		Yes	Yes	Yes
		Proxy Settings		Yes	Yes	Yes
		NetWare Settings		Yes	Yes	Yes
		SNMP Settings		Yes	Yes	Yes

Setting Information				Case A	Case B	Case C
Preferences	Network	Dedicated Port Settings		Yes	Yes	Yes
		Use Spool Function		Yes	Yes	Yes
		Startup Settings		Yes	Yes	Yes
		Ethernet Driver Settings		Yes	Yes	Yes
		Firewall Settings		Yes	Yes	Yes
	External Interface	USB Settings		Yes	Yes	Yes
	Accessibility	Key Repetition Settings		Yes	Yes	Yes
		Reversed Display (Color)		Yes	Yes	Yes
Adjustment/ Maintenance	Adjust Image Quality	Correct Density		Yes	Yes	Yes
		Full Color Printing Vividness Settings		Yes	No	No
		Fine Adjust Zoom		Yes	No	No
		Adjust Toner Volume Used for Color Printing		Yes	No	No
		Fill Area Image Adjustment Mode		Yes	Yes	No
Function Settings	Common	Paper Feed Settings		Yes	Yes	No
		Paper Drawer Auto Selection On/Off		Yes	Yes	No
		Feed Method Switch		Yes	Yes	No
		Suspended Job Timeout		Yes	Yes	Yes
		Paper Output Settings		Yes	Yes	Yes
		Print Settings				
		Print Priority		Yes	Yes	Yes
		Text/Photo Priority When ACS Is Set to Black		Yes	Yes	Yes
		Output Report Default Settings		Yes	Yes	Yes
		Register Characters for Page No./Watermark		Yes	Yes	Yes
		Copy Set Numbering Option Settings		Yes	Yes	No
		Secure Watermark/ Document Scan Lock	Forced Secure Watermark/ Document Scan Lock	Yes	Yes	Yes
			Printer Driver Secure Watermark	Yes	Yes	Yes
			Adjust Background/Character Contrast			
			• Relative Contrast	Yes	No	No
			• Standard Value Set.	Yes	No	No
			• Latent Area Density	Yes	No	No
			Adjust TL Code			
			• Dot Size	Yes	No	No
			• Dot Density	Yes	Yes	Yes
		Scan Settings				
		Streak Prevention		Yes	Yes	No
		Feeder Scan Speed/Image Quality Priority		Yes	Yes	No
		Remote Scan Gamma Value		Yes	Yes	No
		Auto Online		Yes	Yes	Yes
		Auto Offline		Yes	Yes	Yes
		Generate File				
		High Compression Image Quality Level		Yes	Yes	Yes
		OCR (Text Searchable) Settings		Yes	Yes	Yes
		Trace & Smooth Settings		Yes	Yes	No

Setting Information				Case A	Case B	Case C
Function Settings	Common	OOXML Settings		Yes	Yes	Yes
		Specify Minimum PDF Version		Yes	Yes	Yes
		Format PDF to PDF/A		Yes	Yes	Yes
		Optimize PDF for Web		Yes	Yes	Yes
		256-bit AES Settings for Encrypted PDF		Yes	Yes	Yes
		Rights Management Server Settings		Yes	Yes	Yes
		Document Scan Lock Operational Settings		Yes	Yes	Yes
		Set Authentication Method		Yes	Yes	Yes
	Copy	Auto Collate		Yes	Yes	No
		Select Color Settings for Copy		Yes	Yes	Yes
	Send	Common Settings		Yes	Yes	Yes
		E-Mail/I-Fax Settings				
		Register Unit Name		Yes	Yes	Yes
		Communication Settings		Yes	Yes	Yes
		Confirm SSL Certificate for SMTP TX		Yes	Yes	Yes
		Confirm SSL Certificate for POP RX		Yes	Yes	Yes
		Maximum Data Size for Sending		Yes	Yes	Yes
		Default Subject		Yes	Yes	Yes
		Specify Authentication User Dest. to Reply		Yes	Yes	Yes
		Set Authentication User Destination to Sender		Yes	Yes	Yes
		Allow Unregistered Users to Send E-Mail		Yes	Yes	Yes
		Full Mode TX Timeout		Yes	Yes	Yes
		Print MDN/DSN upon Receipt		Yes	Yes	Yes
		Use Send via Server		Yes	Yes	Yes
		Allow MDN Not via Server		Yes	Yes	Yes
		Restrict TX Destination Domain		Yes	Yes	Yes
		Autocomplete for Entering E-Mail Addresses		Yes	Yes	Yes
		Fax Settings				
		Default Screen		Yes	Yes	Yes
		Change Default Settings		Yes	Yes	Yes
		Register Options Shortcuts		Yes	Yes	Yes
		Register Sender Name (TTI)		Yes	Yes	Yes
		Use Auth. User Name as Sender Name		Yes	Yes	Yes
		ECM TX		Yes	Yes	Yes
		Set Pause Time		Yes	Yes	Yes
		Auto Redial		Yes	Yes	Yes
		Check Dial Tone Before Sending		Yes	Yes	Yes
		Fax TX Report		Yes	Yes	Yes
		Fax Activity Report		Yes	Yes	Yes
		Set Line	Line 1 to Line 2			
			Register Unit Telephone Number	Yes	No	No
			Register Unit Name	Yes	No	No
			Select Line Type	Yes	Yes	Yes

Setting Information				Case A	Case B	Case C
Function Settings	Send	TX Start Speed		Yes	Yes	Yes
		Confirm Entered Fax Number		Yes	Yes	Yes
		Allow Fax Driver TX		Yes	Yes	Yes
		Confirm Before Sending When Fax Dest. Incl.		Yes	Yes	Yes
		Restrict Seq. Broadcast When Fax Dest. Incl.		Yes	Yes	Yes
	Receive/ Forward	Common Settings				
		Print on Both Sides		Yes	Yes	Yes
		Reduce Fax RX Size		Yes	Yes	Yes
		2 on 1 Log		Yes	Yes	Yes
		Received Page Footer		Yes	Yes	Yes
		Interrupt and Print RX Jobs		Yes	Yes	No
		Handle Files with Forwarding Errors		Yes	Yes	Yes
		Fax Settings		Yes	Yes	Yes
	Store/Access Files		Network Settings	Yes	Yes	Yes
			Memory Media Settings	Yes	Yes	Yes
	Secure Print	Simple Authentication Settings		Yes	Yes	Yes
		Only Allow Encrypted Print Jobs		Yes	Yes	Yes
Set Destination	Change Default Display of Address Book			Yes	Yes	Yes
	Address Book PIN			Yes	Yes	Yes
	Manage Address Book Access Numbers			Yes	Yes	Yes
	Include Pswd. When Exporting Address Book			Yes	Yes	Yes
	Register LDAP Server			Yes	Yes	No
	Auto Search When Using LDAP Server			Yes	Yes	Yes
	Register/Edit LDAP Search Conditions			Yes	Yes	No
	Acquire Remote Address Book	Acquire Address Book		Yes	Yes	Yes
		Remote Address Book Server Address		Yes	Yes	Yes
		Communication Timeout		Yes	Yes	Yes
		Fax TX Line Auto Select Adjustment		Yes	Yes	Yes
Management Settings	Device Management	Device Information Settings		Yes	No	No
		Device Information Delivery Settings				
		Register Destinations		Yes	Yes	No
		Set Auto Delivery		Yes	Yes	No
		Restrict Receiving Device Information		Yes	Yes	Yes
		Restrict Receiving for Each Function		Yes	Yes	Yes
		Report Settings		Yes	Yes	Yes
		Set MEAP Authentication		Yes	Yes	Yes
		Use MEAP Auth. When Receive		Yes	Yes	Yes
		Display Job Status Before Authentication		Yes	Yes	Yes
		Display Log		Yes	Yes	Yes
		Audit Log Retrieval		Yes	Yes	Yes
		Store Key Operation Log		Yes	Yes	Yes
		Format Encryption Method to FIPS 140-2		Yes	Yes	Yes

Setting Information			Case A	Case B	Case C
Management Settings	License/ Other	Message Board/Support Link	Yes	Yes	Yes
		Remote Operation Settings	Yes	Yes	Yes
		Use ACCESS MANAGEMENT SYSTEM	Yes	Yes	Yes
	Data Management	Delete Existing Data Settings	Yes	Yes	Yes

T-2-104

Box Settings

Setting Information		Case A	Case B	Case C
Function Settings				
Receive/Forward	Memory RX Inbox PIN	Yes	Yes	Yes

T-2-105

Department ID Management Settings

Setting Information		Case A	Case B	Case C
Management Settings				
User Management	System Manager/Contact Person Information Settings	Yes	Yes	Yes
	Department ID Management			
	Register PIN	Yes	Yes	Yes

T-2-106

Main Menu Settings

Setting Information		Case A	Case B	Case C
Main Menu Settings				
Setting File		Yes	Yes	Yes

T-2-107

Favorite Settings

Setting Information		Case A	Case B	Case C
Function Settings				
Copy	Register/Edit Favorite Settings	Yes	Yes	No
	Change Default Settings	Yes	Yes	No
	Register Options Shortcuts	Yes	Yes	No
Send	Common Settings	Yes	Yes	Yes
	E-Mail/I-Fax Settings	Yes	Yes	Yes
	Fax Settings	Yes	Yes	Yes
Store/Access Files	Common Settings	Yes	Yes	No

T-2-108

Address Book

Setting Information	Case A	Case B	Case C
Set Destination			
Register Destinations	Yes	Yes	Yes
Rename Address List	Yes	Yes	Yes
Register One-Touch	Yes	Yes	Yes

T-2-109

Forwarding Settings

Setting Information		Case A	Case B	Case C
Function Settings				
Receive/Forward	Common Settings	Yes*	Yes*	Yes*

T-2-110

* If an address registered in the Remote Address Book is specified as the forwarding destination, the forwarding destination information of that address is not imported. However, if the exporting machine and importing machine use the same Remote Address Book, the importing machine can use the same forwarding settings.

Quick Menu Settings

Setting Information	Case A	Case B	Case C
Quick Menu Settings			
Button File	Yes	Yes	No

T-2-111

MEAP Application Setting Information

Setting Information	Case A	Case B	Case C
Workflow Composer			
Flow Data File	Yes	Yes	Yes
Operation Setting File	Yes	Yes	Yes
MEAP User Setting Information			
Data	Yes	Yes	Yes
MEAP Application Setting Information			
Data	Yes	Yes	Yes

T-2-112

Paper Type Management Settings

Setting Information		Case A	Case B	Case C
Preferences				
Paper Settings	Paper Type Management Settings	Yes	Yes	Yes

T-2-113

Web Access Settings

Setting Information	Case A	Case B	Case C
Web Access Settings			
Favorites	Yes	Yes	Yes
Settings	Yes	Yes	Yes

T-2-114

Service Mode

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	ADJUST	ADJ-XY	ADJ-X	Yes	-	-
			ADJ-Y	Yes	-	-
			ADJ-S	Yes	-	-
			ADJ-Y-DF	Yes	-	-
			STRD-POS	Yes	-	-
			ADJ-X-MG	Yes	-	-
		CCD	W-PLT-X	Yes	-	-
			W-PLT-Y	Yes	-	-
			W-PLT-Z	Yes	-	-
			50-RG	Yes	-	-
			50-GB	Yes	-	-
			100-RG	Yes	-	-
			100-GB	Yes	-	-
			50DF-RG	Yes	-	-
			50DF-GB	Yes	-	-
			100DF-RG	Yes	-	-
			100DF-GB	Yes	-	-
			DFTAR-R	Yes	-	-
			DFTAR-G	Yes	-	-
			DFTAR2-R	Yes	-	-
			DFTAR2-G	Yes	-	-
			DFTAR2-B	Yes	-	-
			MTF2-M1	Yes	-	-
			MTF2-M2	Yes	-	-
			MTF2-M3	Yes	-	-
			MTF2-M4	Yes	-	-
			MTF2-M5	Yes	-	-
			MTF2-M6	Yes	-	-
			MTF2-M7	Yes	-	-
			MTF2-M8	Yes	-	-
			MTF2-M9	Yes	-	-
			MTF2-S1	Yes	-	-
			MTF2-S2	Yes	-	-
			MTF2-S3	Yes	-	-
			MTF2-S4	Yes	-	-
			MTF2-S5	Yes	-	-
			MTF2-S6	Yes	-	-
			MTF2-S7	Yes	-	-
			MTF2-S8	Yes	-	-
			MTF2-S9	Yes	-	-
			MTF-M1	Yes	-	-
			MTF-M2	Yes	-	-
			MTF-M3	Yes	-	-
			MTF-M4	Yes	-	-
			MTF-M5	Yes	-	-
			MTF-M6	Yes	-	-
			MTF-M7	Yes	-	-
			MTF-M8	Yes	-	-
			MTF-M9	Yes	-	-
			MTF-S1	Yes	-	-
			MTF-S2	Yes	-	-
			MTF-S3	Yes	-	-
			MTF-S4	Yes	-	-
			MTF-S5	Yes	-	-
			MTF-S6	Yes	-	-
			MTF-S7	Yes	-	-
			MTF-S8	Yes	-	-
			MTF-S9	Yes	-	-
			DFTAR3-R	Yes	-	-
			DFTAR3-G	Yes	-	-
			DFTAR3-B	Yes	-	-
			OFST-CL0	Yes	-	-
			OFST-CL1	Yes	-	-
			OFST-CL2	Yes	-	-
			OFST-CL3	Yes	-	-
			OFST-CL4	Yes	-	-
			OFST-CL5	Yes	-	-
			OFST2CL0	Yes	-	-
			OFST2CL1	Yes	-	-
			OFST2CL2	Yes	-	-
			OFST2CL3	Yes	-	-
			OFST2CL4	Yes	-	-
			OFST2CL5	Yes	-	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	ADJUST	CCD	GAIN-CL0	Yes	-	-
			GAIN2CL0	Yes	-	-
			LED-CL-R	Yes	-	-
			LED-CL-G	Yes	-	-
			LED-CL-B	Yes	-	-
			LED2CL-R	Yes	-	-
			LED2CL-G	Yes	-	-
			LED2CL-B	Yes	-	-
			LED-CLR2	Yes	-	-
			LED-CLG2	Yes	-	-
			LED-CLB2	Yes	-	-
			LED2CLR2	Yes	-	-
			LED2CLG2	Yes	-	-
			LED2CLB2	Yes	-	-
		IMG-REG	REG-H-Y	Yes	-	-
			REG-H-C	Yes	-	-
			REG-H-K	Yes	-	-
			REG-HS-Y	Yes	-	-
			REG-HS-C	Yes	-	-
			REG-HS-K	Yes	-	-
			REG-V-Y	Yes	-	-
			REG-V-C	Yes	-	-
			REG-V-K	Yes	-	-
			REG-H-M	Yes	-	-
			REG-V-M	Yes	-	-
			REG-HS-M	Yes	-	-
			BEND-Y	Yes	-	-
			BEND-M	Yes	-	-
			BEND-K	Yes	-	-
			BEND-C	Yes	-	-
			SLOP-Y	Yes	-	-
		DENS	HLMT-PTY	Yes	-	-
			HLMT-PTM	Yes	-	-
			HLMT-PTC	Yes	-	-
			LLMT-PTY	Yes	-	-
			LLMT-PTM	Yes	-	-
			LLMT-PTC	Yes	-	-
			T-SPLY-Y	Yes	-	-
			T-SPLY-M	Yes	-	-
			T-SPLY-C	Yes	-	-
			T-SPLY-K	Yes	-	-
			DMAX-Y	Yes	-	-
			DMAX-M	Yes	-	-
			DMAX-C	Yes	-	-
			P-TG-Y	Yes	-	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	ADJUST	DENS	P-TG-M	Yes	-	-
			P-TG-C	Yes	-	-
			P-TG-K	Yes	-	-
			DMAX-K	Yes	-	-
			HLMT-PTK	Yes	-	-
			LLMT-PTK	Yes	-	-
		BLANK	BLANK-T	Yes	-	-
			BLANK-L	Yes	-	-
			BLANK-R	Yes	-	-
			BLANK-B	Yes	-	-
		V-CONT	VCONT-Y	Yes	-	-
			VCONT-M	Yes	-	-
			VCONT-C	Yes	-	-
			VCONT-K	Yes	-	-
			VBACK-Y	Yes	-	-
			VBACK-M	Yes	-	-
			VBACK-C	Yes	-	-
			VBACK-K	Yes	-	-
			VBACK2-Y	Yes	-	-
			VBACK2-M	Yes	-	-
			VBACK2-C	Yes	-	-
			VBACK2-K	Yes	-	-
			VBACK3-Y	Yes	-	-
			VBACK3-M	Yes	-	-
			VBACK3-C	Yes	-	-
			VBACK3-K	Yes	-	-
		PASCAL	OFST-P-Y	Yes	-	-
			OFST-P-M	Yes	-	-
			OFST-P-C	Yes	-	-
			OFST-P-K	Yes	-	-
		COLOR	ADJ-Y	Yes	-	-
			ADJ-M	Yes	-	-
			ADJ-C	Yes	-	-
			ADJ-K	Yes	-	-
			OFST-Y	Yes	-	-
			OFST-M	Yes	-	-
			OFST-C	Yes	-	-
			OFST-K	Yes	-	-
			LD-OFS-Y	Yes	-	-
			LD-OFS-M	Yes	-	-
			LD-OFS-C	Yes	-	-
			LD-OFS-K	Yes	-	-
			MD-OFS-Y	Yes	-	-
			MD-OFS-M	Yes	-	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	ADJUST	COLOR	MD-OFS-C	Yes	-	-
			MD-OFS-K	Yes	-	-
			HD-OFS-Y	Yes	-	-
			HD-OFS-M	Yes	-	-
			HD-OFS-C	Yes	-	-
			HD-OFS-K	Yes	-	-
			PL-OFS-Y	Yes	-	-
			PL-OFS-M	Yes	-	-
			PL-OFS-C	Yes	-	-
			PL-OFS-K	Yes	-	-
			PM-OFS-Y	Yes	-	-
			PM-OFS-M	Yes	-	-
			PM-OFS-C	Yes	-	-
			PM-OFS-K	Yes	-	-
			PH-OFS-Y	Yes	-	-
			PH-OFS-M	Yes	-	-
			PH-OFS-C	Yes	-	-
			PH-OFS-K	Yes	-	-
		HV-TR	1TR-TGY	Yes	-	-
			1TR-TGM	Yes	-	-
			1TR-TGC	Yes	-	-
			1TR-TGK1	Yes	-	-
			1TR-TGK4	Yes	-	-
			2TR-OFF	Yes	-	-
			1TR-TGY2	Yes	-	-
			1TR-TGM2	Yes	-	-
			1TR-TGC2	Yes	-	-
			1TR-TK12	Yes	-	-
			1TR-TGY3	Yes	-	-
			1TR-TGM3	Yes	-	-
			1TR-TGC3	Yes	-	-
			1TR-TK13	Yes	-	-
			1TR-TK42	Yes	-	-
			1TR-TK43	Yes	-	-
			2TR-N1-1	Yes	-	-
			2TR-N1-2	Yes	-	-
			2TR-N2-1	Yes	-	-
			2TR-N2-2	Yes	-	-
			2TR-N3-1	Yes	-	-
			2TR-N3-2	Yes	-	-
			2TR-R1-1	Yes	-	-
			2TR-R1-2	Yes	-	-
			2TR-R2-1	Yes	-	-
			2TR-R2-2	Yes	-	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	ADJUST	HV-TR	2TR-R3-1	Yes	-	-
			2TR-R3-2	Yes	-	-
			2TR-H1-1	Yes	-	-
			2TR-H1-2	Yes	-	-
			2TR-H2-1	Yes	-	-
			2TR-H2-2	Yes	-	-
			2TR-H3-1	Yes	-	-
			2TR-H3-2	Yes	-	-
			2TR-CP-1	Yes	-	-
			2TR-CP-2	Yes	-	-
			2TR-O-1	Yes	-	-
			2TR-LA-1	Yes	-	-
			2TR-LA-2	Yes	-	-
			2TR-NC-1	Yes	-	-
			2TR-NC-2	Yes	-	-
			2TR-B-1	Yes	-	-
			2TR-B-2	Yes	-	-
			2TR-PA-1	Yes	-	-
			2TR-PA-2	Yes	-	-
			2TR-EN-1	Yes	-	-
			2TR-EN-2	Yes	-	-
			2TR-P-1	Yes	-	-
			2TR-P-2	Yes	-	-
			T2TR-N1	Yes	-	-
			T2TR-N2	Yes	-	-
			T2TR-N3	Yes	-	-
			T2TR-R1	Yes	-	-
			T2TR-R2	Yes	-	-
			T2TR-R3	Yes	-	-
			T2TR-H1	Yes	-	-
			T2TR-H2	Yes	-	-
			T2TR-H3	Yes	-	-
			T2TR-P	Yes	-	-
			T2TR-LNG	Yes	-	-
			2TR-TH-1	Yes	-	-
			2TR-TH-2	Yes	-	-
			T2TR-TH	Yes	-	-
		FEED-ADJ	REGIST	Yes	-	-
			ADJ-C1	Yes	-	-
			ADJ-C2	Yes	-	-
			ADJ-C3	Yes	-	-
			ADJ-C4	Yes	-	-
			ADJ-MF	Yes	-	-
			ADJ-C1RE	Yes	-	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	ADJUST	FEED-ADJ	ADJ-C2RE	Yes	-	-
			ADJ-C3RE	Yes	-	-
			ADJ-C4RE	Yes	-	-
			ADJ-MFRE	Yes	-	-
			REG-THCK	Yes	-	-
			REG-DUP1	Yes	-	-
			LP-FEED1	Yes	-	-
			REG-SPD	Yes	-	-
			REG-LEFT	Yes	-	-
			REG-MF	Yes	-	-
			REG-MFH1	Yes	-	-
			REG-MFH2	Yes	-	-
			LP-FEED3	Yes	-	-
			REG-MENV	Yes	-	-
			REG-ENV	Yes	-	-
			REG-MFPC	Yes	-	-
			ADJ-ENV	Yes	-	-
		CST-ADJ	CST-VLM1	Yes	-	-
			CST-VLM2	Yes	-	-
			CST-VLM3	Yes	-	-
			CST-VLM4	Yes	-	-
		MISC	SEG-ADJ	Yes	-	-
			K-ADJ	Yes	-	-
			ACS-ADJ	Yes	-	-
			ACS-EN	Yes	-	-
			ACS-CNT	Yes	-	-
			ACS-EN2	Yes	-	-
			ACS-CNT2	Yes	-	-
			SH-ADJ	Yes	-	-
	FUNCTION	INSTALL	E-RDS	Yes	Yes	Yes
			RGW-PORT	Yes	Yes	Yes
			RGW-ADR	Yes	Yes	Yes
			CDS-CTL	Yes	Yes	Yes
		INSTALL	BIT-SVC	Yes	Yes	Yes
		MISC-P	OPF-DSEQ	Yes	-	-
	OPTION	BODY	MODEL-SZ	Yes	-	-
			PASCAL	Yes	-	-
			DH-SW	Yes	-	-
			CONFIG	Yes	-	-
			IFAX-LIM	Yes	Yes	Yes
			TEMP-TBL	Yes	-	-
			W/SCNR	Yes	-	-
			SMTPTXPN	Yes	Yes	Yes
			SMTPRXPN	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	OPTION	BODY	POP3PN	Yes	Yes	Yes
			UI-COPY	Yes	Yes	Yes
			UI-BOX	Yes	Yes	Yes
			UI-SEND	Yes	Yes	Yes
			UI-FAX	Yes	Yes	Yes
			NEGA-GST	Yes	-	-
			SCR-SLCT	Yes	Yes	-
			TMC-SLCT	Yes	-	-
			FTPTXPN	Yes	Yes	Yes
			PRN-FLG	Yes	Yes	-
			SCN-FLG	Yes	Yes	-
			T-LW-LVL	Yes	-	-
			INTROT-1	Yes	-	-
			INTROT-2	Yes	-	-
			DMAX-SW	Yes	-	-
			NWERR-SW	Yes	Yes	Yes
			AUTO-DH	Yes	-	-
			STS-PORT	Yes	Yes	Yes
			CMD-PORT	Yes	Yes	Yes
			BK-4CSW	Yes	-	-
			OHP-PTH	Yes	-	-
			DFDST-L1	Yes	-	-
			NS-CMD5	Yes	Yes	Yes
			NS-GSAPI	Yes	Yes	Yes
			NS-NTLM	Yes	Yes	Yes
			NS-PLNWS	Yes	Yes	Yes
			NS-PLN	Yes	Yes	Yes
			NS-LGN	Yes	Yes	Yes
			MEAP-PN	Yes	Yes	Yes
			TNR-DWN	Yes	-	-
			TMIC-BK	Yes	Yes	-
			SVMD-ENT	Yes	Yes	Yes
			DH-MODE	Yes	-	-
			ENVP-INT	Yes	Yes	Yes
			FXWRNLVL	Yes	-	-
			FXMSG-SW	Yes	Yes	Yes
			CHNG-STS	Yes	Yes	Yes
			CHNG-CMD	Yes	Yes	Yes
			DV-RT-LG	Yes	-	-
			MEAP-SSL	Yes	Yes	Yes
			ITBB-TMG	Yes	-	-
			FX-D-TMP	Yes	-	-
			FIX-ROT	Yes	-	-
			FX-S-TMP	Yes	-	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	OPTION	BODY	REPORT-Z	Yes	Yes	-
			IFXEML-Z	Yes	Yes	-
			BMLNKS-Z	Yes	Yes	-
			KSIZE-SW	Yes	Yes	-
			LPD-PORT	Yes	Yes	Yes
			PDF-RDCT	Yes	Yes	Yes
			REDU-CNT	Yes	-	-
			VP-ART	Yes	-	-
			VP-TXT	Yes	-	-
			UI-PRINT	Yes	Yes	Yes
			WUEV-SW	Yes	Yes	Yes
			WUEV-INT	Yes	Yes	Yes
			WUEV-POT	Yes	Yes	Yes
			WUEV-RTR	Yes	Yes	Yes
			SJB-UNW	Yes	Yes	Yes
			UI-RSCAN	Yes	Yes	Yes
			UI-WEB	Yes	Yes	Yes
			PASCL-TY	Yes	Yes	-
			CARD-RNG	Yes	Yes	-
			WUEN-LIV	Yes	Yes	Yes
			ADJ-VPP	Yes	-	-
			AST-SEL	Yes	-	-
			2TR-RVON	Yes	-	-
			TMP-TBL2	Yes	-	-
			TMP-TBL3	Yes	-	-
			TMP-TBL4	Yes	-	-
			TMP-TBL5	Yes	-	-
			TMP-TBL6	Yes	-	-
			FXS-TMP2	Yes	-	-
			FXS-TMP3	Yes	-	-
			FXS-TMP4	Yes	-	-
			FXS-TMP5	Yes	-	-
			FXS-TMP6	Yes	-	-
			FXST2-N2	Yes	-	-
			FXST2-UH	Yes	-	-
			SJOB-CL	Yes	Yes	Yes
			TNR-WARN	Yes	Yes	Yes
			FLYING	Yes	-	-
			TMP-TBL7	Yes	-	-
			IFX-CHIG	Yes	Yes	Yes
			USB-RCNT	Yes	Yes	Yes
			UNLMTBND	Yes	-	-
			DNSTRANS	Yes	Yes	Yes
			MIBCOUNT	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	OPTION	BODY	HPFL-DSP	Yes	Yes	Yes
			TMP-TBL8	Yes	-	-
			RMT-CNSL	Yes	Yes	Yes
			EVLP-SPD	Yes	-	-
			PROXYRES	Yes	Yes	Yes
			WOLTRANS	Yes	Yes	Yes
			802XTOUT	Yes	Yes	Yes
			IKERETRY	Yes	Yes	Yes
			SPDALDEL	Yes	Yes	Yes
			NCONF-SW	Yes	Yes	Yes
			ABK-TOOL	Yes	Yes	Yes
			DMX-OF-Y	Yes	-	-
			DMX-OF-M	Yes	-	-
			DMX-OF-C	Yes	-	-
			DMX-OF-K	Yes	-	-
			IKEINTVL	Yes	Yes	Yes
			IPSDEBLV	Yes	Yes	Yes
			SP-LINK	Yes	Yes	Yes
			PSWD-SW	Yes	Yes	Yes
			SM-PSWD	Yes	Yes	Yes
			FAN-ROT	Yes	Yes	-
			ADJ-VPPN	Yes	-	-
			DEV-SP1	Yes	-	-
			DEV-SP2	Yes	-	-
			RPT2SIDE	Yes	Yes	Yes
			AFS-JOB	Yes	Yes	Yes
			AFC-EVNT	Yes	Yes	Yes
			UI-SBOX	Yes	Yes	Yes
			UI-MEM	Yes	Yes	Yes
			ILOGMODE	Yes	Yes	Yes
			ILOGKEEP	Yes	Yes	Yes
			UI-NAVI	Yes	Yes	Yes
			INVALPDL	Yes	Yes	-
			IMGCNTPR	Yes	Yes	-
			CDS-FIRM	Yes	Yes	Yes
			CDS-MEAP	Yes	Yes	Yes
			CDS-UGW	Yes	Yes	Yes
			LOCLFIRM	Yes	Yes	Yes
			ARC-INT1	Yes	-	-
			ARC-INT2	Yes	-	-
			SCR-SW	Yes	-	-
			FXS-TMP7	Yes	-	-
			FXS-TMP8	Yes	-	-
			FIXMIXBD	Yes	Yes	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	OPTION	BODY	DEV-SP3	Yes	-	-
			DEV-SP4	Yes	-	-
			DEV-SP5	Yes	-	-
			DEV-SP6	Yes	-	-
			DEV-SP7	Yes	-	-
			DEV-SP8	Yes	-	-
			IPTBROAD	Yes	Yes	Yes
			MC-FANSW	Yes	Yes	Yes
			PFWFTPRT	Yes	Yes	Yes
			EVLP-FS	Yes	-	-
			ITB-DSP	Yes	Yes	-
			FXU-DSP	Yes	Yes	-
			UI-CUSTM	Yes	Yes	Yes
			SDLMTWRN	Yes	Yes	Yes
			PRE-CURL	Yes	Yes	-
			PRE-FXRL	Yes	-	-
			JLK-PWSC	Yes	Yes	Yes
			IPMTU	Yes	Yes	Yes
			DDNSINTV	Yes	Yes	Yes
			FAX-INT	Yes	Yes	Yes
			PDL-Z-LG	Yes	Yes	-
			CDS-LVUP	Yes	Yes	Yes
			TMP-TB12	Yes	-	-
			TMP-TB13	Yes	-	-
			TMP-TB11	Yes	-	-
			FXS-TM11	Yes	-	-
			AMSOFFSW	Yes	Yes	Yes
			DMAX-DAY	Yes	-	-
			UA-OFFSW	Yes	Yes	Yes
			MIB-NVTA	Yes	Yes	-
			CLN-SEL	Yes	Yes	-
			FAN-POST	Yes	Yes	-
			SVC-RUI	Yes	Yes	-
			PSCL-TBL	Yes	-	-
			BGE-OFS	Yes	-	-
			USER-DSP	Yes	Yes	Yes
			LCDSFLG	Yes	Yes	Yes
			SDTM-DSP	Yes	Yes	Yes
			NO-LGOUT	Yes	Yes	Yes
			T-DLV-BK	Yes	-	-
			D-DLV-CL	Yes	Yes	Yes
			WT-WARN	Yes	Yes	Yes
			DF-DSP	Yes	Yes	Yes
			2TR-DSP	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	OPTION	BODY	JM-ERR-D	Yes	-	-
			JM-ERR-R	Yes	-	-
			DFTSCNSZ	Yes	Yes	Yes
			DRM-DSP	Yes	Yes	-
			PRCLTYPE	Yes	Yes	Yes
			ASLPMAX	Yes	Yes	Yes
			VLAN-SW	Yes	Yes	Yes
			VLAN-PKT	Yes	Yes	Yes
			DEVL-THY	Yes	-	-
			DEVL-THM	Yes	-	-
			DEVL-THC	Yes	-	-
			DEVL-THK	Yes	-	-
			TNR-RS	Yes	-	-
			TNNEWQCK	Yes	-	-
			TNNEWCNT	Yes	-	-
			TNENDCNT	Yes	-	-
			R-DR-FAN	Yes	-	-
			PWR-FAN	Yes	-	-
			DLVY-FAN	Yes	-	-
			CRG-FANR	Yes	-	-
			CRG-FANF	Yes	-	-
			DR-CL-L	Yes	-	-
			DR-CL-T	Yes	-	-
			ITB-CL-L	Yes	-	-
			ITB-CL-T	Yes	-	-
			FXS-TM12	Yes	-	-
			FXS-TM13	Yes	-	-
			FXS-TM14	Yes	-	-
			ECO-TMP	Yes	Yes	-
			D-PTN	Yes	-	-
			STP-TMP	Yes	Yes	-
			DWN-TMP3	Yes	Yes	-
			ADJ-VPP3	Yes	-	-
			2TR-TBLS	Yes	Yes	-
			FTPMODE	Yes	Yes	Yes
			TMP-TB17	Yes	-	-
			SSLMODE	Yes	Yes	Yes
			SSLSTRNG	Yes	Yes	Yes
			WT-FL-LM	Yes	-	-
			DFAN-SPD	Yes	-	-
			T1CL-UP	Yes	-	-
		USER	COPY-LIM	Yes	Yes	-
			SLEEP	Yes	Yes	Yes
			COUNTER2	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	OPTION	USER	COUNTER3	Yes	Yes	Yes
			COUNTER4	Yes	Yes	Yes
			COUNTER5	Yes	Yes	Yes
			COUNTER6	Yes	Yes	Yes
			DATE-DSP	Yes	Yes	Yes
			CONTROL	Yes	-	-
			CNT-DISP	Yes	Yes	Yes
			COPY-JOB	Yes	Yes	-
			P-CRG-LF	Yes	-	-
			CPRT-DSP	Yes	Yes	Yes
			PCL-COPY	Yes	Yes	Yes
			CNT-SW	Yes	Yes	Yes
			PRJOB-CP	Yes	Yes	Yes
			DFLT-CPY	Yes	Yes	Yes
			DPT-ID-7	Yes	Yes	Yes
			RUI-RJT	Yes	Yes	Yes
			FREG-SW	Yes	Yes	Yes
			IFAX-SZL	Yes	Yes	Yes
			IFAX-PGD	Yes	Yes	Yes
			MEAPSAFE	Yes	Yes	-
			PRNT-POS	Yes	Yes	Yes
			AFN-PSWD	Yes	Yes	Yes
			PTJAM-RC	Yes	Yes	Yes
			PDL-NCSW	Yes	Yes	-
			PS-MODE	Yes	Yes	Yes
			CNCT-RLZ	Yes	Yes	Yes
			COUNTER7	Yes	Yes	Yes
			COUNTER8	Yes	Yes	Yes
			2C-CT-SW	Yes	Yes	Yes
			LDAP-SW	Yes	Yes	Yes
			FROM-OF	Yes	Yes	Yes
			DOM-ADD	Yes	Yes	Yes
			FILE-OF	Yes	Yes	Yes
			MAIL-OF	Yes	Yes	Yes
			IFAX-OF	Yes	Yes	Yes
			LDAP-DEF	Yes	Yes	Yes
			FREE-DSP	Yes	-	-
			TNRB-SW	Yes	Yes	Yes
			CLR-TIM	Yes	Yes	Yes
			HDCR-DSW	Yes	Yes	Yes
			BWCL-DSP	Yes	Yes	Yes
			STPL-MAX	Yes	Yes	-
			SCALL-SW	Yes	Yes	Yes
			SCALLCMP	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	OPTION	USER	USBH-DSP	Yes	Yes	Yes
			USBM-DSP	Yes	Yes	Yes
			USBI-DSP	Yes	Yes	Yes
			CTCHKDSP	Yes	Yes	Yes
			USBR-DSP	Yes	Yes	Yes
			POL-SCAN	Yes	Yes	Yes
			JA-SBOX	Yes	Yes	Yes
			JA-DFAX	Yes	Yes	Yes
			JA-REP	Yes	Yes	Yes
			JA-FREP	Yes	Yes	Yes
			JA-BOX	Yes	Yes	Yes
			JA-FORM	Yes	Yes	Yes
			JA-PREV	Yes	Yes	Yes
			JA-PULL	Yes	Yes	Yes
			JA-PDLB	Yes	Yes	Yes
			JA-JOBK	Yes	Yes	Yes
			JA-JDF	Yes	Yes	Yes
			JA-RUI	Yes	Yes	Yes
			JA-WEB	Yes	Yes	Yes
			EXP-CRYP	Yes	Yes	Yes
			SNDSTREN	Yes	Yes	Yes
			FAXSTREN	Yes	Yes	Yes
			PRTDP-SW	Yes	Yes	Yes
		CST	U1-NAME	Yes	Yes	Yes
			U2-NAME	Yes	Yes	Yes
			CST1-P1	Yes	Yes	-
			CST2-P1	Yes	Yes	-
			CST3-P1	Yes	Yes	-
			CST4-P1	Yes	Yes	-
			CST1-U1	Yes	Yes	-
			CST1-U2	Yes	Yes	-
			CST2-U1	Yes	Yes	-
			CST2-U2	Yes	Yes	-
			CST3-U1	Yes	Yes	-
			CST3-U2	Yes	Yes	-
			CST4-U1	Yes	Yes	-
			CST4-U2	Yes	Yes	-
		ACC	COIN	Yes	-	-
			CARD-SW	Yes	-	-
			CC-SPSW	Yes	-	-
			UNIT-PRC	Yes	-	-
			MIN-PRC	Yes	-	-
			MAX-PRC	Yes	-	-
			MIC-TUN	Yes	-	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	OPTION	ACC	SRL-SPSW	Yes	-	-
			PDL-THR	Yes	-	-
			CR-TYPE	Yes	Yes	-
		INT-FACE	NWCT-TM	Yes	-	-
FEEDER	ADJUST		DOCST	Yes	-	-
			LA-SPEED	Yes	-	-
			DOCST2	Yes	-	-
			LA-SPD2	Yes	-	-
			DOCSTDUP	Yes	-	-
SORTER	ADJUST		ST-ALG1	Yes	-	-
	OPTION		MD-SPRTN	Yes	-	-

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● FAX

Large	Case A	Case B	Case C
SSSW	Yes	Yes	-
Menu	Yes	Yes	-
Num	Yes	Yes	-
Ncu	-	-	-
Type	Yes	Yes	-
ISDN	Yes	Yes	-
IPFAX	Yes	Yes	-
Print	Yes	Yes	-

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3 Periodical Service

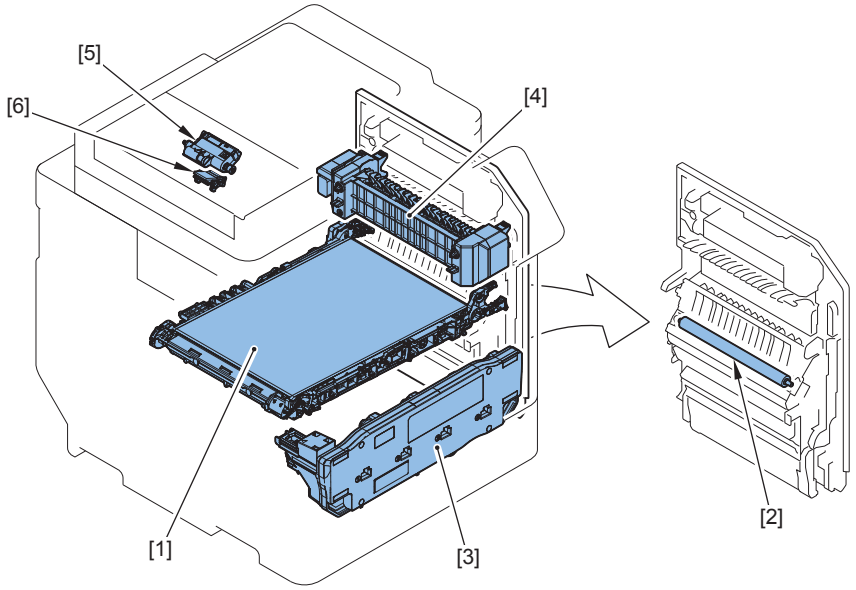
- List of periodically replacement parts, consumable parts and locations for cleaning

List of periodically replacement parts, consumable parts and locations for cleaning

Periodically Replacement Parts

There are no periodically replacement parts in this machine.

Consumable parts



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●: Replaced (consumables)

No.	Type	Item	Parts number	Q'ty	Estimated life	Work interval			Parts counter	
						Every 30,000 sheets	Every 50,000 sheets	Every 150,000 sheets	Service mode: COPIER> COUNTER>	
1	Image Formation System	ITB Unit	FM1-A153	1	150,000 sheets			●	DRBL-1	TR-BLT
2		Secondary transfer outer Roller	FC0-5848	1	150,000 sheets			●	DRBL-1	2TR-ROLL
3		Waste Toner Container	FM0-0015	1	30,000 sheets	●				WST-TNR
					(Color ratio: 30%)				DRBL-1	
4	Fixing System	Fixing Assembly	FM0-0033(100V)	1	150,000 sheets			●	DRBL-1	FX-UNIT
			FM0-0072(120V)							
			FM0-0073(230V)							
5	Original Exposure and Feed System	ADF Pickup Unit	FM4-9859	1	50,000 sheets		●		DRBL-2	DF-PU-RL
6		Separation Pad	FM4-9857	1	50,000 sheets		●		DRBL-2	DF-SP-PD

T-3-1

●: Consumable parts - Options

The options of this machine do not have consumable parts.

4 Disassembly/Assembly

- Preface
- List of Parts
- List of Connectors
- External Cover/Interior System
- Original Exposure/Feed System
- Controller System
- Laser Exposure System
- Image Formation System
- Fixing System
- Pickup/Feed System
- Cleaning Procedure
- Data to be handled by SRAM(with HDD Encryption Board

Preface

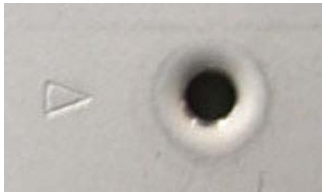
Outline

This chapter describes disassembly and reassembly procedures of the printer.
The service technician is to identify the cause of printer failures according to the "Chapter 6 TROUBLESHOOTING" and to follow the disassembly procedures of each part to replace the defective parts or the consumable parts.
Note the following precautions when working on the printer.

1. CAUTION: Before disassembling or reassembling the printer, be sure to disconnect its power cord from the electrical outlet
2. During disassembly, reassembly or transportation of the printer, remove the cartridge if required.
   When the cartridge is out of the printer, put it in a protective bag even in a short period of time to prevent the adverse effect of light.
3. Reassembling procedures are followed by the reverse of disassembly unless otherwise specified.
4. Note the length, diameters, and locations of screws as you remove them. When reassembling the printer, be sure to use them in their original locations.
5. Do not run the printer with any parts removed as a general rule.
6. Ground yourself by touching the metal part of the printer before handling the PCB to reduce the possibility of damage caused by static electricity.
7. When you replace the part that the rating plate or the product code label is attached, be sure to remove the rating plate or the product code label and put it to the new part.

Points to Note when Tightening a Screw

For reduction in weight, thin plates are used in some parts of this machine.
In the case of a screw hole with a triangle mark near it as shown in the figure below, strongly tightening the screw may damage or deform the screw hole.
In the case of a screw hole with a triangle mark, take care not to apply too much force when tightening the screw.



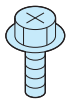
F-4-1

The recommended torque value is shown below as a reference value.

		Type of Screws							
		RS tight		W Sams		Binding		TP	
Fastened member		Metal	Resin	Metal	Resin	Metal	Resin	Metal	Resin
Tightening torque (N*m)	M4	Approx. 1.6	Approx. 1.6	Approx. 1.6	Approx. 0.8	Approx. 1.6	Approx. 0.8	Approx. 1.6	Approx. 0.8
	M3	Approx. 0.8	Approx. 0.8	Approx. 0.6	Approx. 0.6	Approx. 0.6	Approx. 0.6	Approx. 0.6	Approx. 0.6

* For PCB, refer to the tightening torque value of resin (fastened member).

T-4-1

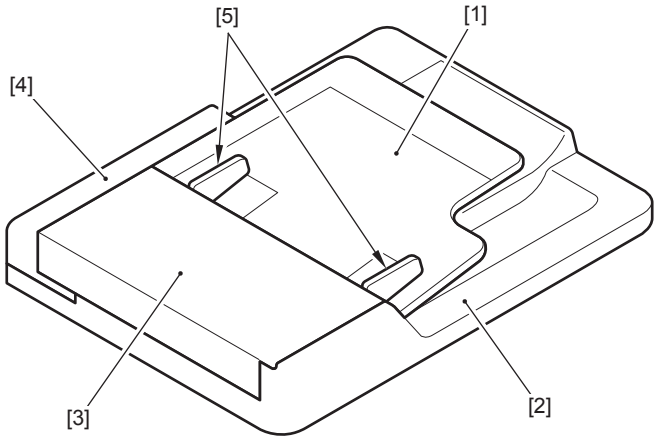
Type of Screws			
RS tight	W Sams	Binding	TP
			

F-4-2

List of Parts

External / Internal Cover

ADF UNIT

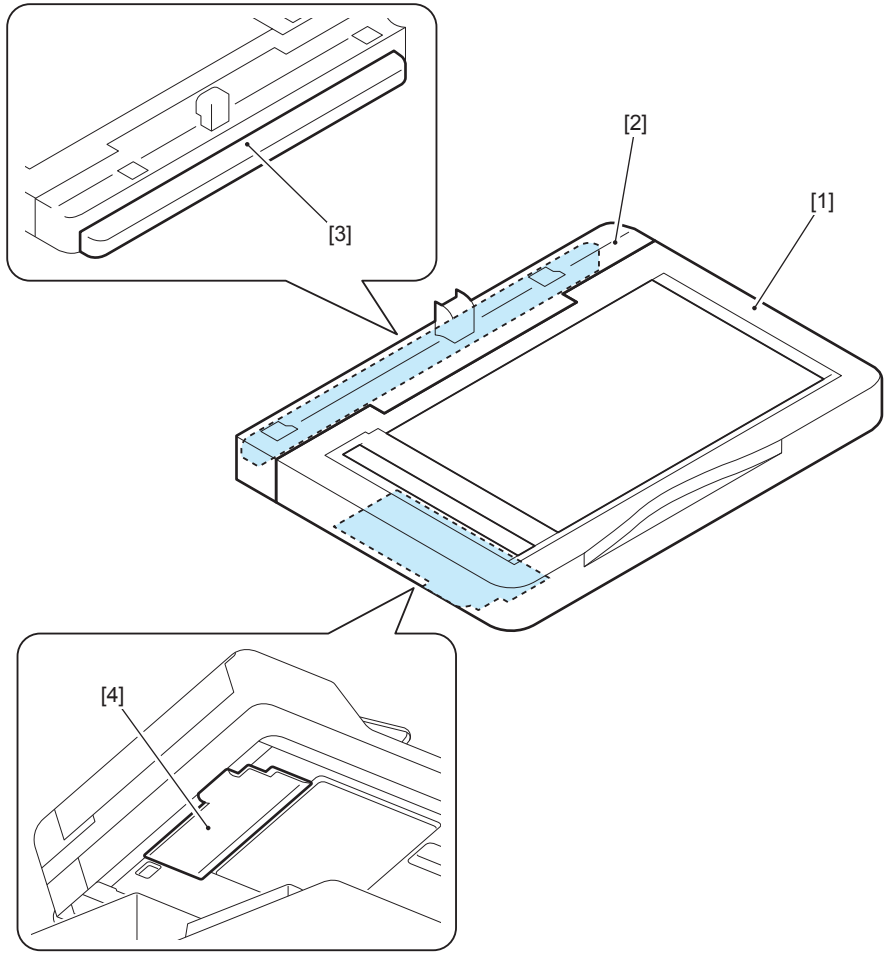


F-4-3

No.	Parts Name	Reference
[1]	Original Tray	
[2]	ADF Base	
[3]	Feeder Cover	
[4]	ADF Rear Cover	
[5]	ADF Side Guide Plate	

T-4-2

Reader Unit

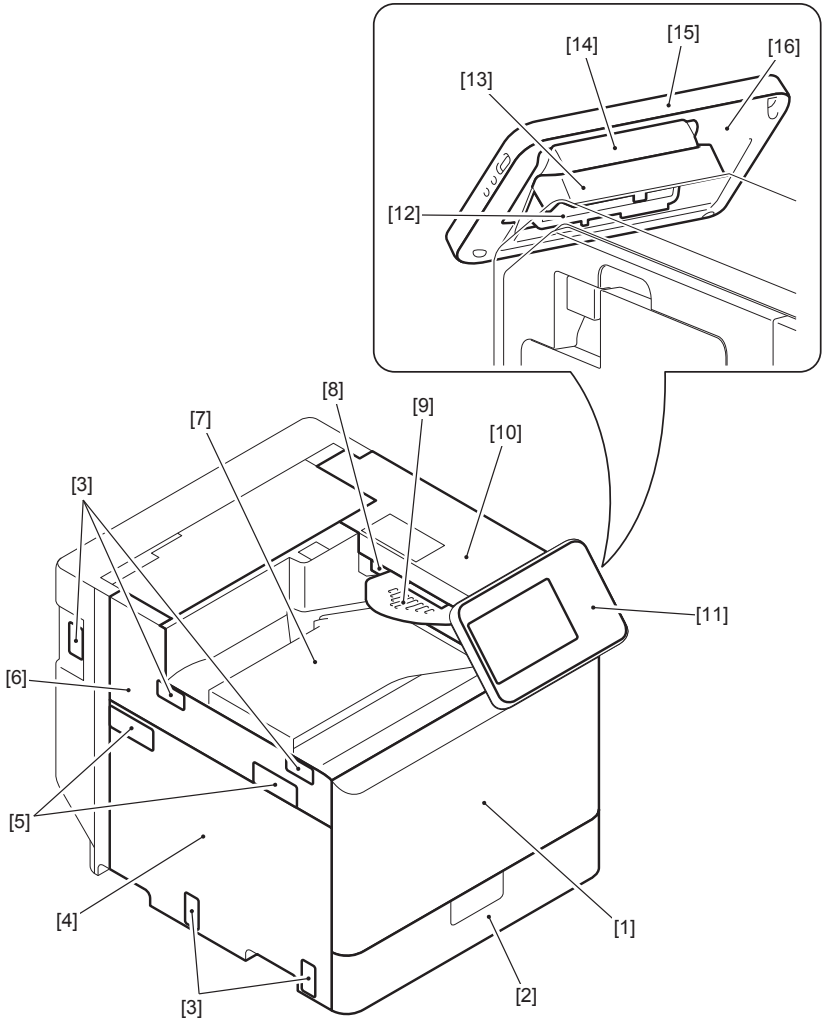


F-4-4

No.	Parts Name	Reference
[1]	Copyboard Glass Unit	(Refer to page 4-71)
[2]	Reader Rear Cover 1	
[3]	Reader Rear Cover 2	
[4]	Reader Motor Cover	

T-4-3

■ Printer (Front Side)

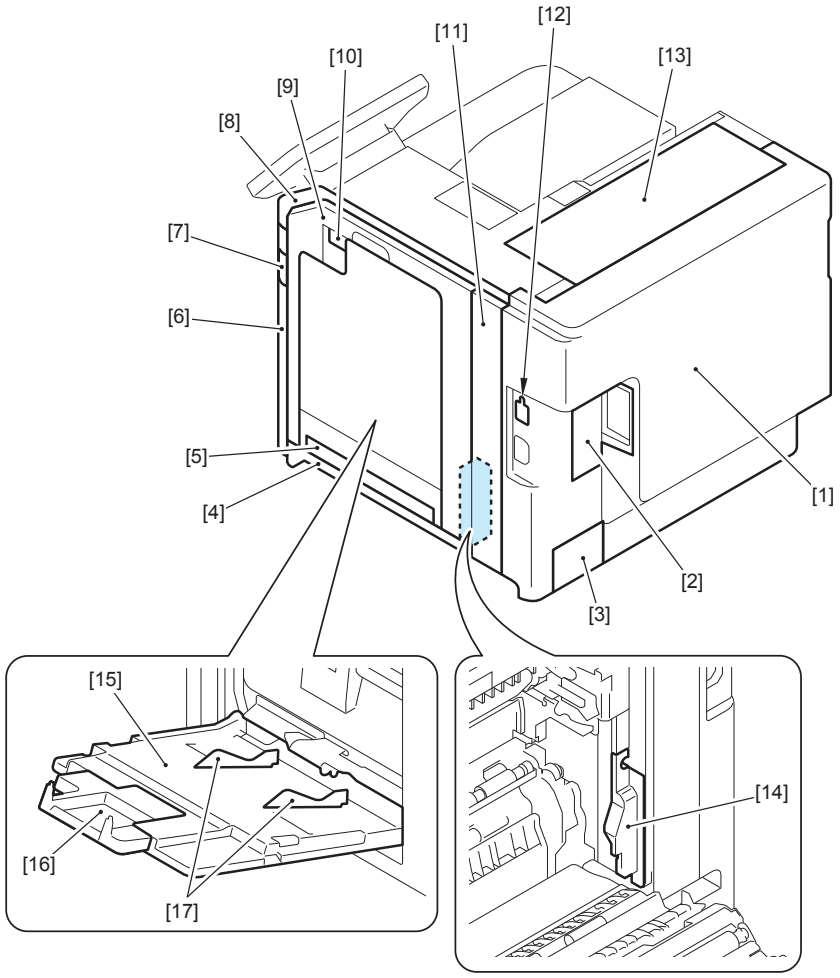


F-4-5

No.	Parts Name	Reference
[1]	Front Cover	(Refer to page 4-34)
[2]	Cassette	
[3]	Face Cover	
[4]	Left Lower Cover	(Refer to page 4-37)
[5]	Face Cover	
[6]	Left Upper Cover	(Refer to page 4-37)
[7]	Delivery Tray	(Refer to page 4-46)
[8]	Delivery Cover	
[9]	Reverse Tray	
[10]	Upper Cover	(Refer to page 4-48)
[11]	Control Panel Front Cover	
[12]	Control Panel Lower Hinge Cover	
[13]	Control Panel Rear Hinge Cover	
[14]	Control Panel Upper Hinge Cover	
[15]	Control Panel Side Cover	
[16]	Control Panel Rear Cover	

T-4-4

■ Printer (Rear Side)

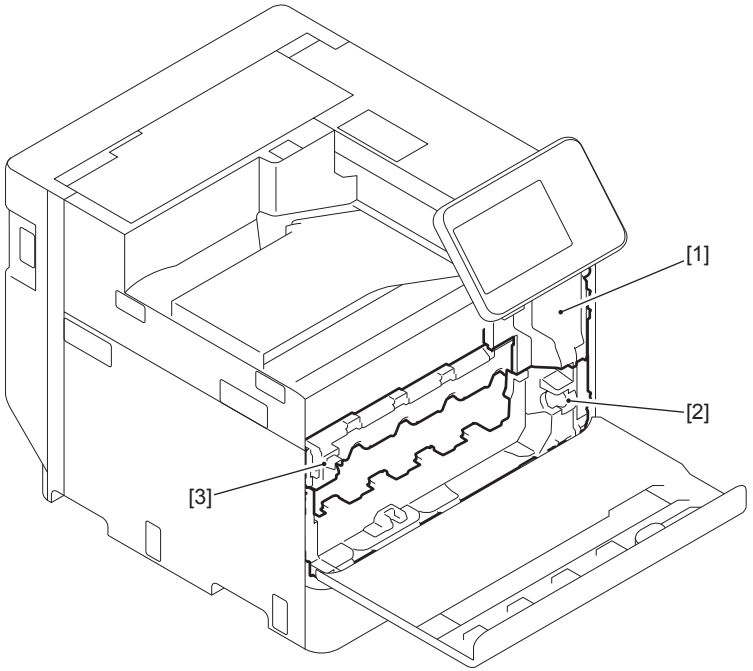


F-4-6

No.	Parts Name	Reference
[1]	Rear Cover 1	(Refer to page 4-35)
[2]	Rear Cover 2	
[3]	Environment Heater Cover	
[4]	Right Lower Cover	
[5]	Multi-purpose Tray Lower Cover	
[6]	Right Front Cover	(Refer to page 4-38)
[7]	Main Power Switch Cover	
[8]	Right Upper Cover	(Refer to page 4-40)
[9]	Right Cover	(Refer to page 4-42)
[10]	Right Cover Open/Close Lever	
[11]	Right Rear Cover	(Refer to page 4-39)
[12]	Environment Heater Switch Cover	
[13]	Rear Upper Cover	(Refer to page 4-47)
[14]	Right Rear Lower Cover	(Refer to page 4-39)
[15]	Multi-purpose Tray	(Refer to page 4-45)
[16]	Multi-purpose Extension Tray	
[17]	Multi-purpose Tray Side Guide Plate	

T-4-5

Internal View



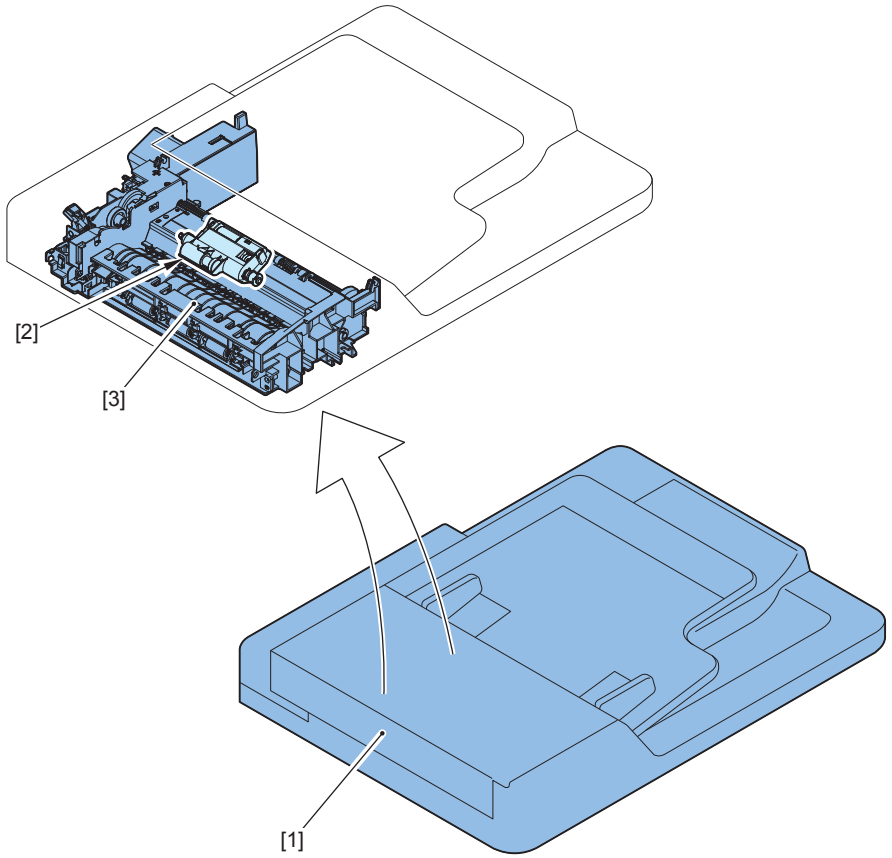
F-4-7

No.	Parts Name	Reference
[1]	Front Inner Right Cover	
[2]	Front Inner Lower Cover	
[3]	Front Inner Upper Cover	

T-4-6

List of Main Unit

ADF UNIT

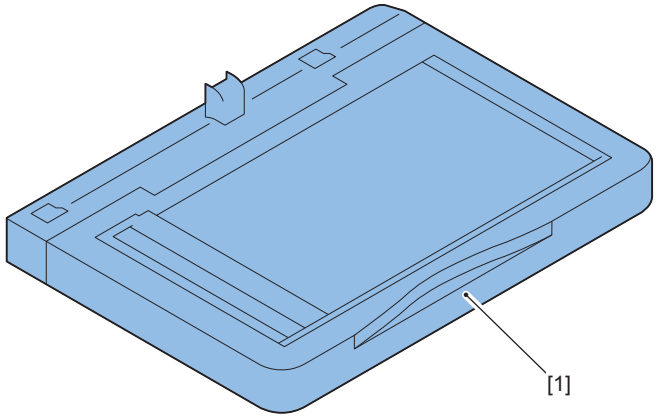


F-4-8

No.	Parts Name	Reference
[1]	ADF Unit	(Refer to page 4-54)
[2]	ADF Pickup Unit	(Refer to page 4-62)
[3]	ADF Pickup Feed Unit	(Refer to page 4-64)

T-4-7

Reader Unit

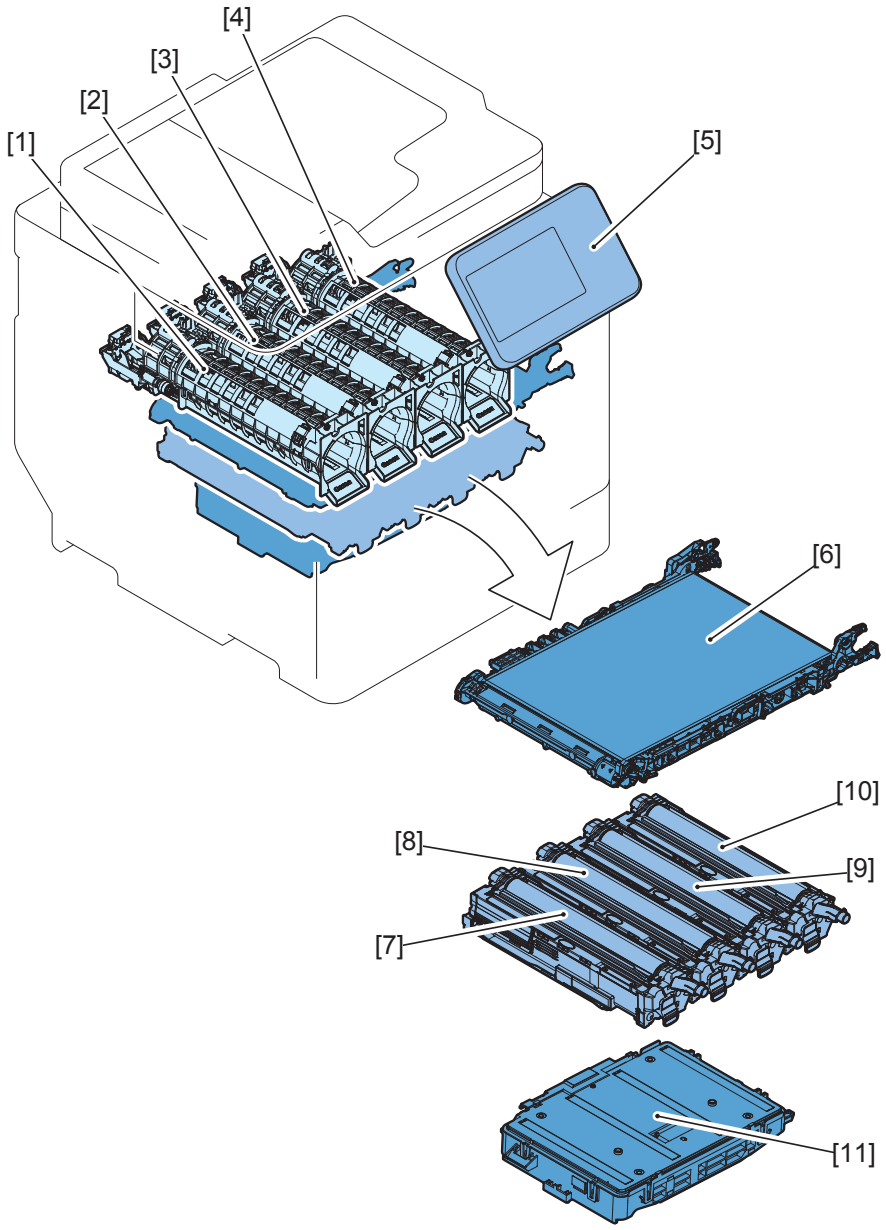


F-4-9

No.	Parts Name	Reference
[1]	Reader Unit	(Refer to page 4-69)

T-4-8

Printer (Front Side) (1/2)

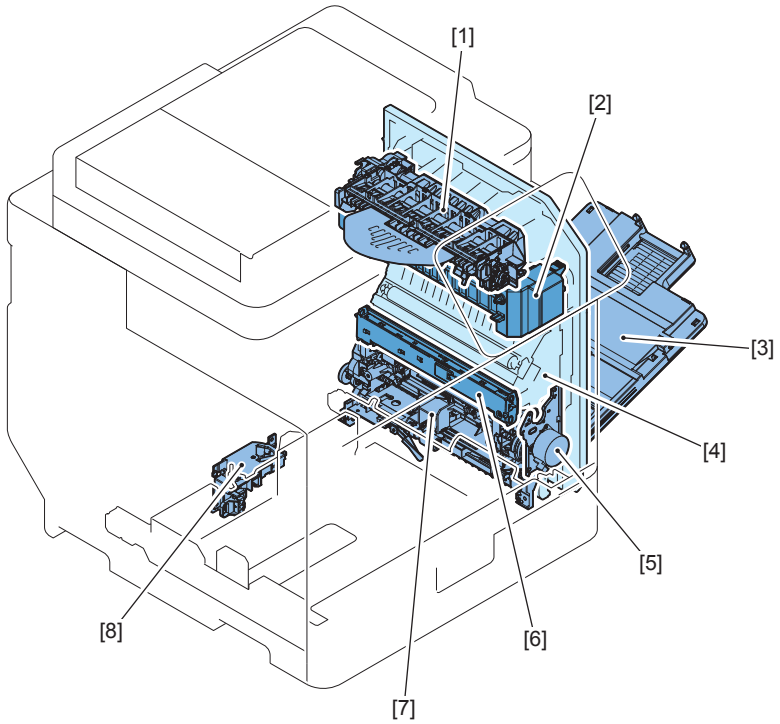


F-4-10

No.	Parts Name	Reference
[1]	Toner Bottle Mount Unit (Y)	(Refer to page 4-133)
[2]	Toner Bottle Mount Unit (M)	(Refer to page 4-133)
[3]	Toner Bottle Mount Unit (C)	(Refer to page 4-133)
[4]	Toner Bottle Mount Unit (Bk)	(Refer to page 4-133)
[5]	Control Panel Unit	(Refer to page 4-50)
[6]	ITB Unit	(Refer to page 4-114)
[7]	Drum Unit (Y)	(Refer to page 4-112)
[8]	Drum Unit (M)	(Refer to page 4-112)
[9]	Drum Unit (C)	(Refer to page 4-112)
[10]	Drum Unit (Bk)	(Refer to page 4-112)
[11]	Laser Scanner Unit	(Refer to page 4-106)

T-4-9

Printer (Front Side) (2/2)

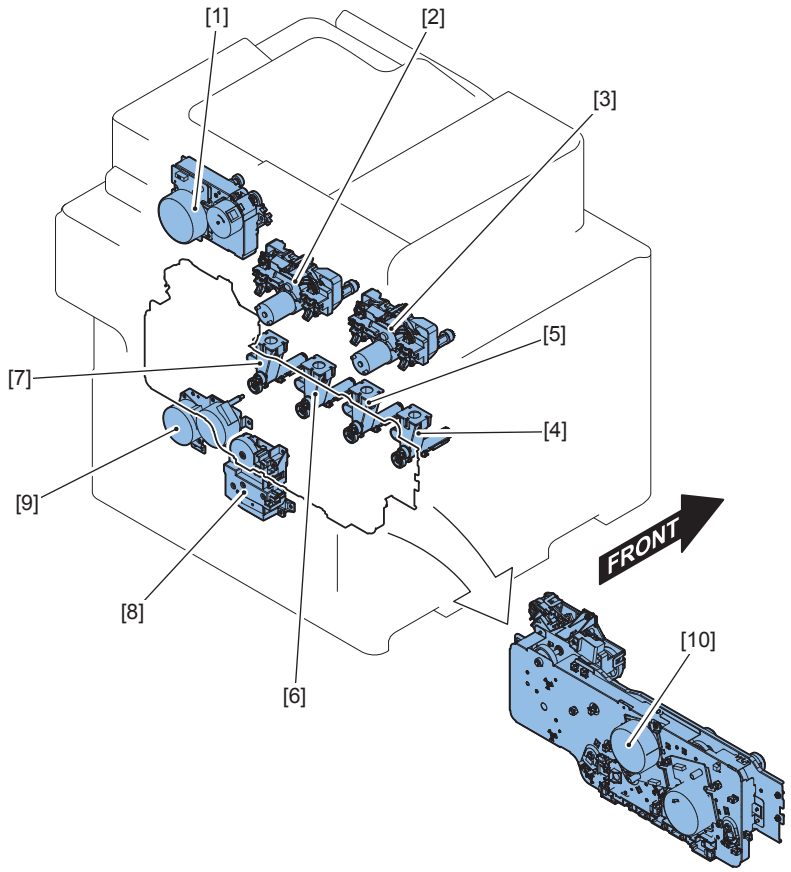


F-4-11

No.	Parts Name	Reference
[1]	Delivery/Reverse Unit	(Refer to page 4-164)
[2]	Fixing Assembly	(Refer to page 4-138)
[3]	Multi-purpose Tray	(Refer to page 4-45)
[4]	Right Cover Unit	(Refer to page 4-42)
[5]	Registration Drive Unit	(Refer to page 4-125)
[6]	Registration Patch Sensor Unit	(Refer to page 4-119)
[7]	Regist/Paper Pickup Unit	(Refer to page 4-156)
[8]	Cassette 1 Auto Close Unit	

T-4-10

■ Printer (Rear Side)



F-4-12

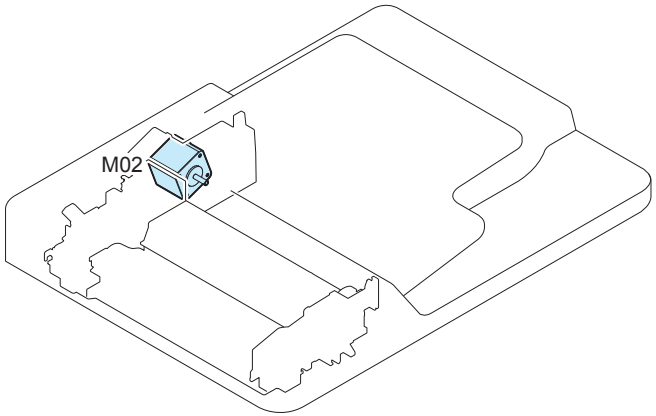
No.	Parts Name	Reference
[1]	Fixing Drive Unit	(Refer to page 4-139)
[2]	Bottle Drive Unit (CK)	(Refer to page 4-132)
[3]	Bottle Drive Unit (YM)	(Refer to page 4-132)
[4]	Hopper Unit (Y)	(Refer to page 4-128)
[5]	Hopper Unit (M)	(Refer to page 4-128)
[6]	Hopper Unit (C)	(Refer to page 4-128)
[7]	Hopper Unit (Bk)	(Refer to page 4-128)
[8]	Cassette 1 Lifter Drive Unit	(Refer to page 4-165)
[9]	Cassette 1 Pickup Drive Unit	(Refer to page 4-168)
[10]	Main Drive Unit	(Refer to page 4-126)

T-4-11

Electrical Components

■ ADF Unit

● Motor

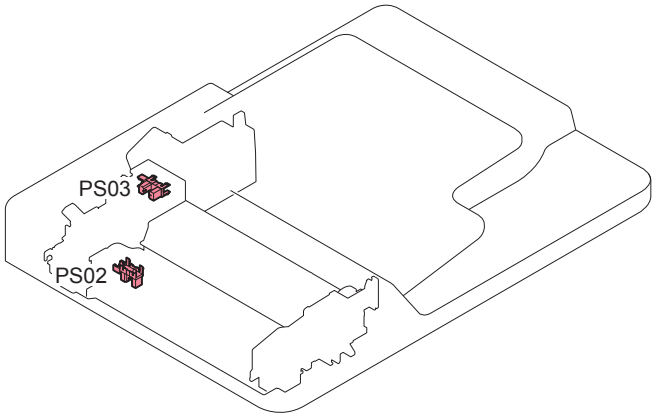


F-4-13

No.	Parts Name	Main Unit	Reference
M02	ADF Motor	ADF Pickup Unit	

T-4-12

Sensor

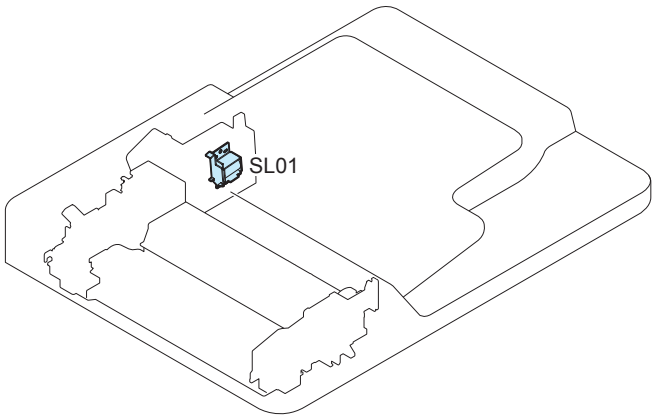


F-4-14

No.	Parts Name	Main Unit	Reference
PS02	Document End Sensor	ADF Pickup Unit	
PS03	Document Sensor	ADF Pickup Unit	

T-4-13

Solenoid



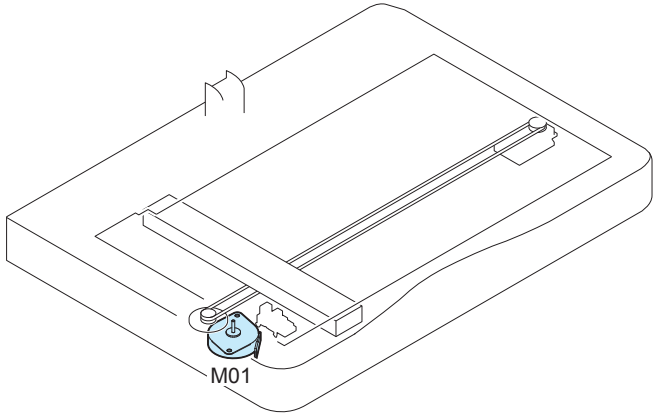
F-4-15

No.	Parts Name	Main Unit	Reference
SL01	Disengagement Solenoid	ADF Pickup Unit	

T-4-14

Reader Unit

Motor

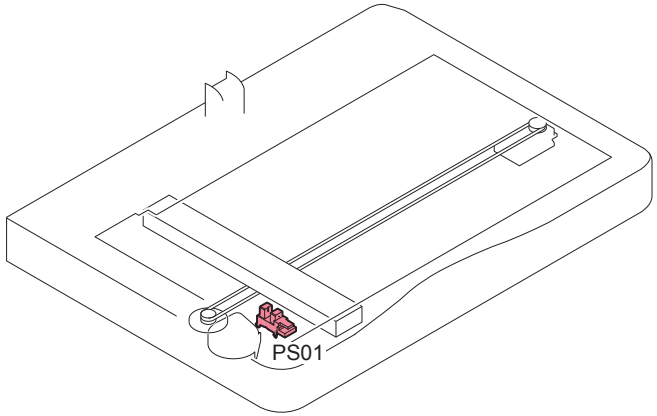


F-4-16

No.	Parts Name	Main Unit	Reference
M01	Reader Motor	Reader Unit	(Refer to page 4-81)

T-4-15

Sensor



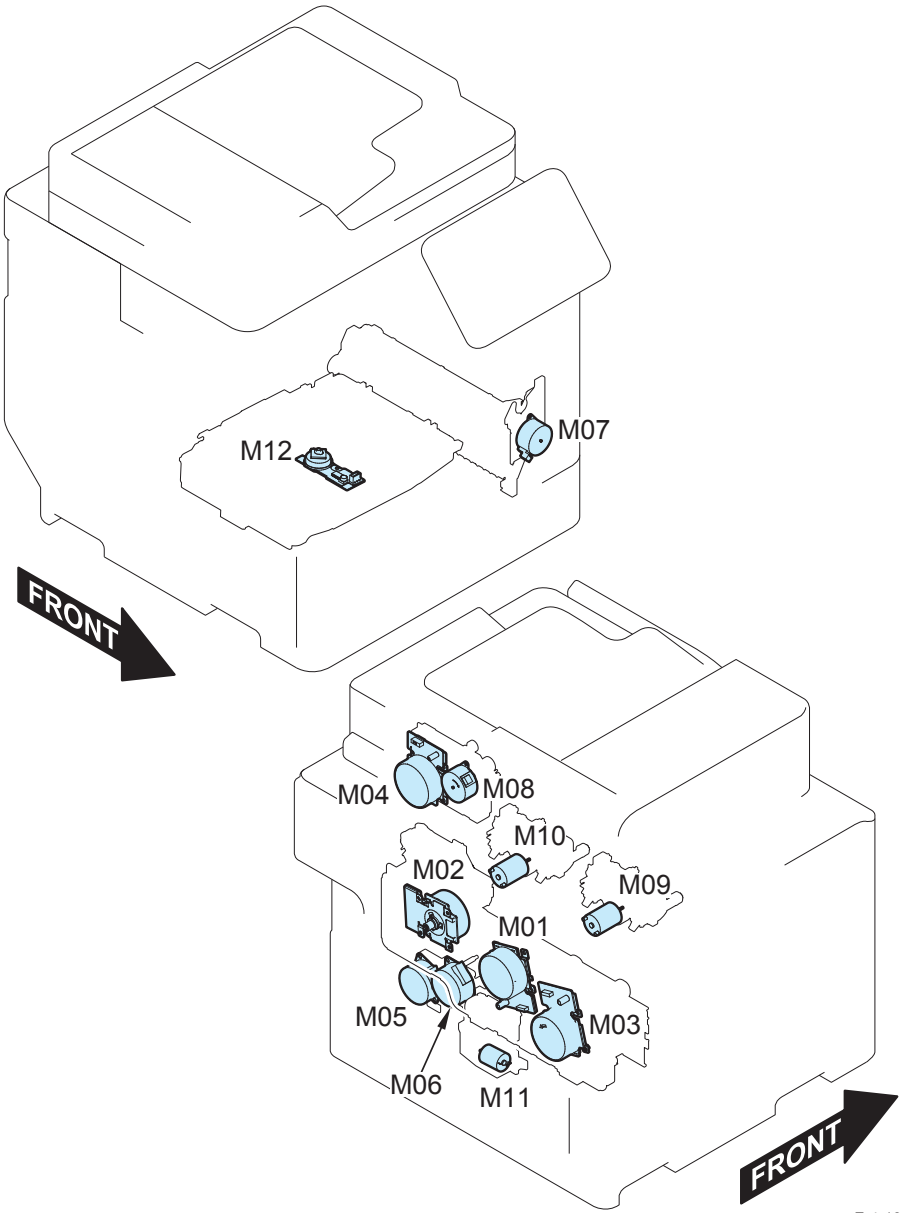
F-4-17

No.	Parts Name	Main Unit	Reference
PS01	CIS Unit HP Sensor	Reader Unit	

T-4-16

Printer

Motor

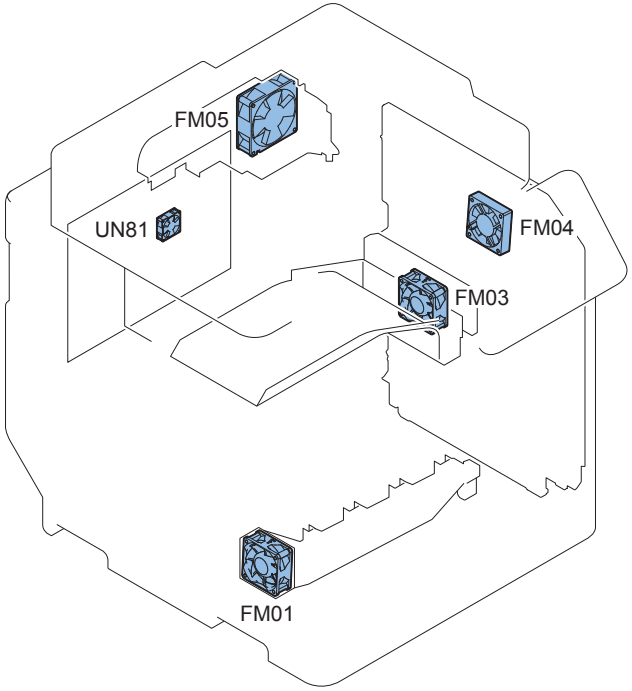


F-4-18

No.	Parts Name	Main Unit	Reference
M01	CL Drum Motor	Main Drive Unit	
M02	Bk Drum _ ITB Motor	Main Drive Unit	
M03	Developing Motor	Main Drive Unit	
M04	Fixing Motor	Fixing Drive Unit	
M05	Cassette 1 _ Multi-purpose Tray Pickup Motor	Cassette 1 Pickup Drive Unit	
M06	Pre-registration Motor	Cassette 1 Pickup Drive Unit	
M07	Registration Motor	Registration Drive Unit	
M08	Reverce Motor	Fixing Drive Unit	
M09	Bottle Motor (YM)	Bottle Drive Unit (YM)	
M10	Bottle Motor (CK)	Bottle Drive Unit (CK)	
M11	Cassette 1 Lifter Motor	Cassette 1 Lifter Drive Unit	
M12	Scanner Motor	Laser Scanner Unit	

T-4-17

Fan

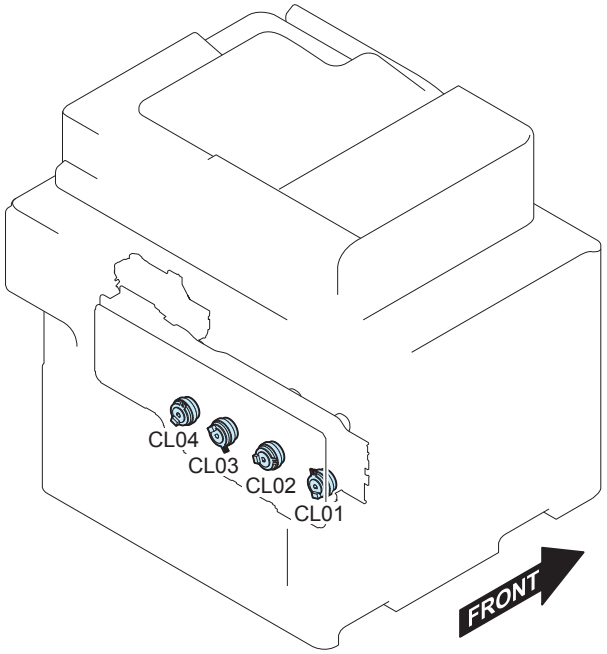


F-4-19

No.	Parts Name	Main Unit	Reference
FM01	Drum Unit Suction Cooling Fan	Product Configuration	
FM03	Delivery Cooling Fan	Product Configuration	
FM04	Duplex Cooling Fan	Right Cover Unit	
FM05	Power Supply Cooling Fan	Product Configuration	
UN81	Controller Cooling Fan	Product Configuration	

T-4-18

Clutch

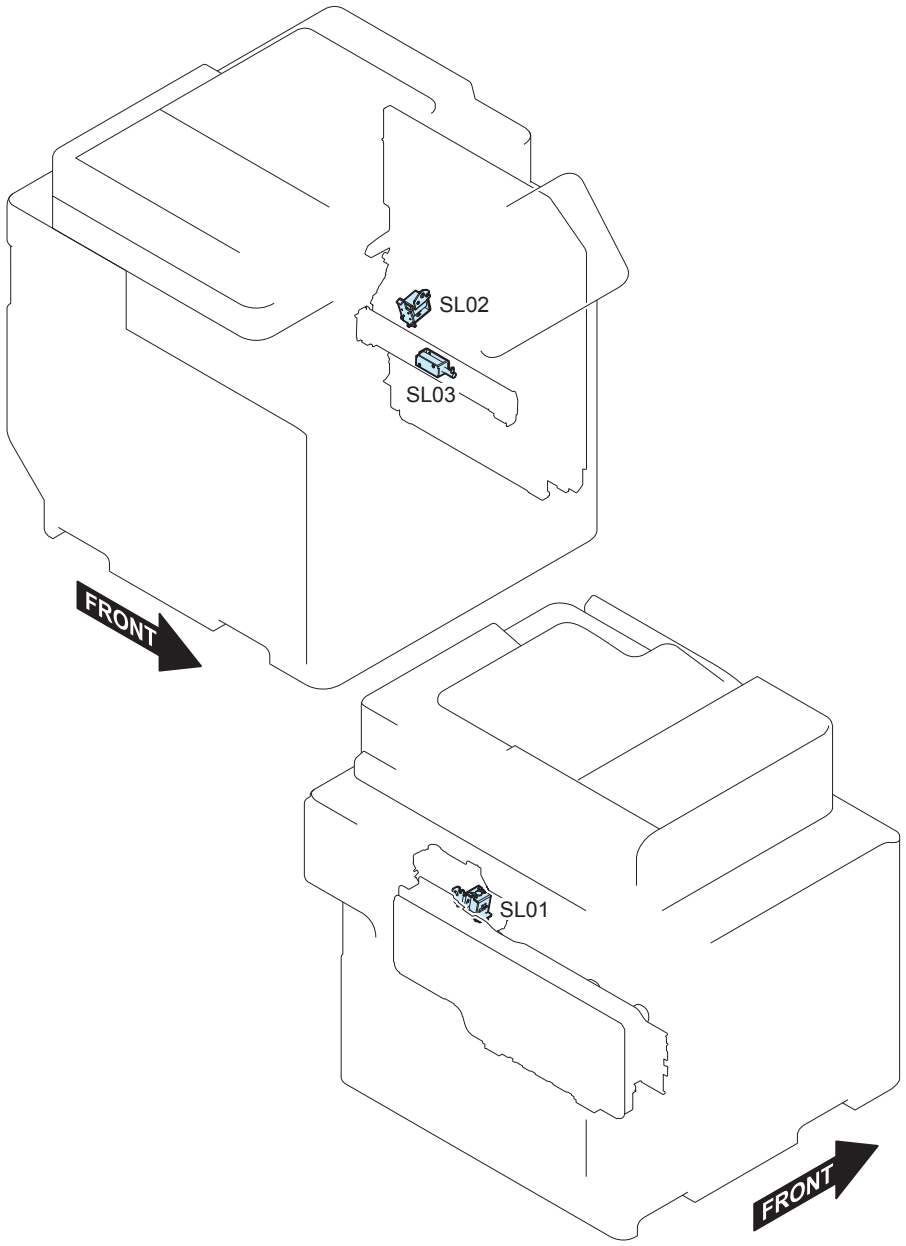


F-4-20

No.	Parts Name	Main Unit	Reference
CL01	Developing Cylinder Clutch (Y)	Main Drive Unit	
CL02	Developing Cylinder Clutch (M)	Main Drive Unit	
CL03	Developing Cylinder Clutch (C)	Main Drive Unit	
CL04	Developing Cylinder Clutch (Bk)	Main Drive Unit	

T-4-19

Solenoid

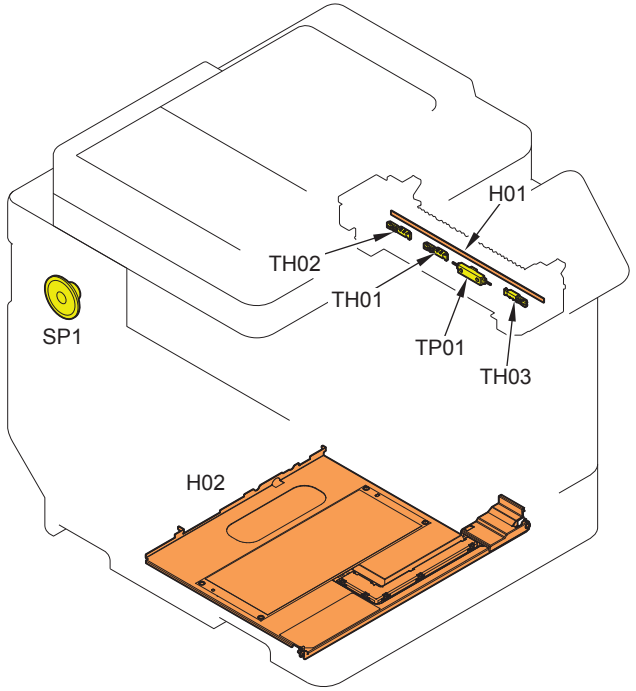


F-4-21

No.	Parts Name	Main Unit	Reference
SL01	Primary Transfer Disengagement Solenoid	Main Drive Unit	
SL02	Duplex Solenoid	Right Cover Unit	
SL03	Registration Shutter Solenoid	Registration Patch Sensor Unit	

T-4-20

Heater/Speaker

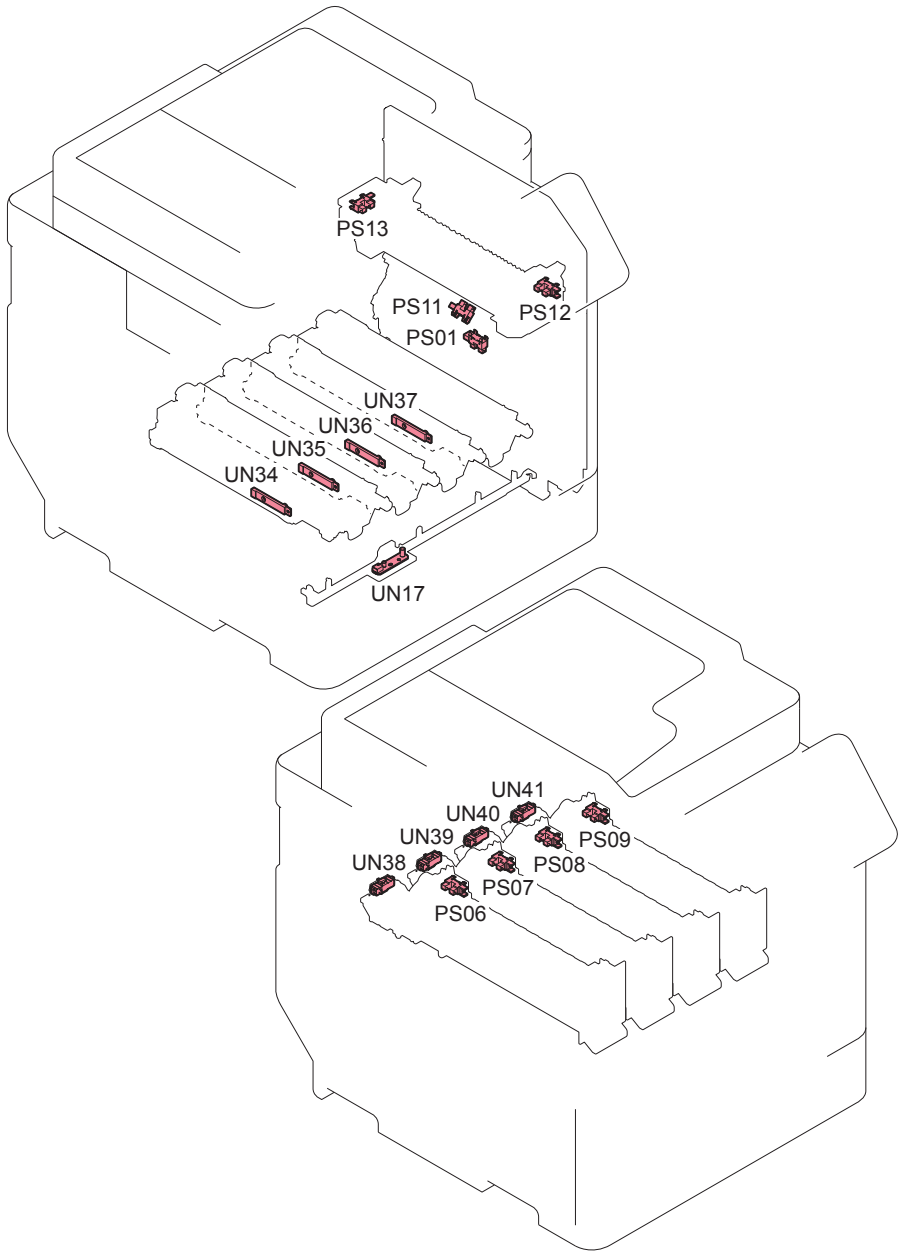


F-4-22

No.	Parts Name	Main Unit	Reference
H01	Fixing Heater	Fixing Assembly	
H02	Cassette Heater	Product Configuration	
SP1	Speaker	Product Configuration	(Refer to page 4-104)
TH01	Main Thermistor	Fixing Assembly	
TH02	Sub Thermistor (Rear)	Fixing Assembly	
TH03	Sub Thermistor (Front)	Fixing Assembly	
TP01	Fixing Thermoswitch	Fixing Assembly	

T-4-21

Sensor (1/2)

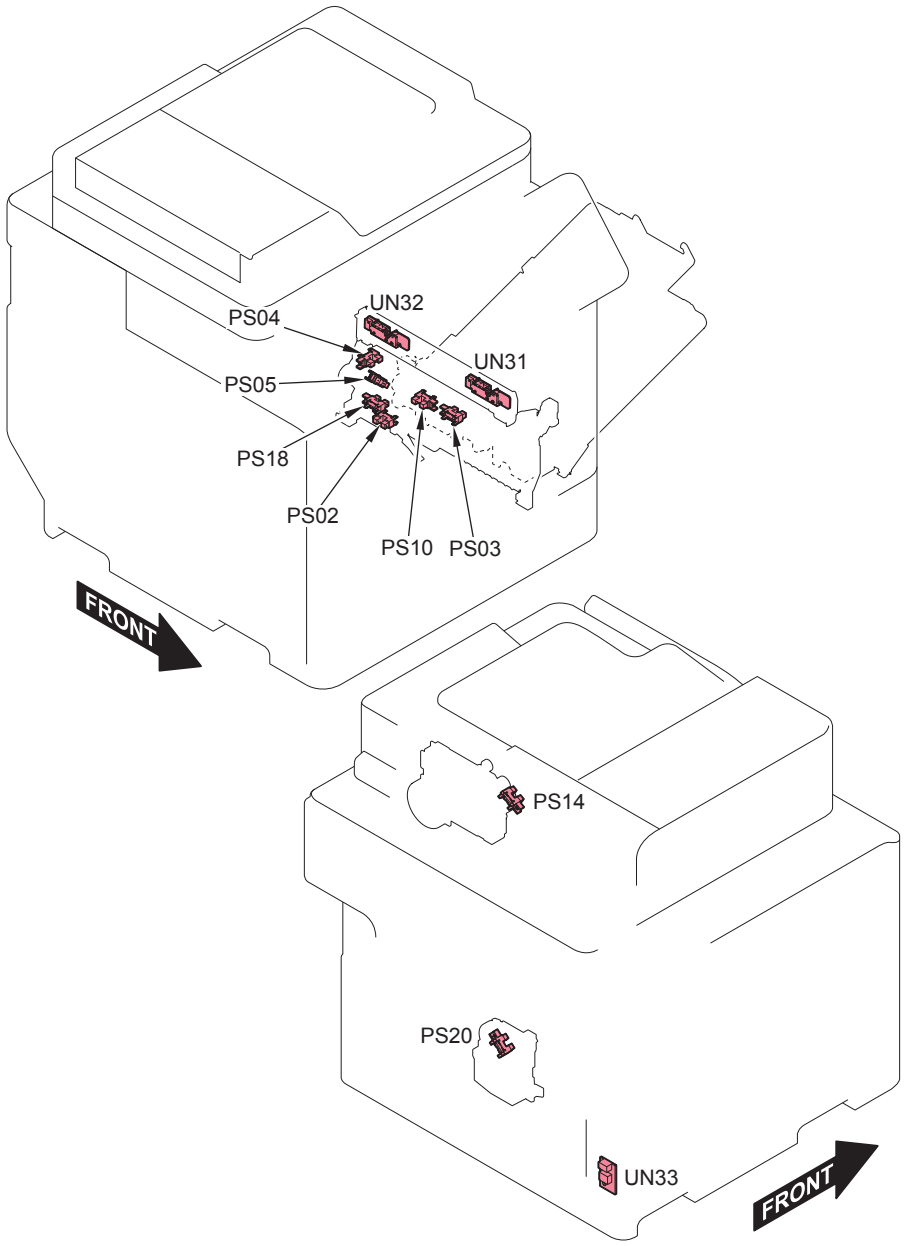


F-4-23

No.	Parts Name	Main Unit	Reference
PS01	Duplex Sensor	Right Cover Unit	
PS06	Bottle Rotation Sensor (Y)	Toner Bottle Mount Unit (Y)	
PS07	Bottle Rotation Sensor (M)	Toner Bottle Mount Unit (M)	
PS08	Bottle Rotation Sensor (C)	Toner Bottle Mount Unit (C)	
PS09	Bottle Rotation Sensor (Bk)	Toner Bottle Mount Unit (Bk)	
PS11	Arch Sensor	Right Cover Unit	
PS12	Delivery Sensor	Fixing Assembly	
PS13	Fixing Pressure Release Sensor	Fixing Assembly	
UN17	Waste Toner Sensor PCB	Product Configuration	
UN34	ATR Sensor (Y)	Drum Unit (Y)	
UN35	ATR Sensor (M)	Drum Unit (M)	
UN36	ATR Sensor (C)	Drum Unit (C)	
UN37	ATR Sensor (Bk)	Drum Unit (Bk)	
UN38	Toner Log Connector (Y)	Toner Bottle Mount Unit (Y)	
UN39	Toner Log Connector (M)	Toner Bottle Mount Unit (M)	
UN40	Toner Log Connector (C)	Toner Bottle Mount Unit (C)	
UN41	Toner Log Connector (Bk)	Toner Bottle Mount Unit (Bk)	

T-4-22

Sensor (2/2)

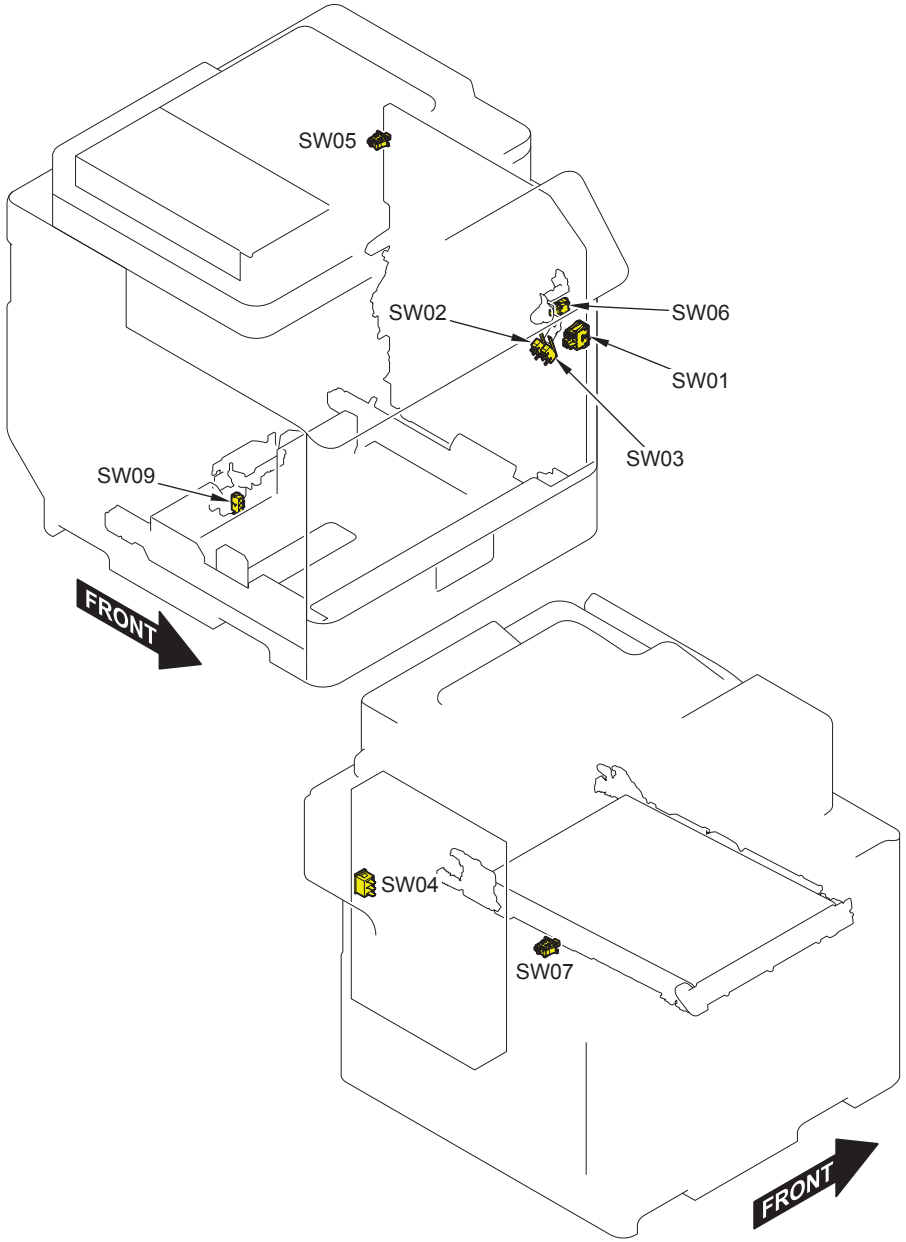


F-4-24

No.	Parts Name	Main Unit	Reference
PS02	Cassette 1 Paper Sensor	Regist/Paper Pickup Unit	
PS03	Multi-purpose Tray Paper Sensor	Right Cover Unit	
PS04	Pre-registration Sensor	Regist/Paper Pickup Unit	
PS05	Cassette 1 Pickup Sensor	Regist/Paper Pickup Unit	
PS10	Multi-purpose Tray HP Sensor	Right Cover Unit	
PS14	Delivery Paper Full Sensor	Fixing Drive Unit	
PS18	Cassette 1 Paper Surface Sensor	Regist/Paper Pickup Unit	
PS20	Cassette 1 Paper Level Sensor	Cassette 1 Lifter Drive Unit	
UN31	Registration Patch Sensor Unit (Front)	Registration Patch Sensor Unit	
UN32	Registration Patch Sensor Unit (Rear)	Registration Patch Sensor Unit	
UN33	Environment Sensor	Product Configuration	

T-4-23

Switch

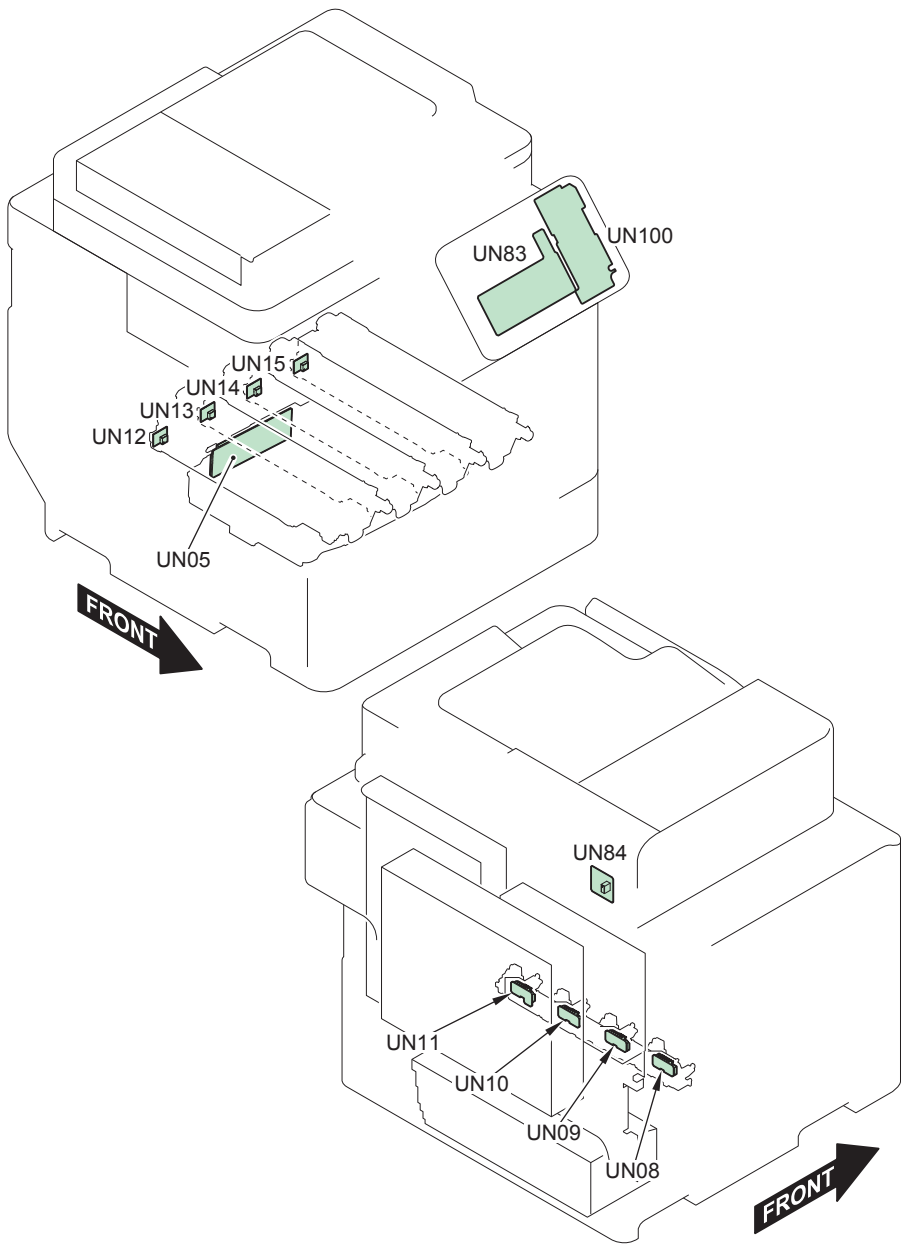


F-4-25

No.	Parts Name	Main Unit	Reference
SW01	Main Power Supply Switch	Product Configuration	
SW02	Interlock Switch 1	Product Configuration	
SW03	Interlock Switch 2	Product Configuration	
SW04	Environment Switch	Product Configuration	
SW05	Right Cover Open/Close Detection Switch	Product Configuration	
SW06	Front Cover Open/Close Switch	Product Configuration	
SW07	ITB Pressure Release Switch	Product Configuration	(Refer to page 4-131)
SW09	Cassette 1 Size Switch	Cassette 1 Auto Close Unit	

T-4-24

PCB (1/2)

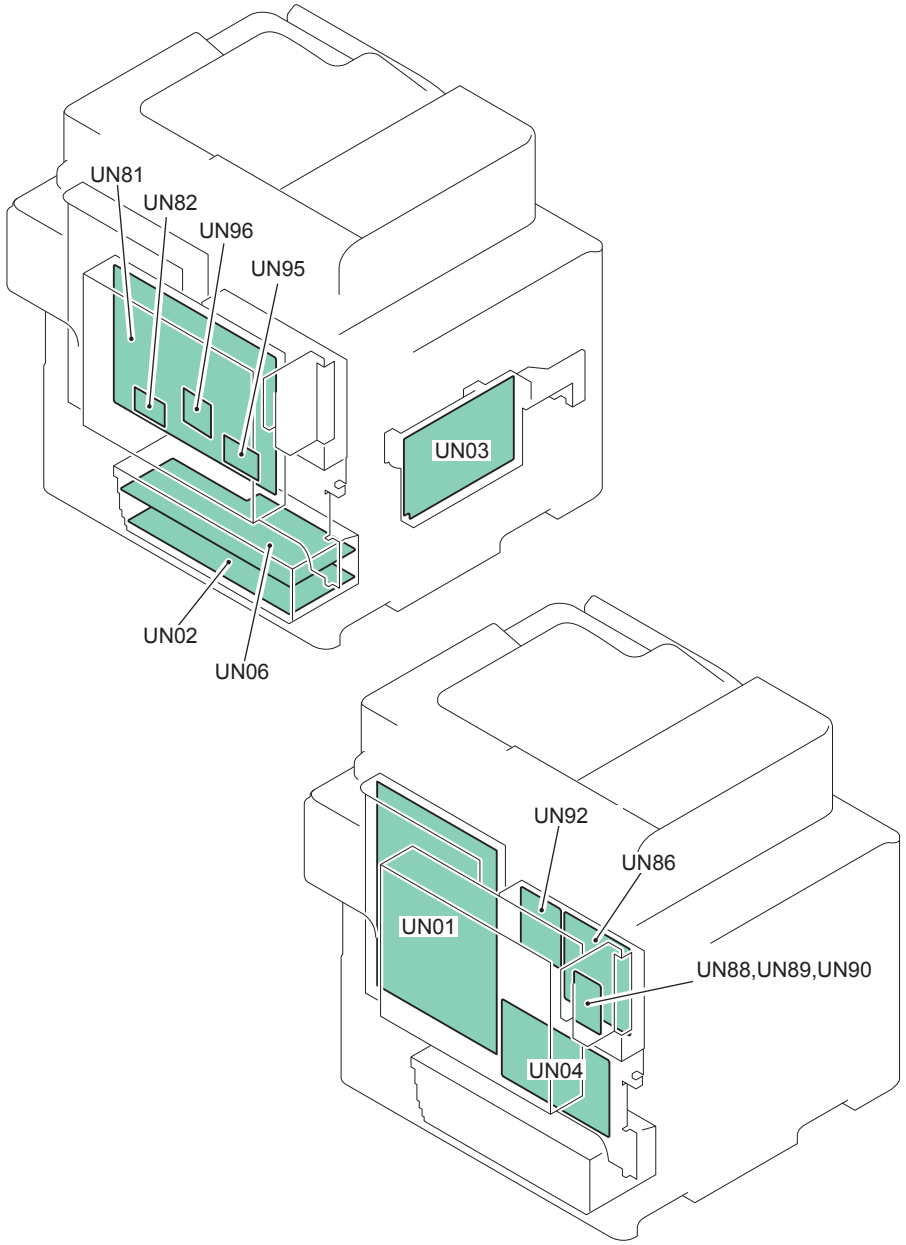


F-4-26

No.	Parts Name	Main Unit	Reference
UN05	Y/M/C/Bk Laser Driver PCB	Laser Scanner Unit	(Refer to page 4-106)
UN08	Drum Unit Relay PCB (Y)	Product Configuration	
UN09	Drum Unit Relay PCB (M)	Product Configuration	
UN10	Drum Unit Relay PCB (C)	Product Configuration	
UN11	Drum Unit Relay PCB (Bk)	Product Configuration	
UN12	Drum Unit Memory PCB (Y)	Drum Unit (Y)	
UN13	Drum Unit Memory PCB (M)	Drum Unit (M)	
UN14	Drum Unit Memory PCB (C)	Drum Unit (C)	
UN15	Drum Unit Memory PCB (Bk)	Drum Unit (Bk)	
UN83	Control Panel CPU PCB	Control Panel Unit	(Refer to page 4-100)
UN84	ECO PCB	Product Configuration	
UN100	Control Panel Numeric Keypad PCB	Control Panel Unit	(Refer to page 4-100)

T-4-25

PCB (2/2)

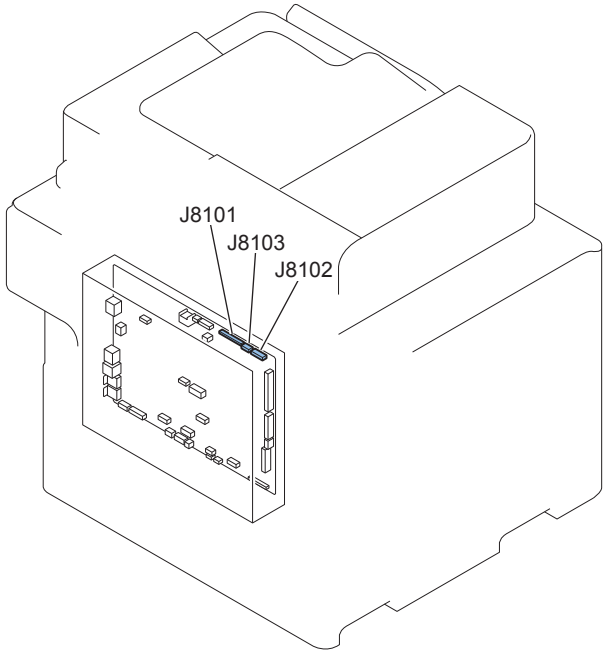


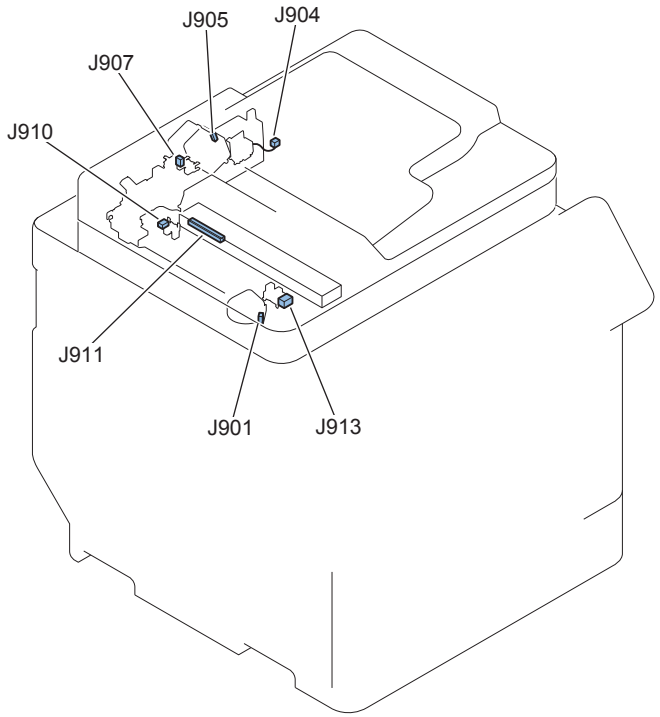
F-4-27

No.	Parts Name	Main Unit	Reference
UN01	Low-voltage Power Supply PCB	Product Configuration	(Refer to page 4-96)
UN02	Secondary Transfer High-voltage PCB	Product Configuration	(Refer to page 4-92)
UN03	Primary Transfer High-voltage PCB	Product Configuration	(Refer to page 4-94)
UN04	DC Controller PCB	Product Configuration	(Refer to page 4-89)
UN06	Developing High-voltage PCB	Product Configuration	(Refer to page 4-92)
UN81	Main Controller PCB	Product Configuration	(Refer to page 4-83)
UN86	FAX Communication Board	Product Configuration	(Refer to page 4-104)
UN88,89,90	FAX Interface Board	Product Configuration	(Refer to page 4-104)
UN92	Off-hook PCB	Product Configuration	(Refer to page 4-104)
UN91	TPM PCB	Main Controller	
UN95	Memorey PCB	Main Controller	
UN96	FLASH PCB	Main Controller	

T-4-26

List of Connectors

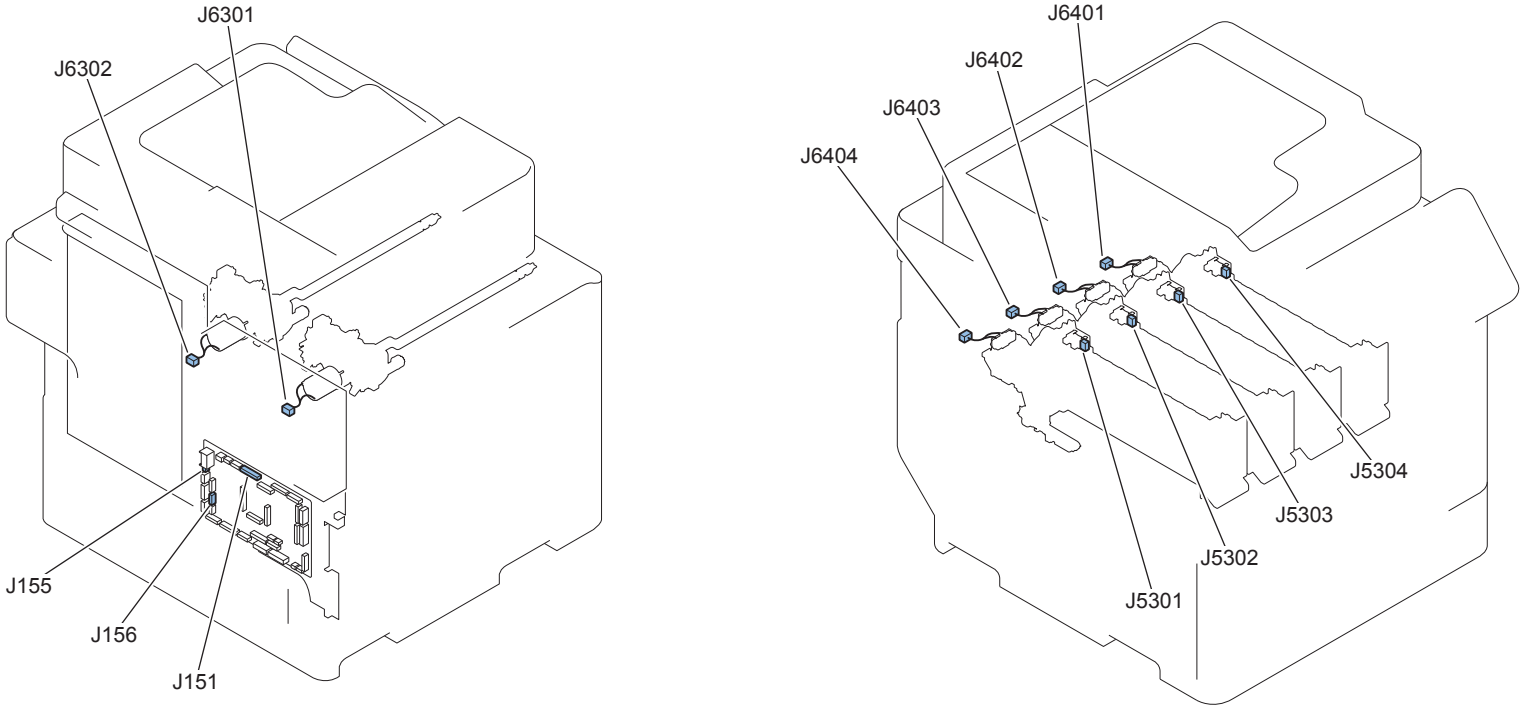




F-4-28

J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J8101	UN81	Main Controller PCB				J911	-	CIS Unit	
J8102	UN81	Main Controller PCB	J904			J904	SL01	Disengagement Solenoid	
						J905	M02	ADF Motor	
			J903			J907	PS03	Document Sensor	
				J908		J910	PS02	Document End Sensor	
J8103	UN81	Main Controller PCB	J901			J901	M01	Reader Motor	
			J902			J913	PS01	CIS Unit HP Sensor	

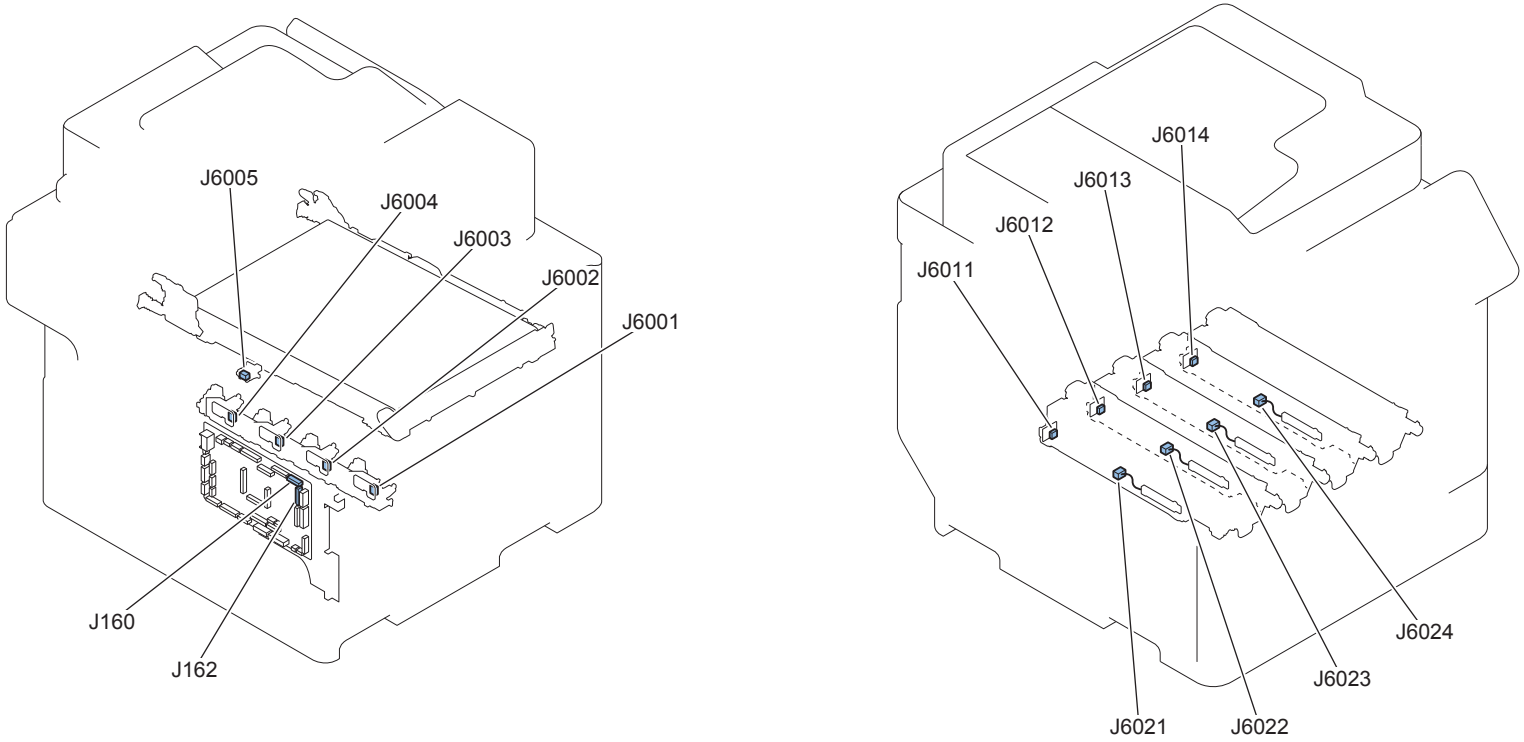
T-4-27



F-4-29

J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J151	UN04	DC Controller PCB				J5301	PS06	Bottle Rotation Sensor (Y)	
						J5302	PS07	Bottle Rotation Sensor (M)	
						J5303	PS08	Bottle Rotation Sensor (C)	
						J5304	PS09	Bottle Rotation Sensor (Bk)	
J155	UN04	DC Controller PCB	J6301			J6301	M09	Bottle Motor (YM)	
			J6302			J6302	M10	Bottle Motor (CK)	
J156	UN04	DC Controller PCB	J6401			J6401	UN38	Toner Log Connector(Y)	
			J6402			J6402	UN39	Toner Log Connector (M)	
			J6403			J6403	UN40	Toner Log Connector (C)	
			J6404			J6404	UN41	Toner Log Connector (Bk)	

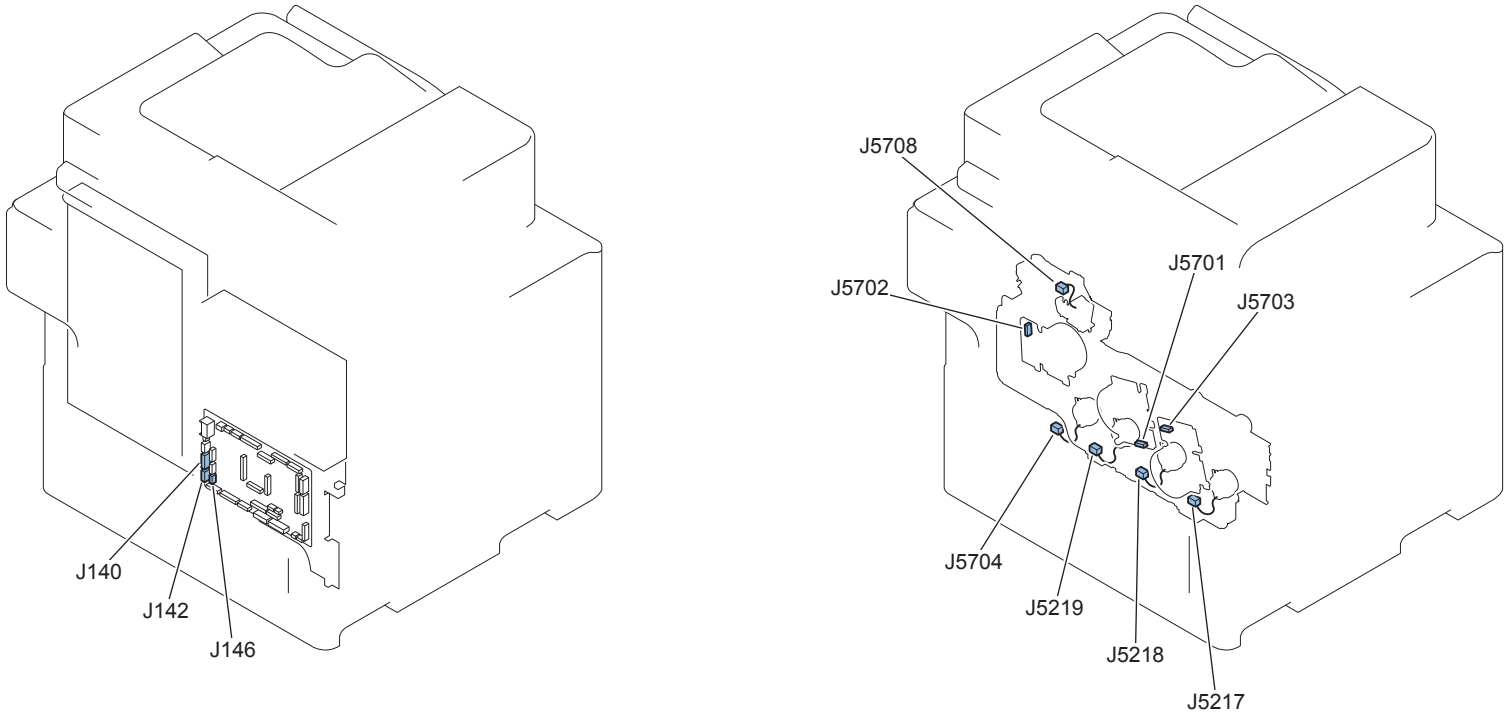
T-4-28



F-4-30

J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J160	UN04	DC Controller PCB				J6001	UN08	Drum Unit Relay PCB (Y)	
						J6002	UN09	Drum Unit Relay PCB (M)	
J162	UN04	DC Controller PCB				J6003	UN10	Drum Unit Relay PCB (C)	
						J6004	UN11	Drum Unit Relay PCB (Bk)	
						J6005	SW07	ITB Pressure Release Switch	
J6011	UN12	Drum Unit Memory PCB (Y)				J6021	UN34	ATR Sensor (Y)	
J6012	UN13	Drum Unit Memory PCB (M)				J6022	UN35	ATR Sensor (M)	
J6013	UN14	Drum Unit Memory PCB (C)				J6023	UN36	ATR Sensor (C)	
J6014	UN15	Drum Unit Memory PCB (Bk)				J6024	UN37	ATR Sensor (Bk)	

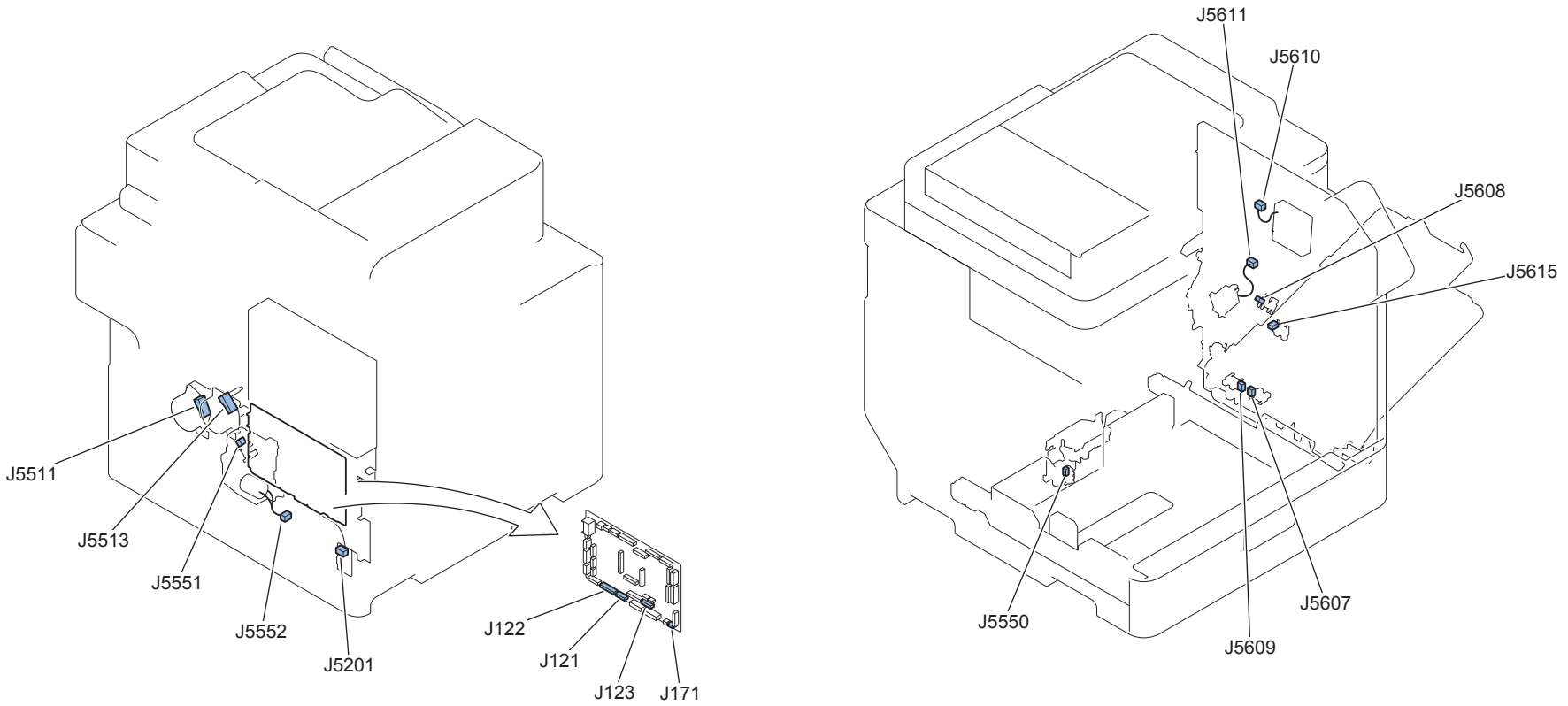
T-4-29



F-4-31

J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J140	UN04	DC Controller PCB				J5701	M01	CL Drum Motor	
			J5705			J5702	M02	Bk Drum _ ITB Motor	
			J5708			J5708	SL01	Primary Transfer Disengagement Solenoid	
J142	UN04	DC Controller PCB				J5703	M03	Developing Motor	
			J5704			J5704	CL04	Developing Cylinder Clutch (Bk)	
J146	UN04	DC Controller PCB	J5217			J5217	CL01	Developing Cylinder Clutch (Y)	
			J5218			J5218	CL02	Developing Cylinder Clutch (M)	
			J5219			J5219	CL03	Developing Cylinder Clutch (C)	

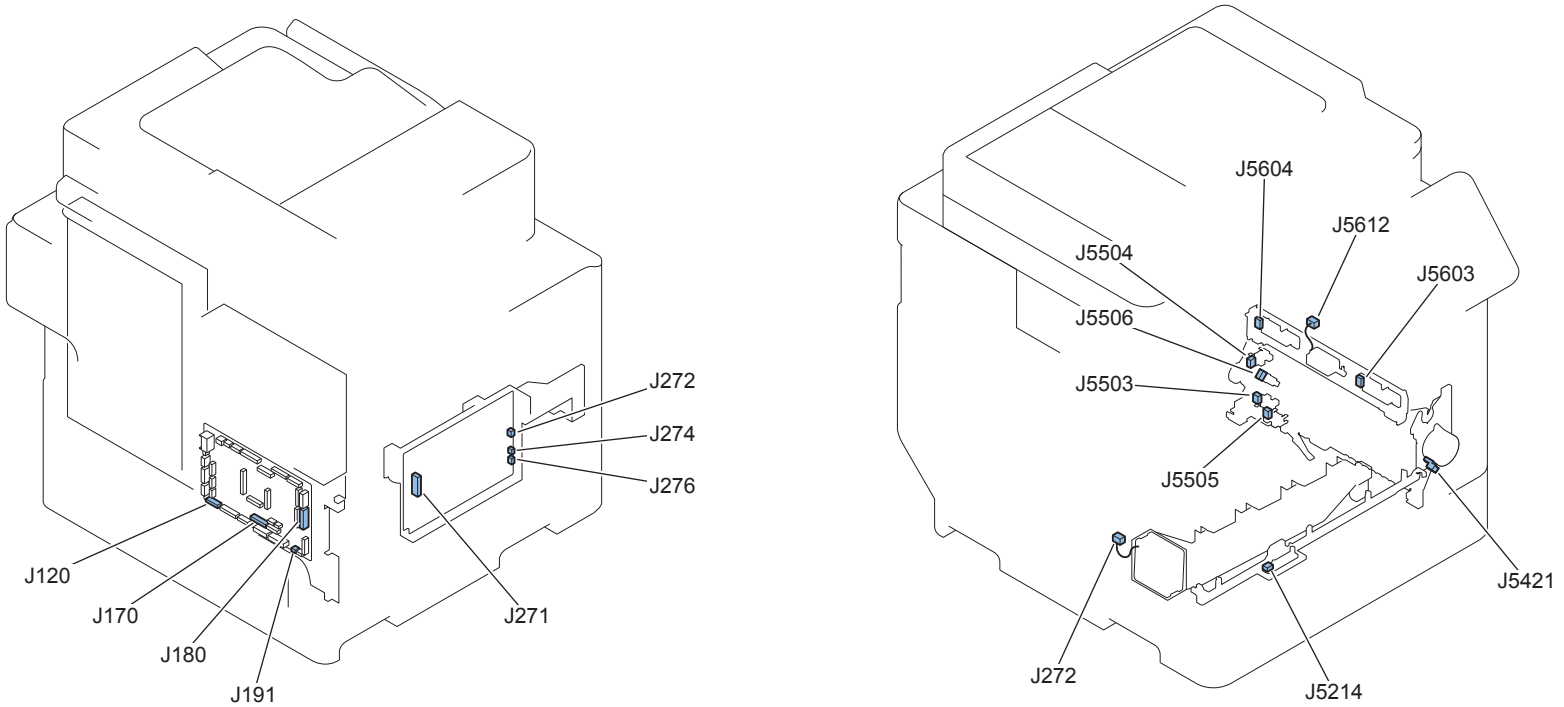
T-4-30



F-4-32

J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J121	UN04	DC Controller PCB	J5509			J5511	M05	Cassette 1 _ Multi-purpose Tray Pickup Motor	
						J5513	M06	Pre-registration Motor	
J122	UN04	DC Controller PCB	J5605	J5613		J5608	PS11	Arch Sensor	
				J5614	J5610	J5610	FM04	Duplex Cooling Fan	
				J5611		J5611	SL02	Duplex Solenoid	
						J5615	PS01	Duplex Sensor	
				J5616		J5607	PS03	Multi-purpose Tray Paper Sensor	
						J5609	PS10	Multi-purpose Tray HP Sensor	
J123	UN04	DC Controller PCB	J5553			J5550	SW09	Cassette 1 Size Switch	
			J5554			J5551	PS20	Cassette 1 Paper Level Sensor	
			J5552			J5552	M11	Cassette 1 Lifter Motor	
J171	UN04	DC Controller PCB				J5201	UN33	Environment Sensor	

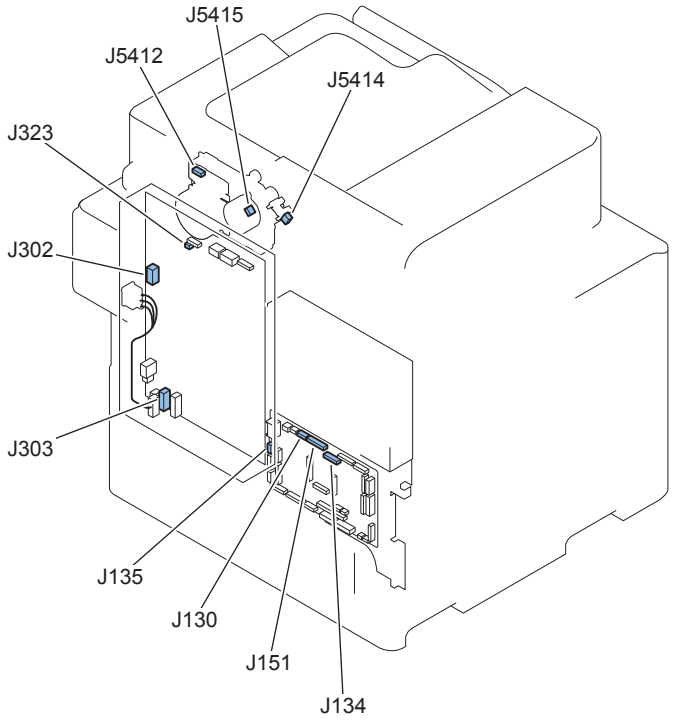
T-4-31

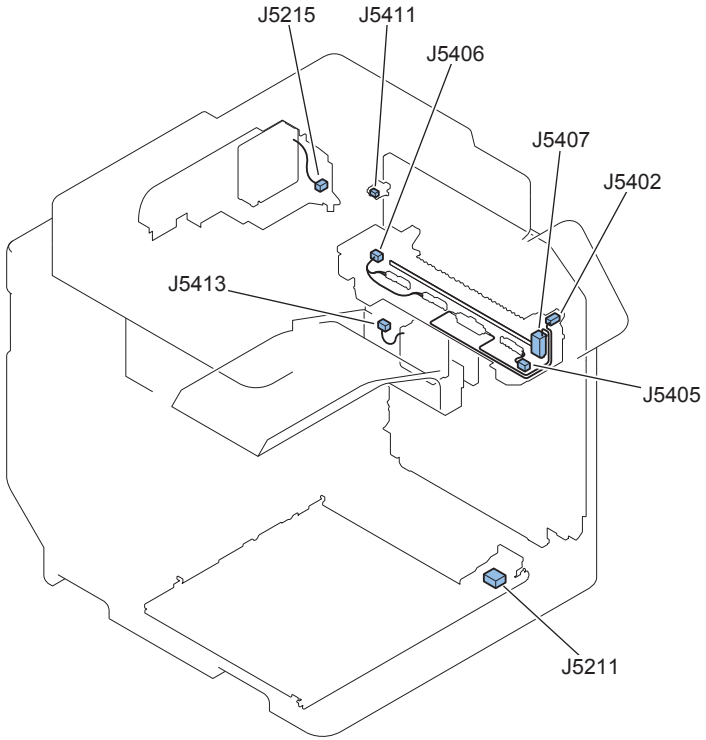


F-4-33

J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J120	UN04	DC Controller PCB	J5501			J5503	PS18	Cassette 1 Paper Surface Sensor	
						J5504	PS04	Pre-registration Sensor	
						J5505	PS02	Cassette 1 Paper Sensor	
						J5506	PS05	Cassette 1 Pickup Sensor	
J170	UN04	DC Controller PCB	J5601	J5602		J5603	UN31	Registration Patch Sensor Unit (Front)	
						J5604	UN32	Registration Patch Sensor Unit (Rear)	
					J5612	J5612	SL03	Registration Shutter Solenoid	
J180	UN04	DC Controller PCB				J271	UN03	Primary Transfer High-voltage PCB	
J191	UN04	DC Controller PCB							Not use
J272	UN03	Primary Transfer High-voltage PCB				J272	FM01	Drum Unit Suction Cooling Fan	
J274	UN03	Primary Transfer High-voltage PCB				J5214	UN17	Waste Toner Sensor PCB	
J276	UN03	Primary Transfer High-voltage PCB				J5421	M07	Registration Motor	

T-4-32

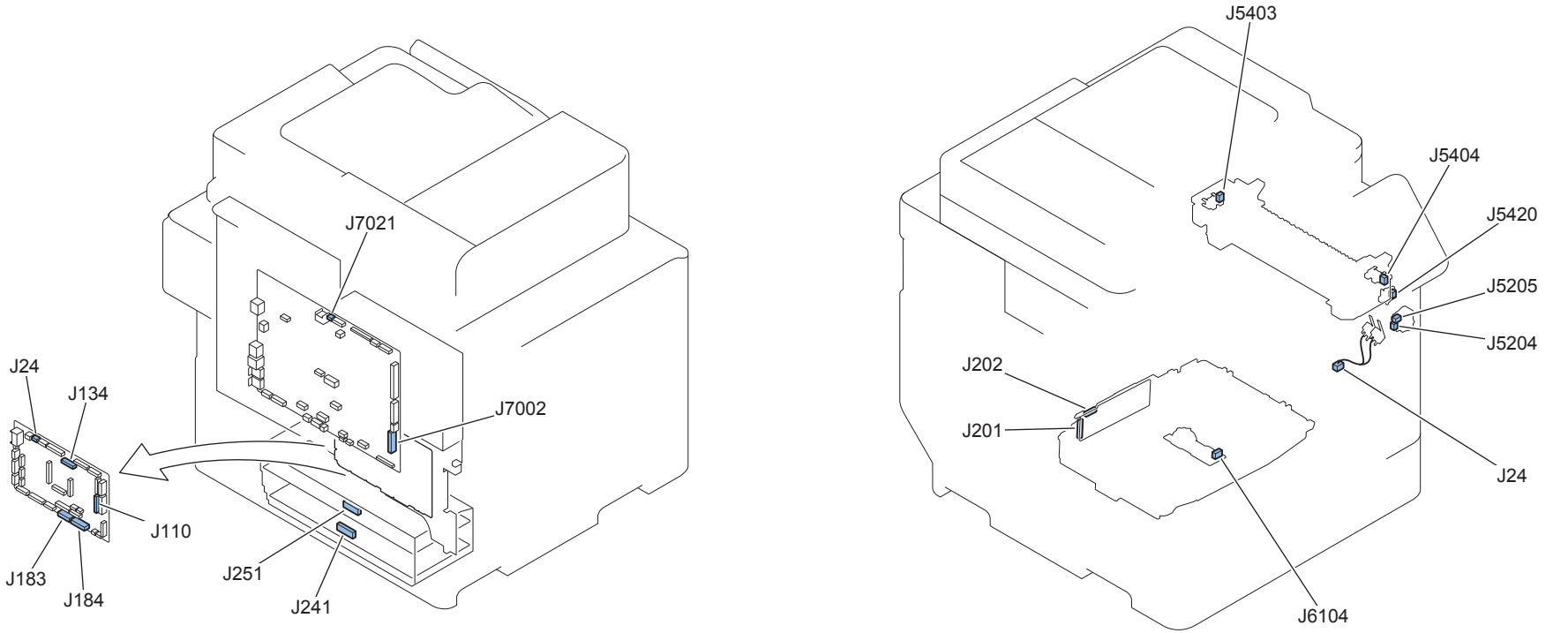




F-4-34

J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J130	UN04	DC Controller PCB				J5411	SW05	Right Cover Open/Close Detection Switch	
						J5415	M08	Reverce Motor	
J135	UN04	DC Controller PCB				J5412	M04	Fixing Motor	
J151	UN04	DC Controller PCB	J5413			J5413	FM03	Delivery Cooling Fan	
						J5414	PS14	Delivery Paper Full Sensor	
J134	UN04	DC Controller PCB	J5401	J5405		J5405	TH03	Sub Thermistor (Front)	
				J5406		J5406	TH01	Main Thermistor	
						J5406	TH02	Sub Thermistor (Rear)	
J302	UN01	Low-voltage Power Supply PCB		J5402		J5402	TP01	Fixing Thermoswitch	
						J5407	H01	Fixing Heater	
J303	UN01	Low-voltage Power Supply PCB	J5210	J5211		J5211	H02	Cassette Heater	
						J303	SW04	Environment Switch	Only for 100V
			J5207			-	-	Option Cassette Heater	Option
J323	UN01	Low-voltage Power Supply PCB	J5215			J5215	FM05	Power Supply Cooling Fan	

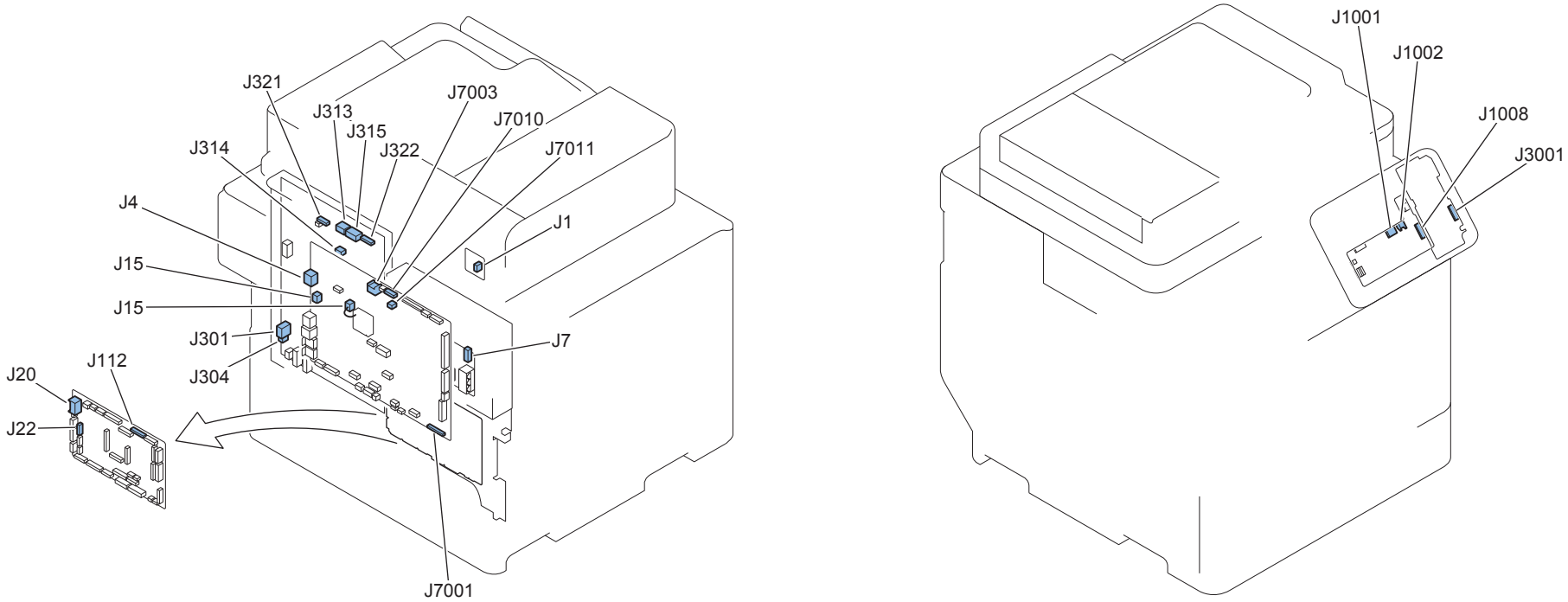
T-4-33



F-4-35

J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J134	UN04	DC Controller PCB	J5401			J5404	PS12	Delivery Sensor	
						J5403	PS13	Fixing Pressure Release Sensor	
J110	UN04	DC Controller PCB	J6103			J6104	M12	Scanner Motor	
						J202	UN05	Y/M/C/Bk Laser Driver PCB	
J7002	UN81	Main Controller PCB				J201	UN05	Y/M/C/Bk Laser Driver PCB	
J7021	UN81	Main Controller PCB	J5204			J5204	SW01	Main Power Supply Switch	
			J5205			J5205	SW01	Main Power Supply Switch	
J24	UN04	DC Controller PCB				J24	SW02	Interlock Switch 1	
							SW03	Interlock Switch 2	
						J5420	SW06	Front Cover Open/Close Switch	
J183	UN04	DC Controller PCB				J251	UN02	Secondary Transfer High-voltage PCB	
J184	UN04	DC Controller PCB				J241	UN06	Developing High-voltage PCB	

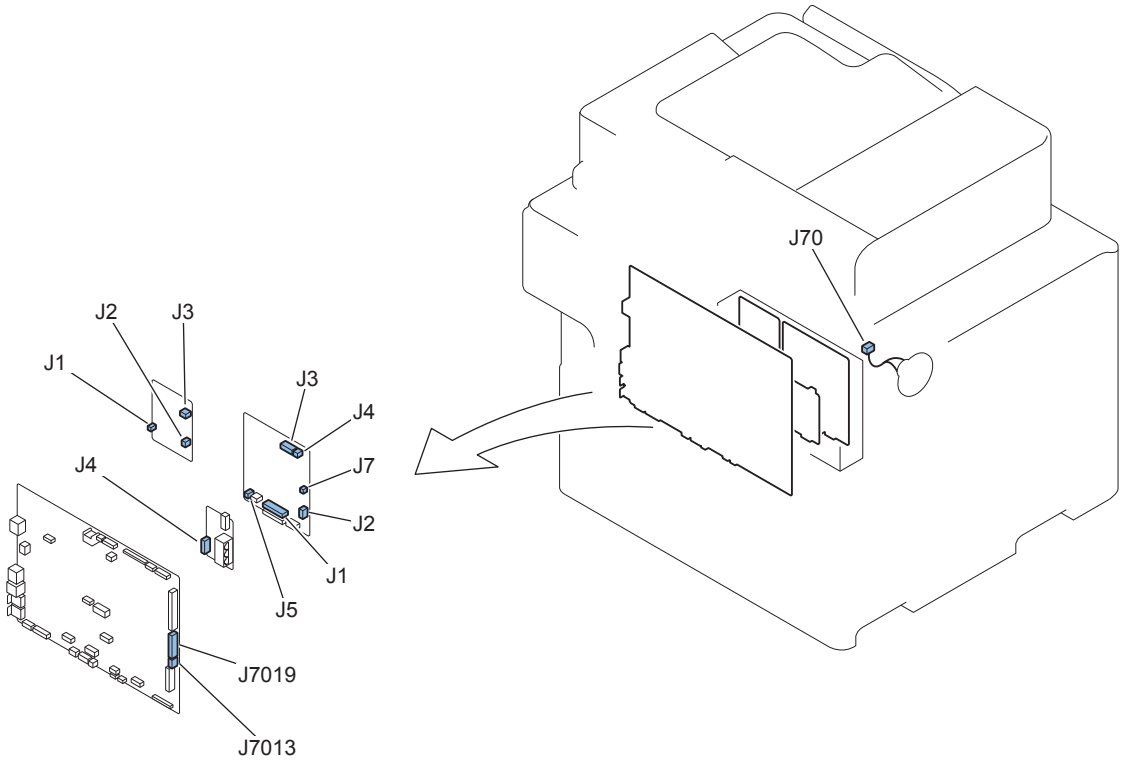
T-4-34



F-4-36

J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J1008	UN83	Control Panel CPU PCB				J3001	UN100	Control Panel Numeric Keypad PCB	
J4	UN81	Main Controller PCB				J1001	UN83	Control Panel CPU PCB	
J314	UN01	Low-voltage Power Supply PCB				J1002	UN83	Control Panel CPU PCB	
J313	UN01	Low-voltage Power Supply PCB				J7003	UN81	Main Controller PCB	
J321	UN01	Low-voltage Power Supply PCB				J7010	UN81	Main Controller PCB	
J304	UN01	Low-voltage Power Supply PCB				J7	UN88,89,90	Fax Interface Board	Not use
J301	UN01	Low-voltage Power Supply PCB				J301	-	INLET	
J315	UN01	Low-voltage Power Supply PCB				J20	UN04	DC Controller PCB	
J322	UN01	Low-voltage Power Supply PCB				J22	UN04	DC Controller PCB	
J7001	UN81	Main Controller PCB				J112	UN04	DC Controller PCB	
J15	UN81	Main Controller PCB				J15	UN81	Controller Cooling Fan	
J7011	UN81	Main Controller PCB				J1	UN84	ECO PCB	

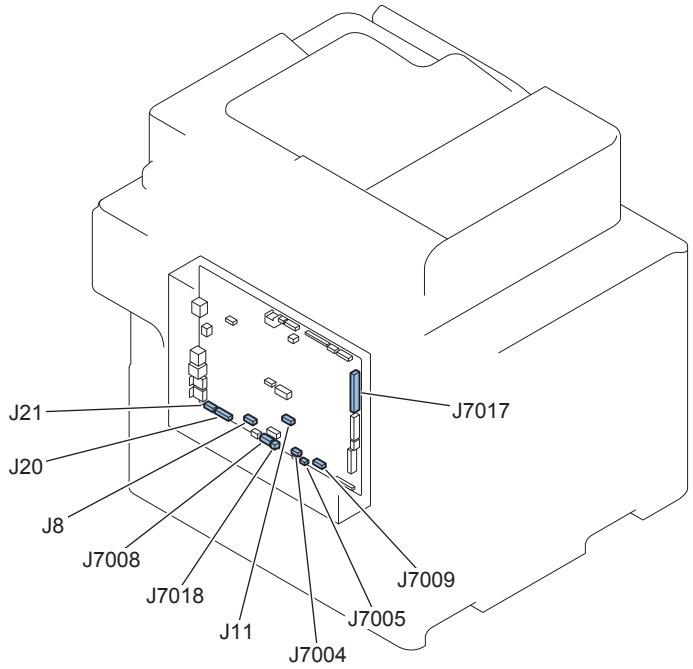
T-4-35



F-4-37

J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J7013	UN81	Main Controller PCB				J2	UN85,86	Fax Communication Board	
						J2	UN91,92	Off-hook PCB	
J7019	UN81	Main Controller PCB				J1	UN86	Fax Communication Board	
J4	UN86	Fax Communication Board				J3	UN92	Off-hook PCB	
J5	UN86	Fax Communication Board				J1	UN92	Off-hook PCB	Not use
J7	UN86	Fax Communication Board	J70			J70	SP1	Speaker	
J3	UN86	Fax Communication Board				J4	UN88,89,90	Fax Interface Board	

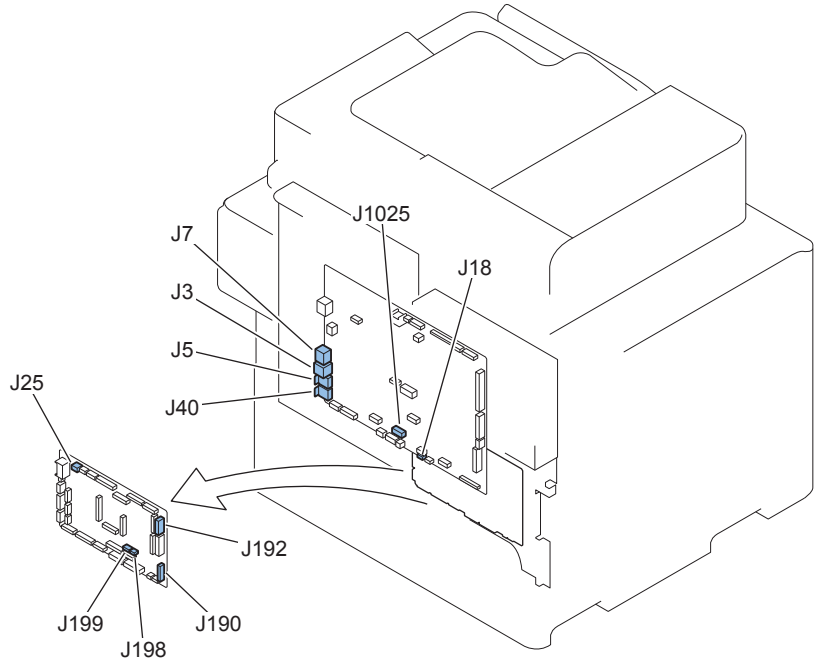
T-4-36



F-4-38

J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J8	UN81	Main Controller PCB				-	UN82	TPM PCB	
J7008	UN81	Main Controller PCB				-	UN94	HDD	
J7018	UN81	Main Controller PCB				-	UN94	HDD	
J7009	UN81	Main Controller PCB				-	UN95	Counter PCB	
J11	UN81	Main Controller PCB				-	UN96	FLASH PCB	
J7004	UN81	Main Controller PCB				-	UN97	SRAM PCB	
J7008	UN81	Main Controller PCB				J1	UN98	Encryption Board	Option
J7018	UN81	Main Controller PCB							
J7017	UN81	Main Controller PCB				-	UN99	Image Data Analyzer PCB	Option
J20	UN81	Main Controller PCB				-	-	Copy Card Reader-F1	Option
J21	UN81	Main Controller PCB				-	-	Copy Control Interface Kit-A1	Option
J7005	UN81	Main Controller PCB							Not use

T-4-37



F-4-39

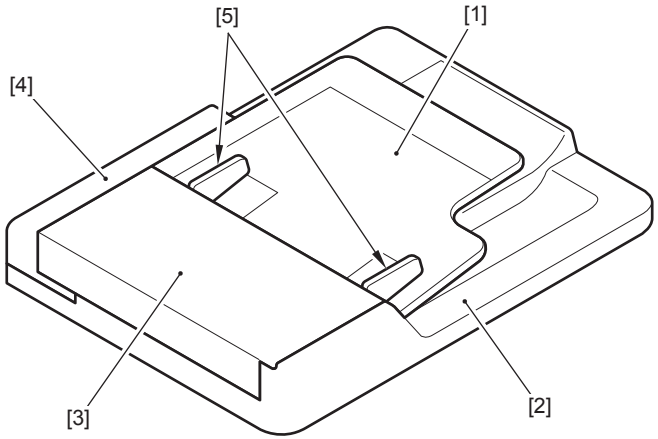
J No.	Symbol	Name	Relay connector			J No.	Symbol	Name	Remarks
J192	UN04	DC Controller PCB	J6202			J6202	-	Staple Finisher-S1	Option
J190	UN04	DC Controller PCB	J5904			-	-	Cassette Feeding Unit-AG1, Cassette Feeding Unit-AH1	Option
J198	UN04	DC Controller PCB							Not use
J199	UN04	DC Controller PCB							Not use
J25	UN04	DC Controller PCB	J5401						Loop the Power Supply Cable of the Fixing Motor back.
J18	UN81	Main Controller PCB							Not use
J6	UN81	Main Controller PCB							J6 USB(H)
J1025	UN81	Main Controller PCB							Not use
J3	UN81	Main Controller PCB							USB(D)
J5	UN81	Main Controller PCB							USB(H)
J40	UN81	Main Controller PCB							USB(H)
J7	UN81	Main Controller PCB							LAN

T-4-38

External Cover/Interior System

Layout Drawing

ADF UNIT

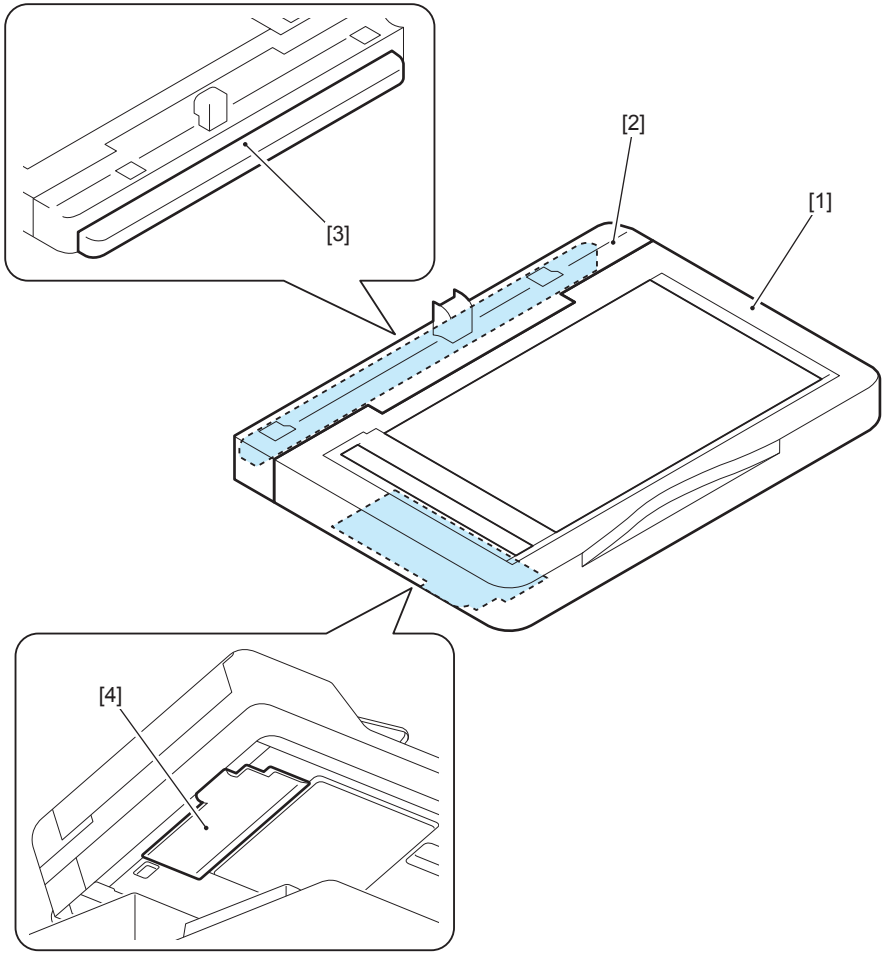


F-4-40

No.	Parts Name	Reference
[1]	Original Tray	
[2]	ADF Base	
[3]	Feeder Cover	
[4]	ADF Rear Cover	
[5]	ADF Side Guide Plate	

T-4-39

Reader Unit

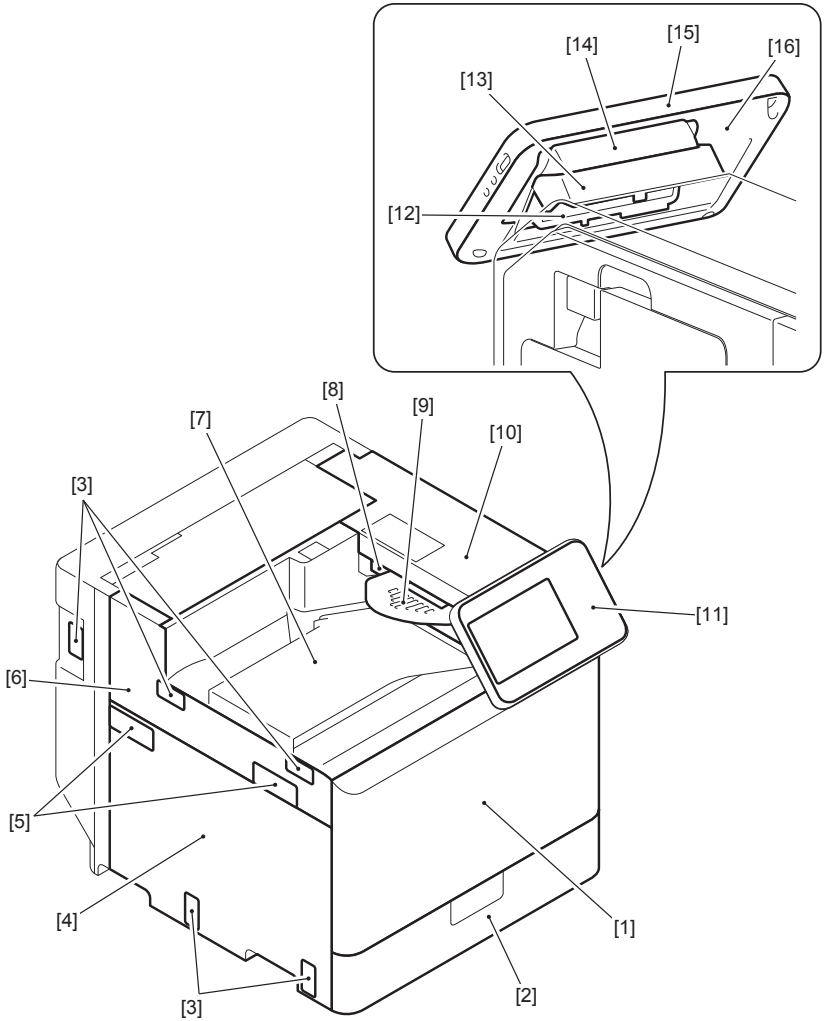


F-4-41

No.	Parts Name	Reference
[1]	Copyboard Glass Unit	(Refer to page 4-71)
[2]	Reader Rear Cover 1	
[3]	Reader Rear Cover 2	
[4]	Reader Motor Cover	

T-4-40

■ Printer (Front Side)

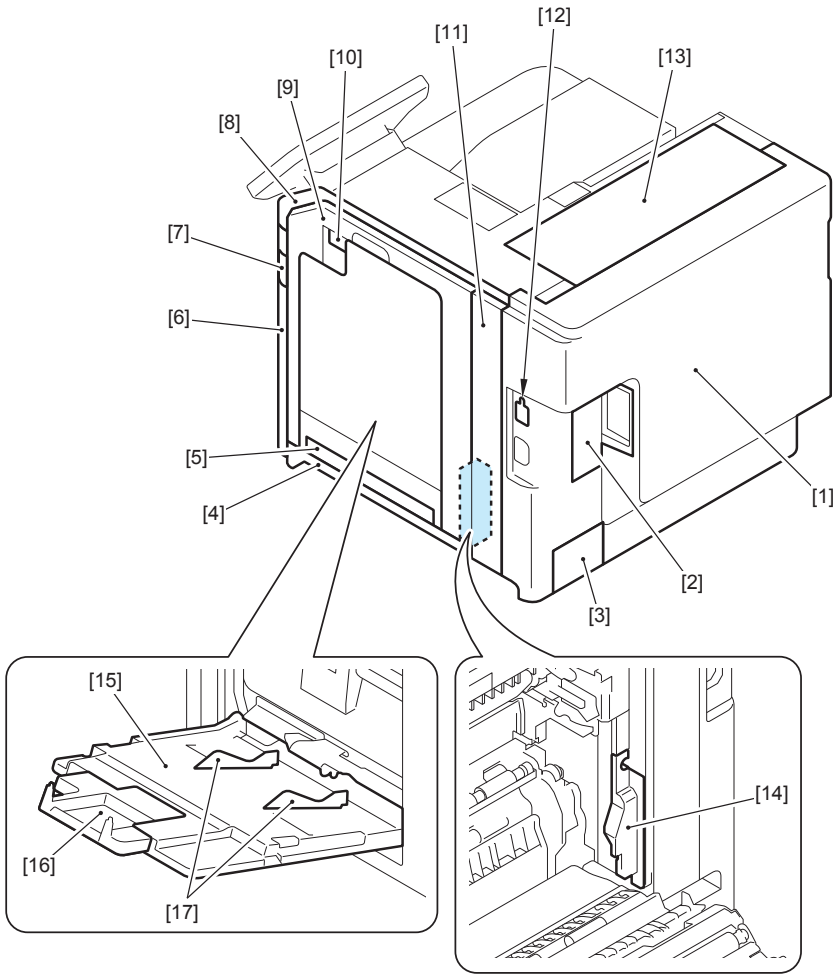


F-4-42

No.	Parts Name	Reference
[1]	Front Cover	(Refer to page 4-34)
[2]	Cassette	
[3]	Face Cover	
[4]	Left Lower Cover	(Refer to page 4-37)
[5]	Device Port Cover	
[6]	Left Upper Cover	(Refer to page 4-37)
[7]	Delivery Tray	(Refer to page 4-46)
[8]	Delivery Cover	
[9]	Reverse Tray	
[10]	Upper Cover	(Refer to page 4-48)
[11]	Control Panel Front Cover	
[12]	Control Panel Lower Hinge Cover	
[13]	Control Panel Rear Hinge Cover	
[14]	Control Panel Upper Hinge Cover	
[15]	Control Panel Side Cover	
[16]	Control Panel Rear Cover	

T-4-41

Printer (Rear Side)

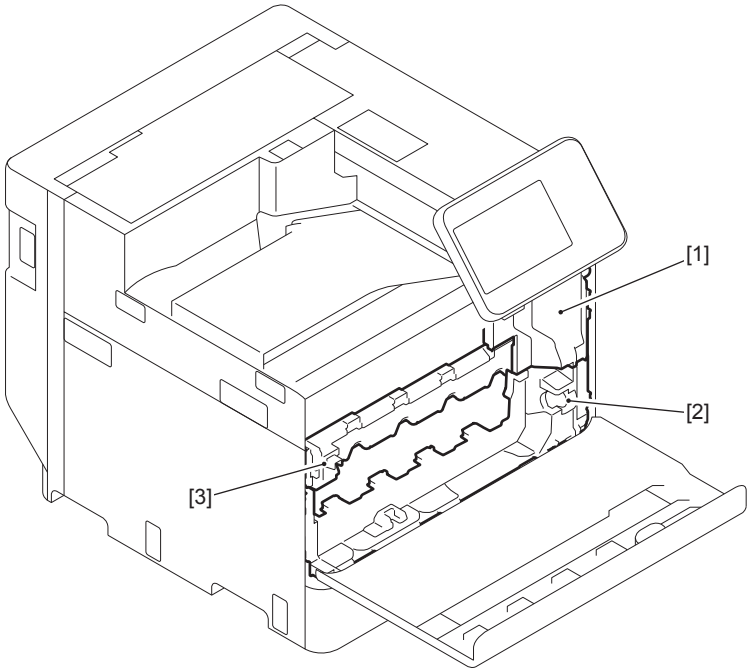


F-4-43

No.	Parts Name	Reference
[1]	Rear Cover 1	(Refer to page 4-35)
[2]	Rear Cover 2	
[3]	Environment Heater Cover	
[4]	Right Lower Cover	
[5]	Multi-purpose Tray Lower Cover	
[6]	Right Front Cover	(Refer to page 4-38)
[7]	Main Power Switch Cover	
[8]	Right Upper Cover	(Refer to page 4-40)
[9]	Right Cover	(Refer to page 4-42)
[10]	Right Cover Open/Close Lever	
[11]	Right Rear Cover	(Refer to page 4-39)
[12]	Environment Heater Switch Cover	
[13]	Rear Upper Cover	(Refer to page 4-47)
[14]	Right Rear Lower Cover	(Refer to page 4-39)
[15]	Multi-purpose Tray	(Refer to page 4-45)
[16]	Multi-purpose Extension Tray	
[17]	Multi-purpose Tray Side Guide Plate	

T-4-42

Internal View



F-4-44

No.	Parts Name	Reference
[1]	Front Inner Right Cover	
[2]	Front Inner Lower Cover	
[3]	Front Inner Upper Cover	

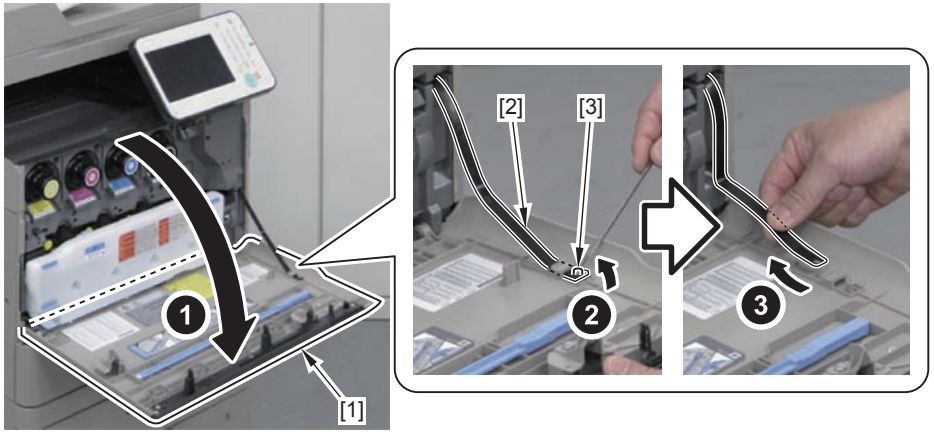
T-4-43

Removing the Front Cover

F-4-45

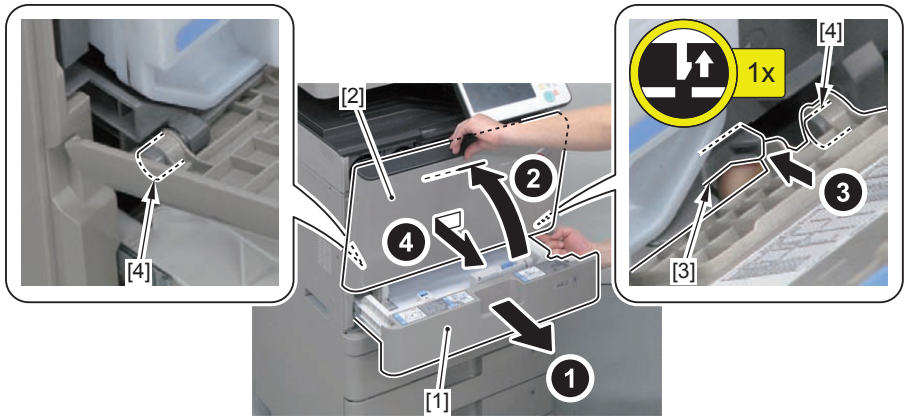
Procedure

1) Open the Front Cover [1].
2) Remove the Front Cover Retainer Band [2].
- 1 Boss [3]



F-4-46

3) Pull out the cassette [1].
4) Remove the Front Cover [2] while it is halfway open.
- 1 Claw [3]
- 2 Shafts [4]



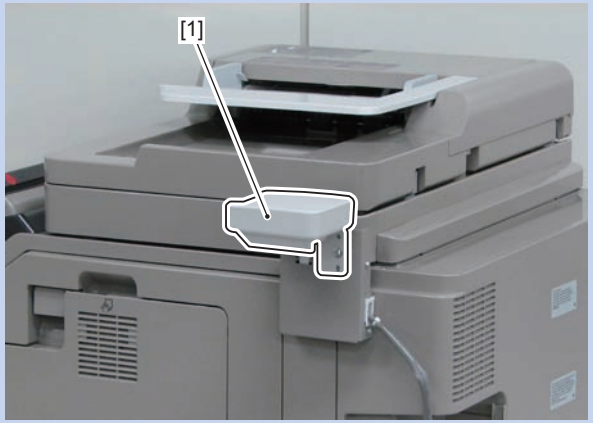
F-4-47

Removing the Rear Cover 1

F-4-48

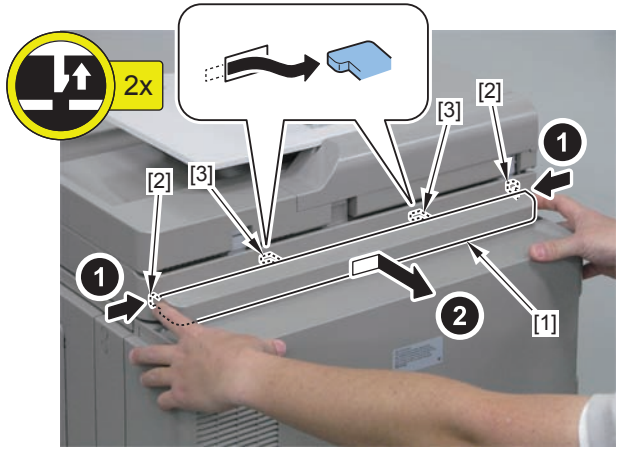
Procedure

NOTE:
If the optional Copy Card Reader [1] is installed, be sure to remove it first.



F-4-49

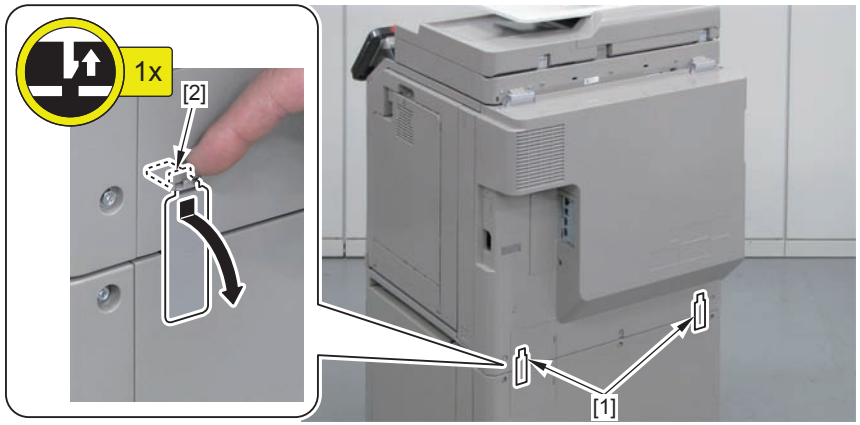
1) Remove the Reader Rear Cover 2 [1].
- 2 Claws [2]
- 2 Hooks [3]



F-4-50

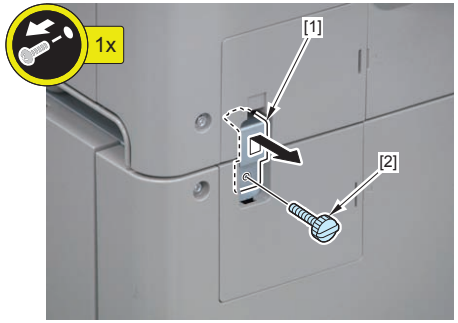
2-1) When the Cassette Pedestal is not installed, go to step 4.

2-2) When the Cassette Pedestal is installed, remove the 2 Face Covers [1].
- 1 Claw [2] for each location



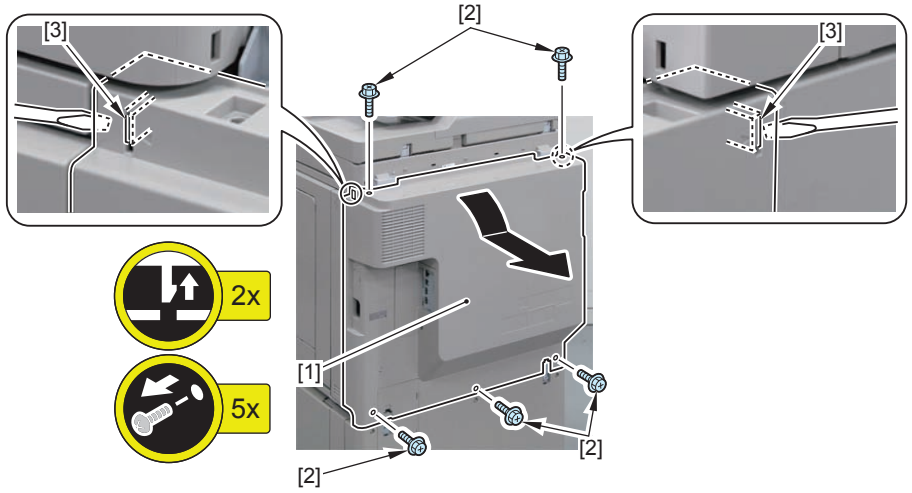
F-4-51

3) When the Cassette Pedestal is installed, remove the fixture [1].
- 1 Knurled Screw [2]



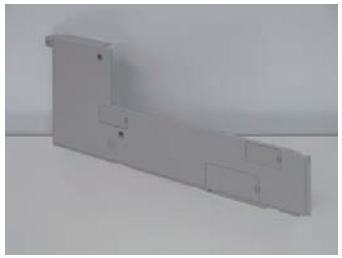
F-4-52

4) Remove the Rear Cover 1 [1].
- 5 Screws [2]
- 2 Claws [3]



F-4-53

Removing the Left Upper Cover



F-4-54

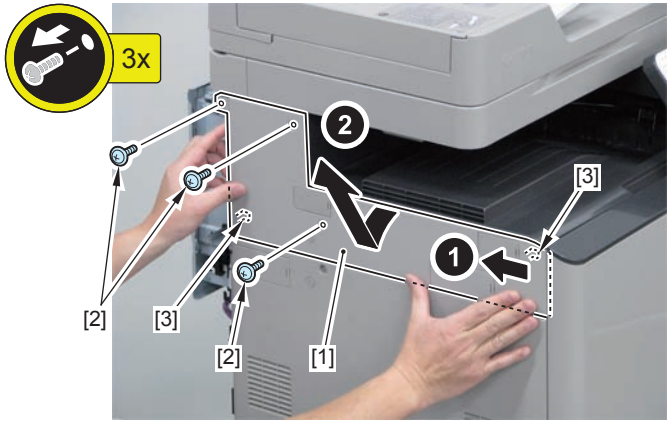
Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).

Procedure

1) Remove the Upper Left Cover [1].

- 3 Screws [2]
- 2 Hooks [3]



F-4-55

Removing the Left Lower Cover

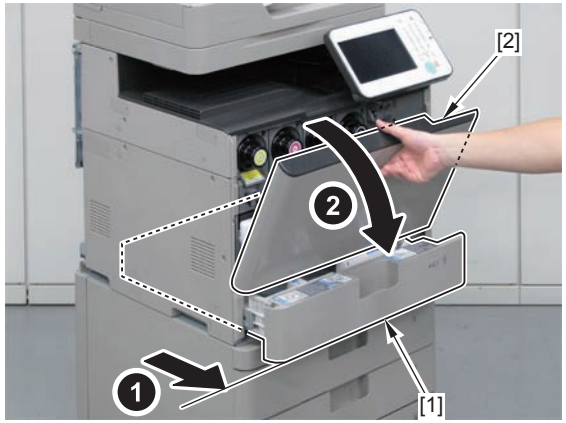
F-4-56

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).

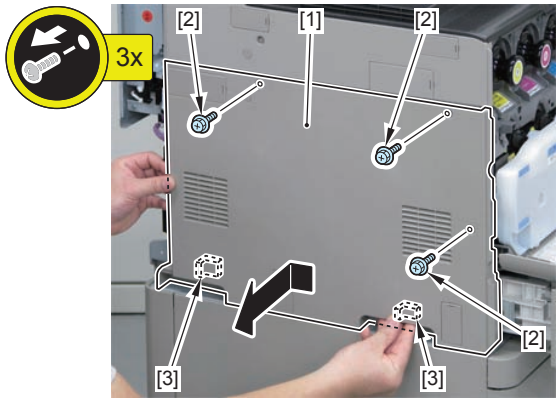
Procedure

1) Pull out the Cassette [1], and open the Front Cover [2].



F-4-57

2) Remove the Left Lower Cover [1].
- 3 Screws [2]
- 2 Hooks [3]



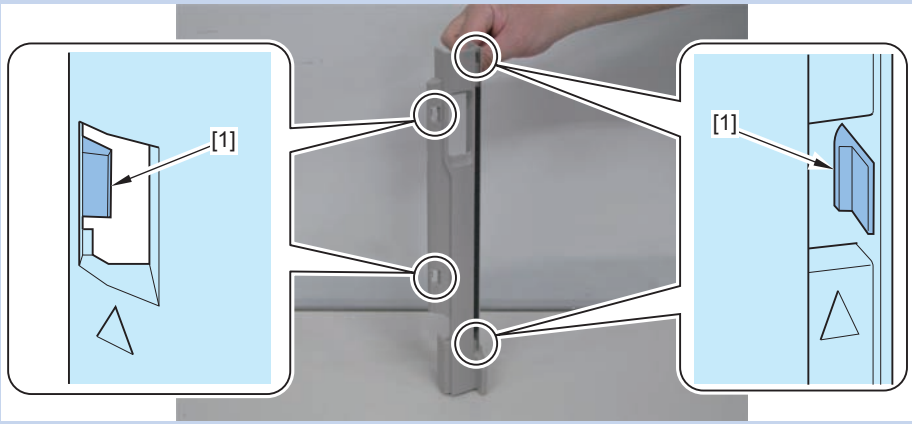
F-4-58

Removing the Right Front Cover

F-4-59

Pre-check items

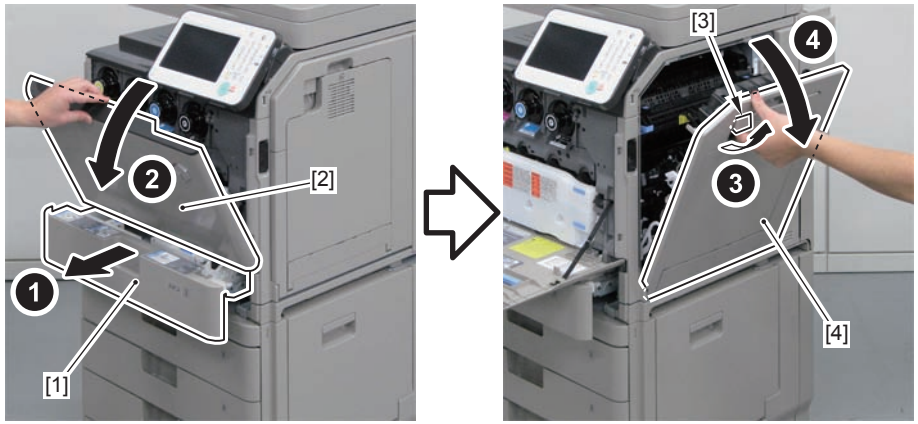
NOTE:
The 4 claws [1] of the Right Front Cover are shown in the figure below.



F-4-60

Procedure

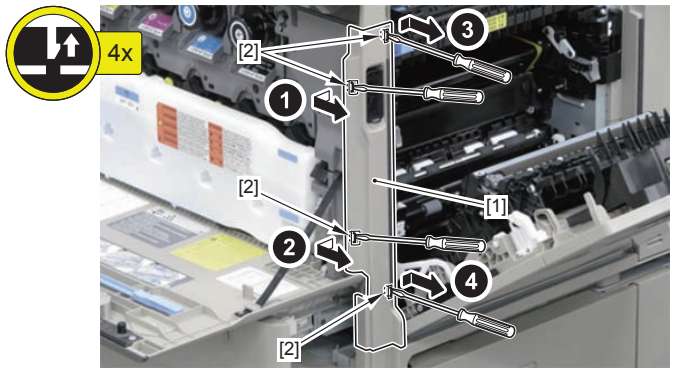
1) Pull out the cassette [1], and open the Front Cover [2].
2) Pull the Right Cover Open/Close Lever [3], and open the Right Cover Unit [4].



F-4-61

3) Remove the Right Front Cover [1].

- 4 Claws [2]



F-4-62

Removing the Right Rear Cover/Right Rear Lower Cover

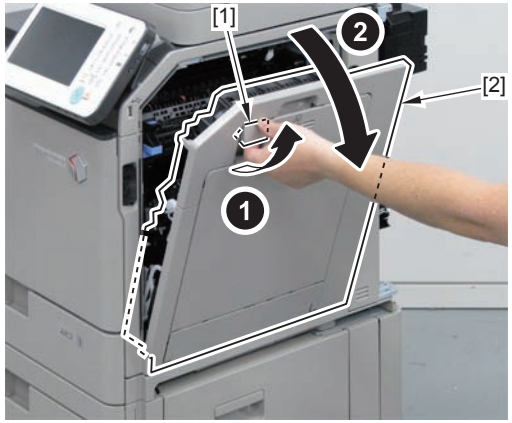
F-4-63

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).

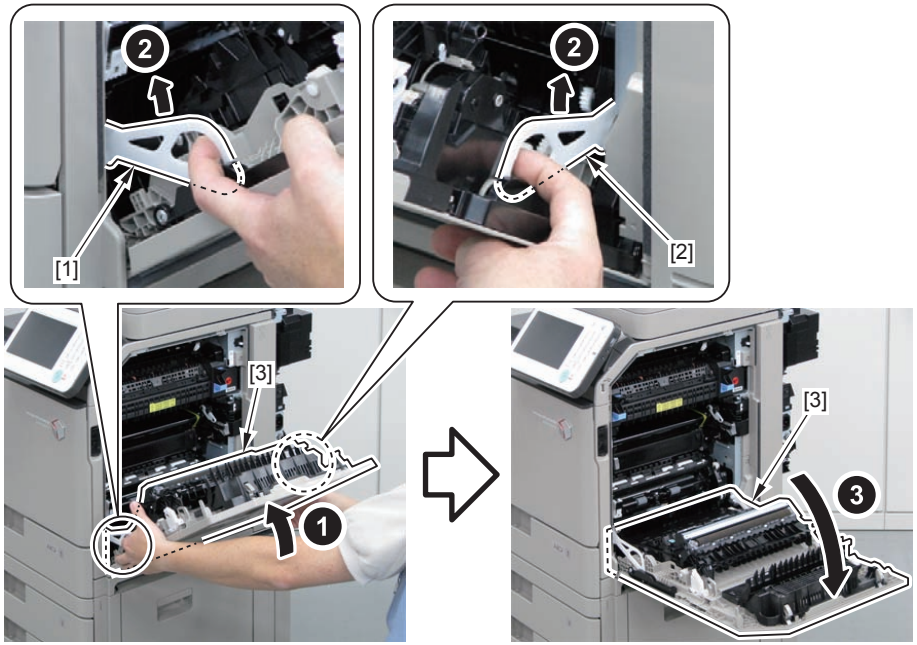
Procedure

1) Pull the Right Cover Open/Close Lever [1], and open the Right Cover Unit [2].



F-4-64

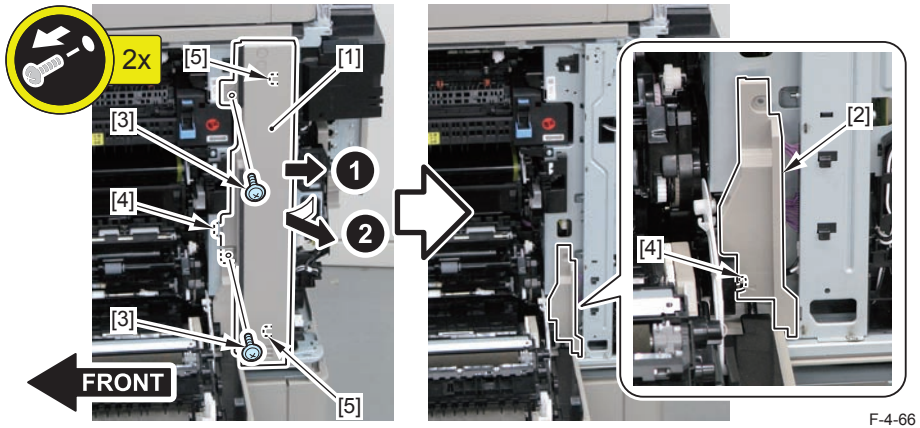
2) Release the lock of the Right Cover Stopper Front [1] and the Right Cover Stopper Rear [2], and then further open the Right Cover Unit [3].



F-4-65

3) Remove the Right Rear Cover [1] and the Right Rear Lower Cover [2].

- 2 Screws [3]
- 2 Hooks [4]
- 2 Bosses [5]



F-4-66

Removing the Right Upper Cover

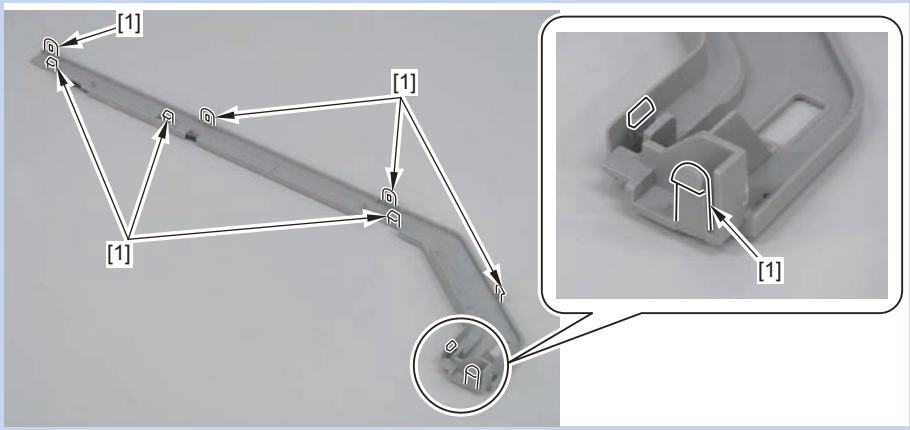
F-4-67

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Right Rear Cover/Right Rear Lower Cover(Refer to page 4-39).

Pre-check items

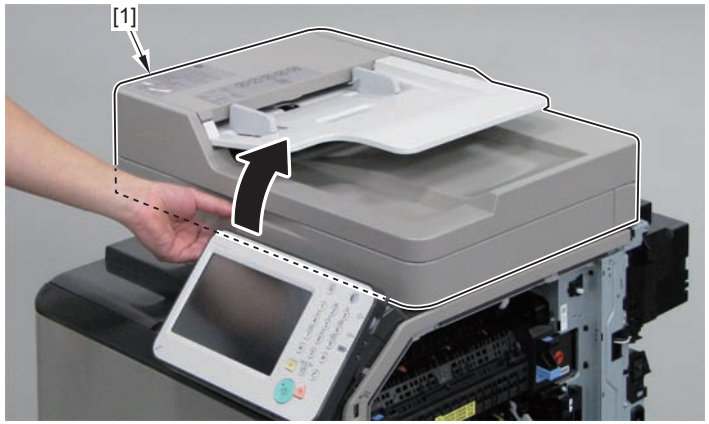
NOTE:
The 9 claws [1] of the Right Upper Cover are shown in the figure below.



F-4-68

Procedure

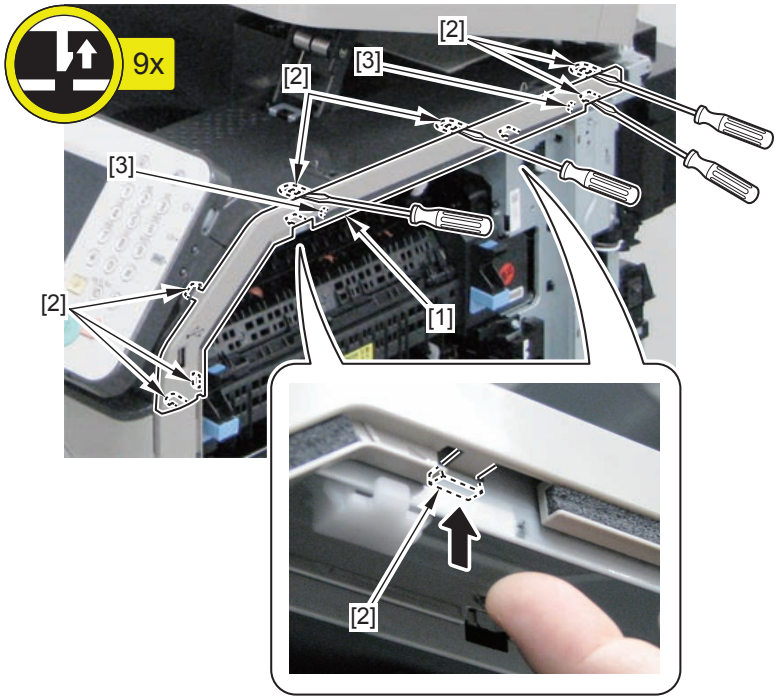
1) Open the ADF Unit + Reader Unit [1].



F-4-69

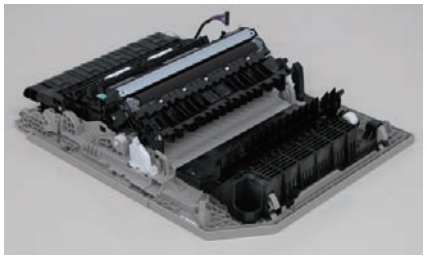
2) Remove the Right Upper Cover [1].

- 9 Claws [2]
- 2 Bosses [3]



F-4-70

Removing the Right Cover Unit



F-4-71

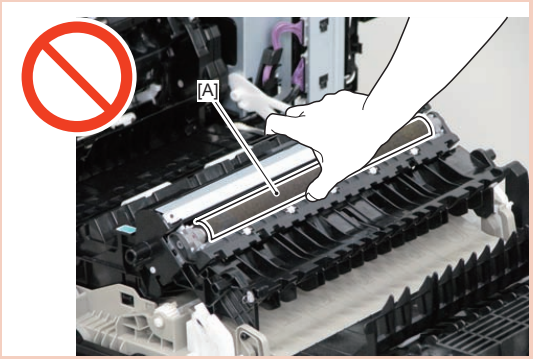
Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Right Rear Cover/Right Rear Lower Cover(Refer to page 4-39).

Procedure

CAUTION:

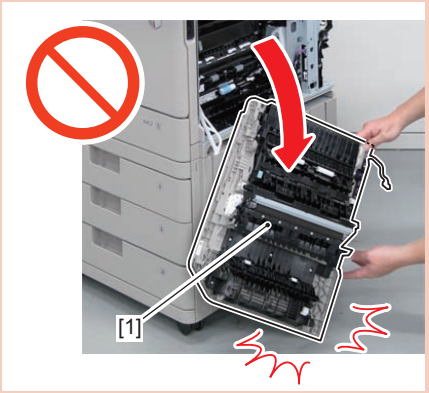
- Be sure not to touch the roller surface [A] of the Secondary Transfer Outer Roller Unit when disassembling/assembling.



F-4-72

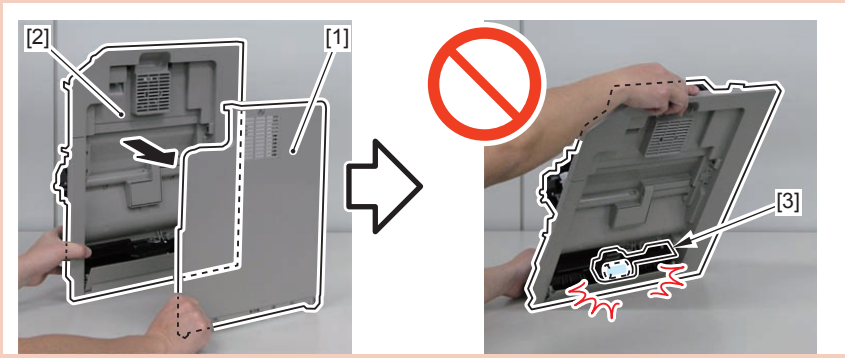
CAUTION:

- Be careful not to drop the Right Cover Unit [1] when disassembling/assembling.



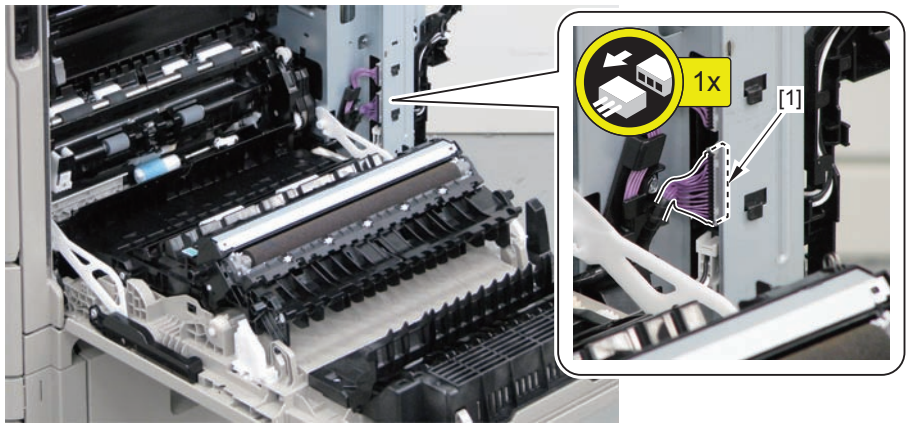
F-4-73

- Do not place the Right Cover Unit [2] directly on the floor after removing the Multi-purpose tray [1]. This is because the Multi-purpose Tray Pickup Roller/Multi-purpose Tray Feed Roller Unit [3] may be damaged.



F-4-74

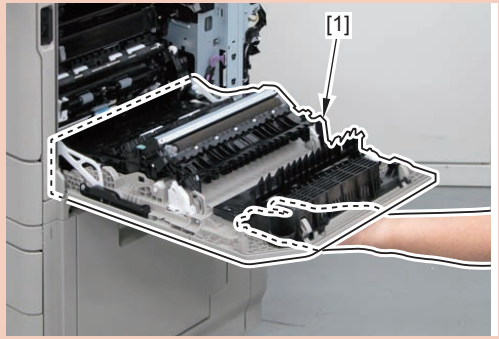
1) Disconnect the Connector [1].



F-4-75

⚠ CAUTION:

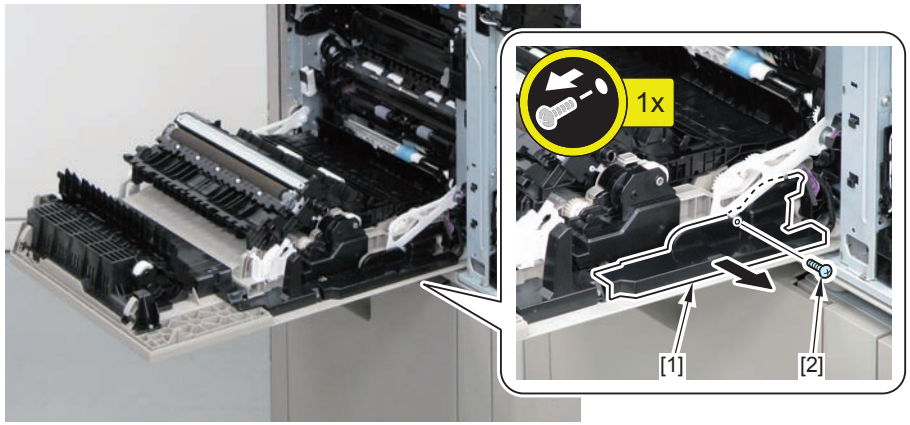
Be sure to disassemble/assemble by holding the Right Cover Unit [1] after step 2.



F-4-76

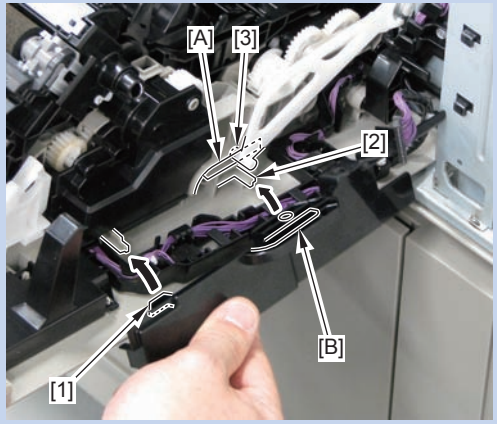
2) Remove the Right Cover Stopper Rear Holder [1].

- 1 Screw [2]



F-4-77

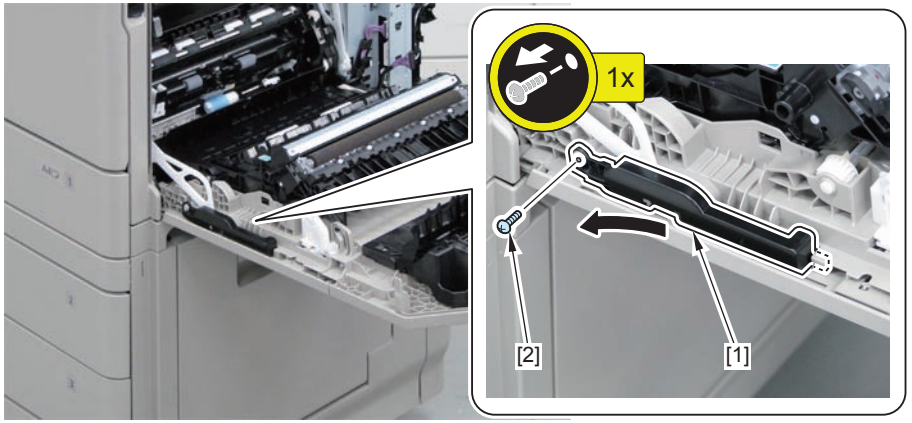
NOTE: How to assemble the Right Cover Stopper Rear Holder
When assembling, be sure to align the hook [1] and the boss [2], and align the shaft [3] of the Right Cover Stopper Rear with the groove [A] of the Right Cover Unit and the groove [B] of the Right Cover Stopper Rear Holder to install the holder.



F-4-78

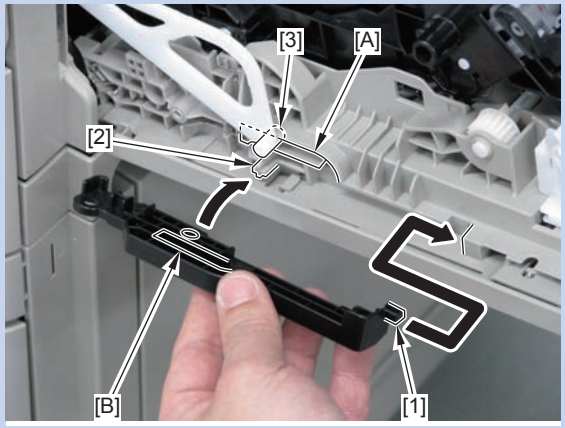
3)Remove the Right Cover Stopper Front Holder [1].

- 1 Screw [2]



F-4-79

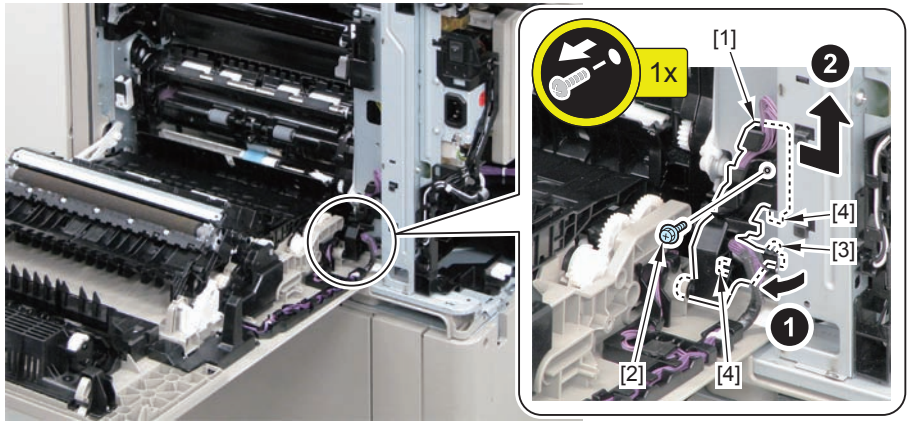
NOTE: How to assemble the Right Cover Stopper Front Holder
When assembling, align the hook [1] and the boss [2], and align the shaft [3] of the Right Cover Stopper Front with the groove [A] of the Right Cover Unit and the groove [B] of the Right Cover Stopper Front Holder.



F-4-80

4) Remove the Right Cover Rear Support Holder [1].

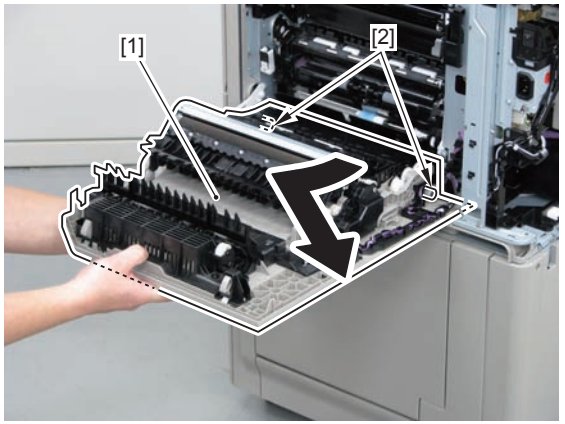
- 1 Screw [2]
- 1 Boss [3]
- 2 Hooks [4]



F-4-81

5) Remove the Right Cover Unit [1].

- 2 Shafts [2]



F-4-82

Removing the Multi-purpose Tray

F-4-83

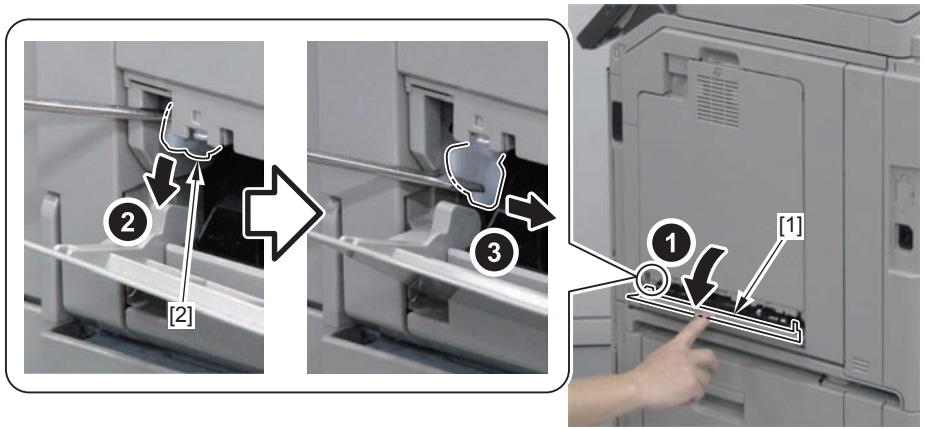
Procedure

CAUTION:

Be careful not to drop the Multi-purpose Tray Shaft Holder [2] in the host machine when disassembling/assembling.

F-4-84

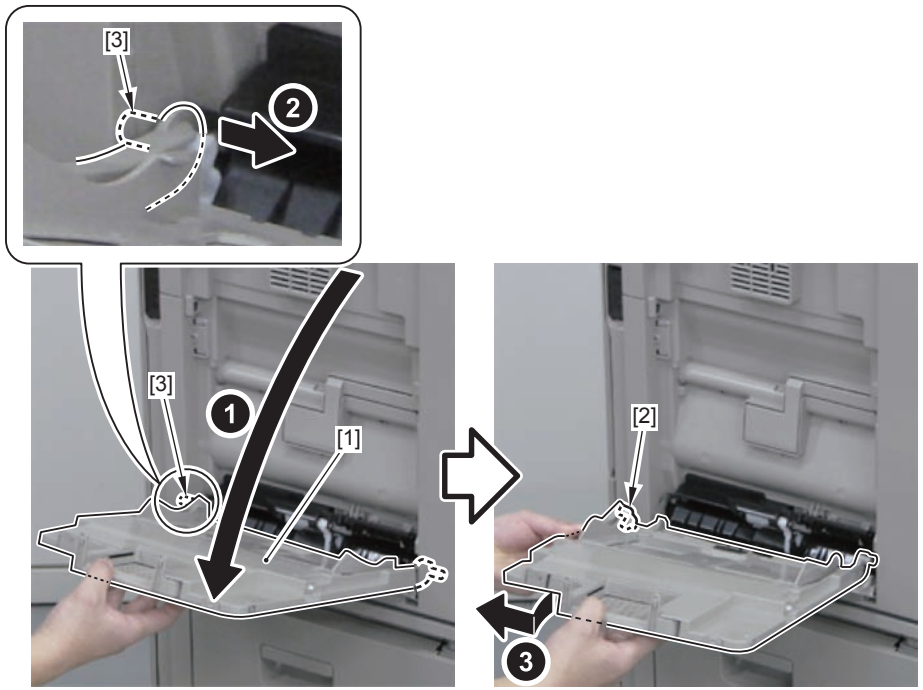
1) Open the Multi-purpose Tray Lower Cover [1], and release the Multi-purpose Tray Shaft Holder [2].



F-4-85

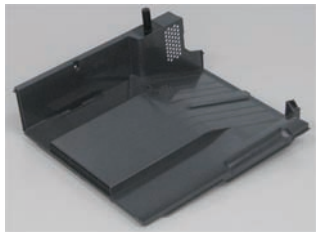
2) Remove the Multi-purpose Tray [1] and the Multi-purpose Tray Shaft Holder [2].

- 2 Shafts [3]



F-4-86

Removing the Delivery Tray



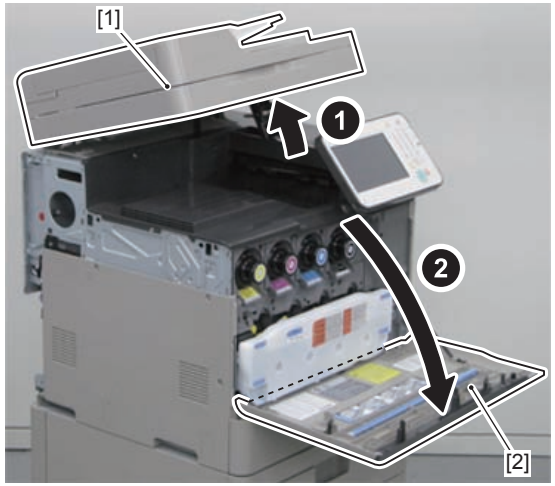
F-4-87

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover(Refer to page 4-37).

Procedure

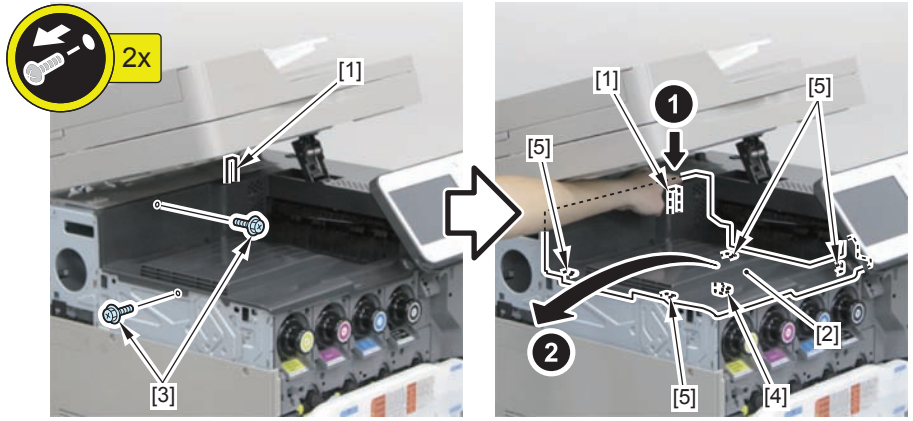
1) Open the ADF Unit + Reader Unit [1] and the Front Cover [2].



F-4-88

2) Remove the Delivery Tray [2] while pressing the damper [1].

- 2 Screws [3]
- 1 Hook [4]
- 4 Bosses [5]



F-4-89

Removing the Rear Upper Cover

F-4-90

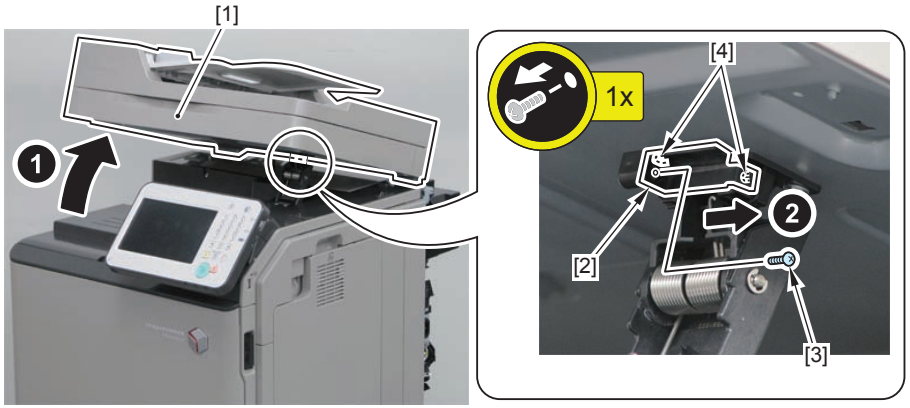
Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).

Procedure

1) Open the ADF Unit + Reader Unit [1], and remove the ADF Arm Cover [2].

- 1 Screw [3]
- 2 Hooks [4]



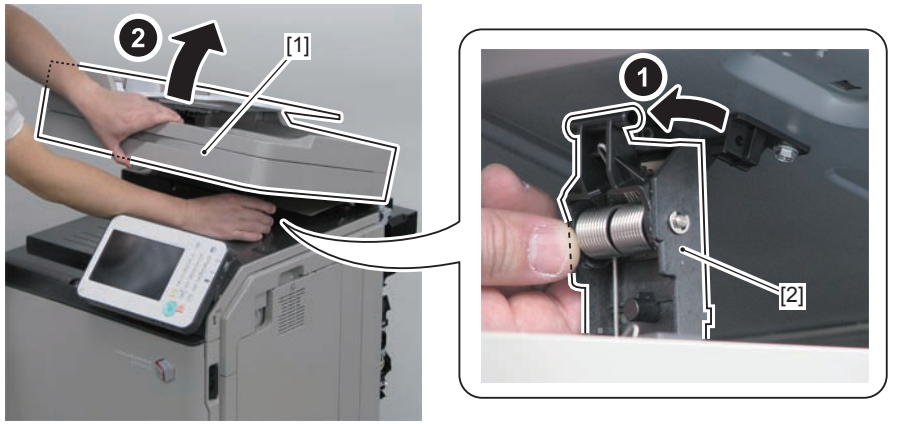
F-4-91

2) Remove the ADF Arm [2] while pressing the ADF Unit + Reader Unit [1].

CAUTION:

Be careful not to drop the ADF Unit + Reader Unit [1] when disassembling/assembling.

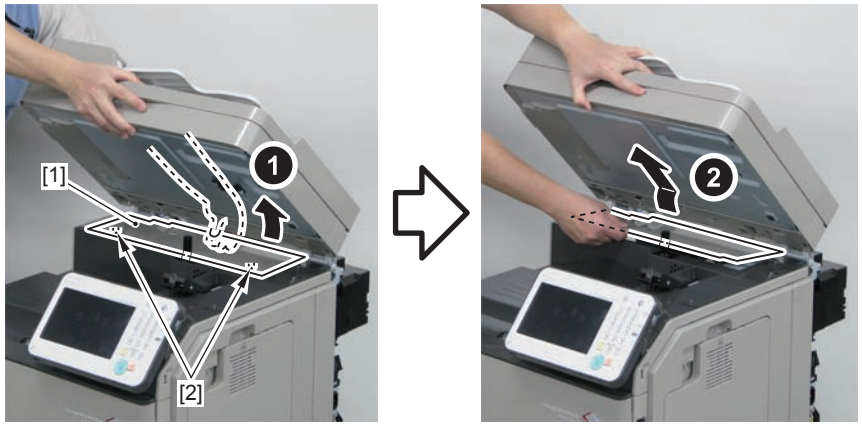
F-4-92



F-4-93

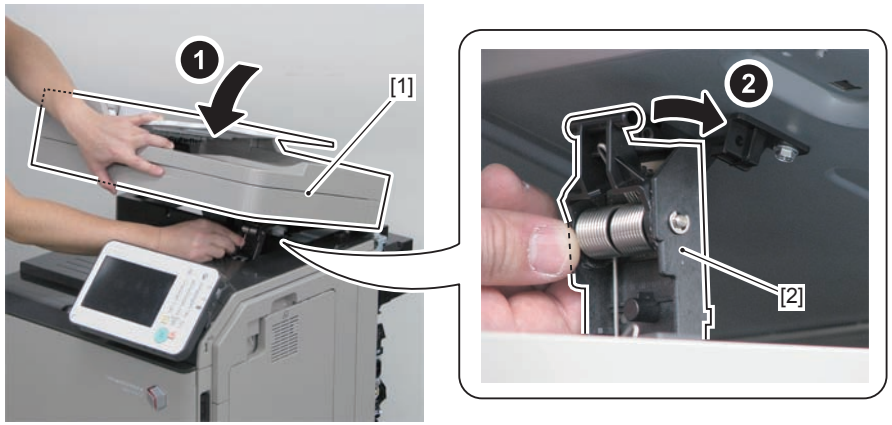
3) Remove the Rear Upper Cover [1].

- 2 Bosses [2]



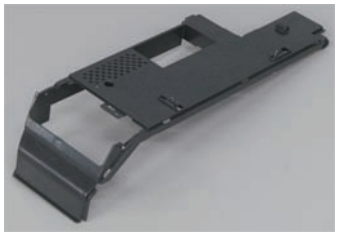
F-4-94

4) Place the ADF Unit + Reader Unit [1] on the ADF Arm [2] temporarily.



F-4-95

Removing the Upper Cover



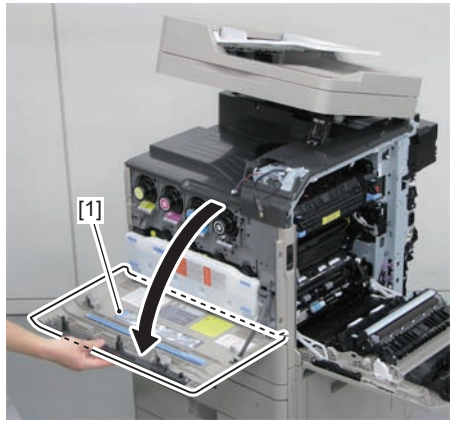
F-4-96

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Right Rear Cover/Right Rear Lower Cover(Refer to page 4-39).
3) Remove the Right Upper Cover(Refer to page 4-40).
4) Remove the Control Panel Unit(Refer to page 4-50) .
5) Remove the Rear Upper Cover (Refer to page 4-47).

Procedure

1) Open the Front Cover [1].



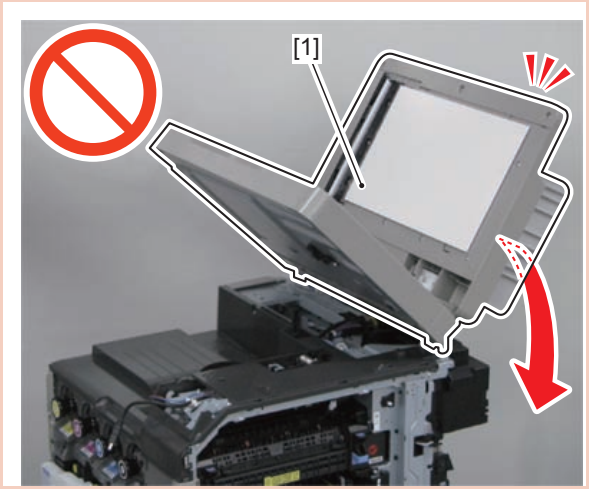
F-4-97

2) Remove the Upper Cover [2] while pressing the ADF Unit + Reader Unit [1].

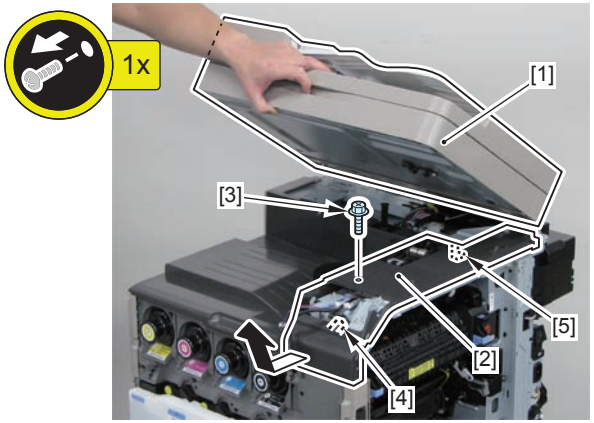
- 1 Screw [3]
- 1 Boss [4]
- 1 Hook [5]

⚠ CAUTION:

Be careful not to drop the ADF Unit + Reader Unit [1] when disassembling/assembling.

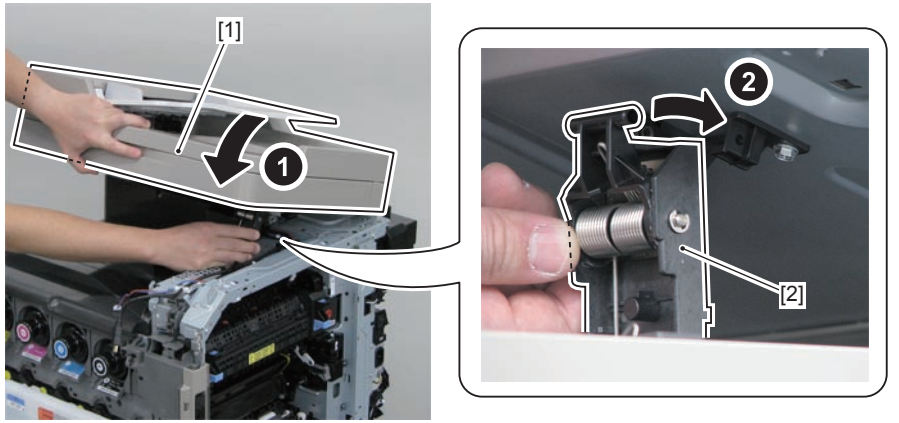


F-4-98



F-4-99

3) Place the ADF Unit + Reader Unit [1] on the ADF Arm [2] temporarily.



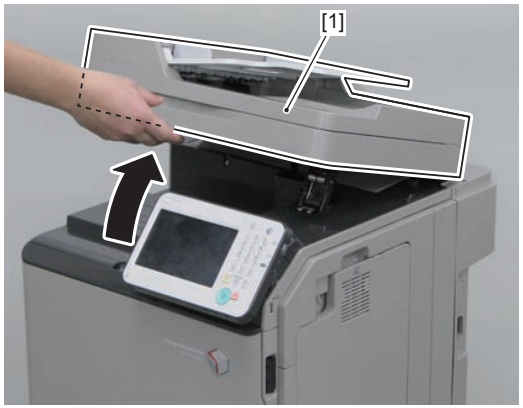
F-4-100

Removing the Control Panel Unit

F-4-101

Procedure

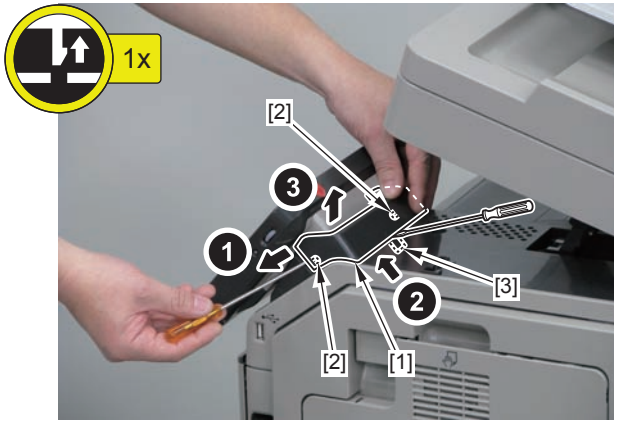
1) Open the ADF Unit + Reader Unit [1].



F-4-102

2) Remove the Control Panel Rear Hinge Cover [1].

- 2 Bosses [2]
- 1 Claw [3]



F-4-103

3) Turn the Control Panel Unit [1] upward.

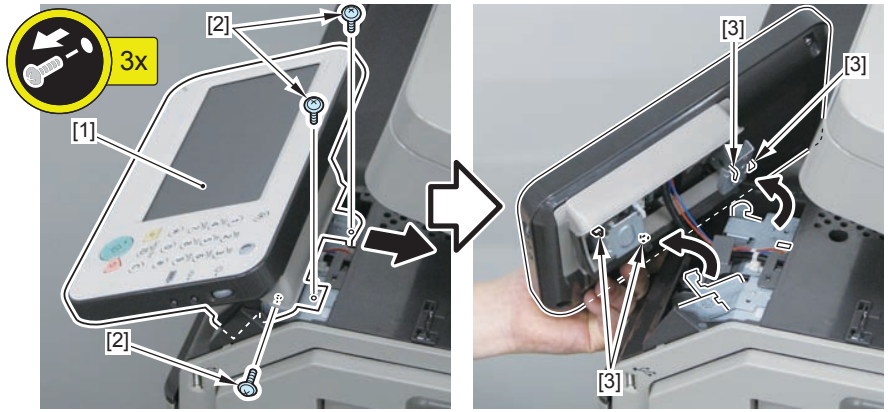
F-4-104

4) Remove the Control Panel Unit [1].
- 3 Screws [2]
- 2 Hooks [3]

CAUTION:

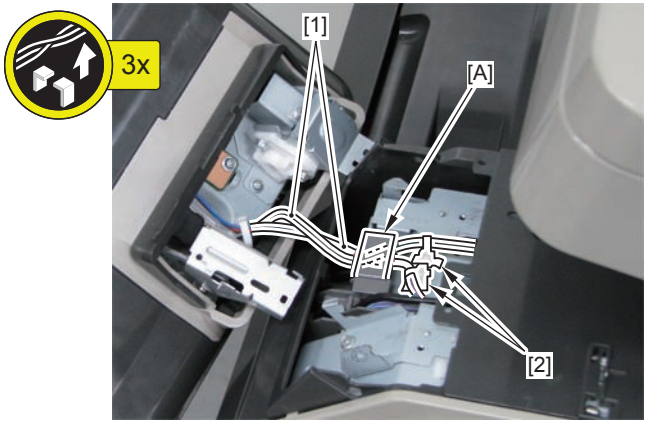
Perform work so as not to damage the Control Panel since the Control Panel Unit has been removed and the remainder of the work must be performed in an unstable state after step 2.

F-4-105



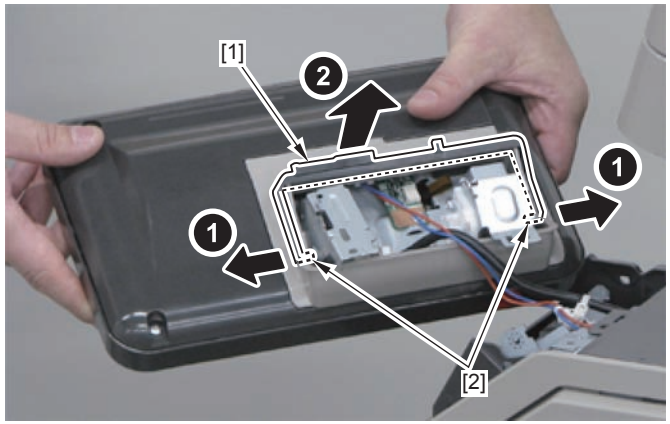
F-4-106

5) Free the 2 harnesses [1] on the Control Panel.
- 2 Reuse Bands [2]
- Harness Guide [A]



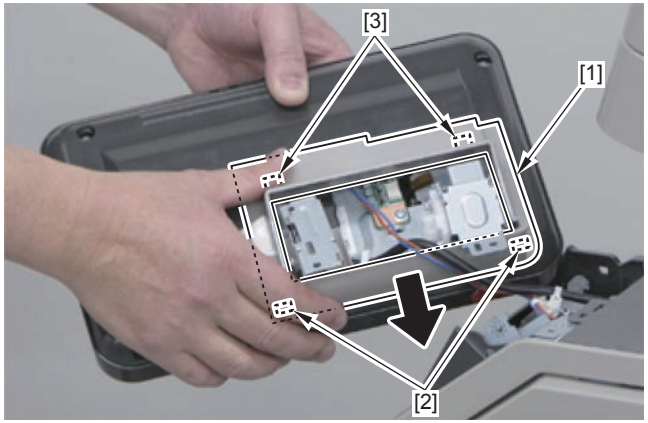
F-4-107

6) Remove the Control Panel Upper Hinge Cover [1].
- 2 Bosses [2]



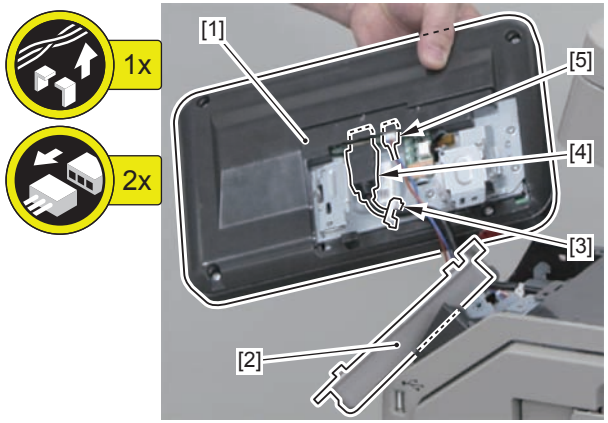
F-4-108

7) Remove the Control Panel Lower Hinge Cover [1].
- 2 Bosses [2]
- 2 Hooks [3]



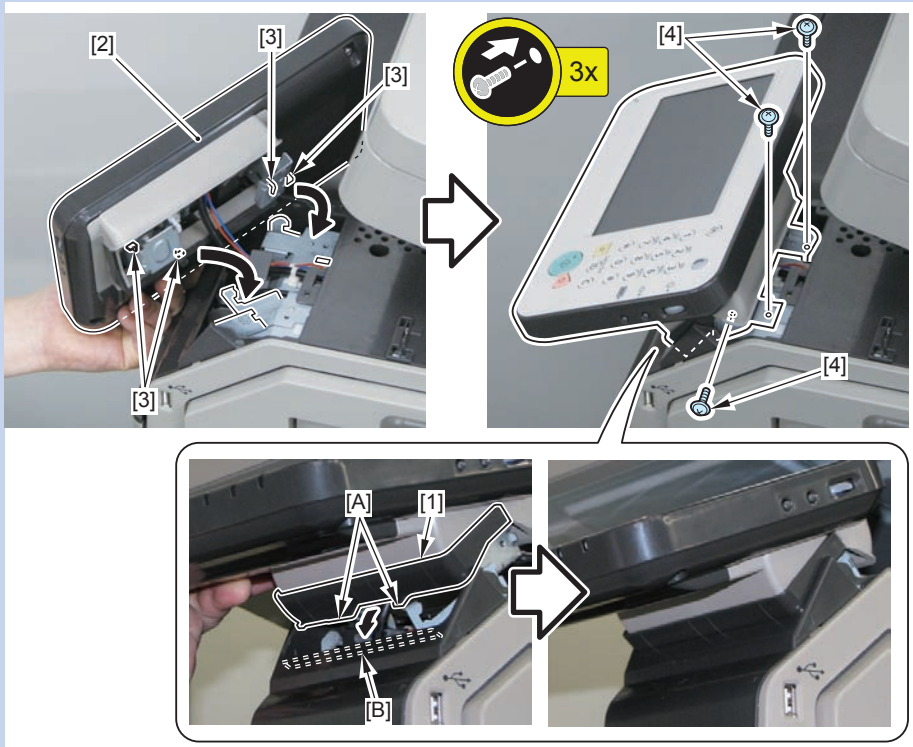
F-4-109

8) Remove the Control Panel Unit [1] and the Control Panel Lower Hinge Cover [2].
- 1 Wire Saddle [3]
- 1 Control Panel Communication Connector [4]
- 1 Connector [5]



F-4-110

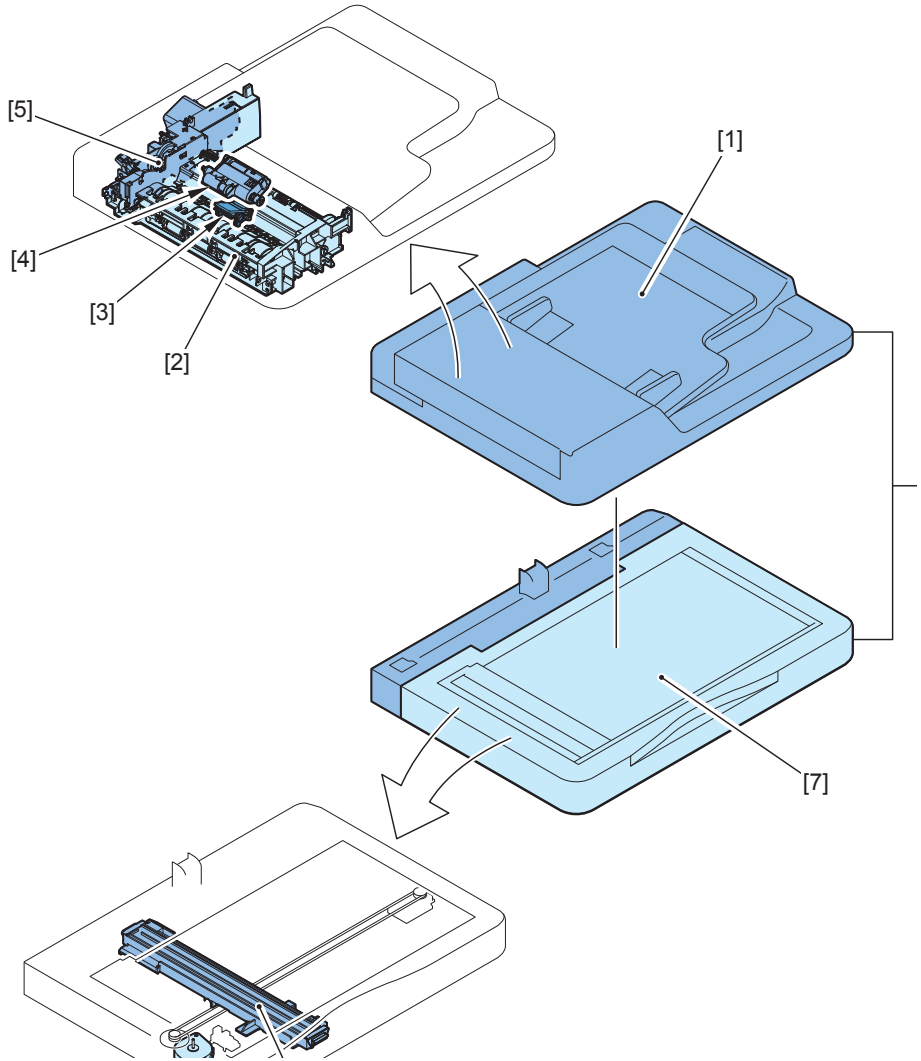
NOTE: How to assemble the Control Panel Unit
Insert the protrusion [A] of the Control Panel Upper Hinge Cover [1] into the lower side of the edge [B] of the Upper Cover to install the Control Panel Unit [2].
- 2 Hooks [3]
- 3 Screws [4]



F-4-111

Original Exposure/Feed System

Layout Drawing

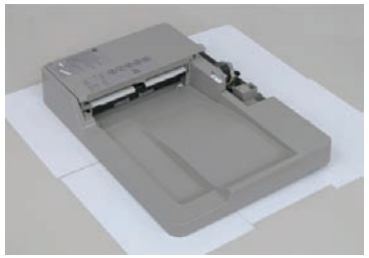


F-4-112

No.	Parts Name	Main Unit	Remarks	Reference
[1]	ADF Unit	Product Configuration		(Refer to page 4-54)
[2]	ADF Pickup Feed Unit	ADF Unit		(Refer to page 4-64)
[3]	Separation Pad	ADF Unit		(Refer to page 4-63)
[4]	ADF Pickup Unit	ADF Unit		(Refer to page 4-62)
[5]	ADF Feed Drive Unit	ADF Pickup Feed Unit		(Refer to page 4-67)
[6]	ADF Unit + Reader Unit	Product Configuration		(Refer to page 4-69)
[7]	Copyboard Glass Unit	Reader Unit		(Refer to page 4-71)
[8]	CIS Unit	Reader Unit		(Refer to page 4-75)
[9]	Reader Motor	Reader Unit	M01	(Refer to page 4-81)

T-4-44

Removing the ADF Unit



F-4-113

Procedure

CAUTION:

Be careful not to drop the ADF [1] when disassembling/assembling.

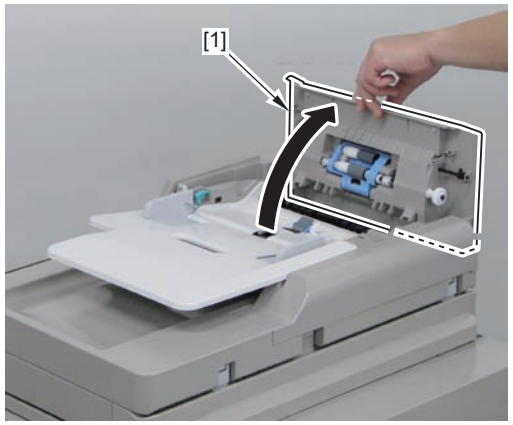
F-4-114

CAUTION:

Be careful not to damage the White Sheet [1] and the White Plate [2] of the ADF Unit when disassembling/assembling.

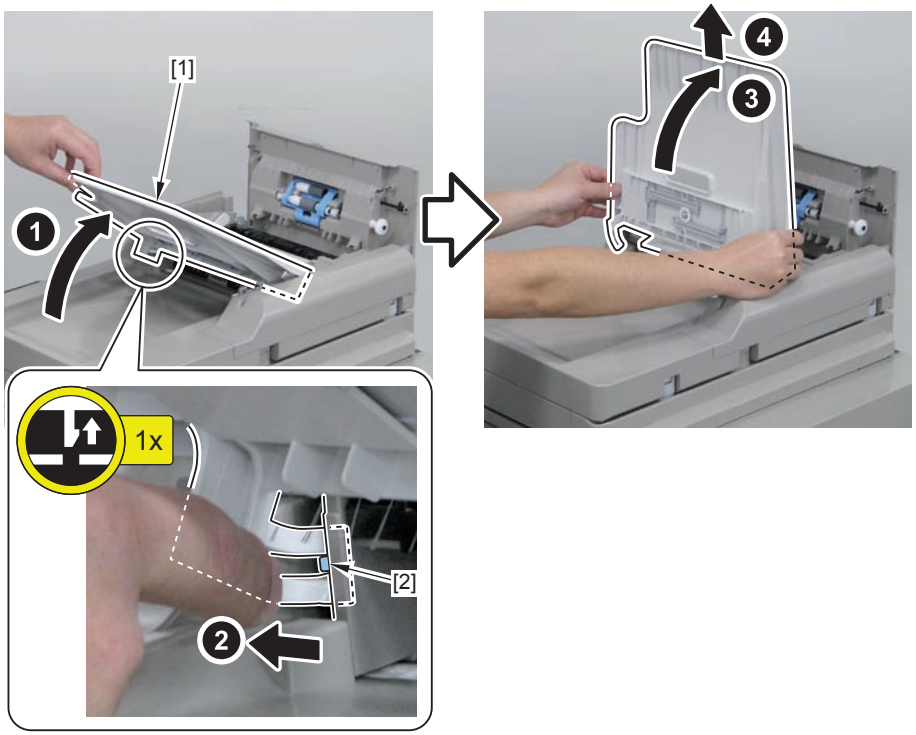
F-4-115

1) Open the Feeder Cover [1].



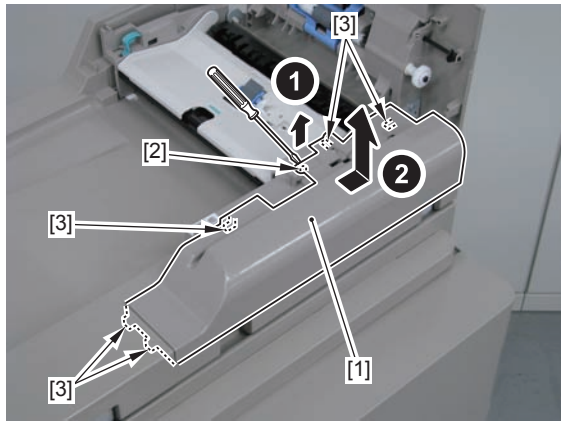
F-4-116

2) Remove the Original Tray [1].
- 1 Claw [2]



F-4-117

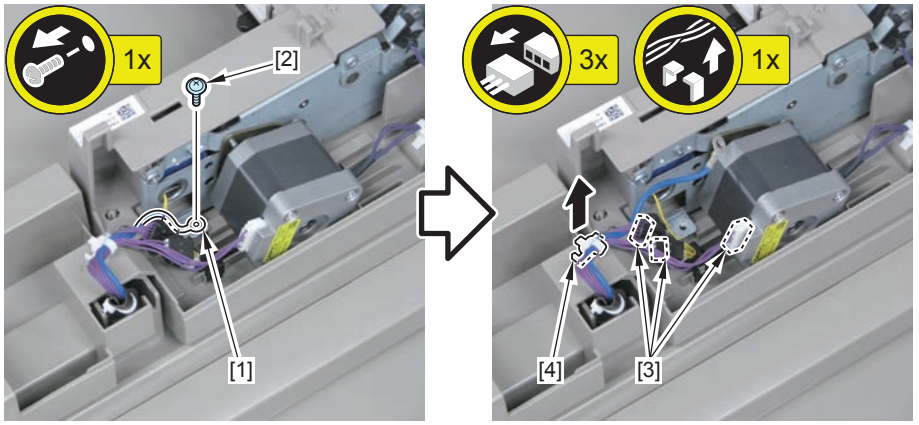
3) Remove the ADF Rear Cover [1].
- 1 Boss [2]
- 5 Hooks [3]



F-4-118

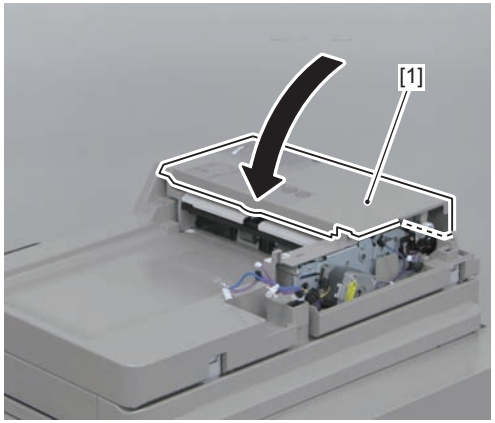
4) Disconnect the terminal [1] of the Grounding Wire.
- 1 Screw [2]

5) Disconnect the 3 connectors [3].
- 1 Reuse Band [4]



F-4-119

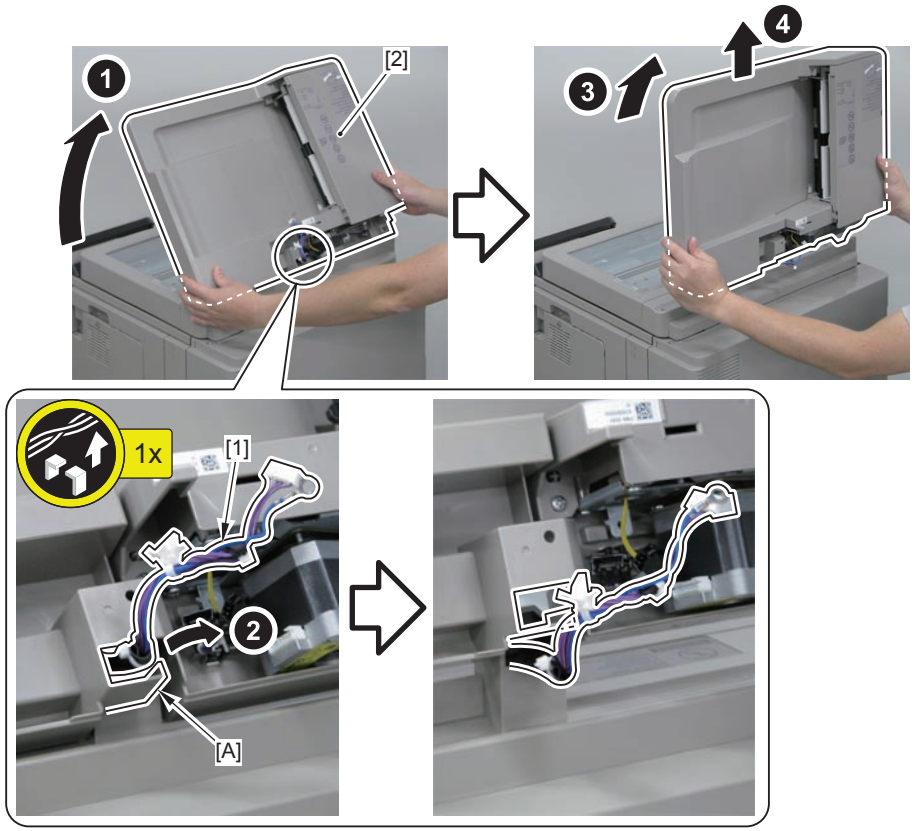
6) Close the Feeder Cover [1].



F-4-120

7) Remove the ADF Unit [2] while freeing the harness [1].

- Harness Guide [A]



F-4-121

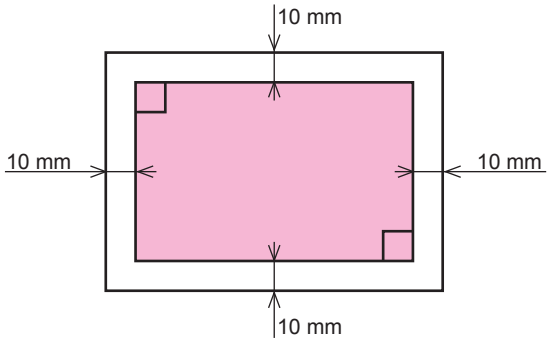
■ ADF Unit

● Prepare before Adjustment

Prepare a test chart. A test chart is made when there is no test chart.

A test chart is drawn the rectangle that the end of 4 is smaller by 10 mm than a paper, and a test chart is made in the form of A4 or LTR.

NOTE:
Write a character and a mark to know the direction of the copied image.
(Make sure that the face, back, leading edge and trailing edge of paper can be indetified.)



F-4-122

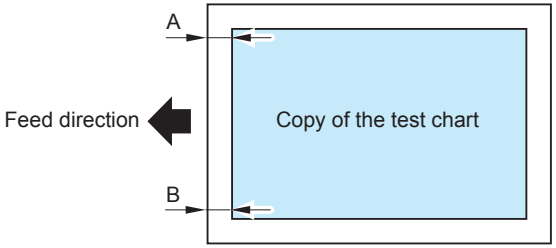
● Procedure after Replacement

CAUTION:

When the ADF has been replaced or removed from the reader, the following adjustment is necessary.

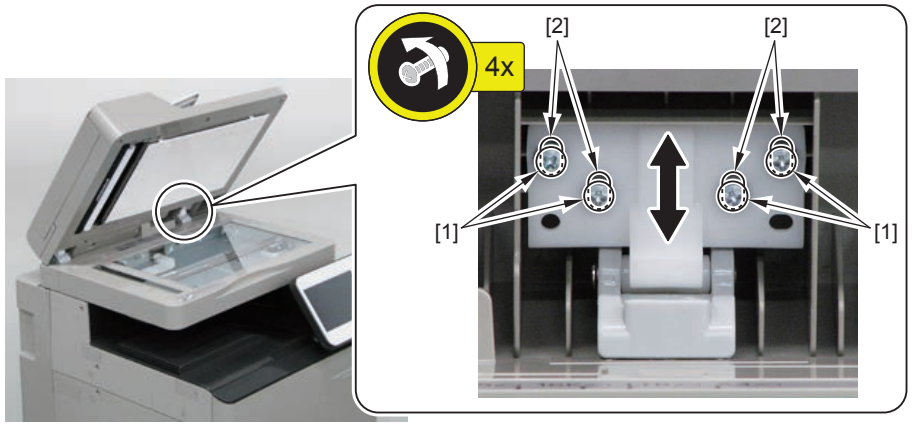
Adjustment of the Degree of a Right Angle

1) Set a test chart on ADF, and give one sheet of copy.
2) Confirm the degree of a right angle of the image on the leading edge of the test chart and the copied form.
   Measure the dimension of A and B at the leading edge of the copied form.
   When the amount of skew is not in the following standard, adjust it from the step 3).
   - Standard Value: A - B = 0 +/- 1.5 mm



F-4-123

3) Loosen the 4 Fixing Screws of the Right Hinge, and then move the hinge to adjust the squareness.



F-4-124

4) After completion of the adjustment, tighten the 4 Fixing Screws of the Right Hinge you loosened in step 3).

DADF reading position adjustment

After executing the reading position adjustment with the following service mdoe 1, check the auto setting value with the following service mode 2 and write the value in the service label.

No.	LV.	COPIER > FUNCTION > INSTALL >
1	1	STRD-POS

T-4-45

No.	LV.	COPIER > ADJUST > ADJ-XY >
2	1	STRD-POS

T-4-46

Adjustment of the leading edge margin of image at ADF reading (single-sided)

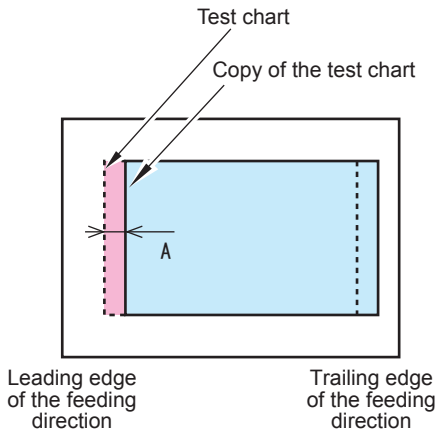
1) Set a test chart on ADF, and give one sheet of single-sided copy.
2) Compare the leading edge registration of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3) Select the item in the service mode.

LV.	COPIER > ADJUST >
1	DOCST

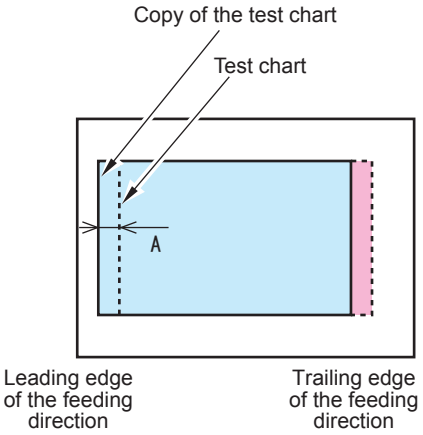
T-4-47

4) Input value, and adjust an image.
   - When a copied image moves to the trailing edge: Increase value
   - When a copied image moves to the leading edge: Decrease value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-4-125

5) Write the new changed value in the service label.
6) Exit the service mode.

CAUTION:

Confirm that the Degree of a Right Angle is correct after you finish this adjustment.

Adjust again from the Adjustment of the Degree of a Right Angle when the Degree of a Right Angle is not correct.

Adjustment of the leading edge margin of image at ADF reading (duplex/front side)

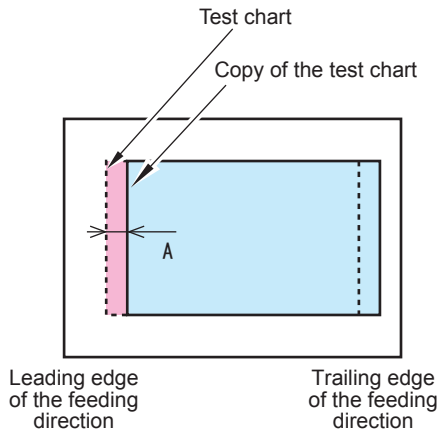
1) Set a test chart on ADF, and give one sheet of copy.
2) Compare the leading edge registration of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3) Select the item in the service mode.

LV.	COPIER > ADJUST >
1	DOCSTDUP

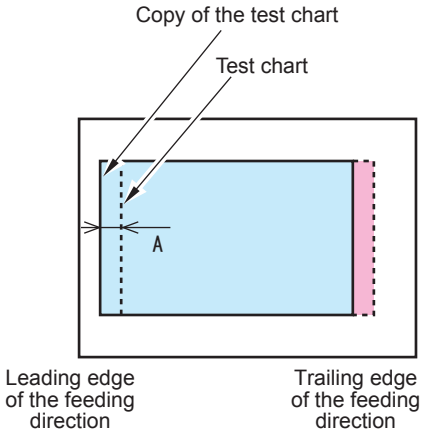
T-4-48

4) Input value, and adjust an image.
   - When a copied image moves to the trailing edge: Increase value
   - When a copied image moves to the leading edge: Decrease value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-4-126

5) Write the new changed value in the service label.
6) Exit the service mode.

CAUTION:

Confirm that the Degree of a Right Angle is correct after you finish this adjustment.

Adjust again from the Adjustment of the Degree of a Right Angle when the Degree of a Right Angle is not correct.

Adjustment of the leading edge margin of image at ADF reading (duplex/back side)

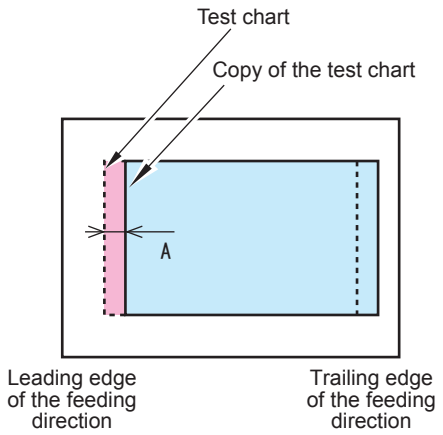
1) Set a test chart on ADF, and give one sheet of copy.
2) Compare the leading edge registration of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3) Select the item in the service mode.

LV.	FEEDER > ADJUST >
1	DOCST2

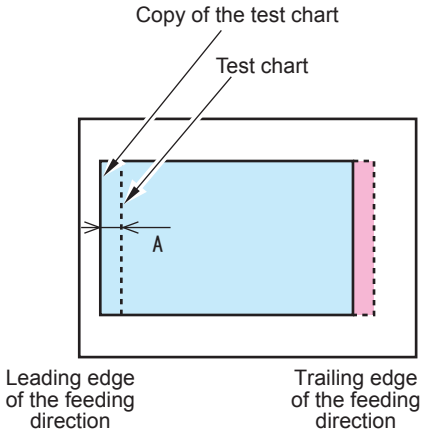
T-4-49

4) Input value, and adjust an image.
   - When a copied image moves to the trailing edge: Increase value
   - When a copied image moves to the leading edge: Decrease value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-4-127

5) Write the new changed value in the service label.
6) Exit the service mode.

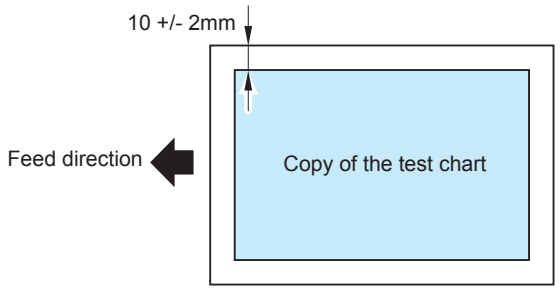
CAUTION:

Confirm that the Degree of a Right Angle is correct after you finish this adjustment.

Adjust again from the Adjustment of the Degree of a Right Angle when the Degree of a Right Angle is not correct.

Adjust the image position (horizontal scanning direction/front side) at ADF reading.

1) Place a test chart on the ADF, and make one single-sided copy.
2) Compare the side registration of the test chart with that of the copied paper, and perform adjustment if necessary.



F-4-128

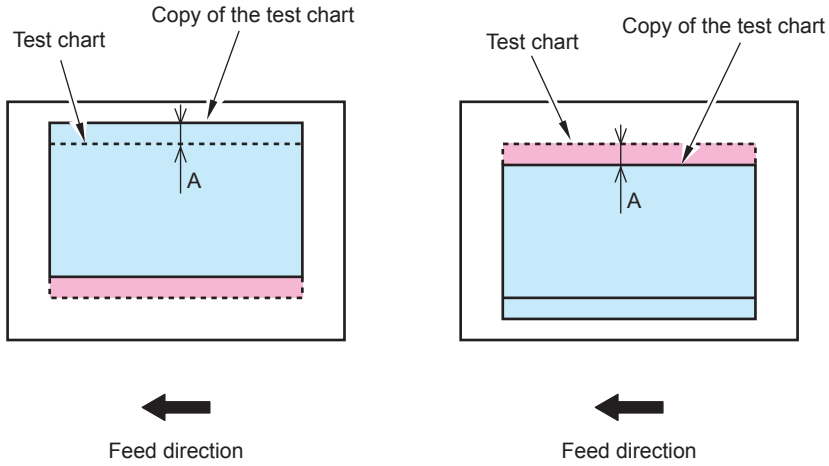
3) Select the item in the service mode.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-Y-DF

T-4-50

4) Input value, and adjust an image.
   - When a copied image moves to the rear: Decrease value
   - When a copied image moves to the front: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear > < When a copied image moves to the front >



F-4-129

5) Write the new changed value in the service label.
6) Exit the service mode.

Fine adjustment of the image magnification ratio at ADF reading (front side)

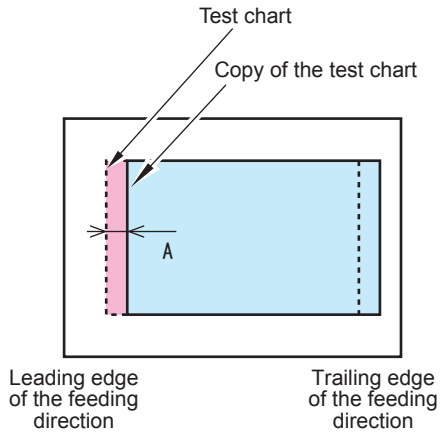
1) Set the image of the test chart upward in ADF, and give one sheet of copy.
2) Compare the image length of the feed direction of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3) Select the item in the service mode.

LV.	FEEDER > ADJUST >
1	LA-SPEED

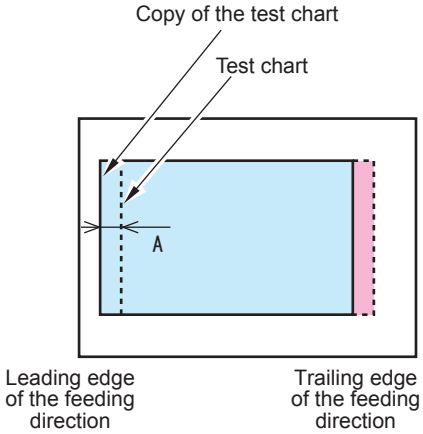
T-4-51

4) Input value, and adjust an image.
   - When a copied image is long: Increase value (The feeding speed increases)
   - When a copied image is short: Decrease value (The feeding speed decreases)
   - Adjustment unit: 0.1 %

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-4-130

5) Write the new changed value in the service label.
6) Exit the service mode.

Fine adjustment of the image magnification ratio at ADF reading (back side)

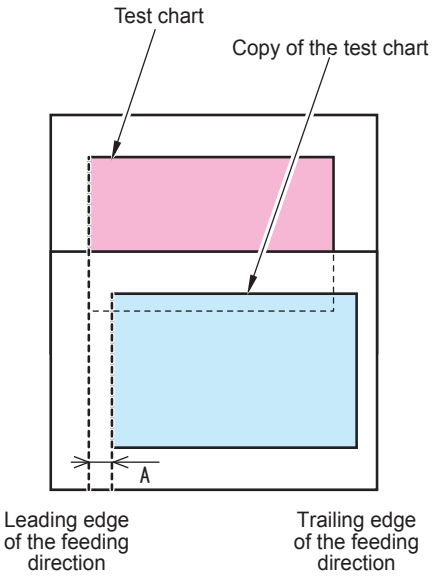
1) Set the image of the test chart downward in ADF, and give one sheet of copy.
2) Compare the image length of the feed direction of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3) Select the item in the service mode.

LV.	FEEDER > ADJUST >
1	LA-SPD2

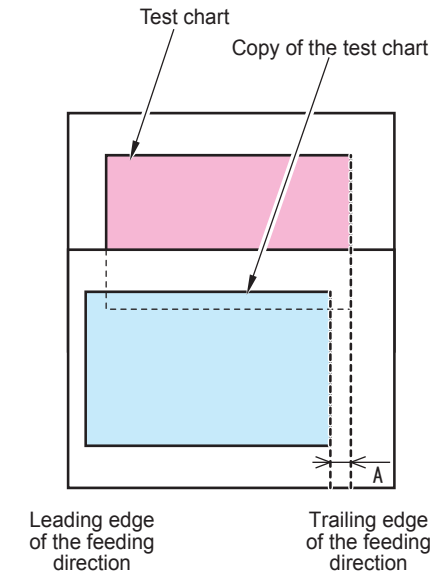
T-4-52

4) Input value, and adjust an image.
   - When a copied image is long: Increase value (The feeding speed increases)
   - When a copied image is short: Decrease value (The feeding speed decreases)
   - Adjustment unit: 0.1 %

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-4-131

5) Write the new changed value in the service label.
6) Exit the service mode.

Adjustment the White Level for ADF Scanning

1) Take the action stated below in the service mode.

(Lv.1) COPIER > FUNCTION > CCD > DF-WLVL1/2 (White level adj in book/DADF mode)

1. Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL1

White level adj in book mode: color T-4-53

2. Place a sheet of paper that the user usually uses on the DADF, enter the following servicemode.

LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL2

White level adj in DADF mode: T-4-54

NOTE:
The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-R/ DFTAR-G/ DFTAR-B / DFTAR2-R/ DFTAR2-G/ DFTAR2-B / DFTAR3-R/ DFTAR3-G/ DFTAR3-B

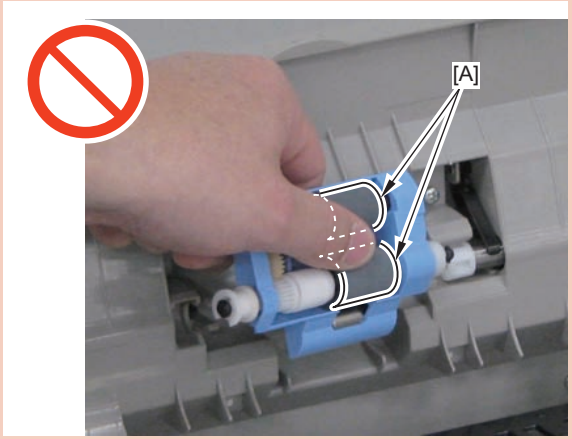
Removing the ADF Pickup Unit

F-4-132

Procedure

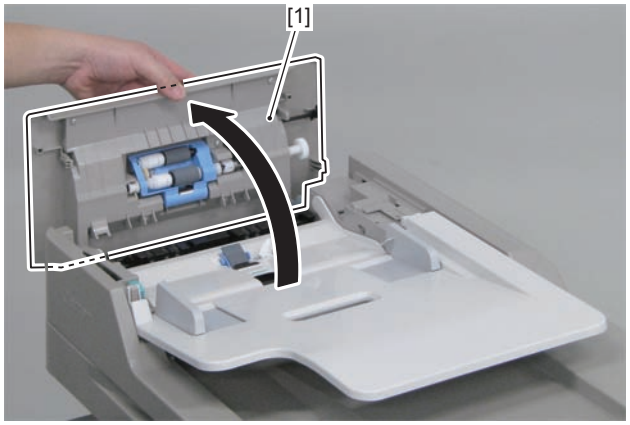
CAUTION:

Be sure not to touch the surface [A] of the roller when disassembling/assembling.



F-4-133

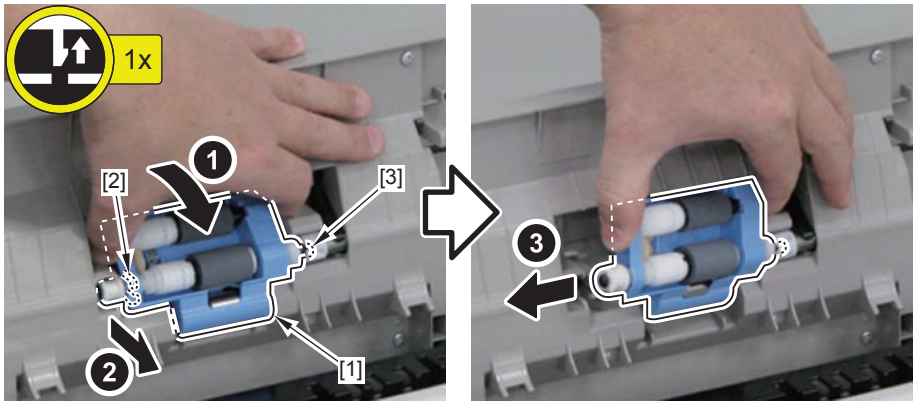
1) Open the Feeder Cover [1].



F-4-134

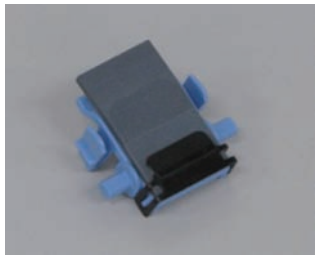
2) Remove the ADF Pickup Unit [1].

- 1 Claw [2]
- 1 Shaft [3]



F-4-135

Removing the ADF Separation Pad

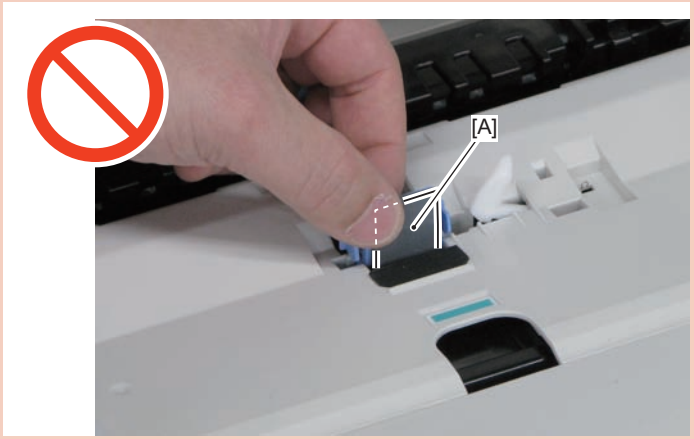


F-4-136

Procedure

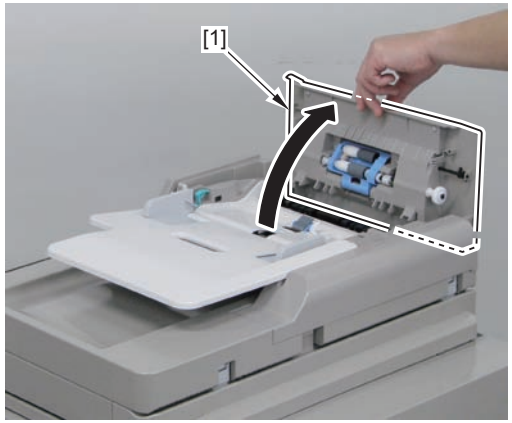
CAUTION:

Be sure not to touch the surface [A] of the pad when disassembling/assembling.



F-4-137

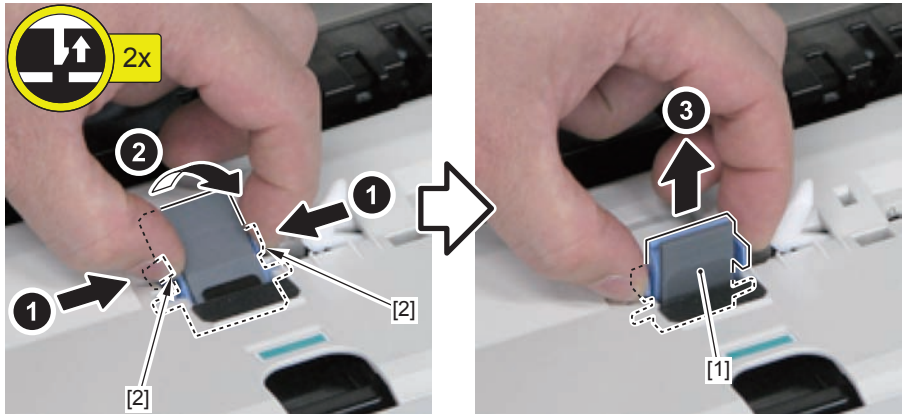
1) Open the Feeder Cover [1].



F-4-138

2) Remove the ADF Separation Pad [1].

- 2 Claws [2]



F-4-139

Removing the ADF Pickup Feed Unit

F-4-140

Procedure

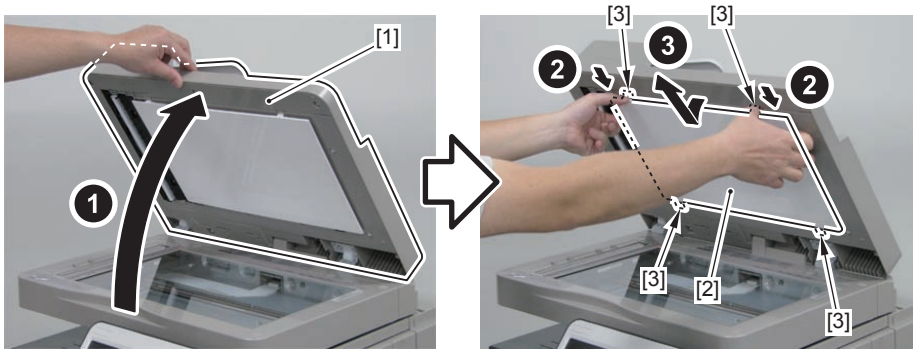
CAUTION:

Be careful not to damage the white sheet [1] of the ADF Unit when disassembling/assembling.

F-4-141

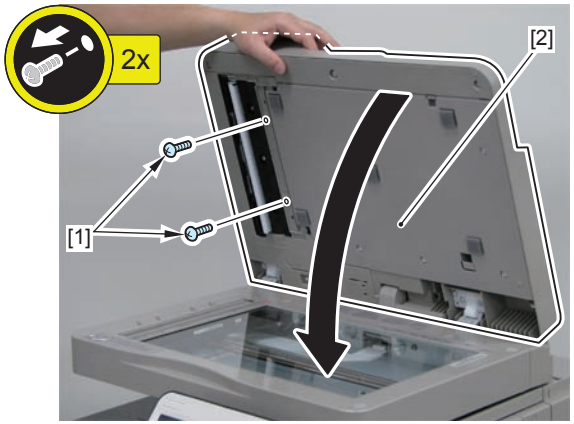
1) Open the ADF Unit [1] to remove the White Plate [2].

- 4 Hooks [3]



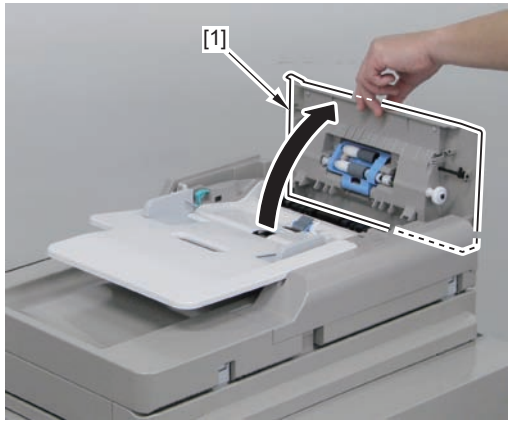
F-4-142

2) Remove the 2 screws [1], and then close the ADF Unit [2].



F-4-143

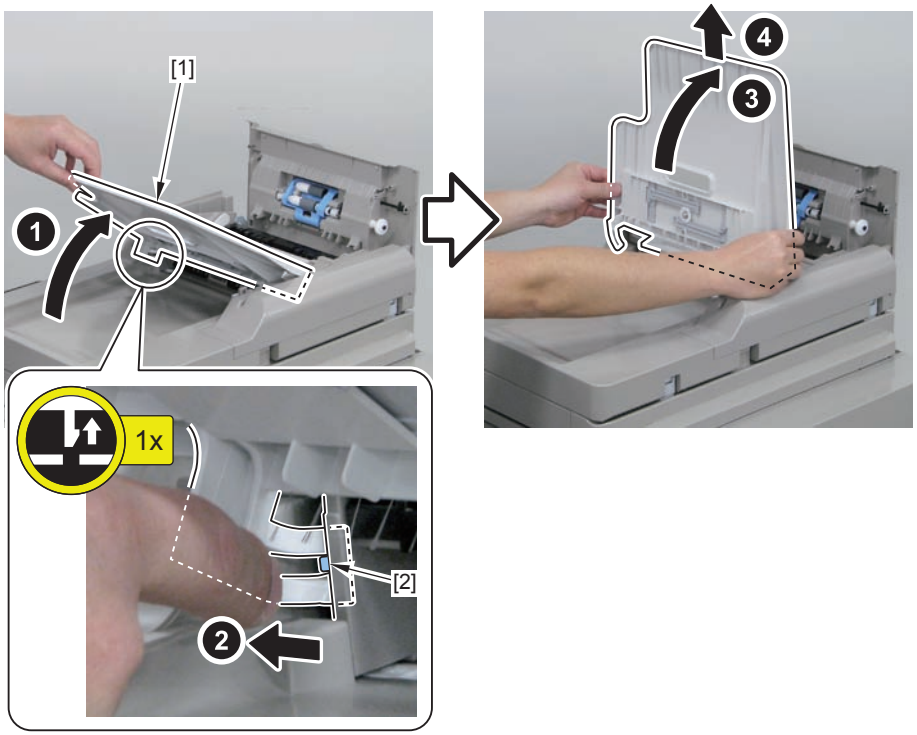
3) Open the Feeder Cover [1].



F-4-144

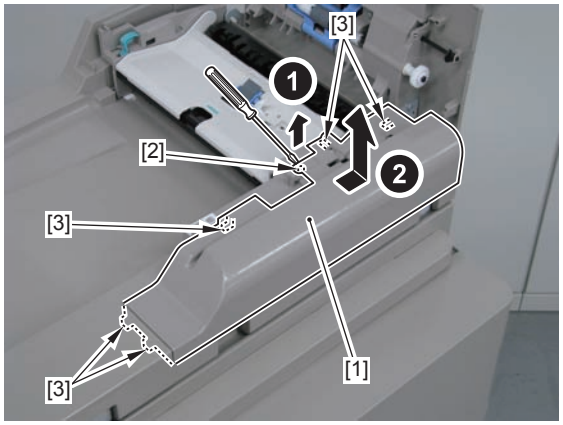
4) Remove the Original Tray [1].

- 1 Claw [2]



F-4-145

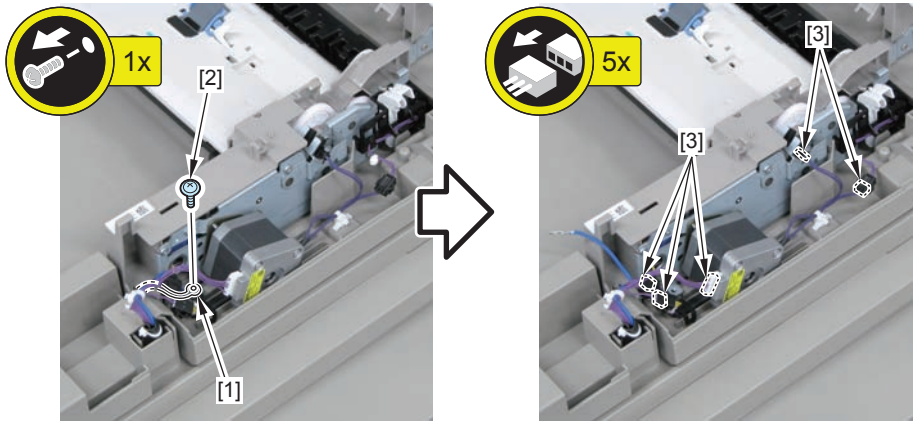
5) Remove the ADF Rear Cover [1].
- 1 Boss [2]
- 5 Hooks [3]



F-4-146

6) Disconnect the terminal [1] of the Grounding Wire.
- 1 Screw [2]

7) Disconnect the 5 connectors [3].



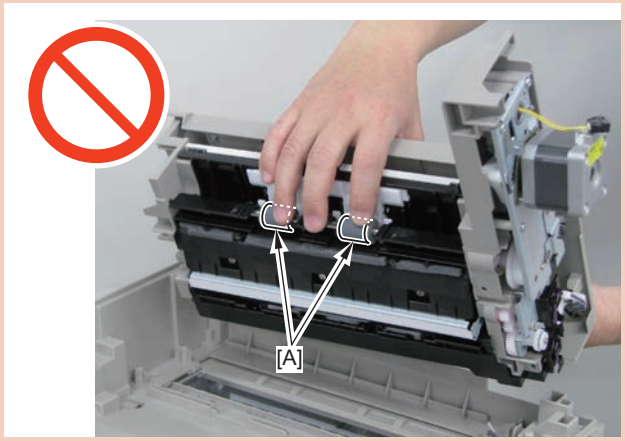
F-4-147

8) Remove the 4 screws [1].

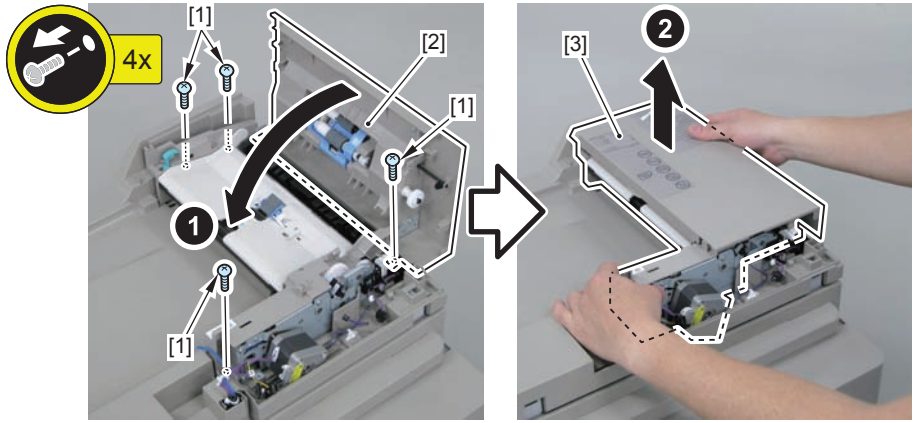
9) Close the Feeder Cover [2], and then remove the ADF Pickup Feed Unit [3].

CAUTION:

Be sure not to touch the surface [A] of the Delivery Roller when disassembling/assembling.

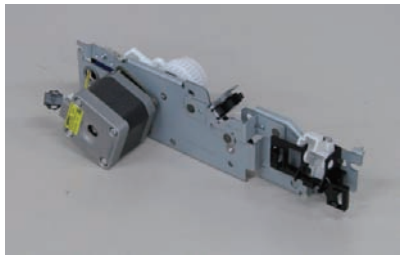


F-4-148



F-4-149

Removing the ADF Feed Drive Unit



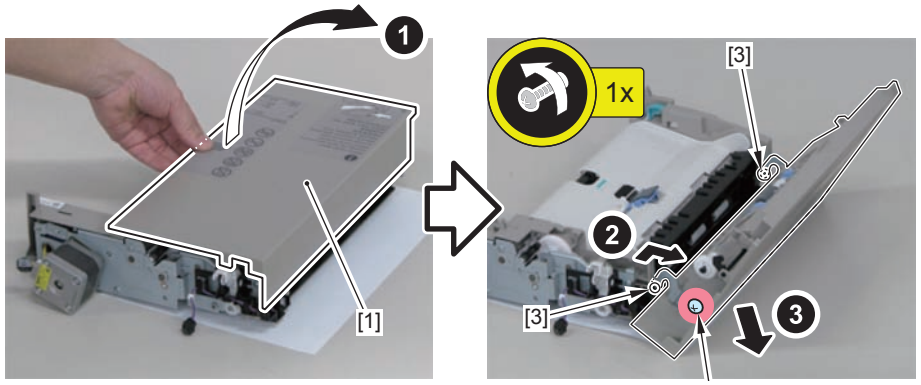
F-4-150

Preparation

1) Remove the ADF Pickup Feed Unit(Refer to page 4-64).

Procedure

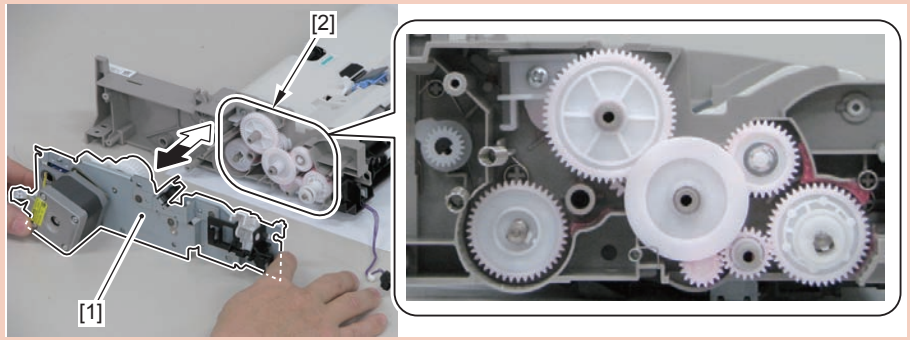
1) Remove the Feeder Cover [1].
- 1 Screw [2] (to loosen)
- 2 Shafts [3]



F-4-151

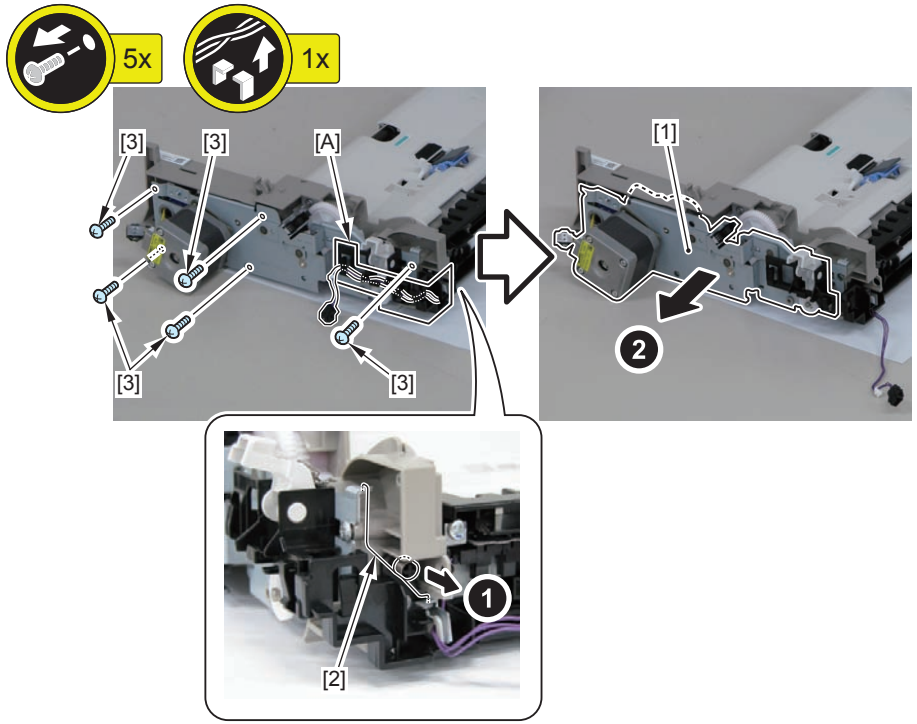
CAUTION:

Be sure to perform work carefully so as not to shift the phase of the inner gear [2] on the ADF Feed Drive Unit [1] when disassembling/assembling.



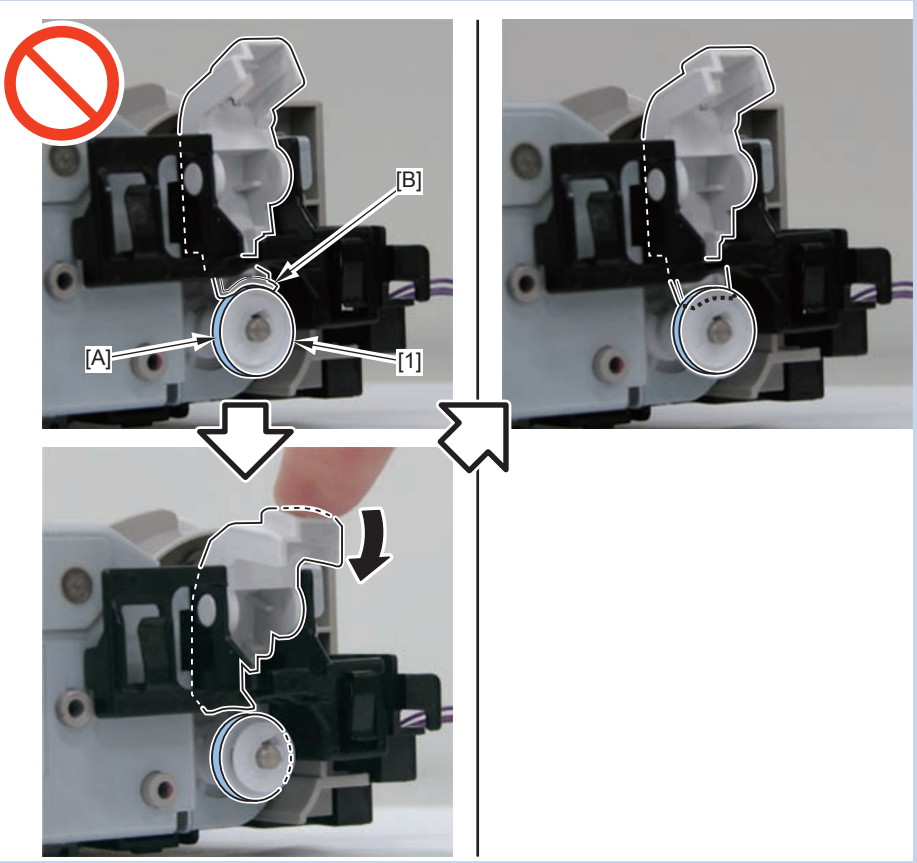
F-4-152

2) Remove the ADF Feed Drive Unit [1].
- Harness Guide [A]
- 1 Spring [2]
- 5 Screws [3]



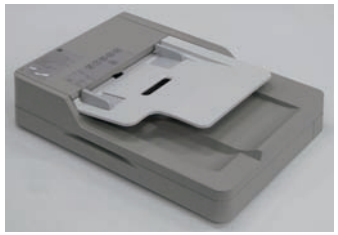
F-4-153

NOTE: How to install the ADF Feed Drive Unit
The arm edge [B] must not be laid on top of the [A] part of the coupling [1].



F-4-154

Removing the ADF Unit + Reader Unit



F-4-155

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).

Procedure

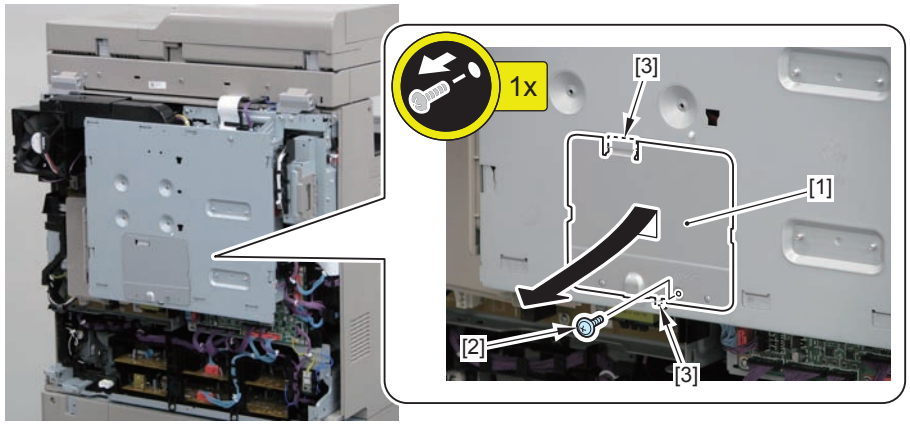
CAUTION:

Be careful not to drop the ADF Unit + Reader Unit [1] when disassembling/assembling.

F-4-156

1) Remove the Main Controller Sub Cover [1].

- 1 Screw [2]
- 2 Hooks [3]



F-4-157

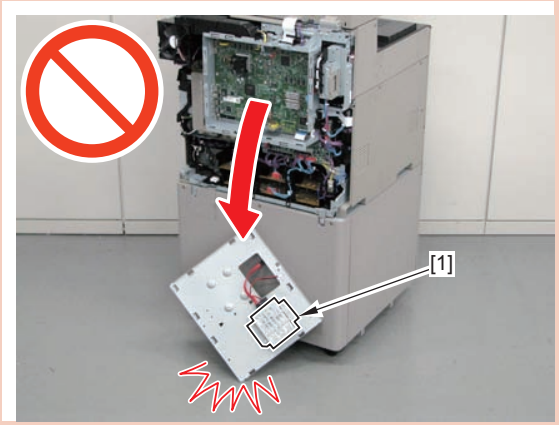
2) Remove the Main Controller Cover [1].

- 2 Connectors [2]
- 1 Screw [3]
- 10 Hooks [4]

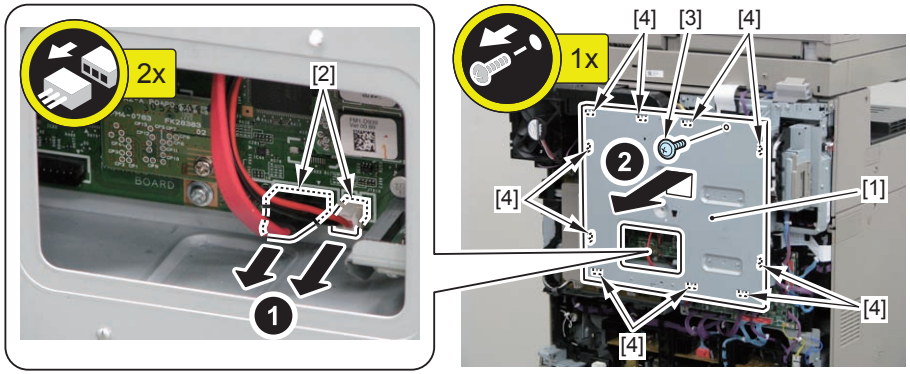
CAUTION:

The HDD Unit [1] is installed in the Main Controller Cover.

Be careful of destruction by electrostatic discharge. Be sure to keep the HDD Unit [1] free from impact.



F-4-158

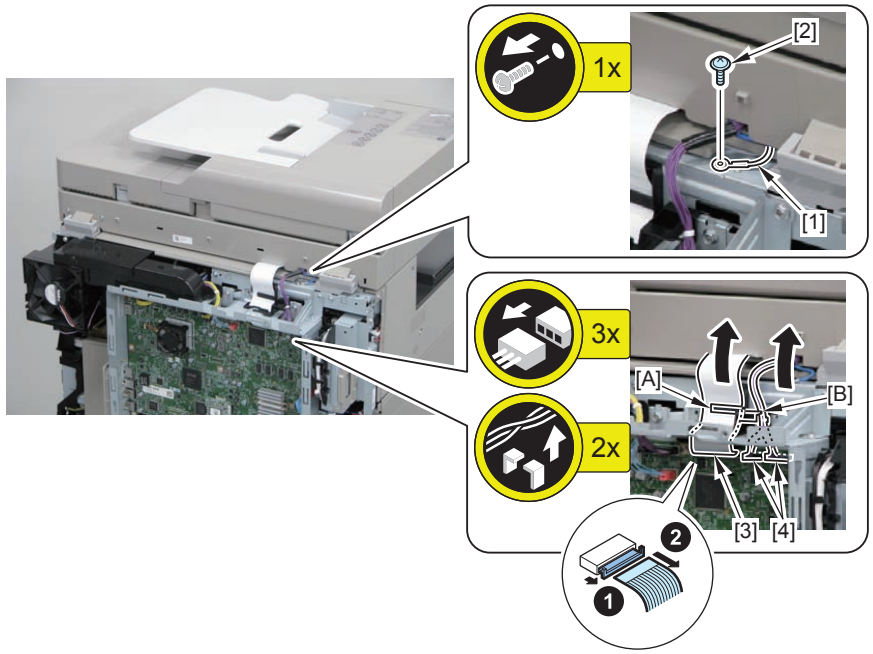


F-4-159

3) Disconnect the terminal [1] of the Grounding Wire.
- 1 Screw [2]

4) Remove the Flat Cable [3].
- Harness Guide [A]

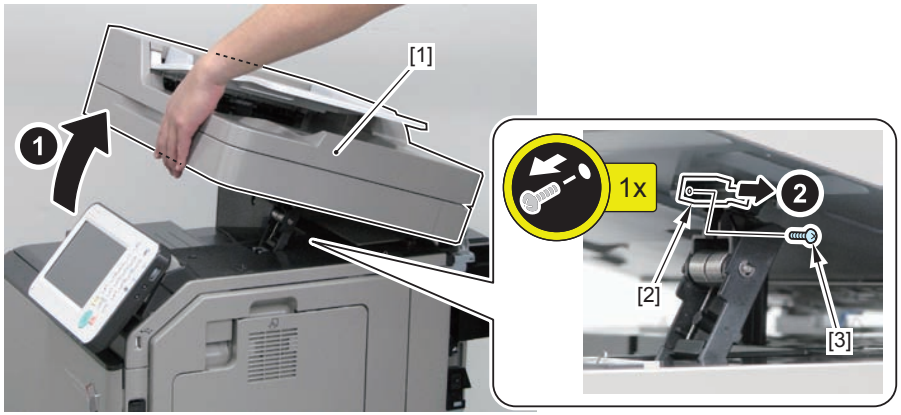
5) Disconnect the 2 connectors [4].
- Harness Guide [B]



F-4-160

6) Open the ADF Unit + Reader Unit [1].

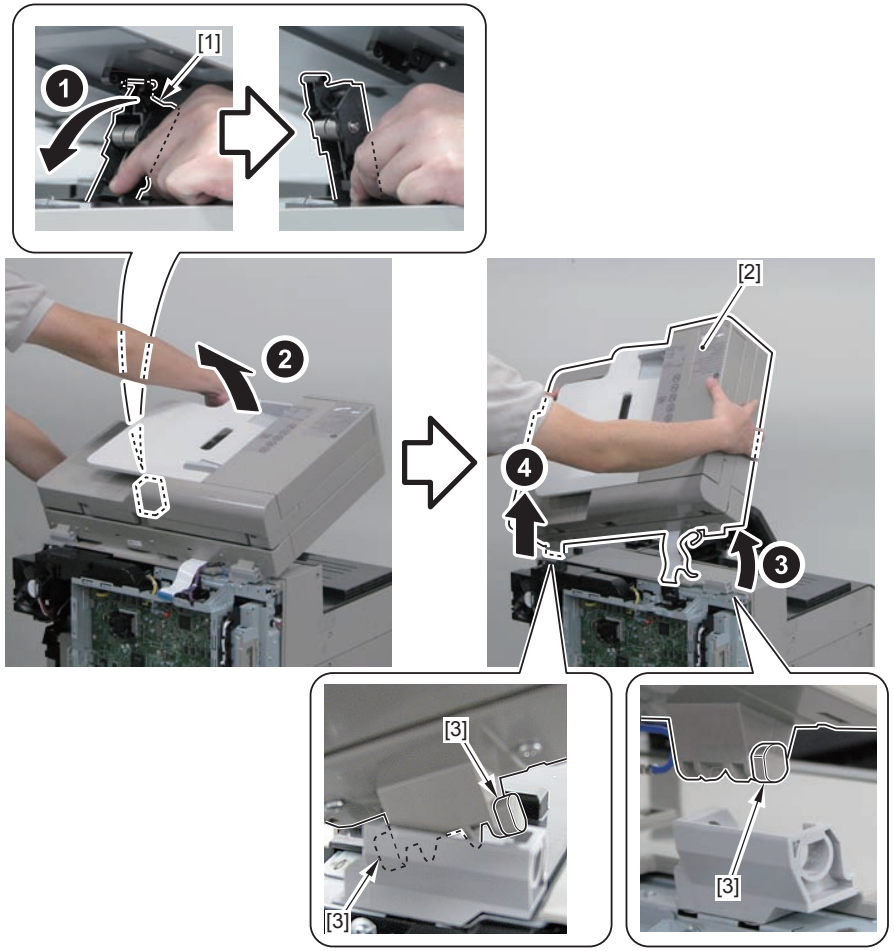
7) Remove the ADF Arm Cover [2].
- 1 Screw [3]



F-4-161

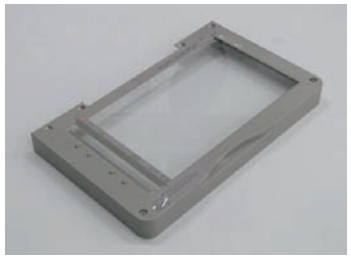
8) Remove the ADF Arm [1], and then remove the ADF Unit + Reader Unit [2].

- 2 Shafts [3]



F-4-162

Removing the Copyboard Glass Unit



F-4-163

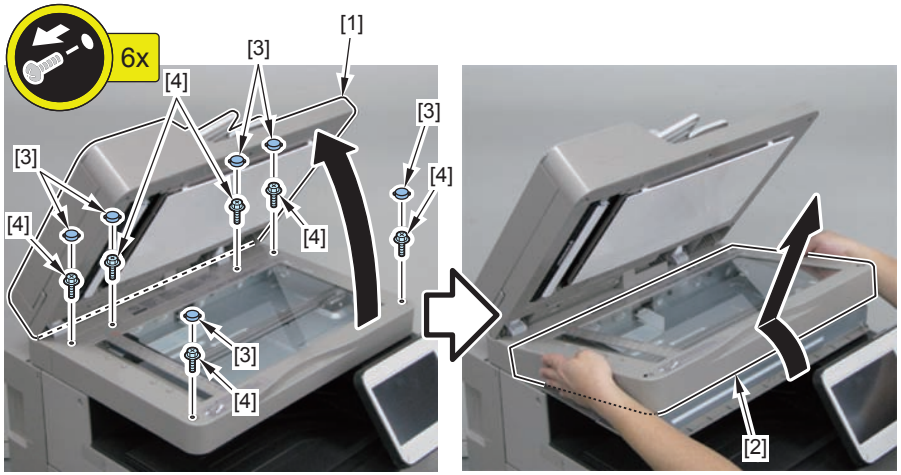
Procedure

CAUTION:

- Put the removed Copyboard Glass on a cloth etc. so as not to damage the sheet on the bottom.
- When removing the Copyboard Glass, be careful not to touch the glass surface.
- When it is dirty, clean the Copyboard Glass with a glass cleaning sheet.

F-4-164

1) Open the ADF [1].
2) Remove the Copyboard Glass Unit [2].
- 6 Face Rubbers [3]
- 6 Screws [4]



F-4-165

■ Copyboard Glass Unit

● Procedure of Replacement

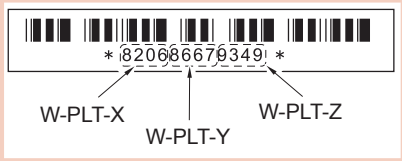
1) Enter the value (White level data entry of white plate) indicated on the platen glass as shown in the following service mode:

LV.	COPIER > ADJUST > CCD >		
1	W-PLT-X	W-PLT-Y	W-PLT-Z

T-4-55

CAUTION:

Be sure to make the white plate data adjustment before ADF white level adjustment.



F-4-166

2) Write down the new numerical value in the service label.
3) Turn OFF/ON the main power switch.
4) Execute the Scan Unit white/black reference level adjustment (AGC).(Close the ADF)

LV.	COPIER > FUNCTION > CCD >
1	CL-AGC

T-4-56

5) Turn OFF/ON the main power switch.
6) After executing the shading position adjustment with the following service mdoe 1, check the auto setting value with the following service mode 2 and write the value in the service label.

No.	LV.	COPIER > FUNCTION > INSTALL >
1	1	RDSHDPOS

T-4-57

No.	LV.	COPIER > ADJUST > ADJ-XY >
2	1	ADJ-S

T-4-58

7) After executing the reading position adjustment with the following service mdoe 1, check the auto setting value with the following service mode 2 and write the value in the service label.

No.	LV.	COPIER > FUNCTION > INSTALL >
1	1	STRD-POS

T-4-59

No.	LV.	COPIER > ADJUST > ADJ-XY >
2	1	STRD-POS

T-4-60

8) Take the action stated below in the service mode (White level adj in book/DADF mode).

1. Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL1

White level adj in book mode: color T-4-61

2. Place a sheet of paper that the user usually uses on the DADF, enter the following service mode.

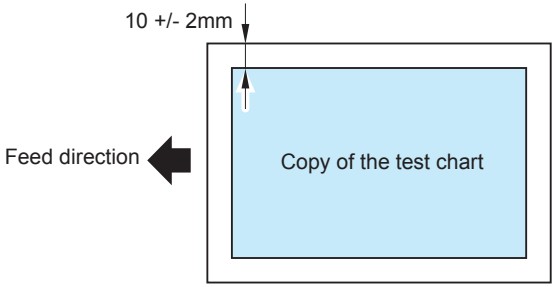
LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL2

White level adj in DADF mode: color T-4-62

NOTE:
The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-R/ DFTAR-G/ DFTAR-B / DFTAR2-R/ DFTAR2-G/ DFTAR2-B / DFTAR3-R/ DFTAR3-G/ DFTAR3-B

9) Adjust the image position (horizontal scanning direction/front side) at ADF reading.

1. Place a test chart on the ADF, and make one single-sided copy.
2. Compare the side registration of the test chart with that of the copied paper, and perform adjustment if necessary.



F-4-167

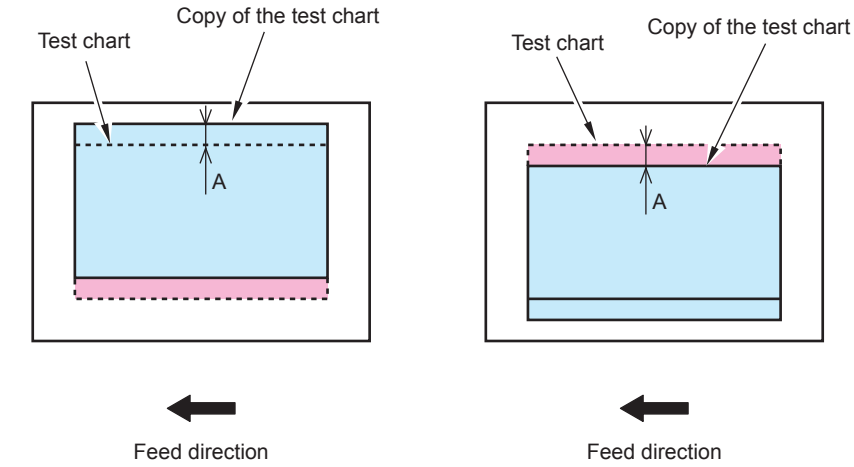
3. Select the item in the service mode.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-Y-DF

T-4-63

4. Input value, and adjust an image.
   - When a copied image moves to the rear: Decrease value
   - When a copied image moves to the front: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear > < When a copied image moves to the front >

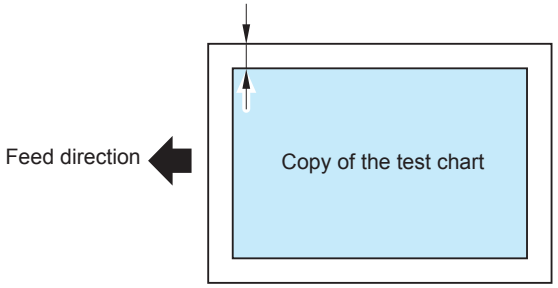


F-4-168

5. Write the new changed value in the service label.
6. Exit the service mode.

10) Adjust the image position (horizontal scanning direction) at copyboard reading.

1. Place a test chart on the Copyboard Glass, and make one single-sided copy.
2. Compare the side registration of the test chart with that of the copied paper, and perform adjustment if necessary.



F-4-169

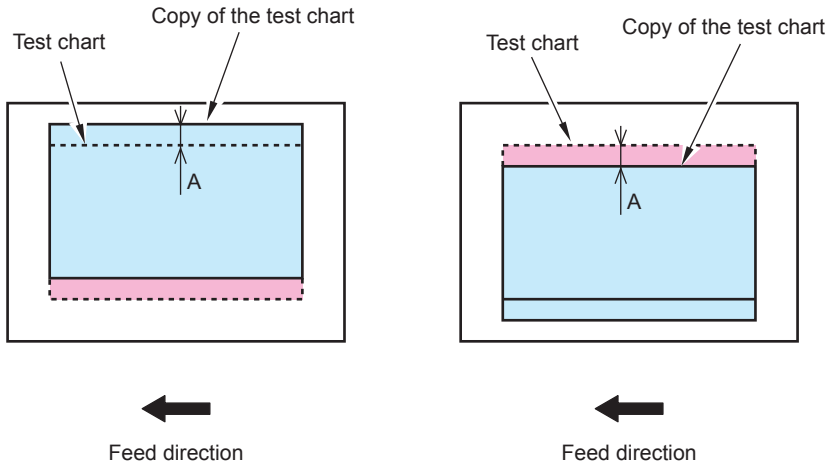
3. Select the item in the service mode.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-Y

T-4-64

4. Input value, and adjust an image.
   - When a copied image moves to the rear: Decrease value
   - When a copied image moves to the front: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear > < When a copied image moves to the front >

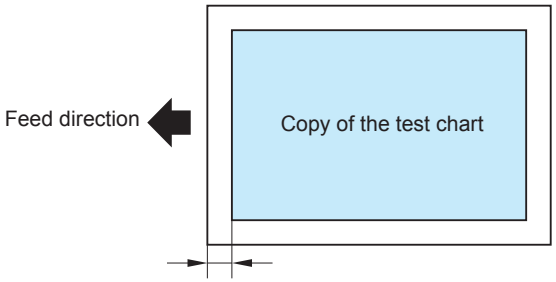


F-4-170

5. Write the new changed value in the service label.
6. Exit the service mode.

11) Adjust the image position (vertical scanning direction) at copyboard reading.

1. Place a test chart on the Copyboard Glass, and make one single-sided copy.
2. Compare the image leading edge of the test chart with that of the copied paper, and perform adjustment if necessary.



F-4-171

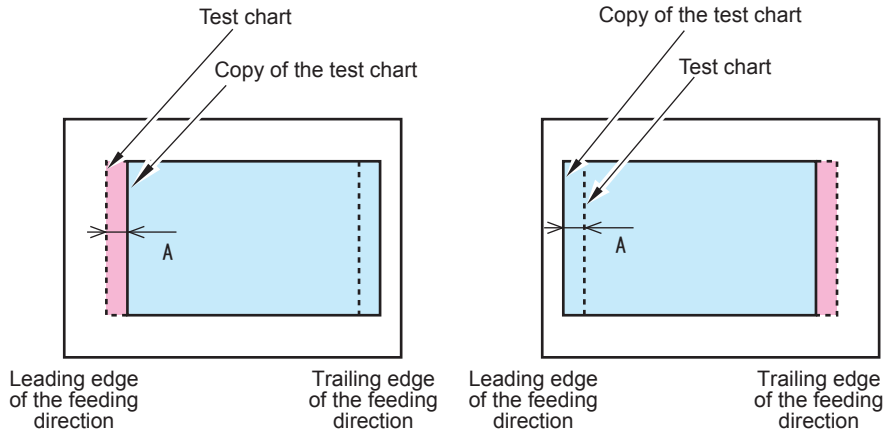
3. Press ADJ-X from the service mode screen.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-X

T-4-65

4. Input value, and adjust an image.
   - When a image is displaced toward the trailing edge: Decrease value
   - When a image is displaced toward the leading edge: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear > < When a copied image moves to the front >



F-4-172

5. Write the new changed value in the service label.
6. Exit the service mode.

12) Make a fine adjustment of image magnification ratio (vertical scanning direction) at copyboard reading.

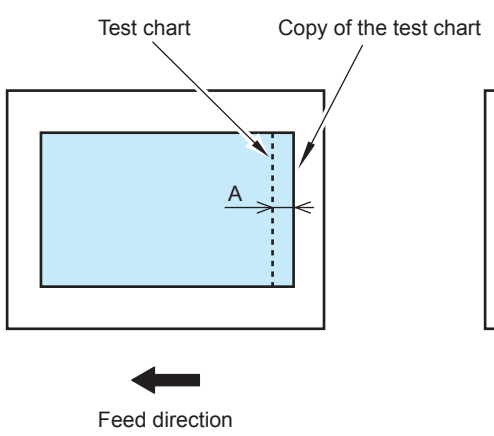
1. Set the image of the test chart upward in Copyboard Glass, and give one sheet of single-sided copy.
2. Compare the image length of the feed direction of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3. Press ADJ-X-MG from the service mode screen.

LV.	COPIER> ADJUST> ADJ-XY
1	ADJ-X-MG

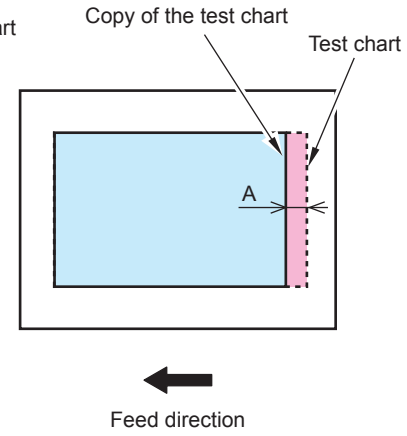
T-4-66

4. Input value, and adjust an image.
   - When a copied image is enlarged: Increase value
   - When a copied image is reduced: Decrease value
   - Adjustment unit: 0.1 %

< When a copied image is long >



< When a copied image is short >



F-4-173

5. Write the new changed value in the service label.
6. Exit the service mode.

13) Make a copy and check the copied image.

Removing the CIS Unit

F-4-174

Before Replacing the Scanner Unit (Reader side CIS)

Preparation before Replacement

1) Backup of the Service Mode data.

Lv.	COPIER > FUNCTION > SYSTEM >
2	RSRAMBUP

T-4-67

Preparation

1) Remove the Copyboard Glass Unit(Refer to page 4-72).

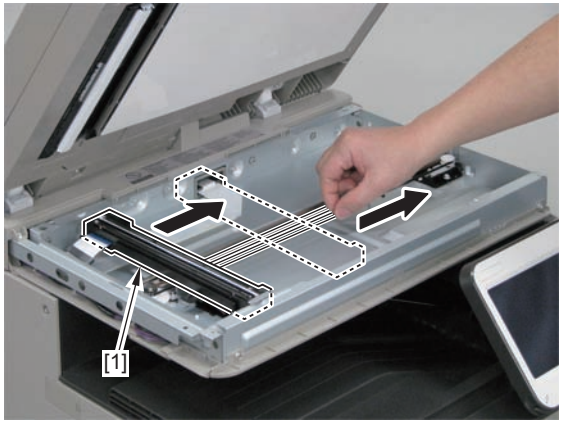
Procedure

CAUTION:

Do not touch the sensor [A] part of the CIS Unit when disassembling/assembling.

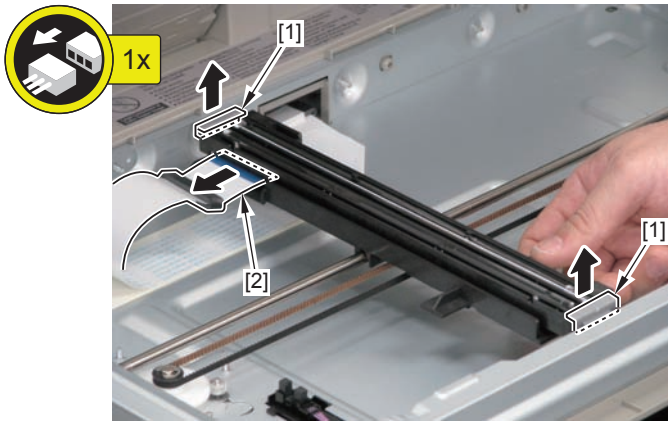
F-4-175

1) Move the CIS Unit [1] to the center.



F-4-176

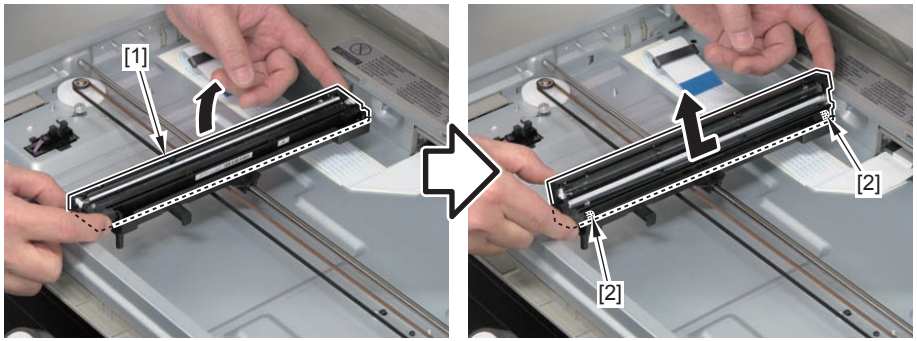
2) Remove the 2 spacers [1] and the Flat Cable [2].



F-4-177

3) Remove the CIS Unit [1].

- 2 Shafts [2]

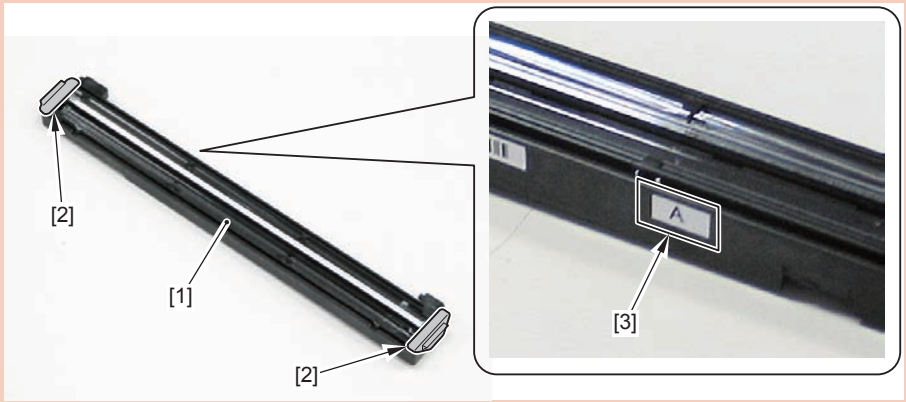


F-4-178

Caution:

When replacing the CIS Unit [1], be sure to replace the CIS Unit [1] and the CIS Spacer [2], which are included in the package of the service part, at the same time.

If a different spacer is used, image reading error may occur.



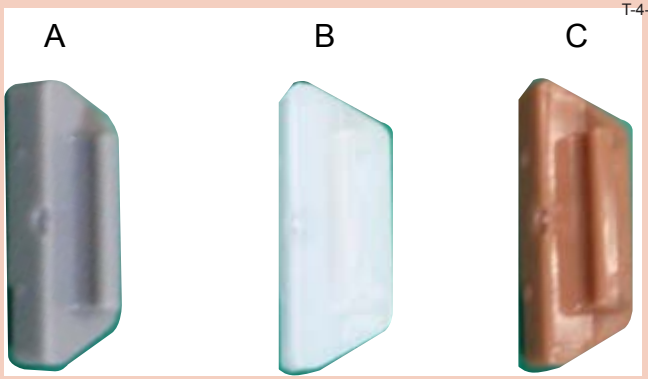
F-4-179

Caution:

- When the CIS Spacers are mixed up or lost, check the CIS Rank Label [3] to use, and use the appropriate CIS Spacer that fits the rank of the CIS Unit.

Rank	Color of spacer	Dimension (Height of spacer)
rank A	gray	1.13 mm
rank B	white	1.23 mm
rank C	brown	1.33 mm

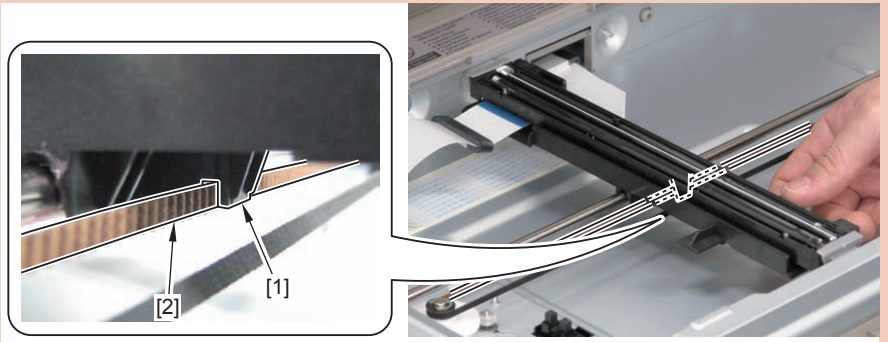
T-4-68



F-4-180

CAUTION:

The groove [1] of the CIS Unit Holder must be hooked on the belt [2] when assembling.



F-4-181

■ After Replacing the Scanner Unit (Reader side CIS)

● Procedure after Replacement

1) If the backup data can be restored, restore the data.

1. Restore the backup data.

Lv.	COPIER > FUNCTION > SYSTEM >
2	RSRAMRES

T-4-69

2. When the restoration has been finished, perform steps 4 and later steps.

2) When the backup data cannot be restored, perform the following steps.

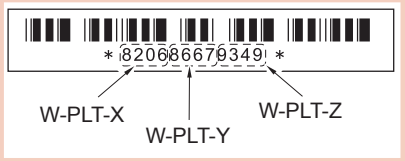
1. Enter the value (White level data entry of white plate) indicated on the platen glass in the following service mode:

LV.	COPIER > ADJUST > CCD >		
1	W-PLT-X	W-PLT-Y	W-PLT-Z

T-4-70

CAUTION:

Be sure to make the white plate data adjustment before ADF white level adjustment.



F-4-182

2. Write down the new numerical value in the service label.
3. Turn OFF/ON the main power switch.

3) Enter the adjustment values of all items described on the service label (on the back of the machine's Front Cover) in service mode.

4) Execute the Scan Unit white/black reference level adjustment (AGC).(Close the ADF)

LV.	COPIER > FUNCTION > CCD >
1	CL-AGC

T-4-71

5) Turn OFF/ON the main power switch.

6) After executing the shading position adjustment with the following service mdoe 1, check the auto setting value with the following service mode 2 and write the value in the service label.

No.	LV.	COPIER > FUNCTION > INSTALL >
1	1	RDSHDPOS

T-4-72

No.	LV.	COPIER > ADJUST > ADJ-XY >
2	1	ADJ-S

T-4-73

7) After executing the reading position adjustment with the following service mdoe 1, check the auto setting value with the following service mode 2 and write the value in the service label.

No.	LV.	COPIER > FUNCTION > INSTALL >
1	1	STRD-POS

T-4-74

No.	LV.	COPIER > ADJUST > ADJ-XY >
2	1	STRD-POS

T-4-75

8) Take the action stated below in the service mode (White level adj in book/DADF mode).

1. Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL1

White level adj in book mode: color T-4-76

2. Place a sheet of paper that the user usually uses on the DADF, enter the following servicemode.

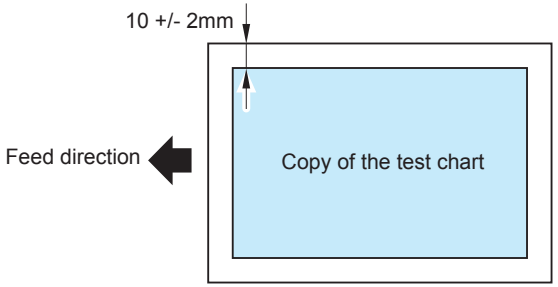
LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL2

White level adj in DADF mode: color T-4-77

NOTE:
The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-R/ DFTAR-G/ DFTAR-B / DFTAR2-R/ DFTAR2-G/ DFTAR2-B / DFTAR3-R/ DFTAR3-G/ DFTAR3-B

9) Adjust the image position (horizontal scanning direction/front side) at ADF reading.

1. Place a test chart on the ADF, and make one single-sided copy.
2. Compare the side registration of the test chart with that of the copied paper, and perform adjustment if necessary.



F-4-183

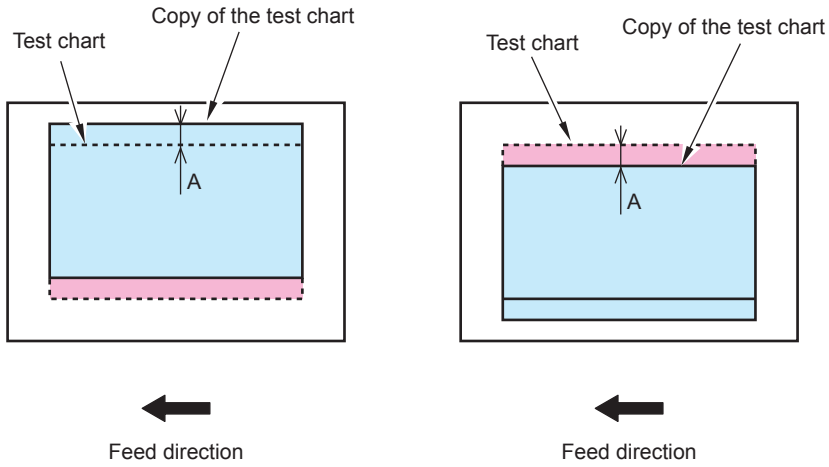
3. Select the item in the service mode.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-Y-DF

T-4-78

4. Input value, and adjust an image.
   - When a copied image moves to the rear: Decrease value
   - When a copied image moves to the front: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear > < When a copied image moves to the front >

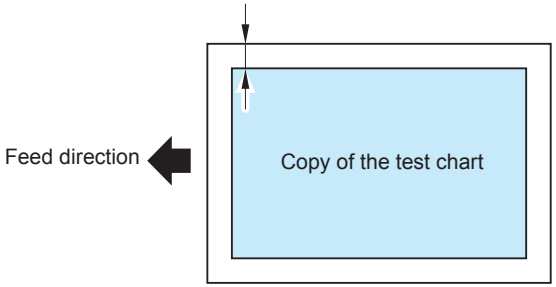


F-4-184

5. Write the new changed value in the service label.
6. Exit the service mode.

10) Adjust the image position (horizontal scanning direction) at copyboard reading.

1. Place a test chart on the Copyboard Glass, and make one single-sided copy.
2. Compare the side registration of the test chart with that of the copied paper, and perform adjustment if necessary.



F-4-185

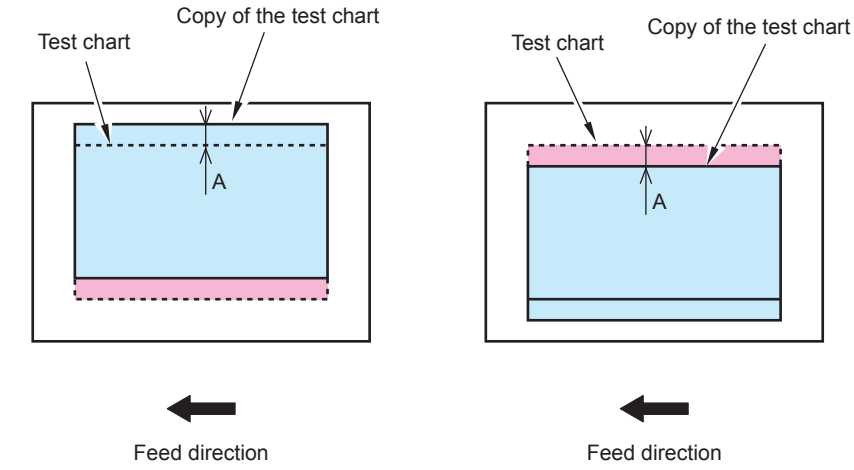
3. Select the item in the service mode.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-Y

T-4-79

4. Input value, and adjust an image.
   - When a copied image moves to the rear: Decrease value
   - When a copied image moves to the front: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear > < When a copied image moves to the front >

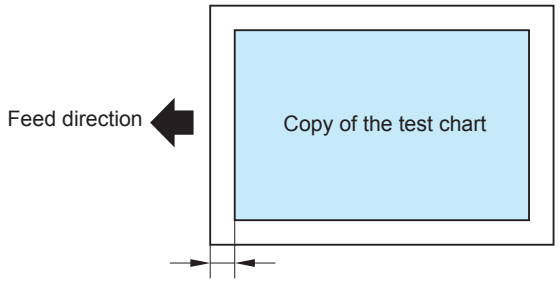


F-4-186

5. Write the new changed value in the service label.
6. Exit the service mode.

11) Adjust the image position (vertical scanning direction) at copyboard reading.

1. Place a test chart on the Copyboard Glass, and make one single-sided copy.
2. Compare the image leading edge of the test chart with that of the copied paper, and perform adjustment if necessary.



F-4-187

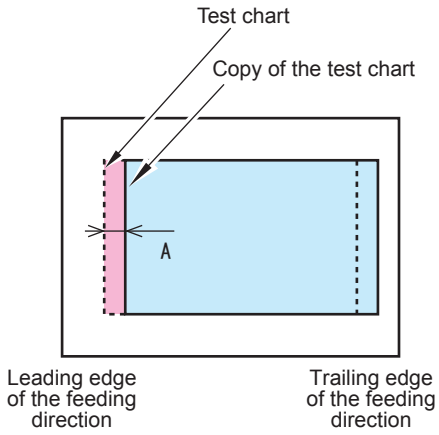
3. Press ADJ-X from the service mode screen.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-X

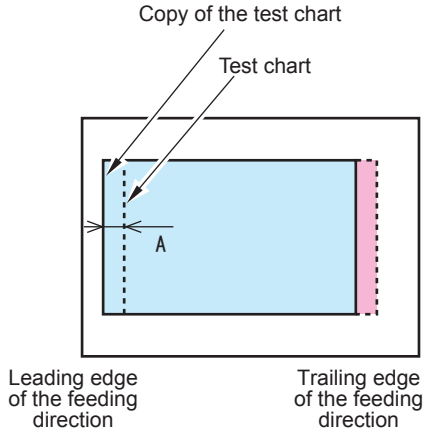
T-4-80

4. Input value, and adjust an image.
   - When a image is displaced toward the trailing edge: Decrease value
   - When a image is displaced toward the leading edge: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-4-188

5. Write the new changed value in the service label.
6. Exit the service mode.

12) Make a fine adjustment of image magnification ratio (vertical scanning direction) at copyboard reading.

1. Set the image of the test chart upward in Copyboard Glass, and give one sheet of single-sided copy.
2. Compare the image length of the feed direction of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3. Press ADJ-X-MG from the service mode screen.

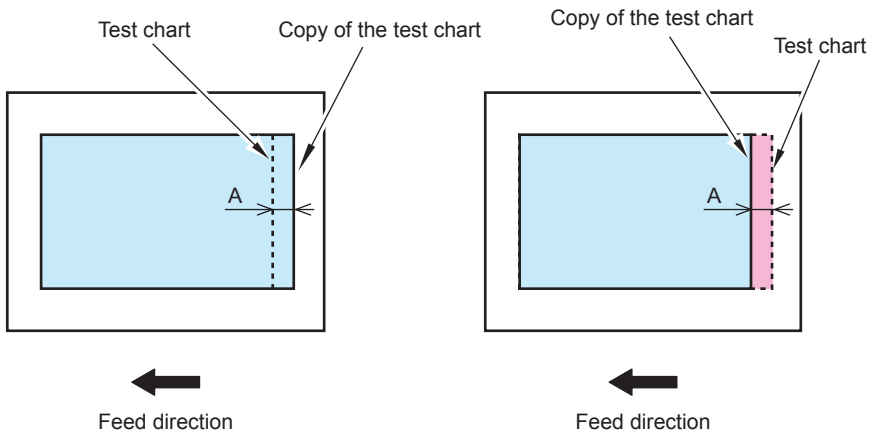
LV.	COPIER> ADJUST> ADJ-XY
1	ADJ-X-MG

T-4-81

4. Input value, and adjust an image.
   - When a copied image is enlarged: Increase value
   - When a copied image is reduced: Decrease value
   - Adjustment unit: 0.1 %

< When a copied image is long >

< When a copied image is short >

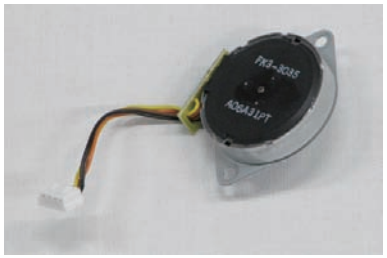


F-4-189

5. Write the new changed value in the service label.
6. Exit the service mode.

13) Make a copy and check the copied image.

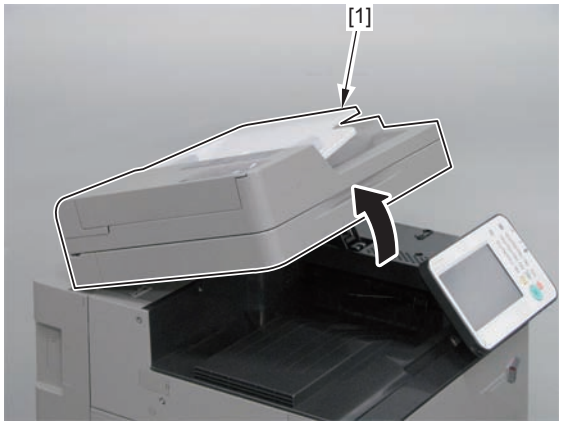
Removing the Reader Motor



F-4-190

Procedure

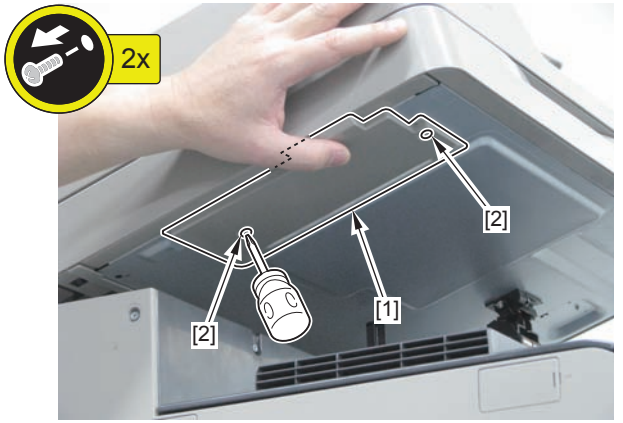
1) Open the ADF Unit + Reader Unit [1].



F-4-191

2) Remove the Reader Motor Cover [1].

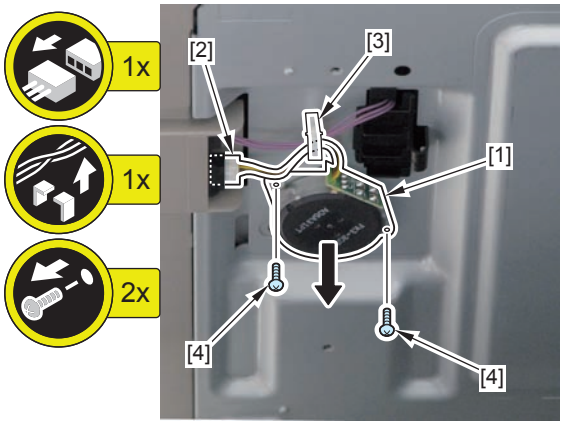
- 2 Screws [2]



F-4-192

3) Remove the Reader Motor [1].

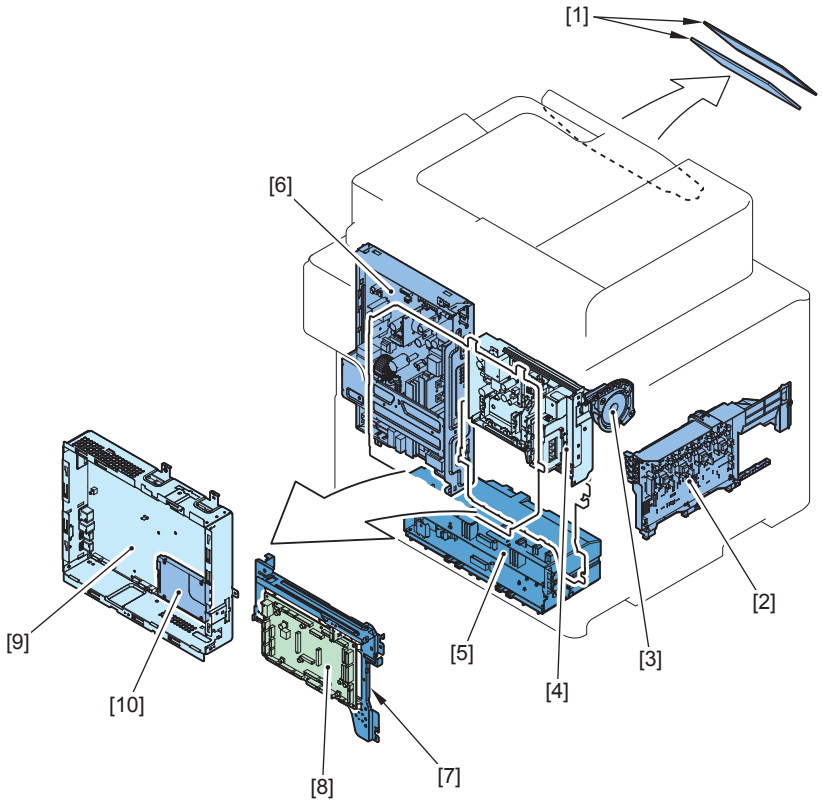
- 1 Connector [2]
- 1 Wire Saddle [3]
- 2 Screws [4]



F-4-193

Controller System

Layout Drawing



F-4-194

No.	Parts Name	Main Unit	Remarks	Reference
[1]	Touch Panel / LCD	Control Panel Unit		(Refer to page 4-100)
[2]	Primary Transfer High-voltage PCB Unit	Product Configuration	UN03	(Refer to page 4-94)
[3]	Speaker	Product Configuration	SP1	(Refer to page 4-104)
[4]	FAX Unit	Product Configuration	UN86 / UN88,89,90 / UN92	(Refer to page 4-104)
[5]	Secondary Transfer High-voltage PCB / Developing High-voltage PCB Unit	Product Configuration	UN02 / UN06	(Refer to page 4-92)
[6]	Low-voltage Power Supply PCB Unit	Product Configuration	UN01	(Refer to page 4-96)
[7]	DC Controller PCB Unit	Product Configuration		(Refer to page 4-90)
[8]	DC Controller PCB	DC Controller PCB Unit	UN04	(Refer to page 4-89)
[9]	Main Controller Unit	Product Configuration	UN81	(Refer to page 4-83)
[10]	HDD	Main Controller Unit		(Refer to page 4-102)

T-4-82

Removing the Main Controller Unit

F-4-195

Before Replacing

Before Replacing	1) Backup of the Forwarding Settings and Service Mode setting values (MN-CON) Use the Remote UI. The data can be collectively saved in a DCM file format using the steps below. Settings/Registration > Management Settings > Data Management > Import/Export All > Export Select "Select All" for the items to export, enter the encryption password, and then select "Select Exporting". • Service Mode setting values (MN-CON) Only when ON is selected in COPIER > OPTION > USER > SMD-EXPT, the service mode setting values can be backed up and restored from the RUI. 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.

T-4-83

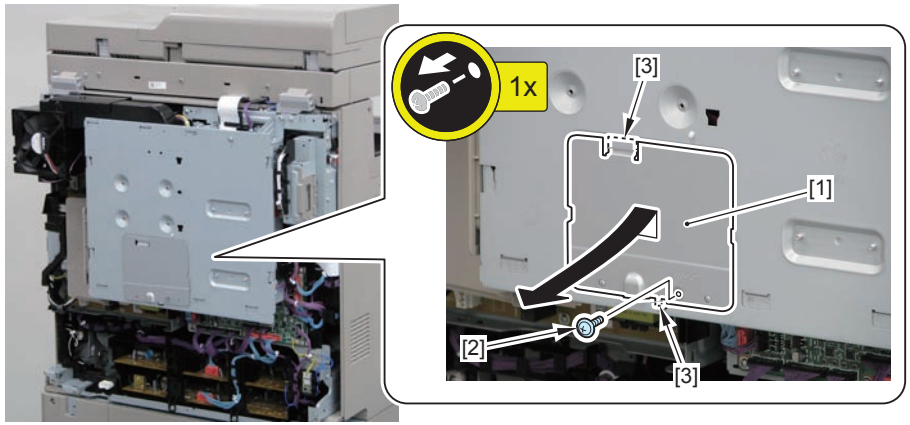
Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).

Procedure

1) Remove the Main Controller Sub Cover [1].

- 1 Screw [2]
- 2 Hooks [3]



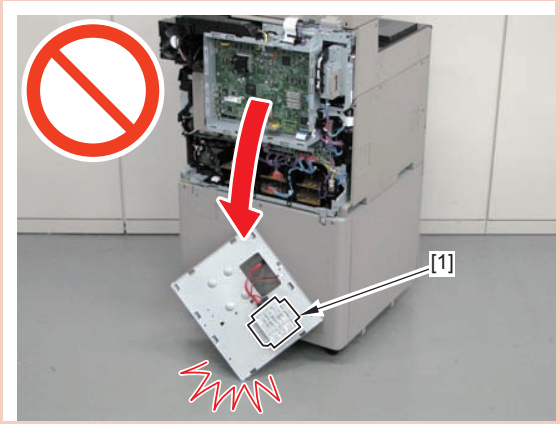
F-4-196

2) Remove the Main Controller Cover [1].
- 2 Connectors [2]
- 1 Screw [3]
- 10 Hooks [4]

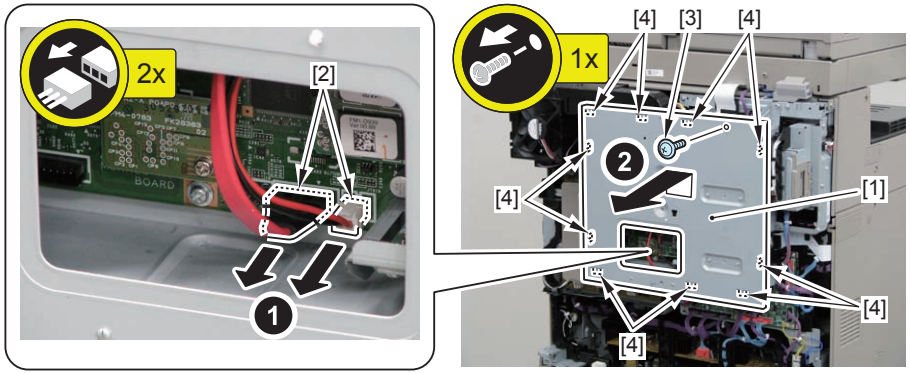
CAUTION:

The Main Controller Cover has an HDD [1] on the back side.

The HDD [1] is sensitive to shock. When handling this cover, be sure not to give a shock to it.

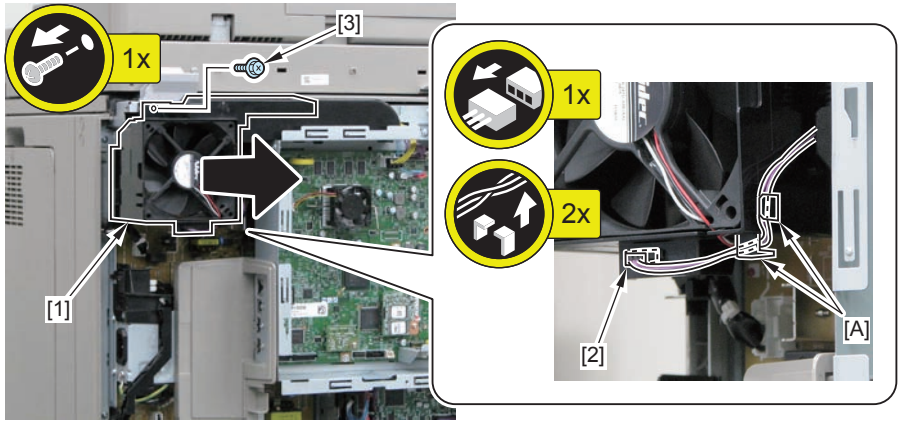


F-4-197



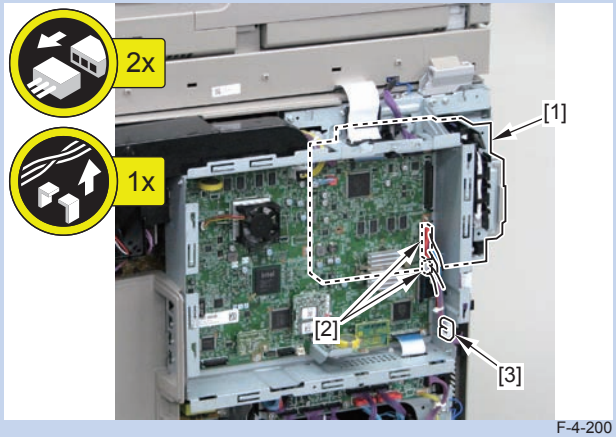
F-4-198

3) Remove the Power Supply Cooling Fan Unit [1].
- 1 Connector [2]
- Harness Guide [A]
- 1 Screw [3]



F-4-199

NOTE:
When the optional Fax Unit [1] is installed, disconnect the 2 connectors [2] and free the cable from the Edge Saddle [3].



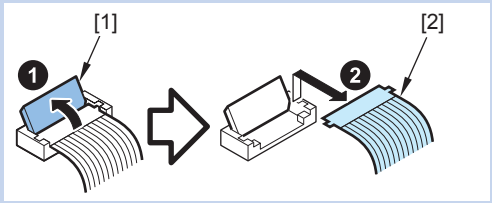
F-4-200

4) Remove the harness connected to the Main Controller Unit [1].

- 6 Connectors [2]
- 1 USB Connector [3]
- 1 Control Panel Communication Connector [4]
- 3 Flat Cables [5]

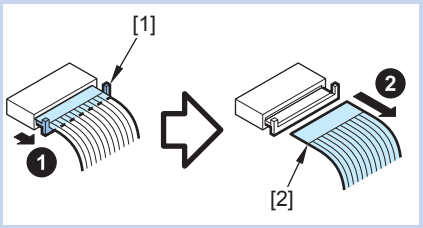
Note: How to remove the Flat Cable
There are 2 types of Flat Cables on the Main Controller PCB.
They can be removed as follows.

Type 1:
1. Raise the Fixation Member [1].
2. Lift and remove the Flat Cable [2].

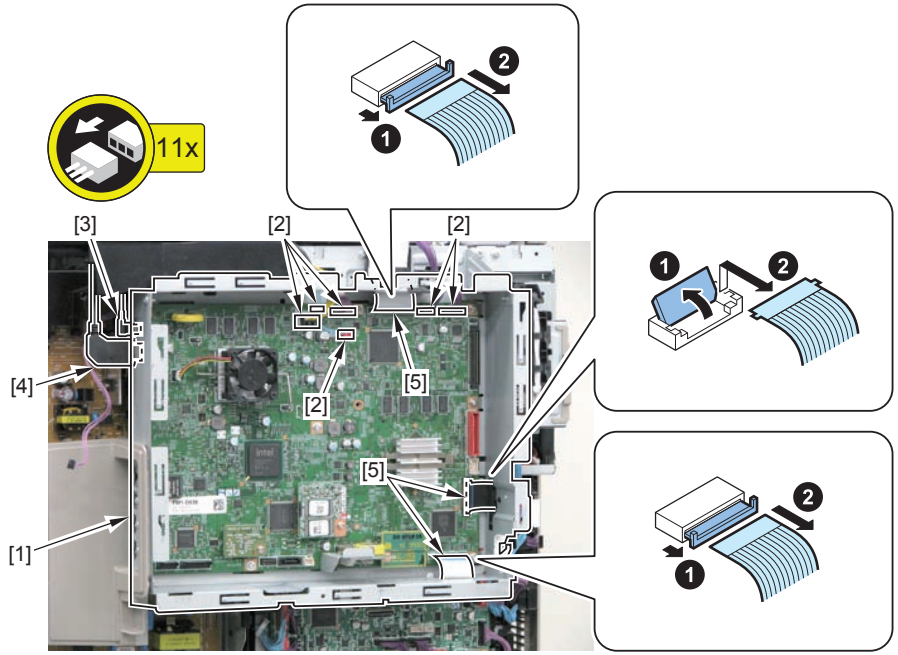


F-4-201

Type 2:
1. Pull out the Fixation Member [1].
2. Pull out the Flat Cable [2].

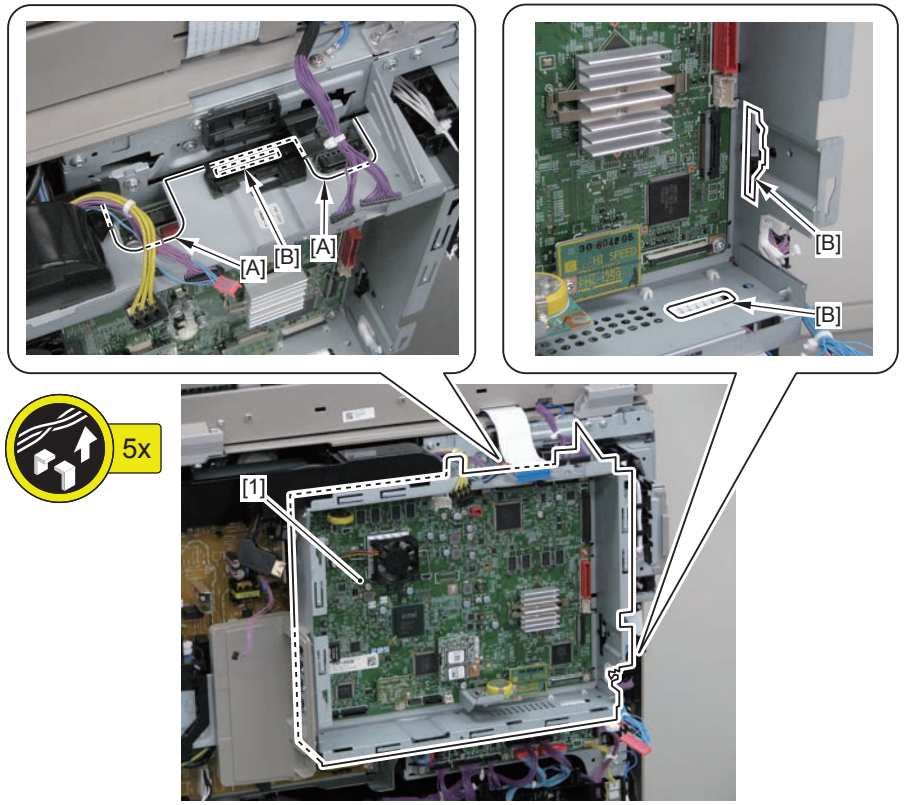


F-4-202



F-4-203

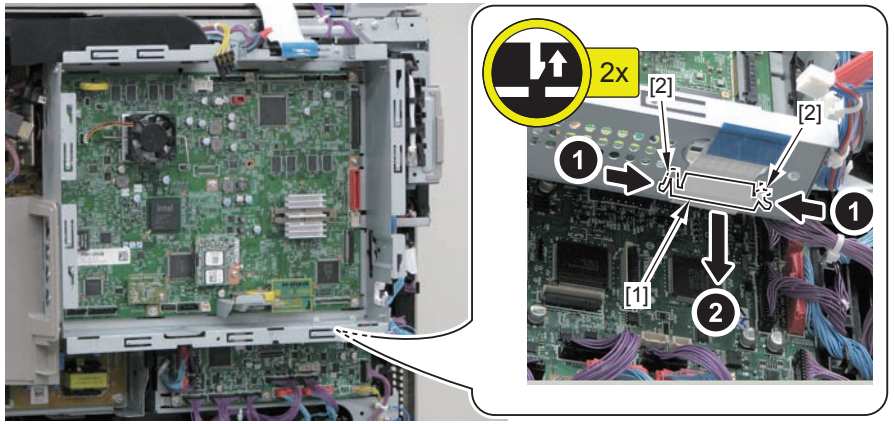
5) Pull out the removed harness from hole [A] of the Main Controller Unit [1] and the Flat Cable Guide [B].



F-4-204

6) Remove the Flat Cable Retainer [1].

- 2 Claws [2]

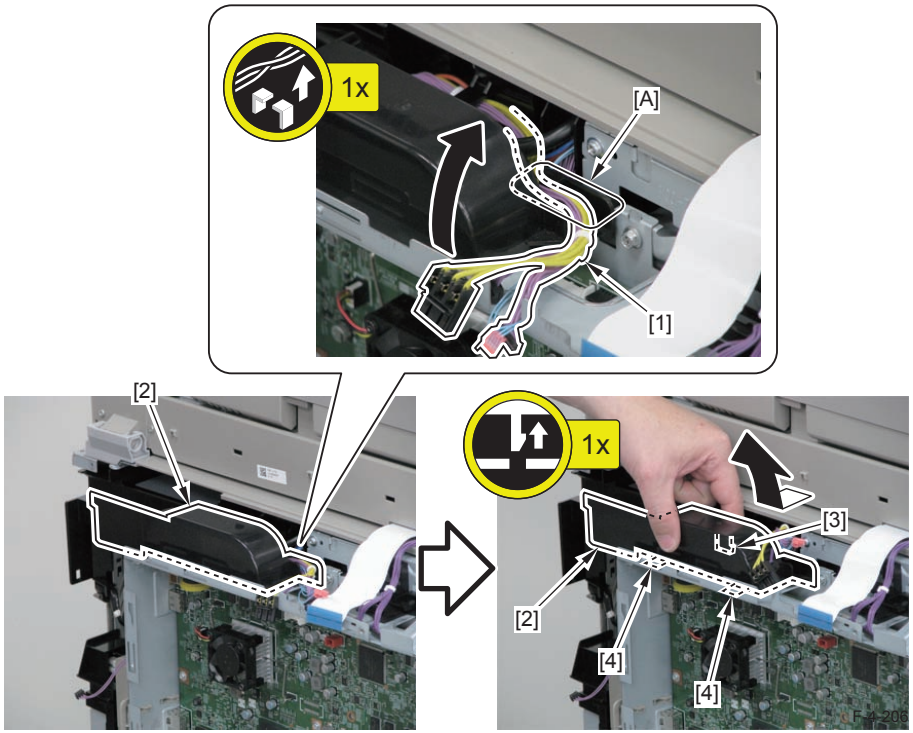


F-4-205

7) Free the harness [1] from the Harness Guide [A].

8) Remove the Fan Duct [2].

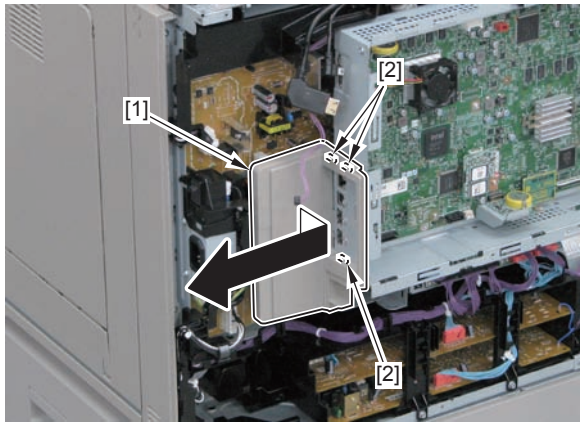
- 1 Claw [3]
- 2 Hooks [4]



F-4-206

9) Remove the Rear Cover 2 [1].

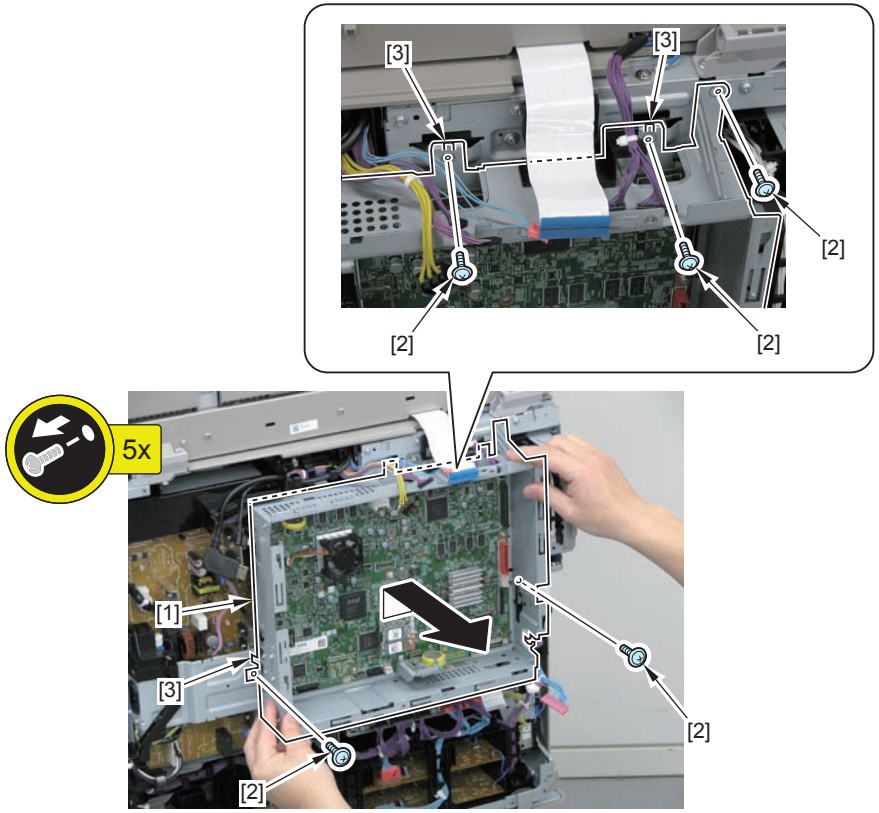
- 3 Hooks [2]



F-4-207

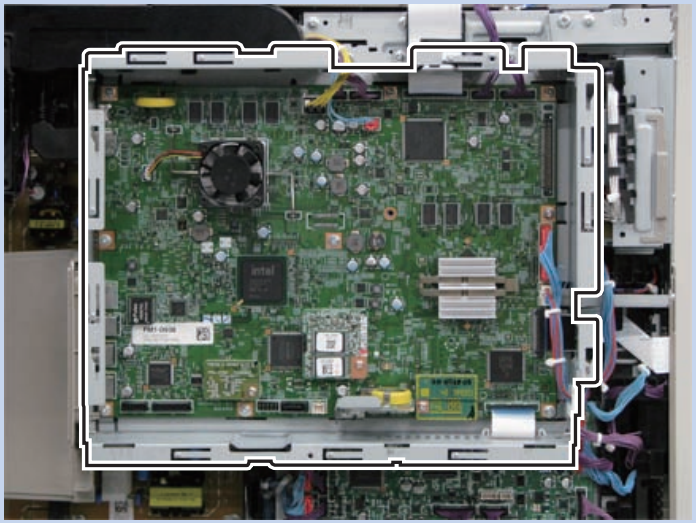
10) Remove the Main Controller Unit [1].

- 5 Screws [2]
- 3 Hooks [3]



F-4-208

NOTE:
The completed assembly of the Main Controller Unit [1] is shown below.



F-4-209

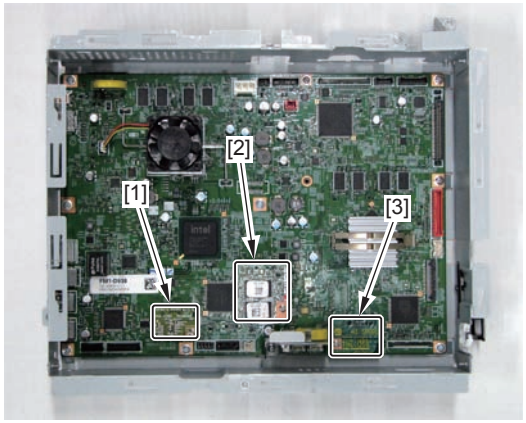
■ Aftter Replacing

Aftter Replacing	1) After installing the parts, turn ON the main power switch. 2) Restore the backup data. Use the Remote UI. Follow the steps below to specify the DCM file stored earlier. Settings/Registration > Management Settings > Data Management > Import/Export All > Import Enter the encryption password entered at exporting, and select "Start Importing". 3) Resetting/registering the data While referring to the list of set/registered data which was printed before replacement, reset/register the data. 4) TPM key information If the TPM key information in the FLASH of the HDD or the Main Controller PCB is lost, the key information in the FLASH is automatically recovered from the backup of the common key in the HDD. Then the internal state of TPM setting changes to "ON". However, the display on the UI remains "OFF", therefore the TPM setting needs to be manually changed to "ON". 5) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again. When FAX is installed, be sure to perform step 6 as well. 6) Set whether to display/hide Auto Shutdown Time. Set 0 for the value of Copier > Option > DISPLY-SW > SDTM-DSP (0: Hide).

T-4-84

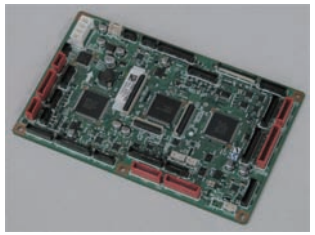
11) Replace parts from an old PCB to a new PCB.

- [1] TPM PCB
- [2] FLASH PCB
- [3] Memorey PCB



F-4-210

Removing the DC Controller PCB



F-4-211

Before Replacing

Before Replacing	1)Backup the Service Mode data. (Lv.2) COPIER > FUNCTION > SYSTEM > DSRAMBUP After “ACTIVE” is displayed for approx. 2 minutes, “OK!” is displayed. If necessary,output the servise mode setting values by P-PRINT before execution. (Lv.1) COPIER > FUNCTION > MISC-P > P-PRINT 2)After the above execution is completed, turn OFF the main power supply.

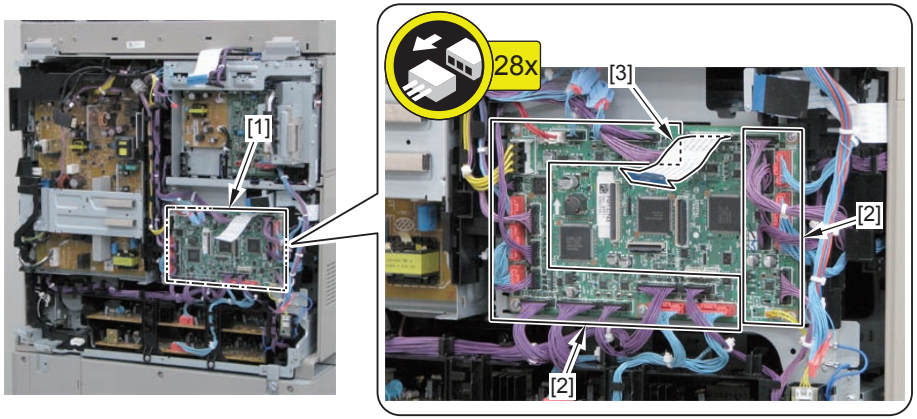
T-4-85

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Main Controller Unit(Refer to page 4-83).

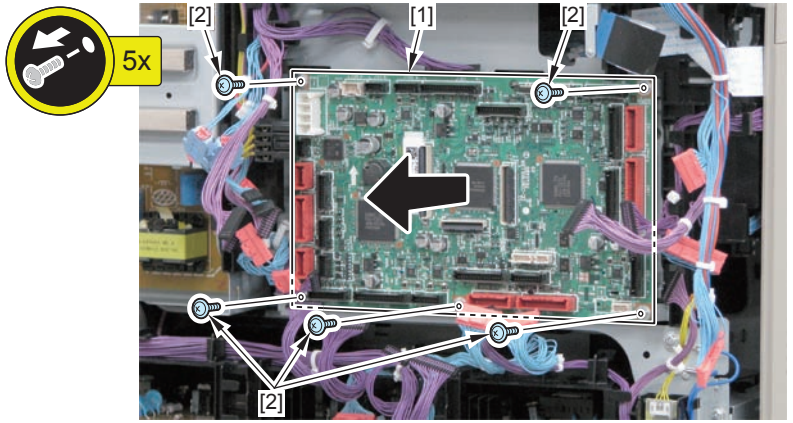
Procedure

1) Disconnect the connector connected to the DC Controller PCB [1].
- 27 Connectors [2]
- 1 Flat Cable [3]



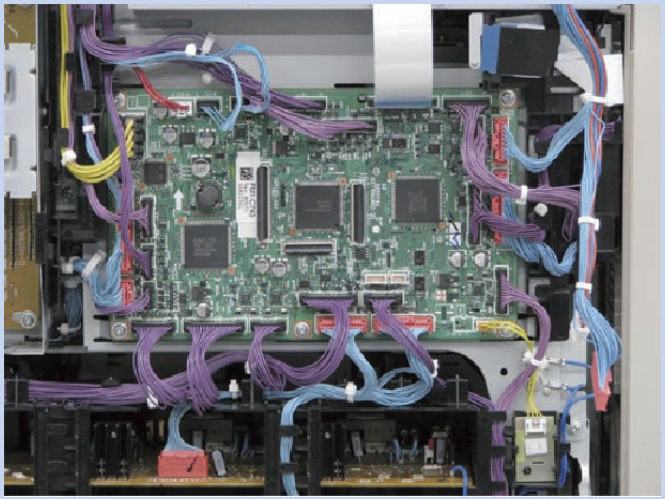
F-4-212

2) Remove the DC Controller PCB [1].
- 5 Screws [2]



F-4-213

NOTE:
The completed assembly of the DC Controller PCB is shown below.



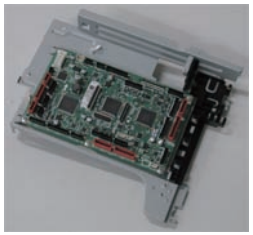
F-4-214

Aftter Replacing

Aftter Replacing	1) Restore of the Service Mode data. (Lv.2) COPIER> FUNCTION> SYSTEM> DSRAMRES 2) 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. 3) 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.)

T-4-86

Removing the DC Controller PCB Unit



F-4-215

Before Replacing

Before Replacing	1)Backup the Service Mode data. (Lv.2) COPIER > FUNCTION > SYSTEM > DSRAMBUP After “ACTIVE” is displayed for approx. 2 minutes, “OK!” is displayed. If necessary,output the servise mode setting values by P-PRINT before execution. (Lv.1) COPIER > FUNCTION > MISC-P > P-PRINT 2)After the above execution is completed, turn OFF the main power supply.

T-4-87

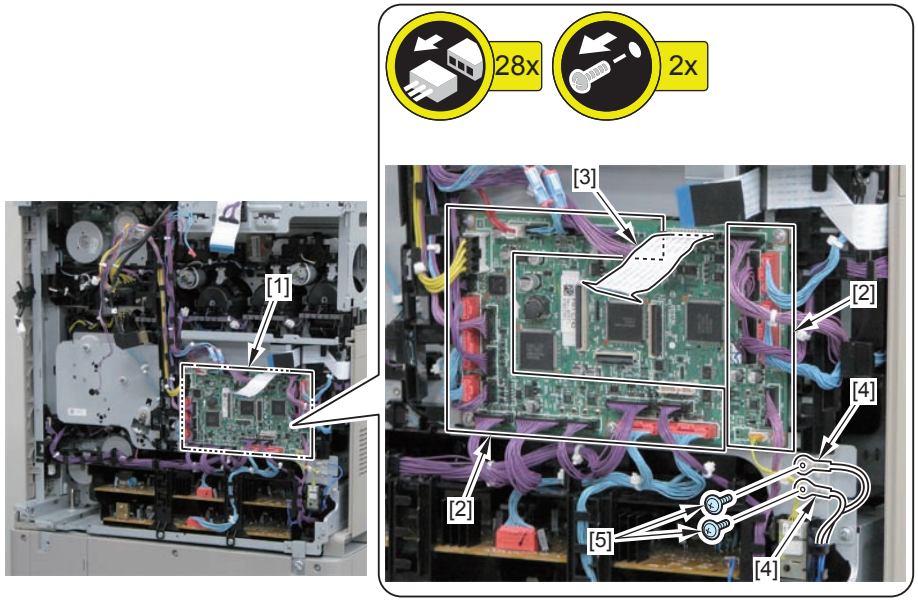
Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover(Refer to page 4-37).
3) Remove the Fax Speaker Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
4) Remove the Fax Unit (to be removed for models equipped with a fax)(Refer to page 4-104).
5) Remove the Main Controller Unit(Refer to page 4-83).
6) Remove the Low-voltage Power Supply PCB Unit(Refer to page 4-96).

Procedure

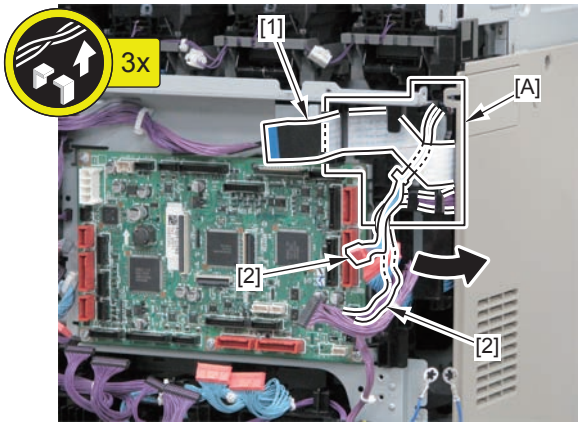
1) Disconnect the connector connected to the DC Controller PCB [1].
- 27 Connectors [2]
- 1 Flat Cable [3]

2) Remove the 2 round shape terminals [4].
- 2 Screws [5]



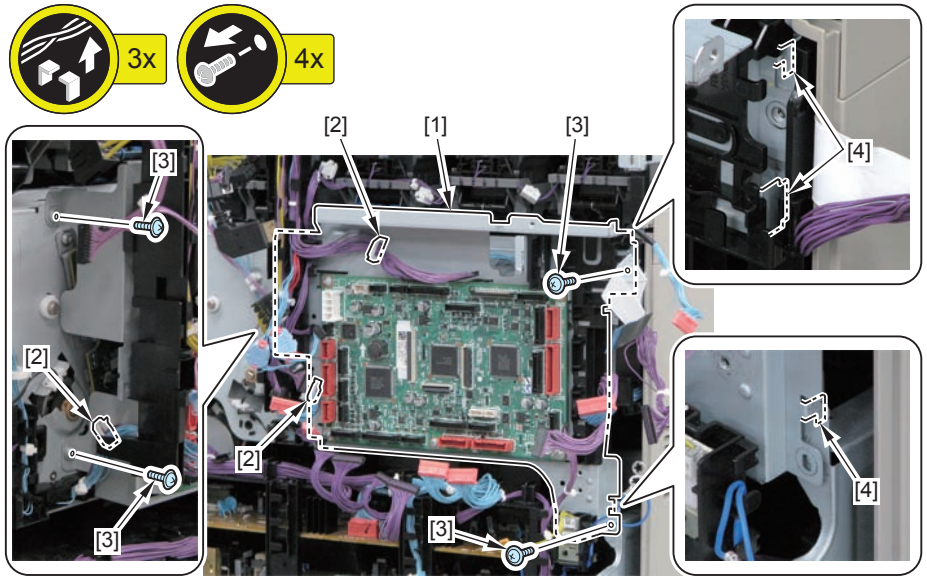
F-4-216

3) Remove the Flat Cable [1] and the 2 harnesses [2] from the Harness Guide [A].



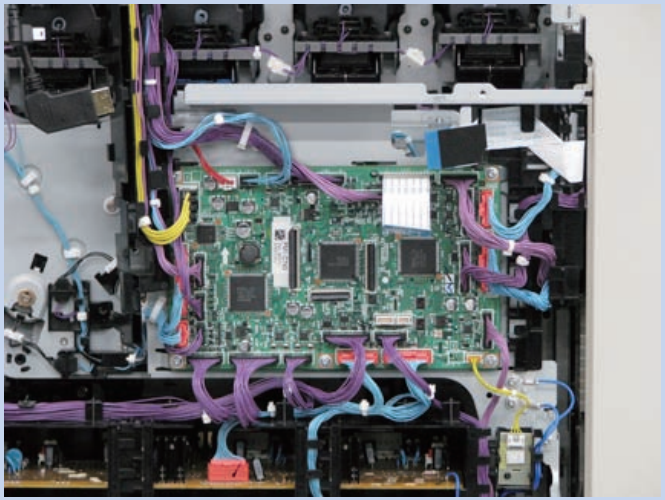
F-4-217

4) Remove the DC Controller PCB Unit [1].
- 3 Wire Saddles [2]
- 4 Screws [3]
- 3 Hooks [4]



F-4-218

NOTE:
The completed assembly of the DC Controller PCB Unit is shown below.



F-4-219

Aftter Replacing

Aftter Replacing	1) Restore of the Service Mode data. (Lv.2) COPIER> FUNCTION> SYSTEM> DSRAMRES 2) 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. 3) 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.)

T-4-88

Removing the Secondary Transfer High-voltage PCB/ Developing High-voltage PCB Unit

F-4-220

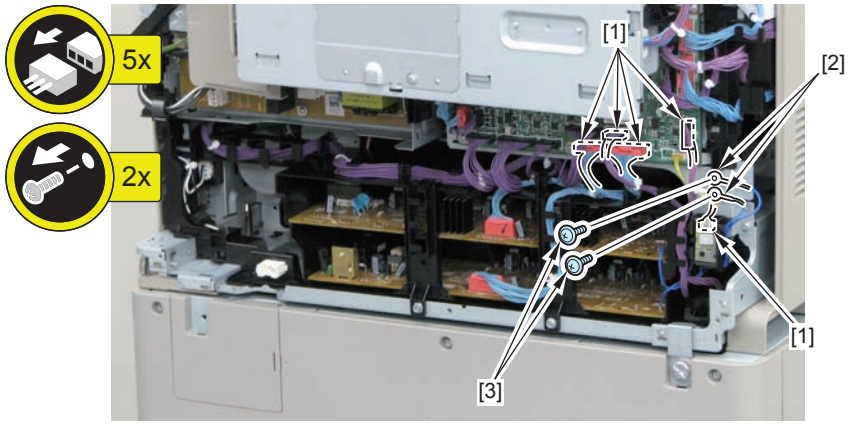
Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).

Procedure

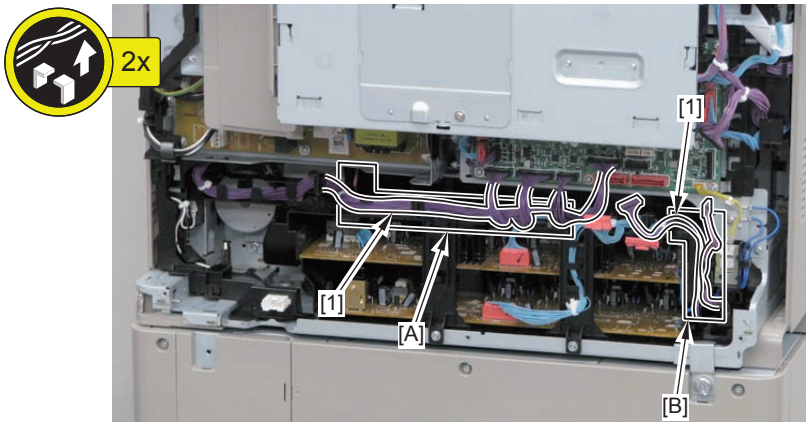
1) Remove the 5 connectors [1] and the 2 round shape terminals [2].

- 2 Screws [3]



F-4-221

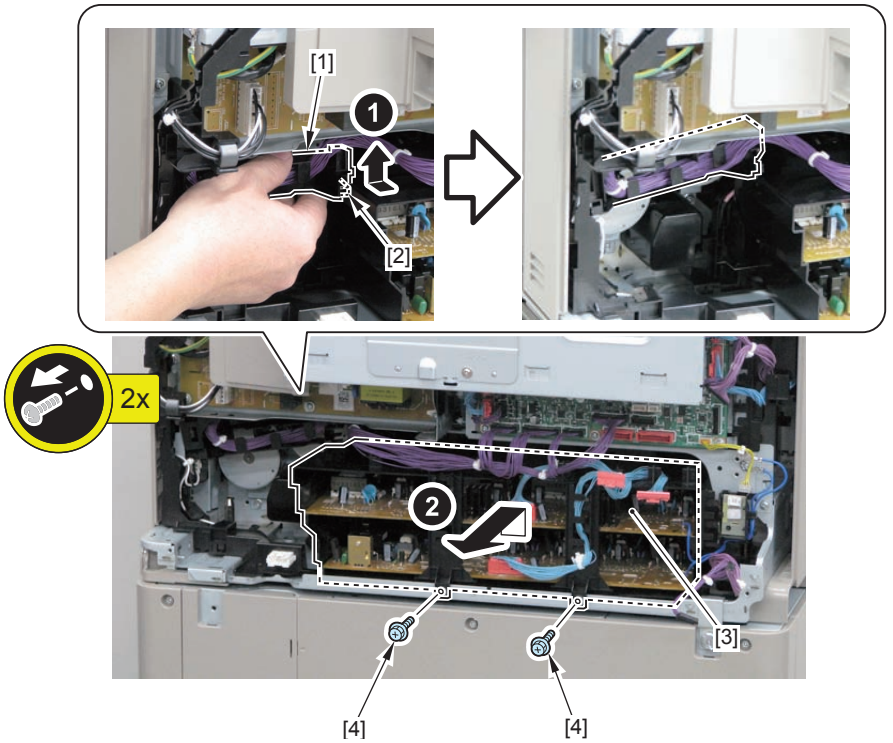
2) Free the harness [1] from the Harness Guides [A] and [B].
- 1 Reuse Band [2]



F-4-222

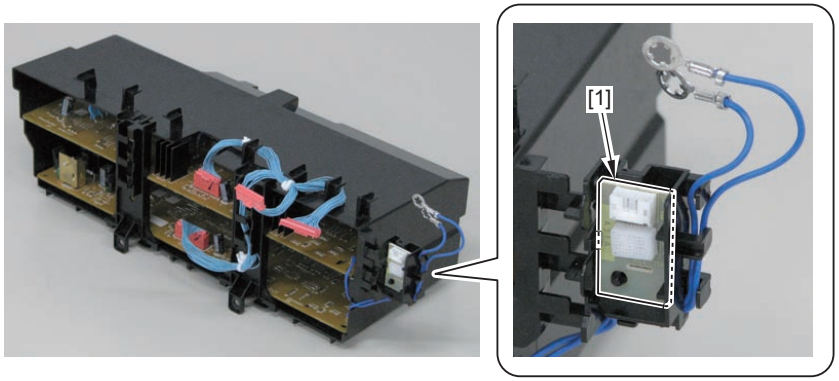
3) Remove the Harness Guide [1].
- 1 Hook [2]

4) Remove the Secondary Transfer High-voltage PCB/Developing High-voltage PCB Unit [3].
- 2 Screws [4]



F-4-223

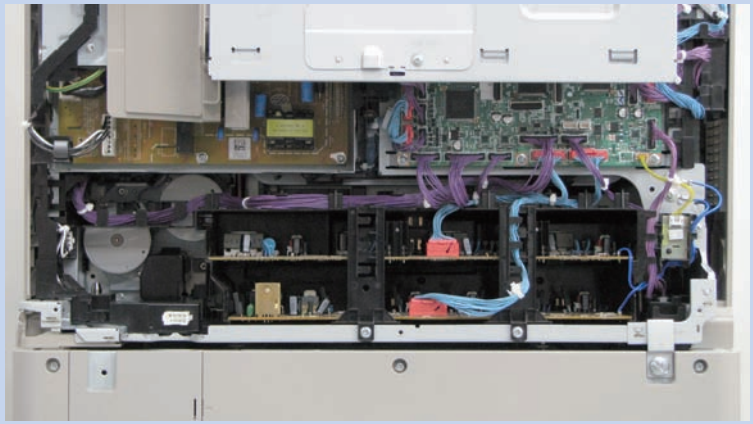
5) Remove the Environment Sensor [1] from the Secondary Transfer High-voltage PCB/ Developing High-voltage PCB Unit.



F-4-224

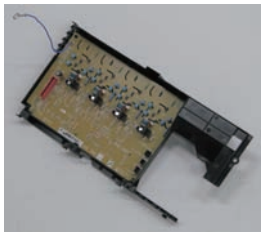
NOTE:
Be sure to install the removed Environment Sensor when replacing the Secondary Transfer High-voltage PCB/Developing High-voltage PCB Unit.

NOTE:
The completed assembly of the Secondary Transfer High-voltage PCB/Developing High-voltage PCB Unit is shown below.



F-4-225

Removing the Primary Transfer High-voltage PCB Unit



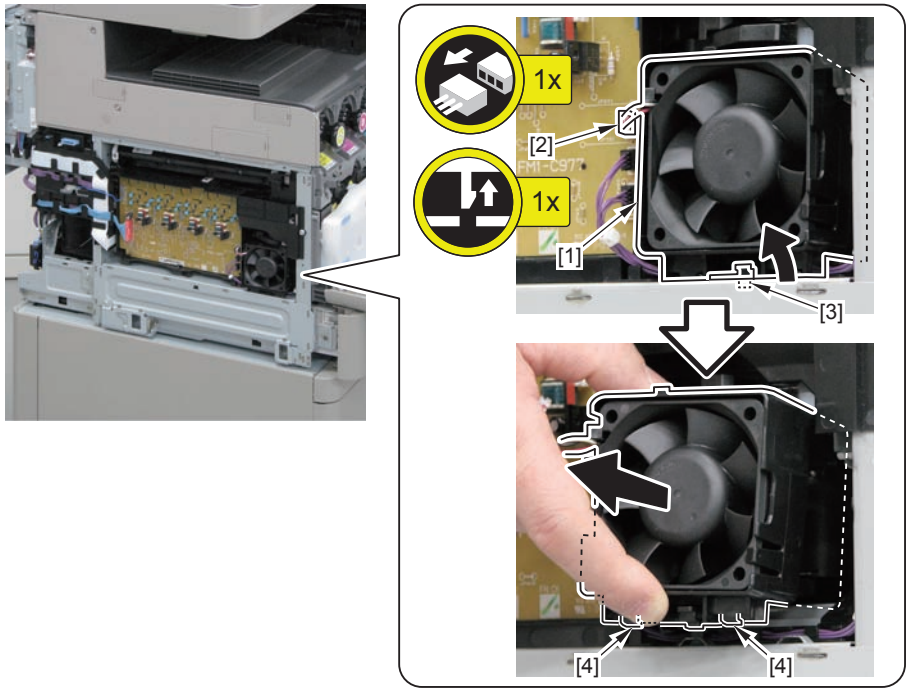
F-4-226

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Lower Cover(Refer to page 4-37).

Procedure

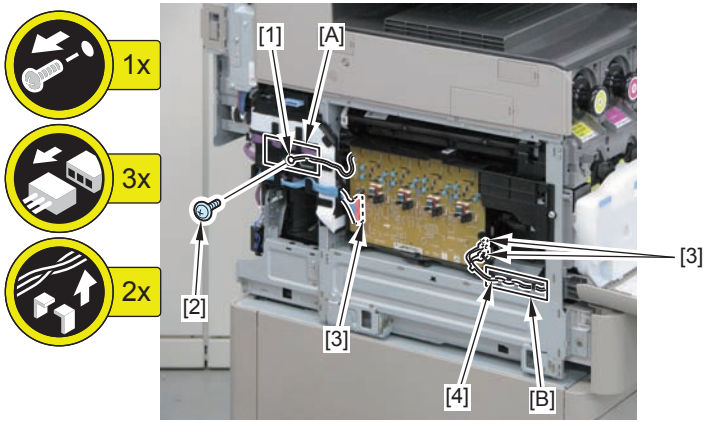
1) Remove the Drum Unit Suction Cooling Fan [1].
- 1 Connector [2]
- 1 Claw [3]
- 2 Hooks [4]



F-4-227

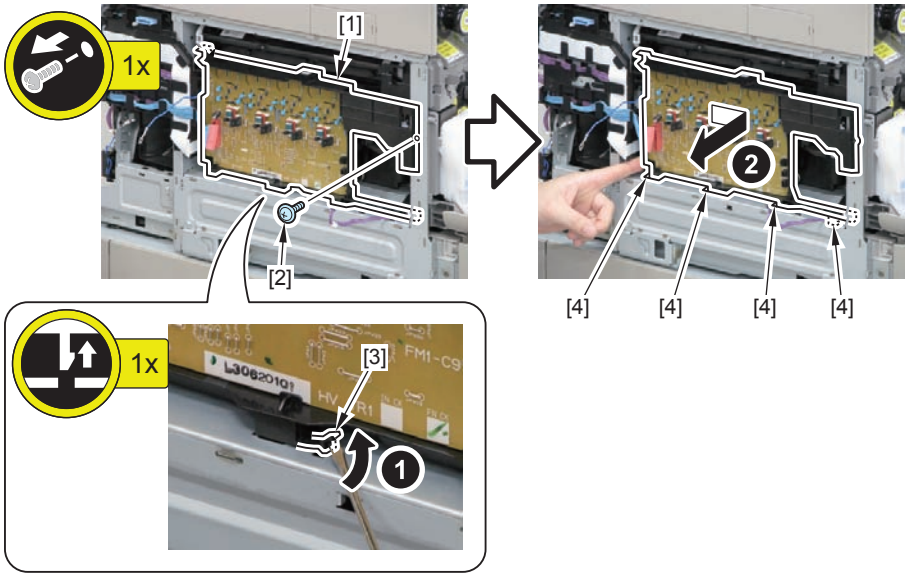
2) Remove the round shape terminal [1].
- 1 Screw [2]
- Harness Guide [A]

3) Disconnect the 3 connectors [3], and free the harness [4] from the Harness Guide [B].



F-4-228

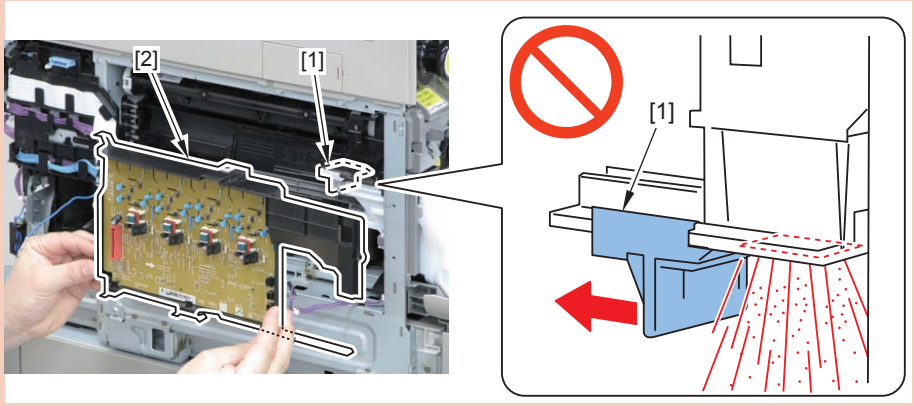
4) Remove the Primary Transfer High-voltage PCB Unit [1].
- 1 Screw [2]
- 1 Claw [3]
- 4 Hooks [4]



F-4-229

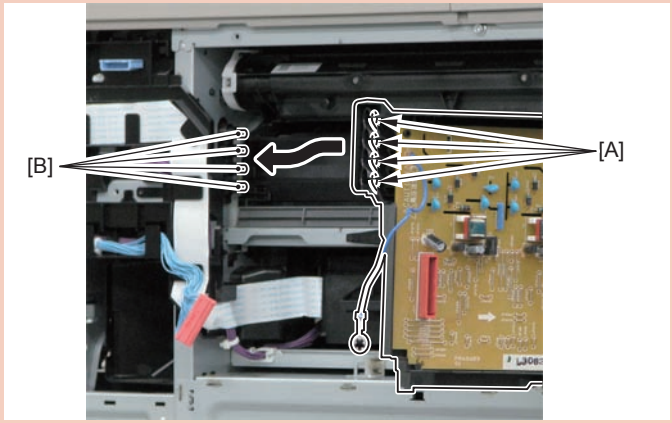
CAUTION:

- When disassembling/assembling, be sure to handle carefully so as to not scatter toner since the Collection Mouth [1] of the Waste Toner Container is located behind the Primary Transfer High-voltage PCB Unit [2].



F-4-230

- When assembling, the contact point [A] of the Primary Transfer High-voltage PCB Unit must be contacted with the 4 Contact Springs [B] of the High-voltage Main Guide.



F-4-231

Removing the Low-voltage Power Supply PCB Unit

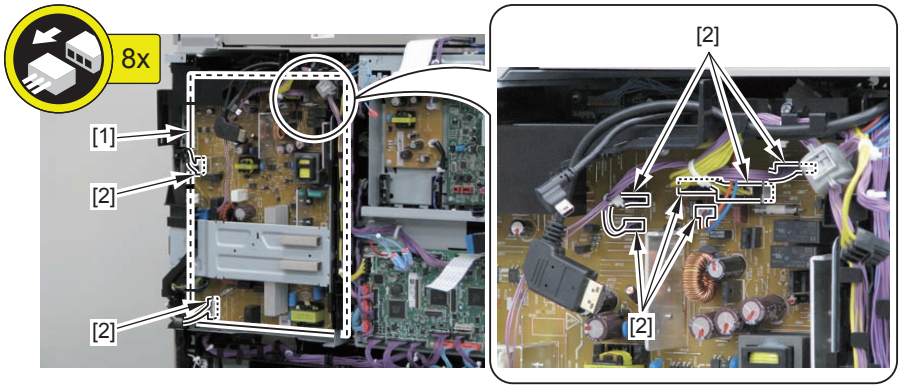
F-4-232

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Main Controller Unit.(Refer to page 4-83)

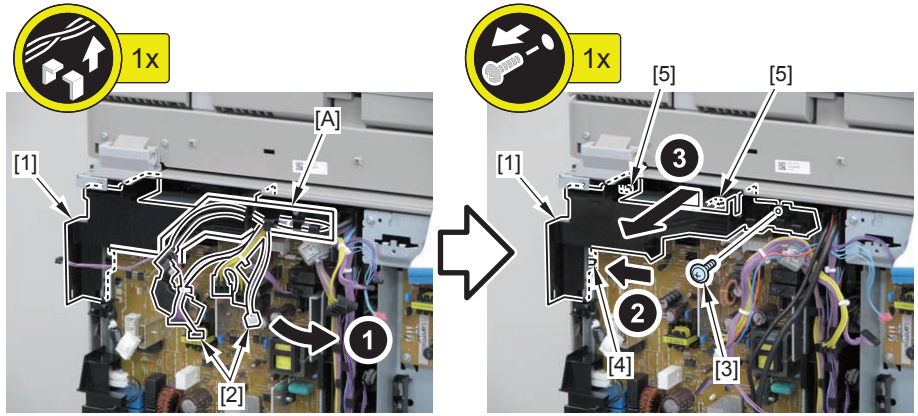
Procedure

1) Disconnect the 8 connectors [2] installed in the Low-voltage Power Supply PCB [1].



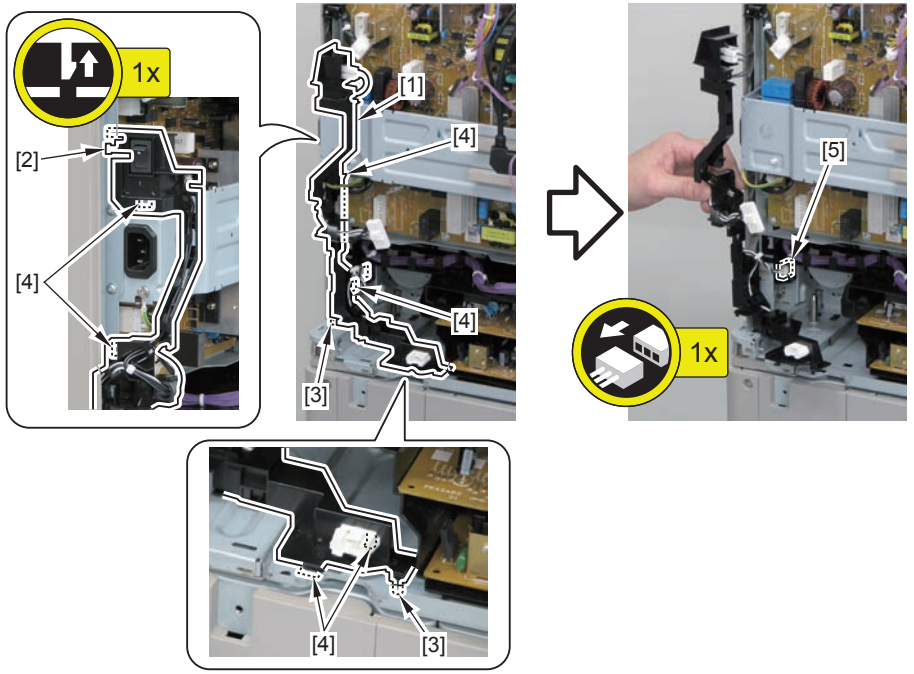
F-4-233

2) Free the harness [2] from the Harness Guide [A] of the Fan Guide [1].
3) Remove the Fan Guide [1].
- 1 Screw [3]
- 1 Boss [4]
- 2 Hooks [5]



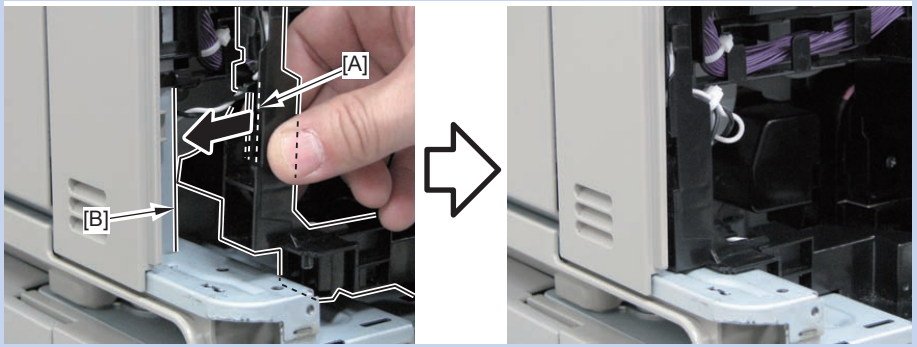
F-4-234

4) Remove the Power Switch Harness Guide [1].
- 1 Claw [2]
- 2 Bosses [3]
- 6 Hooks [4]
- 1 Connector [5]



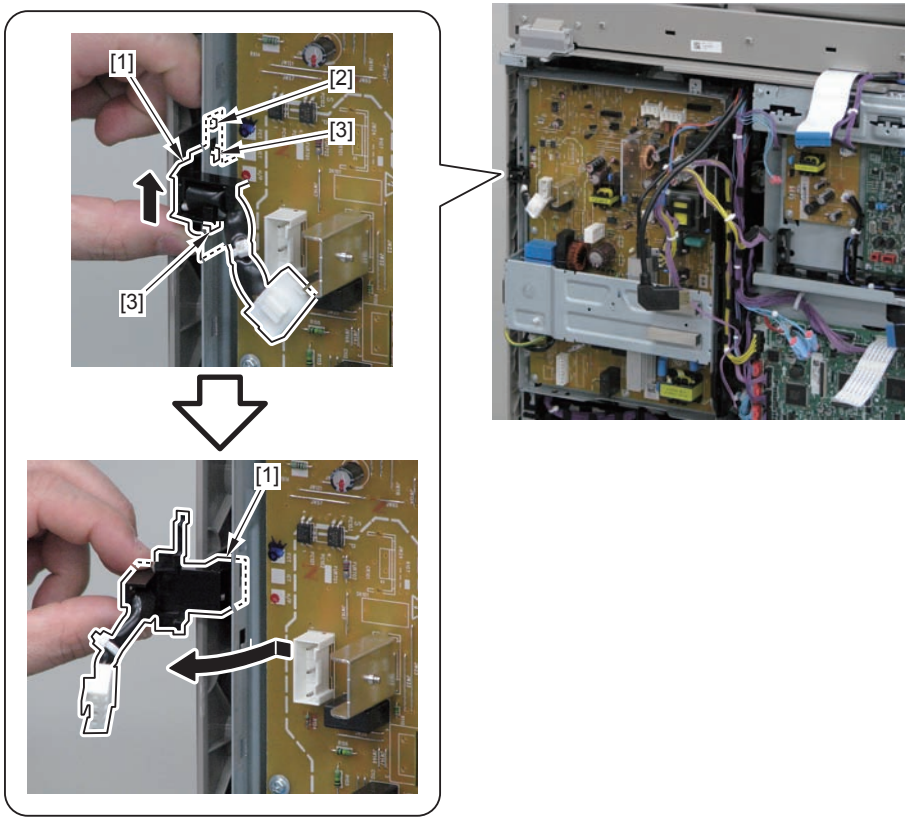
F-4-235

NOTE: How to install the Power Switch Harness Guide
Be sure to align the groove [A] of the Power Switch Harness Guide with the edge [B] of the side plate to install the guide.



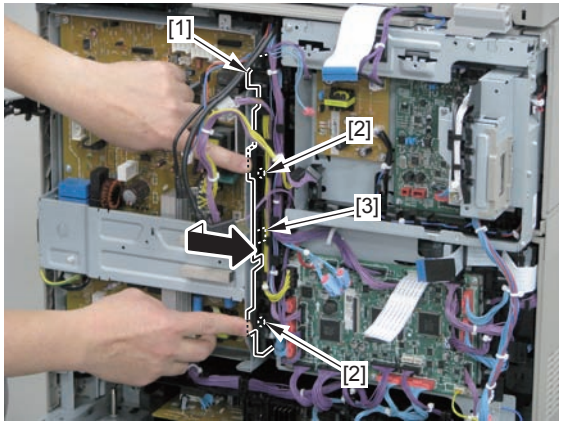
F-4-236

5) Remove the Fixing Harness Guide [1].
- 1 Boss [2]
- 2 Hooks [3]



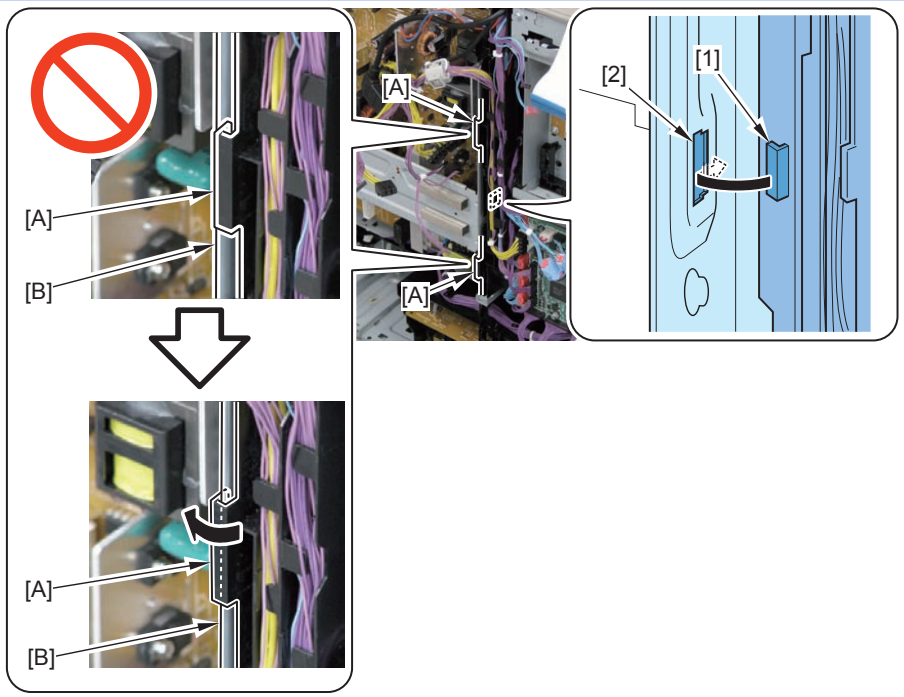
F-4-237

6) Remove the Power Supply Harness Guide [1].
- 2 Bosses [2]
- 1 Hook [3]



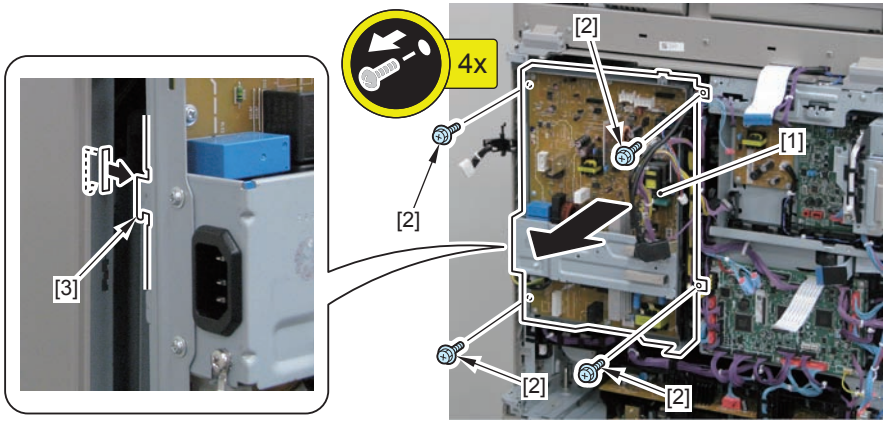
F-4-238

NOTE: How to install the Power Supply Harness Guide
Be sure to align the 2 grooves [A] of the Power Supply Harness Guide with the edge [B] of the side plate, and hook the hook [1] on the hole [2] in the side plate of the Low-voltage Power Supply PCB to install the guide.



F-4-239

7) Remove the Low-voltage Power Supply PCB Unit [1].
- 4 Screws [2]
- 1 Hook [3]



F-4-240

Removing the Touch Panel/Control Panel CPU PCB Unit /LCD Unit

F-4-241

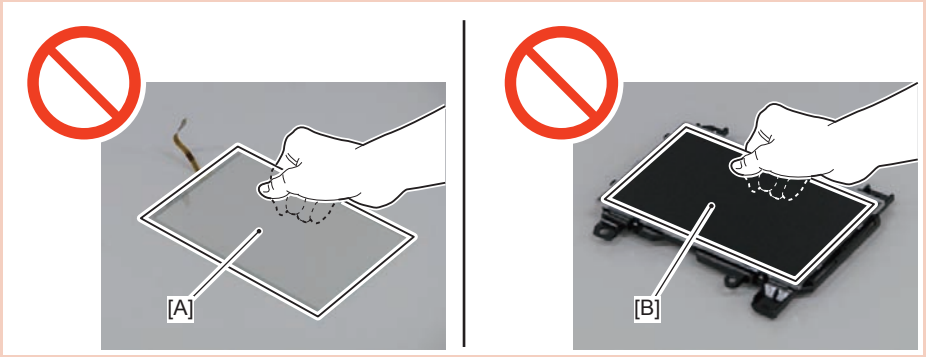
Preparation

1) Remove the Control Panel Unit.(Refer to page 4-50)

Procedure

CAUTION:

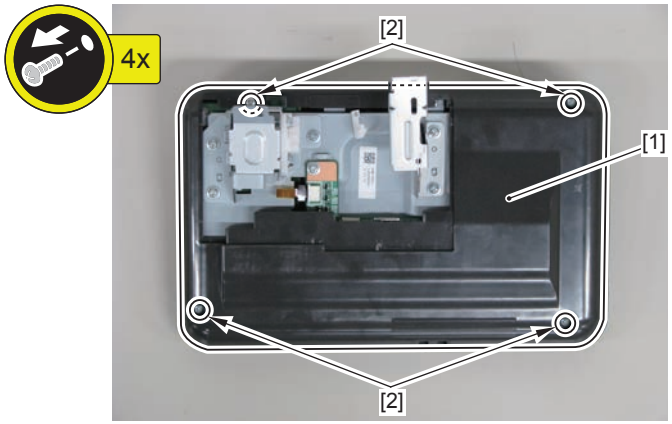
Do not touch the surface [A] of the Touch Panel and the surface [B] of the LCD Unit when disassembling/assembling.



F-4-242

1) Remove the Control Panel Rear Cover [1].

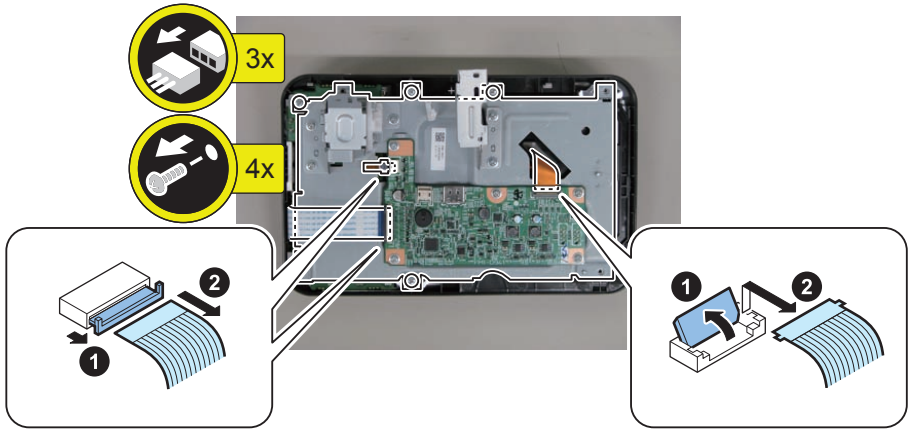
- 4 Screws [2]



F-4-243

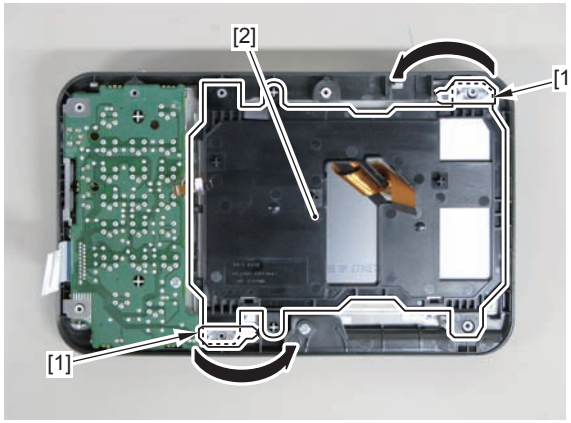
2) Remove the Control Panel CPU PCB Unit [1].

- 3 Flat Cables [2]
- 4 Screws [3]



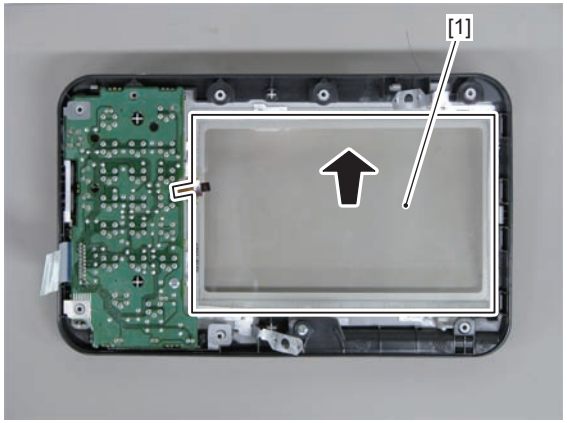
F-4-244

3) Turn over the 2 Grounding Sheets [1], and remove the LCD Unit [2].



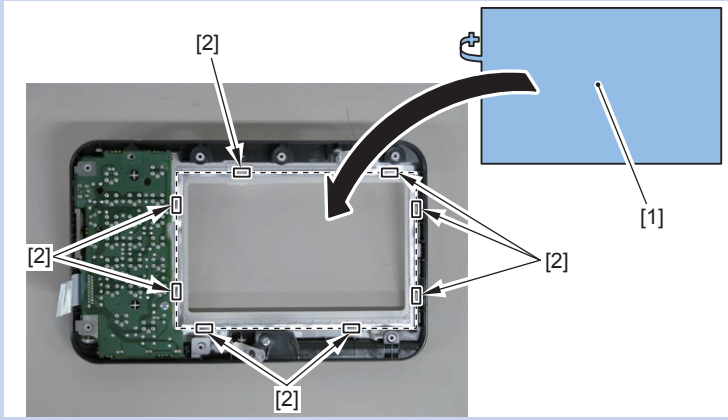
F-4-245

4) Remove the Touch Panel [1].



F-4-246

NOTE: How to install the Touch Panel
Be sure to set the Touch Panel [1] inside of the 8 positioning guides [2] on the Control Panel.



F-4-247

■ After Replacing

After Replacing	Adjustment in service mode mentioned below is necessary only when replacing a single part. Make an adjustment in COPIER> FUNCTION> PANEL> TOUCHCHK. When the Touch Panel's coordinate is deviated, the above operation may not be possible. In that case, the Touch Panel can be adjusted only by the hard keys as shown below. Perform Touch Panel adjustment by "simultaneously pressing the service mode top screen > [Settings/Registration] button > "5" button multiple times".

T-4-89

Removing the HDD

F-4-248

Before Replacing

Before Replacing	1) Backup of the necessary data (Refer to page 5-15) Use the Remote UI. The data can be collectively saved in a DCM file format using the steps below. Settings/Registration > Management Settings > Data Management > Import/Export All > Export Select "Select All" for the items to export, enter the encryption password, and then select "Select Exporting". 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. 3) Use SST to upload Meapback.bin. (When Meapback.bin cannot be uploaded, use another method. Refer to Backup Data.)

T-4-90

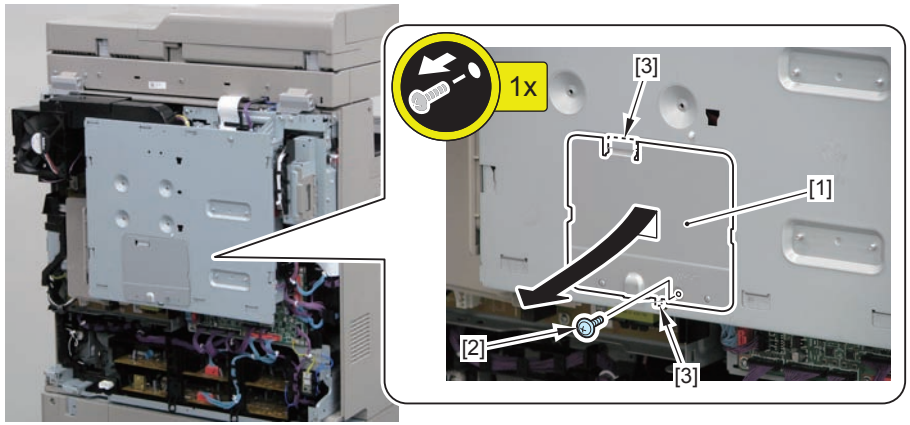
Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).

Procedure

1) Remove the Main Controller Sub Cover [1].

- 1 Screw [2]
- 2 Hooks [3]



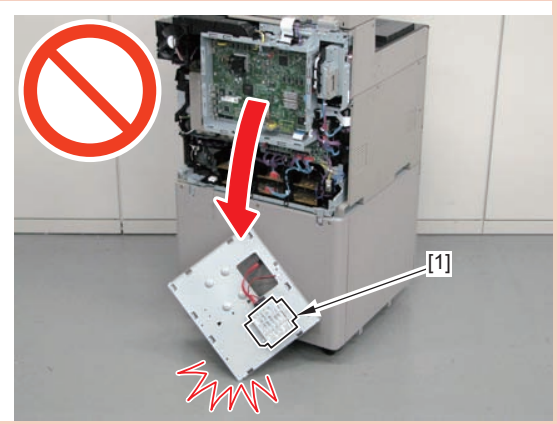
F-4-249

2) Remove the Main Controller Cover [1].
- 2 Connectors [2]
- 1 Screw [3]
- 10 Hooks [4]

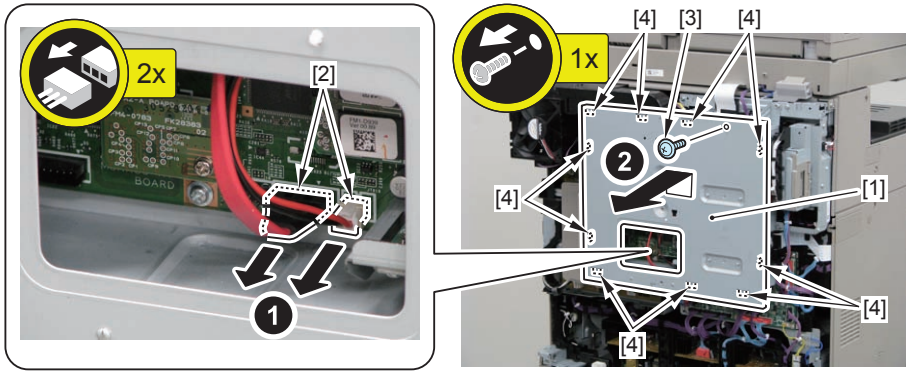
CAUTION:

The Main Controller Cover has an HDD [1] on the back side.

The HDD [1] is sensitive to shock. When handling this cover, be sure not to give a shock to it.

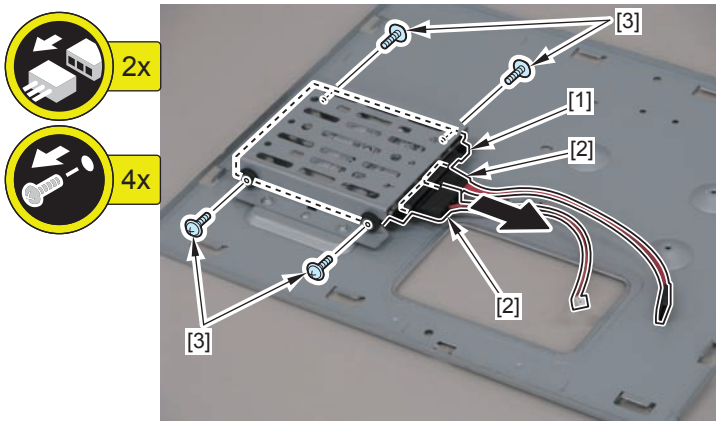


F-4-250



F-4-251

3) Remove the HDD [1].
- 2 Connectors [2]
- 4 Screws [3]



F-4-252

NOTE:
Reuse the connector removed in step 1 when installing.

Aftter Replacing

Aftter Replacing	1) HDD format 1-1) Start with the safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main power switch.) 1-2) Use SST to format all partitions. 2) Initializing the key, certificate and CA certificate (Lv.2) COPIER > FUNCTION > CLEAR > CA-KEY 3) Turning OFF and ON the main power switch 4) Restoring the backup data 4-1) Use RUI: Management Settings > Data Management > Import/Export 4-2) Download Meapback.bin using SST. 5) Resetting/registering the data While referring to the list of set/registered data which was printed before replacement, reset/register the data. 6) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again.

T-4-91

Points to Note when Using the HDD

Points to Note when Using the HDD	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.

T-4-92

Removing the Fax Speaker Unit

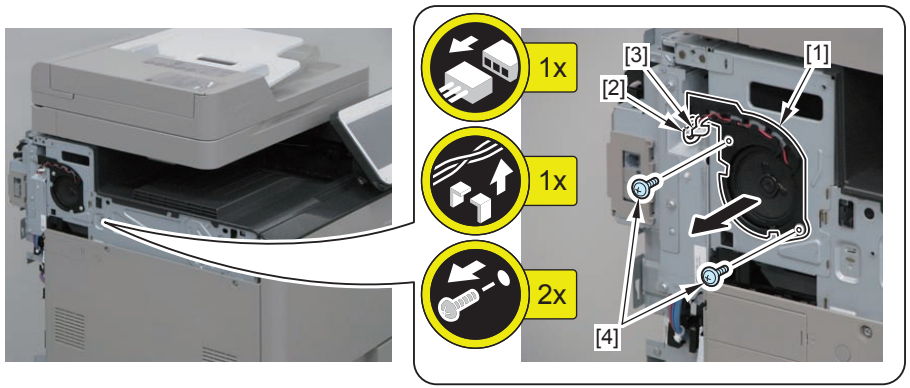
F-4-253

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover.(Refer to page 4-37)

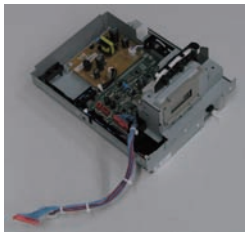
Procedure

1) Remove the Fax Speaker Unit [1].
- 1 Connector [2]
- 1 Wire Saddle [3]
- 2 Screws [4]



F-4-254

Removing the Fax Unit



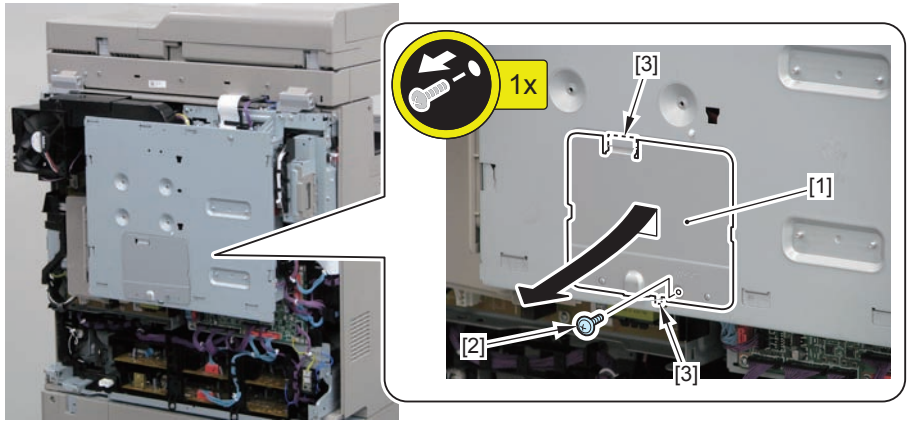
F-4-255

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover(Refer to page 4-37).
3) Remove the Fax Speaker Unit (to be removed for models equipped with a fax) (Refer to page 4-104).

Procedure

1) Remove the Main Controller Sub Cover [1].
- 1 Screw [2]
- 2 Hooks [3]



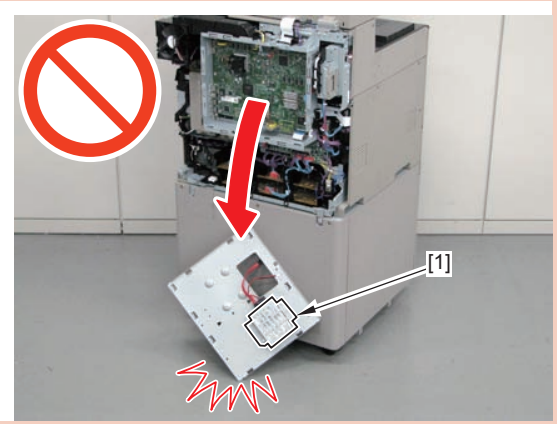
F-4-256

2) Remove the Main Controller Cover [1].
- 2 Connectors [2]
- 1 Screw [3]
- 10 Hooks [4]

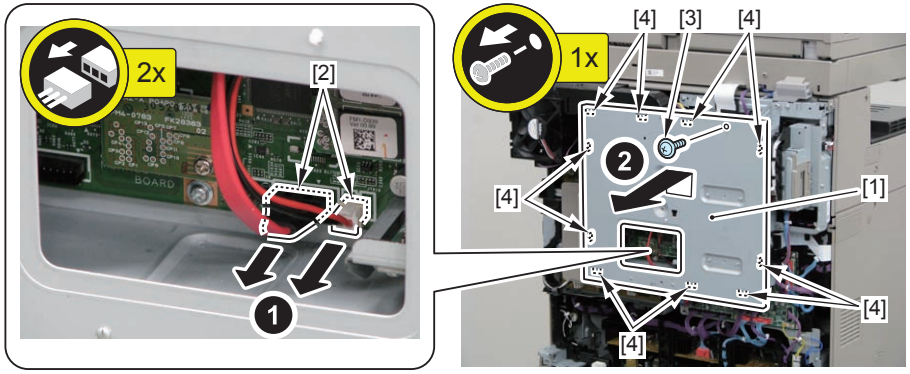
CAUTION:

The Main Controller Cover has an HDD [1] on the back side.

The HDD [1] is sensitive to shock. When handling this cover, be sure not to give a shock to it.

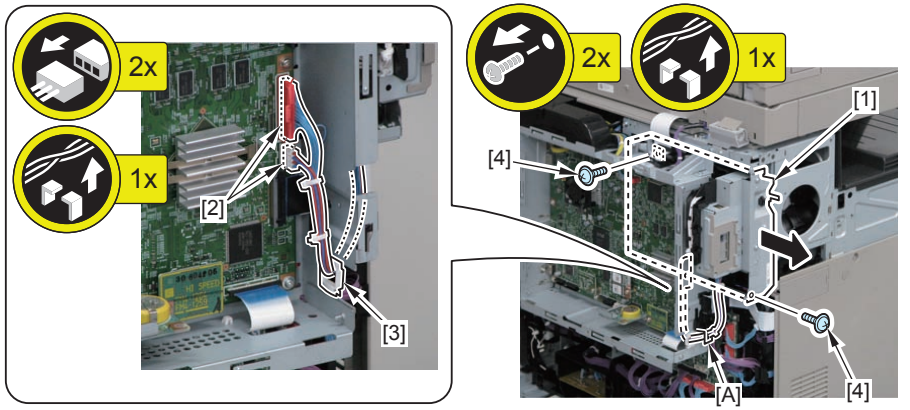


F-4-257



F-4-258

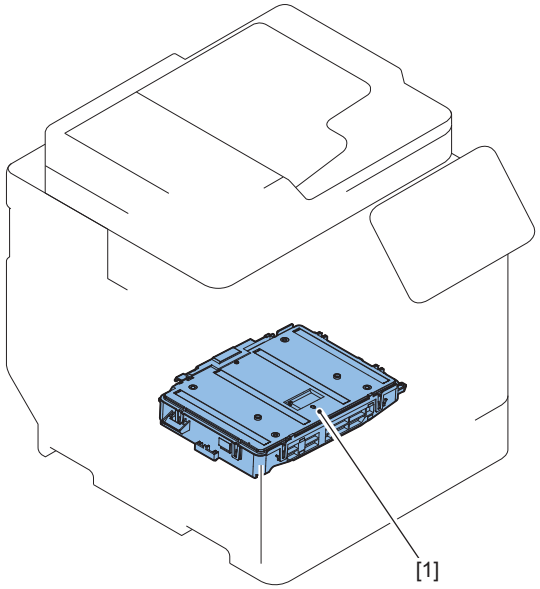
3) Remove the Fax Unit [1].
- 2 Connectors [2]
- 1 Edge Saddle [3]
- Harness Guide [A]
- 2 Screws [4]



F-4-259

Laser Exposure System

Layout Drawing

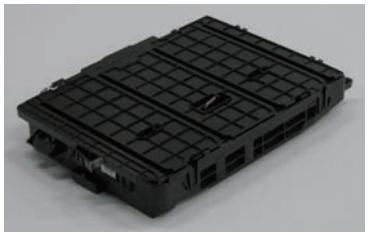


F-4-260

No.	Parts Name	Main Unit	Remarks	Reference
[1]	Laser Scanner Unit	Product Configuration		(Refer to page 4-106)

T-4-93

Removing the Laser Scanner Unit



F-4-261

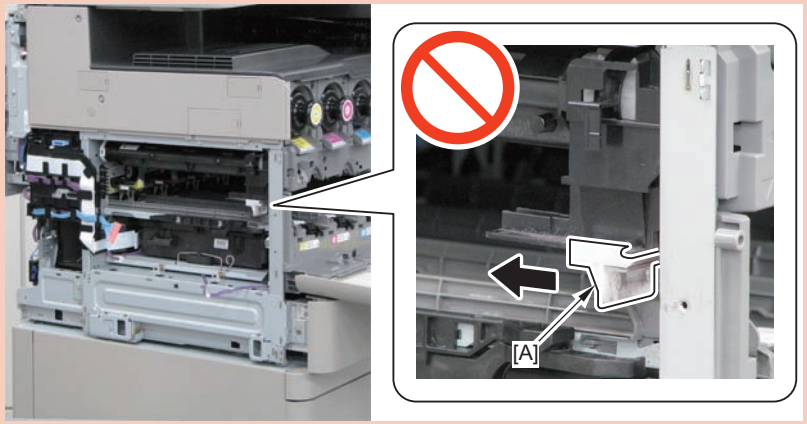
Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Lower Cover(Refer to page 4-37).
3) Remove the Primary Transfer High-voltage PCB Unit(Refer to page 4-94).
4) Remove the Waste Toner Container(Refer to page 4-111).

Procedure

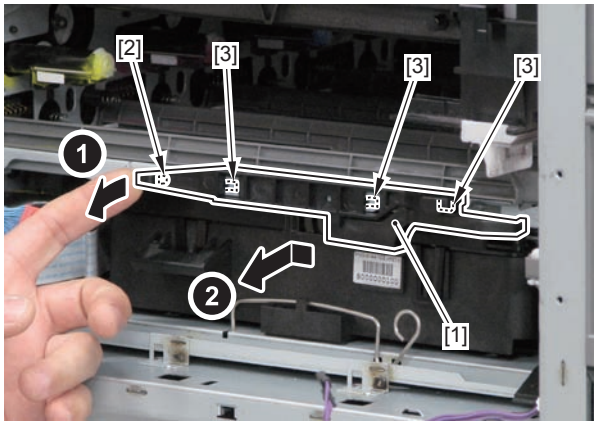
CAUTION:

- Be sure not to disassemble the Laser Scanner Unit because adjustment is required.
- Disassembling the unit may cause functional problems.
- Do not touch the toner outlet [A] because the toner may be scattered when disassembling/assembling.



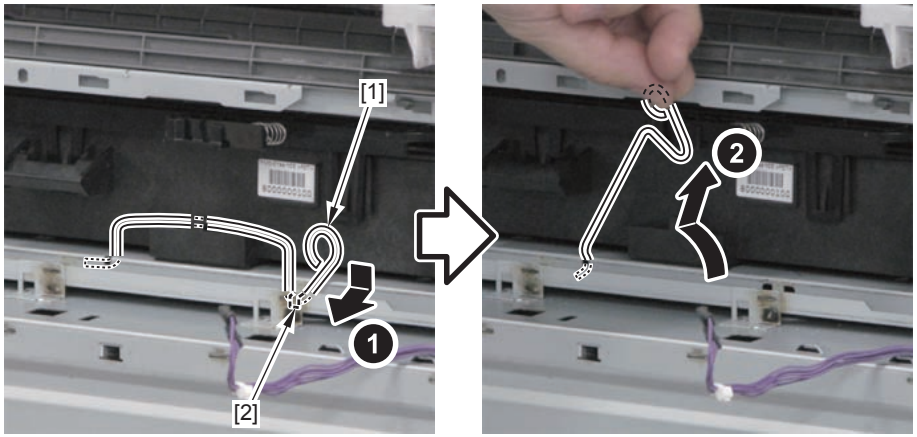
F-4-262

1) Remove the Shutter Link Unit [1].
- 1 Boss [2]
- 3 Hooks [3]



F-4-263

2) Remove the Laser Scanner Fixation Spring [1].
- 1 Hook [2]

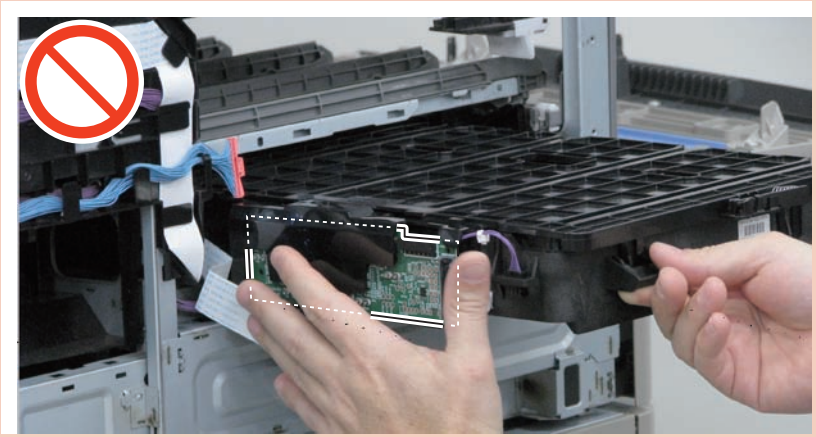


F-4-264

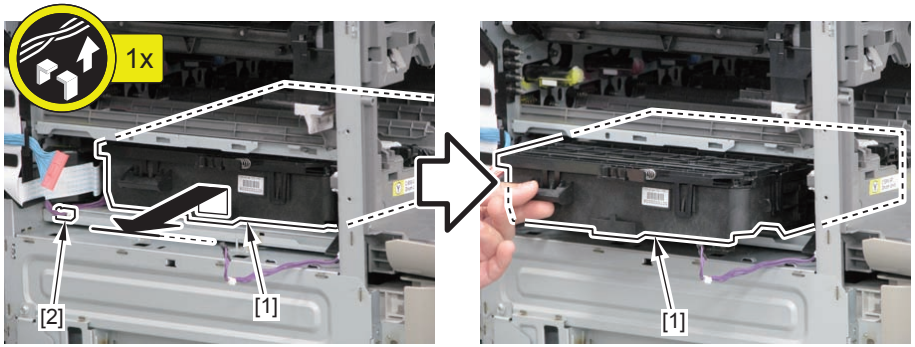
3) Pull out the Laser Scanner [1].
- 1 Edge Saddle [2]

CAUTION:

Do not touch the PCB installed on the Laser Scanner Unit when disassembling/assembling.

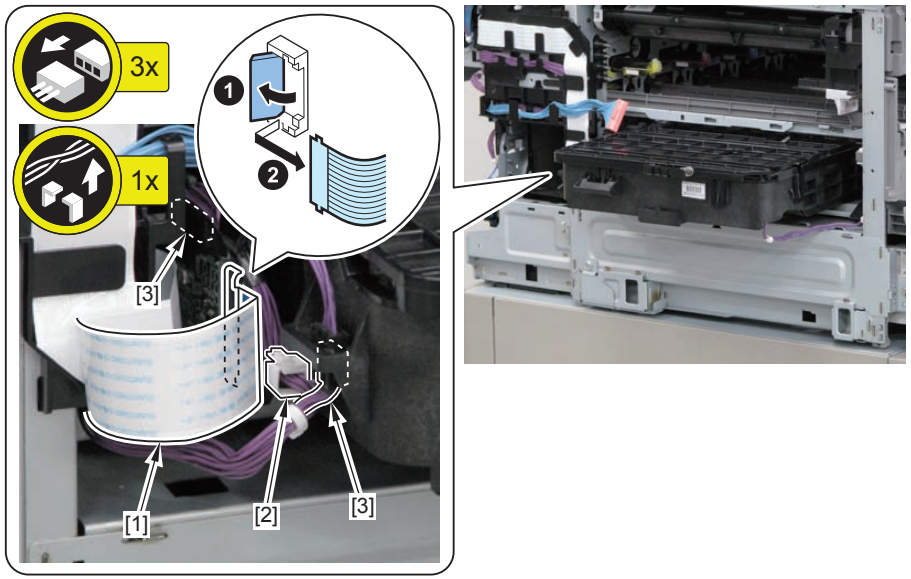


F-4-265



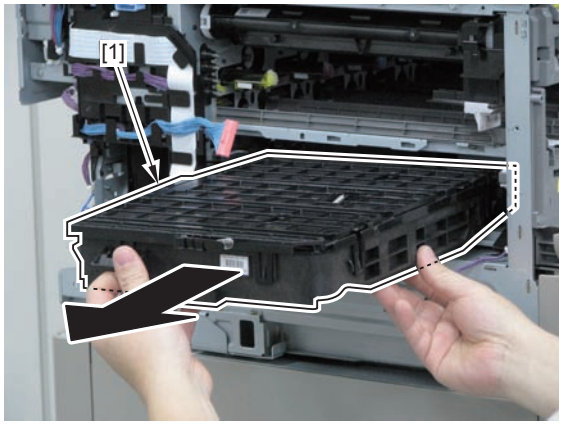
F-4-266

4) Free the Flat Cable [1] from the Wire Saddle [2], and disconnect the 2 connectors [3].



F-4-267

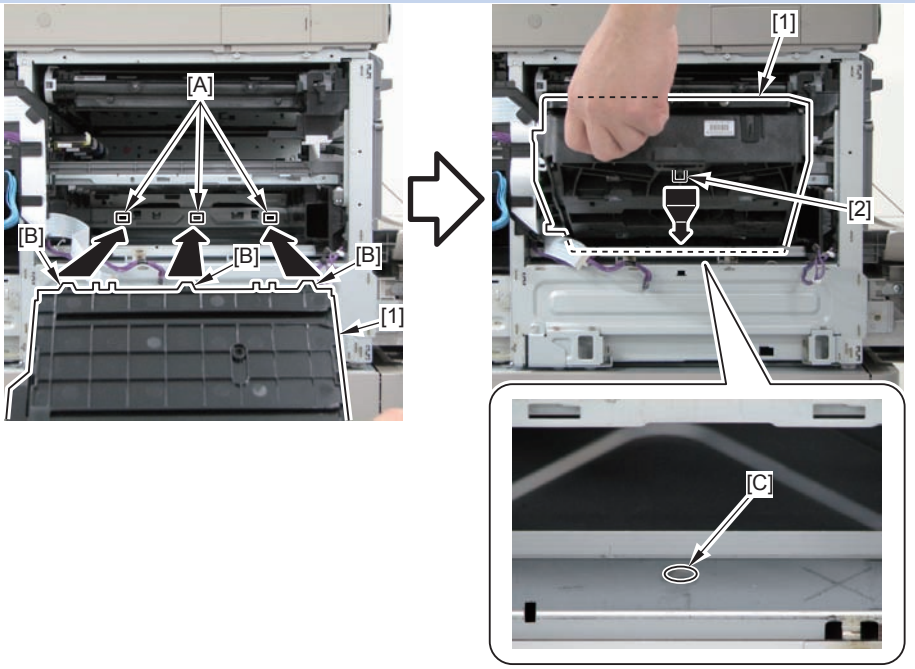
5) Remove the Laser Scanner Unit [1].



F-4-268

NOTE: How to install the Laser Scanner Unit

1) Insert the 3 protrusions [B] of the Laser Scanner Unit [1] into the 3 holes [A] of the plate.
2) Insert the boss [2] into the hole [C] of the plate.



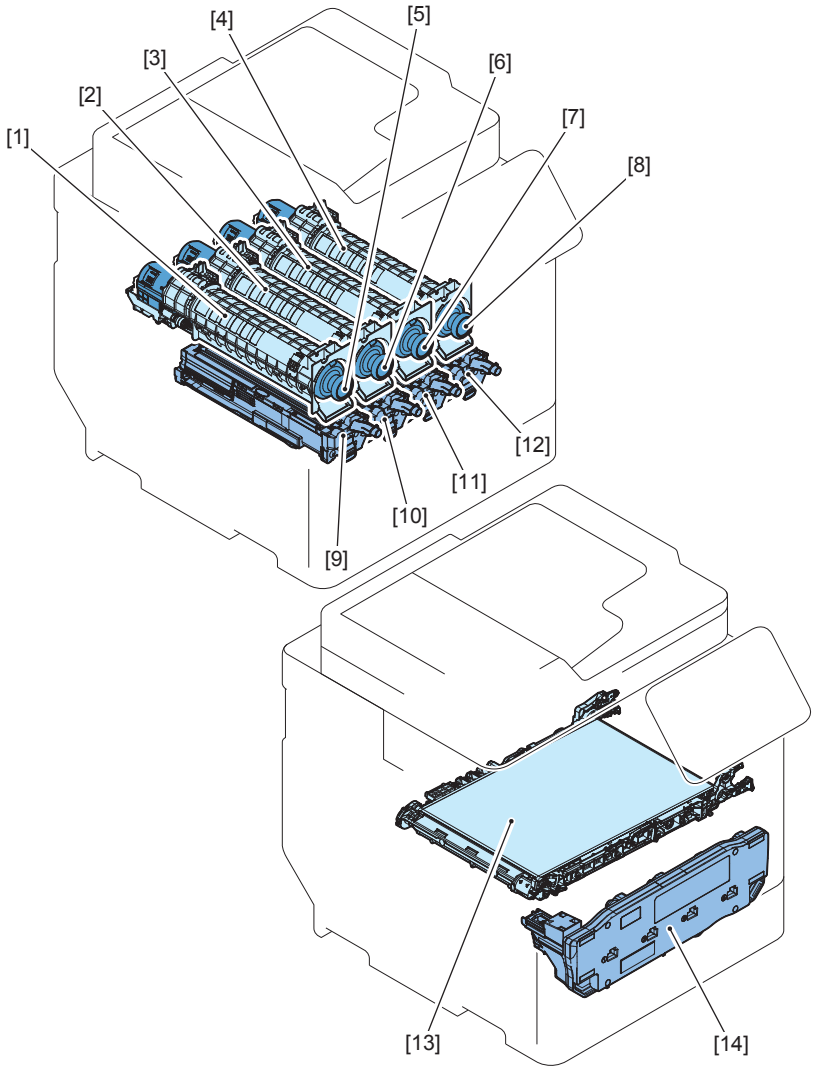
F-4-269

Aftter Replacing

Execute Setting / Registration > Adjustment > Adjust Image Quality > Auto Correct Color Mismatch > Start.

Image Formation System

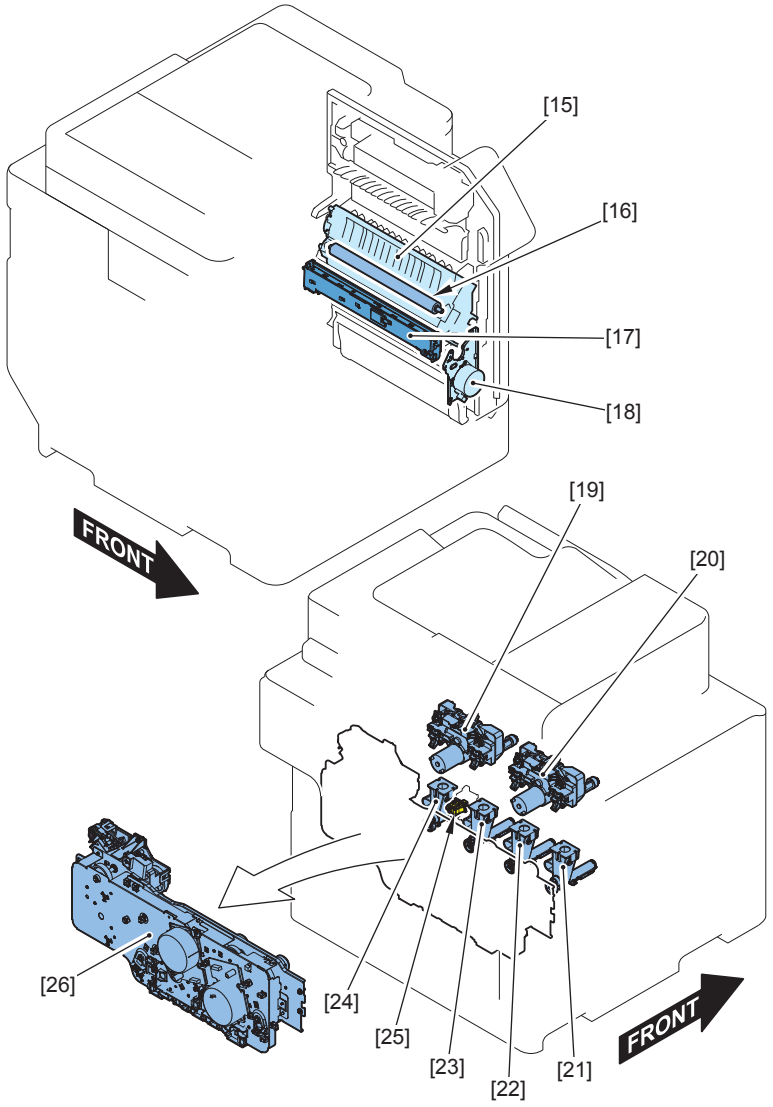
Layout Drawing



F-4-270

No.	Parts Name	Main Unit	Remarks	Reference
[1]	Toner Bottle Mount Unit (Y)	Product Configuration		(Refer to page 4-133)
[2]	Toner Bottle Mount Unit (M)	Product Configuration		(Refer to page 4-133)
[3]	Toner Bottle Mount Unit (C)	Product Configuration		(Refer to page 4-133)
[4]	Toner Bottle Mount Unit (Bk)	Product Configuration		(Refer to page 4-133)
[5]	Toner Cartridge (Y)	Product Configuration		(Refer to page 4-112)
[6]	Toner Cartridge (M)	Product Configuration		(Refer to page 4-112)
[7]	Toner Cartridge (C)	Product Configuration		(Refer to page 4-112)
[8]	Toner Cartridge (K)	Product Configuration		(Refer to page 4-112)
[9]	Drum Unit (Y)	Product Configuration		(Refer to page 4-112)
[10]	Drum Unit (M)	Product Configuration		(Refer to page 4-112)
[11]	Drum Unit (C)	Product Configuration		(Refer to page 4-112)
[12]	Drum Unit (Bk)	Product Configuration		(Refer to page 4-112)
[13]	ITB Unit	Product Configuration		(Refer to page 4-114)
[14]	Contaner Waste Toner	Product Configuration		(Refer to page 4-111)

T-4-94



F-4-271

No.	Parts Name	Main Unit	Remarks	Reference
[15]	Secondary transfer outer Roller Guide Unit	Right Cover Unit		(Refer to page 4-122)
[16]	Secondary transfer outer Roller Unit	Secondary Transfer Outer Roller Guide Unit		(Refer to page 4-121)
[17]	Registration Patch Sensor Unit	Product Configuration		(Refer to page 4-119)
[18]	Registration Drive Unit	Product Configuration		(Refer to page 4-125)
[19]	Bottle Drive Unit (CK)	Product Configuration		(Refer to page 4-133)
[20]	Bottle Drive Unit (YM)	Product Configuration		(Refer to page 4-133)
[21]	Hopper Unit (Y)	Product Configuration		(Refer to page 4-128)
[22]	Hopper Unit (M)	Product Configuration		(Refer to page 4-128)
[23]	Hopper Unit (C)	Product Configuration		(Refer to page 4-128)
[24]	Hopper Unit (Bk)	Product Configuration		(Refer to page 4-128)
[25]	ITB Pressure Release Switch	Product Configuration	SW07	(Refer to page 4-131)
[26]	Main Drive Unit	Product Configuration		(Refer to page 4-126)

T-4-95

Removing the Waste Toner Container

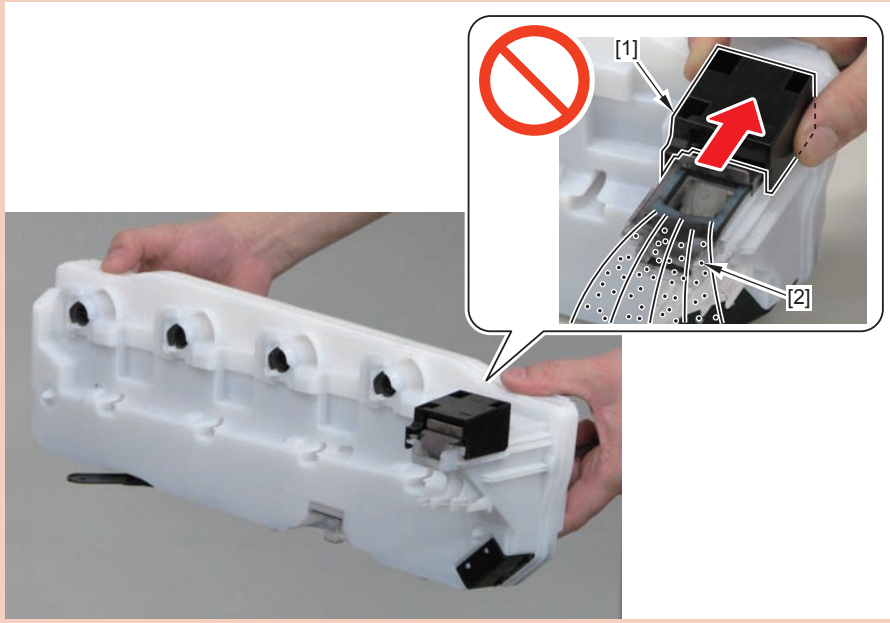
F-4-272

Procedure

CAUTION:

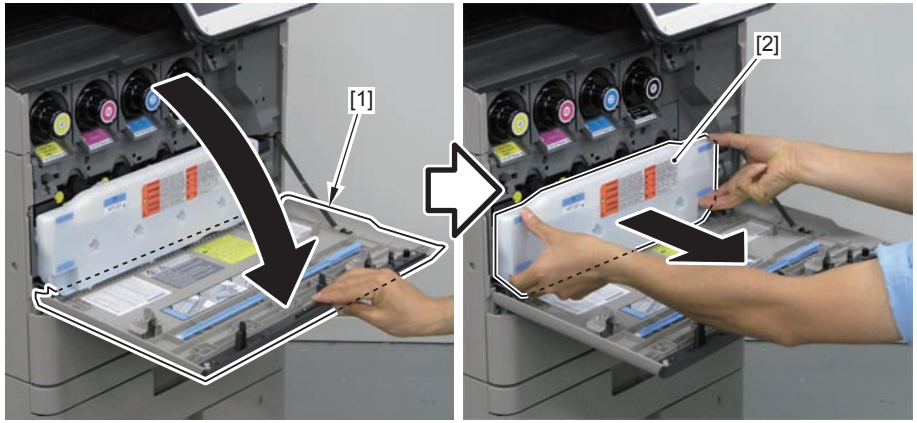
If the Waste Toner Container is tilted, toner [2] may spill out of the collection mouth [1] onto the floor.

For this reason, be sure to keep the Waste Toner Container in a horizontal position when removing the container.



F-4-273

1) Open the Front Cover [1], and remove the Waste Toner Container [2].



F-4-274

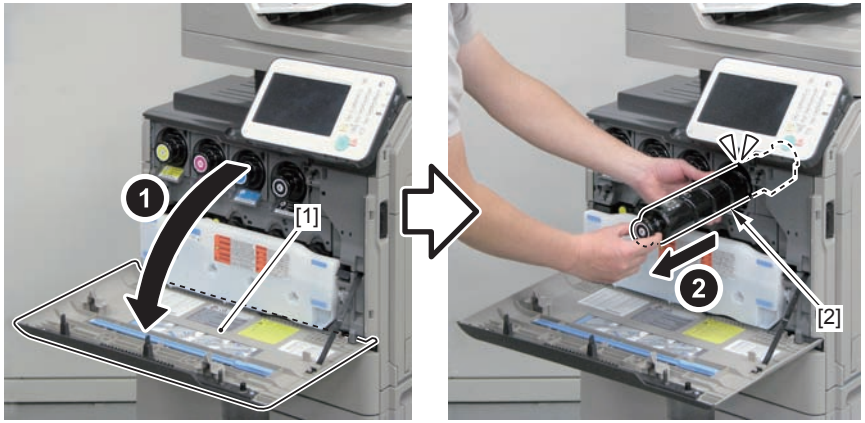
Removing the Toner Container (Y/M/C/Bk)

F-4-275

Procedure

NOTE:
In this procedure, the procedure for the (Bk) color Toner Container Unit is described.
Be sure to perform the same procedure for (Y/M/C) color.

1) Open the Front Cover [1], and remove the Toner Container (Bk) [2].



F-4-276

Removing the Drum Unit (Y/M/C/Bk)

F-4-277

Preparation

1) Remove the Waste Toner Container(Refer to page 4-111).

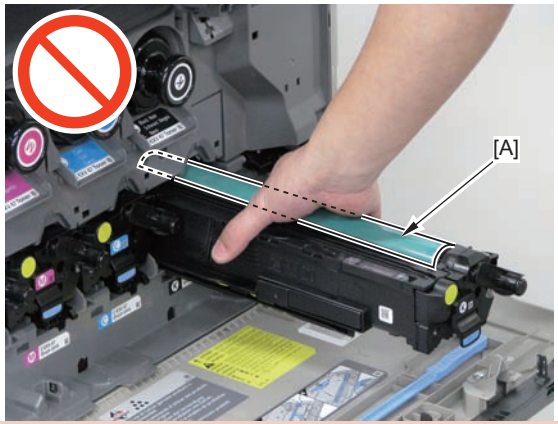
Procedure

NOTE:
In this procedure, the procedure for the (Bk) color Drum Unit is described.
Be sure to perform the same procedure for (Y/M/C) color.

CAUTION:

Touching the drum part [A] of the Drum Unit may cause finger oil to be attached on the drum.This makes the finger oil on the drum to be attached to toner, causing the risk of soiled image.

For this reason, be careful not to touch the drum part [A] when handling the Drum Unit.

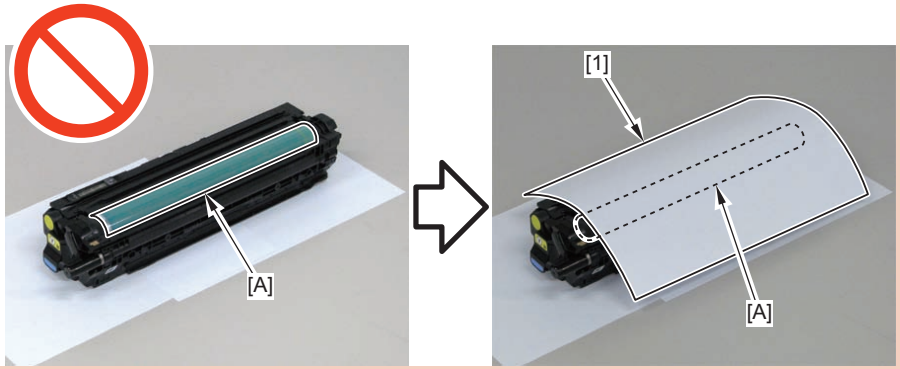


F-4-278

CAUTION:

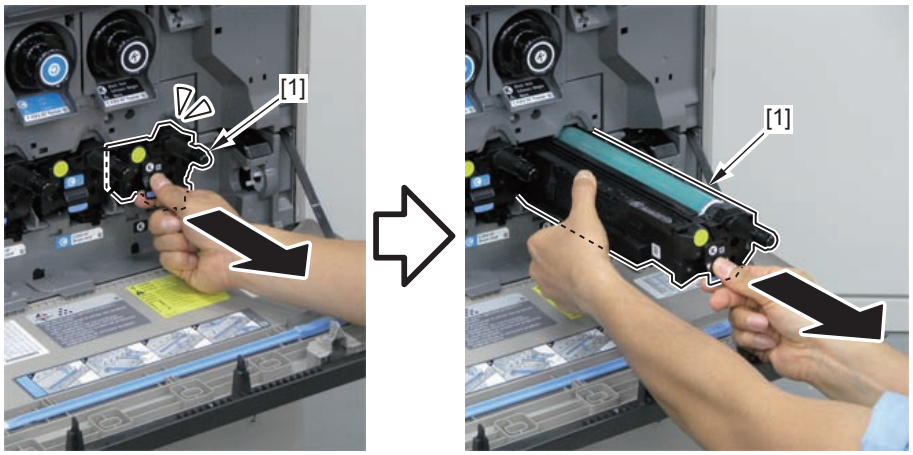
Exposing the Drum Unit to light for a long time may cause deterioration in sensitivity.

Therefore, be sure to block light to the drum part [A] using paper [1] when removing the Drum Unit from the host machine.



F-4-279

1) Remove the Drum Cartridge [1].

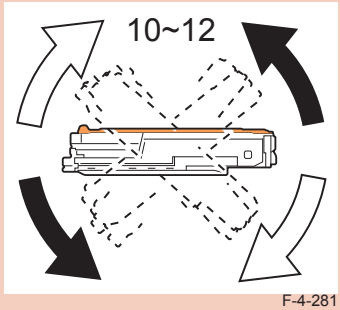


F-4-280

CAUTION:Handling of the Drum Unit at replacement

If a Drum Unit is vertically or horizontally kept for a long time, starter will be fixed in the Developing Assembly in the unit. As a result, starter in the Developing Assembly does not circulate, and image failure may occur.

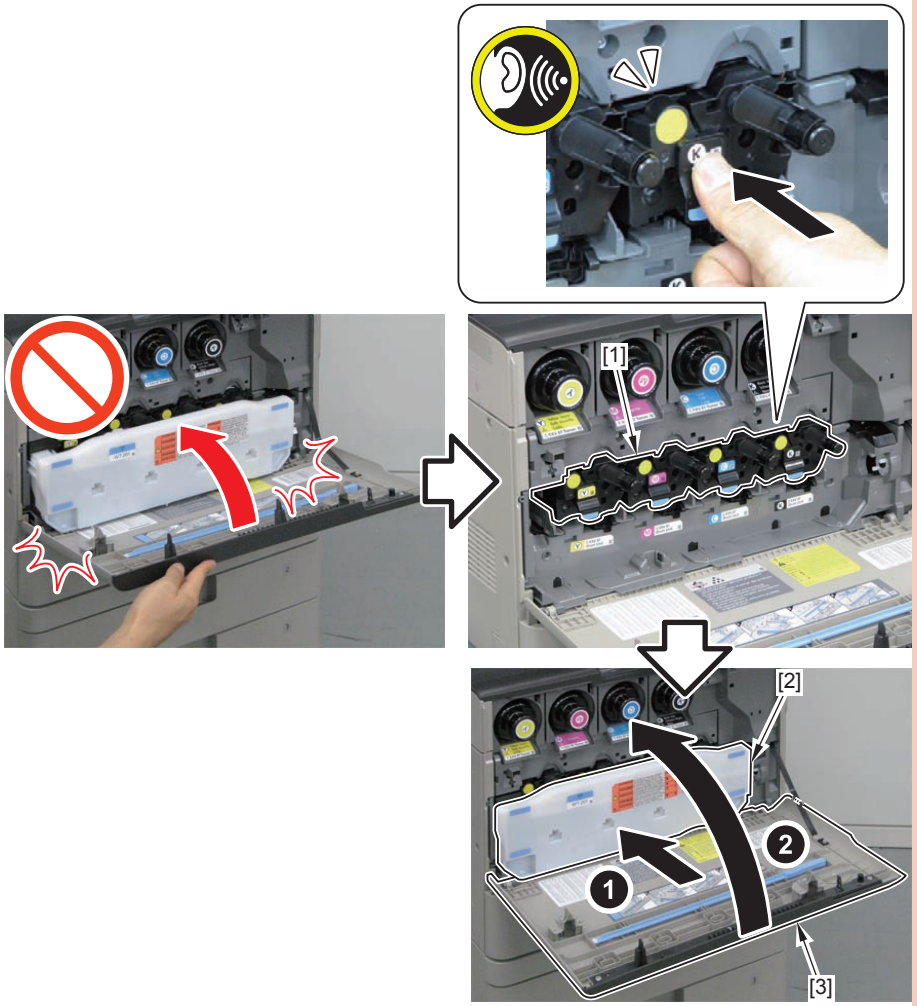
When replacing the Drum Unit to a new one, be sure to loosen starter in the Developing Assembly by shaking the unit approx. 10 to 12 times as shown in the figure below before installing it to the host machine.



F-4-281

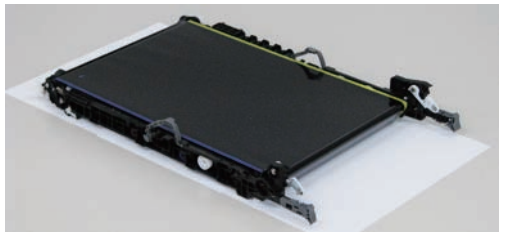
CAUTION:

When the Drum Unit [1] is installed to the host machine, if the Drum Unit is not installed properly, the Waste Toner Container [2] will protrude. As a result, when closing the Front Cover [3], the Front Cover [3] interferes with the Waste Toner Container and cannot be closed in some cases. When installing the Drum Unit [1] to the host machine, be sure to install the Drum Unit [1] properly by inserting it until it stops.



F-4-282

Removing the ITB Unit



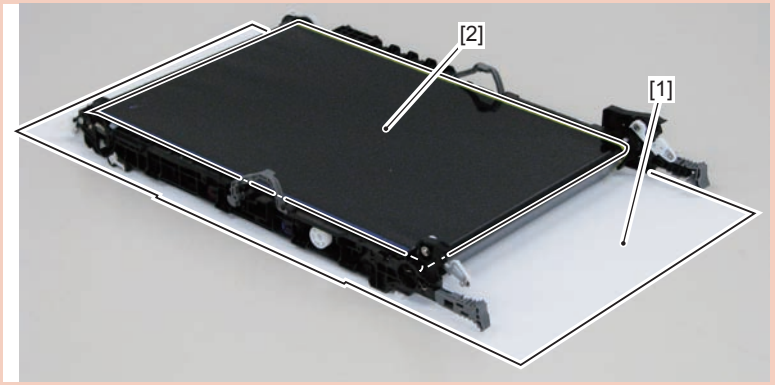
F-4-283

Procedure

NOTE:
If the duration level of the ITB Unit and that of the Secondary Transfer Outer Roller Unit are not equal, a color displacement may occur in the output image.

CAUTION:

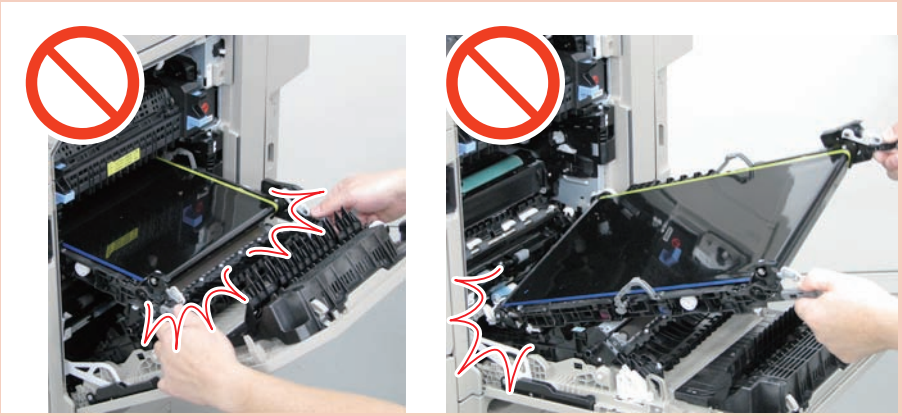
- Place the paper [1] on a level space so as not to damage the ITB [2].



F-4-284

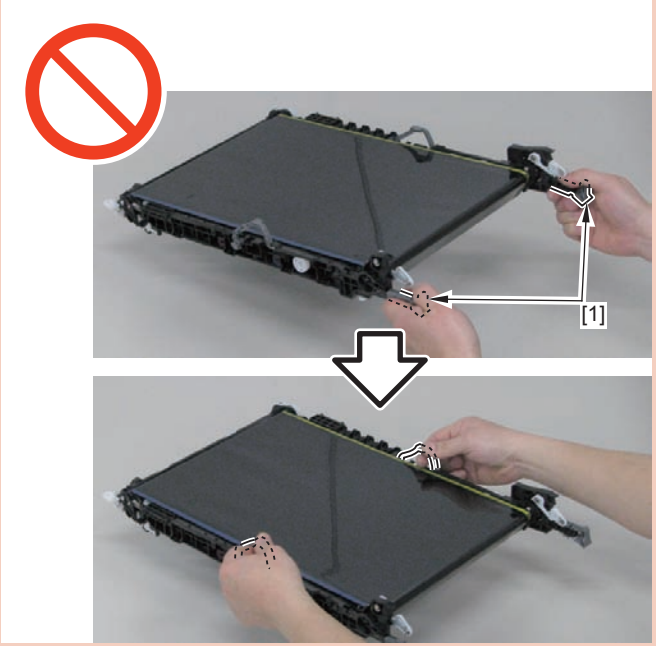
CAUTION:

- Do not damage the ITB [1] when disassembling/assembling.



F-4-285

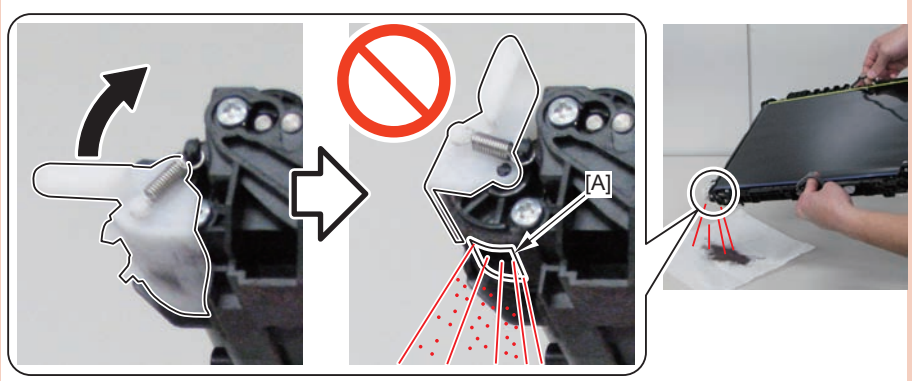
- When removing the ITB Unit, do not hold the 2 Push Levers [1] to hold the unit.



F-4-286

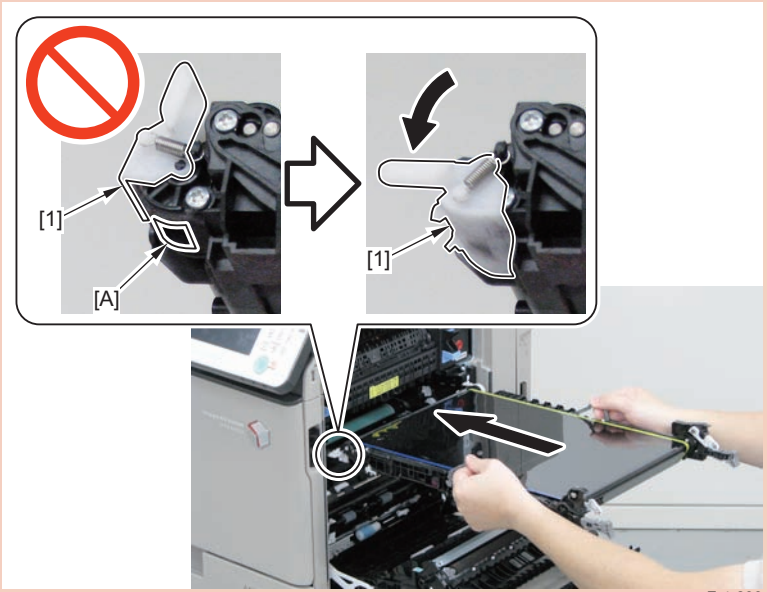
CAUTION:

- Do not open the outlet [A] of the Transfer Cleaning Shutter when disassembling/assembling. Otherwise, toner may scatter.



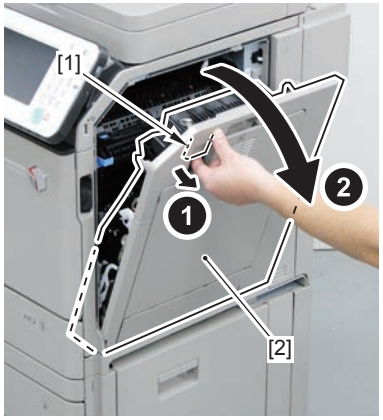
F-4-287

- Be sure to store the ITB Unit in the machine after checking that the outlet [A] is closed when assembling.
  There is a risk of damaging the ITB Unit if it is installed with the Transfer Cleaning Shutter [1] open.



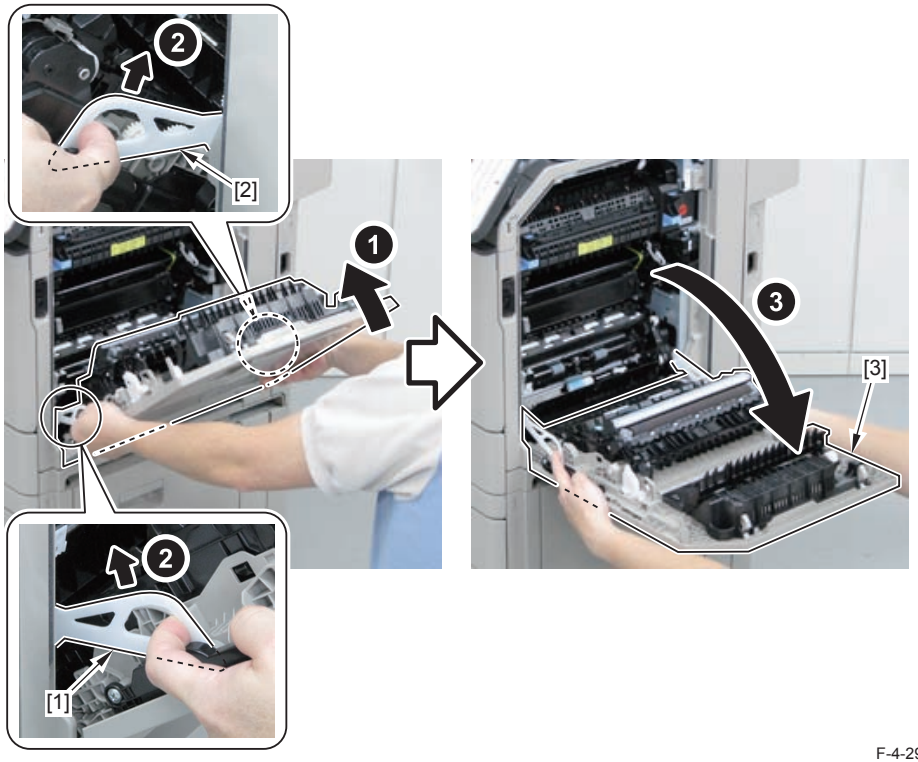
F-4-288

1) Pull the Right Cover Open/Close Lever [1], and open the Right Cover Unit [2].



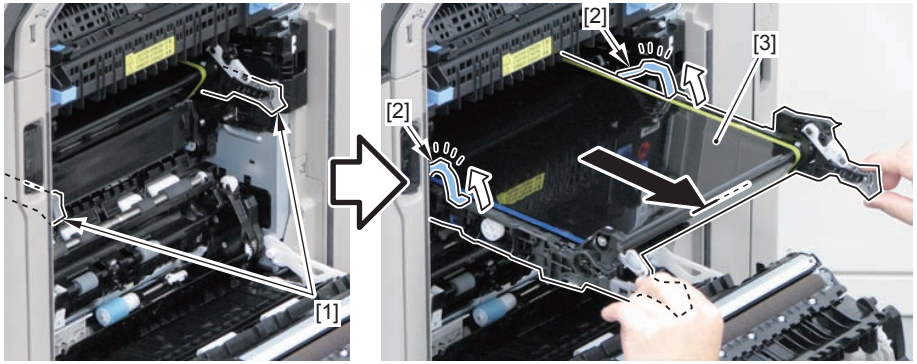
F-4-289

2) Release the lock of the Right Cover Stopper (Front) [1] and the Right Cover Stopper Rear [2], and then further open the Right Cover Unit [3].



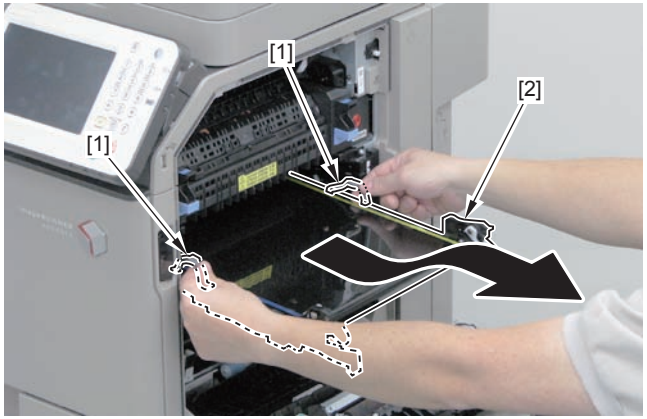
F-4-290

3) Hold the 2 Push Levers [1], and pull out the ITB Unit [3] to the position where the 2 handles [2] are lifted.



F-4-291

4) Now hold the 2 handles [1], and remove the ITB Unit [2].



F-4-292

Cleaning when installing/removing the ITB Unit

Be sure to check for any soiling before cleaning since toner may be spilled over Drum Unit (Y) when installing/removing the ITB Unit.

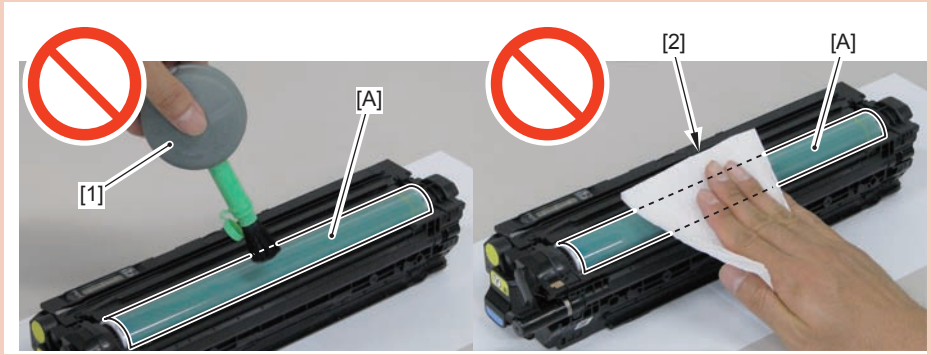
Preparation

1) Remove the Waste Toner Container.
2) Remove the Drum Unit (Y/M/C/Bk) (remove the Drum Unit of the Y color).

Procedure

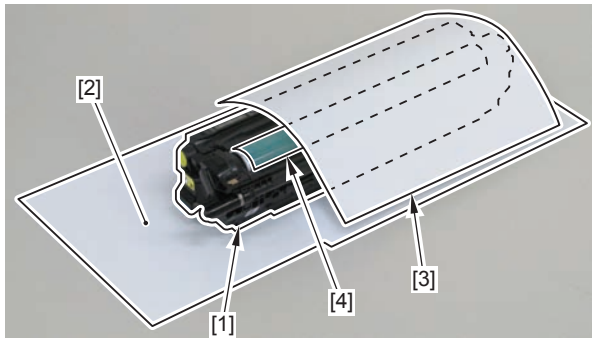
CAUTION:

Do not clean the drum surface [A] with a blower [1] or lint-free paper [2].



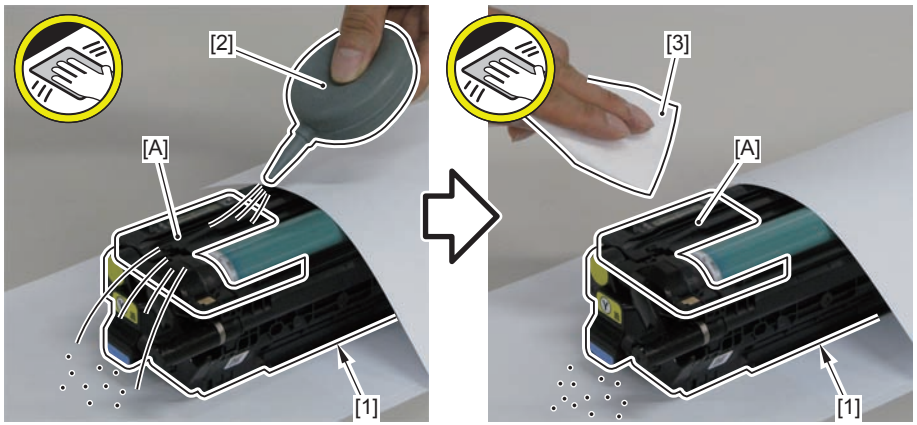
F-4-293

1) Put the removed Drum Unit (Y) [1] on a sheet of paper [2].
2) Cover the removed Drum Unit (Y) [1] with a paper [3] to block the light for Drum (4).



F-4-294

3) Clean the [A] part of the Drum Unit (Y) [1] with a blower [2].
4) Clean the [A] part of the Drum Unit (Y) [1] with lint-free paper [3].



F-4-295

Cleaning the Registration Patch Sensor Unit

Be sure to clean the Registration Patch Sensor Unit when replacing the ITB Unit.

Preparation

Preparation

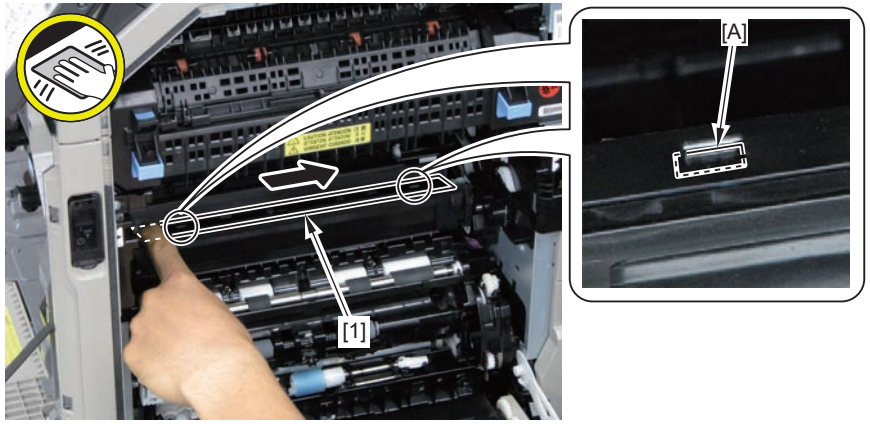
1) Remove the Waste Toner Container.
2) Remove the Drum Unit (remove Bk color).
3) Remove the ITB Unit.

Procedure

1) While opening the RD Sensor Shutter [1], clean the surface [A] of the Patch Sensor with a blower. After cleaning, check that there is no soiling caused by toner on the surface [A] of the sensor.
   If the soiling cannot be removed, perform step 2.
2) While opening the RD Sensor Shutter [1], clean the surface [A] of the Patch Sensor with tightly-wrung cotton swab moistened with water in a single direction.

CAUTION:

- Do not use alcohol because it causes melting and clouding of the sensor window.
- Do not dry wipe the sensor window because it is charged to attract toner.

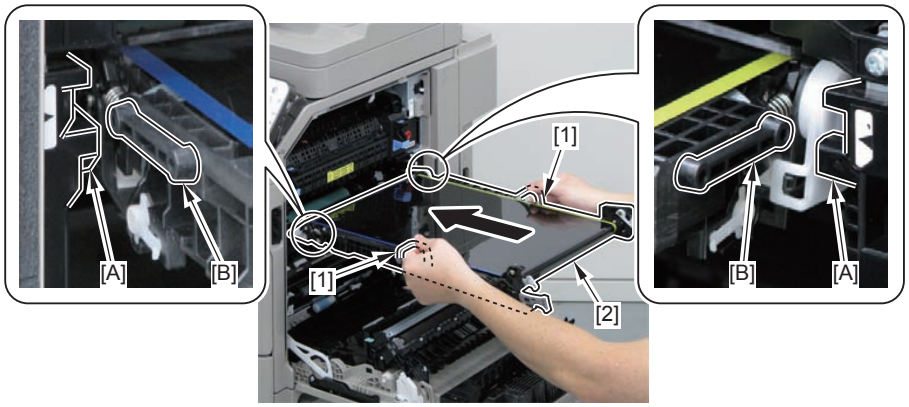


F-4-296

Installing the ITB Unit

Procedure

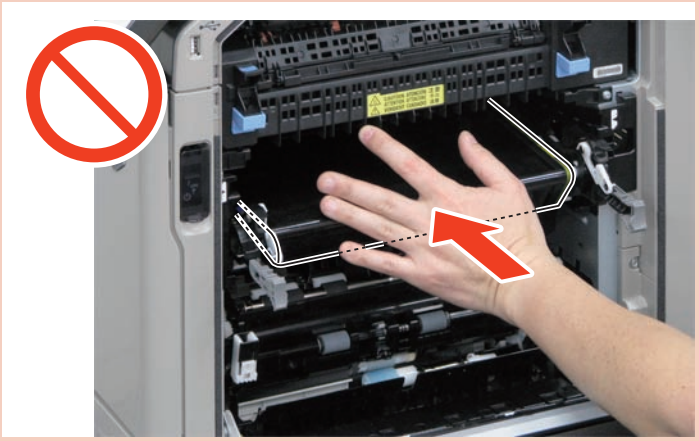
1) Hold the 2 handles [1], align the 2 protrusions [B] of the ITB Unit [2] with the 2 grooves [A] of the rails of the ITB Unit, and then put the unit inside the machine.



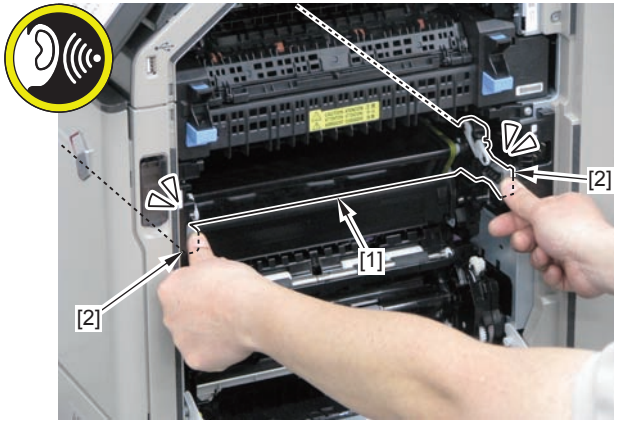
F-4-297

2) Push the 2 Push Levers [2] of the ITB Unit [1] to install the ITB Unit.

CAUTION:
When installing the ITB Unit, do not push it in the machine by pushing the ITB [1].

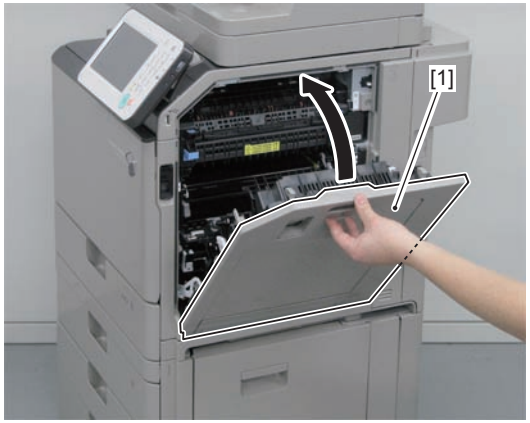


F-4-298



F-4-299

3) Close the Right Cover [1].



F-4-300

Removing the Registration Patch Sensor Unit

F-4-301

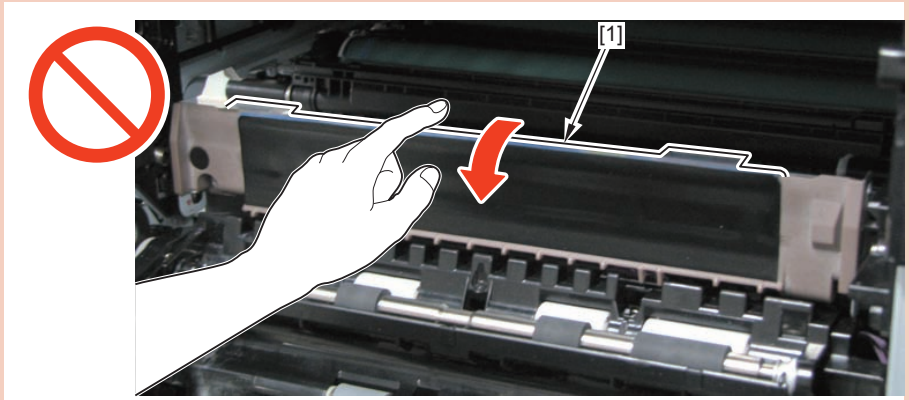
Preparation

1) Remove the ITB Unit(Refer to page 4-114).
2) Remove the Waste Toner Container(Refer to page 4-111).
3) Remove the Drum Unit (remove Bk color)(Refer to page 4-112).

Procedure

CAUTION:

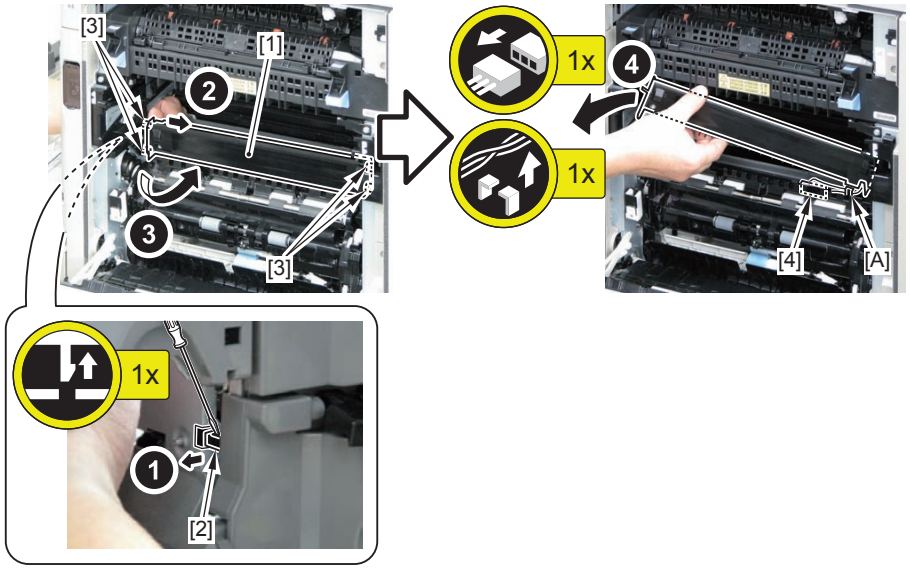
- Do not disassemble the Registration Patch Sensor Unit because it requires adjustment.
- Do not to fold the Plastic Film Sheet [1] when disassembling/assembling.



F-4-302

1) Remove the Registration Patch Sensor Unit [1].

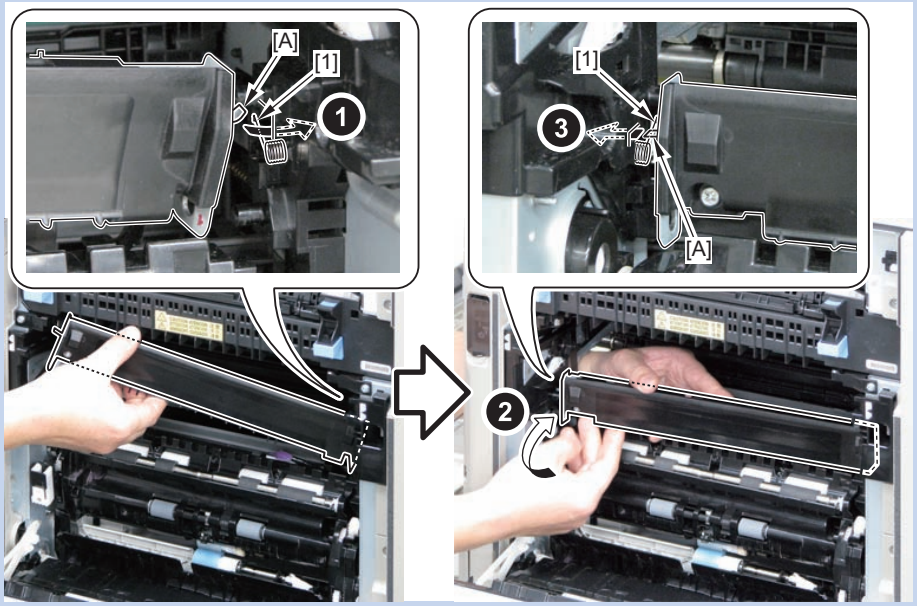
- 1 Claw [2]
- 4 Shafts [3]
- 1 Connector [4]
- Harness Guide [A]



F-4-303

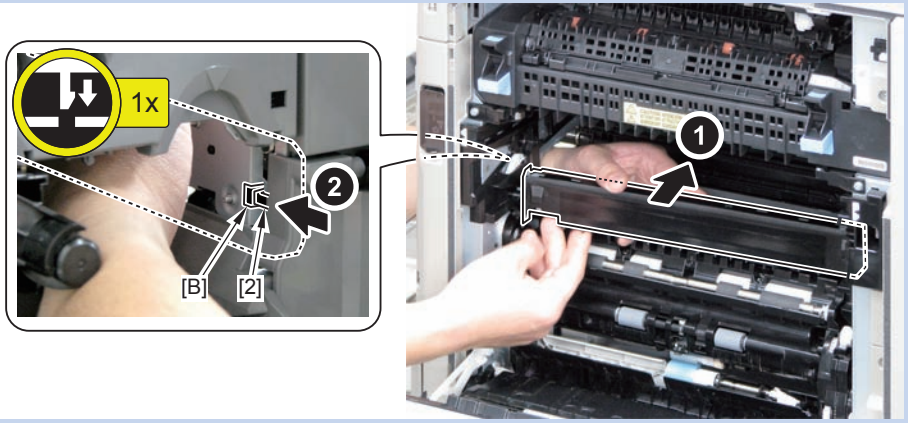
NOTE: How to install the Registration Patch Sensor Unit

1) When assembling, be sure to hook the protrusion [A] of the Registration Patch Sensor Unit over the 2 springs [1] to install the unit.



F-4-304

2) Hook the claw [2] on the hole [B] of the Registration Patch Sensor Unit.



F-4-305

Removing the Secondary Transfer Outer Roller Unit

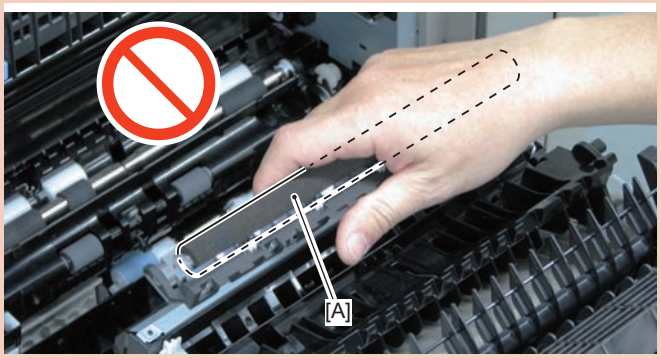
F-4-306

Procedure

NOTE:
If the duration level of the ITB Unit and that of the Secondary Transfer Outer Roller Unit are not equal, a color displacement may occur in the output image.

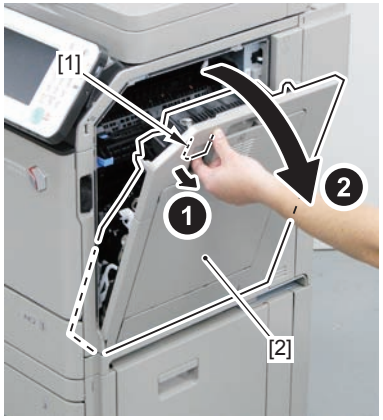
CAUTION:

Be sure not to touch the surface [A] of the roller when disassembling/assembling.



F-4-307

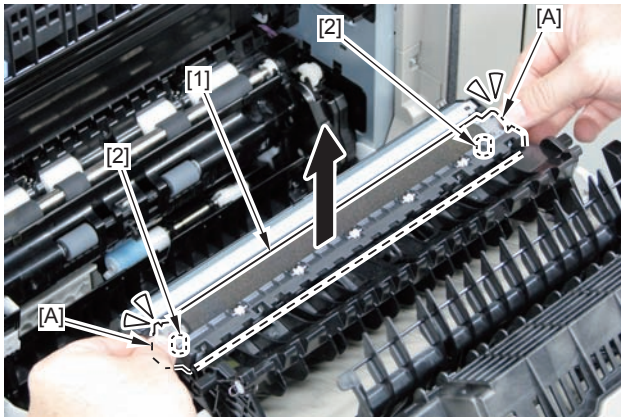
1) Pull the Right Cover Open/Close Lever [1], and open the Right Cover Unit [2].



F-4-308

2) Hold the 2 edges [A], and remove the Secondary Transfer Outer Roller Unit [1].

- 2 Bosses [2]



F-4-309

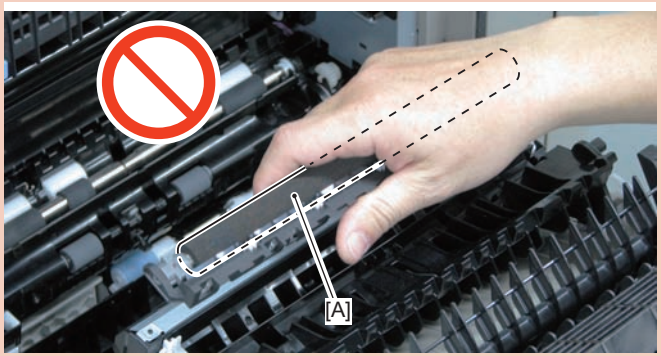
Removing the Secondary Transfer Outer Roller Guide Unit

F-4-310

Procedure

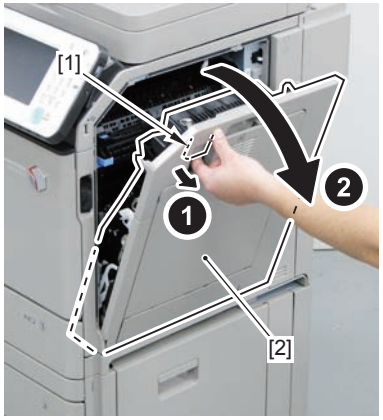
CAUTION:

Be sure not to touch the surface [A] of the roller when disassembling/assembling.



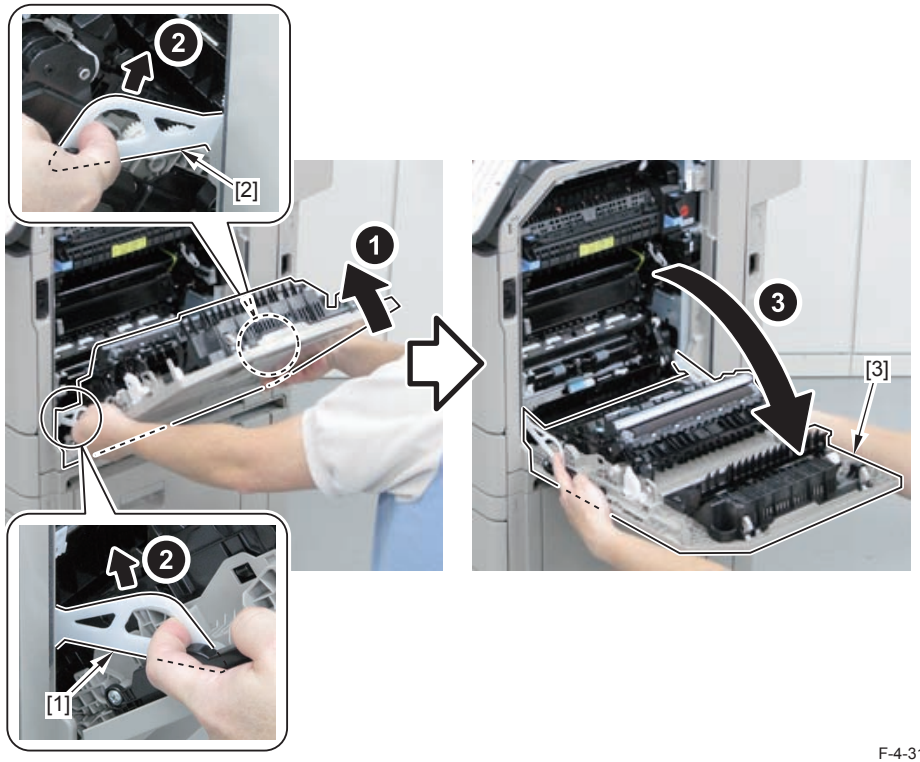
F-4-311

1) Pull the Right Cover Open/Close Lever [1], and open the Right Cover Unit [2].



F-4-312

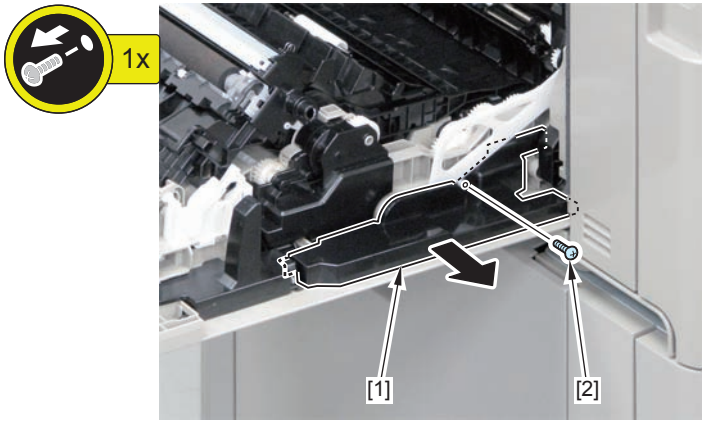
2) Release the lock of the Right Cover Stopper (Front) [1] and the Right Cover Stopper Rear [2], and then further open the Right Cover Unit [3].



F-4-313

3) Remove the Right Cover Stopper Rear Holder [1].

- 1 Screw [2]



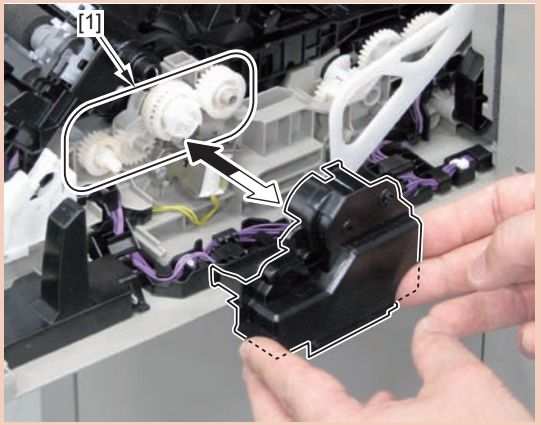
F-4-314

4) Remove the Duplex Gear Holder [1].

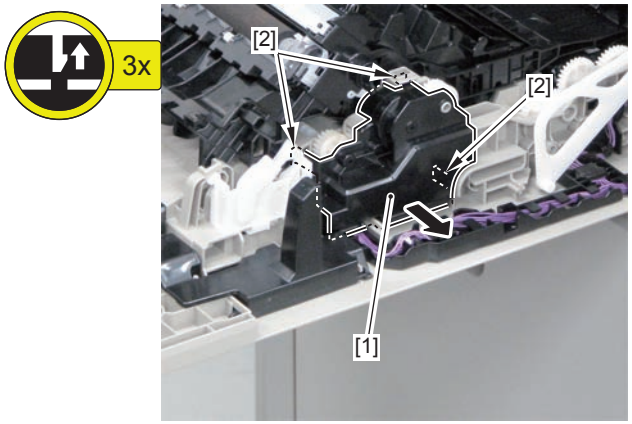
- 3 Claws [2]

CAUTION:

Be sure to perform work carefully so as not to damage the gear [1] when disassembling/assembling.

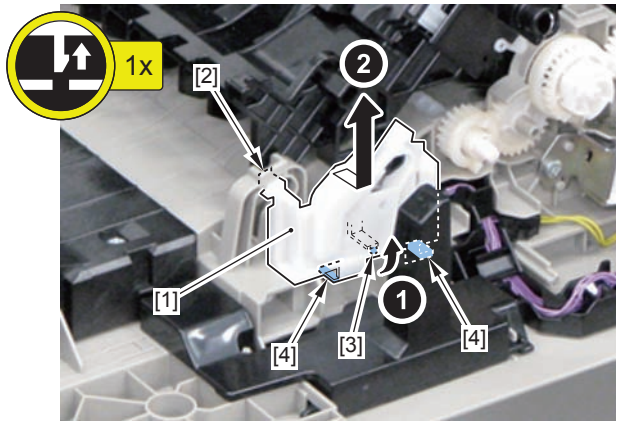


F-4-315



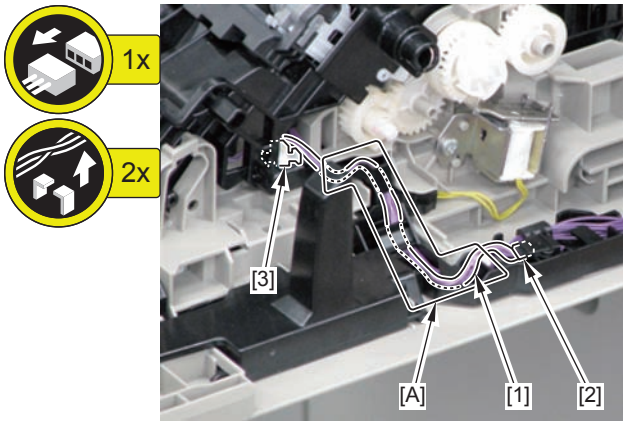
F-4-316

5) Remove the Lock Guide Rear [1].
- 1 Claw [2]
- 1 Boss [3]
- 2 Hook [4]



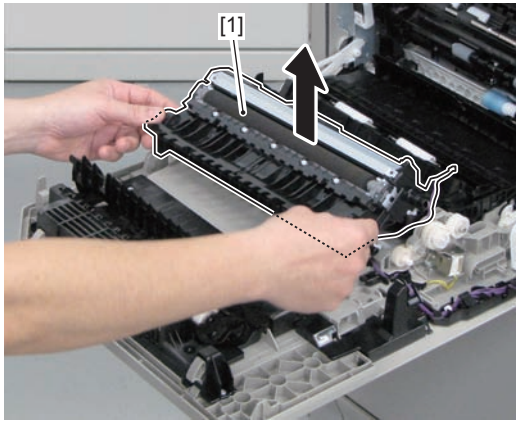
F-4-317

6) Free the Arch Sensor Harness [1].
- 1 Connector [2]
- Harness Guide [A]
- 1 Reuse Band [3]



F-4-318

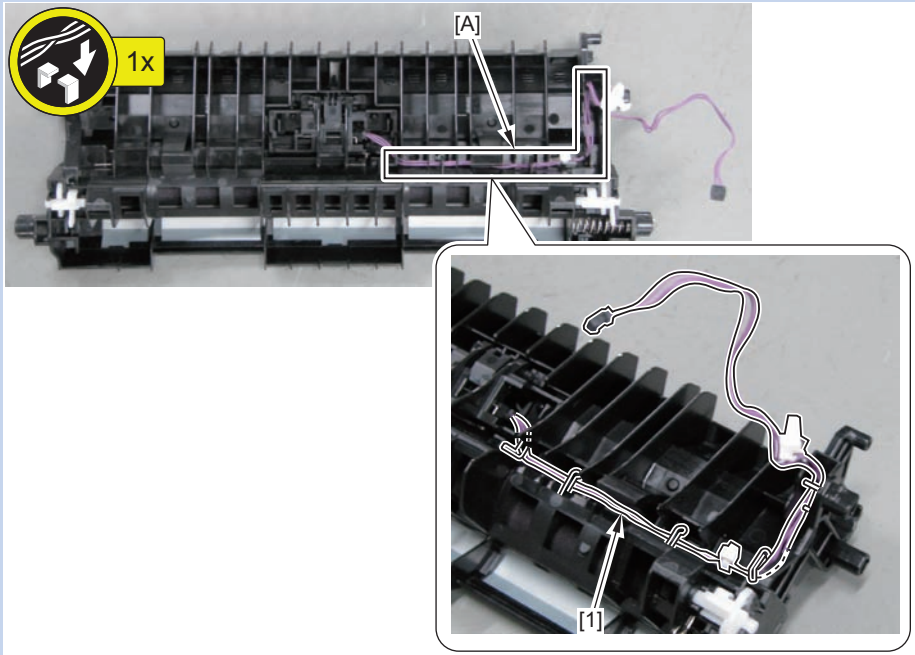
7) Remove the Secondary Transfer Outer Roller Guide Unit [1].



F-4-319

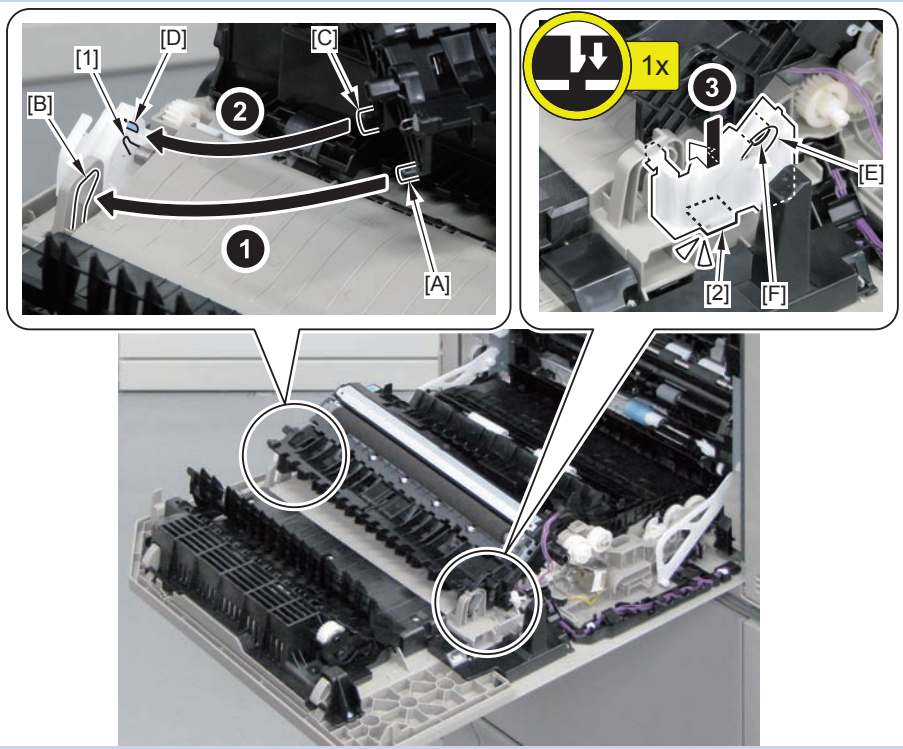
NOTE: How to Assemble the Secondary Transfer Outer Roller Guide Unit

Check that the harness [1] is stored in the guide [A] of the Secondary Transfer Outer Roller Guide Unit.
When it is not stored, paper skew may occur.
Related jam code: 00-0105, 00-0107



F-4-320

NOTE: How to assemble the Secondary Transfer Outer Roller Guid Unit
When assembling, insert the protrusion [A] of the Secondary Transfer Outer Roller Guid Unit into the groove [B] of the Right Cover Unit, and insert the protrusion [C] between the groove [D] of the Lock Guide and the spring [1] to install the unit.
Align the groove [E] of the Lock Guide with the protrusion [F] of the Right Cover Unit to lock the claw [2].



F-4-321

Removing the Registration Drive Unit

F-4-322

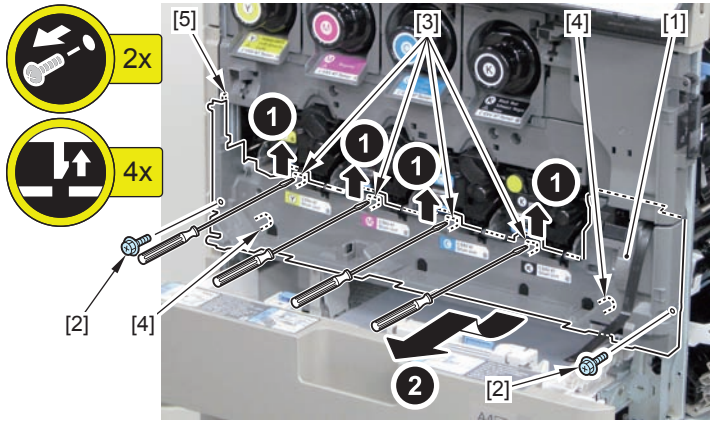
Preparation

1) Remove the Front Cover(Refer to page 4-34).
2) Remove the Right Front Cover(Refer to page 4-38).
3) Remove the Waste Toner Container(Refer to page 4-111).

Procedure

1) Remove the Front Inner Lower Cover [1].

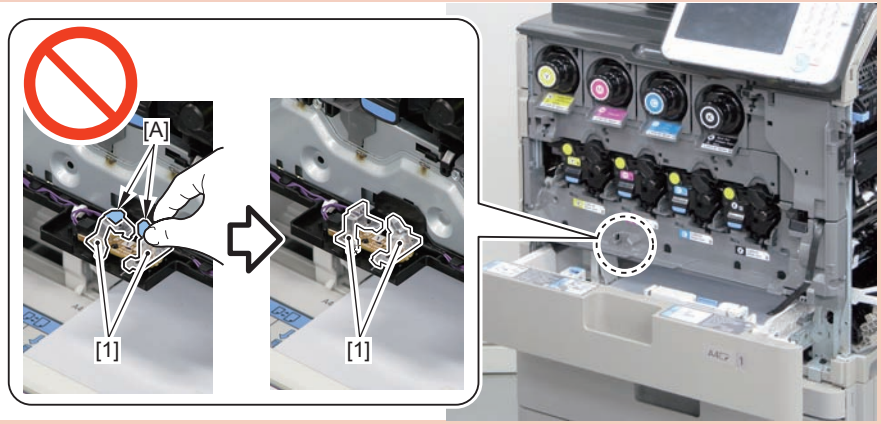
- 2 Screws [2]
- 4 Claws [3]
- 2 Bosses [4]
- 1 Hook [5]



F-4-323

CAUTION:

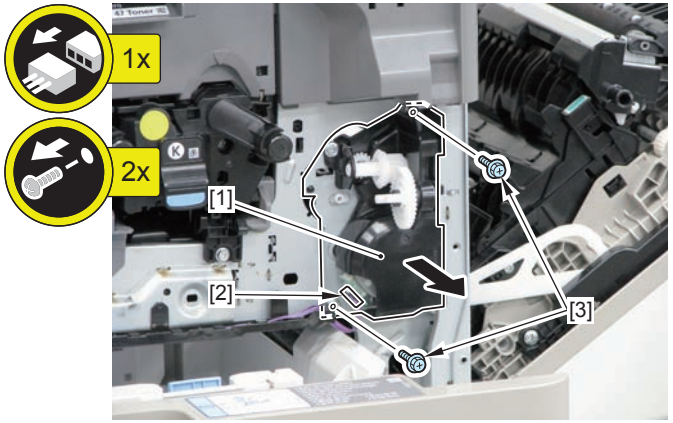
- Do not install the Front Inner Lower Cover with the lens [1] of the Waste Toner Sensor PCB removed.
- Do not touch the surface [A] of the lens.



F-4-324

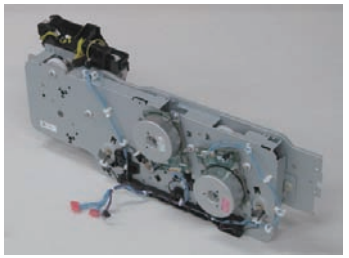
2) Remove the Registration Drive Unit [1].

- 1 Connector [2]
- 2 Screws [3]



F-4-325

Removing the Main Drive Unit



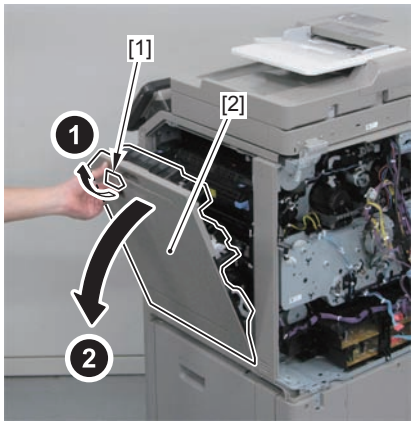
F-4-326

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover (to be removed for models equipped with a fax) (Refer to page 4-37).
3) Remove the Fax Speaker Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
4) Remove the Fax Unit (to be removed for models equipped with a fax)(Refer to page 4-104).
5) Remove the Main Controller Unit(Refer to page 4-83).
6) Remove the Low-voltage Power Supply PCB Unit(Refer to page 4-96).
7) Remove the DC Controller PCB Unit(Refer to page 4-90).

Procedure

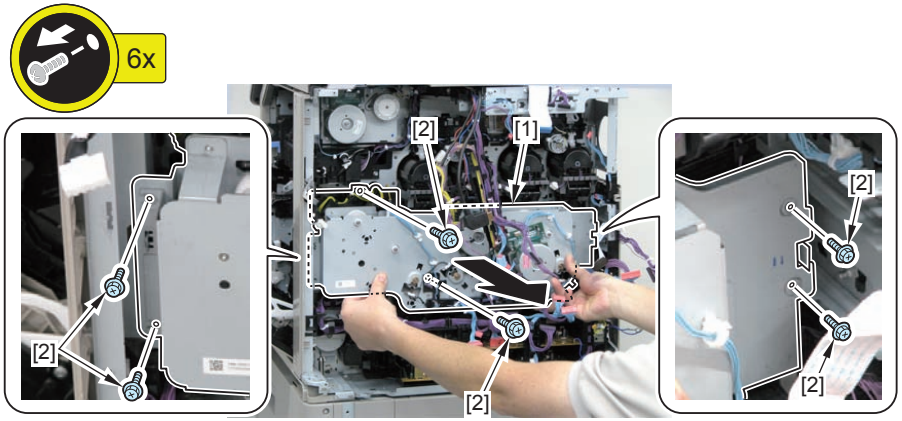
1) Pull the Right Cover Open/Close Lever [1], and open the Right Cover Unit [2].



F-4-327

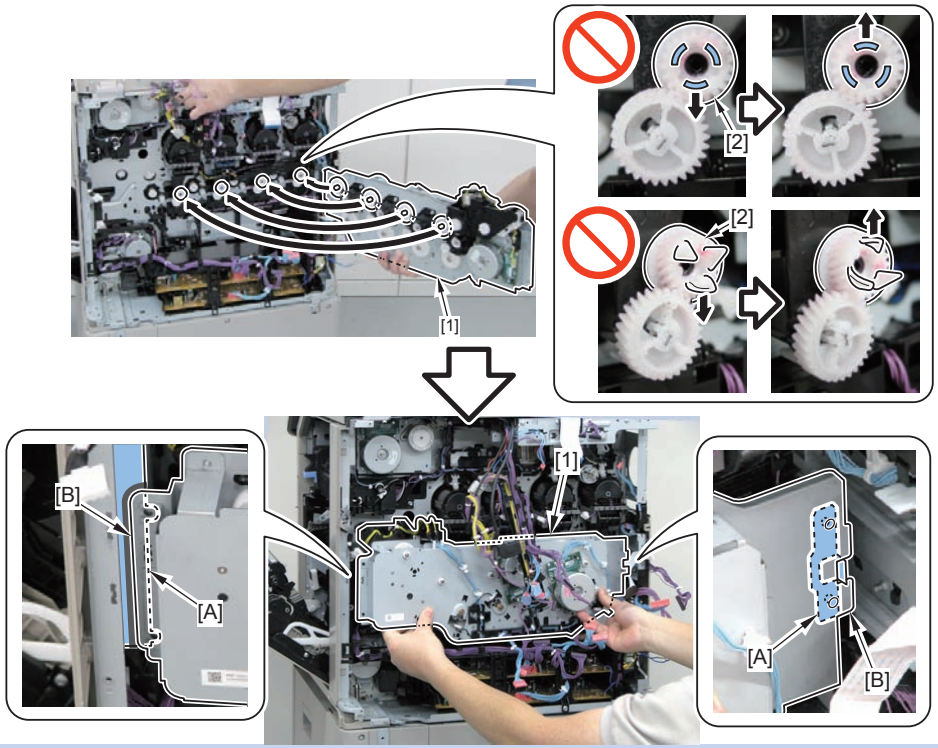
2) Remove the Main Drive Unit [1].

- 6 Screws [2]



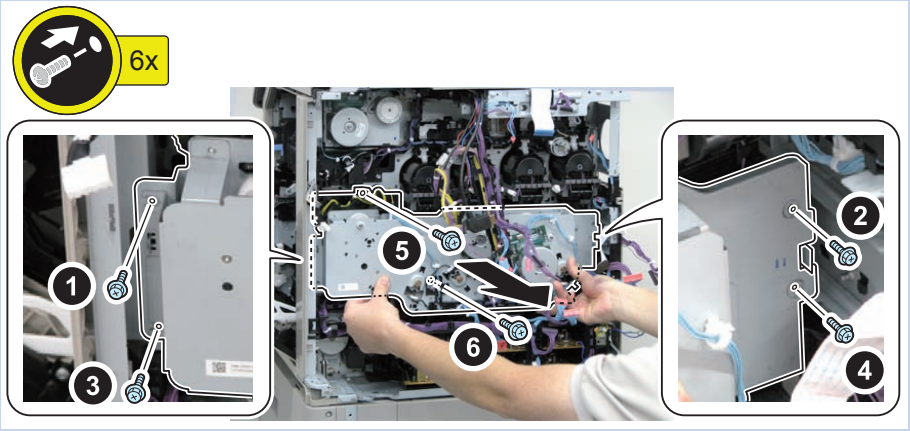
F-4-328

NOTE: How to assemble the Main Drive Unit
When assembling the Main Drive Unit, make sure to align one of 3 protrusions of the cam [2] on machine's side to the top position and then assemble it. If the position is not aligned, the Main Drive Unit [1] and cam [2] on machine's side may fail to properly assemble to cause the connection failure.
Also, check to make sure that there is no gap between the Rear Plate [A] and the plate [B] of the Main Drive Unit [1].
If there is a gap, make sure to align one of 3 protrusions of the cam [2] on machine's side to the top position and then assemble it.



F-4-329

NOTE: How to assemble the Main Drive Unit
Check that there is no gap and then secure using 6 screws in the order indicated by the illustration below.



F-4-330

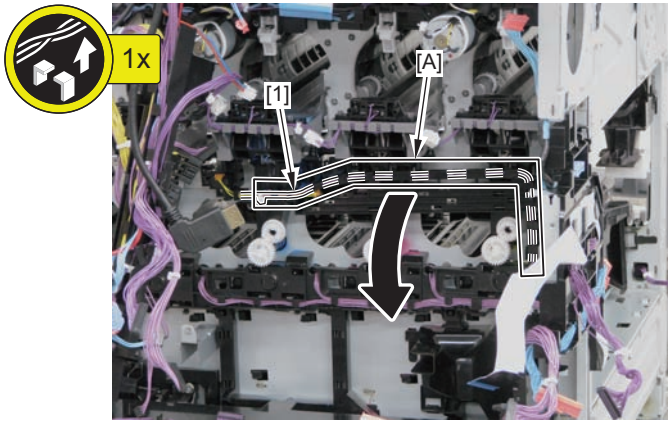
Removing the Hopper Unit (Y/M/C/Bk)

F-4-331

Preparation (for the Hopper Unit (Y/M/C))

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover (to be removed for models equipped with a fax) (Refer to page 4-37).
3) Remove the Fax Speaker Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
4) Remove the Fax Unit (to be removed for models equipped with a fax)(Refer to page 4-104).
5) Remove the Main Controller Unit(Refer to page 4-83).
6) Remove the Low-voltage Power Supply PCB Unit(Refer to page 4-96).
7) Remove the DC Controller PCB Unit(Refer to page 4-90).
8) Remove the Main Drive Unit(Refer to page 4-126).
9) Remove the Waste Toner Container(Refer to page 4-111).
10) Remove the Toner Container (Y/M/C/Bk) (remove the toner container of the color to be removed)(Refer to page 4-112).
11) Remove the Drum Unit (Y/M/C/Bk) (remove the Drum Unit of the color to be removed) (Refer to page 4-112).
12) Remove the ITB Unit(Refer to page 4-114).
13) Remove the Left Lower Cover(Refer to page 4-37).
14) Remove the Primary Transfer High-voltage PCB Unit(Refer to page 4-94).

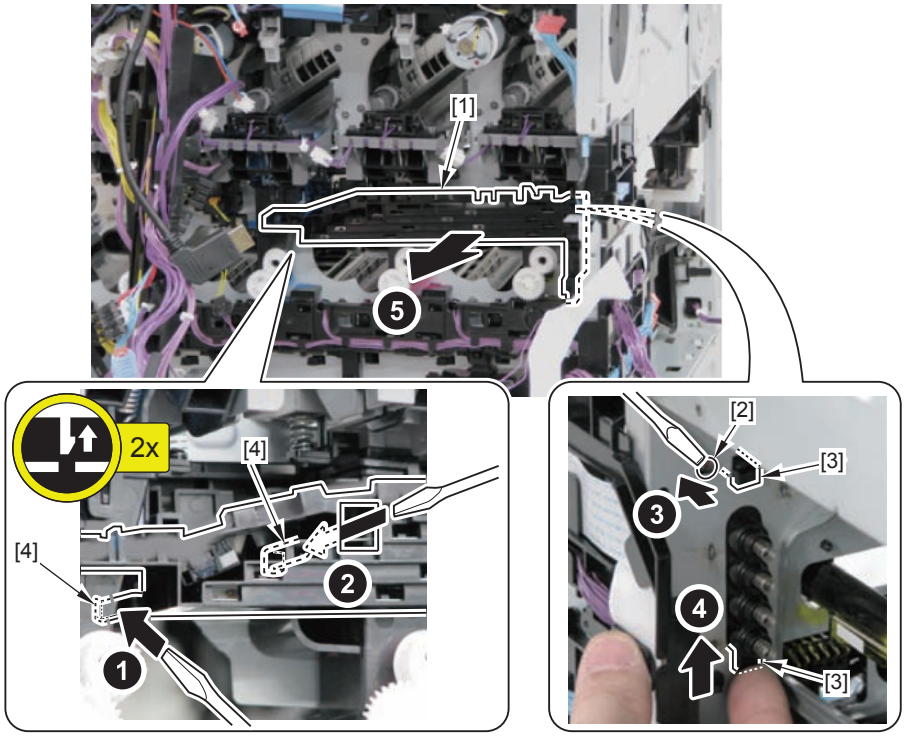
15) Free the harness [1] from the Harness Guide [A] of the High-voltage Contact Unit.



F-4-332

16) Remove the High-voltage Contact Unit [1].

- 1 Boss [2]
- 2 Hooks [3]
- 2 Claws [4]



F-4-333

Preparation (for the Hopper Unit (Bk))

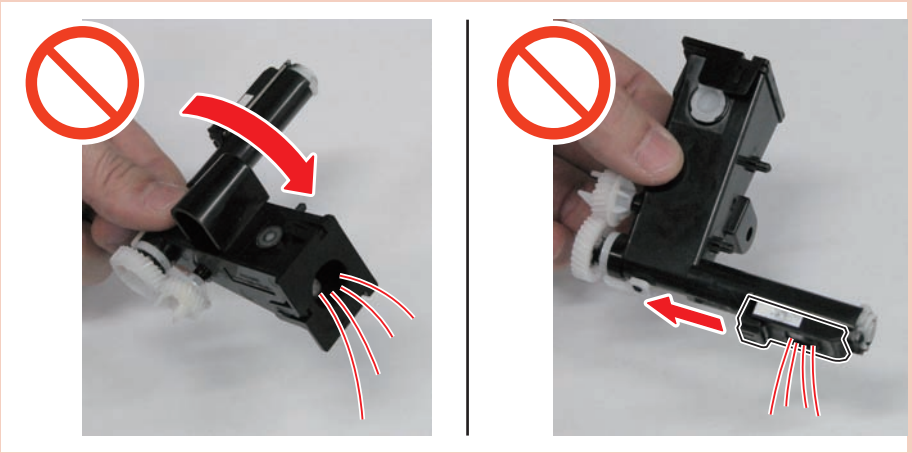
1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover (to be removed for models equipped with a fax) (Refer to page 4-37).
3) Remove the Fax Speaker Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
4) Remove the Fax Unit (to be removed for models equipped with a fax)(Refer to page 4-104).
5) Remove the Main Controller Unit(Refer to page 4-83).
6) Remove the Low-voltage Power Supply PCB Unit(Refer to page 4-96).
7) Remove the DC Controller PCB Unit(Refer to page 4-90).
8) Remove the Main Drive Unit(Refer to page 4-126).
9) Remove the Waste Toner Container(Refer to page 4-111).
10) Remove the Toner Container (Y/M/C/Bk) (remove the toner container of the color to be removed)(Refer to page 4-112).
11) Remove the Drum Unit (Y/M/C/Bk) (remove the Drum Unit of the color to be removed) (Refer to page 4-112).
12) Remove the ITB Unit(Refer to page 4-114).

Procedure

NOTE:
In this procedure, the procedures for the Hopper Unit (Bk) are described.
Perform the same procedure for removing the Hopper Unit (Y/M/C).

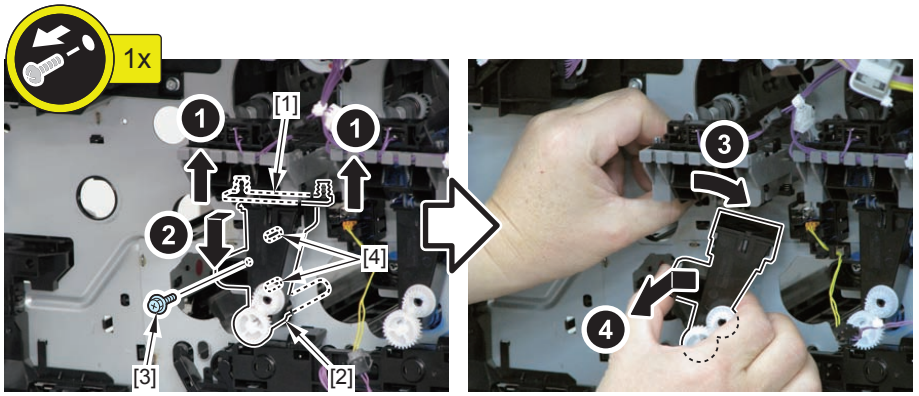
CAUTION:

Perform work carefully so as not to scatter the toner when disassembling/assembling.



F-4-334

1) Remove the Hopper Unit (Bk) [2] while holding the Open/Close Shutter [1].
- 1 Screw [3]
- 2 Bosses [4]



F-4-335

Removing the ITB Pressure Release Switch

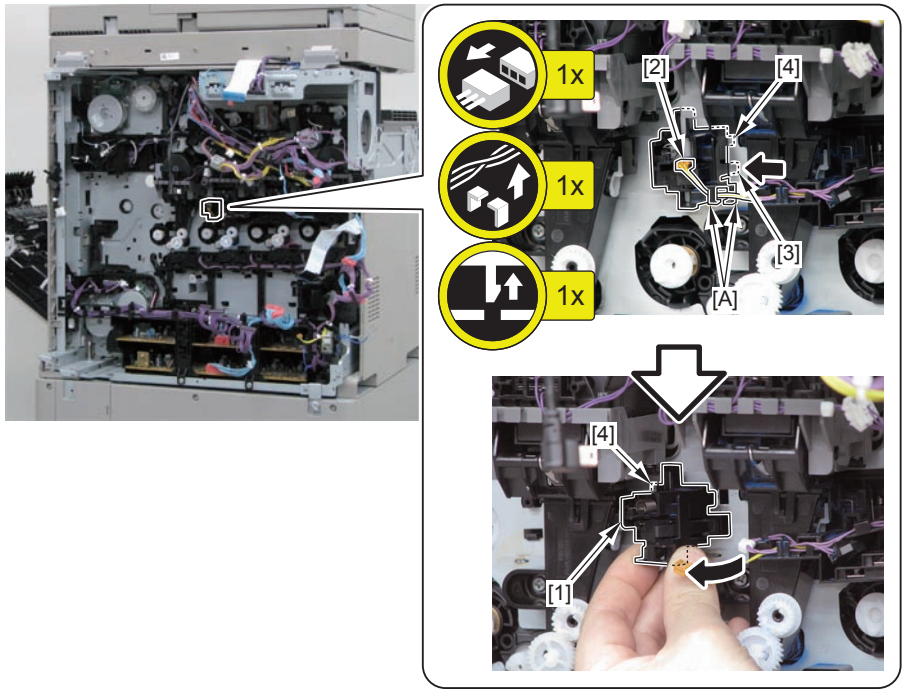
F-4-336

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover (to be removed for models equipped with a fax) (Refer to page 4-37).
3) Remove the Fax Speaker Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
4) Remove the Fax Unit (to be removed for models equipped with a fax)(Refer to page 4-104).
5) Remove the Main Controller Unit(Refer to page 4-83).
6) Remove the Low-voltage Power Supply PCB Unit(Refer to page 4-96).
7) Remove the DC Controller PCB Unit(Refer to page 4-90).
8) Remove the Main Drive Unit(Refer to page 4-126).

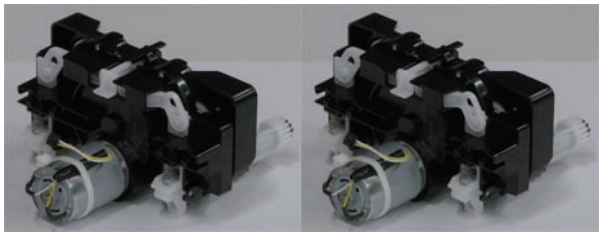
Procedure

1) Remove the ITB Pressure Release Switch [1].
- 1 Connector [2]
- Harness Guide [A]
- 1 Claw [3]
- 2 Hooks [4]



F-4-337

Removing the Bottle Drive Unit (Y/M/C/Bk)



F-4-338

F-4-339

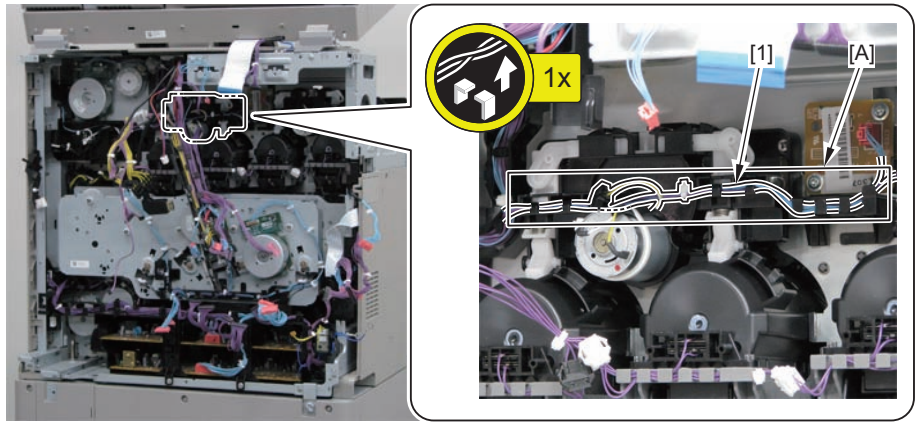
Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover (to be removed for models equipped with a fax) (Refer to page 4-37).
3) Remove the Fax Speaker Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
4) Remove the Fax Unit (to be removed for models equipped with a fax)(Refer to page 4-104).
5) Remove the Main Controller Unit(Refer to page 4-83).
6) Remove the Low-voltage Power Supply PCB Unit(Refer to page 4-96).
7) Remove the DC Controller PCB Unit(Refer to page 4-90).
8) Remove the Delivery Tray(Refer to page 4-46).
9) Remove the Toner Container (Y/M/C/Bk) (remove the toner container of the color to be removed)(Refer to page 4-112).

Procedure

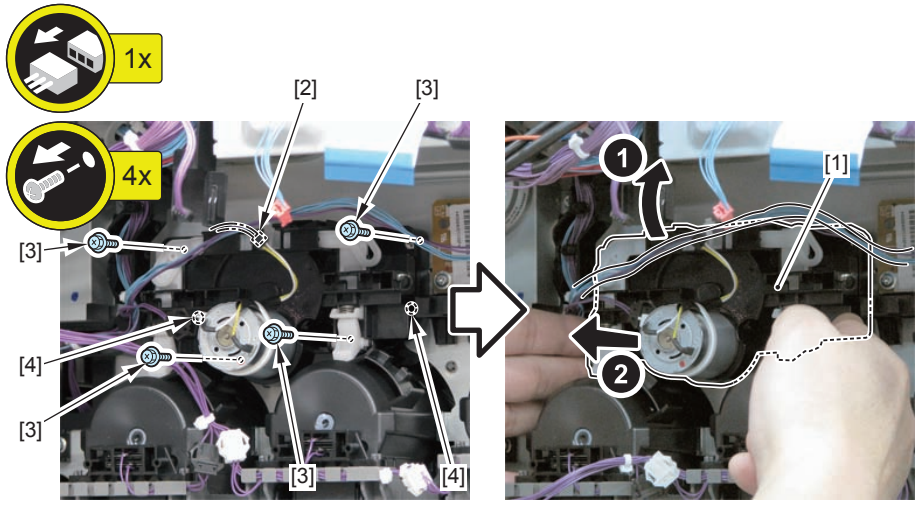
NOTE:
In this procedure, the procedures for the Bottle Drive Unit (C Bk) are described.
Perform the same procedure for removing the Bottle Drive Unit (Y M).

1) Free the Harness [1].
- Harness Guide [A]



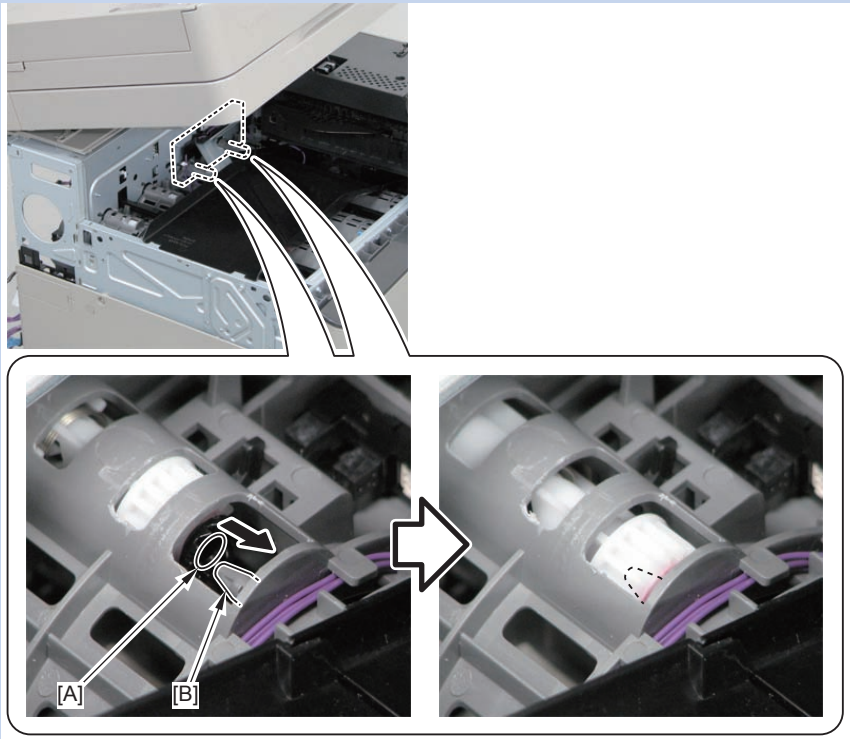
F-4-340

2) Remove the Bottle Drive Unit (C Bk) [1].
- 1 Connector [2]
- 4 Screws [3]
- 2 Bosses [4]



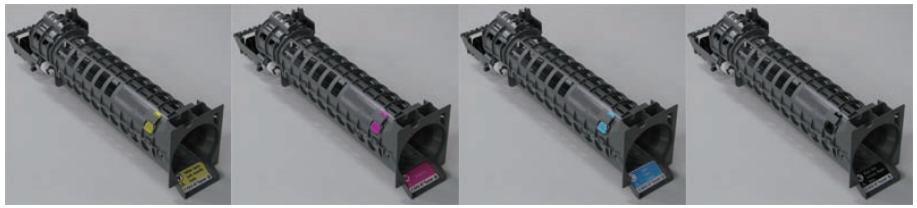
F-4-341

NOTE: How to install the Bottle Drive Unit (C Bk)
Be sure to align the hole [A] of the gear with the protrusion [B] of the shaft to install the unit.



F-4-342

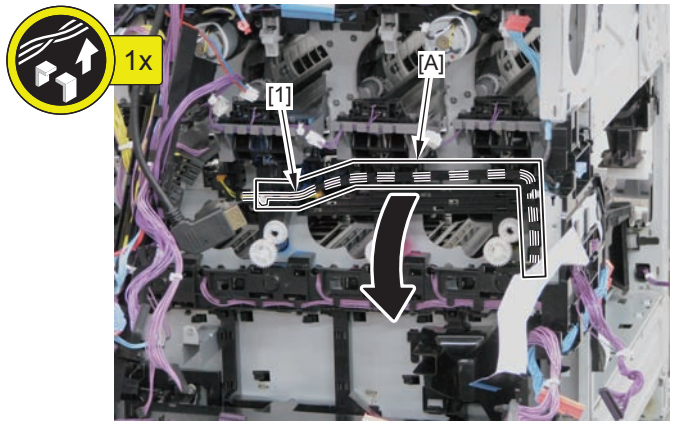
Removing the Toner Bottle Mount (Y/M/C/Bk)



F-4-343

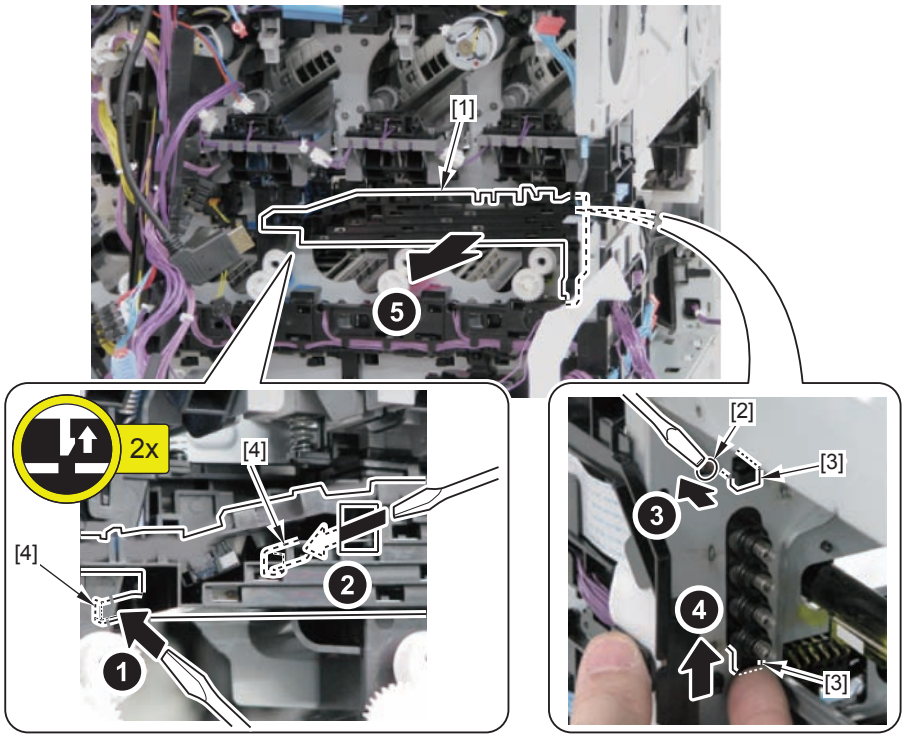
Preparation (for the Toner Bottle Mount (Y/M/C))

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover(Refer to page 4-37).
3) Remove the Fax Speaker Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
4) Remove the Fax Unit (to be removed for models equipped with a fax)(Refer to page 4-104).
5) Remove the Main Controller Unit(Refer to page 4-83).
6) Remove the Low-voltage Power Supply PCB Unit(Refer to page 4-96).
7) Remove the DC Controller PCB Unit(Refer to page 4-90).
8) Remove the Main Drive Unit(Refer to page 4-126).
9) Remove the Waste Toner Container(Refer to page 4-111).
10) Remove the Toner Container (Y/M/C/Bk) (remove the toner container of the color to be removed)(Refer to page 4-112).
11) Remove the Drum Unit (Y/M/C/Bk) (remove the drum Unit of the color to be removed) (Refer to page 4-112).
12) Remove the ITB Unit(Refer to page 4-114).
13) Remove the Left Lower Cover(Refer to page 4-37).
14) Remove the Primary Transfer High-voltage PCB Unit(Refer to page 4-94).
15) Free the harness [1] from the Harness Guide [A] of the High-voltage Contact Unit.



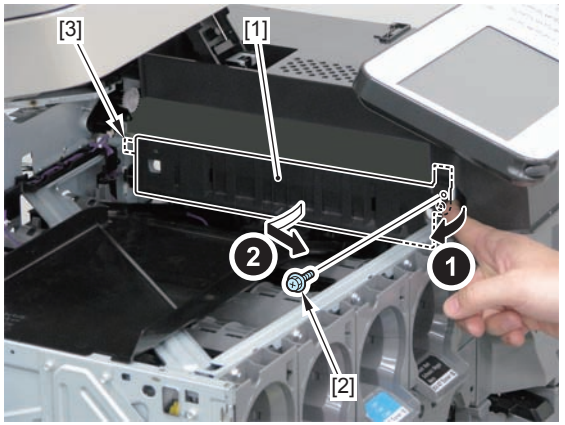
F-4-344

16) Move the High-voltage Contact Unit [1].
- 1 Boss [2]
- 2 Hooks [3]
- 2 Claws [4]



F-4-345

17) Remove the Hopper Unit (Y/M/C/Bk) (remove the Bottle Drive Unit of the color to be removed)(Refer to page 4-128).
18) Remove the Bottle Drive Unit (Y/M/C/Bk) (remove the Bottle Drive Unit of the color to be removed)(Refer to page 4-132).
19) Remove the Delivery Tray(Refer to page 4-46).
20) Remove the Delivery Guide [1].
- 1 Boss [2]
- 2 Hooks [3]

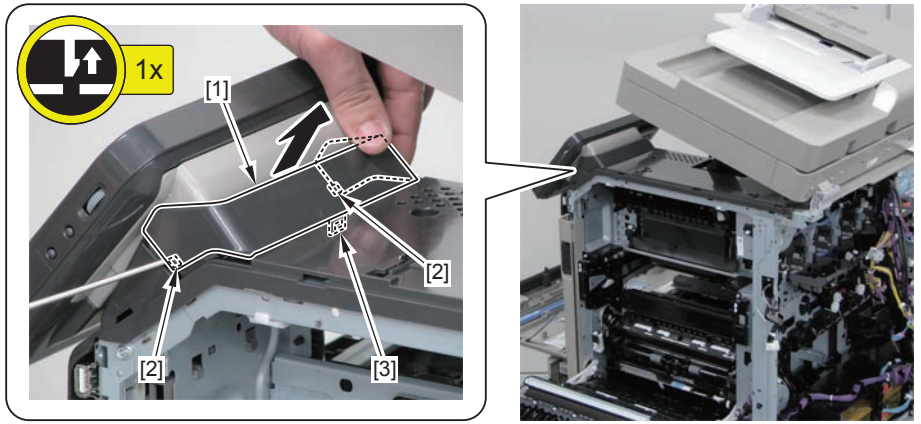


F-4-346

Preparation (for the Toner Bottle Mount (Bk))

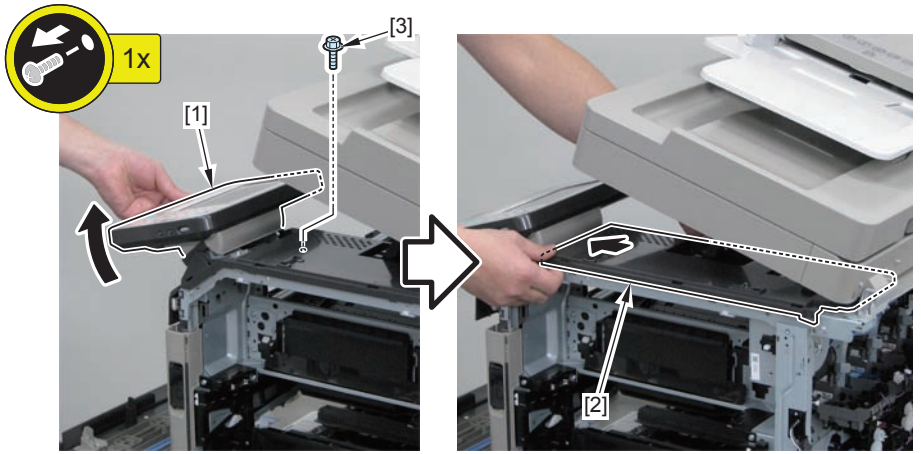
1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover (Refer to page 4-37).
3) Remove the Fax Speaker Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
4) Remove the Fax Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
5) Remove the Main Controller Unit(Refer to page 4-83).
6) Remove the Low-voltage Power Supply PCB Unit(Refer to page 4-96).
7) Remove the DC Controller PCB Unit(Refer to page 4-90).
8) Remove the Main Drive Unit(Refer to page 4-126).
9) Remove the Waste Toner Container(Refer to page 4-111).
10) Remove the Toner Container (Y/M/C/Bk) (remove the toner container of the color to be removed) (Refer to page 4-112).
11) Remove the Drum Unit (Y/M/C/Bk) (remove the drum Unit of the color to be removed) (Refer to page 4-112).
12) Remove the ITB Unit(Refer to page 4-114).
13) Remove the Left Lower Cover(Refer to page 4-37).
14) Remove the Primary Transfer High-voltage PCB Unit(Refer to page 4-94).
15) Remove the Hopper Unit (Y/M/C/Bk) (remove the Hopper Unit of the Bk color) (Refer to page 4-128).
16) Remove the Bottle Drive Unit (Y/M/C/Bk) (remove the Bottle Drive Unit (C Bk)) (Refer to page 4-132).
17) Remove the Delivery Tray(Refer to page 4-46).
18) Remove the Delivery/Reverse Unit(Refer to page 4-164).
19) Remove the Right Rear Cover/Right Rear Lower Cover(Refer to page 4-39).
20) Remove the Right Upper Cover(Refer to page 4-40).

21) Remove the Control Panel Rear Hinge Cover [1].
- 2 Bosses [2]
- 1 Claw [3]



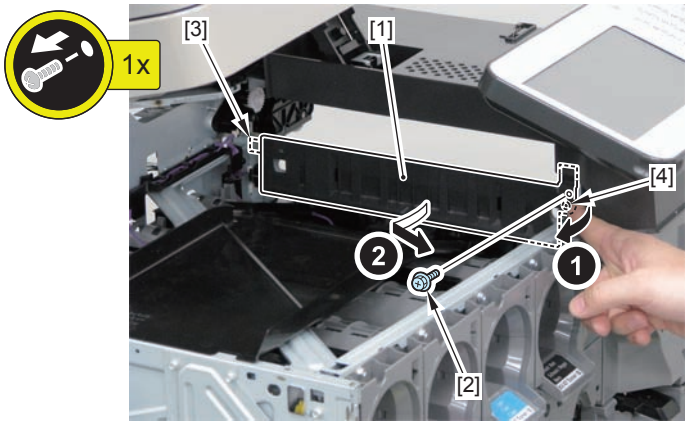
F-4-347

22) Lift up the Control Panel Unit [1] to move the Upper Cover [2].
- 1 Screw [3]



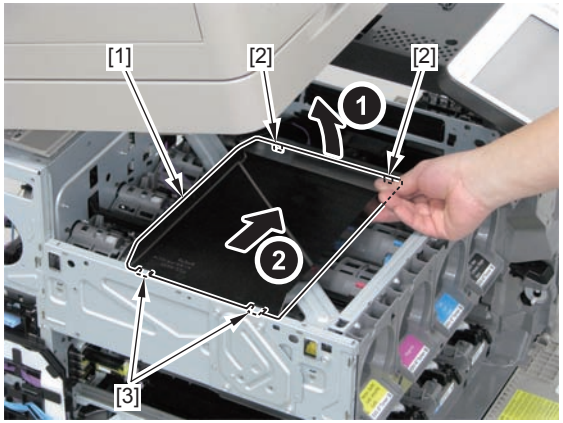
F-4-348

23) Remove the Delivery Guide [1].
- 1 Screw [2]
- 1 Hook [3]
- 1 Boss [4]



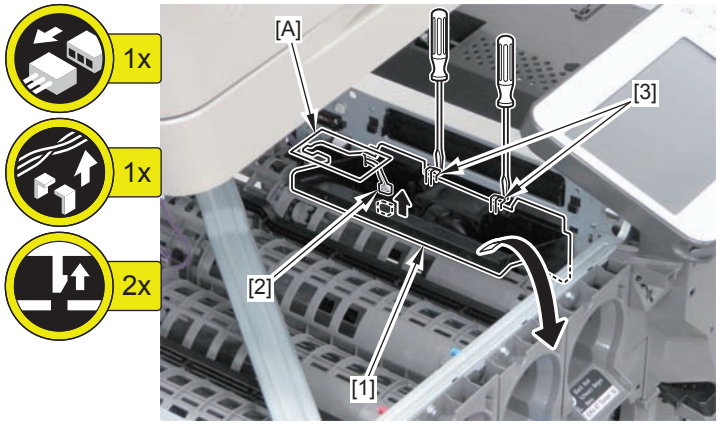
F-4-349

24) Remove the Delivery Tray Air Duct [1].
- 2 Bosses [2]
- 2 Hooks [3]



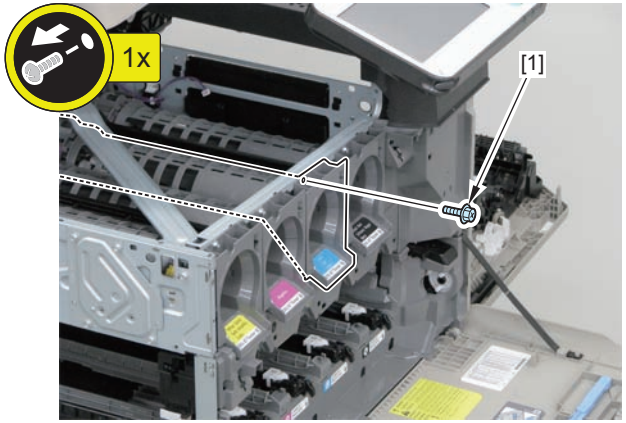
F-4-350

25) Remove the Delivery Cooling Fan Holder [1].
- 1 Connector [2]
- Harness Guide [A]
- 2 Claws [3]



F-4-351

26) Remove the screw [1] of the Toner Bottle Mount (C).
(This is because it may be hooked when removing the Toner Bottle Mount (Bk).)

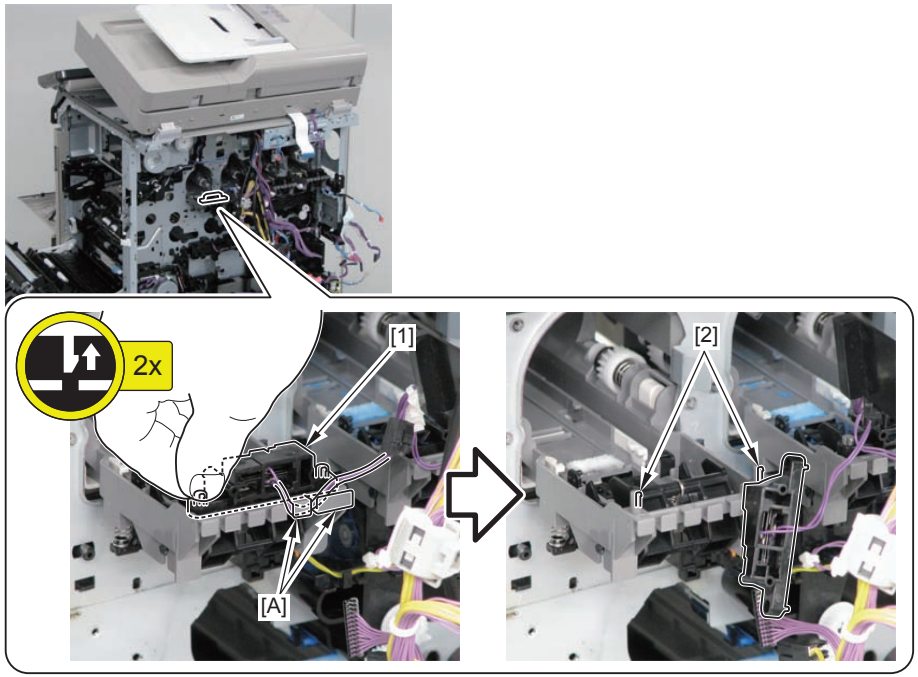


F-4-352

Procedure

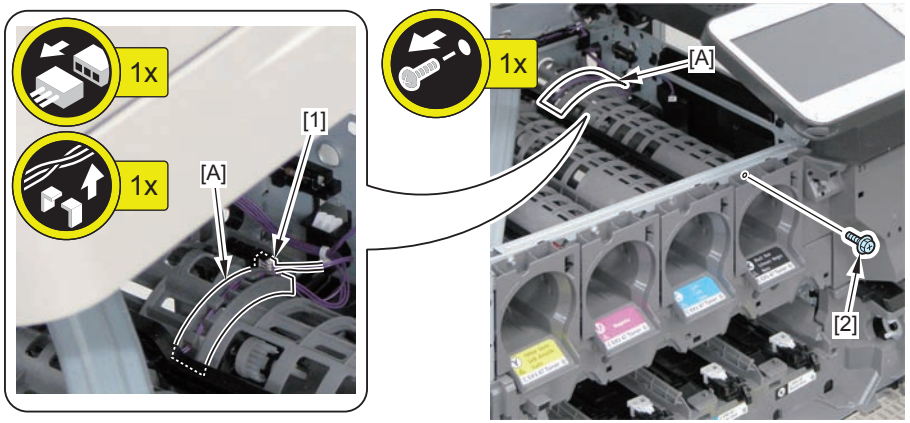
NOTE:
In this procedure, the procedure for the Toner Bottle Mount (Bk) is described.
Perform the same procedure for removing the Toner Bottle Mount (Y/M/C).a

1) Remove the tag [1].
- Harness Guide [A]
- 2 Claws [2]



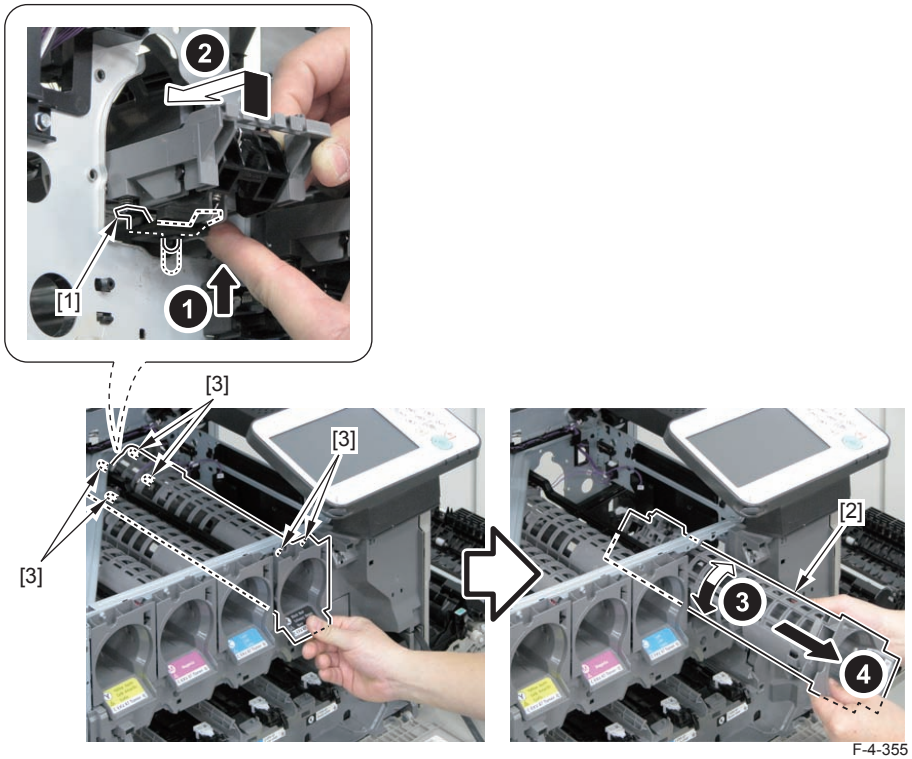
F-4-353

2) Disconnect the connector [1], and remove the Harness Guide [A] and the screw [2].



F-4-354

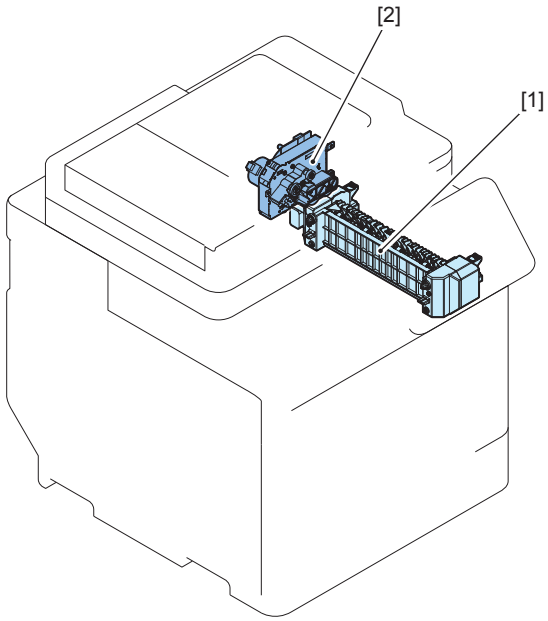
3) Remove the Toner Bottle Mount (Bk) [2] while pressing down the shutter [1].
- 6 Bosses [3]



F-4-355

Fixing System

Layout Drawing



F-4-356

No.	Parts Name	Main Unit	Remarks	Reference
[1]	Fixing Assembly	Product Configuration		(Refer to page 4-138)
[2]	Fixing Drive Unit	Product Configuration		(Refer to page 4-139)

T-4-96

Removing the Fixing Assembly

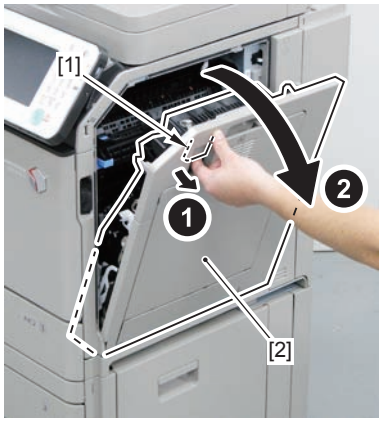
F-4-357

Procedure

CAUTION:

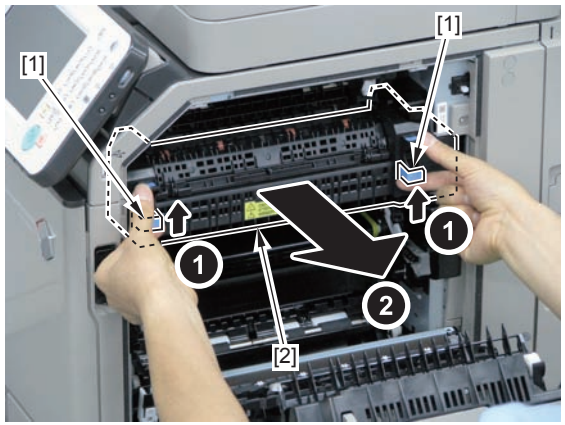
- Be sure to start removing the Fixing Assembly after it is cooled down enough. The Fixing Assembly may cause burn injuries due to the high temperature immediately after printing.

1) Pull the Right Cover Open/Close Lever [1], and open the Right Cover Unit [2].



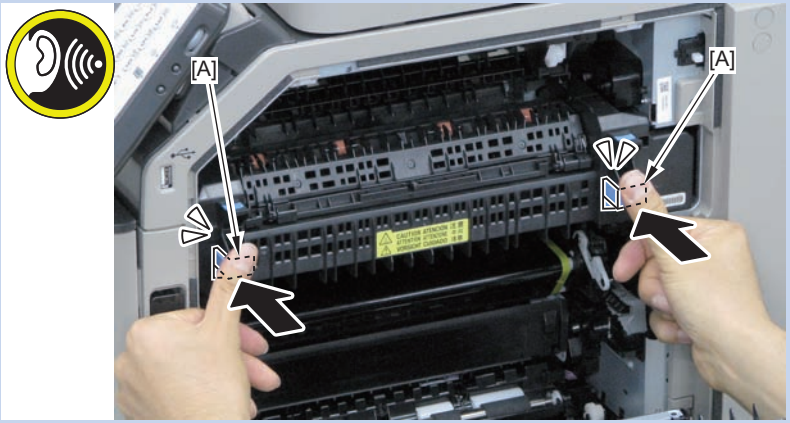
F-4-358

2) Hold the 2 Release Levers [1] of the Fixing Assembly, and remove the Fixing Assembly [2].



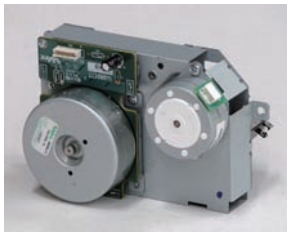
F-4-359

NOTE: How to install the Fixing Assembly
Be sure to push the Release Lever [A] of the Fixing Assembly with your finger until it locks.



F-4-360

Removing the Fixing Drive Unit



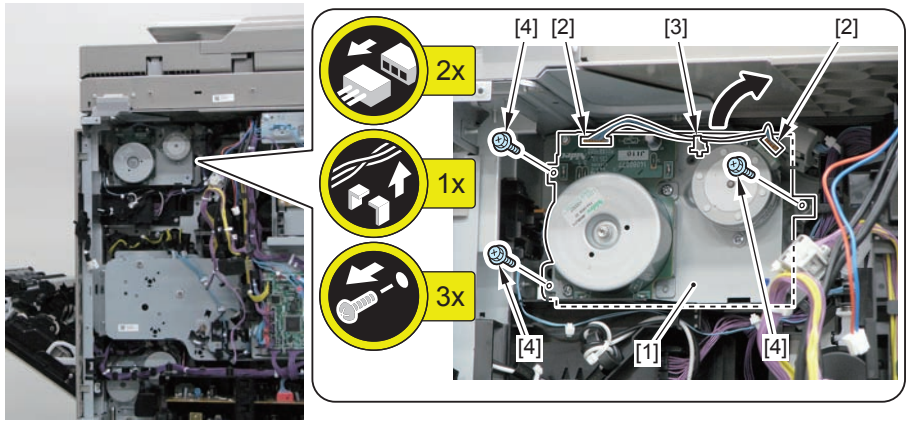
F-4-361

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover (to be removed for models equipped with a fax) (Refer to page 4-37).
3) Remove the Fax Speaker Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
4) Remove the Fax Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
5) Remove the Main Controller Unit(Refer to page 4-83).
6) Remove the Low-voltage Power Supply PCB Unit(Refer to page 4-96).
7) Remove the DC Controller PCB Unit(Refer to page 4-89).
8) Remove the Fixing Assembly(Refer to page 4-138).
9) Remove the Delivery/Reverse Unit (Refer to page 4-164).

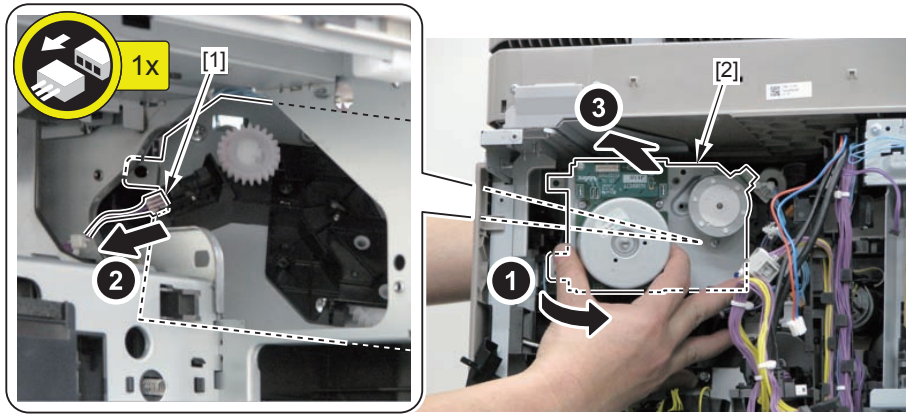
Procedure

1) Disconnect the 2 connectors [2], free the cable from the Reuse Band [3] and remove the 3 screws [4], all of which are of the Fixing Drive Unit [1].



F-4-362

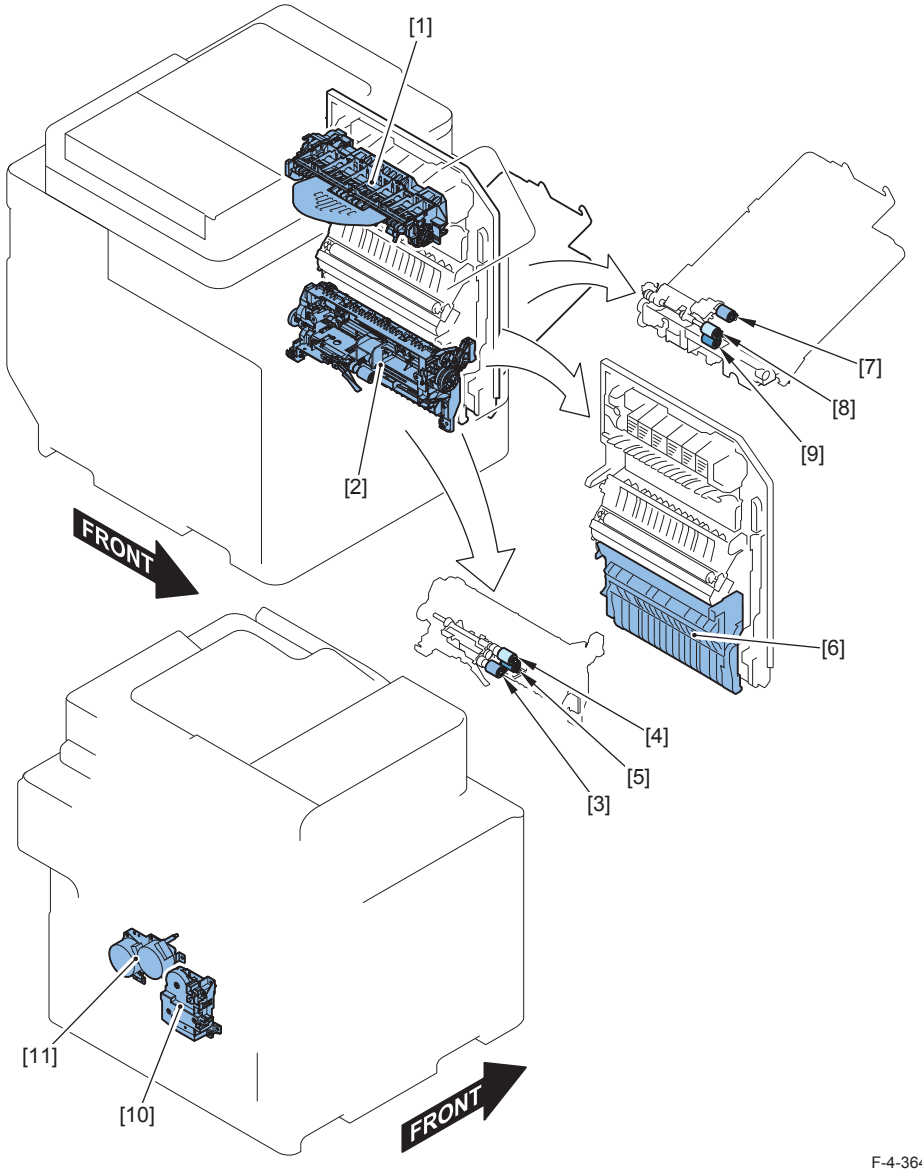
2) Remove the Fixing Drive Unit [2] while disconnecting the inner connector [1].



F-4-363

Pickup/Feed System

Layout Drawing



F-4-364

No.	Parts Name	Main Unit	Remarks	Reference
[1]	Delivery/Reverse Unit	Product Configuration		(Refer to page 4-164)
[2]	Regist/Paper Pickup Unit	Product Configuration		(Refer to page 4-156)
[3]	Cassette 1 pickup Roller	Regist/Paper Pickup Unit		(Refer to page 4-143)
[4]	Cassette 1 feed Roller	Regist/Paper Pickup Unit		(Refer to page 4-143)
[5]	Cassette 1 separation Roller	Regist/Paper Pickup Unit		(Refer to page 4-143)
[6]	Right Inner Cover Unit	Right Cover Unit		(Refer to page 4-142)
[7]	Multi-purpose tray pickup Roller	Right Cover Unit		(Refer to page 4-147)
[8]	Multi-purpose tray feed Roller	Right Cover Unit		(Refer to page 4-147)
[9]	Multi-purpose tray separation Roller	Right Cover Unit		(Refer to page 4-147)
[10]	Cassette 1 Lifter Drive Unit	Product Configuration		(Refer to page 4-165)
[11]	Cassette 1 Pickup Drive Unit	Product Configuration		(Refer to page 4-168)

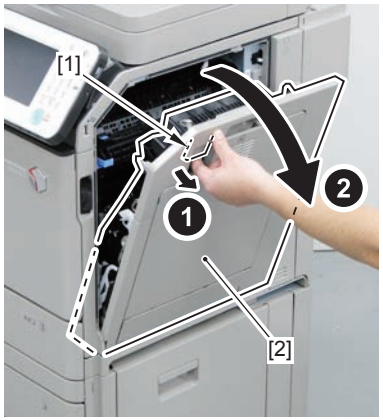
T-4-97

Removing the Right Inner Cover Unit

F-4-365

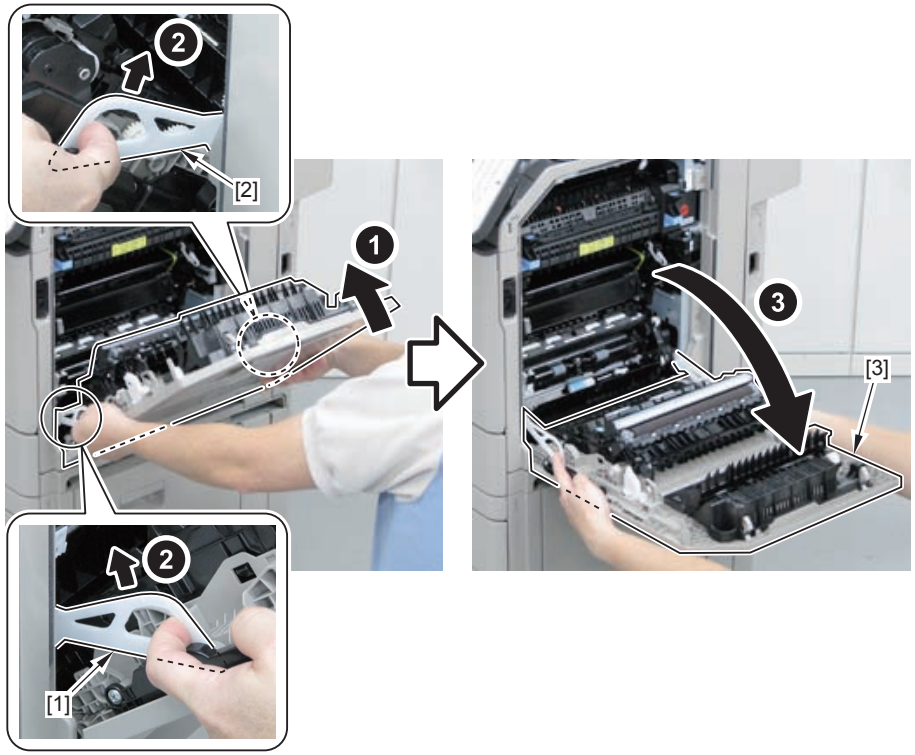
Procedure

1) Pull the Right Cover Open/Close Lever [1], and open the Right Cover Unit [2].



F-4-366

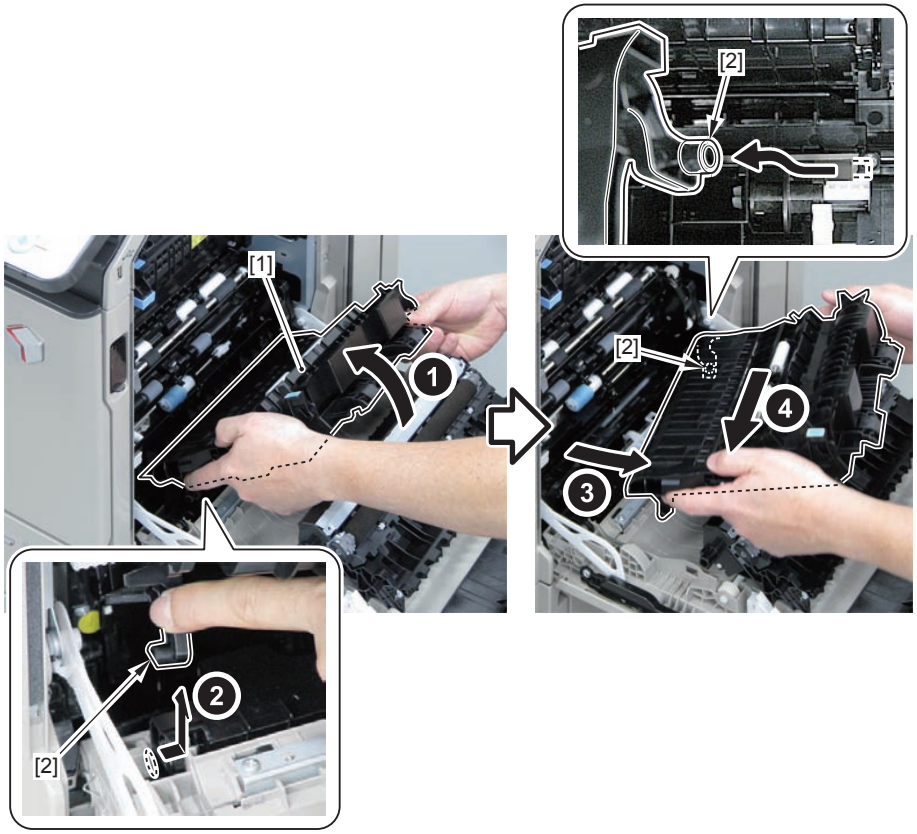
2) Release the lock of the Right Cover Stopper (Front) [1] and the Right Cover Stopper Rear [2], and then further open the Right Cover Unit [3].



F-4-367

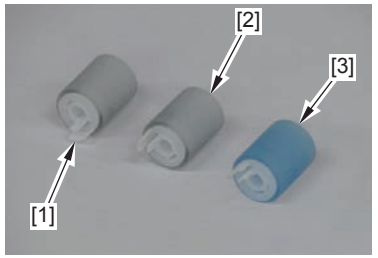
3) Remove the Right Inner Cover Unit [1].

- 2 Shafts [2]



F-4-368

Removing the Cassette Pickup Roller/Cassette Separation Roller/Cassette Feed Roller

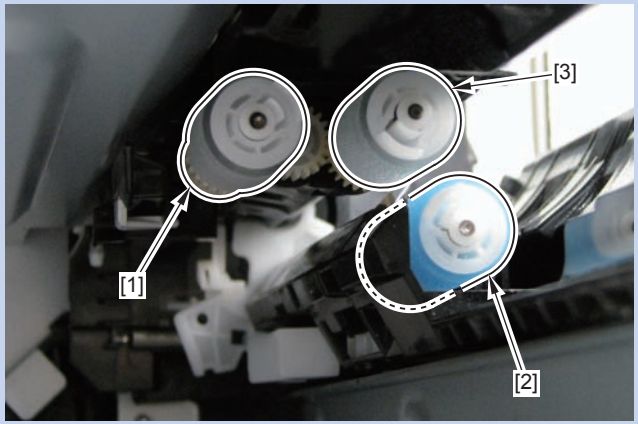


F-4-369

- Cassette Pickup Roller [1]
- Cassette Feed Roller [2]
- Cassette Separation Roller [3]

Procedure

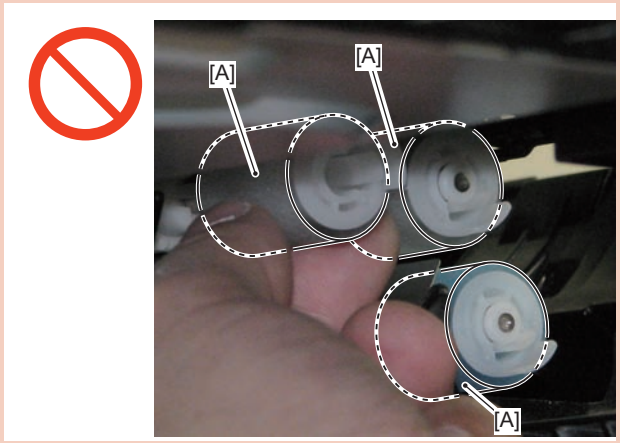
NOTE:
The layout for the Cassette Pickup Roller [1] /Separation Roller [2] /Feed Roller [3] is shown below.



F-4-370

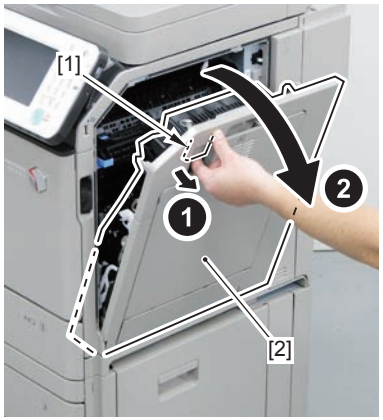
CAUTION:

Be sure not to touch the surface [A] of the roller when disassembling/assembling.



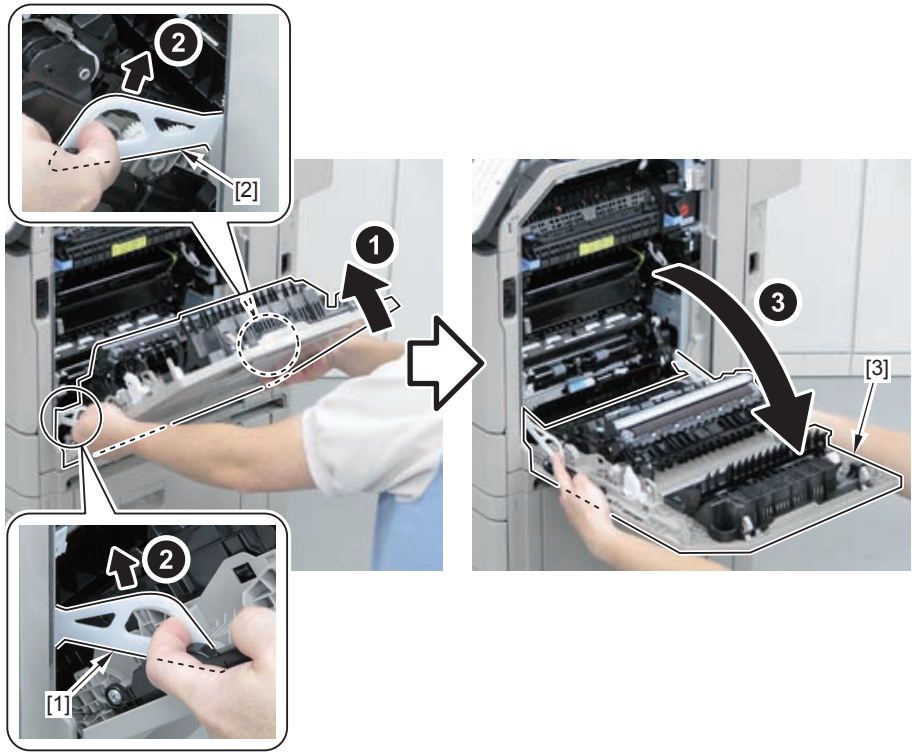
F-4-371

1) Pull the Right Cover Open/Close Lever [1], and open the Right Cover Unit [2].



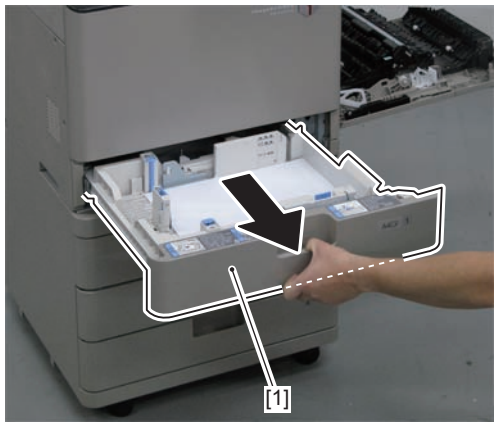
F-4-372

2) Release the lock of the Right Cover Stopper (Front) [1] and the Right Cover Stopper Rear [2], and then further open the Right Cover Unit [3].



F-4-373

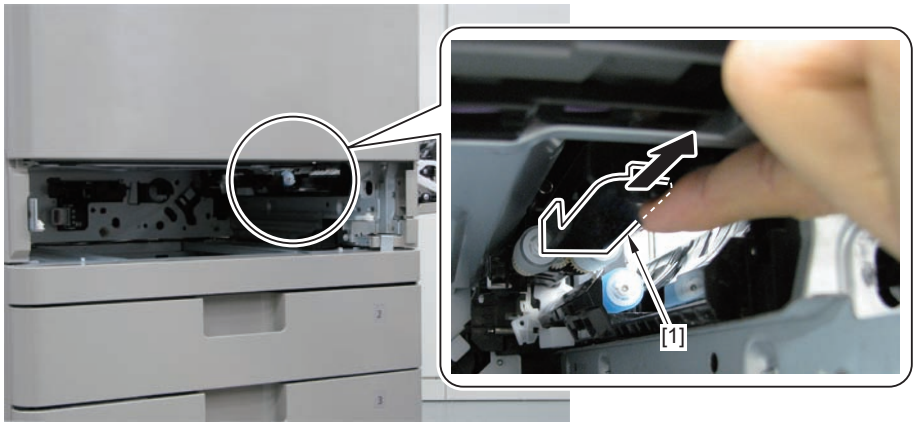
3) Remove the Cassette [1].



F-4-374

When removing the Cassette Pickup Roller

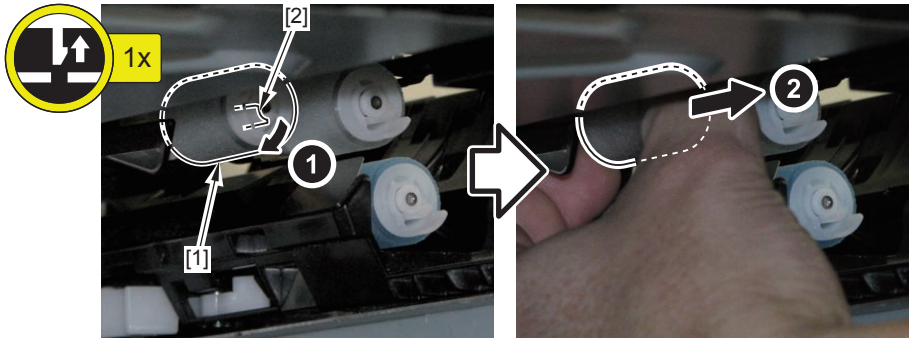
4) Move the Pickup Guide Holder [1].



F-4-375

5) Remove the Cassette Pickup Roller [1].

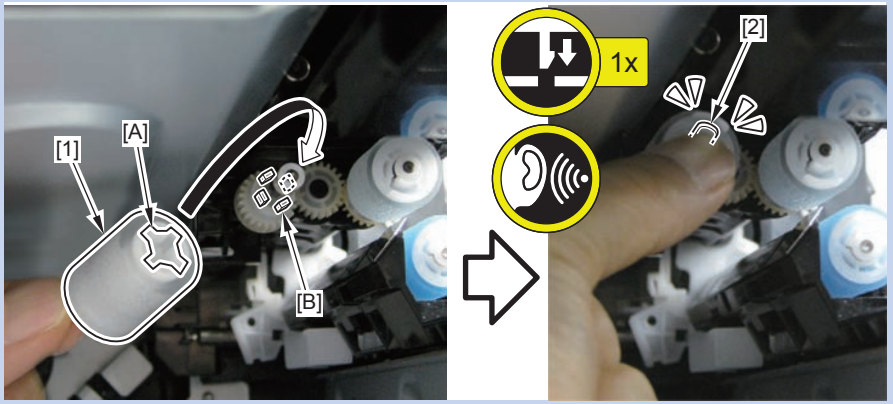
- 1 Claw [2]



F-4-376

NOTE: How to install the Cassette Pickup Roller

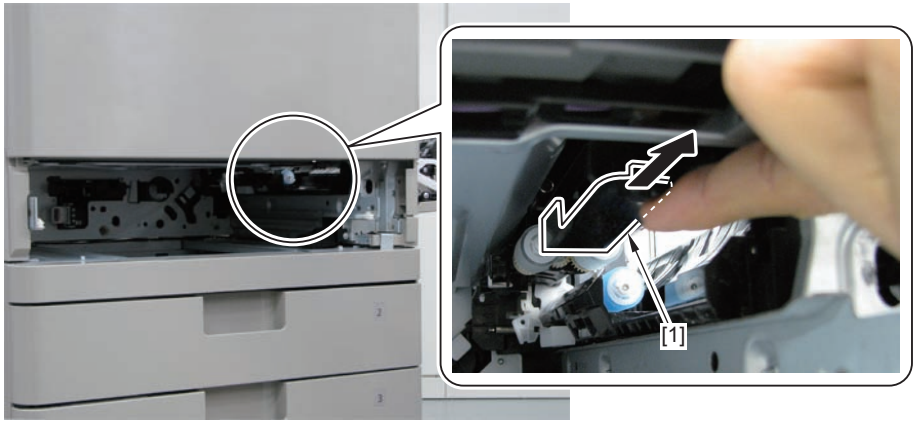
- Be sure to align the groove [A] of the Cassette Pickup Roller [1] with the protrusion [B] of the gear to install the roller.
- Be sure to hook the claw [2].



F-4-377

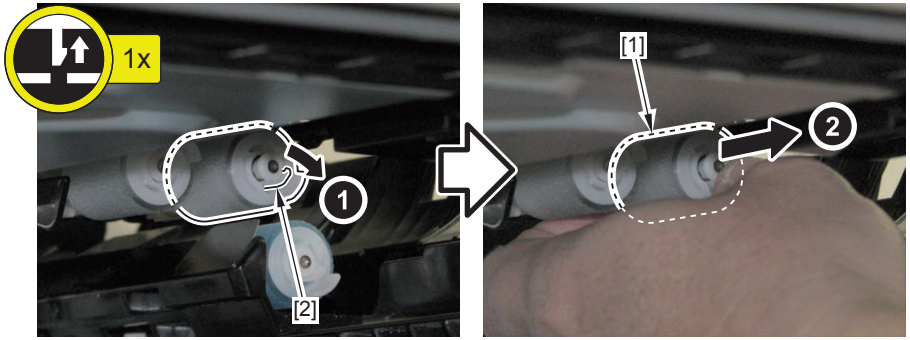
When removing the Cassette Feed Roller

6) Move the Pickup Guide Holder [1].



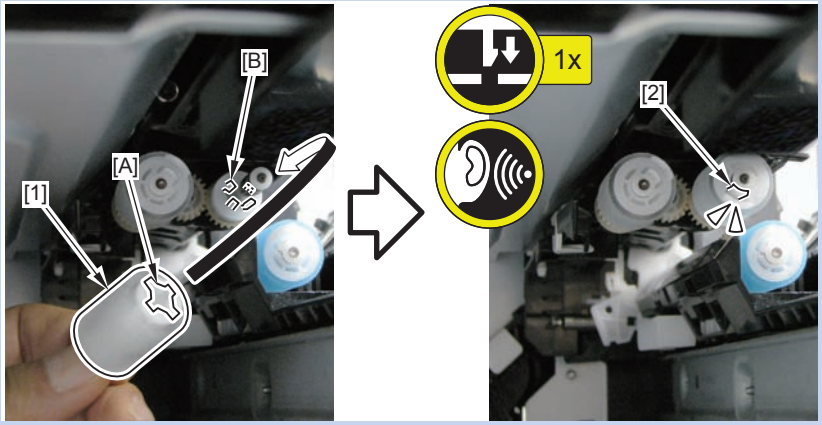
F-4-378

7) Remove the Cassette Feed Roller [1].
- 1 Claw [2]



F-4-379

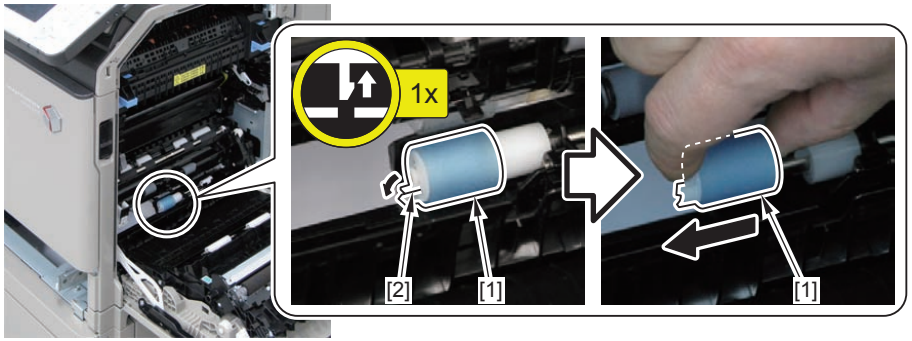
NOTE: How to install the Cassette Feed Roller
- Be sure to align the groove [A] of the Cassette Feed Roller [1] with the protrusion [B] of the coupling to install the roller.
- Be sure to hook the claw [2].



F-4-380

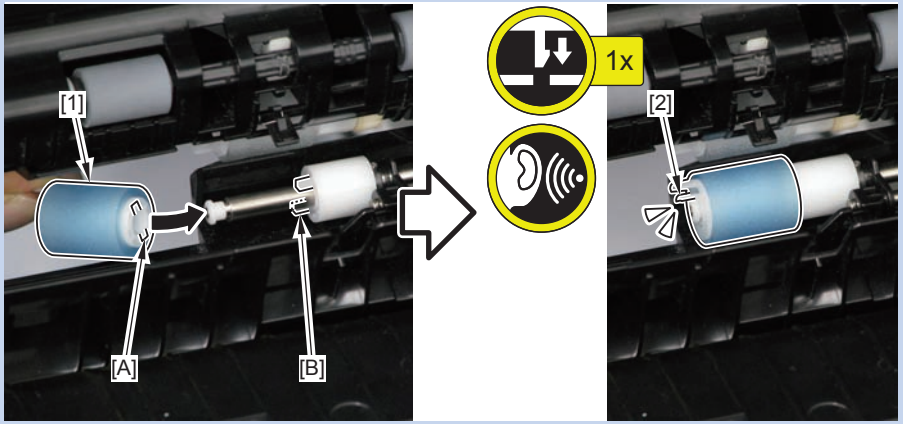
When removing the Cassette Separation Roller

8) Remove the Cassette Separation Roller [1].
- 1 Claw [2]



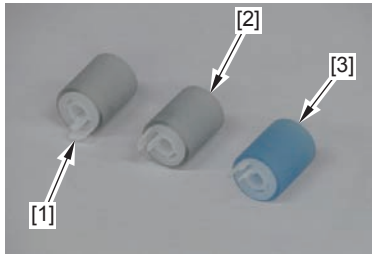
F-4-381

NOTE: How to install the Cassette Separation Roller
- Be sure to align the grove [A] of the Cassette Separation Roller [1] with the protrusion [B] of the coupling to install the roller.
- Be sure to hook the claw [2].



F-4-382

Removing the Multi-purpose Tray Pickup Roller /Multi-purpose Tray Separation Roller /Multi-purpose Tray Feed Roller



F-4-383

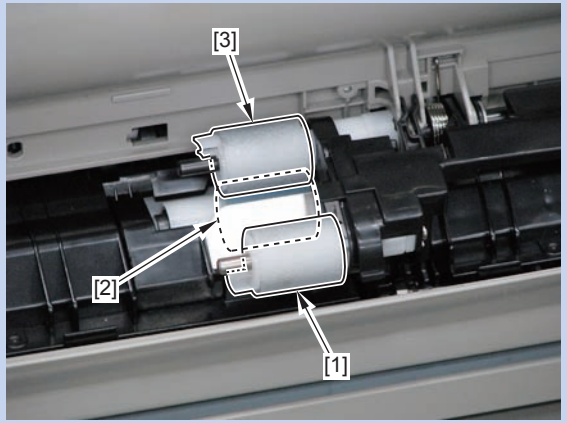
- Multi-purpose Tray Pickup Roller [1]
- Multi-purpose Tray Feed Roller [2]
- Multi-purpose Tray Separation Roller [3]

Preparation

1) Remove the Multi-purpose Tray(Refer to page 4-45).
(When the Multi-purpose Tray is removed, it broadens the working space and makes it easier to work.)

Procedure

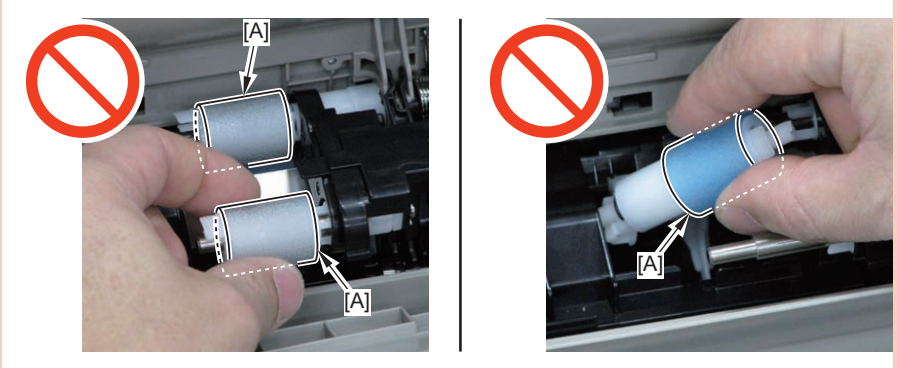
NOTE: The layout for the Cassette Pickup Roller [1] /Separation Roller [2] /Feed Roller [3] is shown below.



F-4-384

CAUTION:

Be sure not to touch the surface [A] of the roller when disassembling/assembling.

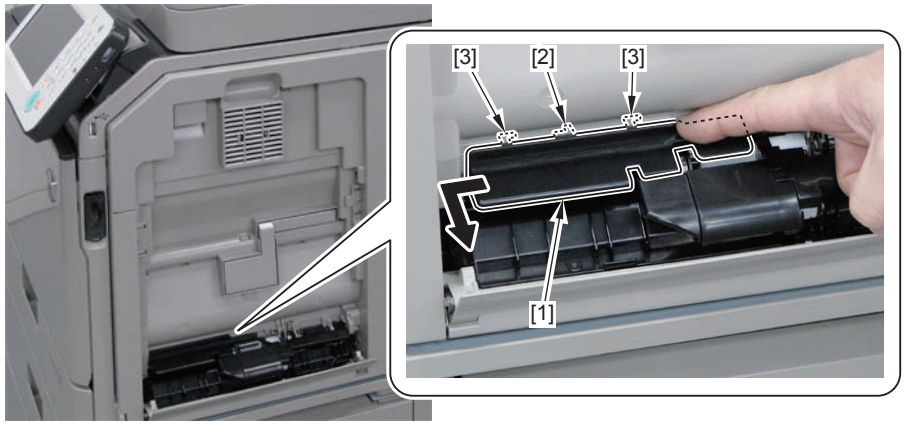


F-4-385

Disassembling Procedure

1) Remove the Multi-purpose Tray Roller Holder 1 [1].

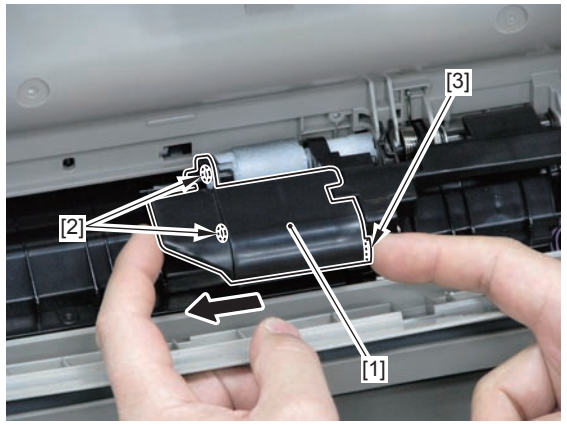
- 1 Boss [2]
- 2 Hooks [3]



F-4-386

2) Remove the Multi-purpose Tray Roller Holder 2 [1].

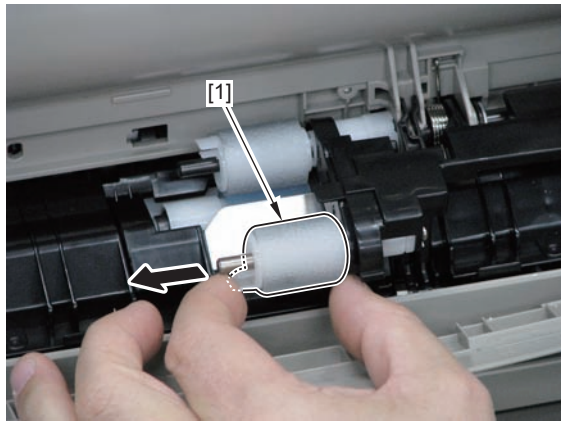
- 2 Shaft Holes [2]
- 1 Hook [3]



F-4-387

When removing the Multi-purpose Tray Pickup Roller

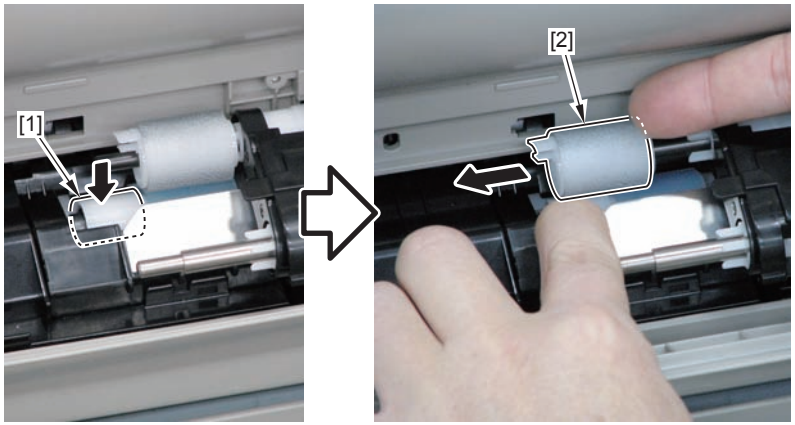
3) Remove the Multi-purpose Tray Pickup Roller [1].



F-4-388

When removing the Multi-purpose Tray Feed Roller

4) Remove the Multi-purpose Tray Feed Roller [2] while pressing the Torque Limiter [1].

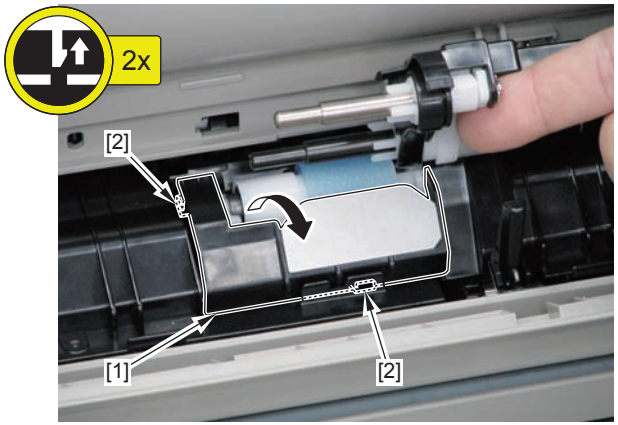


F-4-389

When removing the Multi-purpose Tray Separation Roller

5) Remove the Multi-purpose Tray Feed Guide [1].

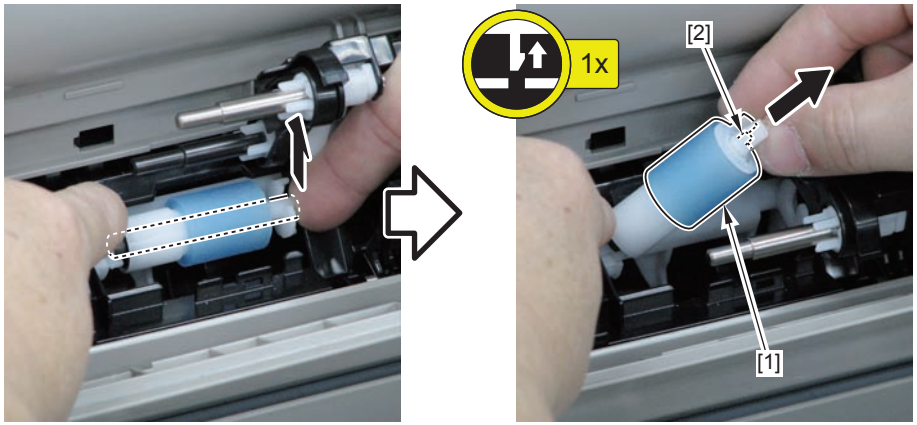
- 2 Claws [2]



F-4-390

6) Remove the Multi-purpose Tray Separation Roller [1].

- 1 Claw [2]

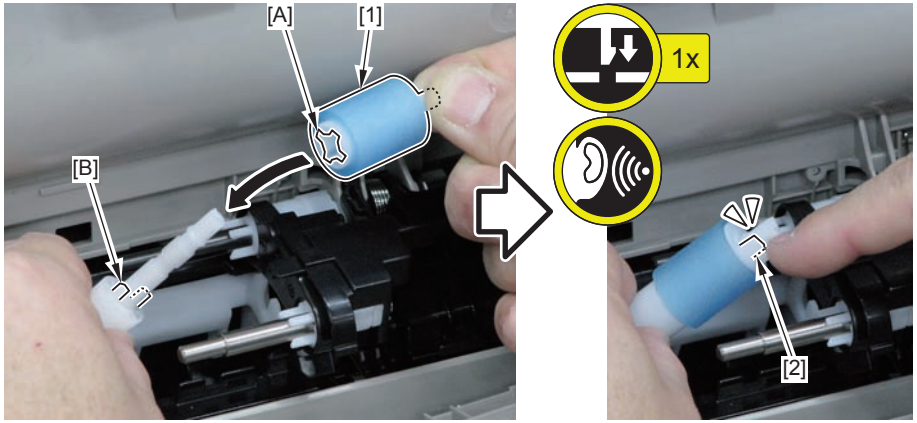


F-4-391

Assembling Procedure

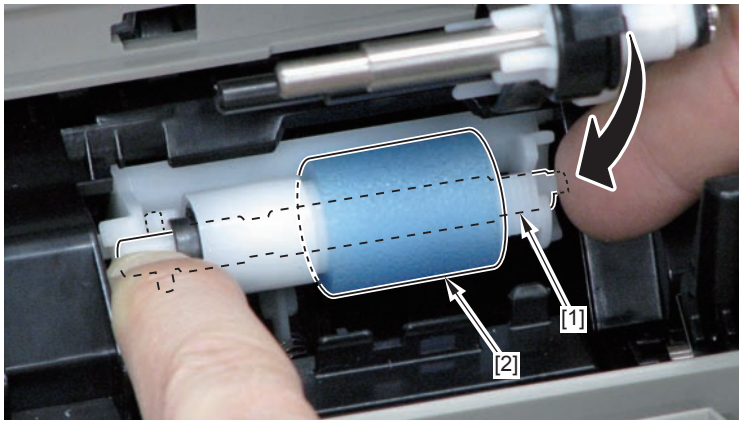
1) Align the groove [A] of the Multi-purpose Tray Separation Roller [1] with the protrusion [B] of the Torque Limiter to install.

- 1 Claw [2]



F-4-392

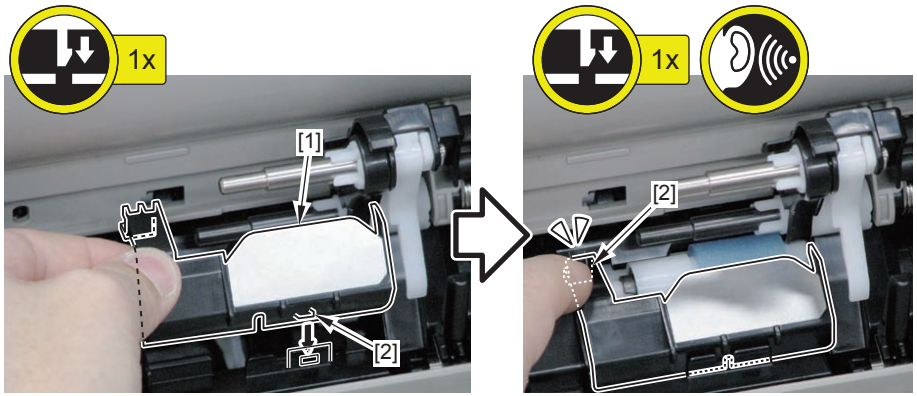
2) Store the Multi-purpose Tray Separation Roller [2] while paying attention not to remove its shaft [1].



F-4-393

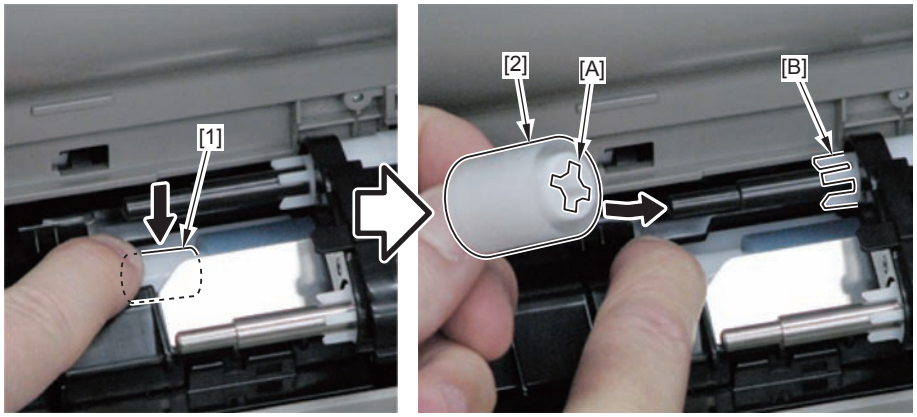
3) Install the Multi-purpose Tray Feed Guide [1].

- 2 Claws [2]



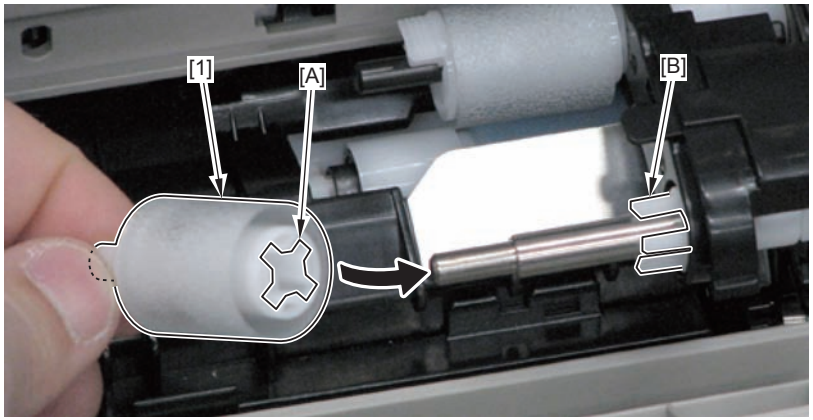
F-4-394

4) Align the groove [A] of the Multi-purpose Tray Feed Roller [2] with the protrusion [B] of the coupling while pressing the Torque Limiter [1] to install.



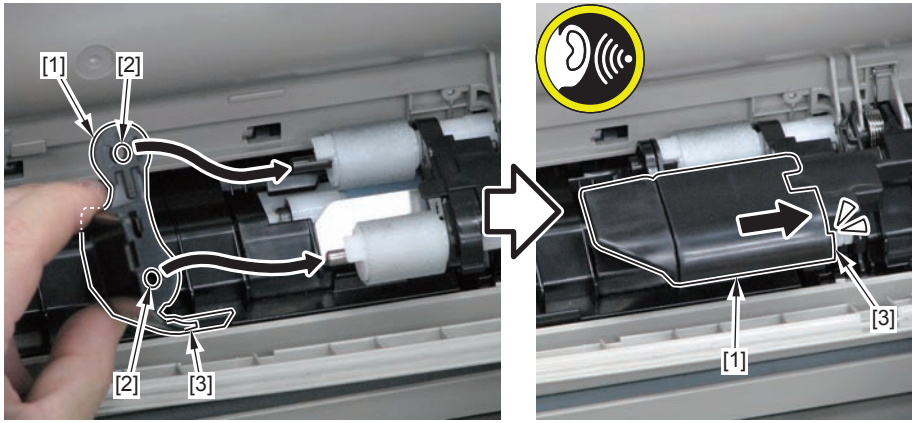
F-4-395

5) Align the groove [A] of the Multi-purpose Tray Pickup Roller [1] with the protrusion [B] of the coupling to install.



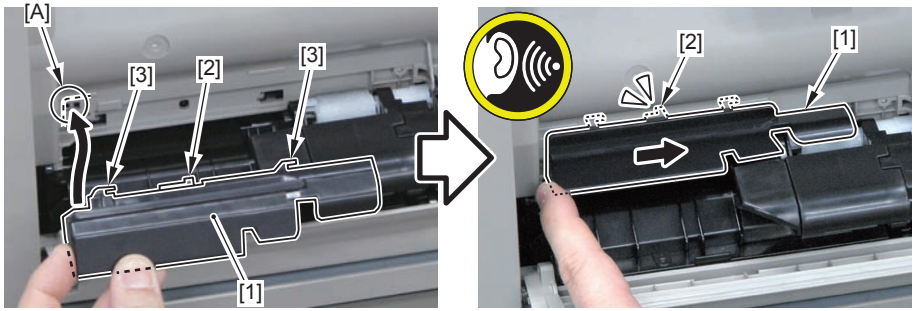
F-4-396

6) Install the Multi-purpose Tray Roller Holder 2 [1].
- 2 Shaft Holes [2]
- 1 Hook [3]



F-4-397

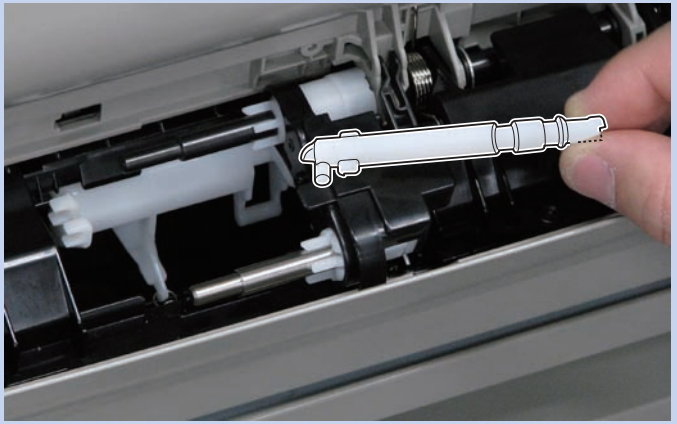
7) Align the Multi-purpose Tray Roller Holder 1 [1] to the corner [A] for installation.
- 1 Boss [2]
- 2 Hooks [3]



F-4-398

Reassembling when the Multi-purpose Tray Separation Roller Shaft is detached

NOTE:
The following describes the state in which the Multi-purpose Tray Separation Roller Shaft is detached.



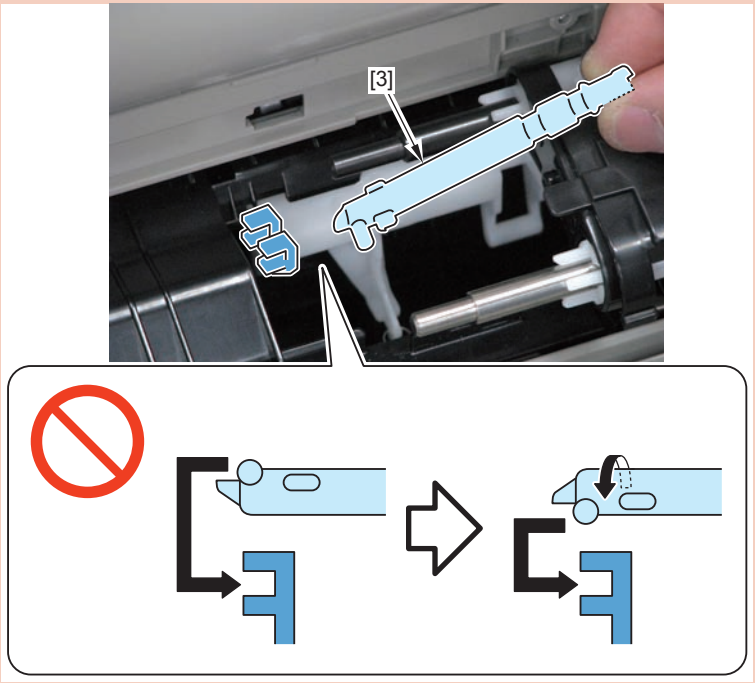
F-4-399

Procedure

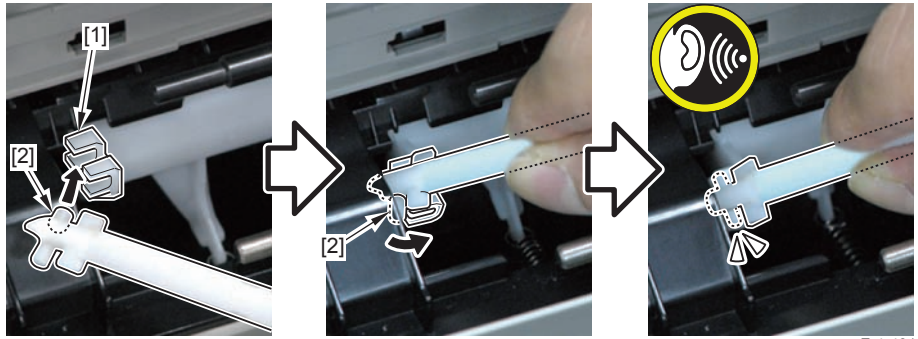
1) Hook the 2 shafts [2] on the 2 hooks [1].

CAUTION:

When assembling the Multi-purpose Tray Separation Roller Shaft [3], pay attention to the direction of installing it.



F-4-400

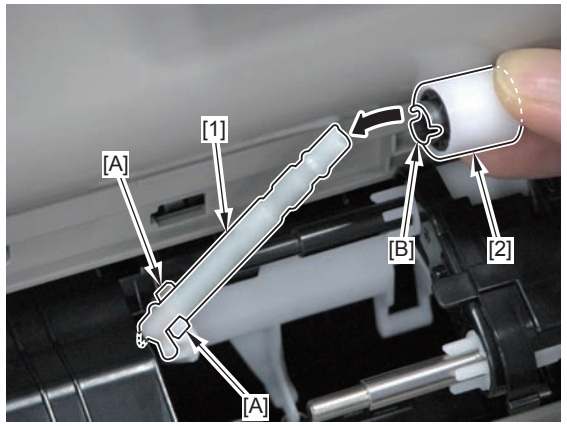


F-4-401

2) Assemble the Torque Limiter [2] on the Multi-purpose Tray Separation Roller Shaft [1].

CAUTION:

Be sure to align the groove [B] of the Torque Limiter [2] with the protrusion [B] of the Multi-purpose Tray Separation Roller Shaft [1] to assemble them.

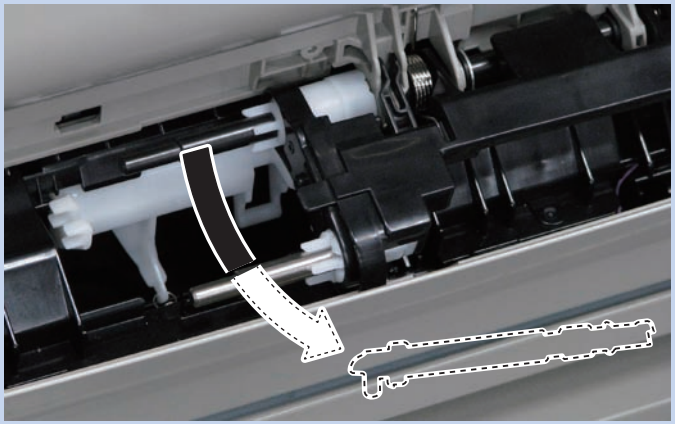


F-4-402

Be sure to reassemble according to steps 7 to 1 by referring to the Assembly Procedure.

Reassembling when the Multi-purpose Tray Separation Roller Shaft is detached and dropped inside the host machine

NOTE:
The following describes the state in which the Multi-purpose Tray Separation Roller Shaft is detached and dropped inside the host machine.



F-4-403

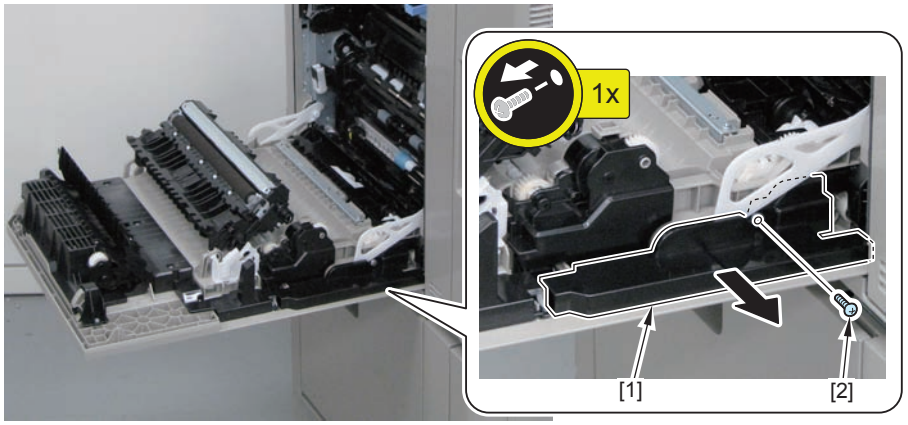
Preparation

1) Remove the Right Inner Door Unit(Refer to page 4-45).

Procedure

1) Remove the Right Cover Stopper Rear Holder [1].

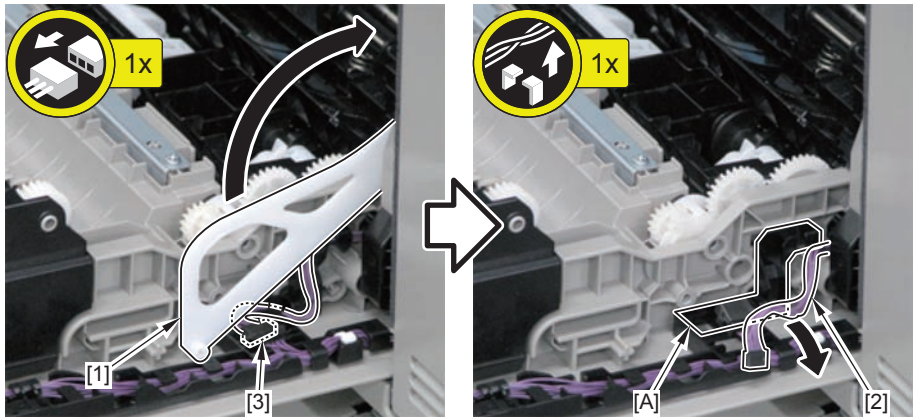
- 1 Screw [2]



F-4-404

2) Lift the Right Cover Stopper Rear [1], and remove the Sensor Harness [2].

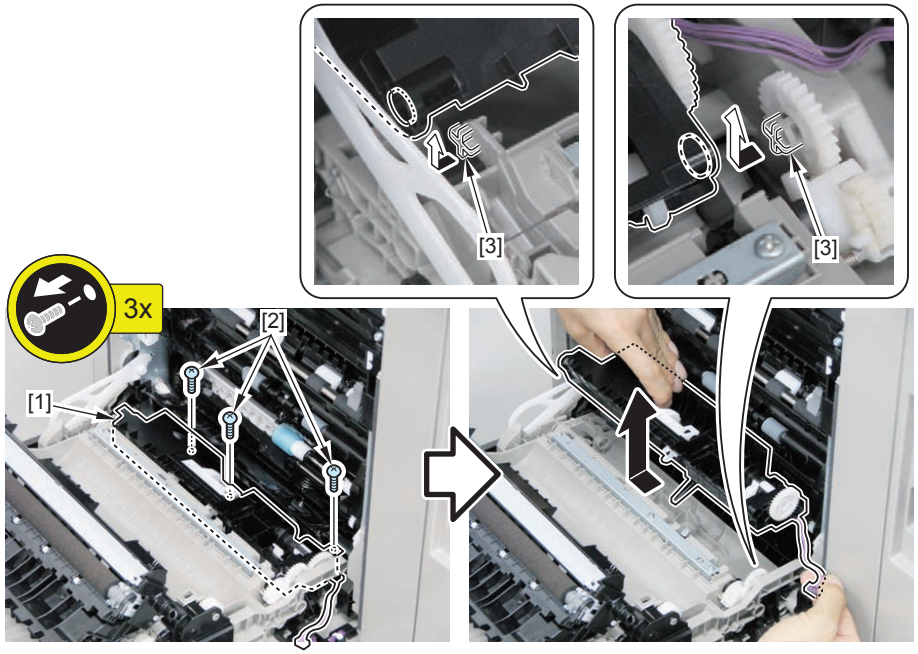
- 1 Connector [3]
- Harness Guide [A]



F-4-405

3) Remove the Multi-purpose Tray Separation Unit [1].

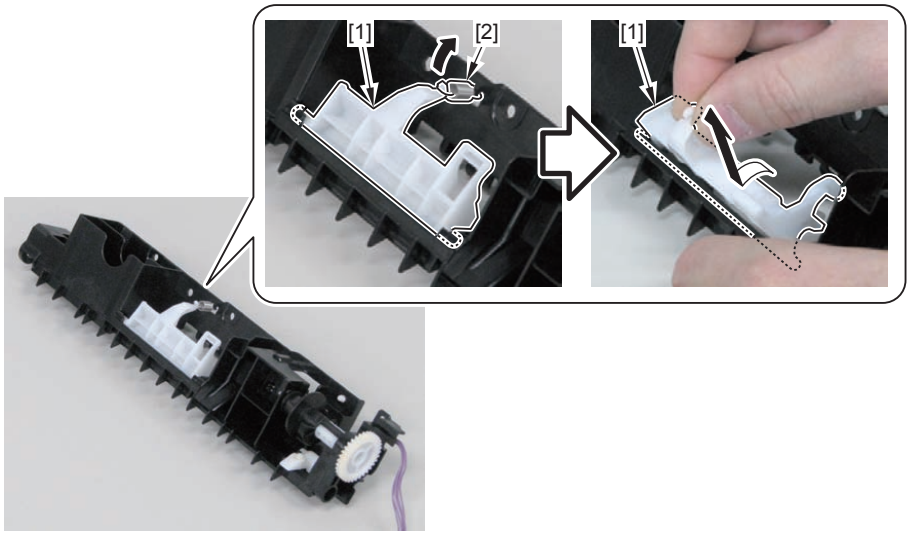
- 3 Screws [2]
- 2 Bosses [3]



F-4-406

4) Remove the Multi-purpose Tray Separation Roller Holder [1].

- 1 Spring [2]

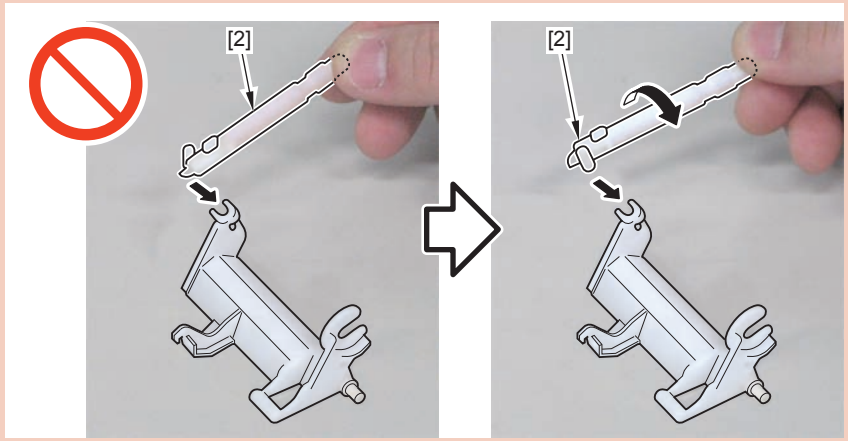


F-4-407

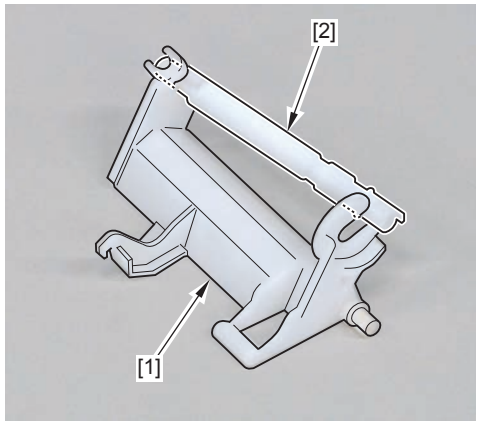
5) Assemble the Multi-purpose Tray Separation Roller Shaft [2] on the Multi-purpose Tray Separation Roller Holder [1].

CAUTION:

When assembling the Multi-purpose Tray Separation Roller Shaft [2], pay attention to the direction of installing it.



F-4-408

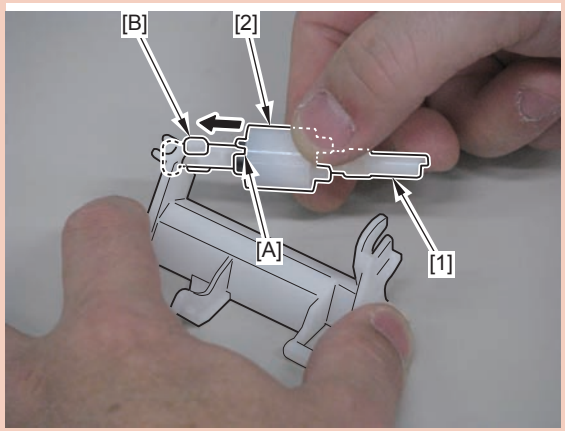


F-4-409

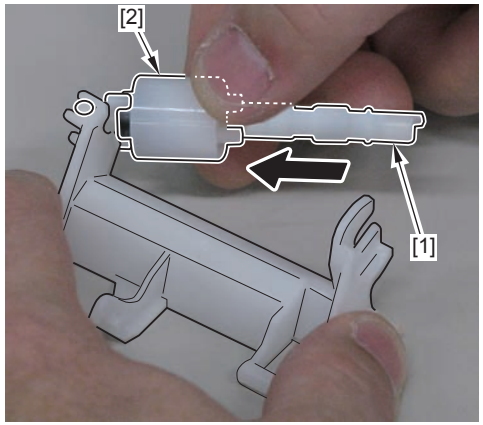
6) Assemble the Torque Limiter [2] on the Multi-purpose Tray Separation Roller Shaft [1].

CAUTION:

Be sure to align the groove [A] of the Torque Limiter [2] with the protrusion [B] of the Multi-purpose Tray Separation Roller Shaft [1] to assemble.



F-4-410



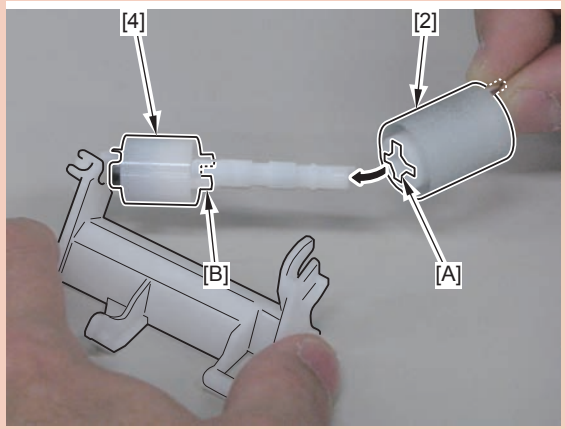
F-4-411

7) Assemble the Separation Roller [2] on the Multi-purpose Tray Separation Roller Shaft [1].

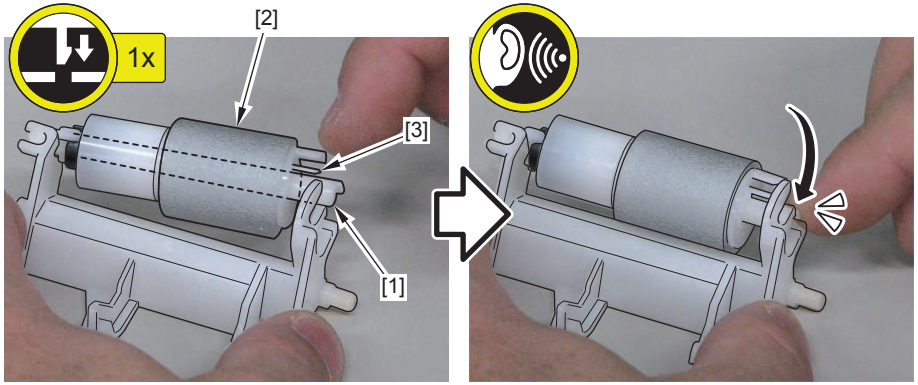
- 1 Claw [3]

CAUTION:

Be sure to align the groove [A] of the Separation Roller [2] with the protrusion [B] of the Torque Limiter [4] to assemble.



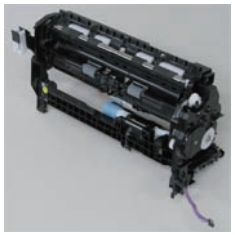
F-4-412



F-4-413

Be sure to reassemble according to steps 7 to 1 by referring to the Assembly Procedure.

Removing the Registration/Pickup Unit



F-4-414

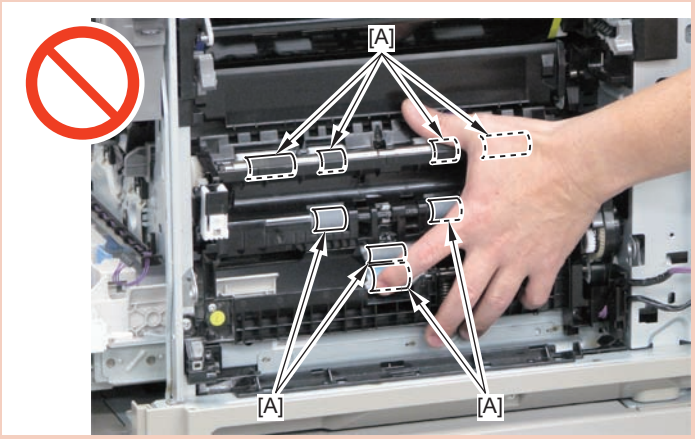
Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Right Rear Cover/Right Rear Lower Cover(Refer to page 4-39).
3) Remove the Right Cover Unit(Refer to page 4-42).
4) Remove the Front Cover(Refer to page 4-34).
5) Remove the Right Front Cover(Refer to page 4-38).
6) Remove the Waste Toner Container(Refer to page 4-111).
7) Remove the Registration Drive Unit(Refer to page 4-125).

Procedure

CAUTION:

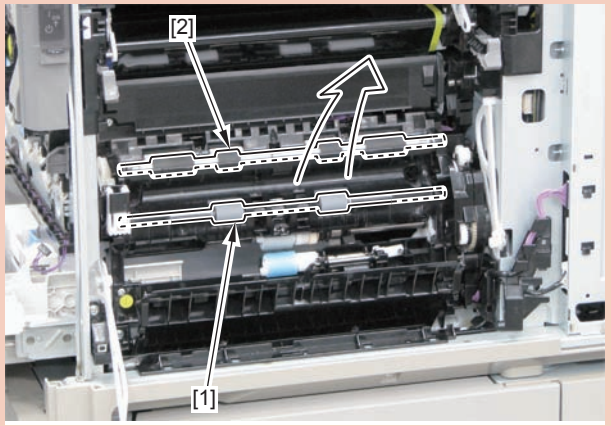
- Be sure not to touch the surface [A] of the roller when disassembling/assembling.



F-4-415

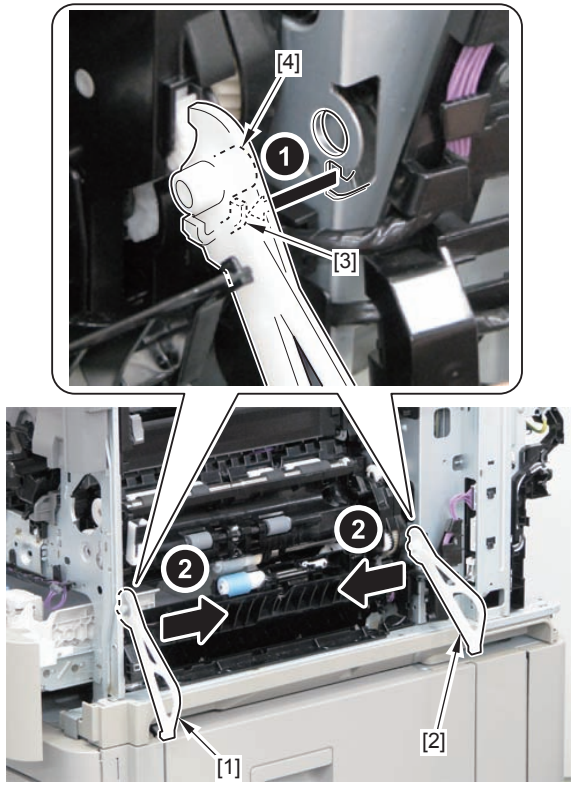
CAUTION:

- If the Registration Roller [1] and the Pre-registration Roller [2] are replaced separately, not simultaneously, it may generate a difference in feeding speed and cause feeding problems such as geometrical characteristics and jams.



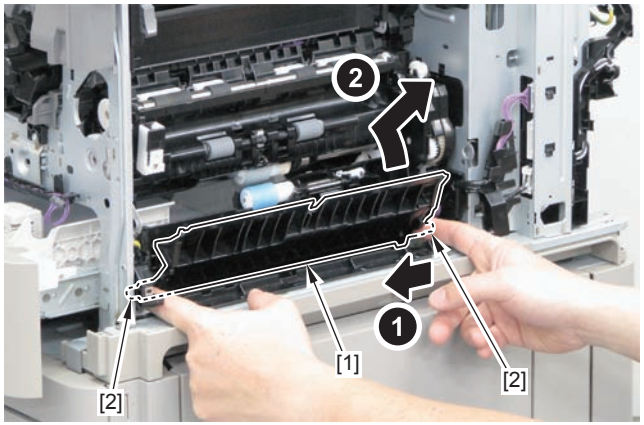
F-4-416

1) Remove the Right Cover Stopper Front [1] and the Right Cover Stopper Rear [2].
- 2 Hooks [3]
- 2 Shafts [4]



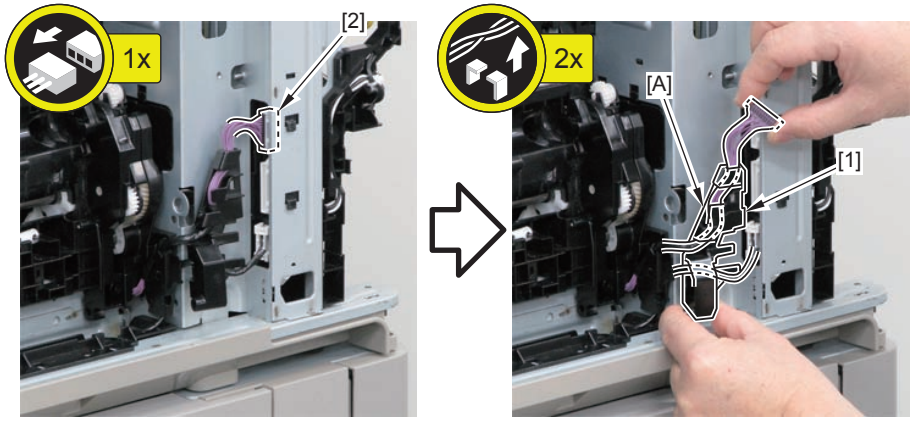
F-4-417

2) Remove the Swing Guide [1].
- 2 Shafts [2]



F-4-418

3) Remove the Right Cover Harness Guide [1].
- 1 Connector [2]
- Harness Guide [A]



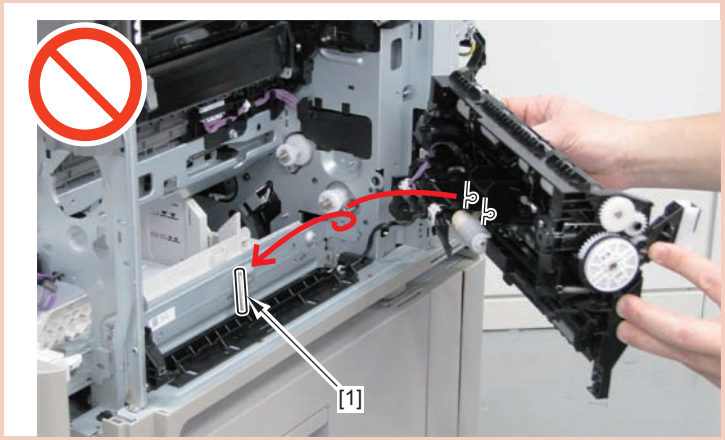
F-4-419

4) Remove the Registration/Pickup Unit [1].

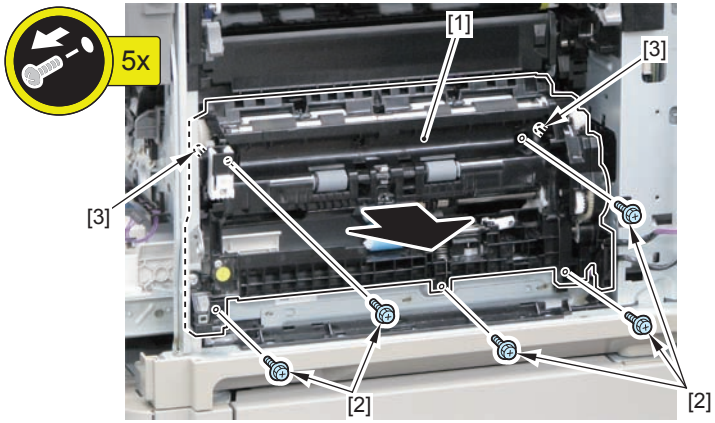
- 5 Screws [2]
- 2 Bosses [3]

CAUTION:

Be careful not to drop the shaft [1] when disassembling/assembling.



F-4-420

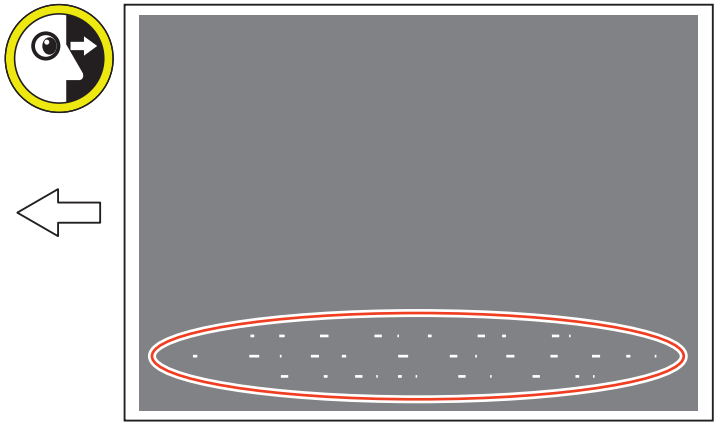


F-4-421

Procedure after replacement

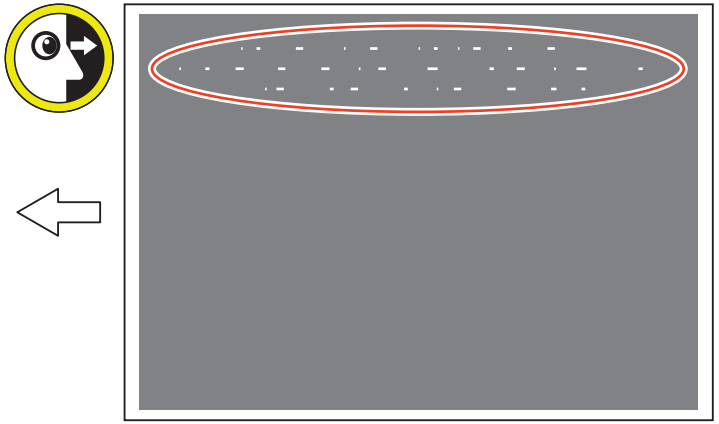
When images with uneven density (white spots) are generated after replacing the Registration Unit

● Image with uneven density (white spots) on the front side



F-4-422

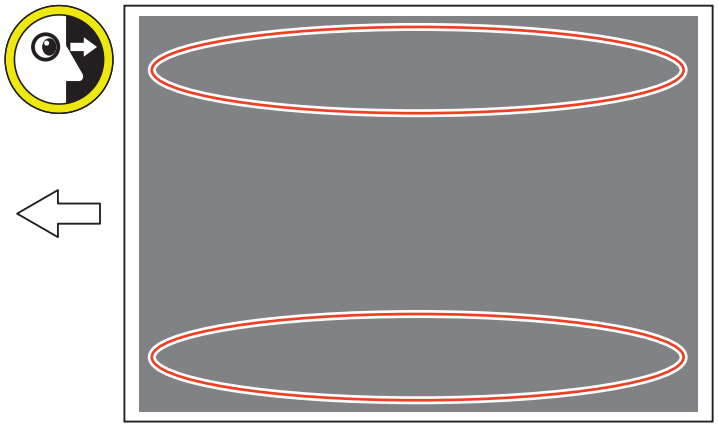
● Image with uneven density (white spots) on the rear side



F-4-423

1) Test Print (output of halftone).
   Service mode: Select 5 for COPIER > TEST > PG > TYPE.

2) Check if there is no image with uneven density (white spots).



F-4-424

3) Perform the following remedy when images with uneven density (white spots) are generated when executing the service mode.

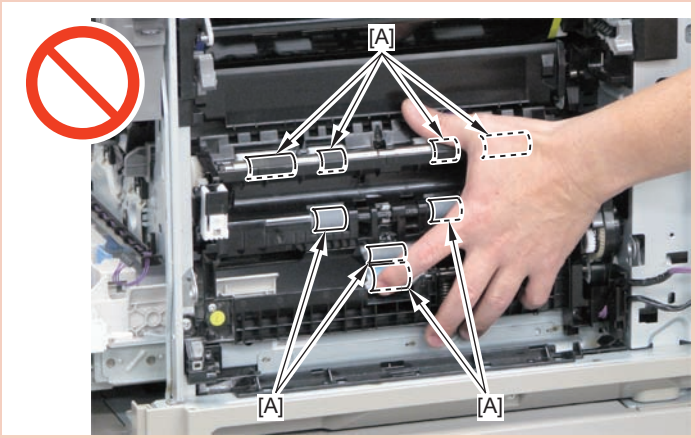
Adjusting the Registration/Pickup Unit

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Right Rear Cover/Right Rear Lower Cover(Refer to page 4-39).
3) Remove the Right Cover Unit(Refer to page 4-35).
4) Remove the Front Cover(Refer to page 4-34).
5) Remove the Right Front Cover(Refer to page 4-38).
6) Remove the Waste Toner Container(Refer to page 4-111).
7) Remove the Registration Drive Unit(Refer to page 4-125).

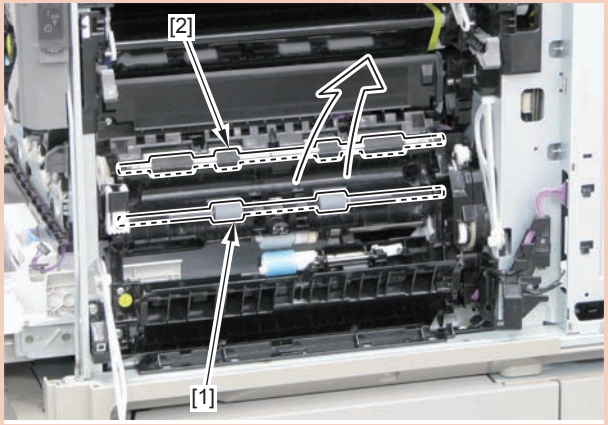
CAUTION:

- Be sure not to touch the surface [A] of the roller when disassembling/assembling.



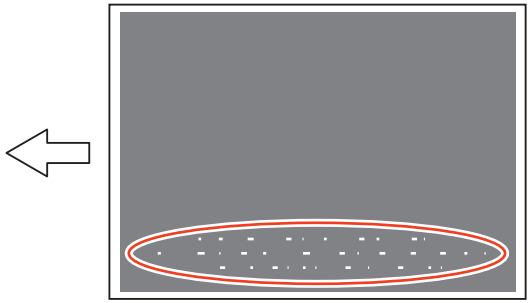
F-4-425

- If the Registration Roller [1] and the Pre-registration Roller [2] are replaced separately, not simultaneously, it may generate a difference in feeding speed and cause feeding problems such as geometrical characteristics and jams.



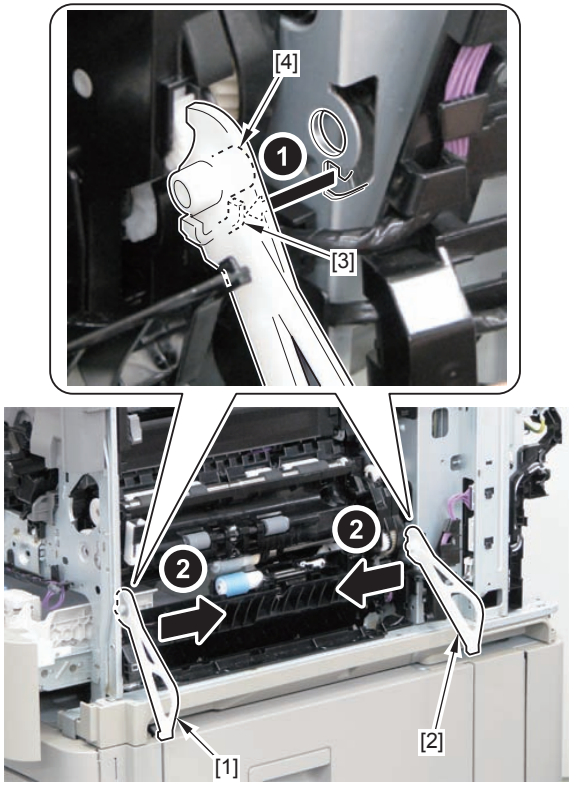
F-4-426

Procedure when images with uneven density (white spots) are generated on the front side



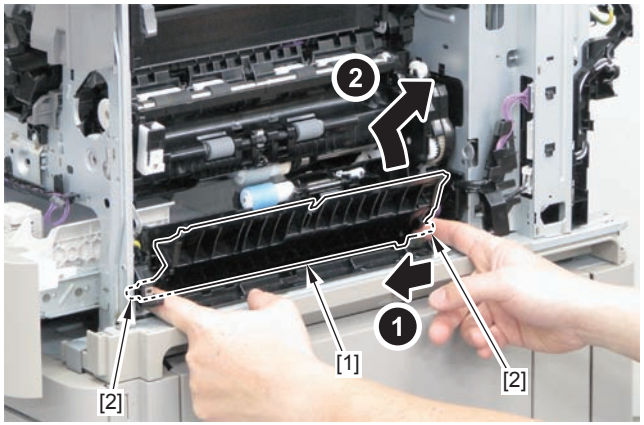
F-4-427

1) Remove the Right Cover Stopper Front [1] and the Right Cover Stopper Rear [2].
- 2 Hooks [3]
- 2 Shafts [4]



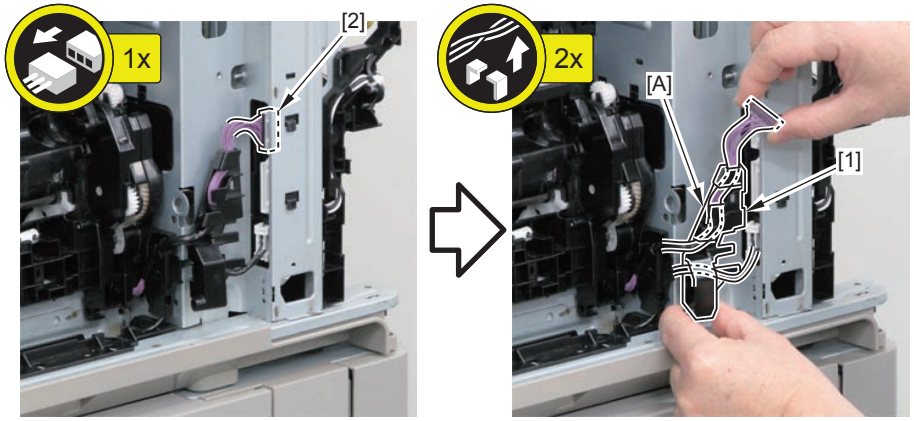
F-4-428

2) Remove the Swing Guide [1].
- 2 Shafts [2]



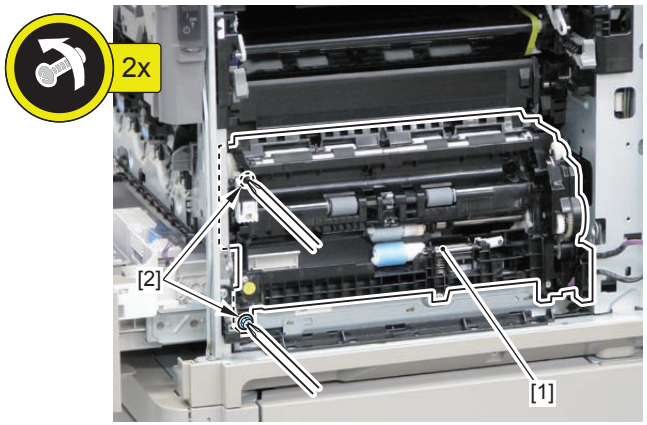
F-4-429

3) Remove the Right Cover Harness Guide [1].
- 1 Connector [2]
- Harness Guide [A]



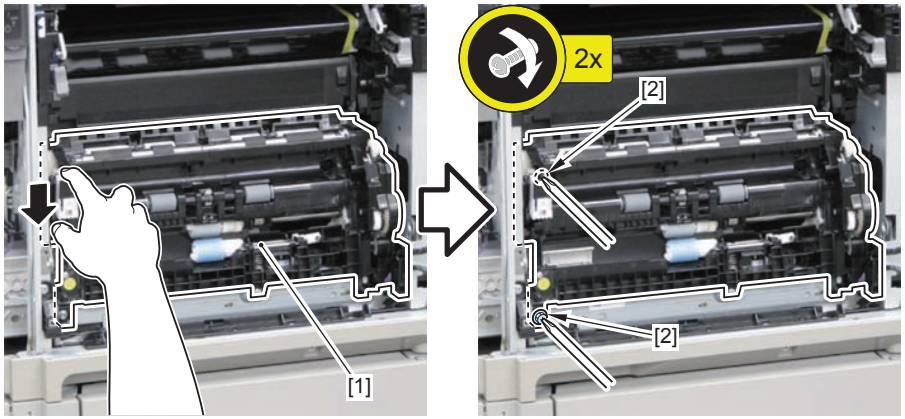
F-4-430

4) Loosen the 2 screws [2] of the Registration/Pickup Unit [1].



F-4-431

5) Lower the Registration/Pickup Unit [1], and tighten the 2 screws [2].



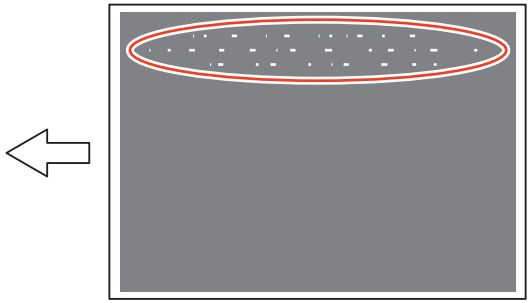
F-4-432

6) Assemble the Registration/Pickup Unit, output a test print, and confirm that images with uneven density (white spots) are not generated.

F-4-433

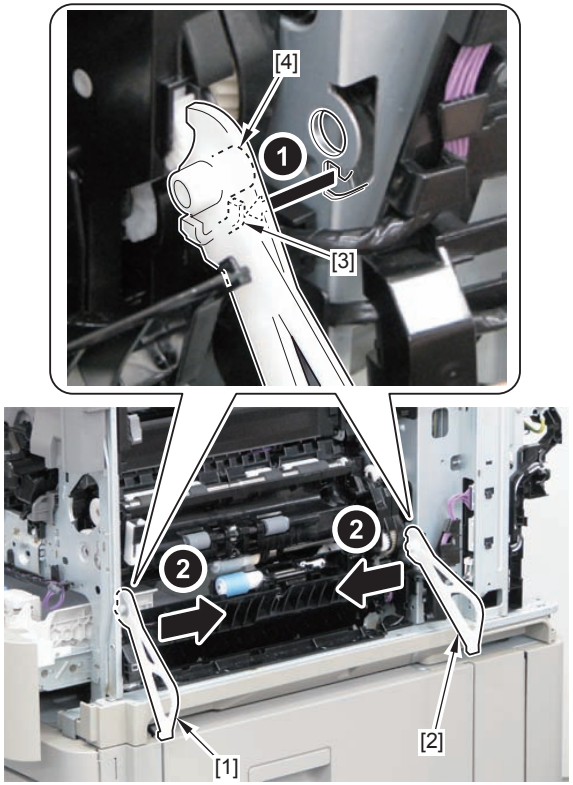
7) End if images with uneven density (white spots) are not generated.
Adjust again the Registration/Pickup Unit if images with uneven density (white spots) are generated.

Procedure when images with uneven density (white spots) are generated on the rear side



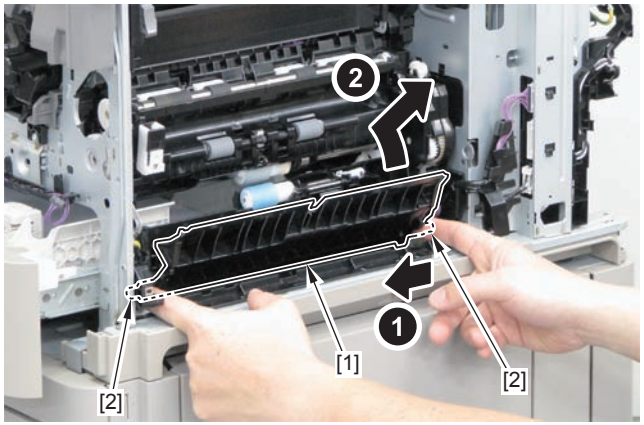
F-4-434

1) Remove the Right Cover Stopper Front [1] and the Right Cover Stopper Rear [2].
- 2 Hooks [3]
- 2 Shafts [4]



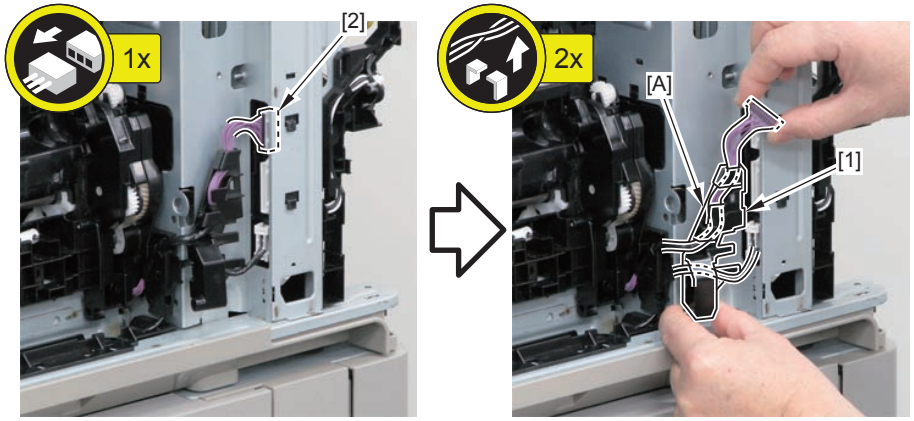
F-4-435

2) Remove the Swing Guide [1].
- 2 Shafts [2]



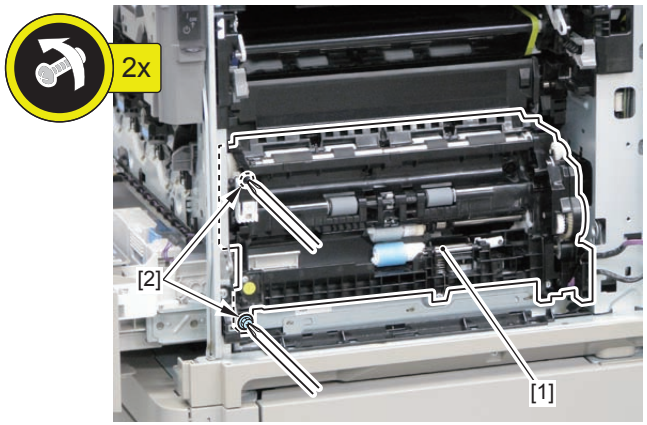
F-4-436

3) Remove the Right Cover Harness Guide [1].
- 1 Connector [2]
- Harness Guide [A]



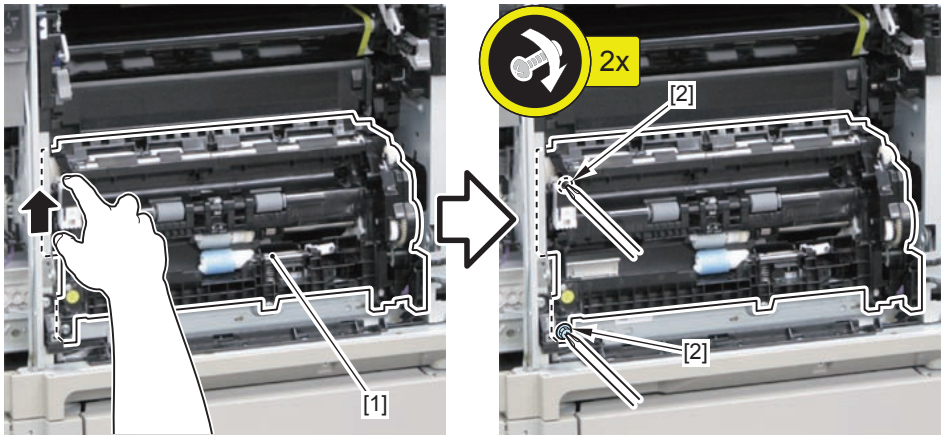
F-4-437

4) Loosen the 2 screws [2] of the Registration/Pickup Unit [1].



F-4-438

5) Lift the Registration/Pickup Unit [1], and tighten the 2 screws [2].



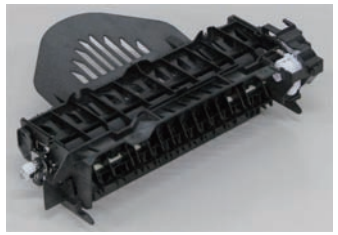
F-4-439

6) Assemble the Registration/Pickup Unit, output a test print, and confirm that images with uneven density (white spots) are not generated.

F-4-440

7) End if images with uneven density (white spots) are not generated.
Adjust again the Registration/Pickup Unit if images with uneven density (white spots) are generated.

Removing the Delivery/Reverse Unit



F-4-441

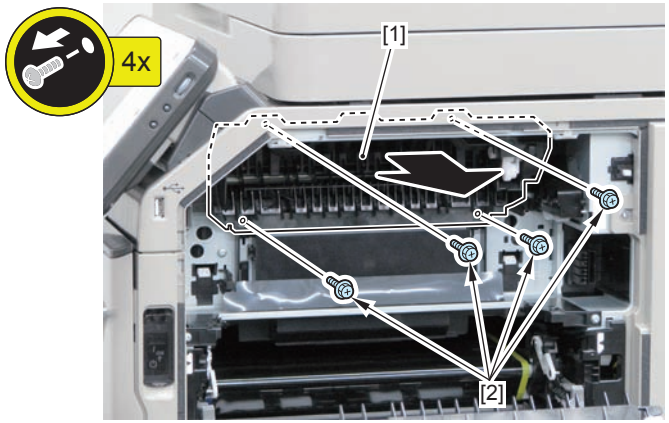
Preparation

1) Remove the Fixing Assembly(Refer to page 4-138).

Procedure

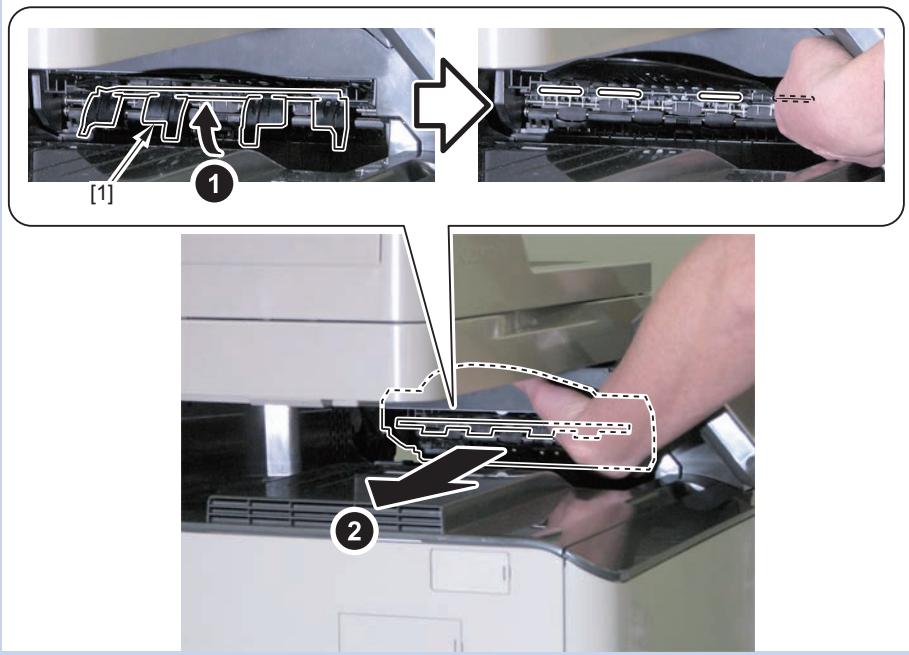
1) Remove the Delivery/Reverse Unit [1].

- 4 Screws [2]



F-4-442

NOTE: How to assemble the Delivery/Reverse Unit
Be sure to lift up the Paper Full Detection Flag [1] to install the unit.



F-4-443

Removing the Cassette 1 Lifter Drive Unit

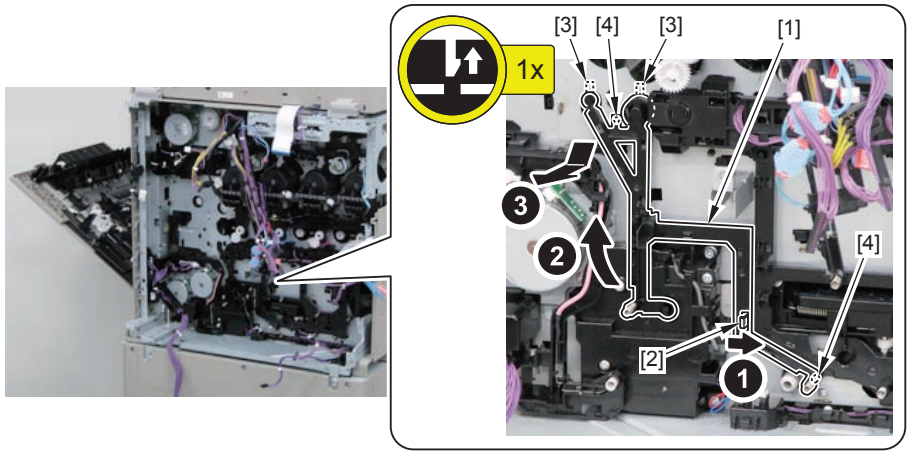
F-4-444

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Left Upper Cover (to be removed for models equipped with a fax) (Refer to page 4-37).
3) Remove the Fax Speaker Unit (to be removed for models equipped with a fax) (Refer to page 4-104).
4) Remove the Fax Unit (to be removed for models equipped with a fax)(Refer to page 4-104).
5) Remove the Main Controller Unit(Refer to page 4-83).
6) Remove the Low-voltage Power Supply PCB Unit(Refer to page 4-96).
7) Remove the DC Controller PCB Unit(Refer to page 4-90).
8) Remove the Secondary Transfer High-voltage PCB/Developing High-voltage PCB Unit (Refer to page 4-92).

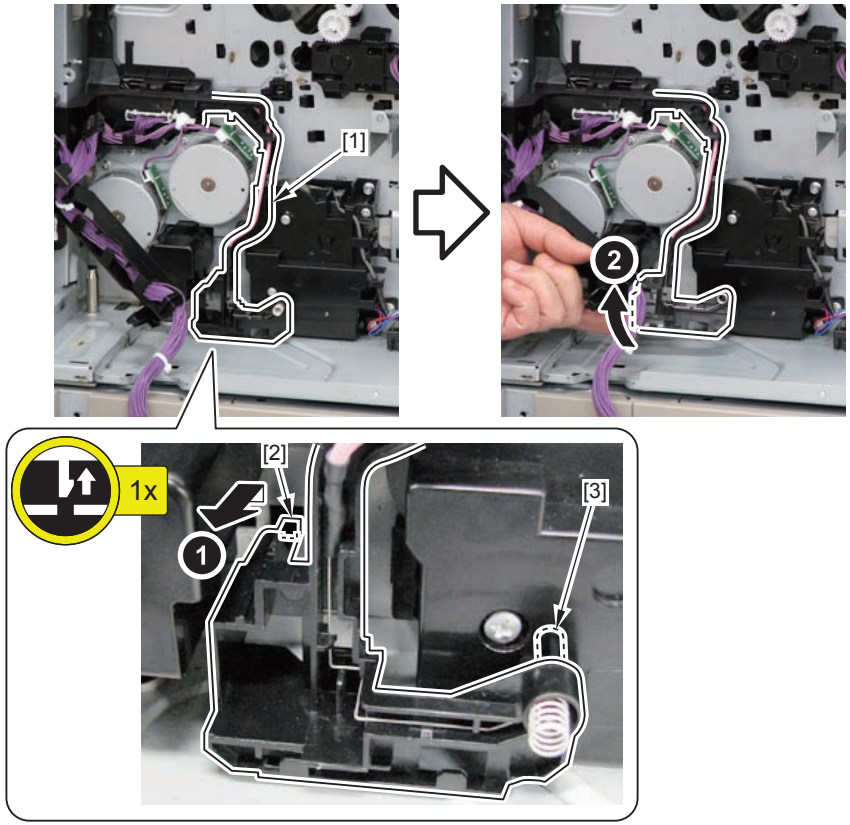
Procedure

1) Remove the High-voltage Contact Guide 1 [1].
- 1 Claw [2]
- 2 Hooks [3]
- 2 Bosses [4]



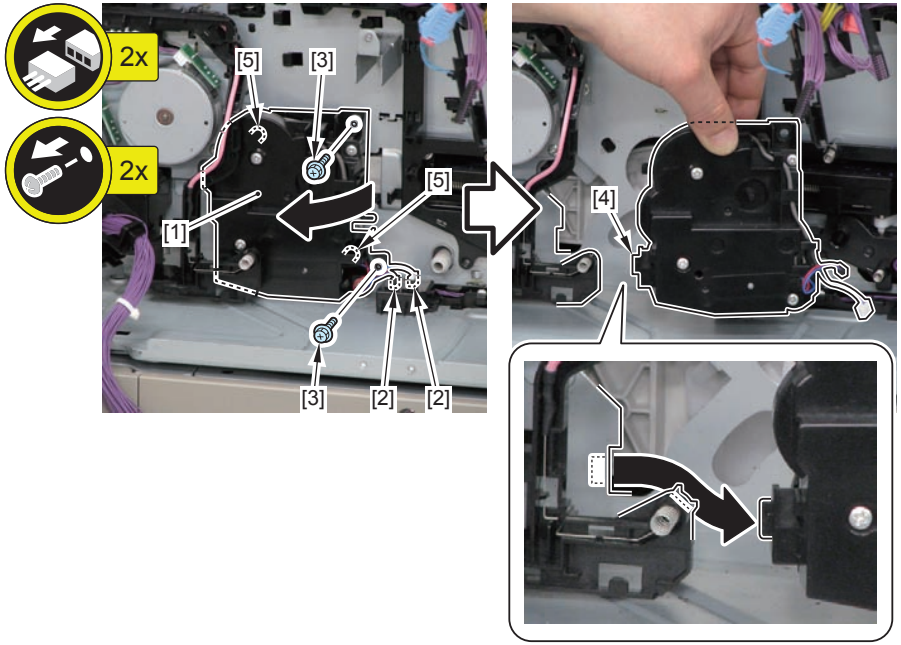
F-4-445

2) Move the High-voltage Contact Guide 2 [1].
- 1 Claw [2]
- 2 Bosses [3]



F-4-446

3) Remove the Cassette 1 Lifter Drive Unit [1].
- 2 Connectors [2]
- 2 Screws [3]
- 1 Hook [4]
- 2 Bosses [5]

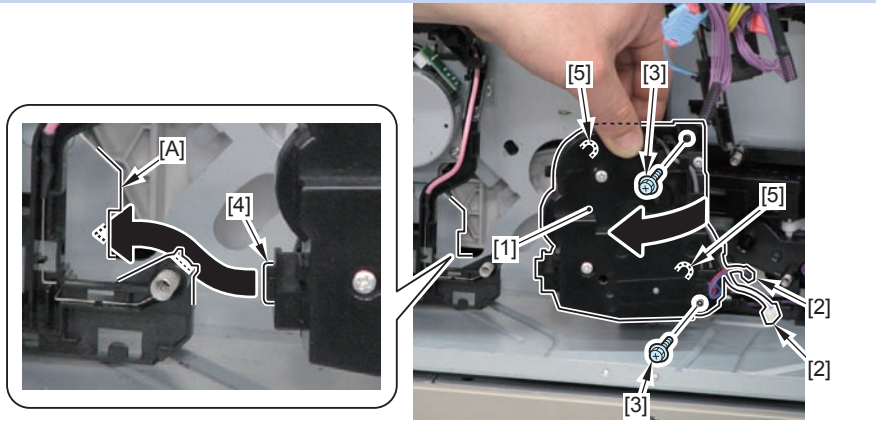


F-4-447

NOTE: How to assemble the Cassette 1 Lifter Drive Unit

1) Insert the hook [4] of the Cassette 1 Lifter Drive Unit [1] inside the hole [A] of the Rear Plate, and secure the unit in place with the 2 screws [3].

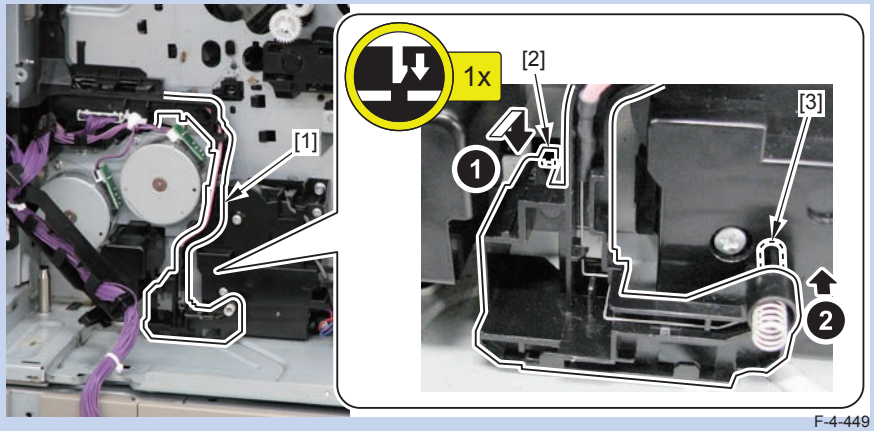
- 2 Bosses [5]
- 2 Connectors [2]



F-4-448

2) Install the High-voltage Contact Guide 2 [1].

- 1 Claw [2]
- 2 Bosses [3]

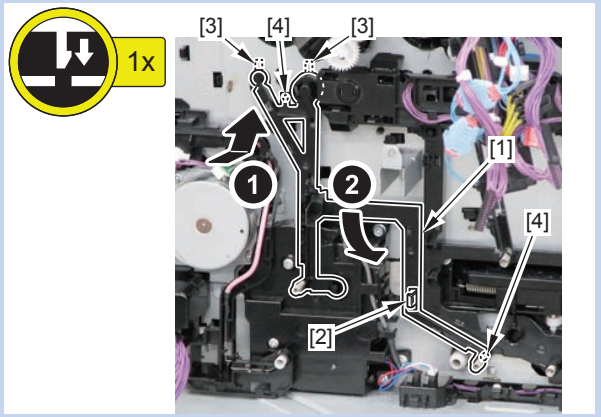


F-4-449

NOTE: How to assemble the Cassette 1 Lifter Drive Unit

3) Install the High-voltage Contact Guide 1 [1].

- 1 Claw [2]
- 2 Hooks [3]
- 2 Bosses [4]



F-4-450

Removing the Cassette 1 Pickup Drive Unit

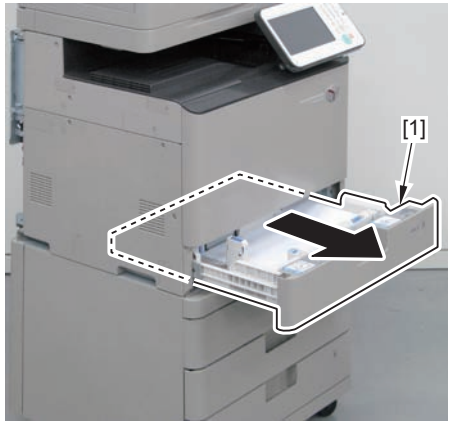
F-4-451

Preparation

1) Remove the Rear Cover 1(Refer to page 4-35).
2) Remove the Secondary Transfer High-voltage PCB/Developing High-voltage PCB Unit (Refer to page 4-92).
3) Remove the Cassette 1 Lifter Drive Unit(Refer to page 4-165).

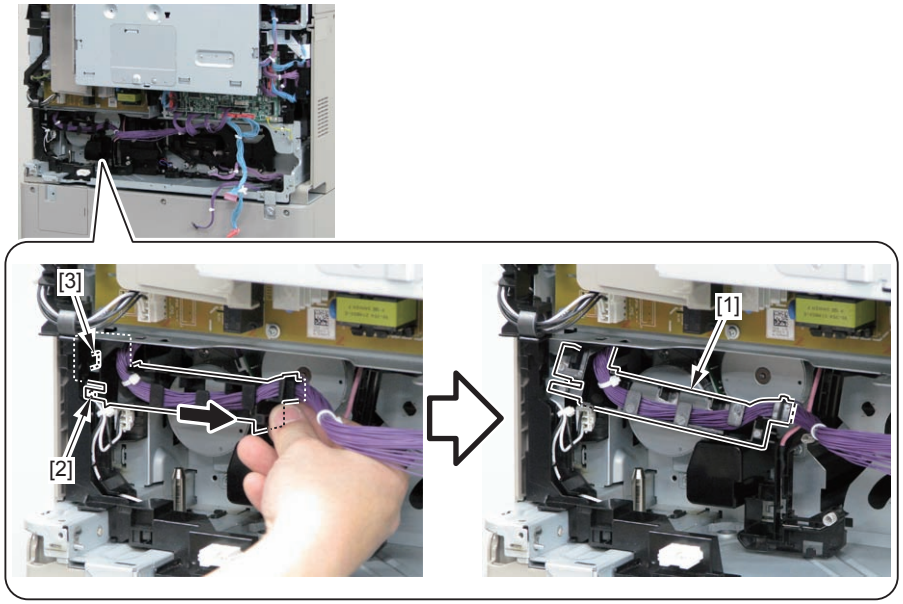
Procedure

1) Pull out the cassette [1].



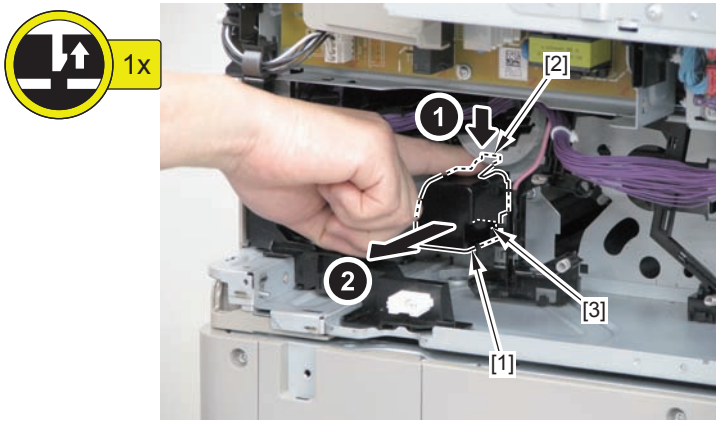
F-4-452

2) Move the Harness Guide [1].
- 1 Boss [2]
- 1 Hook [3]



F-4-453

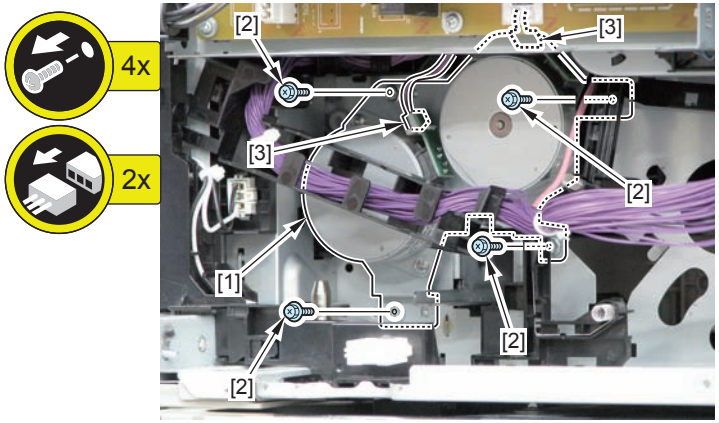
3) Remove the Rail Cover [1].
- 2 Claws [2]
- 1 Hook [3]



F-4-454

4) Remove the Cassette 1 Pickup Drive Unit [1].

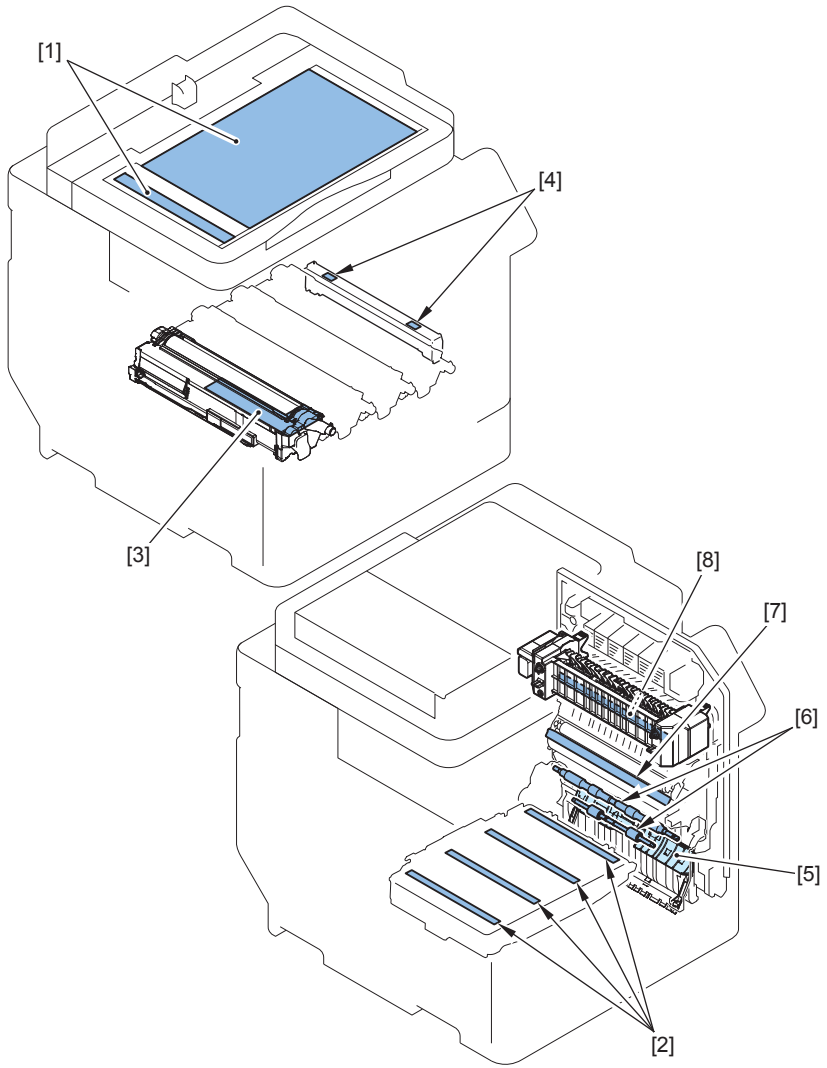
- 4 Screws [2]
- 2 Connectors [3]



F-4-455

Cleaning Procedure

Layout Drawing



F-4-456

No.	Parts Name	Reference
[1]	Cleaning the Copyboard Glass/Reading Glass	(Refer to page 4-171)
[2]	Cleaning the Dustproof Glass	(Refer to page 4-171)
[3]	Cleaning when installing/removing the ITB Unit	(Refer to page 4-172)
[4]	Cleaning the Registration Patch Sensor Unit	(Refer to page 4-173)
[5]	Cleaning the Registration Front Guide	(Refer to page 4-174)
[6]	Cleaning the Registration Roller/Pre-registration Roller	(Refer to page 4-175)
[7]	Cleaning the Secondary Transfer Guide	(Refer to page 4-176)
[8]	Cleaning the Fixing Inlet Guide	(Refer to page 4-178)

T-4-98

Cleaning the Copyboard Glass/Reading Glass

Procedure

1) Clean the Copyboard Glass [1]/Reading Glass [2] with a glass cleaning sheet [3].

F-4-457

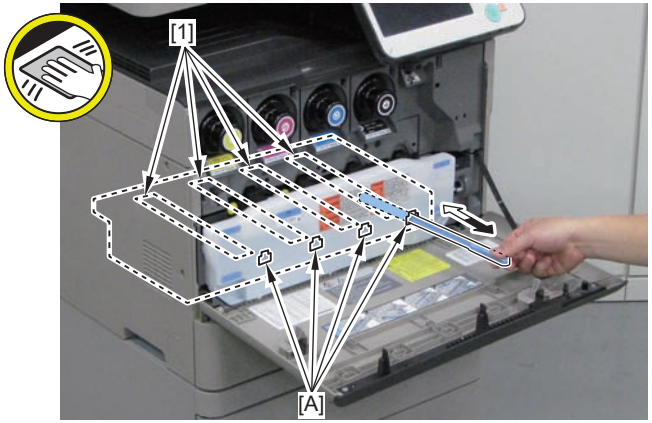
Cleaning the Dustproof Glass

Procedure

1) Open the Front Cover [1].
2) Remove the Dustproof Glass Cleaning Tool [2].

F-4-458

3) Clean the Dustproof Glass [1] from the hole [A] of the Waste Toner Container.



F-4-459

Cleaning when installing/removing the ITB Unit

Be sure to check for any soiling before cleaning since toner may be spilled over Drum Unit (Y) when installing/removing the ITB Unit.

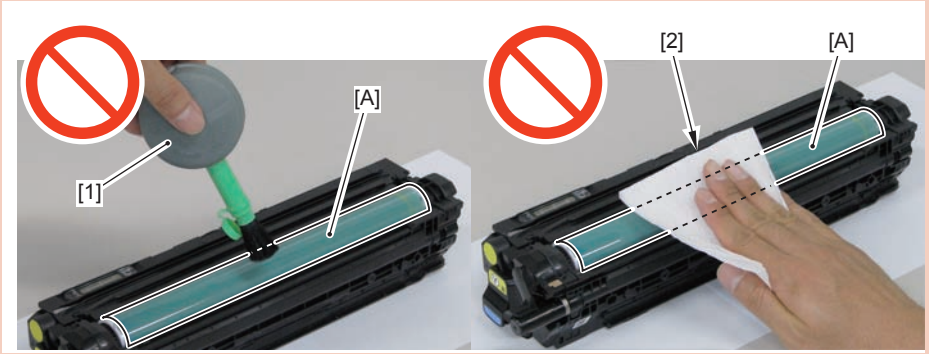
Preparation

1) Remove the Waste Toner Container(Refer to page 4-111).
2) Remove the Drum Unit (Y/M/C/Bk) (remove the Drum Unit of the Y color) (Refer to page 4-112).

Procedure

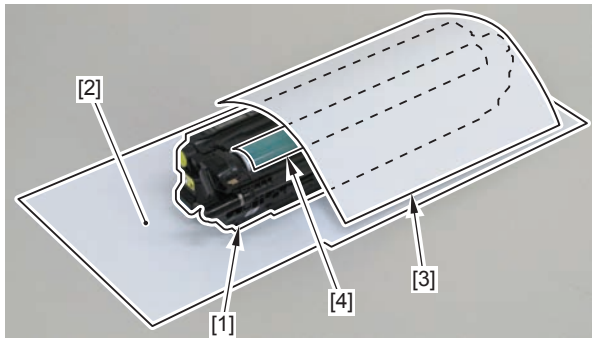
CAUTION:

Do not clean the drum surface [A] with a blower [1] or lint-free paper [2].



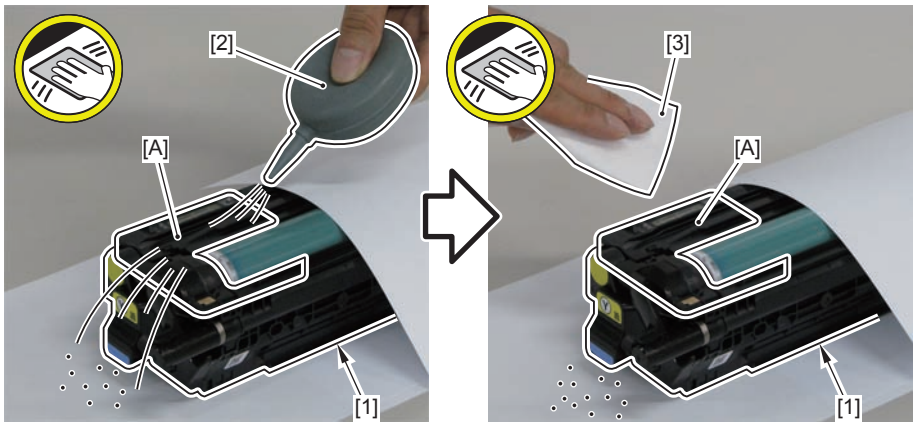
F-4-460

1) Put the removed Drum Unit (Y) [1] on a sheet of paper [2].
2) Cover the removed Drum Unit (Y) [1] with a paper [3] to block the light for Drum (4).



F-4-461

3) Clean the [A] part of the Drum Unit (Y) [1] with a blower [2].
4) Clean the [A] part of the Drum Unit (Y) [1] with lint-free paper [3].



F-4-462

Cleaning the Registration Patch Sensor Unit

Be sure to clean the Registration Patch Sensor Unit when replacing the ITB Unit.

Preparation

Preparation

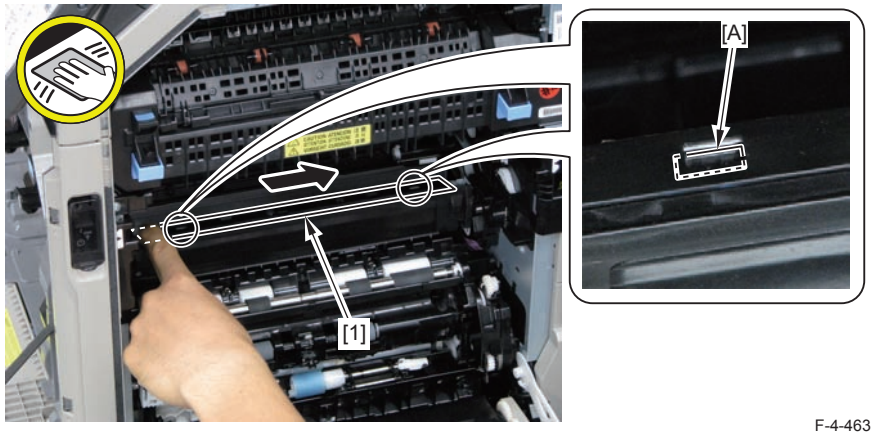
1) Remove the Waste Toner Container(Refer to page 4-111).
2) Remove the Drum Unit (remove Bk color) (Refer to page 4-112).
3) Remove the ITB Unit(Refer to page 4-114).

Procedure

1) While opening the RD Sensor Shutter [1], clean the surface [A] of the Patch Sensor with a blower. After cleaning, check that there is no soiling caused by toner on the surface [A] of the sensor.
   If the soiling cannot be removed, perform step 2.
2) While opening the RD Sensor Shutter [1], clean the surface [A] of the Patch Sensor with tightly-wrung cotton swab moistened with water in a single direction.

CAUTION:

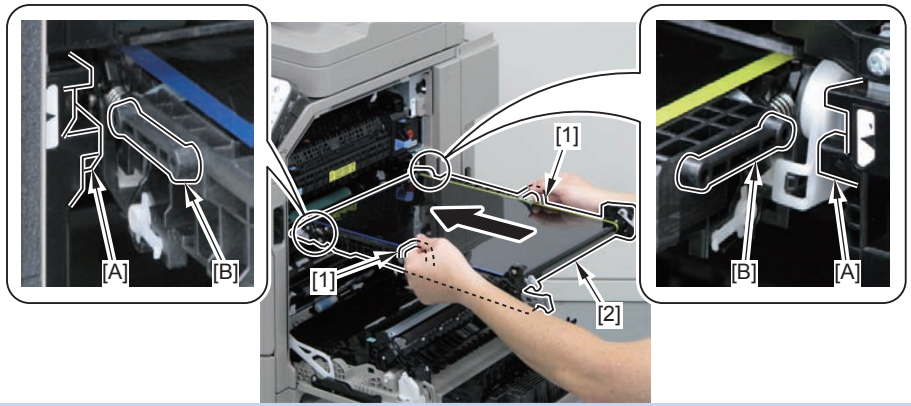
- Do not use alcohol because it causes melting and clouding of the sensor window.
- Do not dry wipe the sensor window because it is charged to attract toner.



F-4-463

NOTE: How to install the ITB Unit

1) Hold the 2 handles [1], align the 2 protrusions [B] of the ITB Unit [2] with the 2 grooves [A] of the rails of the ITB Unit, and then put the unit inside the machine.

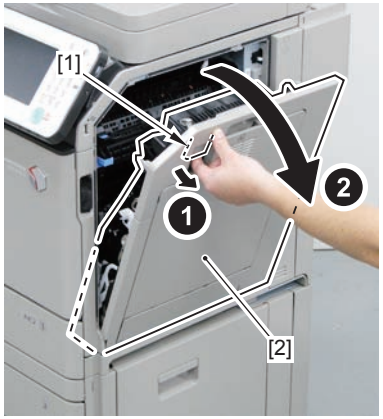


F-4-464

Cleaning the Registration Front Guide

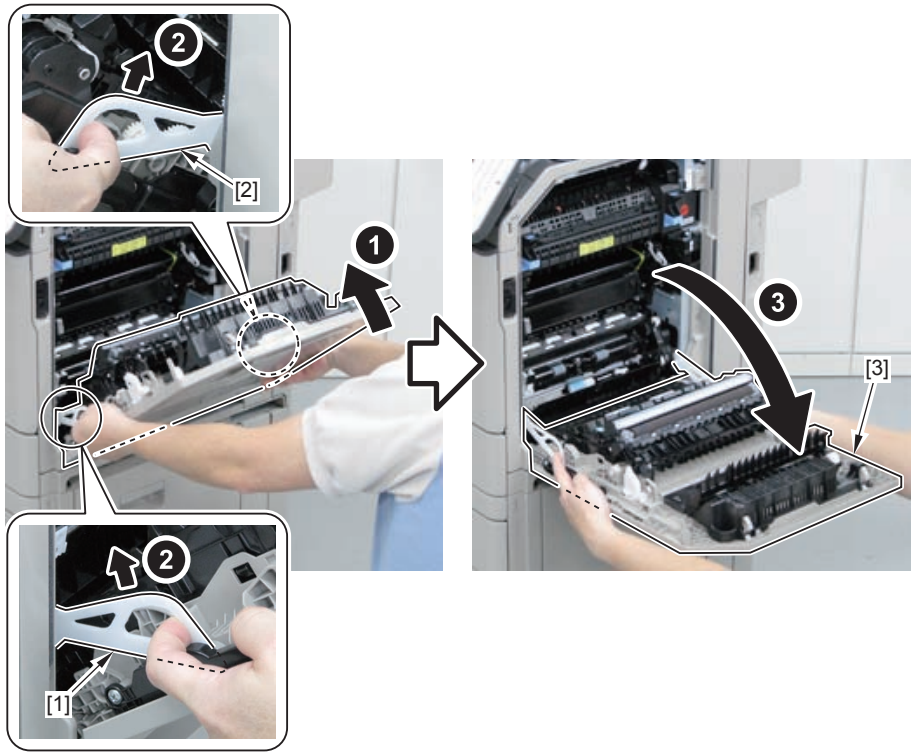
Procedure

1) Pull the Right Cover Open/Close Lever [1], and open the Right Cover Unit [2].



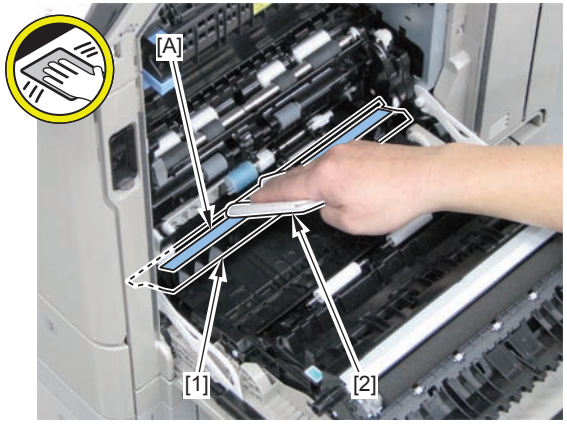
F-4-465

2) Release the lock of the Right Cover Stopper (Front) [1] and the Right Cover Stopper Rear [2], and then further open the Right Cover Unit [3].



F-4-466

3) Clean the [A] part of the Registration Front Guide [2] using lint-free paper [1] soaked with alcohol.

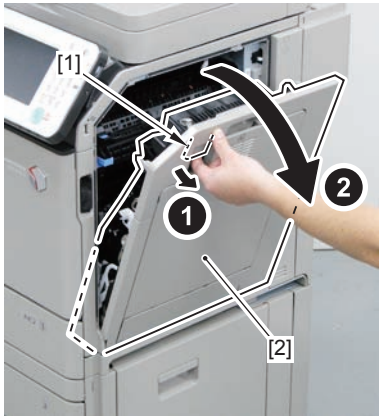


F-4-467

Cleaning the Registration Roller/Pre-registration Roller

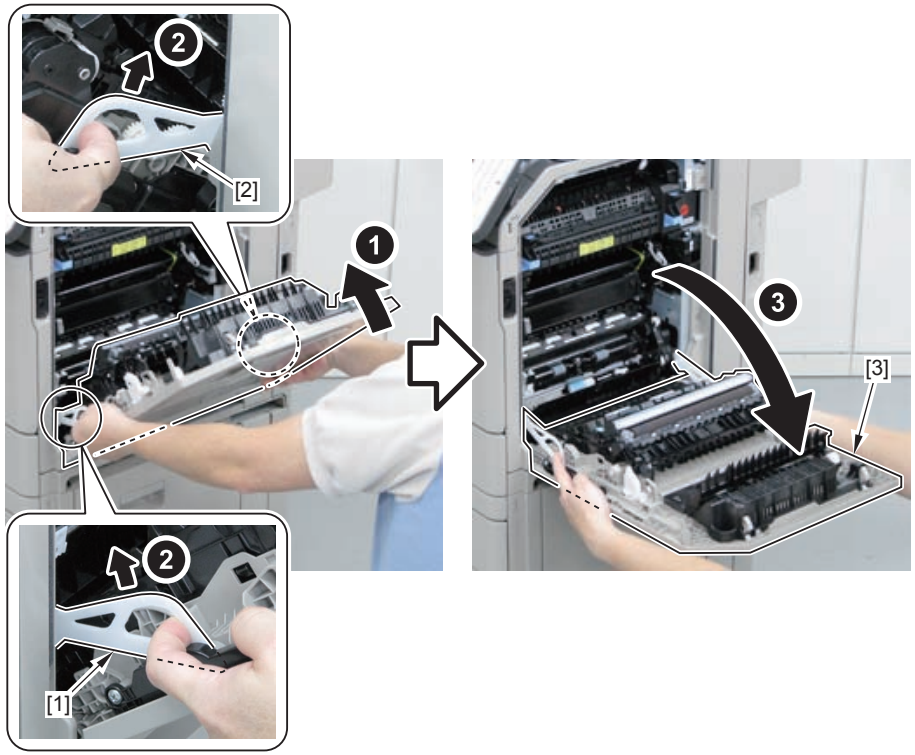
Procedure

1) Pull the Right Cover Open/Close Lever [1], and open the Right Cover Unit [2].



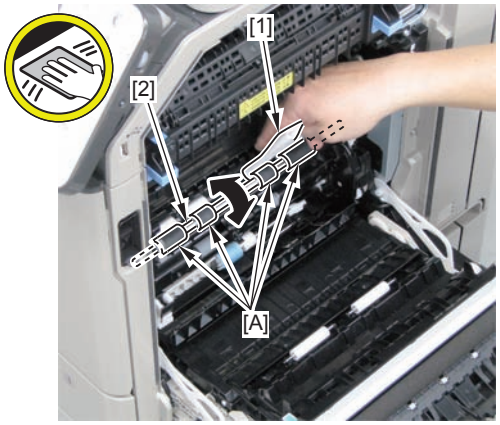
F-4-468

2) Release the lock of the Right Cover Stopper (Front) [1] and the Right Cover Stopper Rear [2], and then further open the Right Cover Unit [3].



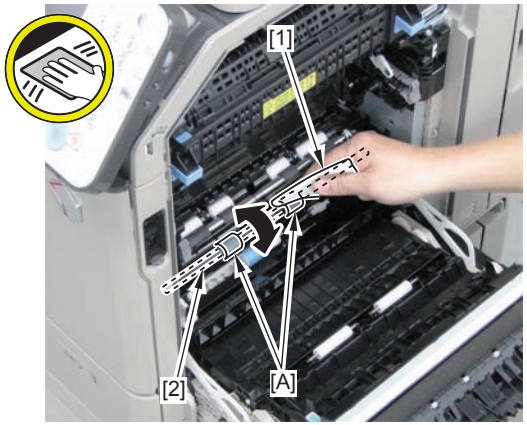
F-4-469

3) Clean the surface [A] using lint-free paper [1] soaked with alcohol while rotating the Registration Roller [2].



F-4-470

4) Clean the surface [A] using lint-free paper [1] soaked with alcohol while rotating the Pre-registration Roller [2].

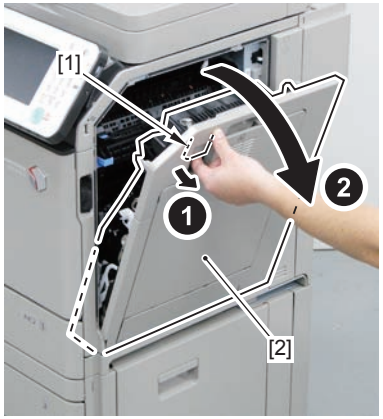


F-4-471

Cleaning the Secondary Transfer Guide

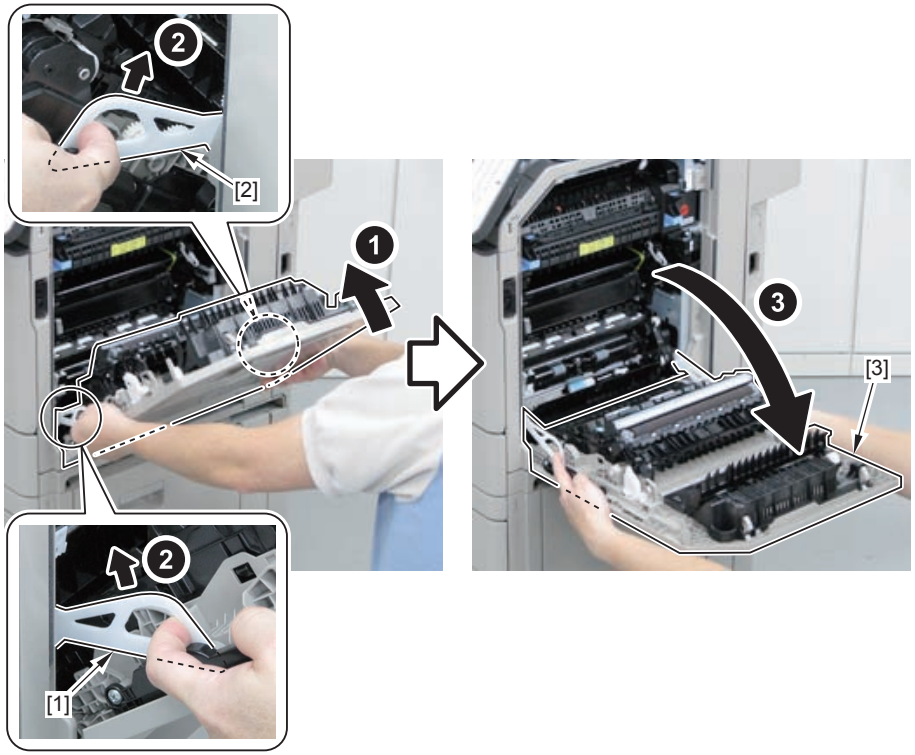
Procedure

1) Pull the Right Cover Open/Close Lever [1], and open the Right Cover Unit [2].



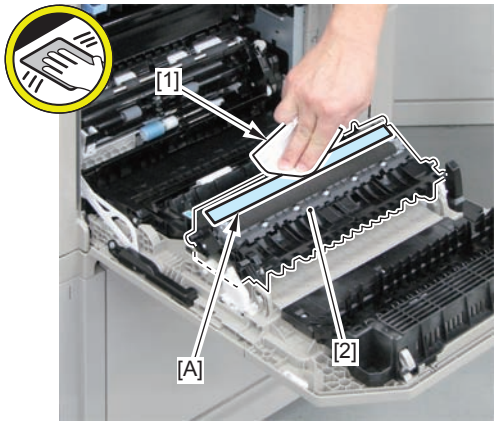
F-4-472

2) Release the lock of the Right Cover Stopper (Front) [1] and the Right Cover Stopper Rear [2], and then further open the Right Cover Unit [3].



F-4-473

3) Clean the [A] part of the Secondary Transfer Guide [2] using lint-free paper [1] soaked with alcohol.



F-4-474

Cleaning the Fixing Inlet Guide

Preparation

1) Remove the Fixing Assembly (Refer to page 4-138).

Procedure

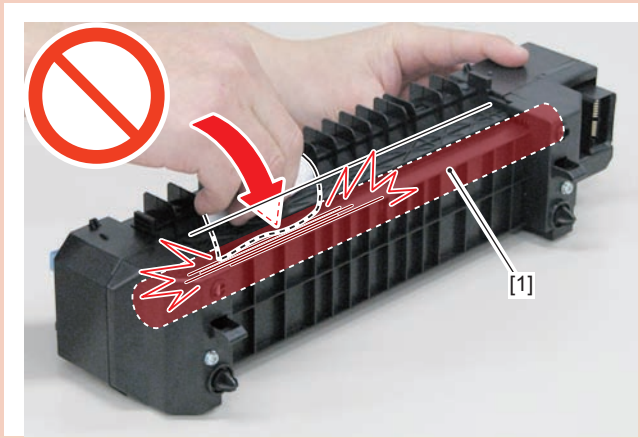
CAUTION:

Be sure to start removing the Fixing Assembly after it is cooled down enough. The Fixing Assembly right after printing may cause burn injury.

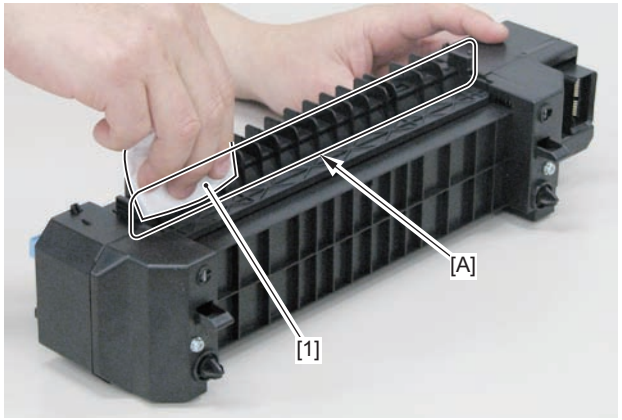
1) Clean the Fixing Inlet Guide [A] with lint-free paper [1] moistened with alcohol.

CAUTION:

Do not damage the Fixing Film [1] when cleaning.



F-4-475



F-4-476

Data to be handled by SRAM(with HDD Encryption Board

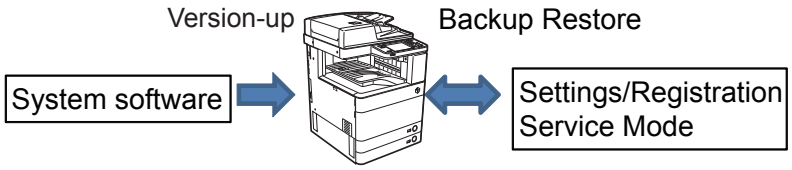
The kind of data to handle

Data to operate this machine is largely divided into 2 categories.

System software	Common data among the same model
Data in SRAM and HDD on the boards	Factory settings value for the target machine and the values in Address Book and Settings/Registration, etc. entered by the user.

T-4-99

Upgrading and installation is used as the terms to handle the system software.
Backup and restoration is used as the terms to handle data in SRAM and HDD on the boards.



F-4-477

Be sure to use the latest possible backup data for the SRAM data of each board.
If restoring the SRAM data backed up long time ago, image failure, etc., may occur due to mismatch between the backup data and the parameter for host machine adjustment changed after backup.

Handling SRAM data of this machine

With the normal service, the contents of SRAM of the Main Controller PCB can be backed up to HDD in service mode and restored after replacing the board.
If there is an HDD Encryption Board, the encryption key of the HDD Encryption Board recorded on SRAM is lost when replacing the Main Controller PCB, and the contents of HDD cannot to be read. Therefore, restoration cannot be done although backup is performed.
When replacing the Main Controller PCB, user data needs to be reentered in the same way as when replacing the HDD with a new one.

Part to be replaced	Description	Procedure	When TPM is enabled (ON)
Main Controller	SRAM of the Main Controller PCB includes user data and MEAP-related data. If there are any files backed up from RUI by the user, restore them after recovery. Explain the user that the reinstallation of everything related to MEAP is necessary. Reference: If Meapback.bin is saved using SST, it can be restored after replacing the Main Controller PCB. This makes the reinstallation of everything related to MEAP unnecessary.	1. Use SST to backup the "sramimg.bin." 2. Replace the Main Controller PCB. 3. Use SST to restore the "sramimg.bin."	After the system is properly installed, enable TPM to execute a backup of TPM.
New HDD	Install the system software on the new HDD after formatting it by SST. If there are any files backed up from RUI by the user, restore them after recovery. Explain the user that the reinstallation of everything related to MEAP is necessary. Reference: If Meapback.bin is saved using SST, it can be restored after replacing the Main Controller PCB. This makes the reinstallation of everything related to MEAP unnecessary.	1. Hold down 2 and 8 to start the machine. 2. Use SST to Format ALL. 3. Install the system.	After the system is properly installed, enable TPM to execute a backup of TPM.
System installation when the HDD is properly working.	To upgrade the system version, the Assist Mode of SST is recommended.	1. Enter service mode and select the following: COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK 2. Use SST to install the system software in Assist mode.	No additional work
Backup of DC Controller PCB	Enter service mode to make a backup of SRAM data into the HDD.	1. Select the following to execute system backup: COPIER > FUNCTION > SYSTEM DSRAMBUP 2. Replace the DC Controller PCB. 3. Select the following to restore the system: COPIER > FUNCTION > SYSTEM DSRAMRES.	No additional work

Part to be replaced	Description	Procedure	When TPM is enabled (ON)
HDD Encryption Board	An encryption key of the HDD Encryption Board is newly made. Install the system software on the HDD after formatting it by SST. If there are any files backed up from RUI by the user, restore them after recovery.	1. Hold down 2 and 8 to start the machine. 2. Use SST to Format ALL. 3. Install the system.	After the system is properly installed, enable TPM to execute a backup of TPM.
TPM Board	When there is a backup of TPM, restore TPM.	1. Use RUI to make a restore.	Follow the description on the left.
	When there is no backup of TPM, select the following: Settings/ Registration > Management Settings	1. Use RUI to make a backup. 2. Settings/Registration > Management Settings > Data Management > Initialize All Data/ Settings 3. Use RUI to make a restore. 4. Enable TPM to make a backup.	Follow the description on the left.

T-4-100

Items which needs to be backed up by the user when replacing the HDD

The table below shows the items whose settings can be saved. Ask the user to save them before replacing the HDD and the Main Controller PCB. Part of the items can be recovered from Meapback.bin.

Items	User	Service	DCM
Address List	Remote UI(Import/Export Individually)	-	Remote UI(Import/ Export All)
Forwarding Settings	Remote UI(Import/Export Individually)	-	Remote UI(Import/ Export All)
Preferences(Except for Paper Type Management Settings)	-	-	Remote UI(Import/ Export All)
Adjustment/Maintenance	-	-	Remote UI(Import/ Export All)
Function Settingss(Except for Printer Custom Settings, Forwarding Settings)	-	-	Remote UI(Import/ Export All)
Set Destination(Except for Address List)	-	-	Remote UI(Import/ Export All)
Management Settings(Except for Address List)	-	-	Remote UI(Import/ Export All)
Printer Settings	Remote UI(Import/Export Individually)	-	-
Set Paper Information	Remote UI(Import/Export Individually)	-	Remote UI(Import/ Export All) *1
Favorite Settings	Remote UI(Import/Export Individually)	SST (Meapback)	Remote UI(Import/ Export All)
Default Settings	-	SST (Meapback)	Remote UI(Import/ Export All)
Shortcut settings for Options	-	SST (Meapback)	Remote UI(Import/ Export All)
Button Size information	Remote UI(Backup/Restore)	SST (Meapback)	Remote UI(Import/ Export All)
Wallpaper Setting	Remote UI(Backup/Restore)	SST (Meapback)	Remote UI(Import/ Export All)
Button information in Quick Menu	Remote UI(Backup/Restore)	SST (Meapback)	Remote UI(Import/ Export All)
Restrict Quick Menu	Remote UI(Backup/Restore)	SST (Meapback)	Remote UI(Import/ Export All)
Button settings in Main Menu	-	-	Remote UI(Import/ Export All)
Button settings on the top of the screen	-	-	Remote UI(Import/ Export All)
Wallpaper Setting for Main Menu	-	-	Remote UI(Import/ Export All)
Other settings for Main Menu	-	-	Remote UI(Import/ Export All)
User Box specification settings(Register Box Name, Password, Time until Document Auto Erase, Print uponstoring from the printer driver)	-	-	Remote UI(Import/ Export All)
Network place setting information	-	-	Remote UI(Import/ Export All)
Web Access setting information	Remote UI(Import/Export Individually)*2	-	Remote UI(Import/ Export All)
License files for MEAP applications	SMS	-	-
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	SSO-H	SST (Meapback)	-
Data saved using MEAP applications	iWEMC DAM plug-in *3	SST (Meapback)	Remote UI(Import/ Export All) *4
Key and settings information to be used for encryption when TPM is ON	Settings/ Registration(Management Settings > Data Managemnet > TPM Settings) *5	-	-
Service mode setting values(MN-CON)	-	-	Remote UI(Import/ Export All) *6

Items	User	Service	DCM
Audit Log	Remote UI(Settings/ Registration > Device Management > Export/Clear Audit Log)*7	-	-

T-4-101

*1: Detailed parameters cannot be imported by default. Only basic parameters can be imported. When OFF is set for "Restrict Receiving for Each Function" in “Device Information Delivery Settings" in "Settings/Registration", the detailed parameters can also be imported. However, import of detailed parameters between different models is not recommended.
*2: Only "favorites of web browser" can be backed improves.
*3: Only when the MEAP applications have a backup function
*4: Only when MEAP applications have a backup function
*5: Backup only against TPM PCB failure is possible. In addition, restoration cannot be done to other machines whose TPM setting is set to "ON".
*6: When You set it in COPIER> OPTION> USER> SMD-EXPT> ON, a backup/restore is possible in Service Mode Settings from the Remote UI.
There is a backup button on the TOP page of the service mode.
HDD and USB memory can back up Service Mode Settings by backup button.
*7: Audit log that was exported cannot be put back to the device from which the log was exported.

Items with no backup method when replacing the HDD

Regarding the items in the table below, there is no method for the user to back them up. Ask the user to make settings again. Part of the items can be recovered from Meapbac.bin.

Items	User	Service	DCM
Previous Settings	-	SST (Meapback)	-
Image data of User Box, Confidential Fax Box, and System Box Image Data	-	-	-
MEAP application	-	SST (Meapback)	-
SMS (Service Management Service) password of MEAP	-	SST (Meapback)	-
Unsent documents (documents waiting to be sent with the Delayed Send mode)	-	-	-
Job logs	-	-	-
Key Pair and Certificate and CRL in Certificate Settings in TCP/IP Settings in Network Set-tings in System Settings (from the Additional Functions screen)	-	-	-
Auto Adjust Gradation setting values	-	-	-
PS font	-	-	-
Key information to be used for encryption when TPM is OFF	-	-	-

T-4-102

Using SST enables the following:

SST has the following functions that are necessary for service work:

- To download system software
- To copy the system software into a USB memory device.
- To backup and restore information of SRAM and MEAP in Main Controller.
- To format HDD
- To collect device log
- To clear the encryption key of HDD Encryption Board

Upgrading using a USB memory device

Using a USB memory device, the following functions are available to upgrade the system:

- To download system software
- To clear download file
- To format HDD
- To collect device log

Adjustment

- Document Exposure System
- Main Controller
- Pickup Feed System

Document Exposure System

Service mode backup

The machine is adjusted one by one at the factory shipment and the adjustment values are written on the service label.
When the adjustment is carried out at a field and the service mode values are changed, be sure to write the changed values on the service label.
If there is no corresponding items on the service label, write the value to a blank field.
The service label is affixed to the back of the Front Cover.
In addition, backup and restoration in service mode is also possible.

- Backup

Lv.	COPIER > FUNCTION > SYSTEM >
2	RSRAMBUP

T-5-1

- Restoration

Lv.	COPIER > FUNCTION > SYSTEM >
2	RSRAMRES

T-5-2

NOTE:
When changing the service mode setting values, it is recommended to back them up in the above service mode. Performing backup makes the work easier when replacing the Main Controller PCB, etc.

When clearing the Reader-related RAM data of the Main Controller PCB.

Points to note before replacing the Reader Controller PCB:

- Be sure to output the latest P-PRINT.

(Lv.1) COPIER > FUNCTION > MISC-P > P-PRINT

- Back up the service mode setting values related to Main Controller PCB. (Excluding the case where service mode cannot be executed due to the Main Controller PCB not operating normally)

(Lv.2) COPIER > FUNCTION > SYSTEM > RSRAMBUP

1) Using SST, download the newest system software (R-CON).:
2) Perform RAM clear.

Lv.	COPIER > FUNCTION > CLEAR >
1	R-CON

T-5-3

3) Turn OFF/ON the main power switch.

When backup is performed normally

4) Restore the backup data.

Lv.	COPIER > FUNCTION > SYSTEM >
2	RSRAMRES

T-5-4

NOTE:
Work is completed when backup was normally performed.

When backup is not performed normally

5) Enter the values written on the service label (on the back of the Front Cover).

Lv.	COPIER > ADJUST > ADJ-XY >			
1	ADJ-X	ADJ-Y	ADJ-X-MG	ADJ-Y-DF

T-5-5

Lv.	COPIER > ADJUST > CCD >			
1	W-PLT-X	W-PLT-Y	W-PLT-Z	-
	50-RG	50-GB	100-RG	100-GB
	50DF-RG	50DF-GB	100DF-RG	100DF-GB
	MTF2-M1	MTF2-M6	MTF2-S1	MTF2-S6
	MTF2-M2	MTF2-M7	MTF2-S2	MTF2-S7
	MTF2-M3	MTF2-M8	MTF2-S3	MTF2-S8
	MTF2-M4	MTF2-M9	MTF2-S4	MTF2-S9
	MTF2-M5	-	MTF2-S5	-
	MTF-M1	MTF-M6	MTF-S1	MTF-S6
	MTF-M2	MTF-M7	MTF-S2	MTF-S7
	MTF-M3	MTF-M8	MTF-S3	MTF-S8
	MTF-M4	MTF-M9	MTF-S4	MTF-S9
	MTF-M5	-	MTF-S5	-

T-5-6

Lv.	COPIER > ADJUST > PASCAL >			
1	OFST-P-Y	OFST-P-M	OFST-P-C	OFST-P-K

T-5-7

Lv.	FEEDER > ADJUST >				
1	DOCST	LA-SPEED	DOCST2	LASPD2	DOCSTDUP

T-5-8

6) Make an output of P-PRINT.

Lv.	COPIER > FUNCTION > MISC-P >
1	P-PRINT

T-5-9

Store the outputted P-PRINT into the service book.

Original Exposure and Feed System (Reader)

Copyboard Glass Unit

Procedure of Replacement

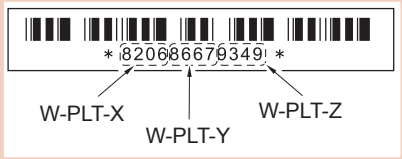
1) Enter the value (White level data entry of white plate) indicated on the platen glass in the following service mode:

LV.	COPIER > ADJUST > CCD >		
1	W-PLT-X	W-PLT-Y	W-PLT-Z

T-5-10

CAUTION:

Be sure to make the white plate data adjustment before ADF white level adjustment.



F-5-1

2) Write down the new numerical value in the service label.
3) Turn OFF/ON the main power switch.
4) Execute the Scan Unit white/black reference level adjustment (AGC).(Close the ADF)

LV.	COPIER > FUNCTION > CCD >
1	CL-AGC

T-5-11

5) Turn OFF/ON the main power switch.
6) After executing the shading position adjustment with the following service mdoe 1, check the auto setting value with the following service mode 2 and write the value in the service label.

No.	LV.	COPIER > FUNCTION > INSTALL >
1	1	RDSHDPOS

T-5-12

No.	LV.	COPIER > ADJUST > ADJ-XY >
2	1	ADJ-S

T-5-13

7) After executing the reading position adjustment with the following service mdoe 1, check the auto setting value with the following service mode 2 and write the value in the service label.

No.	LV.	COPIER > FUNCTION > INSTALL >
1	1	STRD-POS

T-5-14

No.	LV.	COPIER > ADJUST > ADJ-XY >
2	1	STRD-POS

T-5-15

8) Take the action stated below in the service mode (White level adj in book/DADF mode).
1. Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL1

White level adj in book mode: color

T-5-16

2. Place a sheet of paper that the user usually uses on the DADF, enter the following servicemode.

LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL2

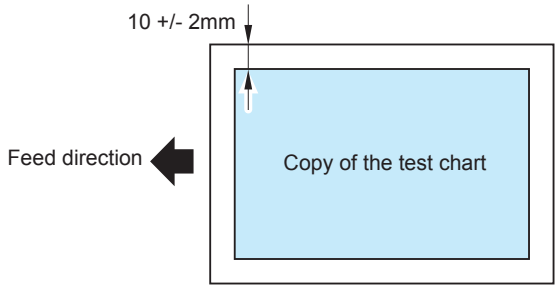
White level adj in DADF mode: color

T-5-17

NOTE:
The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-R/ DFTAR-G/ DFTAR-B / DFTAR2-R/ DFTAR2-G/ DFTAR2-B / DFTAR3-R/ DFTAR3-G/ DFTAR3-B

9) Adjust the image position (horizontal scanning direction) at ADF reading.

1. Place a test chart on the ADF, and make one single-sided copy.
2. Compare the side registration of the test chart with that of the copied paper, and perform adjustment if necessary.



F-5-2

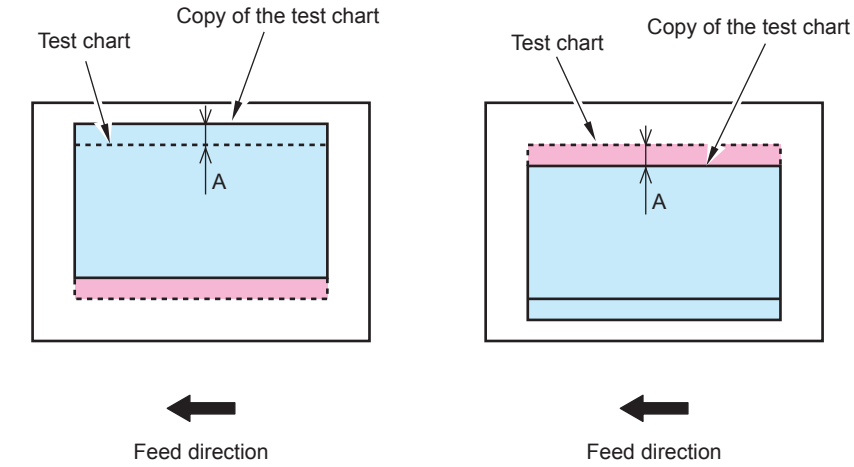
3. Select the item in the service mode.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-Y-DF

T-5-18

4. Input value, and adjust an image.
   - When a copied image moves to the rear: Decrease value
   - When a copied image moves to the front: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear > < When a copied image moves to the front >

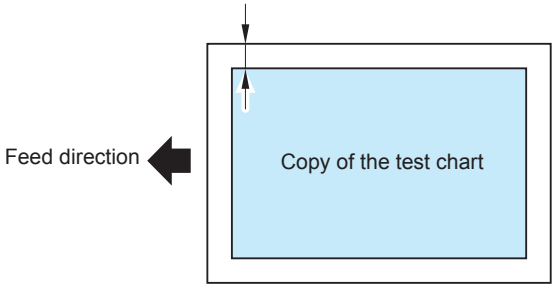


F-5-3

5. Write the new changed value in the service label.
6. Exit the service mode.

10) Adjust the image position (horizontal scanning direction) at copyboard reading.

1. Place a test chart on the Copyboard Glass, and make one single-sided copy.
2. Compare the side registration of the test chart with that of the copied paper, and perform adjustment if necessary.



F-5-4

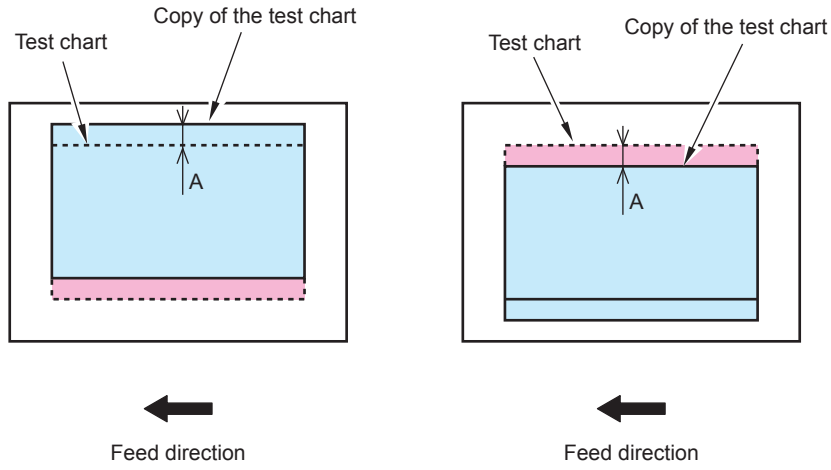
3. Select the item in the service mode.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-Y

T-5-19

4. Input value, and adjust an image.
   - When a copied image moves to the rear: Decrease value
   - When a copied image moves to the front: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear > < When a copied image moves to the front >

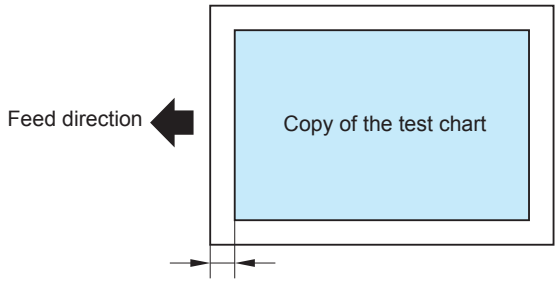


F-5-5

5. Write the new changed value in the service label.
6. Exit the service mode.

11) Adjust the image position (vertical scanning direction) at copyboard reading.

1. Place a test chart on the Copyboard Glass, and make one single-sided copy.
2. Compare the image leading edge of the test chart with that of the copied paper, and perform adjustment if necessary.



F-5-6

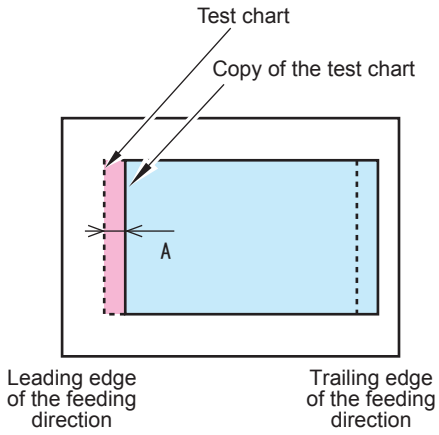
3. Press ADJ-X from the service mode screen.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-X

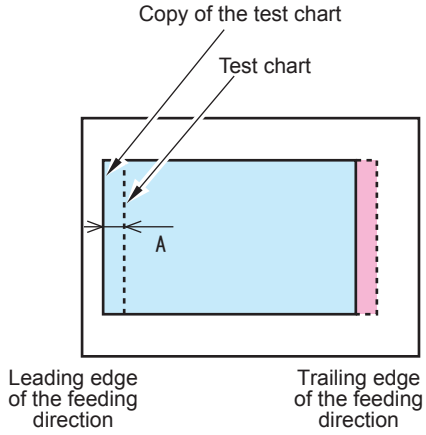
T-5-20

4. Input value, and adjust an image.
   - When a image is displaced toward the trailing edge: Decrease value
   - When a image is displaced toward the leading edge: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-5-7

5. Write the new changed value in the service label.
6. Exit the service mode.

12) Make a fine adjustment of image magnification ratio (vertical scanning direction) at copyboard reading.

1. Set the image of the test chart upward in Copyboard Glass, and give one sheet of single-sided copy.
2. Compare the image length of the feed direction of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3. Press ADJ-X-MG from the service mode screen.

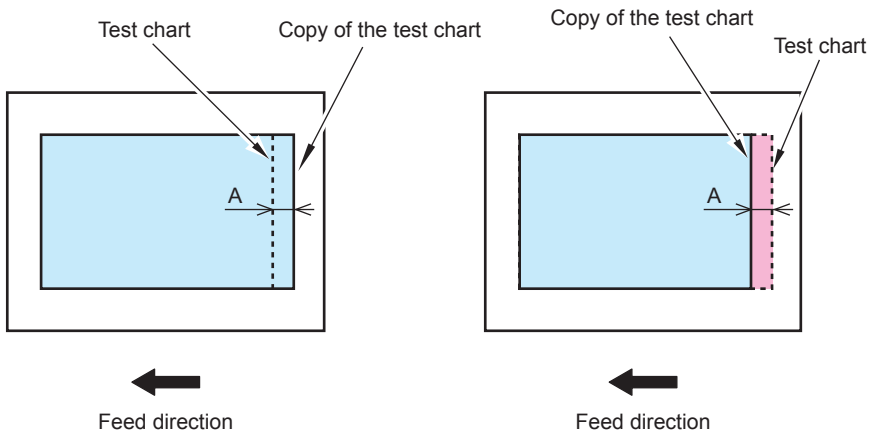
LV.	COPIER> ADJUST> ADJ-XY
1	ADJ-X-MG

T-5-21

4. Input value, and adjust an image.
   - When a copied image is enlarged: Increase value
   - When a copied image is reduced: Decrease value
   - Adjustment unit: 0.1 %

< When a copied image is long >

< When a copied image is short >



F-5-8

5. Write the new changed value in the service label.
6. Exit the service mode.

13) Make a copy and check the copied image.

■ After Replacing the Scanner Unit (Reader side CIS)

● Preparation before Replacement

1) Backup of the Service Mode data.

Lv.	COPIER > FUNCTION > SYSTEM >
2	RSRAMBUP

T-5-22

● Procedure after Replacement

1) If the backup data can be restored, restore the data.

1. Restore the backup data.

Lv.	COPIER > FUNCTION > SYSTEM >
2	RSRAMRES

T-5-23

2. When the restoration has been finished, perform steps 4 and later steps.

2) When the backup data cannot be restored, perform the following steps.

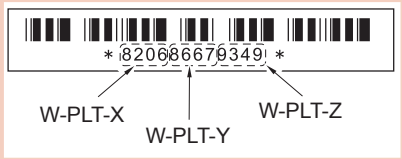
1. Enter the value (White level data entry of white plate) indicated on the platen glass in the following service mode:

LV.	COPIER > ADJUST > CCD >		
1	W-PLT-X	W-PLT-Y	W-PLT-Z

T-5-24

CAUTION:

Be sure to make the white plate data adjustment before ADF white level adjustment.



F-5-9

2. Write down the new numerical value in the service label.
3. Turn OFF/ON the main power switch.

3) Enter the adjustment values of all items described on the service label (on the back of the machine's Front Cover) in service mode.

4) Execute the Scan Unit white/black reference level adjustment (AGC).(Close the ADF)

LV.	COPIER > FUNCTION > CCD >
1	CL-AGC

T-5-25

5) Turn OFF/ON the main power switch.

6) After executing the shading position adjustment with the following service mdoe 1, check the auto setting value with the following service mode 2 and write the value in the service label.

No.	LV.	COPIER > FUNCTION > INSTALL >
1	1	RDSHDPOS

T-5-26

No.	LV.	COPIER > ADJUST > ADJ-XY >
2	1	ADJ-S

T-5-27

7) After executing the reading position adjustment with the following service mdoe 1, check the auto setting value with the following service mode 2 and write the value in the service label.

No.	LV.	COPIER > FUNCTION > INSTALL >
1	1	STRD-POS

T-5-28

No.	LV.	COPIER > ADJUST > ADJ-XY >
2	1	STRD-POS

T-5-29

8) Take the action stated below in the service mode (White level adj in book/DADF mode).

1. Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL1

White level adj in book mode: color T-5-30

2. Place a sheet of paper that the user usually uses on the DADF, enter the following servicemode.

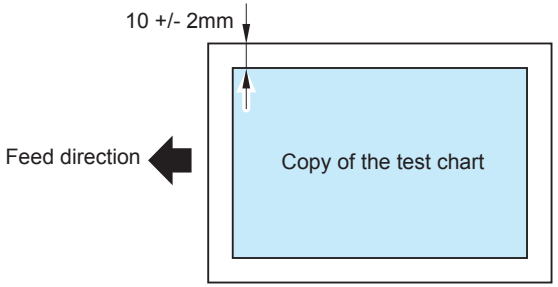
LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL2

White level adj in DADF mode: color T-5-31

NOTE:
The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-R/ DFTAR-G/ DFTAR-B / DFTAR2-R/ DFTAR2-G/ DFTAR2-B / DFTAR3-R/ DFTAR3-G/ DFTAR3-B

9) Adjust the image position (horizontal scanning direction/front side) at ADF reading.

1. Place a test chart on the ADF, and make one single-sided copy.
2. Compare the side registration of the test chart with that of the copied paper, and perform adjustment if necessary.



F-5-10

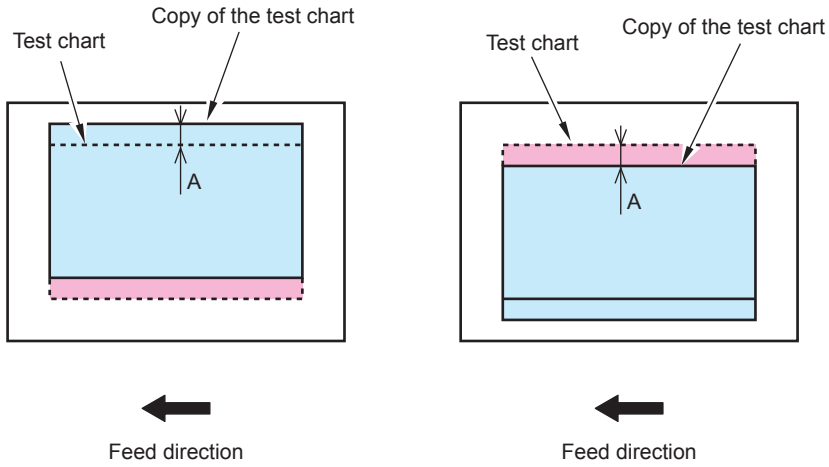
3. Select the item in the service mode.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-Y-DF

T-5-32

4. Input value, and adjust an image.
   - When a copied image moves to the rear: Decrease value
   - When a copied image moves to the front: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear > < When a copied image moves to the front >

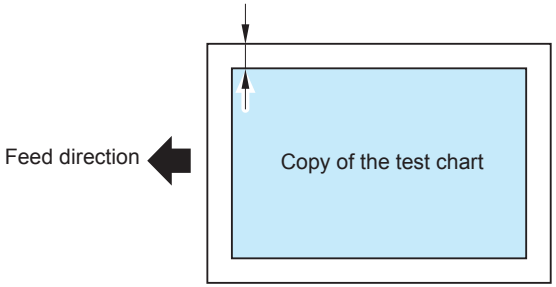


F-5-11

5. Write the new changed value in the service label.
6. Exit the service mode.

10) Adjust the image position (horizontal scanning direction) at copyboard reading.

1. Place a test chart on the Copyboard Glass, and make one single-sided copy.
2. Compare the side registration of the test chart with that of the copied paper, and perform adjustment if necessary.



F-5-12

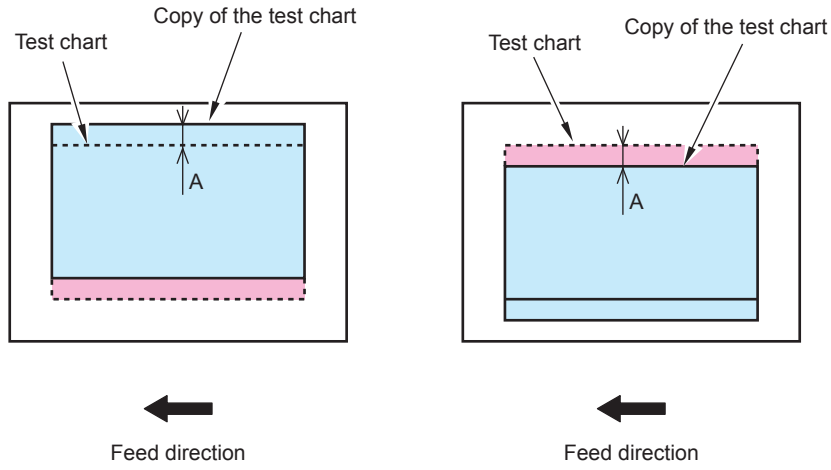
3. Select the item in the service mode.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-Y

T-5-33

4. Input value, and adjust an image.
   - When a copied image moves to the rear: Decrease value
   - When a copied image moves to the front: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear > < When a copied image moves to the front >

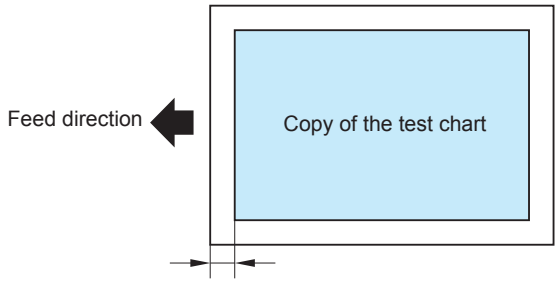


F-5-13

5. Write the new changed value in the service label.
6. Exit the service mode.

11) Adjust the image position (vertical scanning direction) at copyboard reading.

1. Place a test chart on the Copyboard Glass, and make one single-sided copy.
2. Compare the image leading edge of the test chart with that of the copied paper, and perform adjustment if necessary.



F-5-14

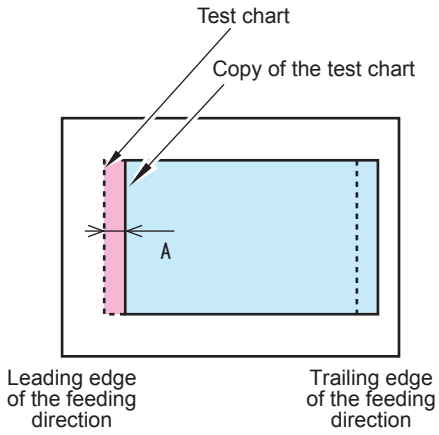
3. Press ADJ-X from the service mode screen.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-X

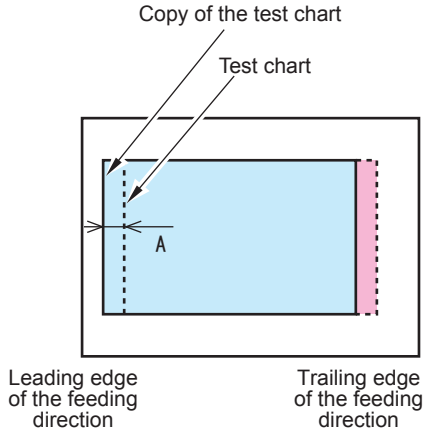
T-5-34

4. Input value, and adjust an image.
   - When a image is displaced toward the trailing edge: Decrease value
   - When a image is displaced toward the leading edge: Increase value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-5-15

5. Write the new changed value in the service label.
6. Exit the service mode.

12) Make a fine adjustment of image magnification ratio (vertical scanning direction) at copyboard reading.

1. Set the image of the test chart upward in Copyboard Glass, and give one sheet of single-sided copy.
2. Compare the image length of the feed direction of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3. Press ADJ-X-MG from the service mode screen.

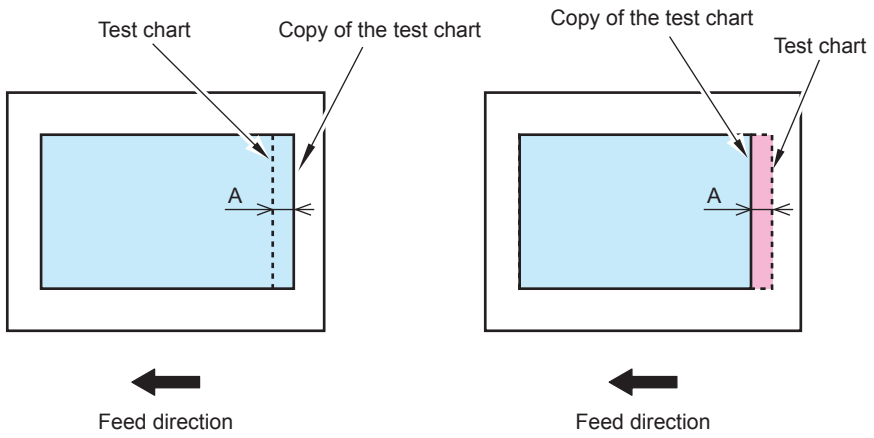
LV.	COPIER> ADJUST> ADJ-XY
1	ADJ-X-MG

T-5-35

4. Input value, and adjust an image.
   - When a copied image is enlarged: Increase value
   - When a copied image is reduced: Decrease value
   - Adjustment unit: 0.1 %

< When a copied image is long >

< When a copied image is short >



F-5-16

5. Write the new changed value in the service label.
6. Exit the service mode.

13) Make a copy and check the copied image.

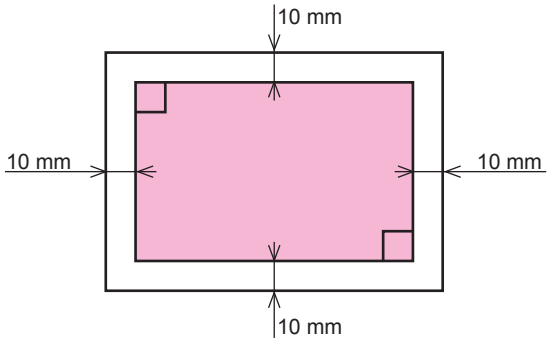
■ ADF Unit

● Prepare before Adjustment

Prepare a test chart. A test chart is made when there is no test chart.

A test chart is drawn the rectangle that the end of 4 is smaller by 10 mm than a paper, and a test chart is made in the form of A4 or LTR.

NOTE:
Write a character and a mark to know the direction of the copied image.
(Make sure that the face, back, leading edge and trailing edge of paper can be indetified.)



F-5-17

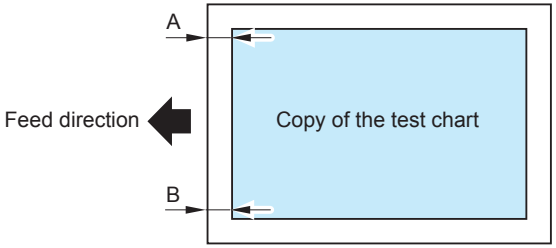
● Procedure after Replacement

CAUTION:

When the ADF has been replaced or removed from the reader, the following adjustment is necessary.

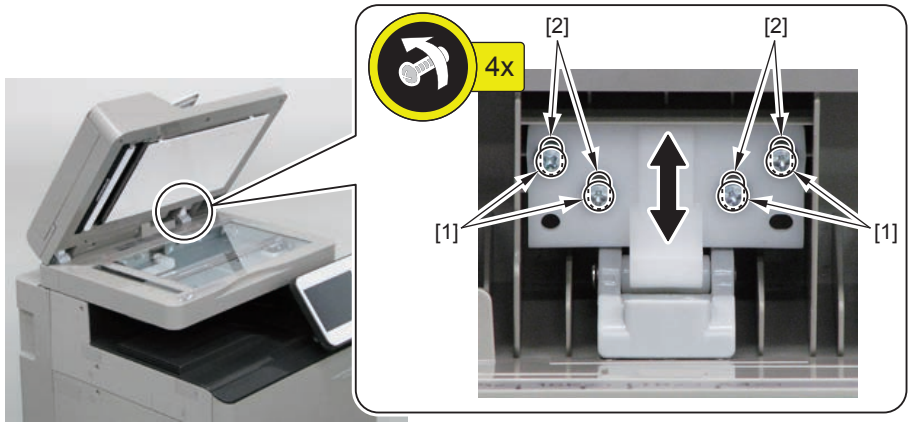
Adjustment of the Degree of a Right Angle

1) Set a test chart on ADF, and give one sheet of copy.
2) Confirm the degree of a right angle of the image on the leading edge of the test chart and the copied form.
   Measure the dimension of A and B at the leading edge of the copied form.
   When the amount of skew is not in the following standard, adjust it from the step 3).
   - Standard Value: A - B = 0 +/- 1.5 mm



F-5-18

3) Loosen the 4 Fixing Screws of the Right Hinge, and then move the hinge to adjust the squareness.



F-5-19

4) After completion of the adjustment, tighten the 4 Fixing Screws of the Right Hinge you loosened in step 3).

DADF reading position adjustment

After executing the reading position adjustment with the following service mdoe 1, check the auto setting value with the following service mode 2 and write the value in the service label.

No.	LV.	COPIER > FUNCTION > INSTALL >
1	1	STRD-POS

T-5-36

No.	LV.	COPIER > ADJUST > ADJ-XY >
2	1	STRD-POS

T-5-37

Adjustment of the leading edge margin of image at ADF reading (single-sided)

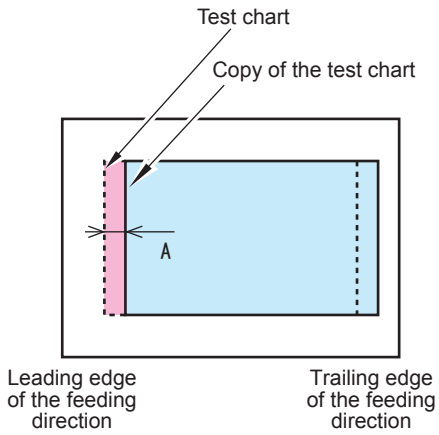
1) Set a test chart on ADF, and give one sheet of single-sided copy.
2) Compare the leading edge registration of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3) Select the item in the service mode.

LV.	COPIER > ADJUST >
1	DOCST

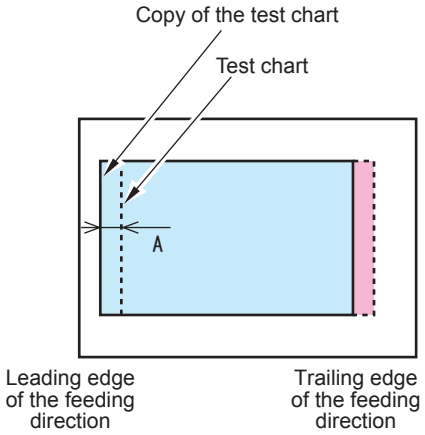
T-5-38

4) Input value, and adjust an image.
   - When a copied image moves to the trailing edge: Increase value
   - When a copied image moves to the leading edge: Decrease value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-5-20

5) Write the new changed value in the service label.
6) Exit the service mode.

CAUTION:

Confirm that the Degree of a Right Angle is correct after you finish this adjustment.

Adjust again from the Adjustment of the Degree of a Right Angle when the Degree of a Right Angle is not correct.

Adjustment of the leading edge margin of image at ADF reading (duplex/front side)

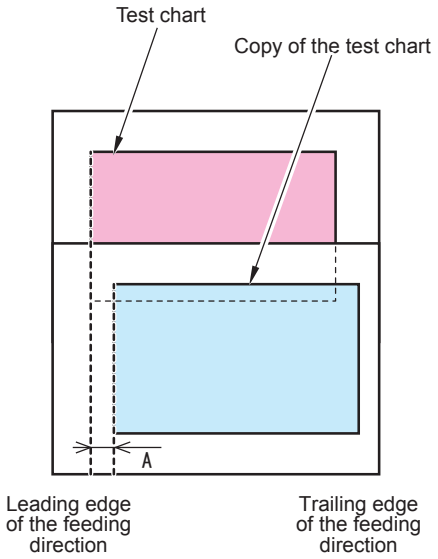
1) Set a test chart on ADF, and give one sheet of copy.
2) Compare the leading edge registration of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3) Select the item in the service mode.

LV.	COPIER > ADJUST >
1	DOCSTDUP

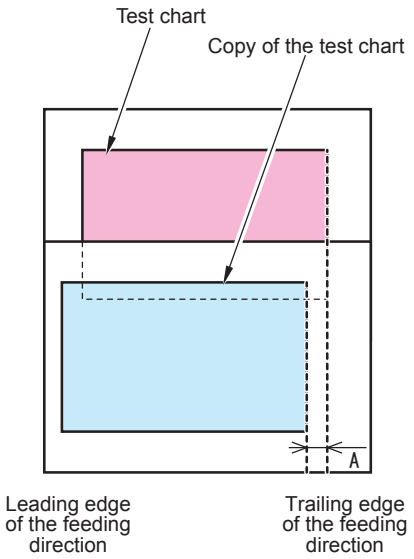
T-5-39

4) Input value, and adjust an image.
   - When a copied image moves to the trailing edge: Increase value
   - When a copied image moves to the leading edge: Decrease value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-5-21

5) Write the new changed value in the service label.
6) Exit the service mode.

CAUTION:

Confirm that the Degree of a Right Angle is correct after you finish this adjustment.

Adjust again from the Adjustment of the Degree of a Right Angle when the Degree of a Right Angle is not correct.

Adjustment of the leading edge margin of image at ADF reading (duplex/back side)

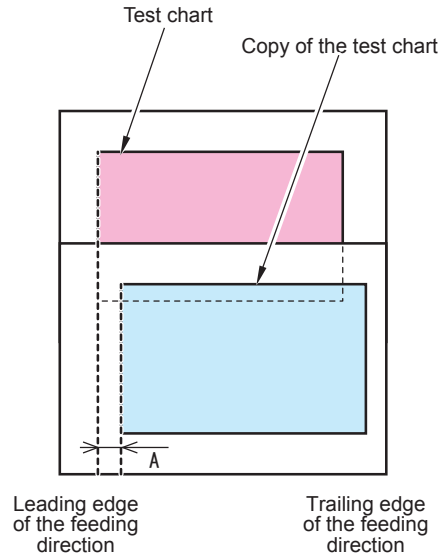
1) Set a test chart on ADF, and give one sheet of copy.
2) Compare the leading edge registration of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3) Select the item in the service mode.

LV.	FEEDER > ADJUST >
1	DOCST2

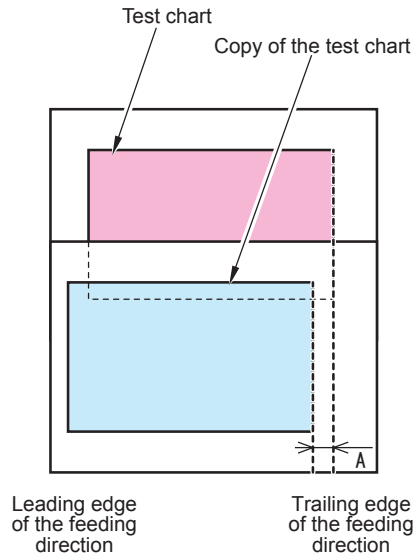
T-5-40

4) Input value, and adjust an image.
   - When a copied image moves to the trailing edge: Increase value
   - When a copied image moves to the leading edge: Decrease value
   - Adjustment unit: 0.1 mm

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-5-22

5) Write the new changed value in the service label.
6) Exit the service mode.

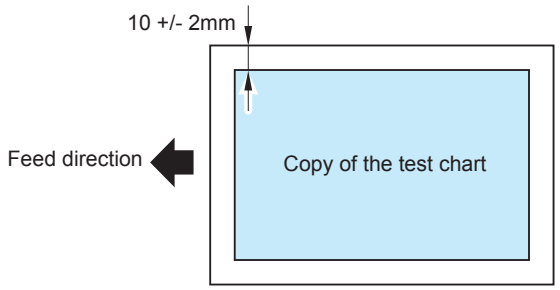
CAUTION:

Confirm that the Degree of a Right Angle is correct after you finish this adjustment.

Adjust again from the Adjustment of the Degree of a Right Angle when the Degree of a Right Angle is not correct.

Adjust the image position (horizontal scanning direction/front side) at ADF reading.

1) Place a test chart on the ADF, and make one single-sided copy.
2) Compare the side registration of the test chart with that of the copied paper, and perform adjustment if necessary.



F-5-23

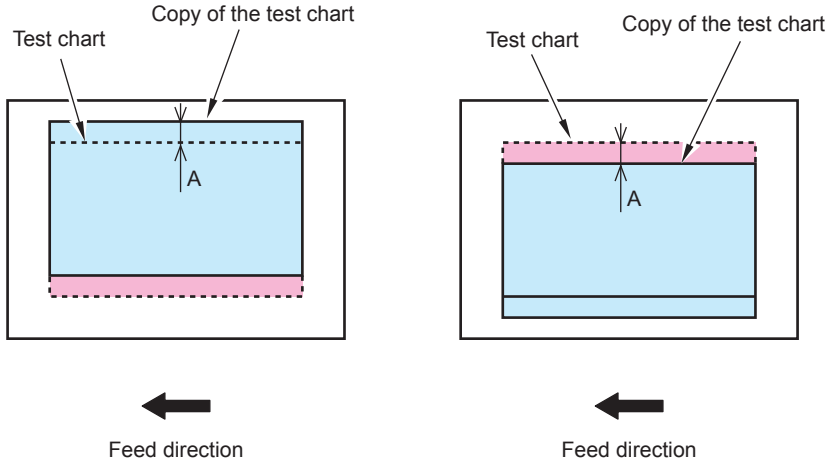
3) Select the item in the service mode.

LV.	COPIER > ADJUST > ADJ-XY >
1	ADJ-Y-DF

T-5-41

4) Input value, and adjust an image.
- When a copied image moves to the rear: Decrease value
- When a copied image moves to the front: Increase value
- Adjustment unit: 0.1 mm

< When a copied image moves to the rear > < When a copied image moves to the front >



F-5-24

5) Write the new changed value in the service label.
6) Exit the service mode.

Fine adjustment of the image magnification ratio at ADF reading (front side)

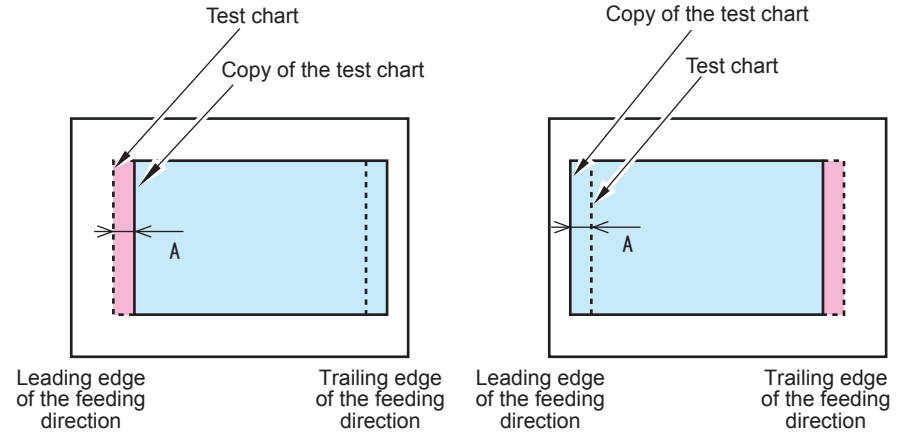
1) Set the image of the test chart upward in ADF, and give one sheet of copy.
2) Compare the image length of the feed direction of the test chart and the copy of the test chart.
Carry out the following process when adjustment is necessary.
3) Select the item in the service mode.

LV.	FEEDER > ADJUST >
1	LA-SPEED

T-5-42

4) Input value, and adjust an image.
- When a copied image is long: Increase value (The feeding speed increases)
- When a copied image is short: Decrease value (The feeding speed decreases)
- Adjustment unit: 0.1 %

< When a copied image moves to the rear > < When a copied image moves to the front >



F-5-25

5) Write the new changed value in the service label.
6) Exit the service mode.

Fine adjustment of the image magnification ratio at ADF reading (back side)

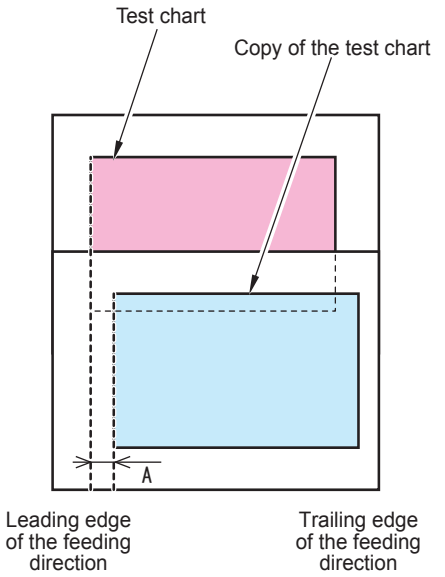
1) Set the image of the test chart downward in ADF, and give one sheet of copy.
2) Compare the image length of the feed direction of the test chart and the copy of the test chart.
   Carry out the following process when adjustment is necessary.
3) Select the item in the service mode.

LV.	FEEDER > ADJUST >
1	LA-SPD2

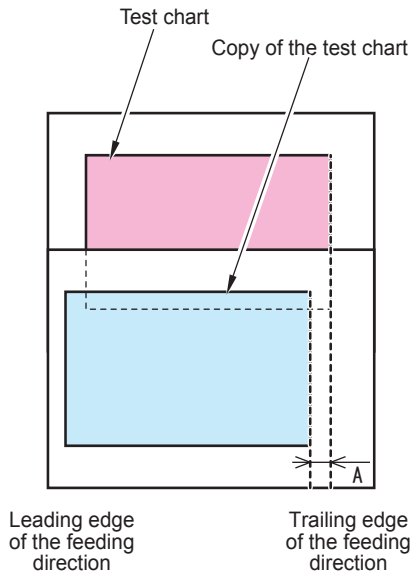
T-5-43

4) Input value, and adjust an image.
   - When a copied image is long: Increase value (The feeding speed increases)
   - When a copied image is short: Decrease value (The feeding speed decreases)
   - Adjustment unit: 0.1 %

< When a copied image moves to the rear >



< When a copied image moves to the front >



F-5-26

5) Write the new changed value in the service label.
6) Exit the service mode.

Adjustment the White Level for ADF Scanning

1) Take the action stated below in the service mode (White level adj in book/DADF mode).
   1. Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL1

White level adj in book mode: color

T-5-44

   2. Place a sheet of paper that the user usually uses on the DADF, enter the following servicemode.

LV.	COPIER > FUNCTION > CCD >
1	DF-WLVL2

White level adj in DADF mode:

T-5-45

NOTE:
The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-R/ DFTAR-G/ DFTAR-B / DFTAR2-R/ DFTAR2-G/ DFTAR2-B / DFTAR3-R/ DFTAR3-G/ DFTAR3-B

Main Controller

HDD

Works required at HDD replacement

When replacing the HDD, be sure to perform the following works.

Before Replacing	1) Back up the necessary data based on the table shown on the right side. 2) Print out the Settings/Registration data. Use the service mode. (Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT The Settings/Registration data values that cannot be backed up are printed out as a list. 3) Back up Meapback.bin to a PC or a USB memory using SST or a USB memory.
Aftter Replacing	1) Format HDD. 1-1) Start in safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main power switch.) 1-2) Format all partitions using SST or a USB memory. 2) Initialize the key/certificate/CA certificate/certificate revocation list. (Lv.2) COPIER > FUNCTION > CLEAR > CA-KEY 3) Turn OFF and then ON the power. 4) Restore the backup data. 4-1) Use RUI: Settings/Registration > Management Settings > Data Management > Import/Export 4-2) Download Meapback.bin using SST or a USB memory. 5) Reset/register the data. While referring to the list of Settings/Registration data that was printed out before replacement, reset/register the data. 6) When an encryption key/certificate/CA certificate has been generated or added by the user, ask the user to execute regeneration.

T-5-46

Backup Data		Backup Method			
		Custmer (Except DCM)	Service (Except DCM)	DCM	Device Information Delivery
Address List		RUI	None	RUI/ WebService	WebService
Forwarding Settings					
Setting items for each menu in Main Menu	Favorite Settings	RUI	SST/USB (Meapback)	RUI/ WebService	WebService
	Default Settings	None			None
	Shortcut settings for “Options”	None			None
	Previous Settings	None		None	None
Quick Menu	Button Size information	RUI	SST/USB (Meapback)	RUI/ WebService	None
	Wallpaper Setting				
	Button information in Quick Menu				
	Restrict Quick Menu				
Main Menu	Button settings in Main Menu	None		RUI/ WebService	None
	Button settings on the top of the screen				
	Wallpaper Setting for Main Menu				
	Other settings for Main Menu				
Web browser settings		RUI	None	RUI/ WebService	WebService
MEAP Settings	MEAP application	None	SST/USB (Meapback)	None	None
	License files for MEAP applications	SMS	None	None	
	User authentication information registered in the Local Device Authentication user authentication system of SSO-H	SSO-H	SST/USB (Meapback)	None	
	Data saved using MEAP applications	iWEMC DAM - plugin	SST/USB (Meapback)	RUI/ WebService	
	SMS (Service Management Service)password of MEAP	None	SST/USB (Meapback)	None	
Universal data settings	Unsent documents (documents waiting to be sent with the Delayed Send mode)	None	None	None	None
	Job logs	None			
	PS font	None			
	Key information to be used for encryption when TPM is OFF	None			
	Key and settings information to be used for encryption when TPM is ON	Management Settings > Data Management > TPM Settings			
	Audit Log	RUI			

T-5-47

Main controller PCB

Before Replacing	1) Backup of the Forwarding Settings and Service Mode setting values (MN-CON) Use the Remote UI. The data can be collectively saved in a DCM file format using the steps below. Settings/Registration > Management Settings > Data Management > Import/Export All > Export Select "Select All" for the items to export, enter the encryption password, and then select "Select Exporting". • Service Mode setting values (MN-CON) Only when ON is selected in COPIER > OPTION > USER > SMD-EXPT, the service mode setting values can be backed up and restored from the RUI. 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.
Replacement	Transferring the parts from old PCB to new PCB • Memory PCB • FLASH PCB • TPM PCB
Aftter Replacing	1) After installing the parts, turn ON the main power switch. 2) Restore the backup data. Use the Remote UI. Follow the steps below to specify the DCM file stored earlier. Settings/Registration > Management Settings > Data Management > Import/Export All > Import Enter the encryption password entered at exporting, and select "Start Importing". 3) Resetting/registering the data While referring to the list of set/registered data which was printed before replacement, reset/register the data. 4) TPM key information If the TPM key information in the FLASH of the HDD or the Main Controller PCB is lost, the key information in the FLASH is automatically recovered from the backup of the common key in the HDD. Then the internal state of TPM setting changes to "ON". However, the display on the UI remains "OFF", therefore the TPM setting needs to be manually changed to "ON". 5) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again. When FAX is installed, be sure to perform step 6 as well. 6) Set whether to display/hide Auto Shutdown Time. Set 0 for the value of Copier > Option > DISPLY-SW > SDTM-DSP (0: Hide).
Prohibited Operation	Do not transfer the following parts to another model (which has a different serial number). If you fail to do so, the Main Body does not activate normally and this might cause to fail the restoration. • Main Controller PCB • Flash PCB • TPM PCB • Memory PCB

T-5-48

DC controller PCB

Before Replacing	1)Backup the Service Mode data. (Lv.2) COPIER > FUNCTION > SYSTEM > DSRAMBUP After “ACTIVE” is displayed for approx. 2 minutes, “OK!” is displayed. If necessary,output the servise mode setting values by P-PRINT before execution. (Lv.1) COPIER > FUNCTION > MISC-P > P-PRINT 2)After the above execution is completed, turn OFF the main power supply.
Aftter Replacing	1) Restore of the Service Mode data. (Lv.2) COPIER> FUNCTION> SYSTEM> DSRAMRES 2) 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. 3) 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.)

T-5-49

TPM PCB

How to Replace the Parts	Refer to “Security Function (Encryption Key, Certificate and Protection of Password)”

T-5-50

FLASH PCB

How to Replace the Parts	Contact to the sales company.
Points to Note Replace the Parts	Do not remove it unless a failure is suspected. A FLASH PCB which had been used in another machine cannot be reused.

T-5-51

Control Panel CPU PCB/Touch Panel

After Replacing	Adjustment in service mode mentioned below is necessary only when replacing a single part. Make an adjustment in COPIER> FUNCTION> PANEL> TOUCHCHK. When the Touch Panel's coordinate is deviated, the above operation may not be possible. In that case, the Touch Panel can be adjusted only by the hard keys as shown below. Perform Touch Panel adjustment by "simultaneously pressing the service mode top screen > [Settings/Registration] button > "5" button multiple times".

T-5-52

Pickup Feed System

Setting method when the size detection patterns are overlapped

The method of distinguishing between A5-R and STMT-R is using the following method or setting in the user settings.

- Related Service Mode
  Lv.1) COPIER > OPTION > CST > CSTX-P1 (Cassette X paper size settings (A5-R/STMT-R))
  X indicates the cassette number (1 to 4).

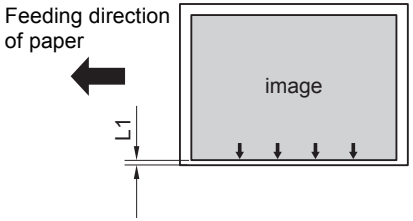
Setting sizes are as follows.

- Related service mode
  Lv.1) COPIER > OPTION > CST > CSTX-UY (Set the overseas special paper category used
  in Cassette)
  X indicates the cassette number (1 to 4), and Y indicates size category (1/2).
  Set "1" in service mode (Lv.1 COPIER >OPTION >CST >U1/2-NAME) to display the paper type on UI.

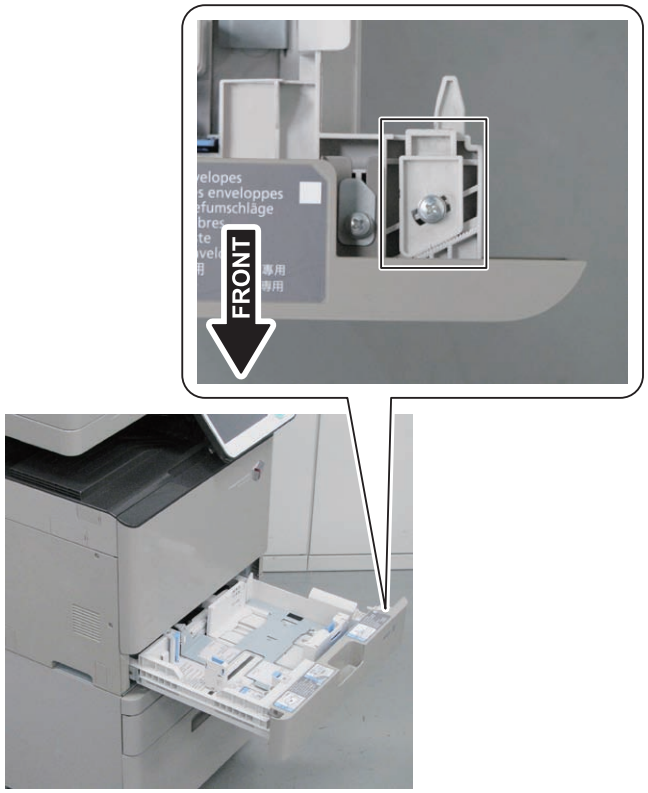
U sizes	Settings
U1	0: A4-R/LTR-R, 1 to 23: Not used, 24: FLSC, 25: A-FLS, 26: Not used, 27: E-OFI, 28 to 29: Not used, 30:A-LTRR, 31 to 32: Not used, 33: A-LGL, 34: G-LGL, 35 Not used, 36: A-OFI, 37:M-OFI, 38 to 41 Not used, 42: FA4, 43 Not used
U2	0: 16K-R, 1 to 22: Not used, 23: K-LGL-R, 24 to 31: Not used, 32: G-LTRR, 33 to 34 Not used

T-5-53

Cassette Left Edge Margin Adjustment (1st side; Mechanical Adjsutment)

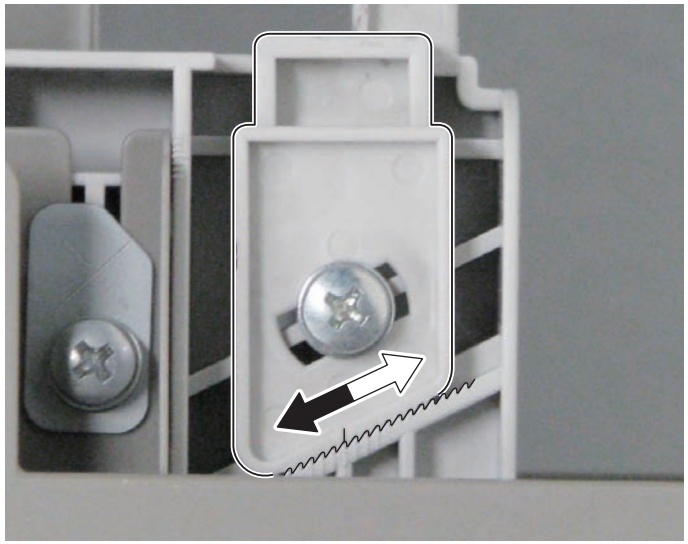
Adjustment procedure	1) Make copies using the Cassette 1, and check that the left edge margin is 2.5 ± 1.5 mm (for LTR/LGL: 4.2 ± 1.5 mm). 

T-5-54

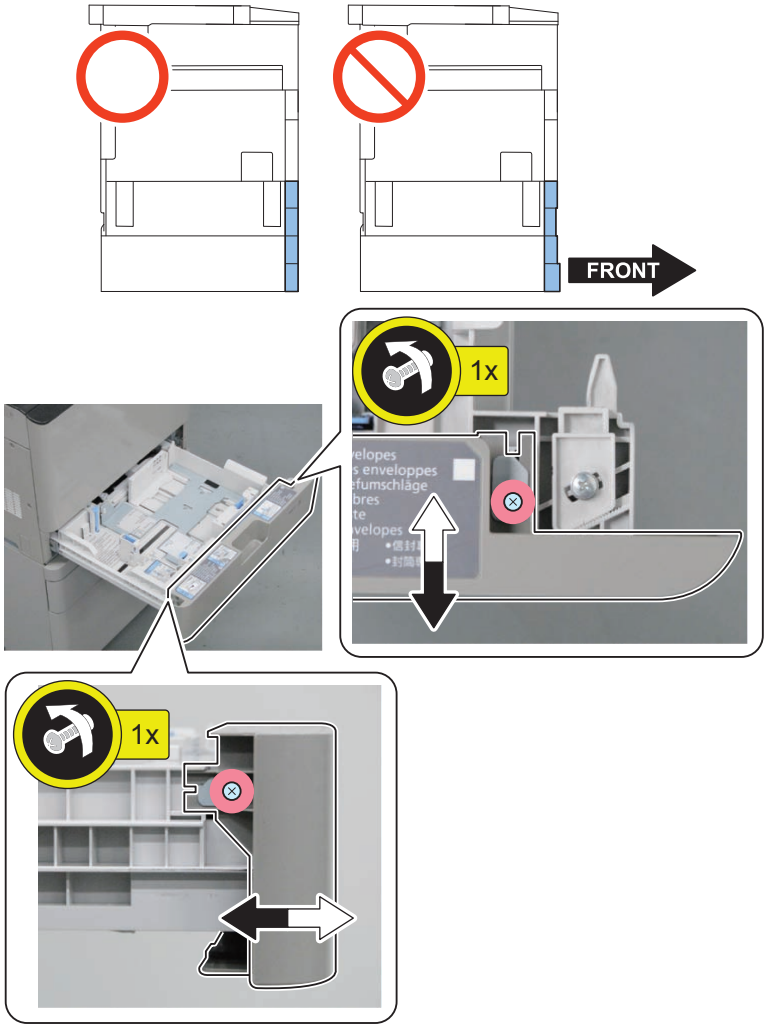
Adjustment procedure	In Case of Nonstandard 2) Pull out the cassette. 3) Check the scale position on the adjusting plates. 

Adjustment procedure	4) Loosen the fixing screw. 

T-5-55

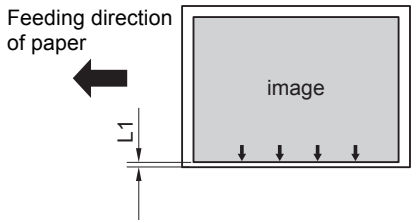
Adjustment procedure	5) Move the Adjustment Plates right and left according to the scale values checked in step 3. As the Adjustment Plate is moved toward the left of the machine by 1 scale, the left edge margin is increased by 0.5 mm. 

T-5-56

Adjustment procedure	6) Tighten the fixing screw. 7) Return the cassette to its original position. NOTE: When the cassette positions are uneven due to the mechanical adjustment, adjust them by loosening the 2 screws.  8) Make copies using the Cassette 1, and check that the left edge margin is 2.5 ± 1.5 mm.

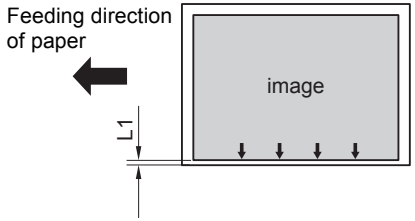
T-5-57

Cassette Left Edge Margin Adjustment (1st side; Software Adjsutment)

Adjustment procedure	1) Make copies from cassette 1, and check that the left margin is 2.5 ± 1.5 mm (for LTR/LGL: 4.2 ± 1.5 mm) .  2) If the left margin is out of the specification, change the adjustment value for the left margin on the 1st side in cassettte 1. Service Mode > COPIER > ADJUST > FEED-ADJ > ADJ-C1; 1 increment of the value spreads out the left margin by 0.1 mm. (Image move to the right) 3) Make copies using the Cassette 1, and check that the left edge margin is 2.5 ± 1.5 mm. 4) Write down the new adjustment value on the service label. • ADJ-C1 5) Exit from Service Mode.

T-5-58

Cassette Left Edge Margin Adjustment (2nd side; Software Adjsutment)

Adjustment procedure	1) Make 2-sided copy from cassette 1, and check that the left margin on the 2nd side is 2.5 ± 2.0 mm (for LTR/LGL: 4.2 ± 2.0 mm).  2) If the left margin is out of the specification, change the adjustment value for the left margin on the 2nd side in cassettte 1. Service Mode > COPIER > ADJUST > FEED-ADJ > ADJ-C1RE; 1 increment of the value spreads out the left margin by 0.1 mm. (Image move to the right) 3) Make 2-sided copy using the Cassette 1, and check that the left edge margin is 2.5 ± 2.0 mm. 4) Write down the new adjustment value on the service label. • ADJ-C1RE 5) Exit from Service Mode.

T-5-59

Multi-purpose Tray Left Edge Margin Adjustment (1st side; Software Adjsutment)

Adjustment procedure	1) Make copies from the Multi Purpose Tray, and check that the left margin on the 1st side is 2.5 ± 1.5 mm for LTR/LGL: 4.2 ± 1.5 mm). 2) If the left margin is out of the specification, change the adjustment value for the left margin on the 1st side from the Multi Purpose Tray. Service Mode > COPIER > ADJUST > FEED-ADJ > ADJ-MF; 1 increment of the value spreads out the left margin by 0.1 mm. (Image move to the right) 3) Write down the new adjustment value on the service label. • ADJ-MF

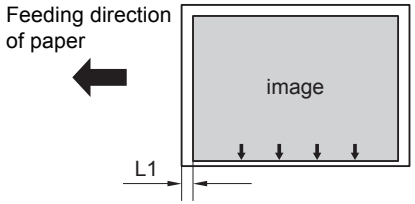
T-5-60

Multi-purpose Tray Left Edge Margin Adjustment (2nd side; Software Adjsutment)

Adjustment procedure	1) Make 2-sided copy from the Multi Purpose Tray, and check that the left margin on the 2nd side is 2.5 ± 2.0 mm for LTR/LGL: 4.2 ± 2.0 mm). 2) If the left margin is out of the specification, change the adjustment value for the left margin on the 2nd side from the Multi Purpose Tray. Service Mode > COPIER > ADJUST > FEED-ADJ > ADJ-MFRE ; 1 increment of the value spreads out the left margin by 0.1 mm. (Image move to the right) 3) Write down the new adjustment value on the service label. • ADJ-MFRE

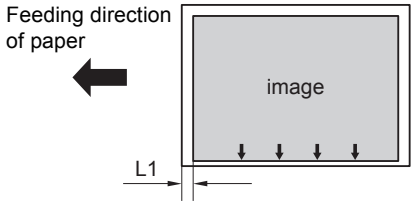
T-5-61

Lead-edge Margin Adjustment (1st side/normal paper)

Adjustment procedure	1) Make copies from cassettte 1, and check that the lead-edge margin is L1 = 4.0 +1.5/-1.0 mm. If the lead-edge margin is out of the specification, go through the following steps to make adjustment.  In Case of Nonstandard 2) Select the following in Service Mode: COPIER > ADJUST > FEED-ADJ > REGIST. 3) Change the setting value to make adjustment. (When the setting value is increased by "1", the leading edge margin is increased by 0.1 mm: Image move to the trailing edge) 4) Write down the new adjustment value on the service label. • REGIST

T-5-62

Lead-edge Margin Adjustment (2nd side)

Adjustment procedure	1) Make copies from cassette 1, and check that the lead-edge margin is L1 = 4.0 +1.5/-1.0 mm. If the lead-edge margin is out of the specification, go through the following steps to make adjustment.  In Case of Nonstandard 2) Select the following in Service Mode: COPIER > ADJUST > FEED-ADJ > REG-DUP1. 3) Change the setting value to make adjustment. (When the setting value is increased by "1", the leading edge margin is increased by 0.1 mm: Image move to the trailing edge) 4) Write down the new adjustment value on the service label. • REG-DUP1

T-5-63

6 Troubleshooting

- Initial Check
- Test Print
- Troubleshooting Items
- Version Upgrade
- Controller Self Diagnosis
- Operation Check of the Main Controller LEDs
- Debug Log

Initial Check

Initial check items list

Item	No.	Detail	Check
Site Environment	1	The voltage of the power supply is as rated (±10%).	
	2	The site is not a high temperature / humidity environment (near a water faucet, water boiler, humidifi er), and it is not in a cold place. The machine is not near a source of fi re 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 fl oor 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 specifi c 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
5	Full half-tone			Yes	Yes	Yes	Yes	Yes				Main controller PCB
6	Grid								Yes	Yes	Yes	Main controller PCB
7to9	---(For R&D)											----
10	MCYBk horizontal stripes (sub scanning direction)				Yes	Yes		Yes				Main controller PCB
11	---(For R&D)											----
12	64-gradation	Yes	Yes			Yes						Main controller PCB
13	---(For R&D)											----
14	Full color 16-gradation	Yes	Yes									Main controller PCB
15to100	---(For R&D)											----

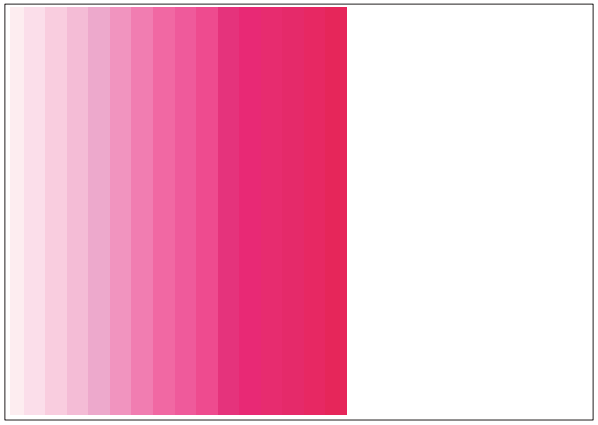
T-6-2

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)



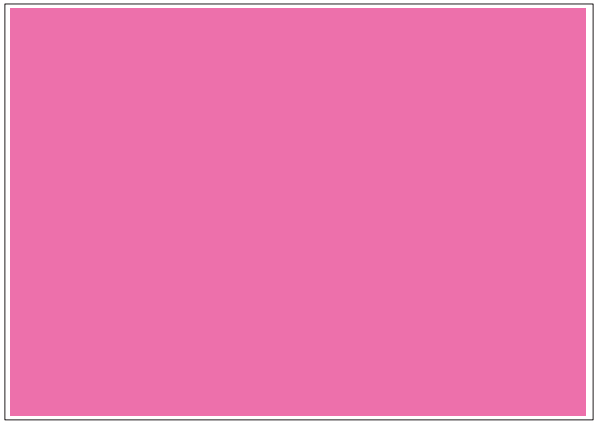
F-6-1

This test print is for mainly checking the gradation, fogging, white line and uneven density at front & rear.

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)



F-6-2

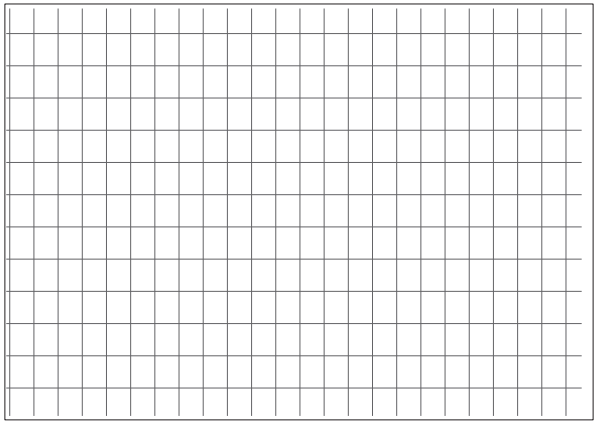
This test print is for mainly checking the black line, white line and uneven density.

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)



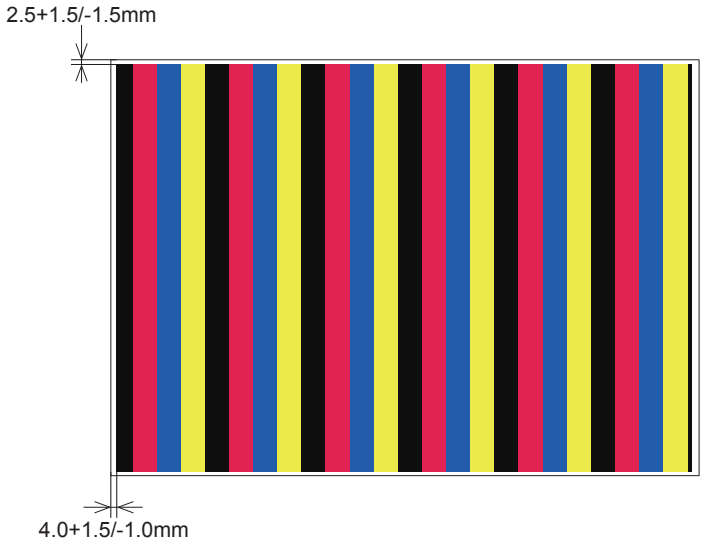
F-6-3

This test print is for mainly checking the color displacement, right angle accuracy and straight line accuracy.

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)



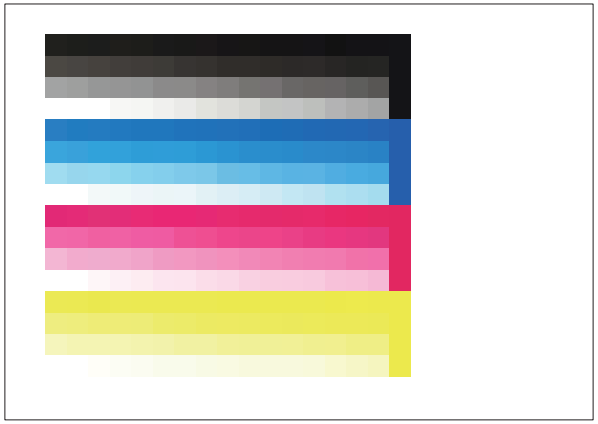
F-6-4

This test print is for mainly checking the dark area density of each color, each color balance and white line on development.

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)



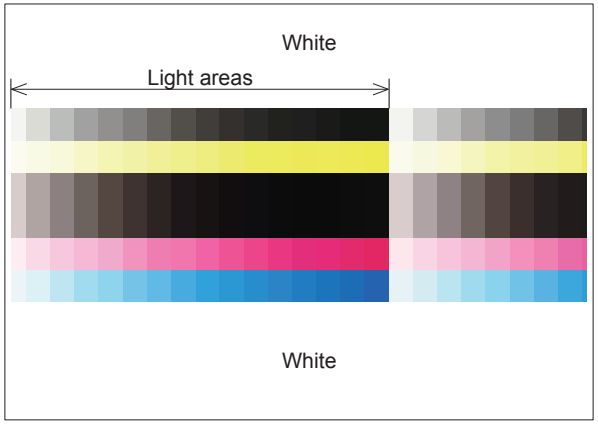
F-6-5

This test print is for mainly checking the gradations of YMCBk single color at one time.

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)



F-6-6

This test print is for mainly checking the gray balance, gradations of YMCBk singe color and fogging.

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

List of Troubleshooting Items

Category	Description	Reference
Image Failure	Color displacement in image due to a failure of Registration Patch Sensor Unit (Front) /(Rear)	6-10
	Fixing wrinkle due to foreign matter attached to the Fixing Inlet Guide	6-11
	Fixing wrinkle in envelopes due to a problem of feedability between the secondary transfer nip and the fixing nip	6-12
	Wrinkle when printing Yougata envelopes	6-13
	Dark spots on halftone image	6-14
	Fogging surrounding high density images in low humidity environment	6-15
Malfunction	Not able to remove the ITB Unit due to the Primary Transfer Roller disengagement failure	6-17

T-6-9

Image Failure

■ Color displacement in image due to a failure of Registration Patch Sensor Unit (Front) /(Rear)

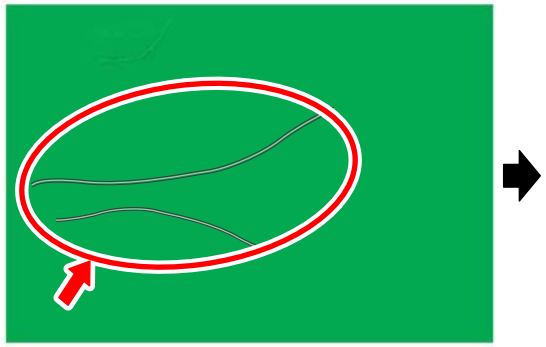
F-6-7

[Location]
Registration Patch Sensor Unit (Front) / (Rear)

[Cause]
When a failure occurs to the Registration Patch Sensor Unit (Front)/(Rear), color displacement may occur to an output image.

[Field Remedy]
1) Perform a test print (grid).
COPIER > TEST > PG > TYPE=6
2) Check the image failure (color displacement) by the test print.
3) Check that the following alarm has occurred:
Patch Sensor error 1: 10-0006
Patch Sensor error 2: 10-0007
4) Perform the following remedies:
4-1) Clean the Patch Sensor window.
4-2) Check the connector connection of the Patch Sensor.
4-3) Check the connector connection of the Patch Sensor Shutter Solenoid.
4-4) Replace the Patch Sensor Unit.

Fixing wrinkle due to foreign matter attached to the Fixing Inlet Guide



F-6-8

[Location]
Fixing Inlet Guide

[Cause]
When duplex printing of solid image is continued, toner dust or paper lint may be adhered to the rib surface or the leading edge of Fixing Inlet Guide together with the wax inside toner and be solidified.
This causes the paper leading edge to be caught by foreign matter when it enters the Fixing Inlet Guide, disrupting the paper entry balance and causing the possibility of wrinkle in the area from the leading edge to the trailing edge of paper.

[Condition]
When duplex copying or duplex printing of solid image is continued

[Field Remedy]
Following shows remedies in the order of priority:
1. Clean the Fixing Inlet Guide with lint-free paper moistened with alcohol.

- Preparation

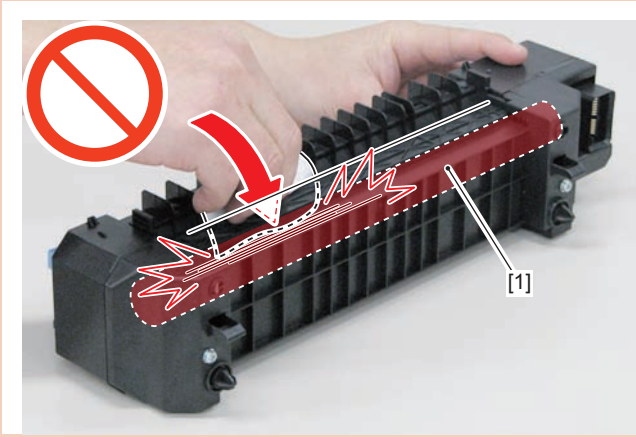
1-1 Remove the Fixing Assembly (Refer to page 4-138).

- Procedure

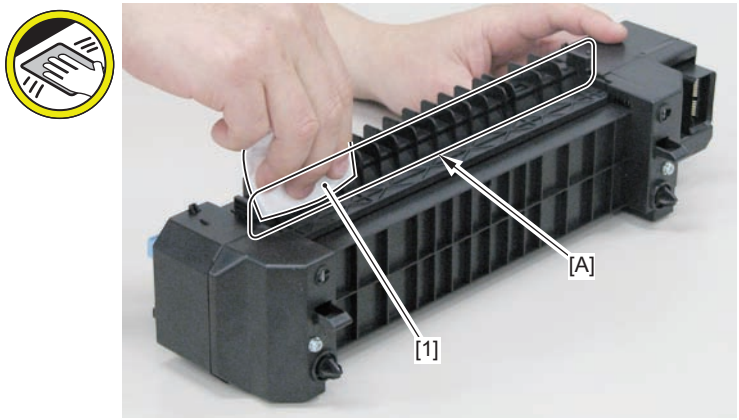
⚠ CAUTION:
Be sure to start removing the Fixing Assembly after it is cooled down enough. The Fixing Assembly right after printing may cause burn injury.

1-2 Clean the Fixing Inlet Guide [A] with lint-free paper [1] moistened with alcohol.

CAUTION:
Do not damage the Fixing Film [1] when cleaning.



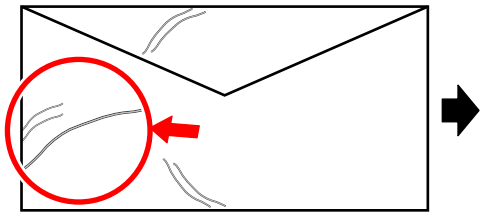
F-6-9



F-6-10

2. Replace the Fixing Assembly.

Fixing wrinkle in envelopes due to a problem of feedability between the secondary transfer nip and the fixing nip



F-6-11

[Location]
Fixing nip

[Cause]
When envelopes are fed in both the secondary transfer nip and fixing nip, the behavior at the time of feed may cause wrinkle in envelopes.
It may occur more frequently to envelopes which have absorbed moisture.

[Condition]
When envelopes have not been loaded properly, or when the alignment between the secondary transfer nip and fixing nip has been shifted from the specified position

[Field Remedy]
Service mode (Lv.2)> COPIER> OPTION> BODY > EVLP-FS
Setting of fixing speed when feeding envelopes
The fixing speed when feeding envelopes can be changed by +/-20%.
There is a possibility of image displacement at the envelope's trailing edge, therefore change the setting value while checking the wrinkle and the image displacement.

Wrinkle when printing Yougata envelopes

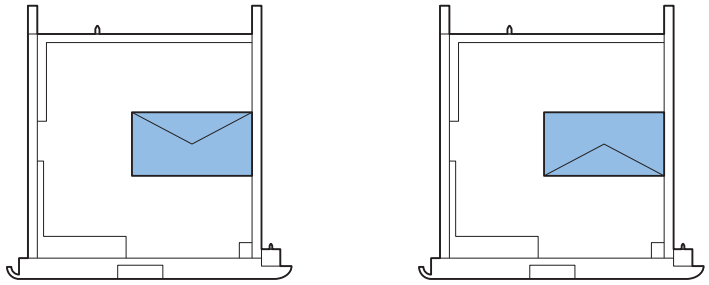
[Location]
Cassette 1, Multi-purpose Tray

[Cause]
Yougata envelopes (COM10 No.10/Yougatanaga 3/Monarch/DL/ISO-C5) have been loaded with the grain of paper oriented against the feed direction in such a way that it is likely to cause wrinkle.

[Condition]
The paper grain direction of Yougata envelopes is not uniform.

[Field Remedy]
- Cassette 1

  When wrinkle occurs to envelopes loaded in a normal direction, change the direction to load them by rotating by 180 degrees as shown below.

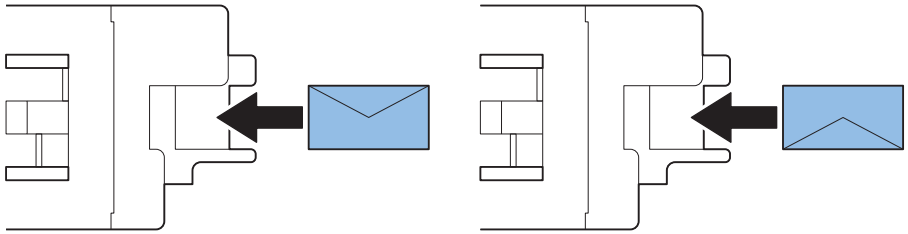


F-6-12

  - When printing, rotate the paper direction by 180 degrees also in the printing preferences screen of printer driver. For details, refer to the User's Manual.
  - When copying, rotate the direction to place an original by 180 degrees.

- Multi-purpose Tray

  When wrinkle occurs to envelopes loaded in a normal direction, change the direction to load them by rotating by 180 degrees as shown below.



F-6-13

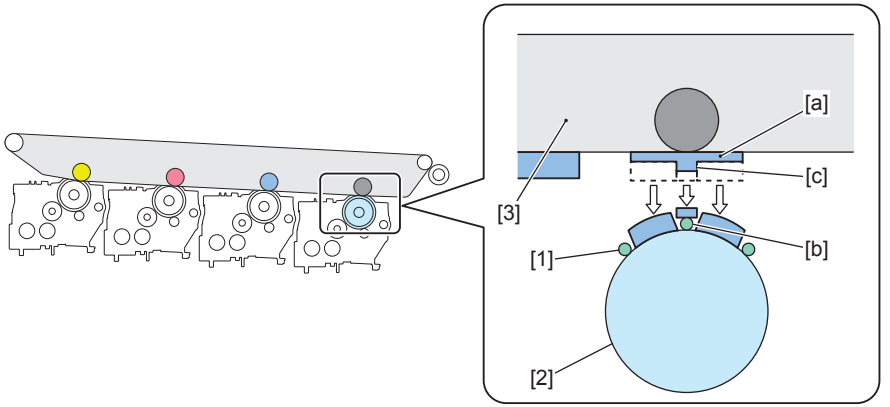
  - When printing, rotate the paper direction by 180 degrees also in the printing preferences screen of printer driver. For details, refer to the User's Manual.
  - When copying, rotate the direction to place an original by 180 degrees.

Dark spots on halftone image

F-6-14

[Location]
The ITB being in the initial phase (the surface resistance is high), and the drum unit being in the terminal phase of its use (the electric charge of toner is low).

[Cause]
When a halftone image is output, dark spots may appear locally. This symptom does not occur with black color.
A tiny amount of black developing carrier[1] is usually on the surface of the black drum[2]. When the color toner image[a] on the ITB[3] passes the Y drum, the M drum, and the C drum and reaches the Black drum[2], a portion of the surface of the color toner image[a] is slightly transferred onto the Black drum[2] (This transferring symptom is hereinafter referred to as retransferring).
In the image portion[b] where the developing carrier on the surface of the Black drum[2] is positioned, less amount of toner is retransferred. On the contrary, the portion[c] on the ITB[3] side, which corresponds to the position of the developing carrier, projects like a heap with more toner. Accordingly, when the toner image on the ITB[3] is secondary transferred to paper, the portion[c] of the heap appears as a dark spot on the image.



F-6-15

[Condition]
The symptom tends to occur under a combination of conditions including a low humidity environment, the ITB being in the initial phase (the surface resistance is high), and the drum unit being in the terminal phase of its use (the electric charge of toner is low).

[Field Remedy]

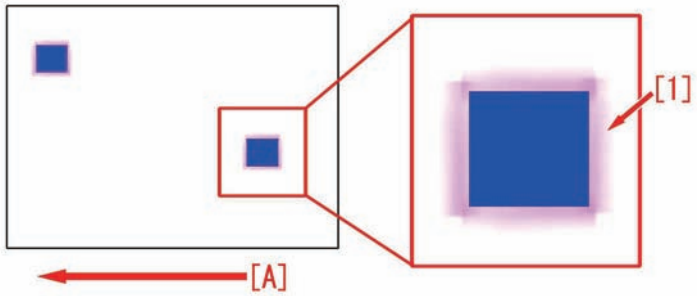
1) In Service Mode(LEVEL2): COPIER > Adjust > HV-TR > 1TR_xxxx, set "-3".
   The setting range is from "-50" to "50" (default value: 0).
   By changing the setting value by "1", the primary transfer current is changed by 1 microampere.
   Select "1TR_xxxx" according to the type and size of paper used and the color with which the symptom occurs.
   The following describes an example using Plain paper 1 (64 to 75gsm)/A4.
   - When the symptom occurs with yellow: Change the setting value to "-3" in 1TR_TGM, 1TR_TGC, and 1TR_TK4.
   - When the symptom occurs with magenta: Change the setting value to "-3" in 1TR_TGC and 1TR_TK4.
   - When the symptom occurs with cyan: Change the setting value to "-3" in 1TR_TK4.

Paper type , Size \ Color with which the symptom occurred		Yellow	Magenta	Cyan
Plain paper 1 (64 to 75 gsm) Plain paper 2 (76 to 90 gsm) Recycled paper 1 (64 to 75 gsm) Recycled paper 2 (76 to 90 gsm)	Less than A4 (210mm)	1TR_TGM3 1TR_TGC3 1TR_TK43	1TR_TGC3 1TR_TK43	1TR_TK43
	A4 (210mm) or more	1TR_TGM 1TR_TGC 1TR_TGK4	1TR_TGC 1TR_TGK4	1TR_TGK4
Plain paper 3 (91 to 105 gsm) Recycled paper 3 (91 to 105 gsm)	ALL	1TR_TGM3 1TR_TGC3 1TR_TK43	1TR_TGC3 1TR_TK43	1TR_TK43
Other	ALL	1TR_TGM2 1TR_TGC2 1TR_TK42	1TR_TGC2 1TR_TK42	1TR_TK42

T-6-10

2) Select Service Mode: COPIER > Function > MISC-P > "1ATVC-EX" and press the "OK" button to execute the primary transfer ATVC control.
3) Output the image that caused the symptom, and check to see that the symptom does not occur.

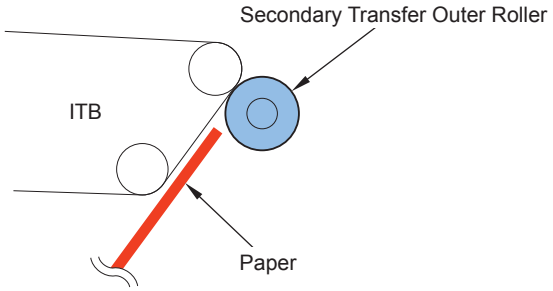
Fogging surrounding high density images in low humidity environment



F-6-16

[Location]
High secondary transfer voltage

[Cause]
When paper that had been left in a low humidity environment was used, fogging [1] surrounding high density images appeared in some cases.
The arrow [A] indicates the paper feed direction.
High secondary transfer voltage is required to transfer a high density image on paper with high surface resistance.
When the surface resistance of paper is high, the secondary transfer voltage at the high density area becomes insufficient, so that the toner attached on the paper becomes impossible to be retained there and then is scattered to non-image area to generate the symptom.



F-6-17

[Condition]
Leaving in a low humidity environment increases the surface resistance of paper and so it becomes more likely to generate the symptom.

[Field Remedy]
1) Find the corresponding parameter by checking the paper type, the 1st side and the 2nd side of the paper that is generating the issue with the correspondence table and change the set value to “10” from Service mode > Mode List > COPIER > Adjust > HV-TR.

Paper type	Front side (the 1st side)	Back side (the 2nd side)
Thin paper	2TR-TH-1	2TR-TH-2
Plain paper 1	2TR-N1-1	2TR-N1-2
Plain paper 2	2TR-N2-1	2TR-N2-2
Plain paper 3	2TR-N3-1	2TR-N3-2
Recycled paper 1	2TR-R1-1	2TR-R1-2
Recycled paper 2	2TR-R2-1	2TR-R2-2
Recycled paper 3	2TR-R3-1	2TR-R3-2
Heavy paper 1	2TR-H1-1	2TR-H1-2
Heavy paper 2	2TR-H2-1	2TR-H2-2
Heavy paper 3	2TR-H3-1	2TR-H3-2
Color paper	2TR-CP-1	2TR-CP-2
OHP	2TR-O-1	-
Labels	2TR-LA-1	-
Bond paper	2TR-B-1	2TR-B-2
Pre-punched paper	2TR-PA-1	2TR-PA-2
Envelope	2TR-EN-1	2TR-EN-2

T-6-11

The possible range is between “-128” and “+127” (default: “0”). A change of the set value by “1” changes 30 V of the secondary transfer voltage.

CAUTION:

If secondary transfer voltage is too high or paper type has been changed, a faulty image (white spots) may occur at the high density portion attributed to the too strong secondary transfer voltage.

2) Output the image with which the symptom occurred and check to see if the same symptom does not occur.
If the symptom does not improve, increase the set value of the step 1) by “10” at a time to see if it works until the value reaches “30”.

NOTE:
Improving a state of preservation of paper may be effective in resolving a trouble in some cases.
Explain to a customer that unused or remaining paper should be stored by being covered with wrapping paper in a place avoiding direct sunlight.

Category: Malfunction

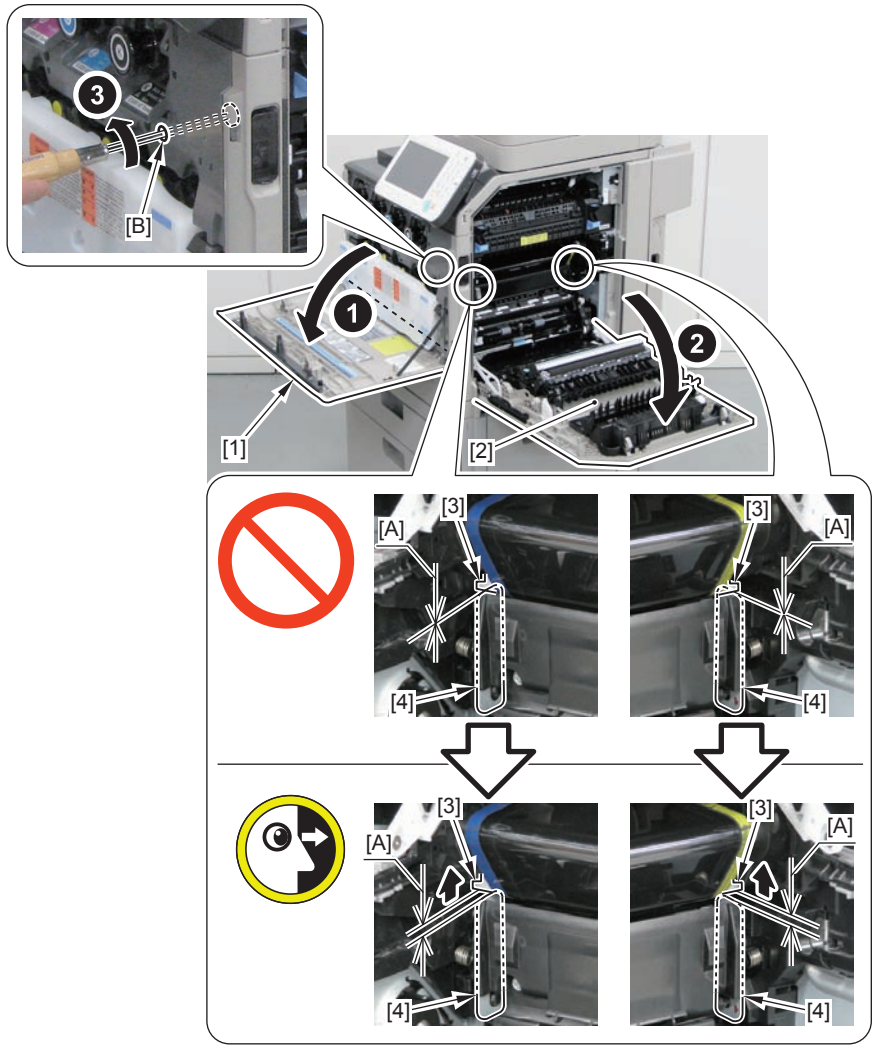
■ Not able to remove the ITB Unit due to the Primary Transfer Roller disengagement failure

[Location]
ITB Unit

[Cause/Condition]
If unexpected situations coincide with unexpected conditions, disengagement failure of the Primary Transfer Roller may occur. As a result, the ITB Unit may not be able to be removed from the host machine.

[Field Remedy]
Follow the procedure shown below to remove the ITB Unit from the host machine.

1) Open the Front Cover [1].
2) Open the Right Cover Unit [2].
3) Insert a flat-blade screwdriver into the hole [B].
4) Rotate the flat-blade screwdriver in a counterclockwise direction until it creates an opening [A] between the Secondary Transfer Idler Roller Shaft Support [3] and the RD Sensor Stay [4].
5) Remove the Drum Unit.
6) Remove the ITB Unit.



F-6-18

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”)

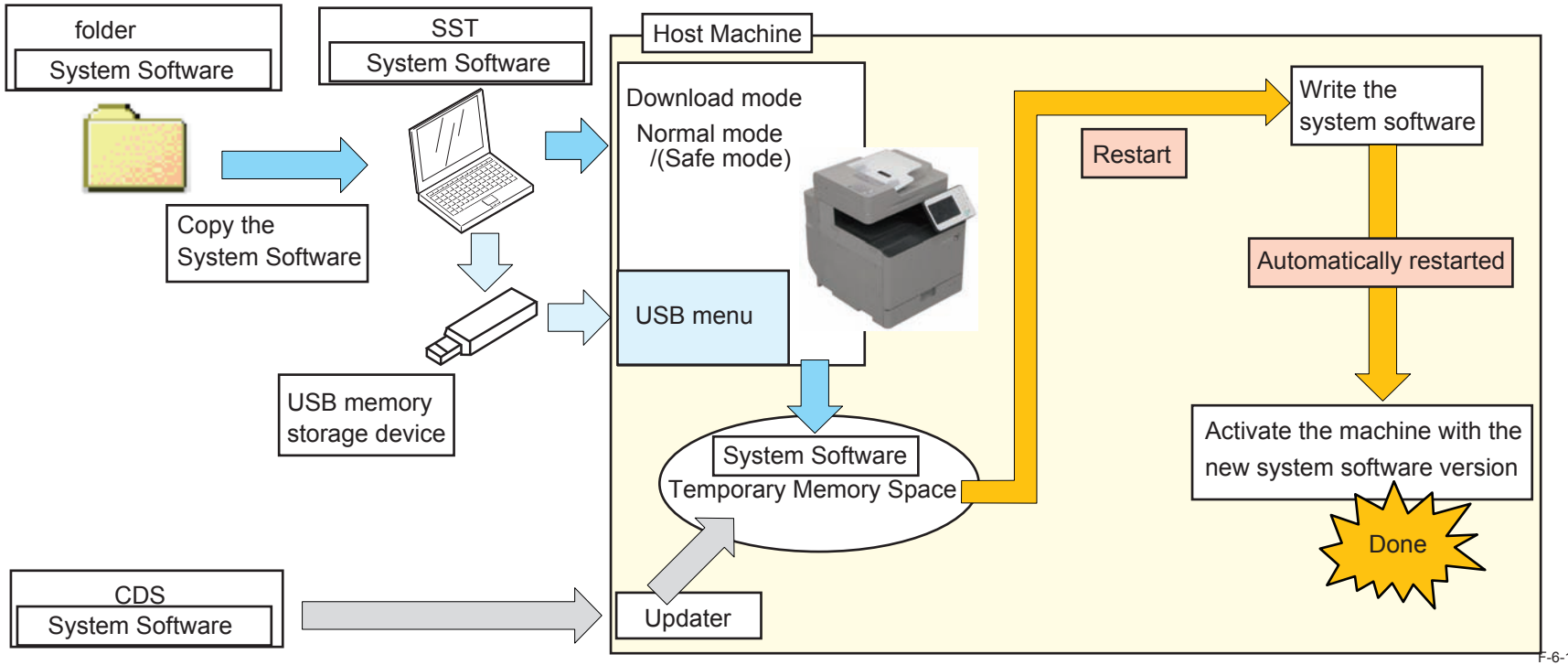
Connect the machine to the PC by the cross cable to download the system software using SST installed in the PC.

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	iA350	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 G3 FAX Board-AN1
	FAX Board Main Program		G3CCM	yes	yes	yes	Super G3 FAX Board-AN1
Finisher	Finisher Controller	FIN_S1	FIN_CON	yes	yes	yes	Staple Finisher-S1
Cassette	Cassette Module Controller	CST_AG1	CST_CON	yes	yes	yes	Cassette Module-AG1

The finisher and cassette of this machine support version upgrade via the host machine in any of the abovementioned methods, i.e., via SST, USB memory storage device or CDS. T-6-12

■ 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 identities 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.

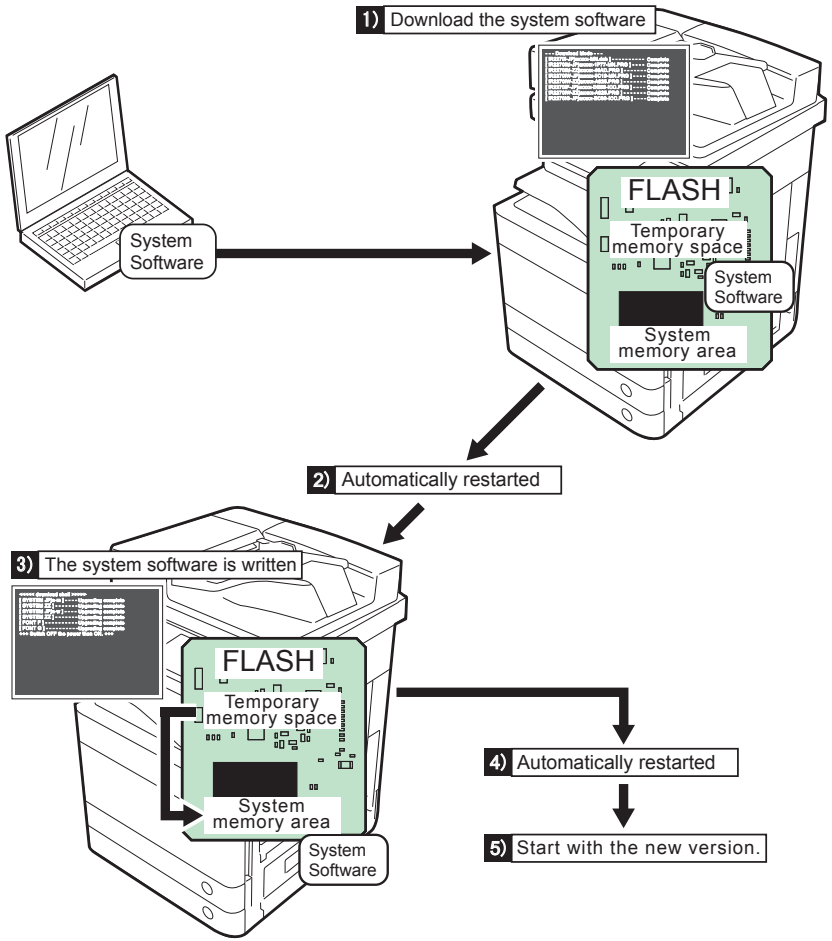
This machine consists of multiple system software that mutually interacts during operation; therefore, it is necessary to download all the system software in the combination of the versions, which the operation has been checked. Basically, use the assist mode to download the system software of this machine.

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.



F-6-20

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.

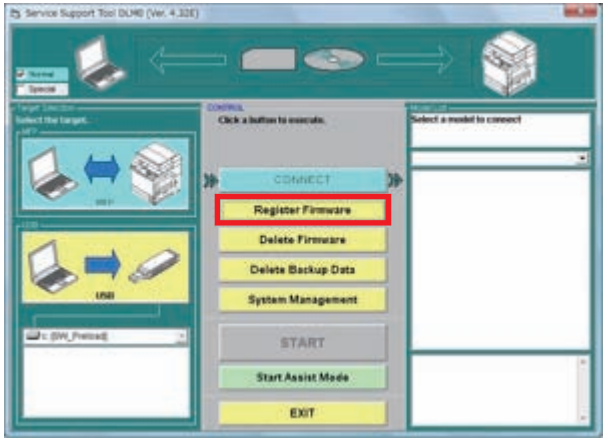
Preparation

Requirements:

- PC with SST Ver.4.73 or later installed
- The system software for this machine

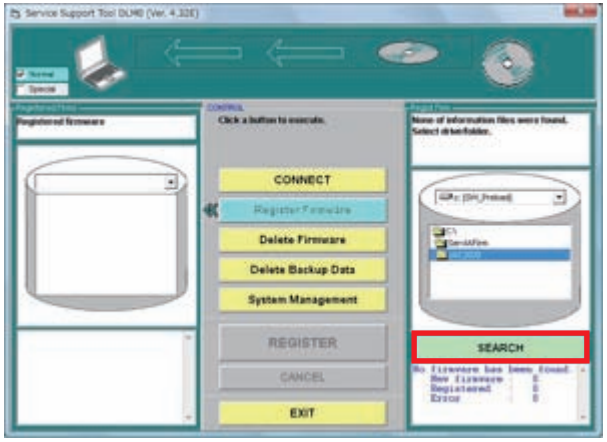
Steps to register the system software

1) Start the PC.
2) Start SST.
3) Click the “Register System Software” button.



F-6-21

4) Select the folder containing the system software and click the “Search” button.

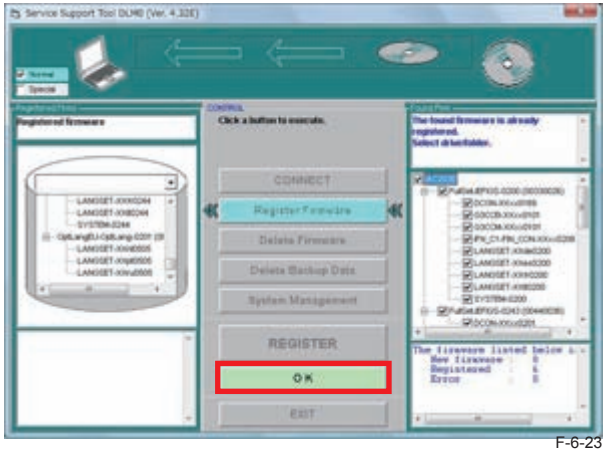


F-6-22

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.



F-6-23

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

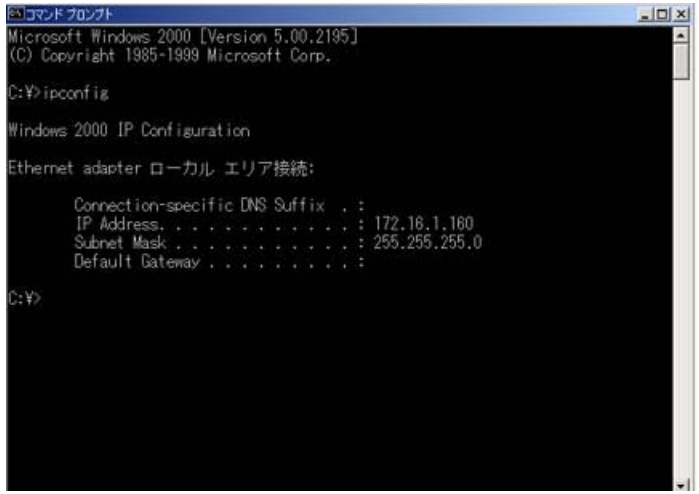
- PC with SST Ver.4.73 or later installed and the system software for this machine is registered.
- Cross cable
  10Base-T: Category 3 or 5
  100Base-T: Category 5
  1000Base-T: Enhanced Category 5 (CAT5e) or later

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.

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.



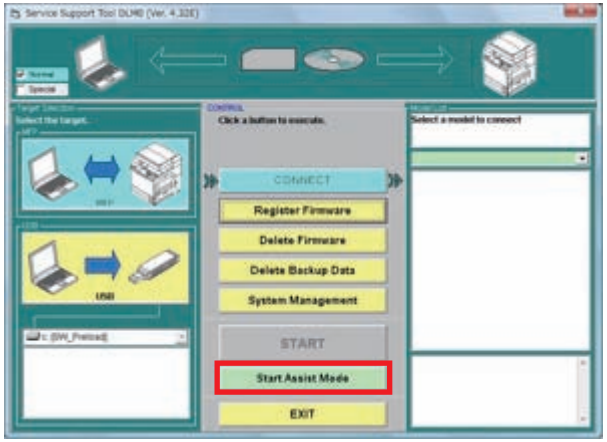
F-6-24

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.

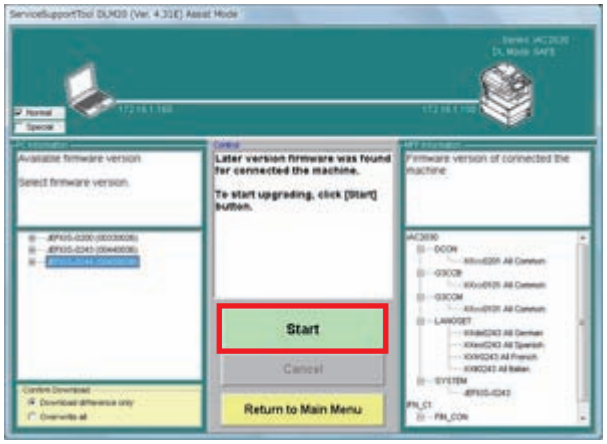


F-6-25

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.



F-6-26

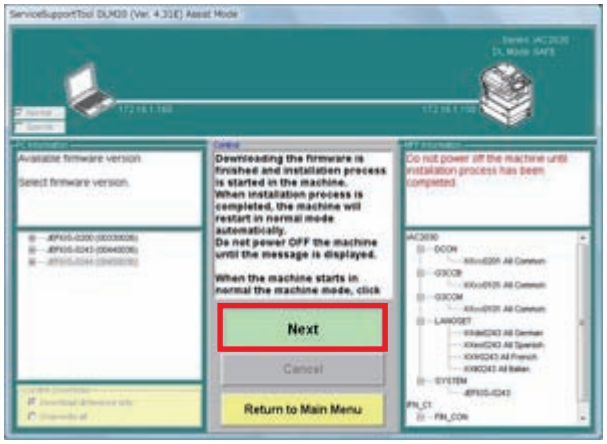
Writing process is started when download is completed.

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.



F-6-27

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.

F-6-28

NOTE:
The following device information is shown at the right top of SST screen.

- IP address
- Model name
- Download mode

F-6-29

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.

F-6-30

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.

F-6-31

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

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.

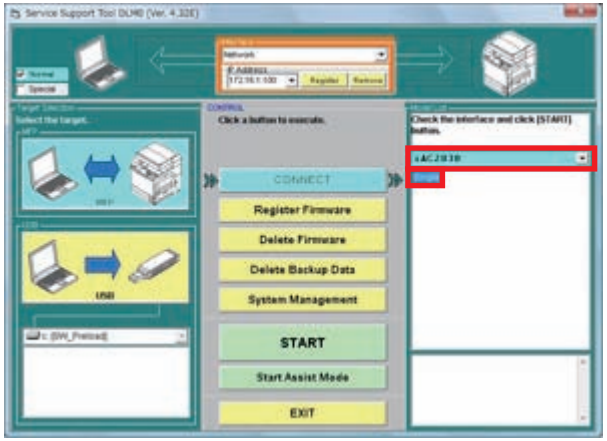
Executing Format ALL on the machine in use deletes all the user data in the HDD as well as the MEAP application; therefore, be sure to gain agreement with the user.

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.



F-6-32

4) Click the “Format HDD” button.

F-6-33

5) Click the “Execute Format” button.

F-6-34

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
Flash data	Sraming.bin (available to upload/ download)
MEAP application	MeapBack.bin (available to upload/ download)
For R&D use	Sublog.bin (Do not select this file)

T-6-13

  - 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)

T-6-14

  - Data is saved in the FLASH PCB.

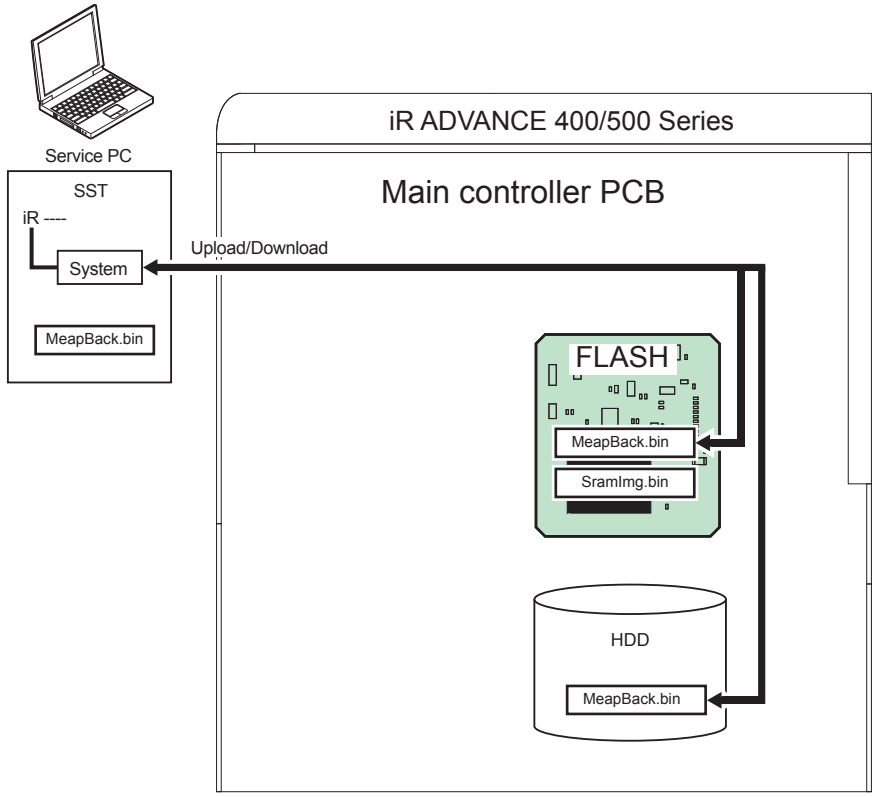
NOTE:
Before replacing the DC Controller PCB, backup the data in service mode. The backup data can be restored in service mode after replacing the DC Controller PCB. This enables to maintain the setting data including service mode stored in the old DC Controller PCB.

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.



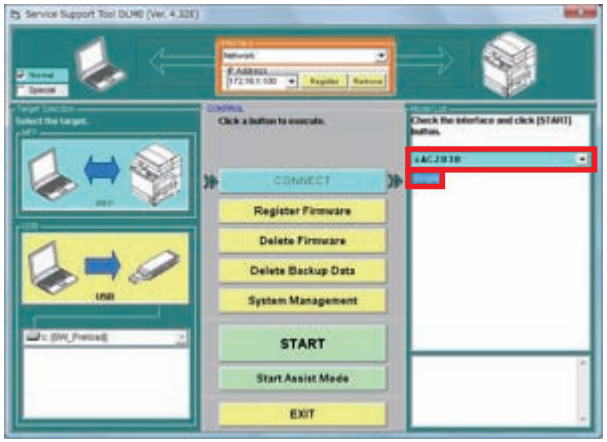
F-6-35

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.

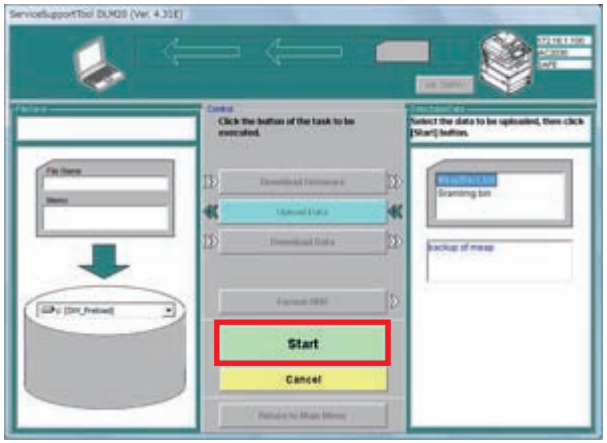


F-6-36

4) Click the “Upload Data” button.

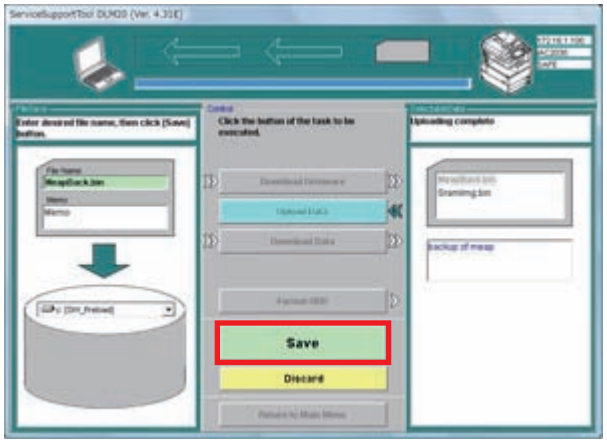
F-6-37

5) Select “MeapBack.bin” and click the “Start” button.



F-6-38

6) Enter the file name to be saved and comments when necessary. Click the “Save” button.



F-6-39

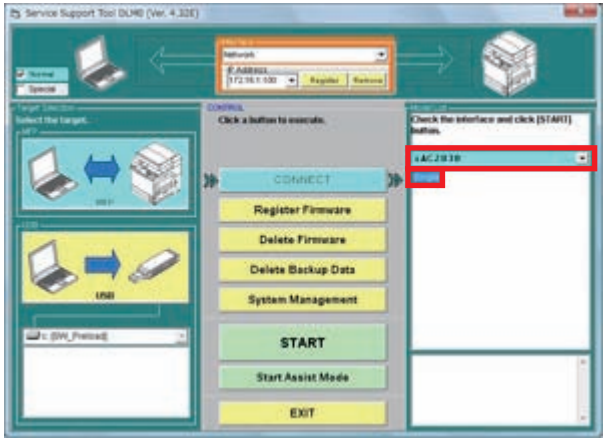
7) Click the “OK” button.

Steps to Download Data

CAUTION:
The backup data can be downloaded to the machine from which the data was uploaded.

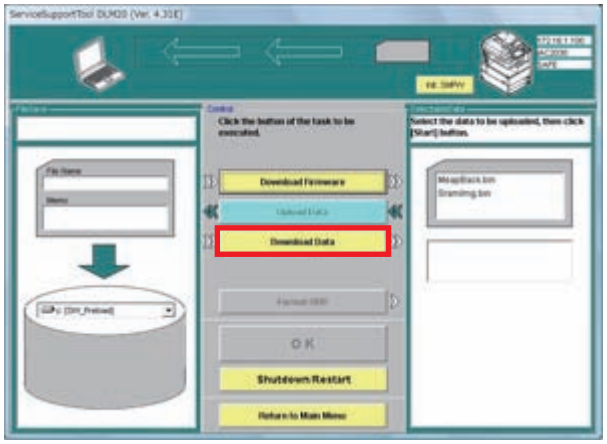
Listed below are the sample steps to download MeapBack.

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.



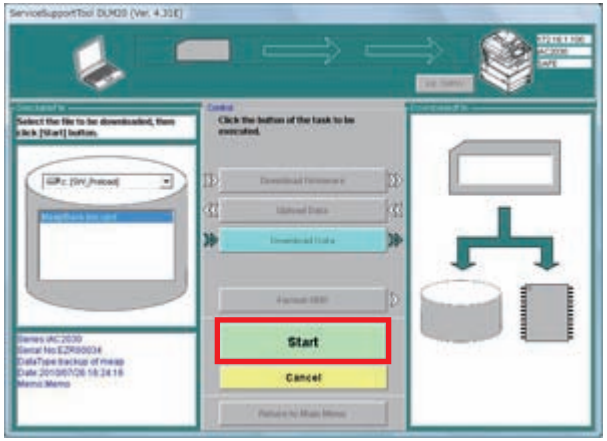
F-6-40

4) Click the “Download Data” button.



F-6-41

5) Select the data to be downloaded and click the “Start” button.



F-6-42

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

T-6-15

Asian area	
Basic languages	English, Japanese
Normal languages	Simplified Chinese, Traditional Chinese, Korean

T-6-16

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.

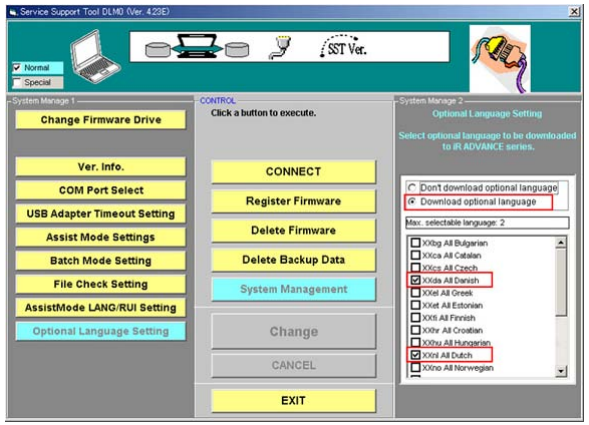
The use case and execution methods

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

T-6-17

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.



F-6-43

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.

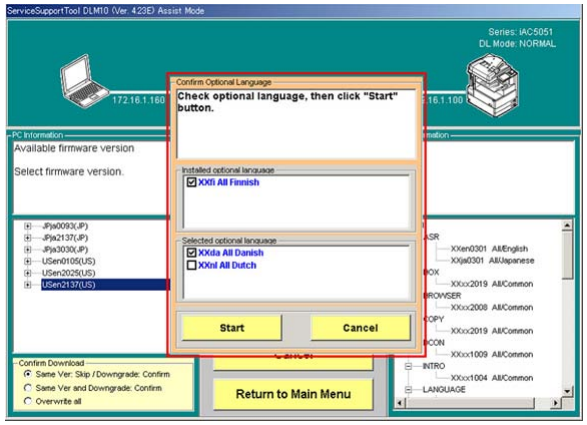
Maximum number of the optional languages installed to the machine is two.
The optional language already installed to the connected machine is always selected, and it cannot be removed from the machine with SST.

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.

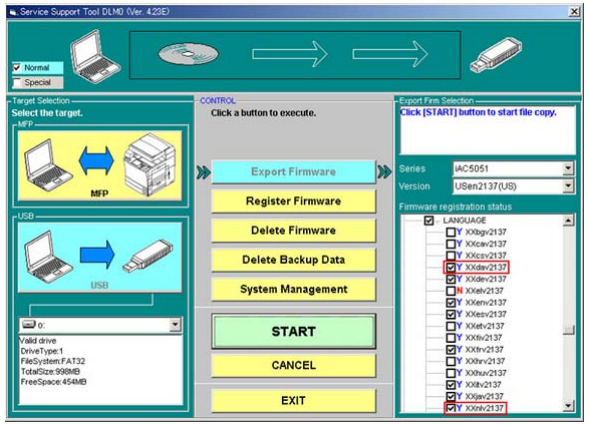
The picture shown below is the example of the case that Finnish is installed to the machine, and Danish and Dutch are selected in the "Optional Language Setting".
Only two optional languages can be installed to the machine and Finnish is already installed.
Therefore, either Danish or Dutch can be installed to the machine.



F-6-44

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.

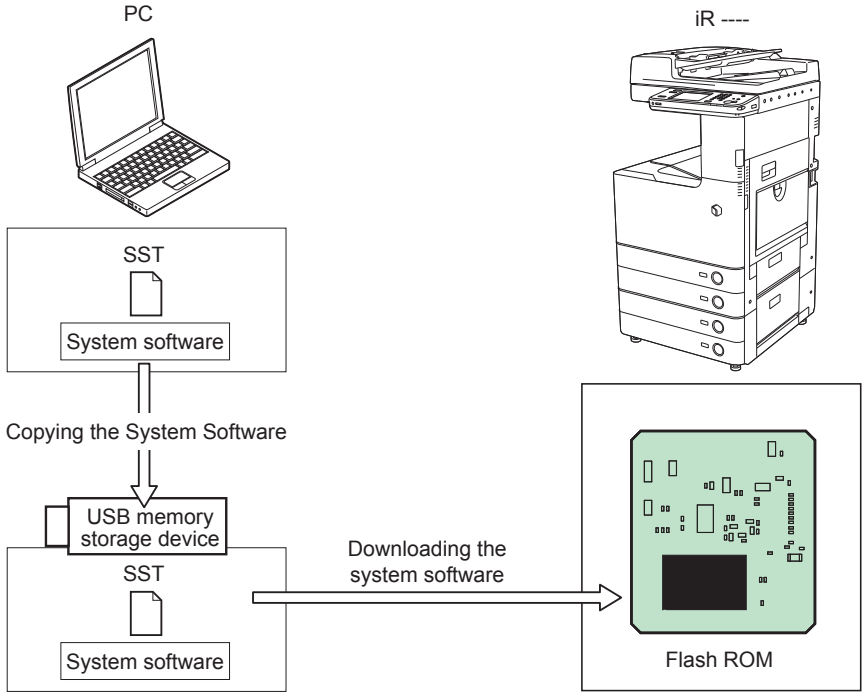


F-6-45

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.



F-6-46

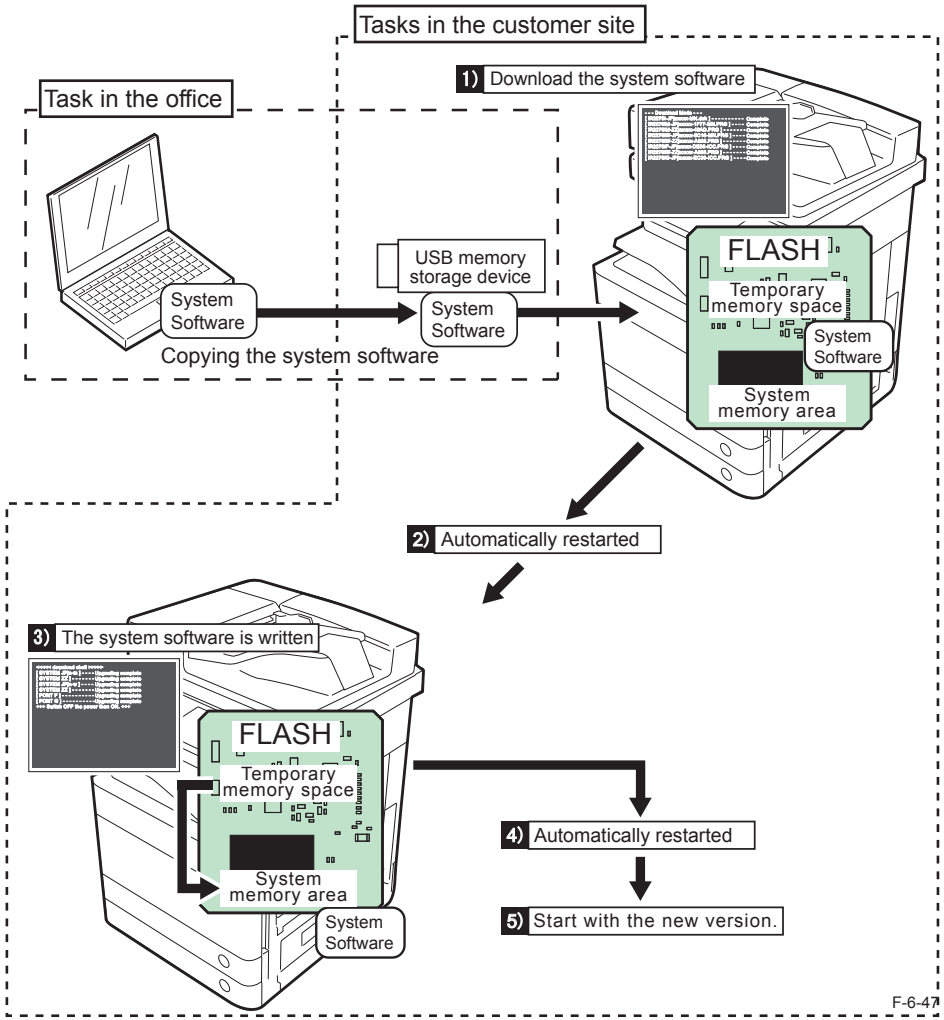
When downloading the system software, enter download mode by any of the following methods.

- 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.



F-6-47

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.

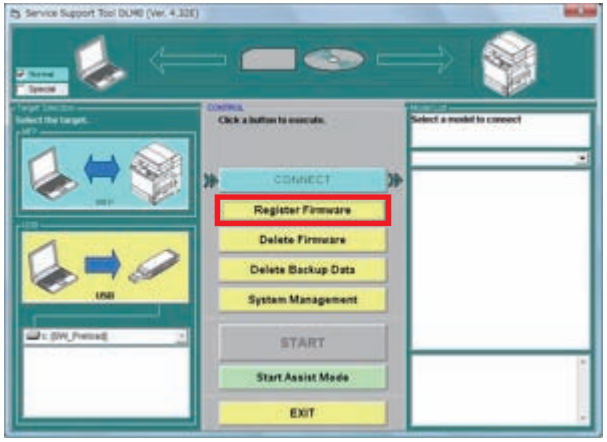
Preparation

Requirements:

- PC with SST Ver.4.73 or later installed
- The system software for this machine

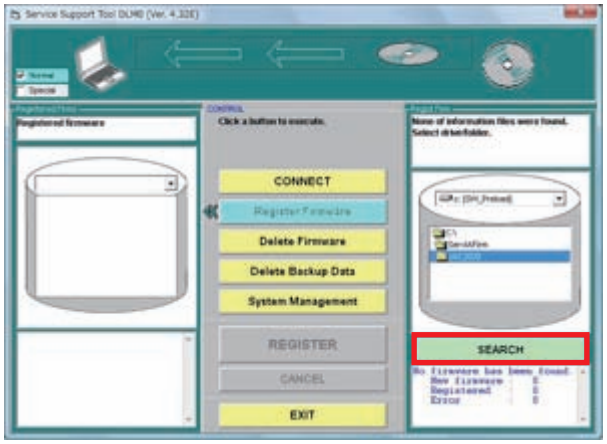
Steps to register the system software

1) Start the PC.
2) Start SST.
3) Click the “Register System Software” button.



F-6-48

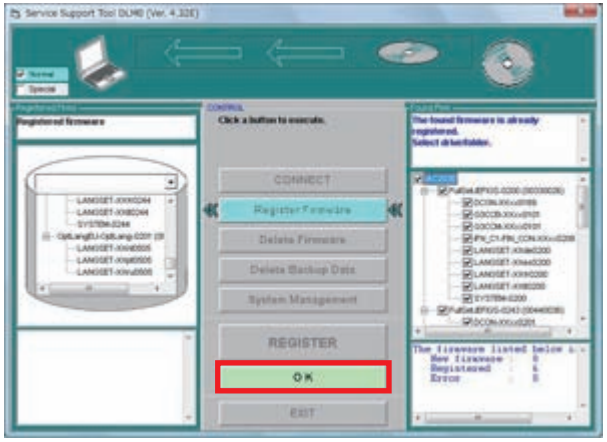
4) Select the folder in which the system software is saved and click the “Search” button.



F-6-49

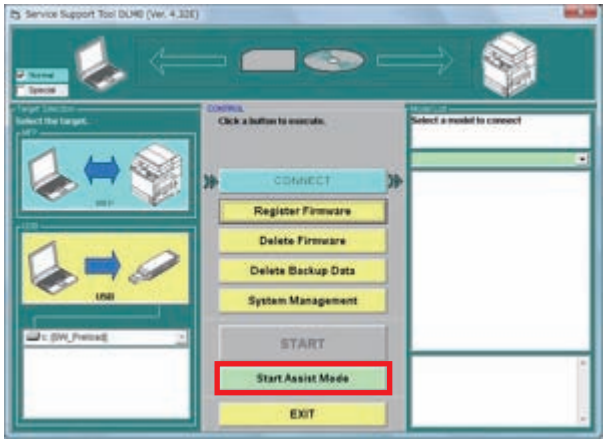
NOTE:
“XXXX” in the figure describes the version of system software.

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.



F-6-50

6) Click the “OK” button when the message telling completion of system software registration is displayed.



F-6-51

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)

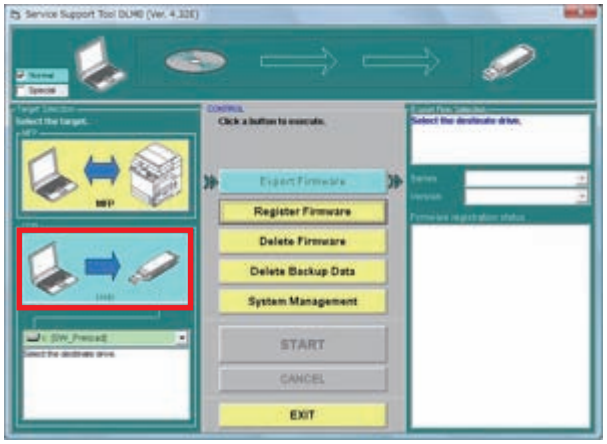
Preparation
Requirements:

- PC with SST Ver.4.73 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.

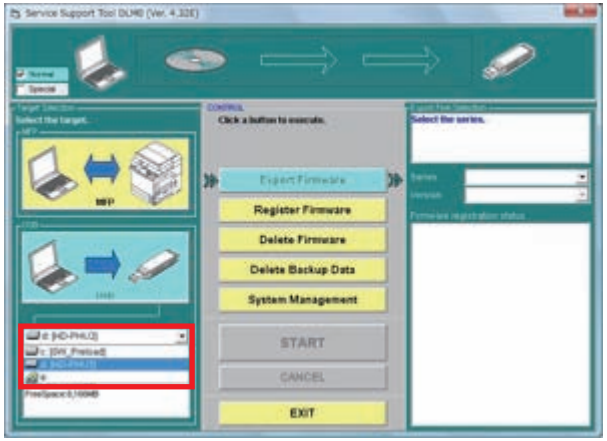
Steps to register the system software
1) Start the PC.
2) Insert the USB memory storage device to the USB port of the PC.
3) Start SST.

4) Click the USB icon shown in “Select the target” screen.



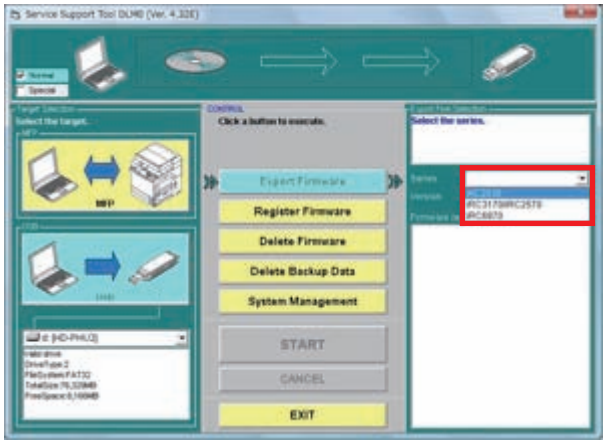
F-6-52

5) Select the drive (removable disk) where the USB memory storage device is inserted.



F-6-53

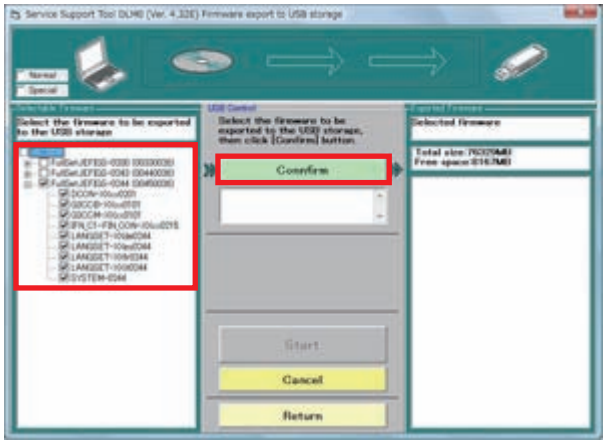
6) Select the “Series”.



F-6-54

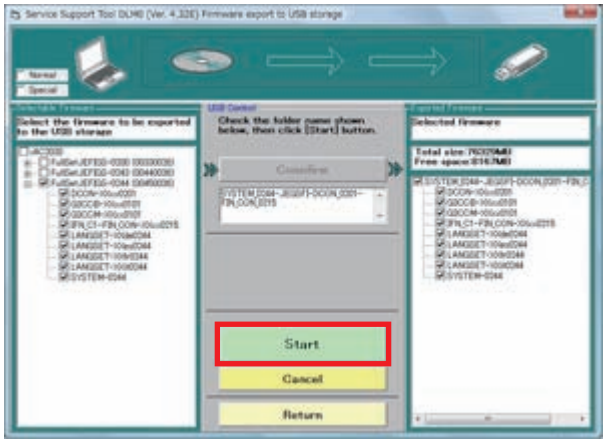
7) Select the version to register. After selecting the version, click confirm button.

NOTE:
Only one version can be registered at once. In addition, a single system software can be registered.



F-6-55

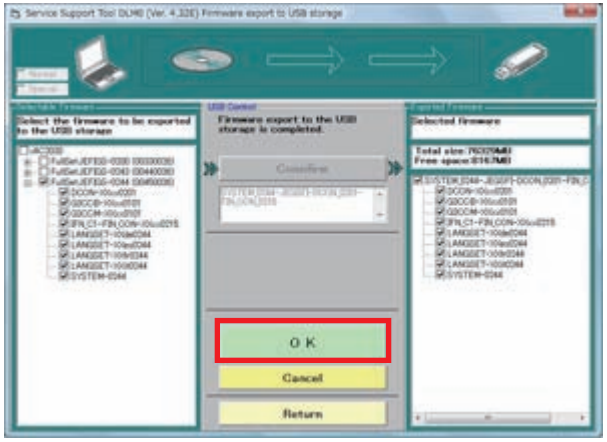
8) Wait for approx. 1 minute so the firmware to be written is displayed. When the following screen is displayed, click start button.



F-6-56

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-6-57

Connection

CAUTION:

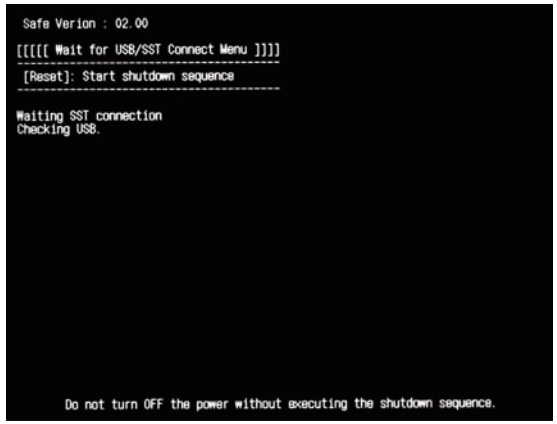
This machine does not communicate with SST once it recognizes a USB memory storage device. Therefore, SST and a USB memory device cannot be used at the same time.

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-6-58

4) Connect the USB memory storage device to the USB port.

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-6-59

CAUTION:

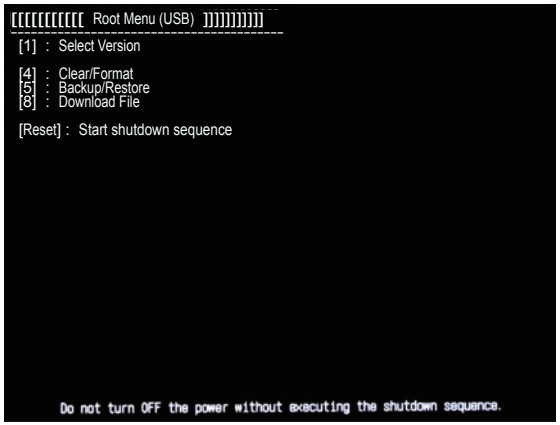
Depending on the manufacturer or the model, this machine may fail to recognize the USB memory storage device.

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



F-6-60

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 Meepback/Sraming

[8]: Download File

To download the SUBLOG/ServicePrint

[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

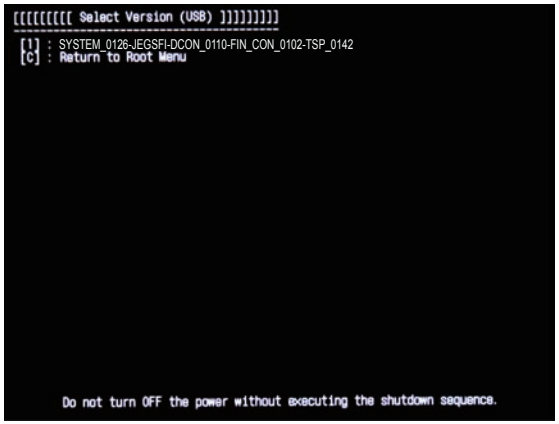
Be sure to execute the following procedure to quit download mode.

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).



F-6-61

Selecting version gets into the download menu.

■ Downloading/ Writing System Software (Automatic)

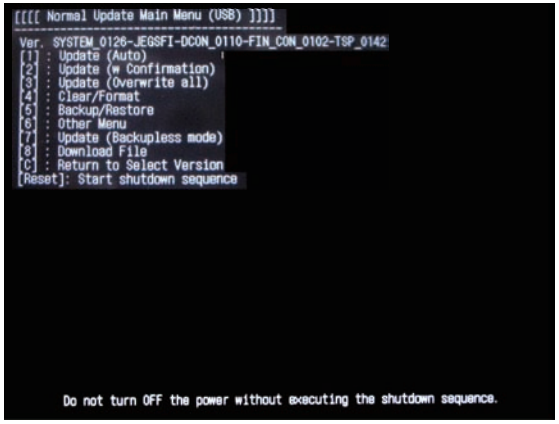
● [1]: Upgrade (Auto)

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

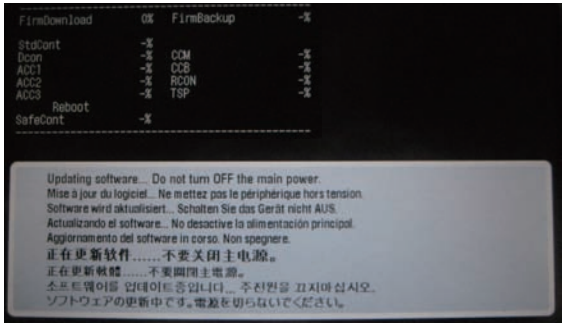
1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press [1] and select the version of system software to be used on the screen for selecting version.
4) Select [1]: Update (Auto) to start download.
   [1] to [0]: Execute download/ any key other than [0]: Return to the menu screen



F-6-62

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-6-63

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.

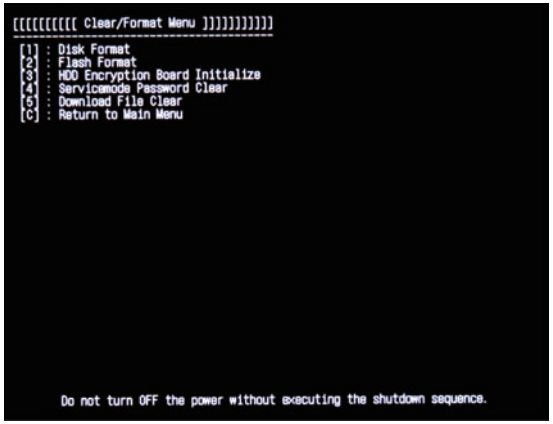
When download is completed, this machine is automatically restarted to start writing to the system software in the FLASH PCB. When writing to the Dcon (ACC1, CCM or CCB if there is an option) is completed, the machine is automatically restarted. After writing of SafeCont is completed, the machine is 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-6-64

- 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

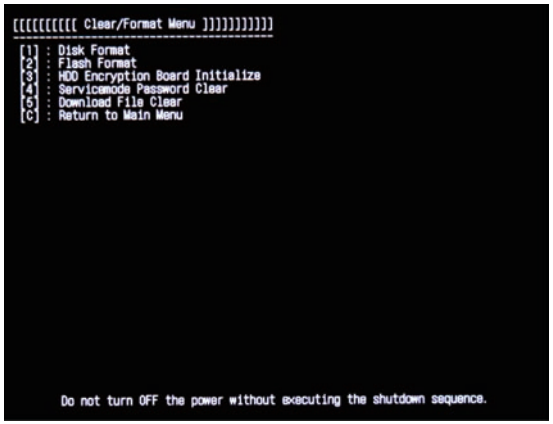
To format the entire HDD

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.

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-6-65

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.

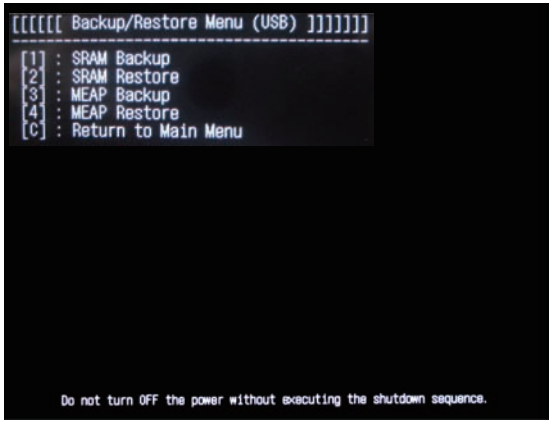
■ Backup/ Restore

● [5]: Backup/Restore

Backup/Restoration of the data in the FLASH can be executed.
It is used to temporarily save the data stored in the FLASH to the HDD and to restore it after replacement.

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-6-66

The following message is displayed when the backup process is completed.

F-6-67

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

This item is not used

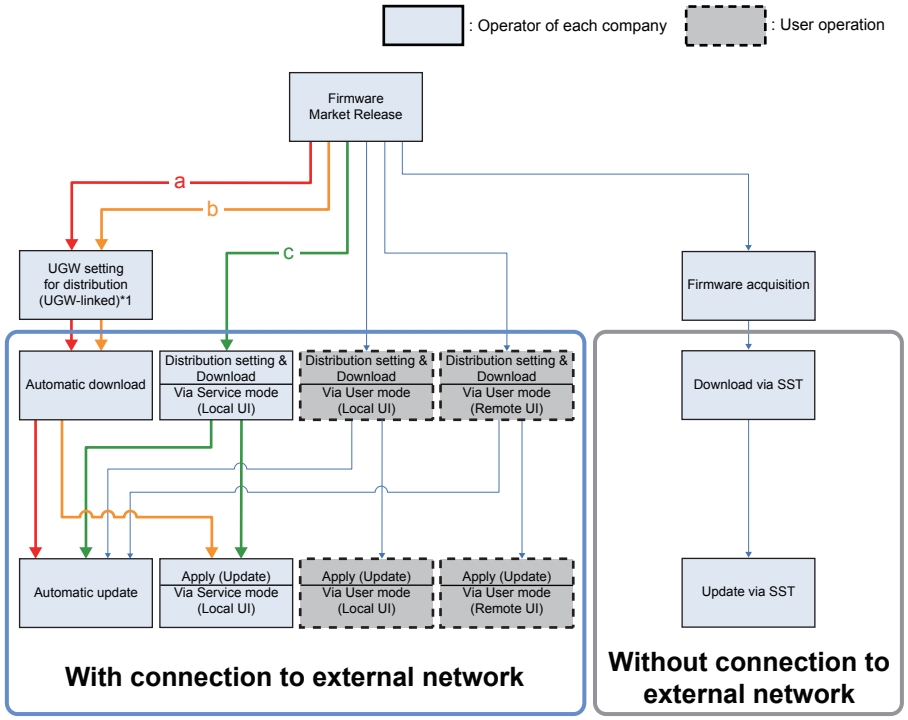
● [8]: Download File

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)



F-6-68

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

NOTE:
- See User Manual of the device for how to connect the device to the external network.
- When needed, perform the communication test before actual download to check if the communication with the distribution server is normal.

■ Preparation

● Overview of Preparation

The following should be prepared before using Updater.

- For updating of firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)
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-6-18

- 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-6-19

● 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-6-20

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
USA = US
Singapore = SG
Europe = NL
Korea = KR
China = CN
Hong Kong = HK
Australia = AU
Canada = CA
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 UI menu, 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"

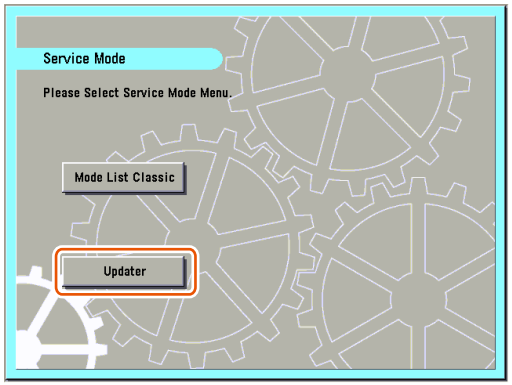
NOTE:
“External Network” here means the network connecting the device to CDS via Internet.

2. Confirming URL Setting of Distribution Server

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

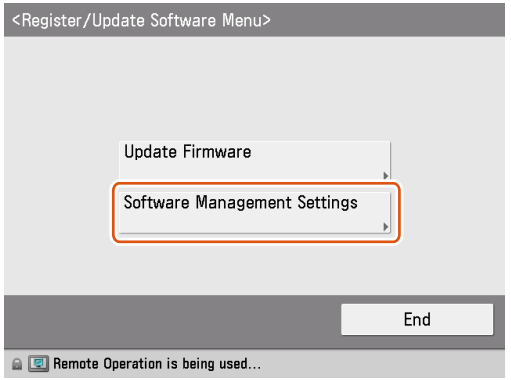
1. Start [Service Mode] at Level 1.

2. Press [Updater] button.



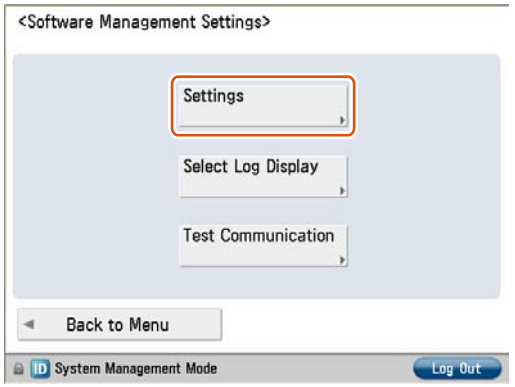
F-6-69

3. Press [Software Management Settings] button.



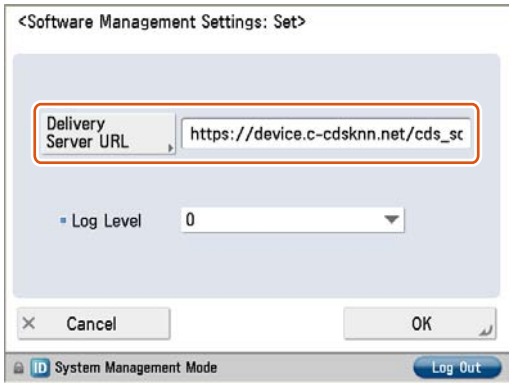
F-6-70

4. Press [Settings] button.



F-6-71

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-6-72

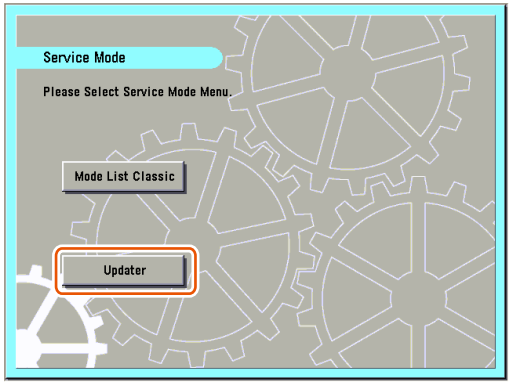
6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

3. Communication Test

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

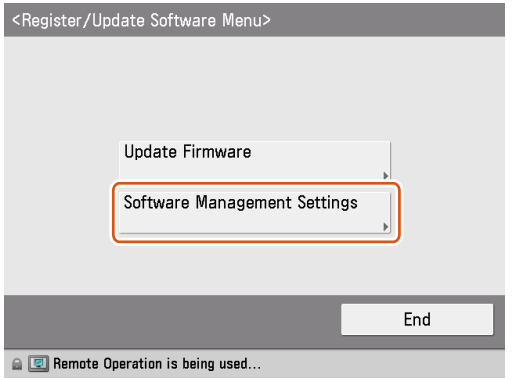
1. Start [Service Mode] at Level 1.

2. Press [Updater] button.



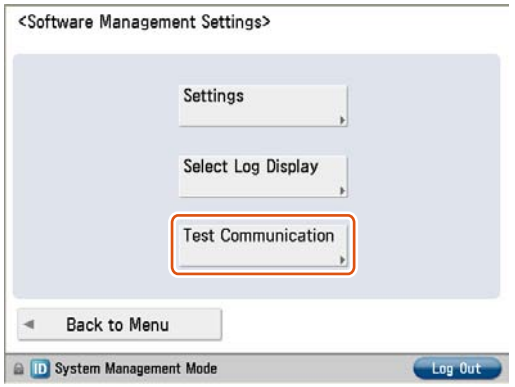
F-6-73

3. Press [Software Management Settings] button.



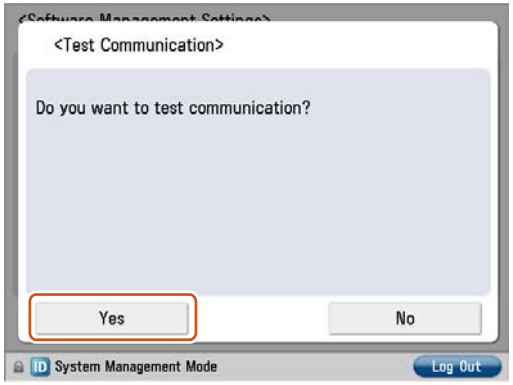
F-6-74

4. Press [Test Communication] button.



F-6-75

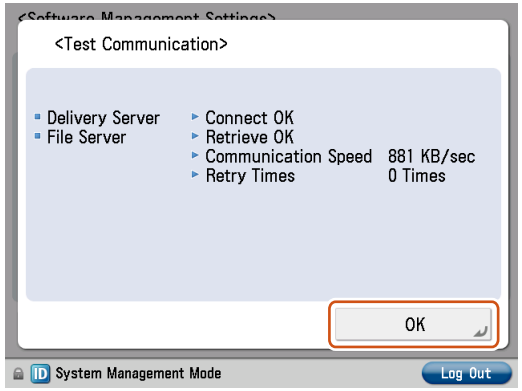
5. Press [Yes] button.



F-6-76

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-6-77

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

Enabling UGW Link

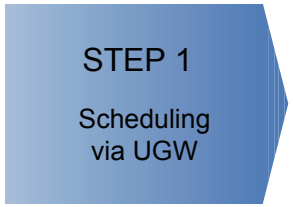
When installing the firmware in the method of “UGW-linked Download and Update” or “UGW-linked Download”, the following should be set before actually using UGW link.

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-6-78

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.

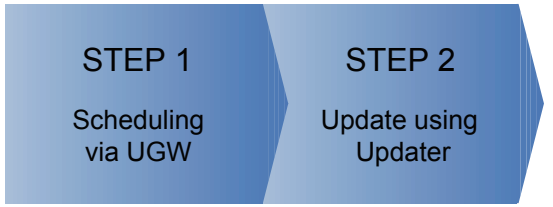
-Print
-Scan
-Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

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-6-79

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.

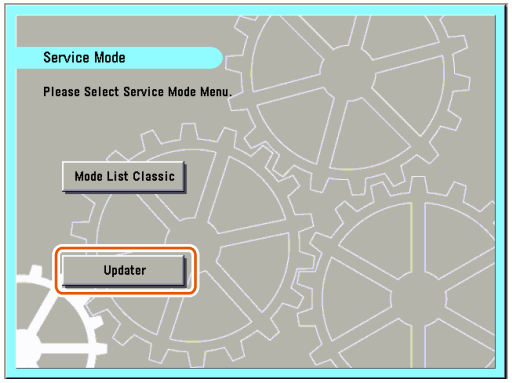
NOTE:
The firmware downloaded by scheduling via UGW can be checked/deleted from UI menu, but cannot be updated. If a user download the other firmware, the firmware downloaded with "UGW-linked Download" is overwritten.

STEP 2: Update using Updater

The firmware downloaded on the device can be updated using Updater functions.

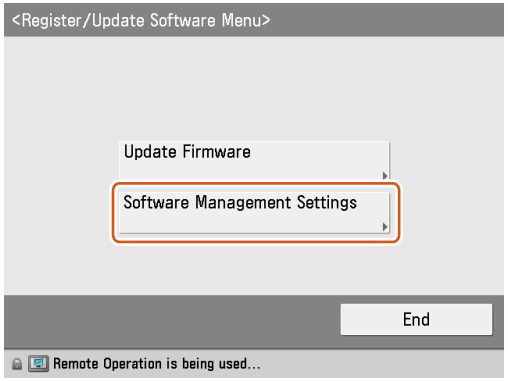
1. Start [Service Mode] at Level 1.

2. Press [Updater] button.



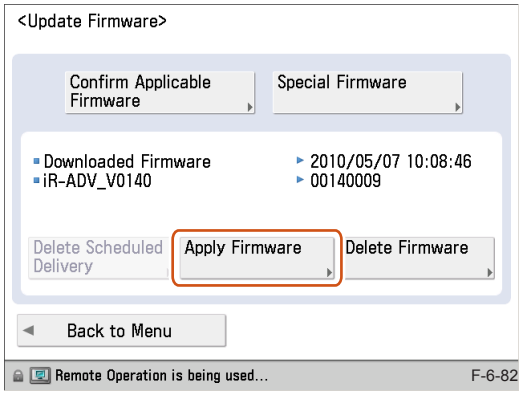
F-6-80

3. Press [Update Firmware] button.



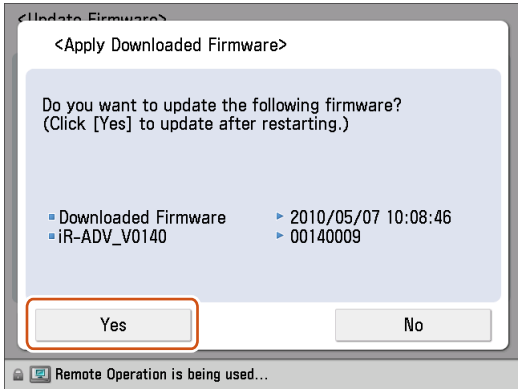
F-6-81

4. Press [Apply Firmware] button.



F-6-82

5. Confirm the downloaded firmware and press [Yes] button.



F-6-83

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.

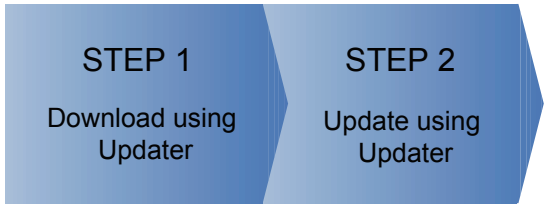
-Print
-Scan
-Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

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”.



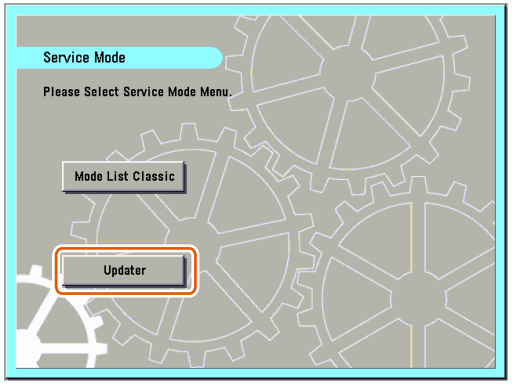
F-6-84

STEP 1: Download using Updater

The firmware can be downloaded from CDS to the device using Updater.

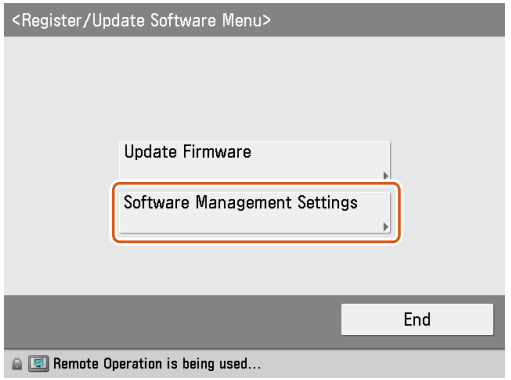
1. Start [Service Mode] at Level 1.

2. Press [Updater] button.



F-6-85

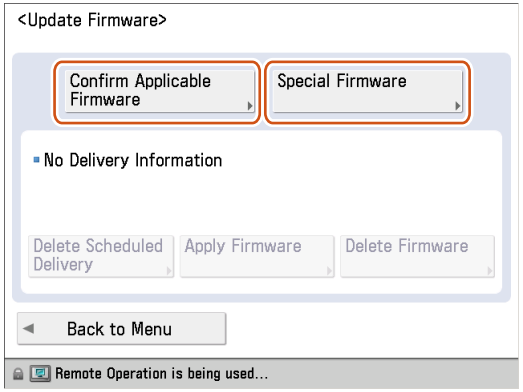
3. Press [Update Firmware] button.



F-6-86

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.



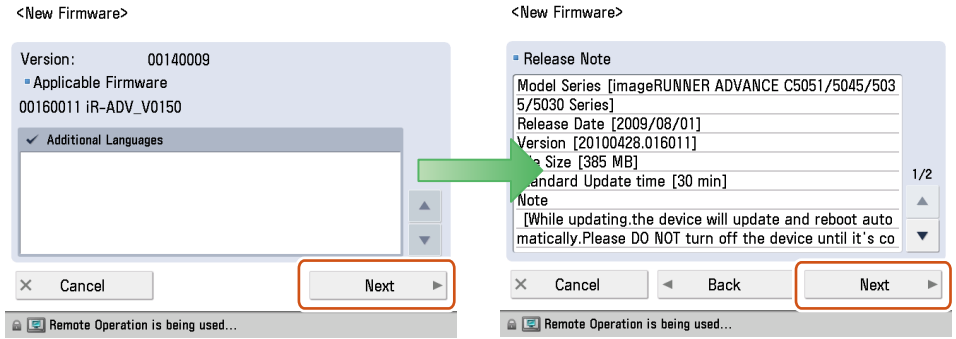
F-6-87

5. [Special Firmware] screen is shown as below. Enter the fields and press [OK] button.

F-6-88

- [Retrieval ID]:
  Enter numeric up to 8 characters.
- [Password]:
  Enter numeric up to 8 characters.

6. [New Firmware] screen is shown as below. Check the contents and press [Next] button.

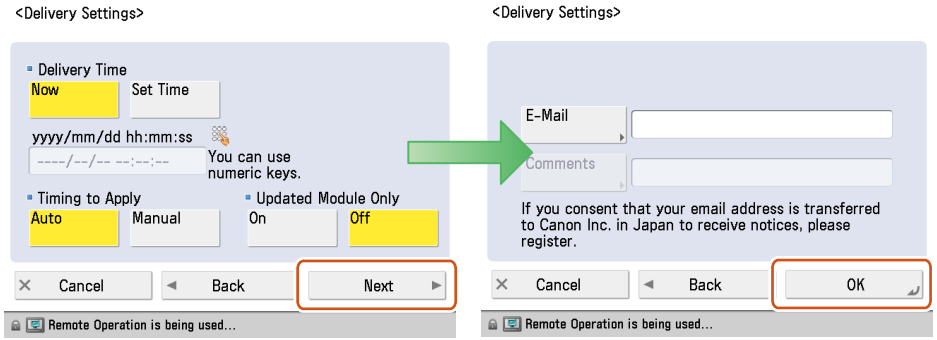


F-6-89

- [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-6-90

- [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.

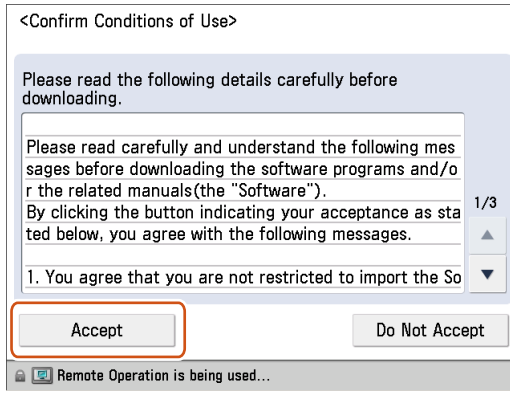
NOTE:
[Timing to Apply]
- For firmware versions with no remote update permission, [Auto] cannot be selected in [Timing to Apply]

[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

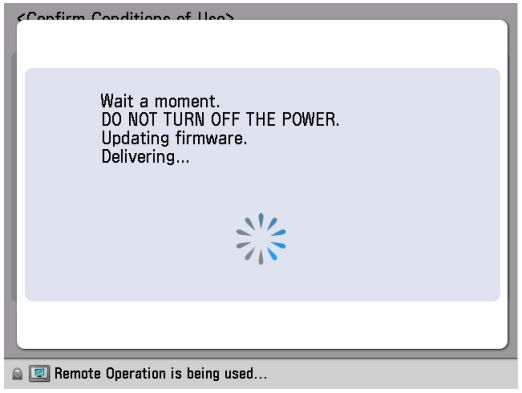
8. Confirm Export Criteria screen is shown as below. Check the contents and press [Accept] button.



F-6-91

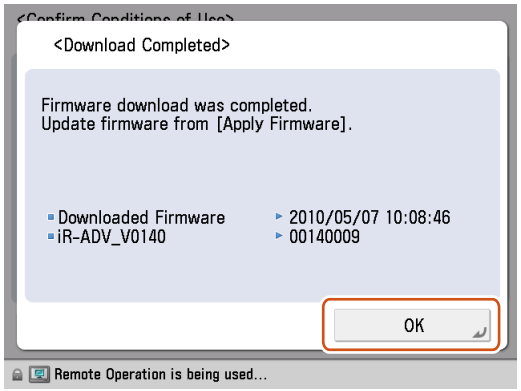
9. One of the screens below is shown according to the setting.

- 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.



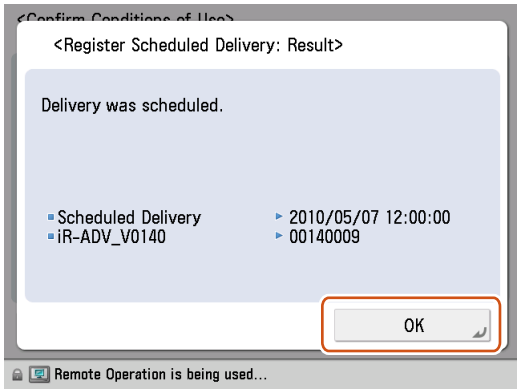
F-6-92

- 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-6-93

- 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.



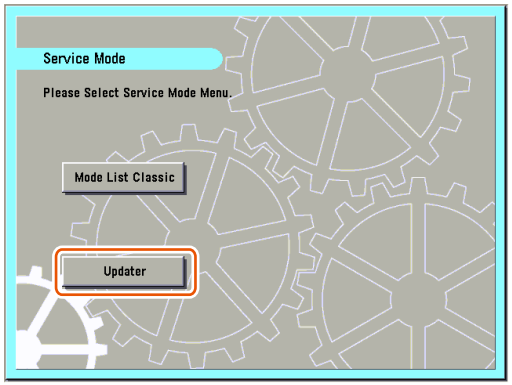
F-6-94

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.

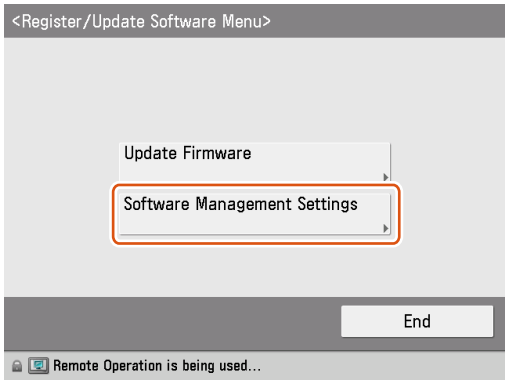
1. Start [Service Mode] at Level 1.

2. Press [Updater] button.



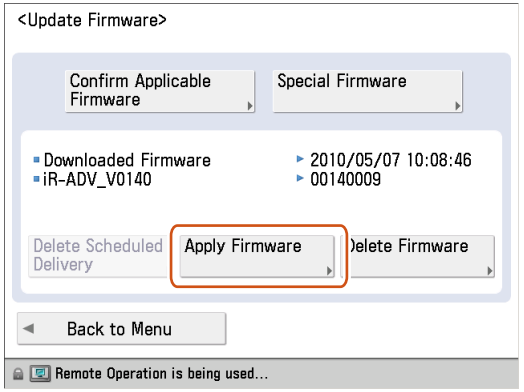
F-6-95

3. Press [Update Firmware] button.



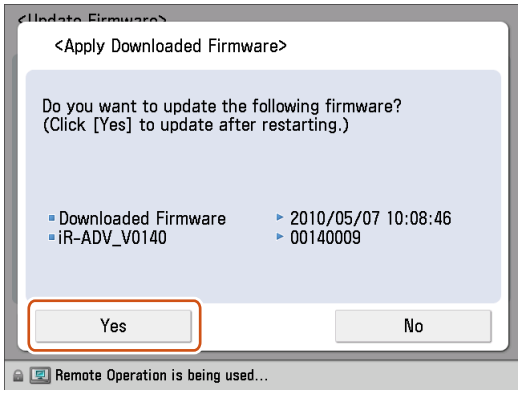
F-6-96

4. Press [Apply Firmware] button.



F-6-97

5. Confirm the downloaded firmware and press [Yes] button.



F-6-98

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.

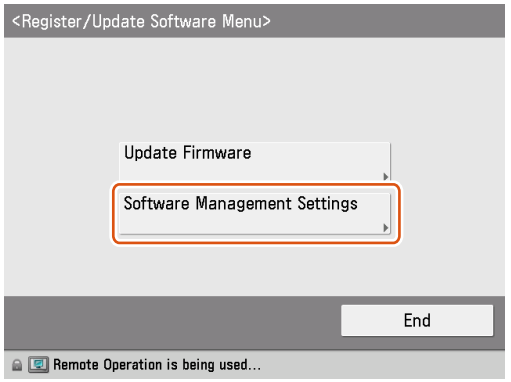
Deleting Firmware Distribution Schedule

This section describes how to delete firmware distribution schedule set by Updater.

1. Start [Service Mode] at Level 1.

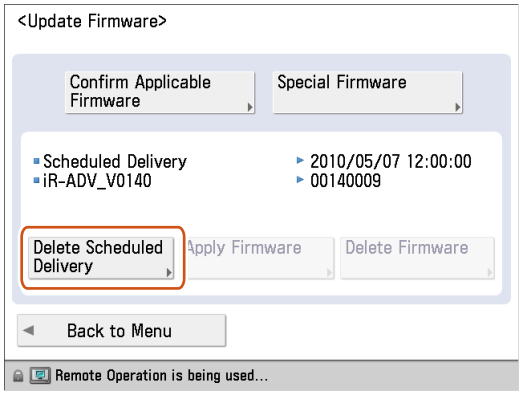
2. Press [Updater] button.

3. Press [Update Firmware] button.



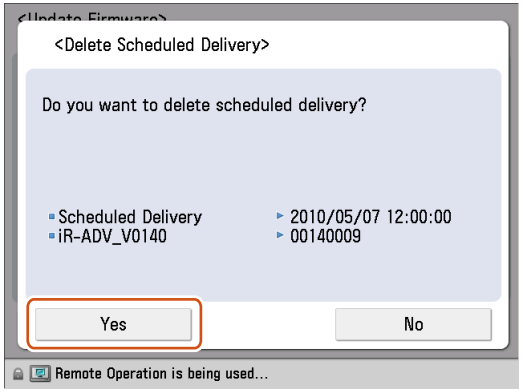
F-6-99

4. Press [Delete Scheduled Delivery] button.



F-6-100

5. Confirm the contents of the distribution schedule and press [Yes] button.



F-6-101

6. Confirm the result of deletion shown on the screen and press [OK] button. Now the firmware distribution schedule is successfully deleted.

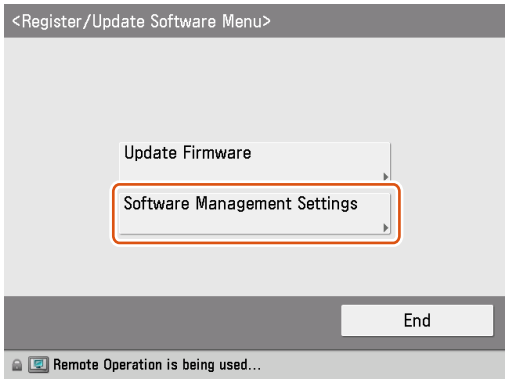
Updating Downloaded Firmware (Applying Firmware)

This section describes how to update the downloaded firmware.

1. Start [Service Mode] at Level 1.

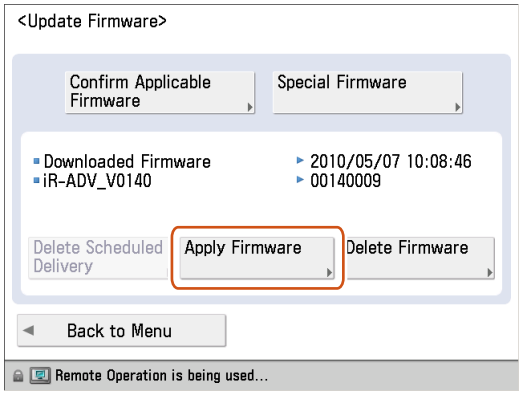
2. Press [Updater] button.

3. Press [Update Firmware] button.



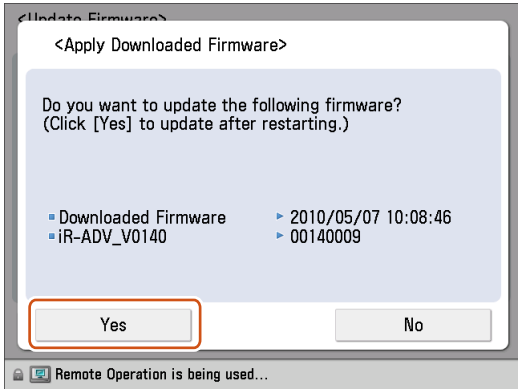
F-6-102

4. Press [Apply Firmware] button.



F-6-103

5. Confirm the downloaded firmware and press [Yes] button.



F-6-104

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.

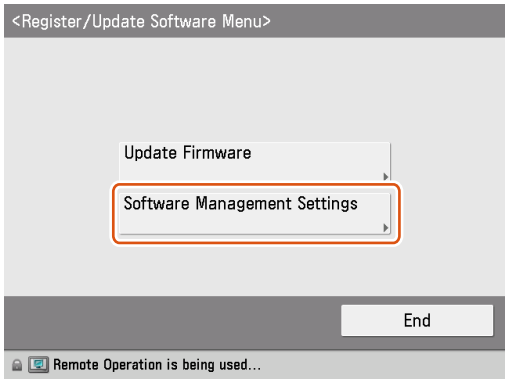
Deleting Downloaded Firmware

This section describes how to delete the downloaded firmware using Updater.

1. Start [Service Mode] at Level 1.

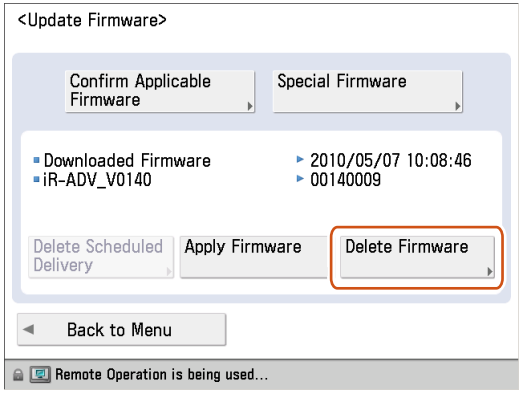
2. Press [Updater] button.

3. Press [Update Firmware] button.



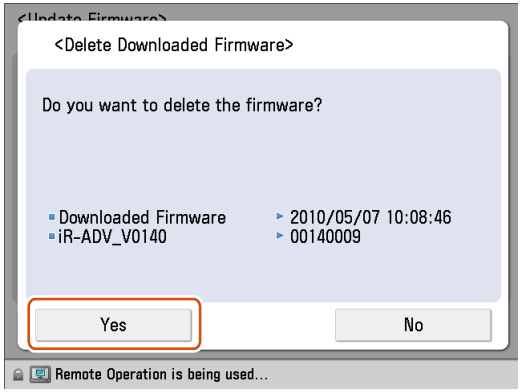
F-6-105

4. Press [Delete Firmware] button.



F-6-106

5. Confirm the downloaded firmware to be deleted and press [Yes] button.



F-6-107

6. Confirm the result of deletion and press [OK] button. Now the downloaded firmware is successfully deleted.

■ Troubleshooting on Firmware Installation

No.1

Symptom: I can't find the firmware to be updated using Updater.

Cause: Preparation has not been properly done.

Action: Confirm the setting of Sales Company's HQ bellow.

Setting of Device [SERVICE MODE] (Level1)

COPIER > FUNCTION > INSTALL > CDS-CTL

F-6-108

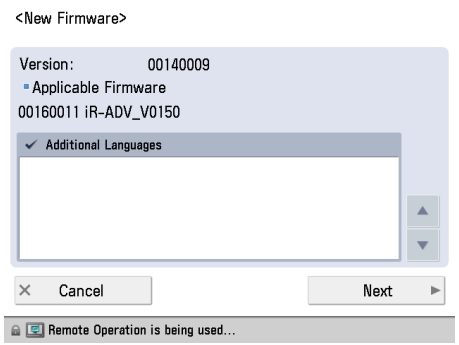
Cause: The version currently in use is not available for update.

Action: Download the release note from CDS separately to upgrade to the version available for update.

Cause: You try to download firmware from UI menu.You can download only the latest version of firmware from UI menu.

Action: Download from Service mode.

<UI menu>



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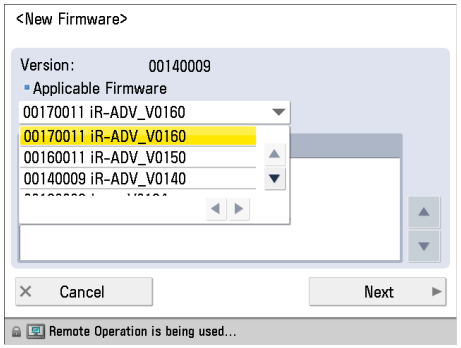
<Service Mode>



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No.2

Symptom: Firmware download is aborted during operation using Updater functions.

Cause: The network cable is disconnected or the power went off due to blackout and the like.

Action: Retry download. Firmware under download is cancelled upon aborted.

No.3

Symptom: Firmware update is aborted during operation using Updater functions and the device cannot be started.

Cause: The power went off due to blackout and the like.

Action: Service technicians should follow the steps below via SST.

1. Press [2] and [8] buttons at a time to start the device.
   1) Turn on the power and hold down [2] and [8] buttons at a time on the control panel.
   2) [Download Mode] is shown on Local UI.
      If the operation above does not trigger the download mode, BOOT (Flash Memory, service parts) should be replaced (takes up to 1 minute for rewriting).
      If the operation above successfully triggers the download mode, go to the next steps below.

2. Via SST, format the HDD of BOOT Dev only.

3. Via SST, install the firmware in the device.

No.4

Symptom: Firmware has not been downloaded according to the distribution schedule.

Cause: Other firmware distribution schedule is set.Since only 1 distribution schedule is held, the registered schedule may be overridden by the new firmware distribution schedule.
Action: Once the schedule is overridden, the firmware cannot be downloaded. Distribution should be rescheduled for the firmware.

Cause: At the scheduled distribution date and time, the firmware registered was not found on CDS.
Action: Distribution should be rescheduled for the firmware.

Cause: After distribution is scheduled, device is updated to other version of firmware via SST. (Status of the firmware in the device is changed.)
Action: Distribution should be rescheduled for the firmware.

Cause: The power of the device was off at scheduled date and time.
Action: Distribution should be rescheduled for the firmware.

No.5

Symptom: The firmware presumed to be downloaded to the device cannot be found.

Cause: Since only 1 firmware can be held on the device, the firmware previously downloaded was overridden by the newly downloaded one.
Action: Retry the firmware download.

Information required for Reports

Information required for Service Technicians to Obtain on Site

- Update Logs
- System Logs (Log Level: 4)

Information to Report

- Symptom occurred
- Location of the device
- Date and Time that symptom occurred
- Steps taken for reproduction
- Firmware / Application you tried to install
- Occurrence frequency
- Model dependency (if the same symptom occurred in other models)
- Dependency on firmware/MEAP application/system option
- Conditions of symptom occurrence
  - Model
  - Firmware version installed on the device
  - List of MEAP applications installed on the device
  - Network setting information of the device
  - Service mode setting information

Setting of device service mode (Level 1)	COPIER > FUNCTION > INSTALL > CDS-CTL
	COPIER > OPTION > FNC-SW > CDS-UGW
	COPIER > OPTION > FNC-SW > CDS-FIRM
	COPIER > OPTION > FNC-SW > CDS-MEAP
	COPIER > OPTION > FNC-SW > LOCLFIRM

* As many as the items listed above should be obtained on site. More information provided will be helpful for investigation.

Debug Logs

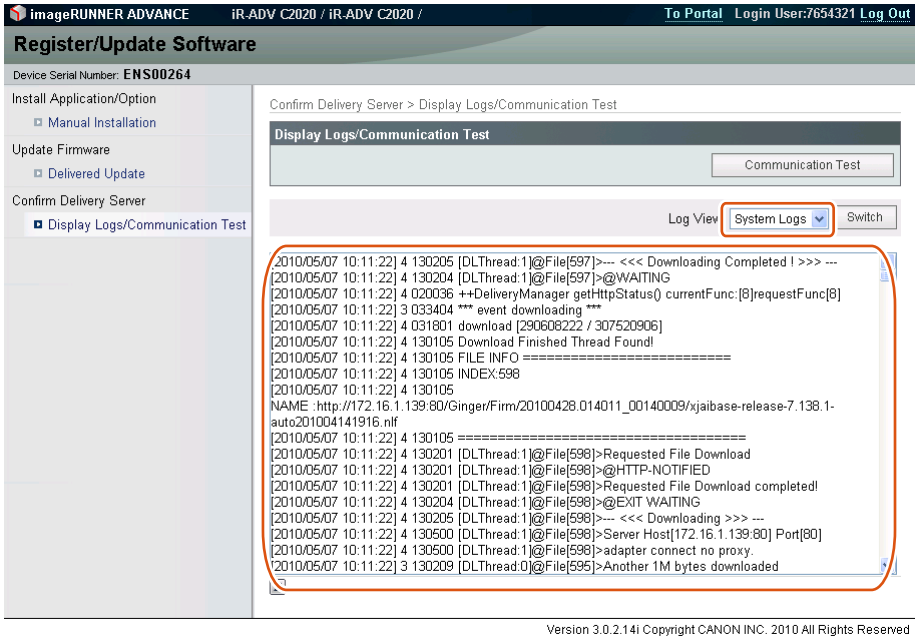
Obtaining Log Files

Updater log files can be obtained by copy & paste from remote UI.
This procedure is shown below.

1. Check that the “CDS-MEAP” or “CDS-FIRM” is enabled in the service mode. If they are not enabled, change the value to “1” and then restart the device.
   Service mode (Level1) > Mode List
   - COPIER > OPTION > FNC-SW > CDS-MEAP: 1
   - COPIER > OPTION > FNC-SW > CDS-FIRM: 1

2. Log in the remote UI (URL: http://<device’s IP address or host name>) using the system administrator right.

3. From “Display Logs/Communication Test” screen, obtain System Logs (log level 4) and Update Logs by copy & paste.
   Top page (Remote UI) > [Settings/Registration] > [Management Settings] > [License/Others] > [Register/Update Software] > “Display Logs/Communication Test”



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NOTE:
- See 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.	Set correct CDS URL in the Updater settings.
			Excluding delivery server stop, 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.
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.

No.	Messages	Timing of display	Cause	Remedy
9	Delivery Server : Connect Failed File Server : Retrieve Failed Error Code: [xxxx]	Communication test, etc. (communication test result dialogue)	In the communication test, failed to connect to the delivery server. In SOAP communication, failed to success after 1 min retry.	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.
			ID and Password required for proxy to connect to the internet are not configured in device.	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.
			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.

No.	Messages	Timing of display	Cause	Remedy
11	An error occurred. Error Code: [xxx]	communication test, etc. (main screen)	The max value (space/file) was exceeded and new log was not accepted. Normally an old log file is deleted before the max value (space/file) is exceeded, but error may occur due to other element (e.g. I/O error).	Check if the log file exceeded the max value. <Update log> Max space: 128KB/file Max file number: 4 <System log> Max space: 512KB/file Max file number: 4 If it recurs, obtain the log etc. (Refer to "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.
			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.

No.	Messages	Timing of display	Cause	Remedy
		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.
			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.

No.	Messages	Timing of display	Cause	Remedy
12	An error occurred. Check the Update Firmware screen	UGW linkage (main screen)	eRDS sent an order but Updater failed to connect to server.	Conduct a communication test to analyze the cause of the error. After solving the cause, resend the order from the eRDS. If it recurs, obtain the log etc. (Refer to "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.
			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.

No.	Messages	Timing of display	Cause	Remedy
13	Delivery Error Error Code: [xxx]	UGW linkage (Update Firmware screen)	eRDS sent an order but Updater failed to connect to the server.	Conduct a communication test to analyze the cause of the error. After solving the cause, resend the order from the eRDS. If it recurs, obtain the log etc. (Refer to "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.
17	Specify [E-Mail Address] with up to 64 characters.	At the time of periodical update setting	The specified E-mail address exceeded 64 characters.	Specify E-mail address within 64 characters.
18	The following characters cannot be used for the [E-Mail Address]: , : ; “ ( ) [ ] < > \	At the time of periodical update setting	The E-mail address was including the characters which could not be used.	Do not specify E-mail address with characters which cannot be used.
19	Specify [Comments] with up to 128 characters.	At the time of periodical update setting	Comments exceeded 128 characters.	Specify comments within 128 characters.
20	The [Delivery Server URL] is incorrect.	In setting with the deliver server URL.	The specified deliver server URL is wrong.	Enter the right URL(https://device.c-cdsknn.net/cds_soap/updaterif)

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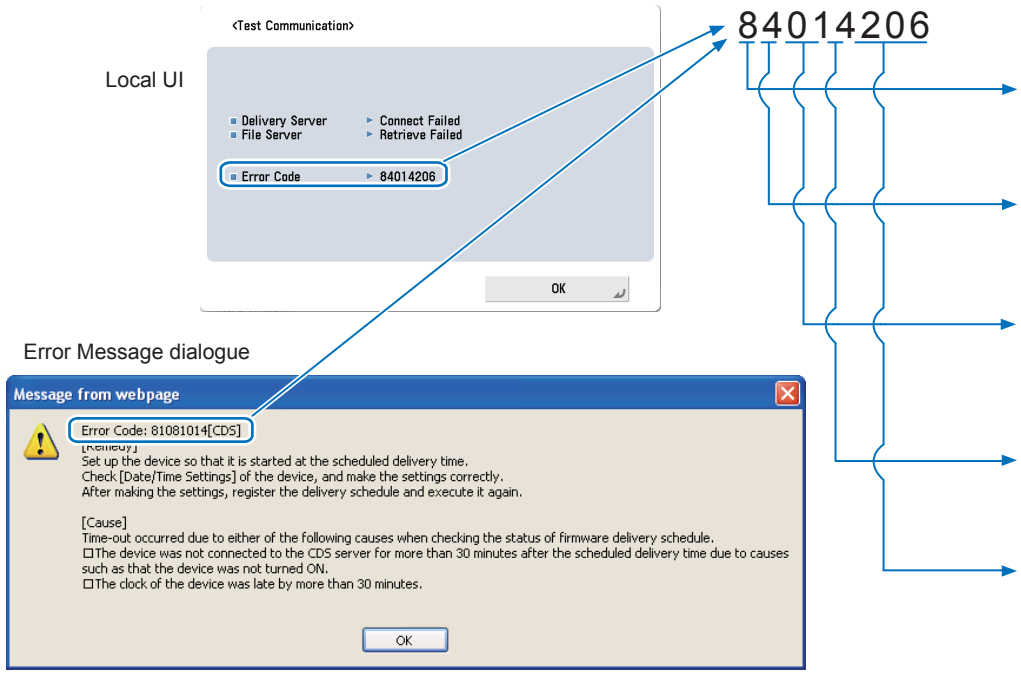
Error Code

Explanation on Error Codes and Their Remedies

The following shows the error codes displayed on CDS error dialogs and the Control Panel of the device (local UI) and explanation of those error codes.

How to read an error code

An error code consists of a number of eight digits (hexadecimal number) displayed on the UI shown below.



Code	Value	Contents
The first digit Error field	8	Error
The second digit Operator	0 1 2 3 4 5 6	Not defined. CDS server Updater UGW Service person IT administrator (User) Scheduled Update
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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Remedy by Error Code

Remedy to Be Taken When an Error Code Starting with [81------] Is Displayed

The remedy for an error code whose first two digits are "81" is shown below.

1) Refer to "List of Error Codes Starting with 81", and try the remedy.

2) If the symptom is not resolved by performing the remedy shown in the error code list, report it to the support department of the sales company with the following information.

- Time of occurrence
- Serial number of the device

Remedy to Be Taken When an Error Code Starting with a Number Other than [81------] Is Displayed

The remedy for an error code whose first two digits are not "81" is shown below.

1) Check the last four digits of the code, and try the remedy shown in "List of Error Codes Starting with a Number Other than 81".

2) In the case of an error message with a check mark on the "Network" column of "Cause of error" in the error code list, try the remedy shown below.

- Execute the operation again.
- Perform a communication test on the Touch Panel of the device.
- Check the status of the network equipment (disconnection of the LAN cable, etc.).
- Check the network settings of the device.
- Check that there is no restriction on the network environment of the site (e.g. restriction on communication at night).
- Check the proxy server of the customer. If it does not work properly, perform the remedy. If the problem still persists, clear the cache of the proxy server.

3) If the symptom is not resolved by performing the foregoing remedy, report it to the support department of the sales company with the following information.

- The generated error code
- The Sublog of the device
- The update log of the device (Set the log level to 4, and then collect the log.)

■ Error Code List

● List of Error Codes Starting with 81

The list of error codes starting with 81 is shown below. This error is related to the CDS server.

Report the error to the support department of the sales company with the time of occurrence and the serial number of the device.

Error Code	Description	Remedy	Cause of error	
			CDS server	UP DATER
81--0001	No value is set in a mandatory data entry item	Contact the support department of the sales company. (Attach information on the time of occurrence and the serial number of the device.)	✓	✓
81--0002	In the case of [81--0002] except follows. In a string type of a data entry item, digit number and/or character type is/are set against the regulations is displayed in the following cases:		✓	✓
81040002	• The number of digits of the registration ID or password is not 8. • The registration ID or password includes characters other than single-byte numeric characters.	Enter the correct ID and password for Special Firmware. (User)	✓	✓
81060002	• The number of digits or type of characters used for Firm Type, Firmware Version, Firmware Group Version, or Firmware Label does not meet the specified number of digits or type of characters. • The character string of Firmware Group Version (firmGroupVersion) includes characters other than numeric values. • The number of digits of E-mail Address (mailAddress) is larger than 128. • Characters other than single-byte alphanumeric characters and symbols are used for E-mail Address (mailAddress). • An invalid e-mail address was input (The domain name is missing, . (dot) was input instead of , (comma), etc.)	Register the correct e-mail address. If it occurs again, contact the support department of the sales company. (Attach information on the time of occurrence and the serial number of the device.) (Canon Inc. Only) In the case of an error in Firm Type, Firmware Version, or Firmware Group Version, register the correct firmware again.	✓	✓
81--0003	In an data entry item, the value is set against the regulations (E.g. the set value is other than "Operator: 4. Service person, 5. User")	Contact the support department of the sales company. (Attach information on the time of occurrence and the serial number of the device.)	✓	✓
81--0004	No applicable delivery information exists		✓	-
81--0005	Error in the system settings		✓	-
Operation				
81--1001	In the case of [81--0001] except follows. 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)	If distribution of the firmware is necessary, search the applicable firmware again, and perform distribution of the firmware.	✓	✓
81071001	A cancellation notification was sent to CDS when the distribution status was not correct. (CDS has not received the status change due to a network failure, etc.)		✓	✓
81091001	• The firmware information of the device at the time of execution of distribution differs from the firmware information of the device at the time of registration of the distribution schedule. • The firmware was upgraded without using CDS when distribution schedule for the device that supports the UGW-linked function had been registered. As a result, the firmware information of the CDS server at the time of execution of distribution differs from the firmware information of the CDS server at the time of registration of the distribution schedule. When the remote update setting for the firmware to be updated was disabled after distribution schedule was registered using auto update.		✓	✓
81--1002	In a notice of delivery-allowed information, an install-set was release to the market, but the market release was stopped during the delivery	Contact the support department of the sales company. (Attach information on the time of occurrence and the serial number of the device.)	✓	-
81--1003	No mail template file exists		✓	-
81--1004	The device serial number in the data entry item differs from that in delivery information		✓	-
81--1005	User is selected as Operator in the data entry items and the retrieval type is other than the latest		✓	-
81--1006	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)		✓	-
81--1007	The retrieval type in the data entry item is special and Operator is not Service person		✓	-

Error Code	Description	Remedy	Cause of error	
			CDS server	UP DATER
81--1008	As to the device serial number in the data entry items, there is no applicable device code product	Contact the support department of the sales Company. (Attach information on the time of occurrence and the serial number of the device.) (Canon Inc. Only) Check registration of LMS.	✓	-
81--1009	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)	Enter correct ID and the password.	✓	-
81--100A	The delivery status is Applying After the firmware was updated and when an update completion notification has not been sent to CDS, distribution of the firmware was attempted again before update time-out is processed in CDS.	After 2 hours and 30 minutes have passed since the failed attempt to distribute the firmware, search the applicable firmware again, and perform distribution of the firmware.	✓	-
81--100B	No approval information exists about EULA or the export criteria when the delivery is determined	Contact the support department of the sales company. (Attach information on the time of occurrence and the serial number of the device.)	✓	-
81--100C	The delivery status is Distributing/Distributed/Applying/Finished/Failed When the distribution status was not correct, distribution information was obtained from CDS. (CDS has not been notified of the status change due to a network failure, etc.)	Search the applicable firmware again, and perform distribution of the firmware.	✓	-
81--100D	The delivery status is Distributing/Distributed/Applying/Finished/Failed		✓	-
8108100D	When the distribution status was not correct, schedule information was checked with CDS. (CDS has not been notified of the status change due to a network		✓	-
81--100E	The delivery status is New/Waiting to Distribute/Distributed/Applying/Finished/Failed	Contact the support department of the sales company. (Attach information on the time of occurrence and the serial number of the device.)	✓	-
81--100F	The delivery code is other than Distributing. (Firmware distribution)		✓	-
81--1010	The delivery status is New/Waiting to Distribute/Distributing/Applying/Finished/Failed	Search the applicable firmware again, and perform distribution of the firmware.	✓	-
810B1010	An update start notification was sent to CDS with an invalid status. (The CDS server failed to receive the status change due to a network error, etc.)			
81--1011	The delivery status is Distributing/Distributed/Applying/Finished/Failed	Contact the support department of the sales company. (Attach information on the time of occurrence and the serial number of the device.)	✓	-
81--1012	Device is "Not applicable to CDS" (Firmware distribution) * It occurs only when a device that can access CDS is managed.	Register the device as a CDS device.	✓	-
81--1013	When the specified distribution time was within the time frame of CDS distribution stop. (Firmware distribution)	Contact the support department of the sales company. (Attach information on the time of occurrence and the serial number of the device.)	✓	-
81--1014	When confirmation of the firmware distribution settings ended in time-out. CDS was not accessed within 30 minutes after the distribution time. The device has been turned OFF, the network has been disconnected, etc.	Search the applicable firmware again, and perform distribution of the firmware.	✓	-
81--1015	When firmware distribution time-out occurs. A reception completion notification was not sent to CDS within 24 hours after the start of the distribution. The device has been turned OFF, the network has been disconnected, etc.		✓	-
81--1016	Firmware update time-out occurred. An update completion notification had not been sent to CDS even after 2 hours since the start of the update.	Check the device to see if the update has been completed. When the update has ended in failure, execute the operation again if there is no problem with the device.	✓	-
81--1017	When the firmware distribution information notification showed an error in processing the distribution information.	Contact the support department of the sales company. (Attach information on the time of occurrence and the serial number of the device.)	✓	-
81--1018	When the firmware distribution information notification showed an error in processing the scheduled update information.		✓	-
81--1019	When the status of the scheduled update information is "Set", "Finished", or "Failed".		✓	-

Error Code	Description	Remedy	Cause of error	
			CDS server	UP DATER
81--1020	When the status of the scheduled update information is "Waiting to Transmit" or "New".	Contact the support department of the sales company. (Attach information on the time of occurrence and the serial number of the device.)	✓	-
81--1021	When the status of the scheduled update information is "Set".		✓	-
81--1022	The scheduled update setting information differs between the input information and the distribution information.		✓	-
81--1023	When the distribution status is "Cancel".		✓	-
I/O				
81--2014	Device information corresponding to the target device serial number does not exist. (There is no relevant information on the device firmware group.)	Contact the support department of the sales company. (Attach information on the time of occurrence and the serial number of the device.)	✓	-

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List of Error Codes Starting with a Number Other than 81

The list of error codes starting with a number other than 81 is shown below. If such an error has occurred, search the remedy using the last four digits of the error code.
Report the error to the support department of the sales company with the Sublog and update log of the device.
The "CDS server" in the "Cause of error" column includes CDS distribution servers and CDS file servers.

Error Code		Description	Remedy	Cause of error		
				CDS server	UP DATER	Network
8X--	1001	Processing exclusively	Start the operation again after terminating other Updater operations being executed simultaneously	-	✓	-
	1002	Stopped	Restart the device, and start the operation again.	-	✓	-
	1101	Failed to process preparation for use	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	✓	-
	1102	Failed to process use end		-	✓	-
	1103	Time out during restart of readiness preparation		-	✓	-
	1104	Session time-out excluding after application inquiry (after issuing delivery ID)	Start the operation again from the beginning	-	✓	-
	1105	CDS URL is not set	Set CDS URL	-	✓	-
	1106	Another job existed immediately before the firmware update processing.	Start the operation again after terminating the job of the device	-	✓	-
	1202	Specifying of scheduled update for a model that does not support scheduled update	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	✓	-	-
	1203	Firmware processing for a model that does not support firmware processing		✓	-	-
	1301	Security Token verification error		-	-	✓
	1302	Privilege check error	Perform the authentication as a correct user.	-	-	✓
	1303	Parameter error	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	-	✓
	1304	There is no distribution information from the server.		-	-	-
	1305	Version notification is not required.		-	-	-
	1306	Connection server information mismatch error	Check the connection server settings.	-	-	✓
	I/O					
	21XX	An internal error about file operation	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	✓	-
	22XX	An internal error about XML file operation		-	✓	-
	2301	Failed to output the license file		-	✓	-
	2401	Failure in creation of an auto shutdown stop file		-	✓	-
	2402	Failure in deletion of the auto shutdown stop file		-	✓	-
	Device					
	31XX	An internal error in CPCA	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	✓	-
	32XX	An internal error in IMI		-	✓	-
	33XX	An internal error in SMS		-	✓	-
	34XX	An internal error in NLM		-	✓	-
	35XX	Configuration Service property setting error		-	✓	-
	36XX	An internal error related to APL_CDS partition		-	✓	-
	37XX	DCM-related service error		-	✓	-
	SOAP communication					
	4101	The processing thread stopped	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	✓	-
	4102	Processing SOAP communication now		-	✓	-
	4103	The function type is not matched		-	✓	-
	4104	An invalid SOAP response error	Check the network environment. When this problem recurs, contact the support department of the sales company.	✓	-	-
	4105	No network cable connection (device side)	Check the network environment. If it occurs again, contact the support department of the sales company. (Attach the Sublog and update log of the device.)	✓	-	-
	4201	An internal error about application information	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	✓	-
	4202	Config.xml is not found		-	✓	-
	4203	Type.xml is not found		-	✓	-
	4204	An error in binding type.xml		-	✓	-
	4205	An error in creating a service tab		-	✓	-
	4206	A runtime error in performing the web method		-	✓	✓

Error Code		Description	Remedy	Cause of error		
				CDS server	UP DATER	Network
8X--	4207	An unknown host error in performing the web method	• 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	✓	✓	✓
	4301	The delivery server is stopped	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	✓	-	-
	4302	<In the case of scheduled update> In response to a download start notification sent from the device, the distribution server returned an error and stopped the operation of the device within a certain period of time before the distribution server maintenance time. <In the case of distribution executed by specifying the date and time> The firmware version of the device at the time when the distribution settings were specified and the version at the time immediately before update are different.	<In the case of scheduled update> Specify the distribution settings again, making sure that the distribution server maintenance time and the scheduled update time do not overlap. <In the case of distribution executed by specifying the date and time> Specify the distribution settings again, making sure that the firmware version of device at the time when the distribution settings are specified and the version at the time immediately before update are the same.	✓	✓	-
	HTTP communication					
	5101	Specified Hash Algorithm is unknown	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	✓	-
	5102	Download file URL is invalid	Check the URL setting of CDS server, reset the setting, and then start the operation again.	-	✓	-
	5103	No network cable connection (device side)	Check the network environment of the device, and start the operation again.	-	✓	-
	5201	Invalid HTTP request	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	✓	✓	✓
	5202	Failed to connect to the server	Check the network environment of the device (check for any problem in the DNS server), and start the operation again.	✓	✓	✓
	5203	Failed to find the server	Check the network environment of the device (the proxy settings, etc.), and start the operation again.	✓	✓	✓
	5204	An input/output error occurred during the connecting process to the server	Check that no problem is found in the two items displayed during the communication test. If any problem was found, check the network environment.	✓	✓	✓
	5205	Failed to read a HTTP response		✓	✓	✓
	5206	Error in a HTTP response	Check the network environment.	✓	✓	✓
	5207	Generation of secure socket failed.	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	✓	✓	✓
	5208	Certificate check error		✓	✓	✓
	5209	Connection time-out		-	✓	✓
	5301	Failed to retrieve the data stream	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	✓	✓
	5302	Failed to create the file object for receipt		-	✓	✓
	5303	Failed to create the data stream of the file for receipt		-	✓	✓
	5304	Failed to receive the data	Check the network environment of the device, and start the operation again.	✓	✓	✓
	5305	An error about reserving the file data for receipt	Check that no problem is found in the HDD. When this error occurs again, contact Support Group of sales companies.	-	✓	-
	5306	Failed to close the data stream	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	✓	-
	5307	Failed to close the file data for receipt		-	✓	-
	5308	Invalid hash code of the download file	Check the network environment of the device, and start the operation again.	✓	✓	✓
	5309	The proxy authentication method is not supported, or access to the CDS file server is not permitted.	Check the proxy authentication method being used, change the setting to use a supported proxy authentication, and then start the operation again. Check that access to the following URL is permitted. • device.c-cdsknn.net (protocol: https) • cdsknn.net.edgesuite.net (protocol: http)* * The following URL in the product of after iR-ADV C2200 series. a02.c-cdsknn.net (protocol: https) But, it excludes iR-ADV C5200/9200/7200 series.	-	✓	✓

Error Code		Description	Remedy	Cause of error		
				CDS server	UP DATER	Network
8X--	Socket communication					
	6101	Failed to connect the eRDS	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	✓	✓
	6102	No response from eRDS		-	✓	✓
	6103	No notice of start from the eRDS		-	✓	✓
	6104	Error of socket reading		-	✓	✓
	6105	Socket communication time-out		-	✓	✓
	Other internal codes					
	71XX	An error by using invalid API	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	✓	-
	72XX	An internal error in SMS		-	✓	-
	7301	No existence of delivery ID		-	✓	-
	7302	Invalid delivery ID		-	✓	-
	7303	The updated firmware information is not identical with the firmware information after activation of the Updater		-	✓	-
	7304	The process of firmware downlo d is incomplete It occurs when the power of the device is turned OFF during download.		-	✓	-
	7305	The update process is incomplete The power was turned OFF after completion of download and before start of update processing.		-	✓	-
	7401	Failed to retrieve delivery information		-	✓	-
	7501	Failed to execute the delivery process		-	✓	-
	7502	The scheduled distribution had not been executed even after a certain period of time due to the power of the device being OFF at the scheduled time or other reasons.	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	-	✓	-
	7503	The download results could not be obtained.	Contact the support department of the sales company. (Attach the Sublog and update log of the device.)	-	✓	-
	7504	There is no download list information.		-	✓	-
	AXXX	Communication error in the internal module		-	✓	-

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List of Error Codes Related to Local CDS

A list of error codes related to Local CDS is shown below.

Error Code	Description	Remedy
81--F003	Firmware information not registered. Firmware information corresponding to the target device serial number does not exist.	Contact the support department of the sales company.
81--F007	Invalid firmware version. The firmware version at the time of registration of the distribution schedule differs from the current firmware version.	
81--F008	Invalid firmware information. Firmware information to be distributed does not exist.	
81--F009	Forcible termination. Distribution information is forcibly terminated from the server UI.	
81--F00F	Invalid distribution status. Distribution status of the server is in a condition where a requested method from the client cannot be accepted.	
81--F010	Invalid parameter. Requested parameter from the client is not correct.	
81--F011	Version information not registered. Version information corresponding to the specified serial number has not been registered.	
81--F012	Distribution time-out. Distribution has not been completed even after a certain period of time from the start of the distribution.	
81--F013	Unable to judge the necessity of distribution Version information from a device has not been registered in the local CDS. Since the local CDS does not know the version information of the device, it cannot respond to the distribution request from updater. As a result of that, an error occurred when the request has been made.	
81--FFFE	DB error. General error to access DB.	
81--FFFF	DB error. Internal error other than error to access DB (file I/O, etc.).	
8X--1204	L-CDS update process for a model that does not support L-CDS	

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Error Codes When Using the UGW-linked Function

Codes displayed as eRDS errors when the UGW-linked function is used

Error Code	Description	Remedy
8--X0000	An unexpected error occurred in the device.	Restart the device, and perform the operation again. When this problem recurs, the firmware of the device needs to be reinstalled (upgraded).
8--X0002	A time-out error occurred due to no response from Updater within the specified time (3 seconds).	Obtain the sublog, and contact the support department of the sales company.
8--X0101	Processing in the device (event processing) failed. Restart the device, and perform the operation again.	Restart the device, and perform the operation again. When this problem recurs, the firmware of the device needs to be reinstalled (upgraded).
8--X0303	Queue could not be sent due to failure of processing in the device (event processing).	Restart the device, and perform the operation again. When this problem recurs, the firmware of the device needs to be reinstalled (upgraded).
8--X0304	An error occurred in control of synchronization or interruption processing between processes being handled in parallel.	Wait for a while, and perform a communication test again.
8--X0706	Communication with Updater failed.	Restart the device, and perform the operation again after checking that Updater has been started. When this problem recurs, obtain the sublog, and contact the support department of the sales company.
8--X0707		
8--X0708		
8--X0709	At the time of firmware update, the Tracking ID ordered by UGW and the one to which the Updater responded did not match.	Obtain the sublog, and contact the support department of the sales company.

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Error Codes Not Included in the Error Code List and Remedy for Them

Scenes Where an Error Occurs

When an error code not included in the error code list is displayed, one of the errors shown in the following scenes may have occurred.

Scenes Where an Error Occurs

Scenes Where an Error Occurs	Content
Communication test, etc. (main screen)	Log could not be written due to maximum value (capacity/the number of files) being exceeded.
Version information notification (main screen)	Retrieval of device version information ended in failure because the firmware version of the device was not registered in CDS.
	Connection to the delivery server failed at the time of notification of version information.
	The network cable was disconnected during notification of version information.
	Notification of version information ended in failure because the device was restarted during notification of version information.
UGW linkage (main screen)	UGW linkage was turned ON while eRDS was OFF.
On-site (error dialog)	An internal error occurred when obtaining the applicable firmware information.
Immediate download (error dialog)	An internal error occurred at the time of request of firmware delivery information.
	Free space in the storage destination disk ran out during download. (DiskFull)
Manual/auto update (error dialog)	An internal error occurred at start of update.
Deletion of downloaded firmware	An internal error occurred at the time of cancellation notification.

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Remedy

Check that the log files shown below do not exceed the maximum values.

When this problem recurs, obtain the log, and contact the support department of the sales company.

Logs and maximum capacity / number

Log name	Maximum capacity	Maximum number of files
Update log	128KB/ file	4
System log	512KB/ file	4

T-6-27

Controller Self Diagnosis

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 and other related PCBs (child PCBs such as Flash PCB, Memory PCB or TPM mounted in the Main Controller PCB).

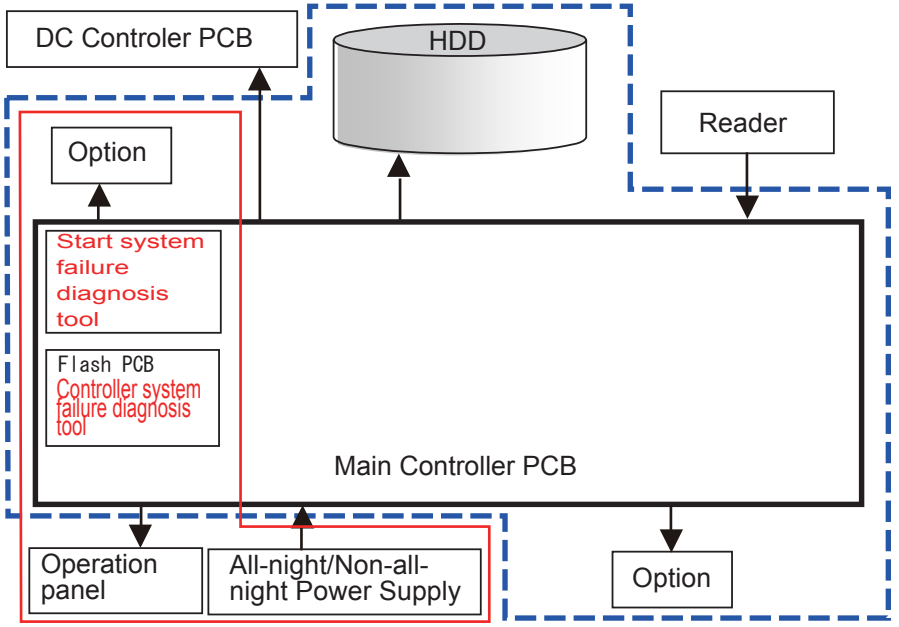
PCBs and units diagnosed by each tool are as follow:

Tool	PCBs/Units
Boot System Error Diagnosis Tool	• Main Controller PCB • Control Panel • All-night Power Supply, Non-all-night Power Supply
Controller System Error Diagnosis Tool	• Main Controller PCB • TPM PCB • FLASH PCB • Memory PCB • HDD

T-6-28

Overview

Two types of error diagnosis tools are installed in this machine, and stored in the locations shown below.



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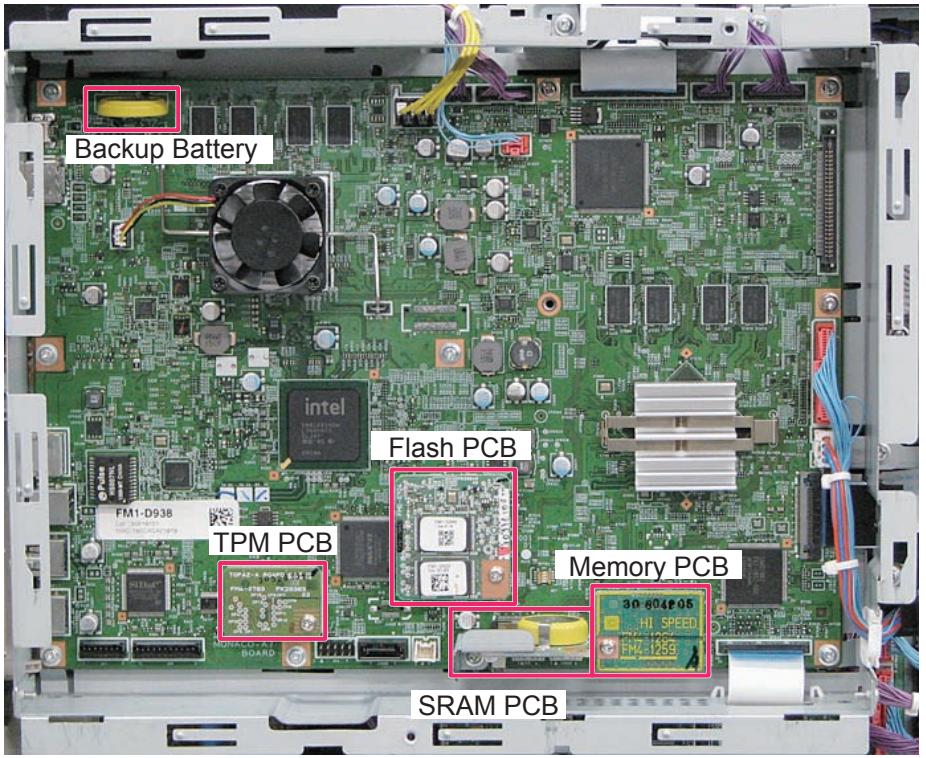
Boot System Error Diagnosis Tool covers the components shown in the red frame (solid line) in the figure. Controller System Error Diagnosis Tool covers the components shown in the blue frame (dotted line).

- Boot System Error Diagnosis Tool
  This tool automatically checks the Control Panel, Main Controller PCB, 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.
  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, child PCBs mounted on the Main Controller PCB, 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

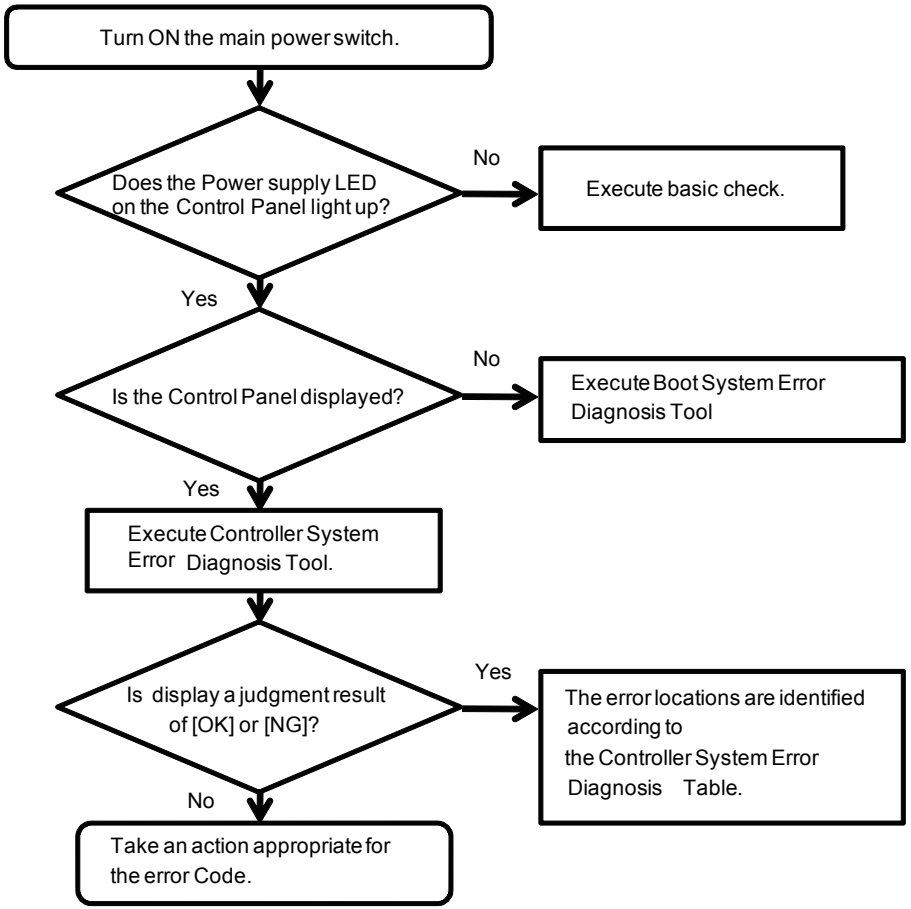
Layout Drawing of PCBs Subject to Diagnosis



F-6-114

Basic Flowchart

Check all of the items shown below.



F-6-115

Basic Check Items

- Check if the Power Supply Plug is disconnected.
- Check if the Connection Cable between the Main Controller PCB and Control Panel is disconnected.
- Check if the Connection An All-night Power Supply. Check if the Connection Cable from Main Controller PCB is disconnected. Change AC Driver PCB if not recovered.

Prerequisite

This machine's Firmware is intalled 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

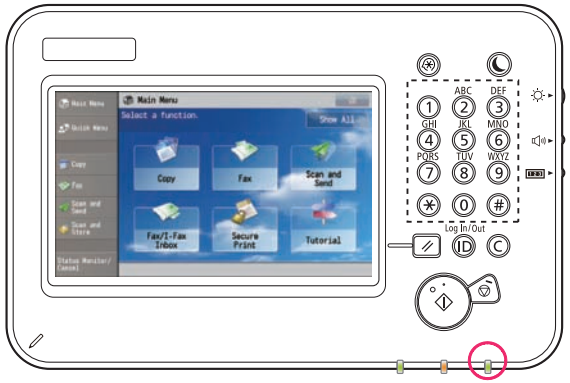
Operations of the two diagnosis tools are explained below.
Use each tool according to the following purposes.

- 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 or child PCBs mounted on the Main Controller PCB: Execute Controller System Error Diagnosis.

Boot System Error Diagnosis

Boot Method

1) Turn ON the Main Power Supply Switch while pressing the Control Panel Energy Saver Switch.
2) Right after the Main Power Supply Lamp lights up once, it lights out instantly, and diagnosis starts.
3) When the Main Power Supply Lamp lights out, you release your finger from the Control Panel Switch.



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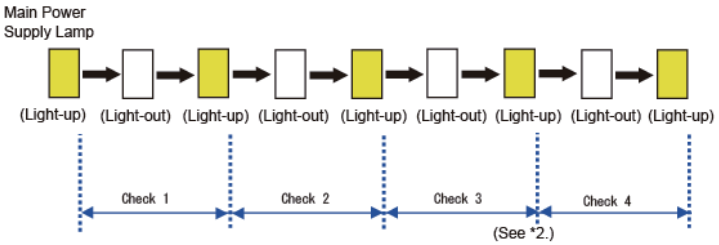
Diagnosis Time

Diagnosis is completed in approx. 1 minuites.
<When the diagnosis result is normal>
After the Main Power Supply Lamp repeatedly lights out 4 times, it lights up and the diagnosis is completed.
After completion of the diagnosis, this machine executes normal boot sequence.



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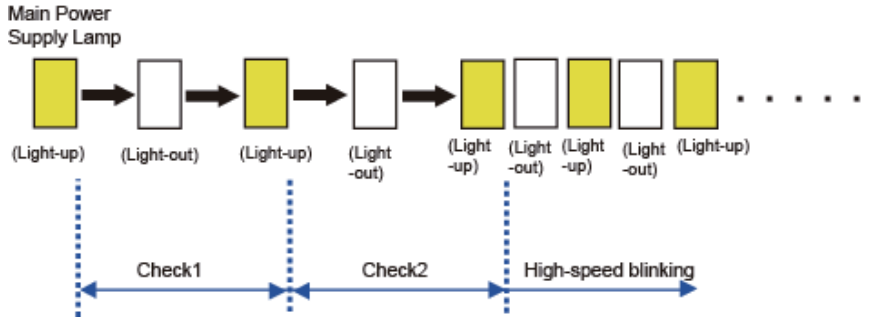
<When an error is detected by diagnosis>
The Main Power Supply Lamp repeats high-speed blinking after completion of a check in which an error is detected. (See *1.)
For example, when an error is detected in Check 2, the Main Power Supply Lamp lights out twice and repeats high-speed blinking (ON/OFF in 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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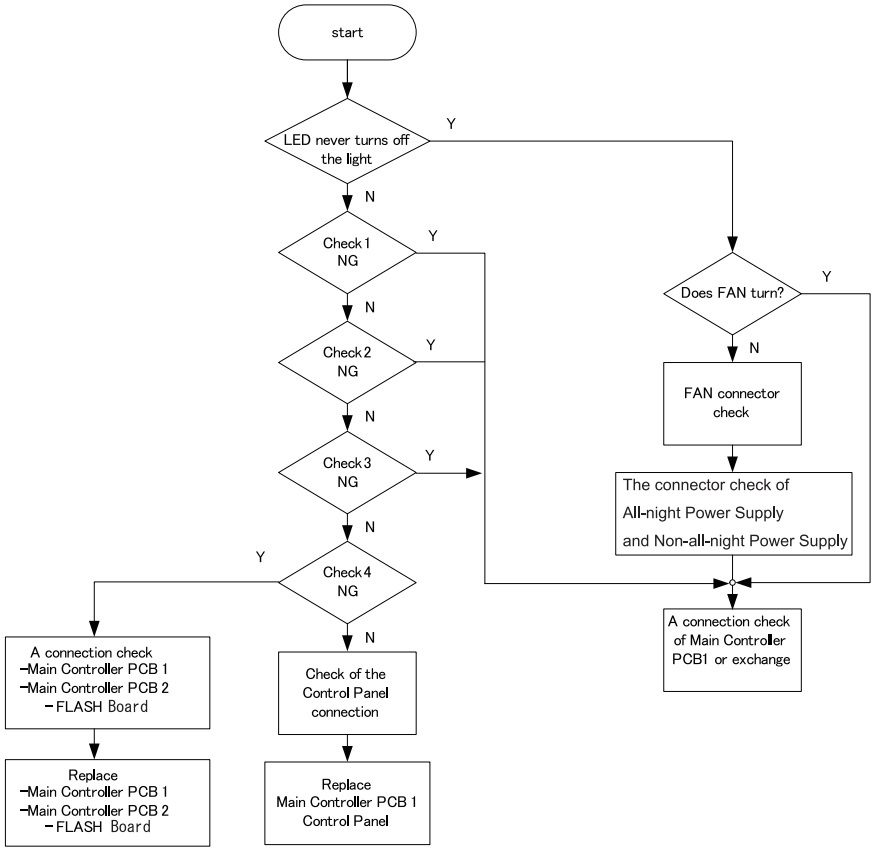
*1 When an error is detected, there is a possibility that the Main Power Supply Lamp may not perform high-speed blinking but perform other operation (continuous light-up, light-out). If the error is not resolved, execute the remedy of the Check No. which is not completed normally. (For details, see “Error Diagnosis”.)
*2 Although diagnosis time for Check 3, and Check 4 is longer than that of other Checks, it is correct operation.

Error Diagnosis

Boot System Error Diagnosis Table:

The error locations are identified according to the following table.



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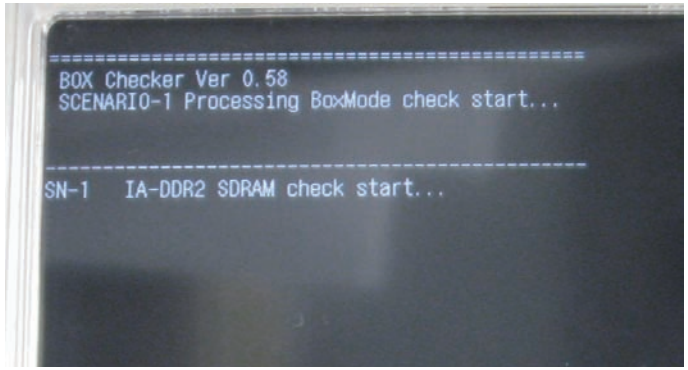
Controller System Error Diagnosis

Boot Method

1) Turn ON the Main Power Supply Switch while pressing the numeric keys '2' and '4' simultaneously.
2) Keep pressing the numeric keys (for approx. 20 seconds) until the following screen appears on the Control Panel.



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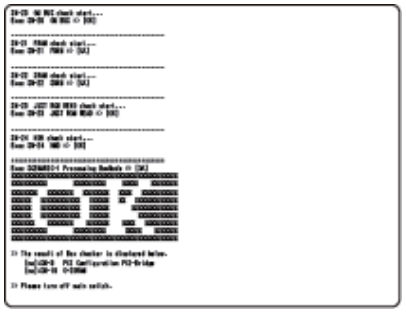
Diagnosis Time

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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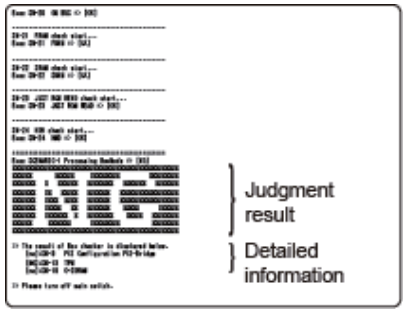
<When an error is detected by diagnosis>

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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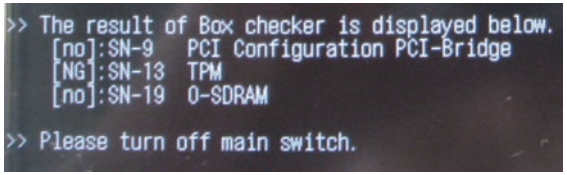
How to view the error result

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.

No	Test Name	Description	Remedy	Error Code
SN-1	MN-DDR2 SDRAM	Check an error between the Main Controller PCB and SDRAM on the Main Controller PCB	Replace the Main Controller PCB .	-
SN-2	SM BUS MN DDR2 On Board	Check an SM bus error in I2C on the Main Controller PCB	Replace the Main Controller PCB .	-
SN-3	SM BUS MN Clock Gen	Check an SM bus error in SDRAM (inside) on the Main Controller PCB	Replace the Main Controller PCB .	-
SN-5	PCI Configuration	Check a PCI Configuration error in the Main Controller PCB	Replace the Main Controller PCB .	-
SN-8	CPLD	Check failure of CPLD chip on the Main Controller PCB	Replace the Main Controller PCB .	-
SN-9	LANC FLASH	Check failure of LANC SPI on the Main Controller PCB	Replace the Main Controller PCB .	-
SN-10	RTC CHECK	Check failure of RTC on the Main Controller PCB	Replace the Main Controller PCB .	-
SN-11	TPM	Check failure of the TPM PCB on the Main Controller PCB * TPM PCB is not installed in products for China. So, the diagnosis results NG.	1. Check the installation of the TPM PCB. 2. Replace the TPM PCB. 3. Replace the Main Controller PCB.	E746
SN-12	SOC-DDR2 SDRAM	Check an error DDR2 SDRAM on the Main Controller PCB	Replace the Main Controller PCB.	-
SN-13	FRAM	Check failure between the Main Controller PCB and the Memory PCB	1. Check the installation of the Memory PCB. 2. Replace the Memory PCB. 3. Replace the Main Controller PCB.	E355
SN-14	Cheddar ExBus	Check Reader Control Assembly on the Main Controller PCB	1. Check the cable connection of J8001, J8102 and J8103 on the Main Controller PCB. 2.Replace the Main Controller PCB 2.	-
SN-15	JUST ROM READ	Check ROM READ on the Main Controller PCB	Replace the Main Controller PCB 2.	-
SN-16	HDD	Check an HDD I/F error	1. Check the cable connection of the HDD. 2. Replace the HDD.	E602
SN-17	SRI CHECK	SRI BUS Connection check	Replace the Main Controller PCB.	-

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■ 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, 5, 12), 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, the following judgment results are displayed.

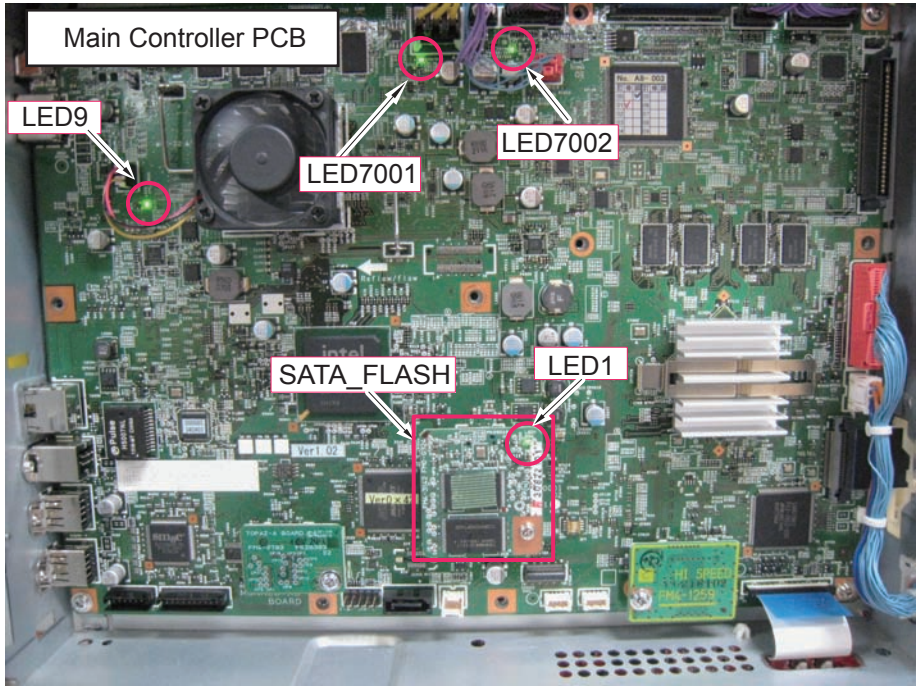
- Standard PCB: [NG]
- Optional PCB: [OK]
  However, [no] is displayed in detailed error information for optional PCBs.

Operation Check of the Main Controller LEDs

Overview

You may be able to determine the remedies against Main Controller-related troubles by checking the lighting status of LEDs on the PCB.

Location of LEDs



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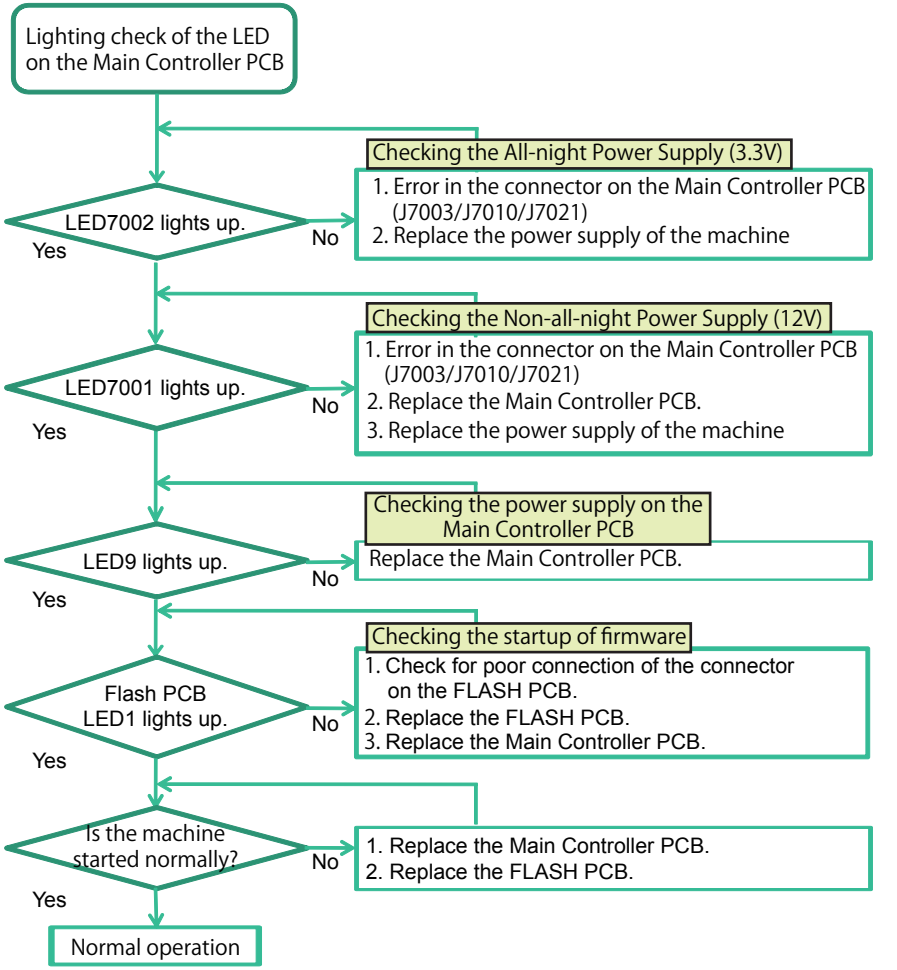
Preconditions

Check whether the connectors are securely connected. LEDs are not lit when the contact is poor. (Power-on is not possible)
When the LED of the Control Panel main power is not lit, check the connection of cables (such as UI Cable).

Check the lighting of the LED on the Main Controller



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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.

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

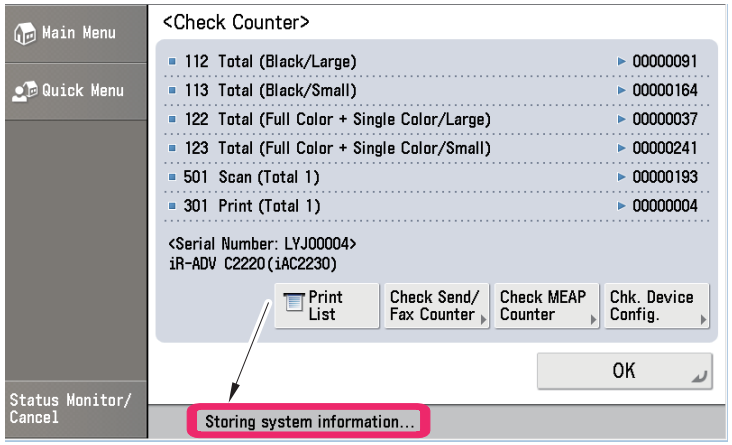
Storage Method of System Information

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.



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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 can be obtained by automatic generation with LOG-TRIG specified.

HDD	10 pieces

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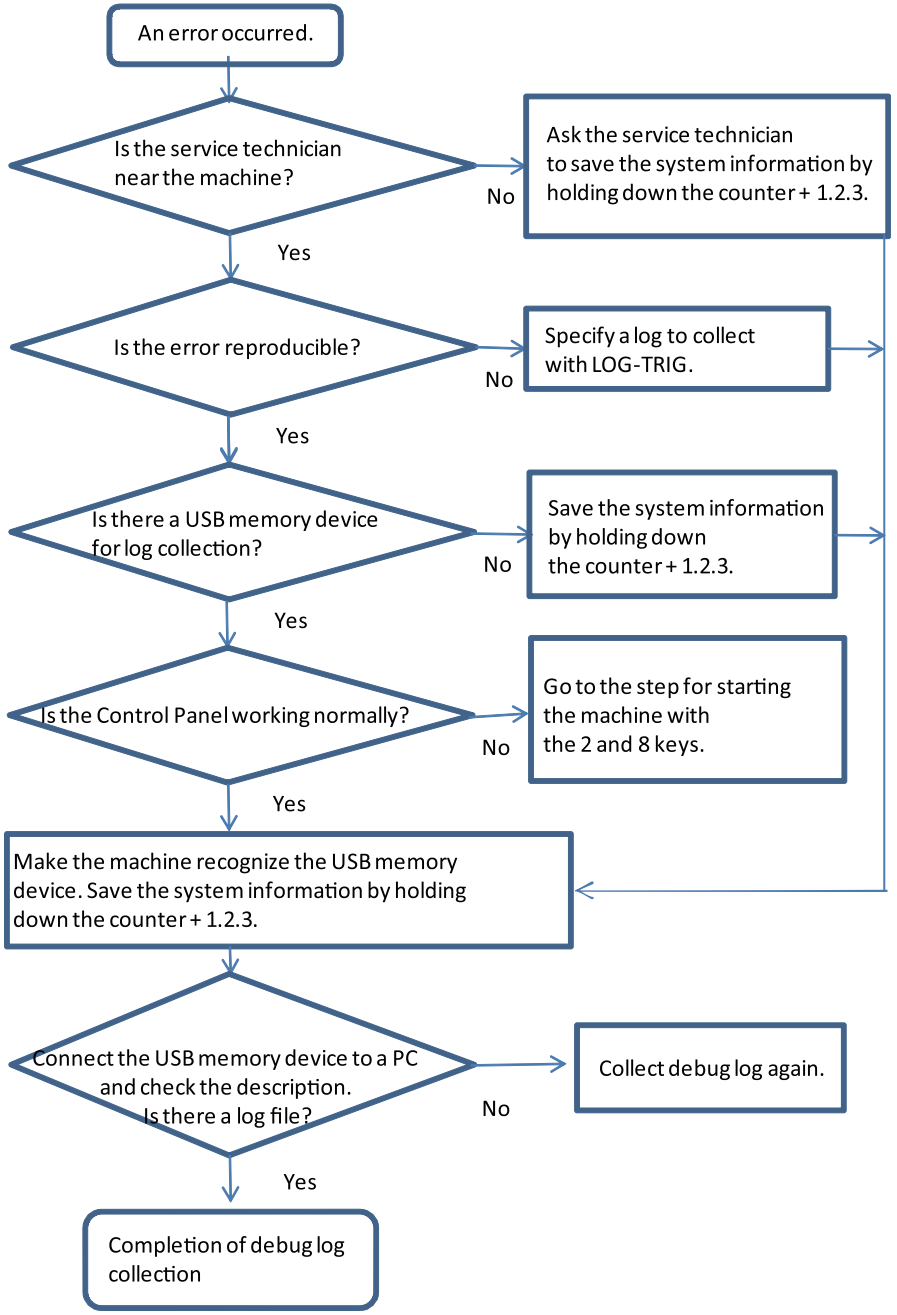
Operation to Save System Information

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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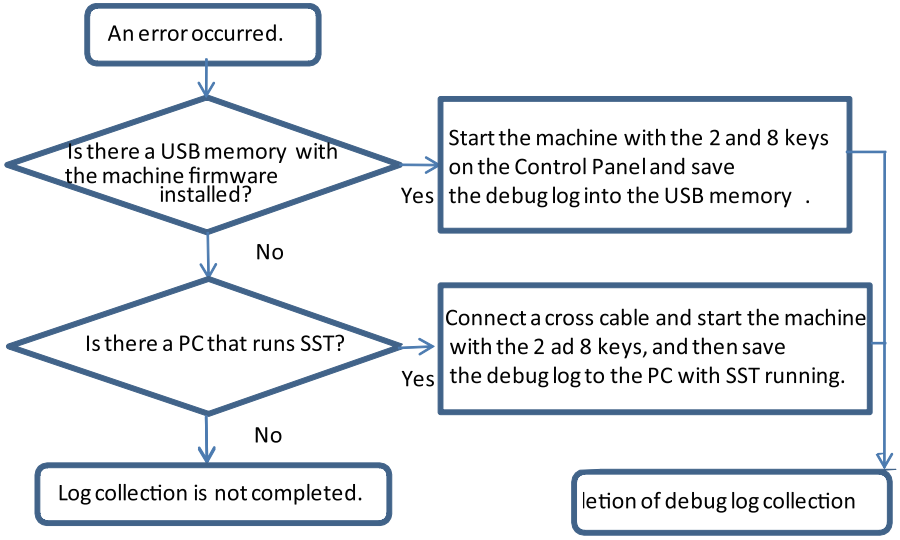
Workflow to Start the Machine with the 2 and 8 Keys



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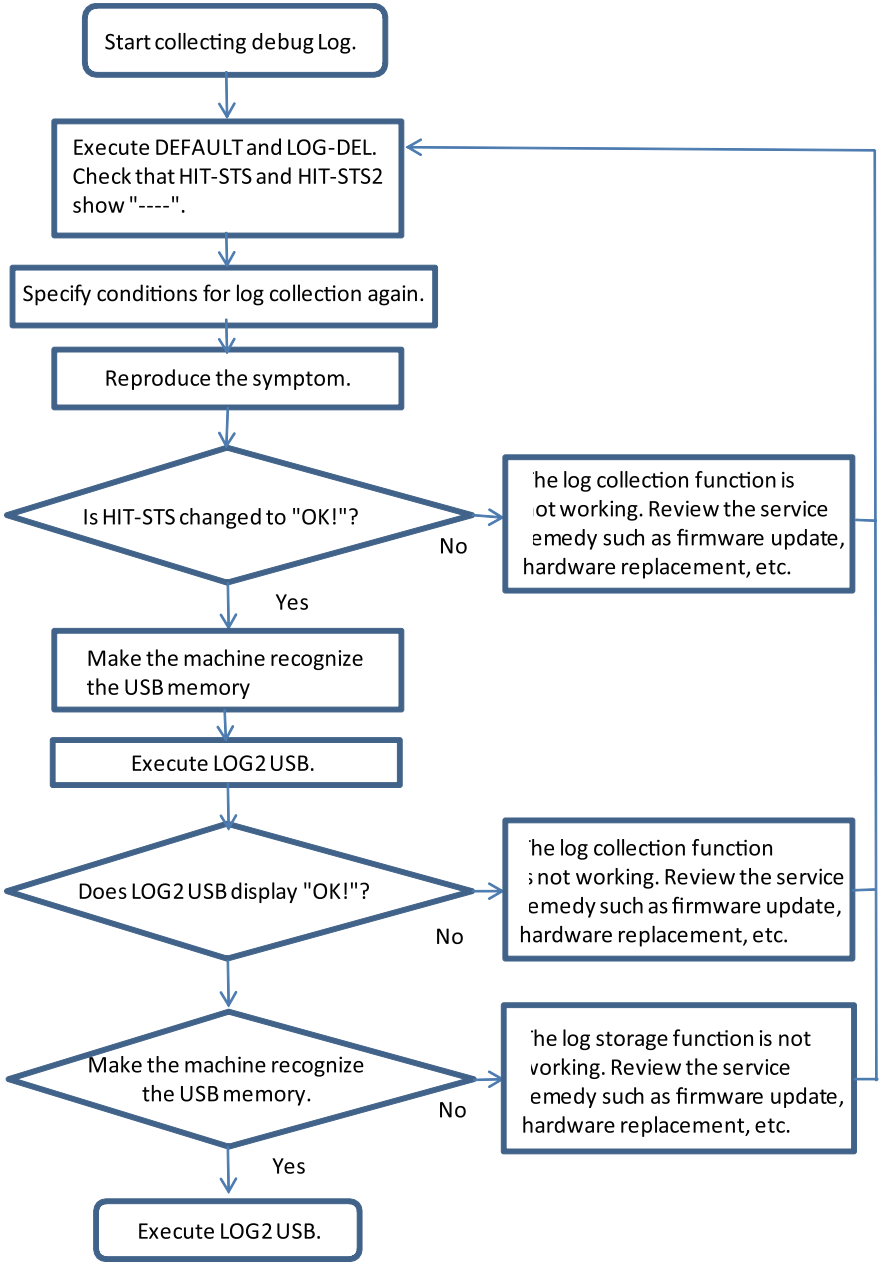
Reacquiring Debug Log



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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. 4.73 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.
Download Mode	-	If there is a USB memory device, the data is 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)

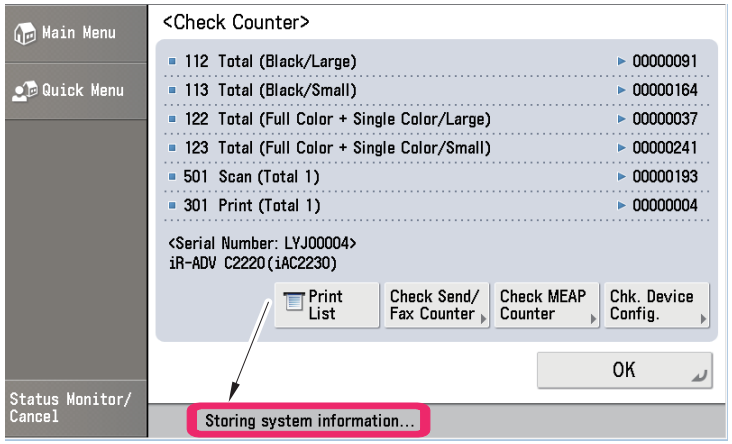
Manual Saving by Holding Down the Counter + 1.2.3

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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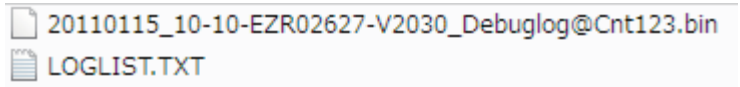
6. A file is generated in root of the USB memory device.
7. Note that the screen is locked while the data is transferred to the USB memory device; therefore, the screen does not change even though you press any key on the Control Panel. Press the Reset key to check that the screen changes. Data transfer 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 + MNCONT version + Debuglog@Cnt123.Bin

Example:
20100510_12-35-ENS00059-V01.54_debulog@Cnt123.bin



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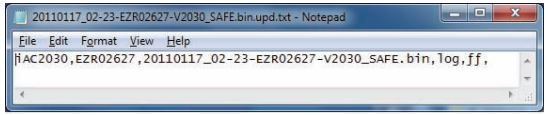
Note:
Date to be added to the file name shows the date that the log was transferred. The time of the specified region may not be shown when the machine is not working properly. In such a case, Greenwich Mean Time (GMT) is shown.

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.

Collecting by Download Mode (USB memory device)

Function

This is a function to collect debug log from a device in download mode.

Operation Procedure:

NOTE:
When the data is sent to the USB memory device:
USB memory where the system software for this machine has been registered using the SST.
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.

1. Select the following in service mode: COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK to enter download mode.
2. Connect the USB memory storage device to the USB port.
3. Press the control panel keys. [8]:

```
[[[[[[[[[[ Root Menu (USB) ]]]]]]]]]]
----------------------------------------

 [1]: Select Version

 [4]: Clear/Format
 [5]: Backup/Restore
 [8]: Download File

 [Reset]: Start shutdown sequence
```

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4. Download sublog.
   Press the control panel keys. [1] -> [0]:

```
[[[[[[[ Download File Menu (USB) ]]]]]]]
----------------------------------------

 [1]: SUBLOG Download
 [4]: ServicePrint Download
 [C]: Return to Main Menu

 [Reset]: Start shutdown sequence

/[1] has been selected. Execute?/
 - (OK):0 / (CANCEL):Any other keys -
```

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5. Exit download mode. Remove the USB memory device and collect sublog.

Remarks:
- 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_SAFE.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)

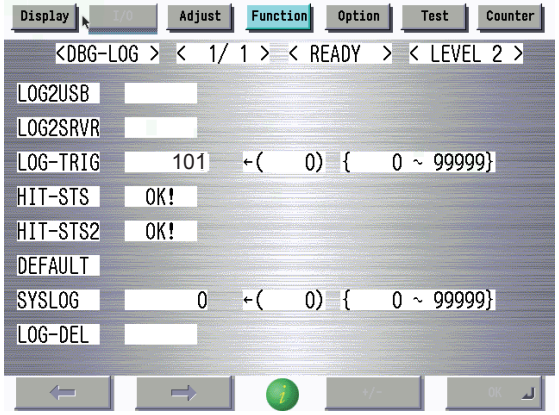
Note:
The log file is deleted from the machine once it is collected into the USB memory device.
You can check the description of the logs to be included in .bin file with "LOGLIST.TXT" that is saved simultaneously with the .bin file into the USB memory device.

DBG-LOG Screen

Function

Service mode LEVEL 2

COPIER > FUNCTION > DBG-LOG



F-6-135

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.

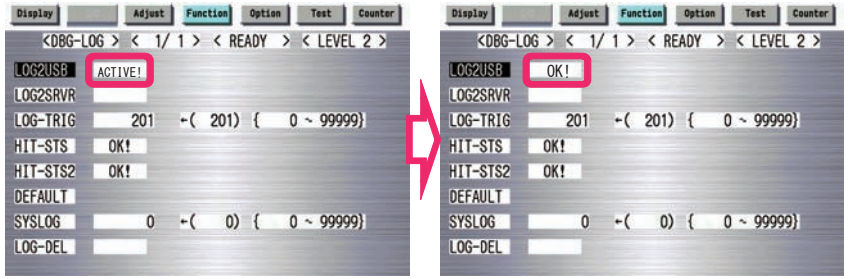
Points to Remember
- Executing LOG2USB while no USB memory device is attached to the machine causes an "NG" display. The data is not transferred. The log in the HDD is retained. Make the machine recognize a USB memory device before executing LOG2USB.

Operation Procedure

a) 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.

b) 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.

c) "OK!" is displayed when the processing is successfully completed. "NG!" is displayed when the processing fails.

d) 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.

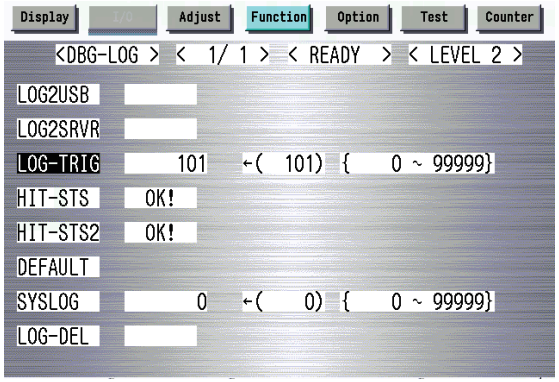
LOG-TRIG

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 Default setting (at the time of shipment)	Exception + E-code + reboot
	111	Exception only
	121	E-code only
	131	Reboot only
200-299	201	101 + alarm
	211	Exception + alarm
	221	E-code + alarm
	231	Reboot + alarm
	291	Alarm only
300-399	301	101 + jam
	311	Exception + jam
	321	E-code + jam
	331	Reboot + jam
	391	Jam only

T-6-32

- 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)

- 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.)

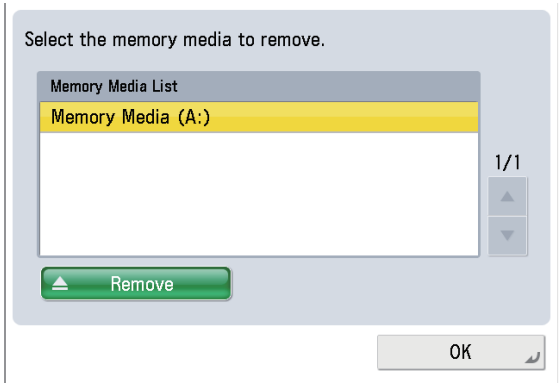
An Example of Automatic Log Collection Setting

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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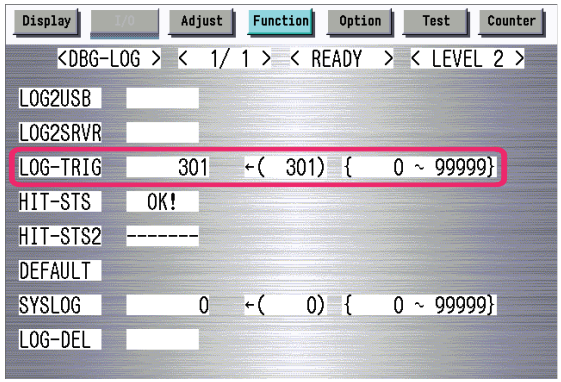
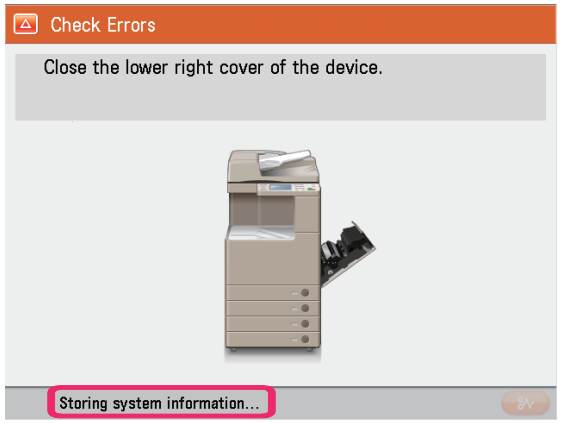
3. Execute the service mode setting as follows.
   Service mode LEVEL 2
   COPIER > FUNCTION > DBG-LOG > LOG-TRIG; and set 301.



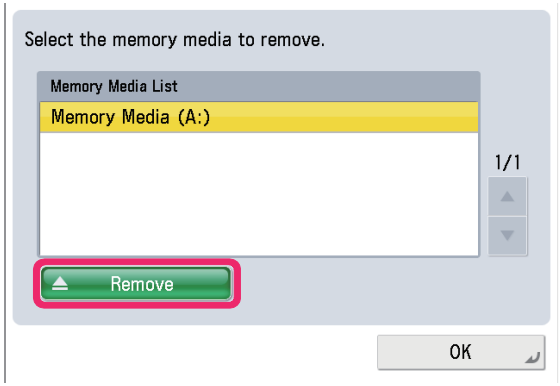
F-6-139

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.



F-6-140

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.



F-6-141

8. Connect the USB memory to the PC and check that a log file is created.

Uploading Data by SST

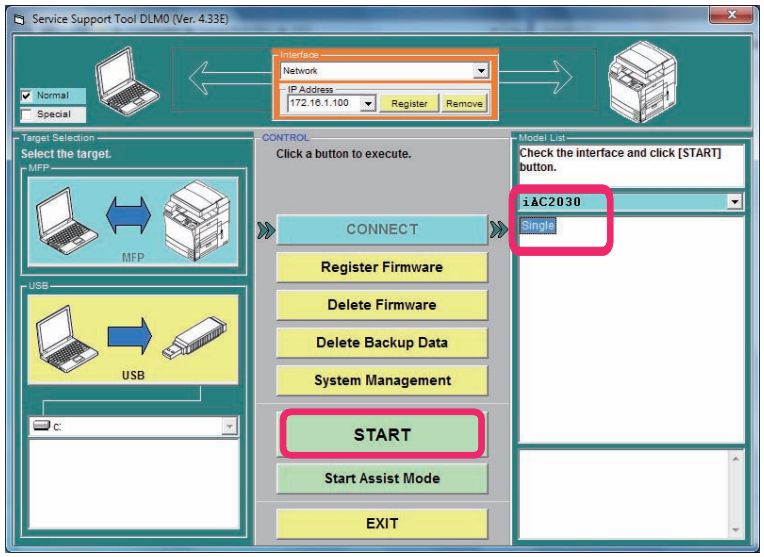
The following shows a method to collect a log by connecting a PC with SST (Ver. 4.73 or later) running to the machine.

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.

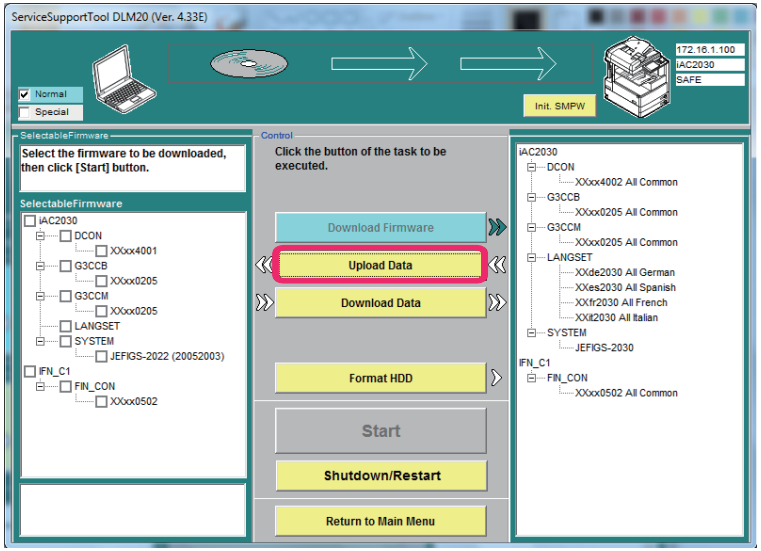
Note:
Executing a log collection by SST deletes logs in the machine.

1. Start SST (Ver. 4.73 or later) and select iA500 from Model List. Press the Start button.



F-6-142

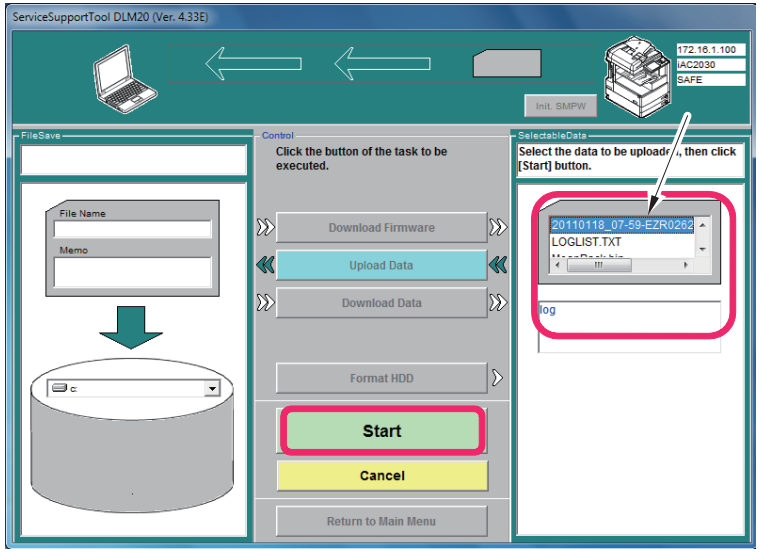
2. Press the Upload Data button.



F-6-143

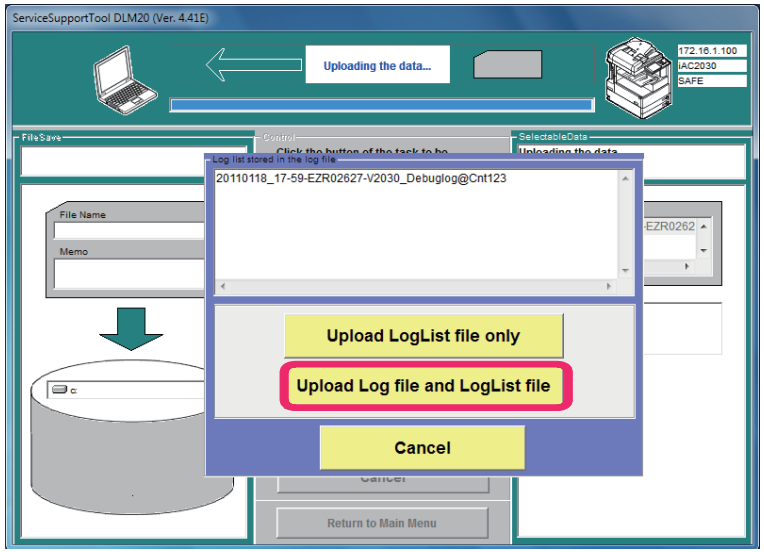
3. Select the data to be uploaded, then click [Start] button.
When there is no log in the machine, it results in blank option items for "data to upload".
When the file name is longer than the frame, it displays that it is a log in the comment column just below.
It is displayed as "log" in the figure below.

Note:
The log is not stored when You cancel it before pushing the Start button.
It is deleted from the main body.



F-6-144

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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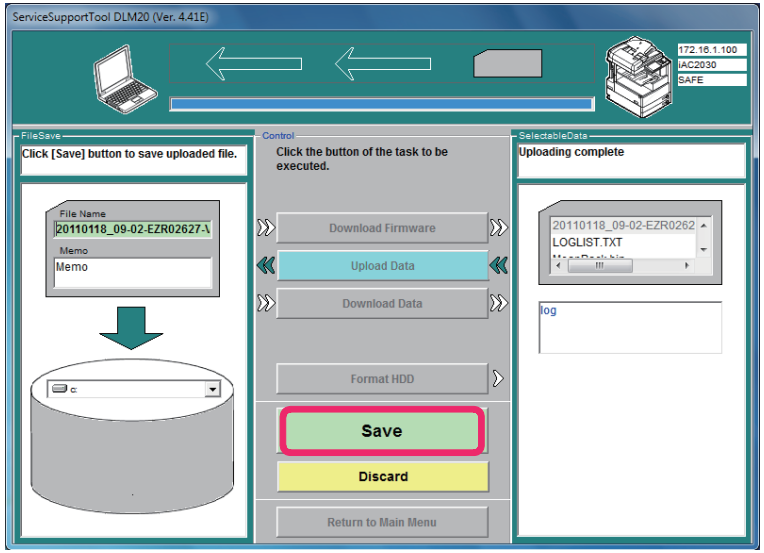
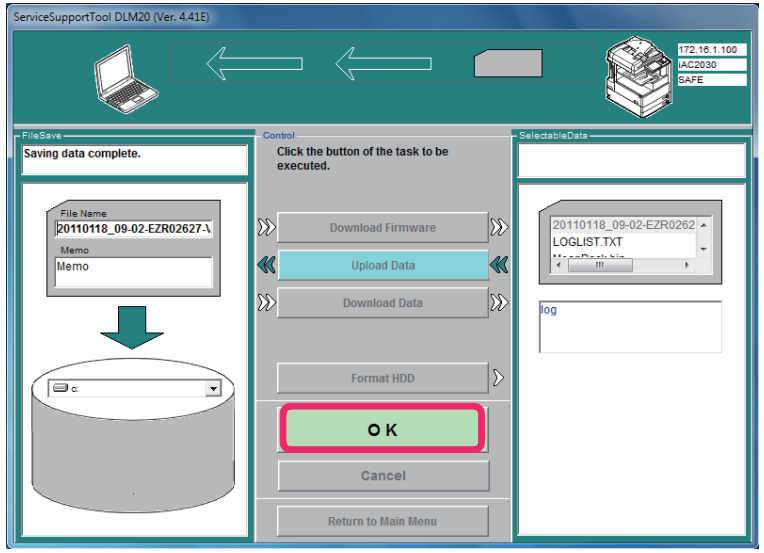
5. Press the "Save" button.



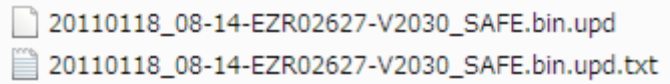
F-6-146

6. Check that the data storage is completed and click the "OK" button.



F-6-147

7. Check that the log is stored in the specified location in the PC.
   In the initial setting:
   Windows(C:) > ServData > iA500 >EXR02627 (Serial number)



F-6-148

Saving a Log of Key Operations

Overview

- The key operation log function collects key operation log of the user to identify the cause of an error such as a wrong FAX transmission, to see whether the error is caused by a failure in the machine or a wrong operation of the user.
- The key operation log is not recorded with the status at the time of shipment.
- A setting is ready in UI menu to enable the saving function of key operation log.
- Only when the above setting is enabled, the machine determines that the user permission has been obtained and starts recording user operation log.
- User operation log is saved/collected to be included in sublog when the sublog is saved.
- Among the user operation log that was saved, the following confidential information is masked.
  - Password entered from the software keyboard
  - Password, PIN code, etc. entered from the numeric keypad
  - Character strings displayed with turned letters on the UI screen

Note:

- When the log is output, information such as passwords and PINs is output as masked characters. This can help prevent sensitive information from being leaked externally. For information on interpreting and outputting saved logs, contact your local authorized Canon dealer.
- 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.

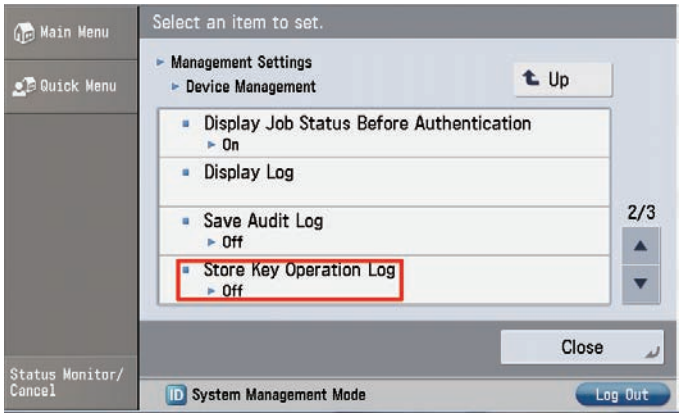
Usage Method

Preparation

1. Obtaining permission from the user to record key operation log for cause analysis
   After gaining permission from the user, in Settings/Registration > Management Settings > Device Management > Store Key Operation Log, change the setting to "ON".
2. Starting to save key operation log
3. Occurring an error
   After the error occurred, execute a manual trigger operation to save key operation log in the HDD of the machine.
4. Collecting key operation log with SST or USB memory
   The key operation log is collected together with the sublog. Transfer the data that was collected from the machine to the PC or USB memory.
5. Changing the setting of saving key operation log back to "OFF" after collecting the log

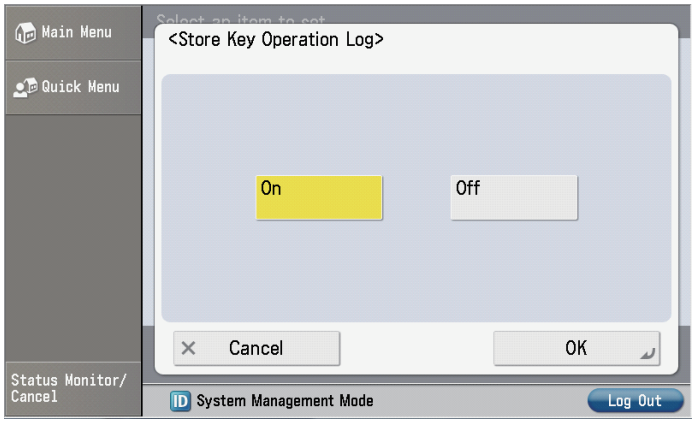
Operation

1. Obtaining Permission to Record Key Operation Log
   After gaining permission from the user, in Settings/Registration > Management Settings > Device Management > Store Key Operation Log, change the setting to "ON".



F-6-149

2. Starting to Save Key Operation Log

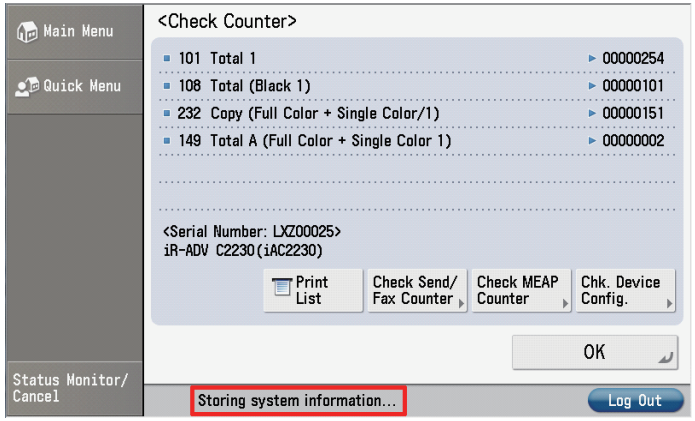


F-6-150

- Starting to Save Key Operation Log.
- Note that the log cannot be recorded while "OFF" is selected.

3. After the error occurred, immediately execute a manual trigger operation for sublog.

- While holding down the Counter key (10 sec.), press 1, 2, and 3 keys.



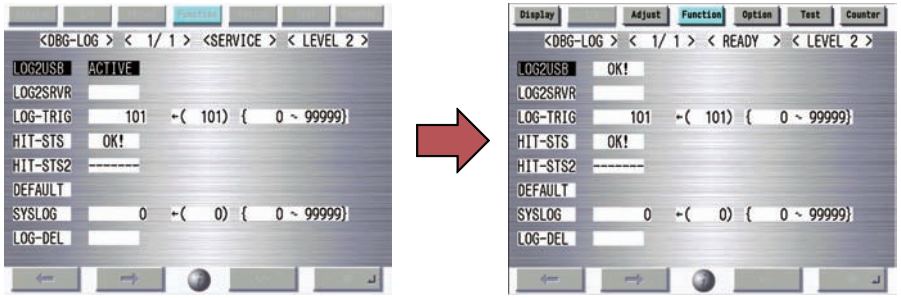
F-6-151

4. Collecting Key Operation Log with SST or USB Memory

See " Debuglog Collection (SST) " or " Debuglog Collection (USB) " for details. Here is an example of using USB memory to collect.

a) Allow the host machine to recognize USB memory storage device.

b) Select Service Mode Lev2 > COPIER > FUNCTION > DBG-LOG > LOG2USB and click OK.



F-6-152

c) "OK!" is displayed when the processing is successfully completed. "NG!" is displayed when the processing fails.

d) Remove the USB memory device for log collection.

7

Error•Jam•Alarm

- 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.

T-7-1

Error code notation

An error code is shown in 7-digit [E000XXX] on the display on the operation panel. However, [000] in 2 to 4 digit is not used. Thus, an error code is described as [EXXX] using 5 to 7 digit in the service manual. (e.g.: E012 = E000012)

Location code

Error code, jam code, and alarm code include the location information.

Location information is displayed as 2-digit numbers as follows.

In the error and jam display screen, the “L” row corresponds to the location code.

Device	JAM	ERR	ALARM
imageRUNNER ADVANCE C351/C350/C250 Series	Printer engine = 00 ADF=01	Main Controller = 00 Reader+ADF=04 Printer engine = 05	Others of listed below
Cassette Feeding Unit-AG1	00	05	04
Cassette Feeding Unit-AH1	00	05	04
Super G3 FAX Board-AN1	-	07	-
Staple Finisher-S1	02	02	-

T-7-2

Pickup position code

When jam occurs, pickup location is indicated with the following pickup position code.

In the jam display screen, the “P” row corresponds to the pickup position code.

Pickup position	Pickup position code
At Finisher jam/At error avoidance jam/At ADF jam without pickup operation (at SEND, Inbox, etc.)	00
Cassette 1	01
Cassette 2	02
Cassette 3	03
Cassette 4	04
Multi-purpose Tray	05
Duplex	F0

T-7-3

Points to Note When Clearing MN-CON

- Execution of clearing MN-COM deletes all data in Address Book, Forwarding Settings, Settings/Registration (Preferences), Adjustment/Maintenance, Function Settings, Set Destination, Management Settings, TPM Settings, etc. Before execution of this operation, ask user to back up the data and get approval for this operation.
- When clearing MN-CON while any login application other than Default Authentication is, error such as not displayed login screen occurred. In this case, access SMS once and switch login application to Default Authentication to recover to the normal status.

Points to Note When Clearing HDD

As a remedy for error codes (E602-XXXX), 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

Error code	Detail Code	Location	Item	Description
E001	A001	05	Title	Fixing Main Thermistor high temperature detection error
			Detection description	The Fixing Main Thermistor detected 265 deg C or higher for 0.1 sec or longer.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E001	A002	05	Title	Fixing Sub Thermistor (Front) high temperature detection error
			Detection description	The Fixing Sub Thermistor (Front) detected 290 deg C or higher for 0.1 sec or longer.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E001	A003	05	Title	Fixing Sub Thermistor (Rear) high temperature detection error
			Detection description	The Fixing Sub Thermistor (Rear) detected 290 deg C or higher for 0.1 sec or longer.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E001	A004	05	Title	Fixing Main Thermistor high temperature detection error
			Detection description	The Fixing Main Thermistor detected 270 deg C or higher.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E001	A005	05	Title	Fixing Sub Thermistor (Front) high temperature detection error
			Detection description	The Fixing Sub Thermistor (Front) detected 295 deg C or higher.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E001	A006	05	Title	Fixing Sub Thermistor (Rear) high temperature detection error
			Detection description	The Fixing Sub Thermistor (Rear) detected 295 deg C or higher.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E002	A001	05	Title	Fixing Main Thermistor temperature increase detection error
			Detection description	The Fixing Main Thermistor detected a temperature increase of 1 deg C for less than 5 sec from turning ON the main power until start of PI control.
			Remedy	[Related parts] - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - Fixing Assembly (Unit of replacement: Fixing Assembly) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E002	A002	05	Title	Fixing Main Thermistor open circuit detection error
			Detection description	The Fixing Main Thermistor detected a temperature of 40 deg C or lower for 3 sec or longer from turning ON the main power until start of PI control.
			Remedy	[Related parts] - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - Fixing Assembly (Unit of replacement: Fixing Assembly) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E002	A003	05	Title	Fixing Sub Thermistor (Front) open circuit detection error
			Detection description	The Fixing Sub Thermistor (Front) detected a temperature of 40 deg C or lower for 3 sec or longer from turning ON the main power until start of PI control.
			Remedy	[Related parts] - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - Fixing Assembly (Unit of replacement: Fixing Assembly) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E002	A004	05	Title	Fixing Sub Thermistor (Rear) open circuit detection error
			Detection description	The Fixing Sub Thermistor (Rear) detected a temperature of 40 deg C or lower for 3 sec or longer from turning ON the main power until start of PI control.
			Remedy	[Related parts] - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - Fixing Assembly (Unit of replacement: Fixing Assembly) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E003	A001	05	Title	Fixing Main Thermistor low temperature detection error (during printing)
			Detection description	The Fixing Main Thermistor detected a temperature of 80 deg C or lower for 1 sec or longer from start of PI control until completion of the last rotation (the Fixing Heater is turned OFF) during printing.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E003	A002	05	Title	Fixing Sub Thermistor (Front) low temperature detection error
			Detection description	The Fixing Sub Thermistor (Front) detected a temperature of 80 deg C or lower for 1 sec or longer from start of PI control until completion of the last rotation (the Fixing Heater is turned OFF) during printing.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E003	A003	05	Title	Fixing Sub Thermistor (Rear) low temperature detection error
			Detection description	The Fixing Sub Thermistor (Rear) detected a temperature of 80 deg C or lower for 1 sec or longer from start of PI control until completion of the last rotation (the Fixing Heater is turned OFF) during printing.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Fixing Drawer (DR01/J5401) and the Low-voltage Power Supply PCB (UN01/J302) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E004	0001	05	Title	Fixing Relay welding detection error
			Detection description	Zero cross interruption was detected although the Fixing Relay was not turned ON.
			Remedy	[Remedy] Replace the Low-voltage Power Supply PCB. (Unit of replacement: POWER SUPPLY ASSEMBLY) [Caution] Since an electrical trouble due to error in fixing safety circuit relay is the cause of the error, be sure to replace the Low-voltage Power Supply PCB.
E004	0002	05	Title	Fixing Main Thermistor and Fixing Sub Thermistor (Rear) disconnection detection error
			Detection description	Connection could not be detected within 0.5 sec when power was supplied to the Fixing Heater.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E009	0001	05	Title	Fixing pressure timeout error
			Detection description	Signal of the Fixing Pressure Release Sensor could not be detected at pressure application operation of the Fixing Pressure Release Cam, and the operation was not completed within 4 sec from the start of counterclockwise rotation of the Fixing Motor.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the DC Controller PCB (UN04/J135) and the Fixing Motor (M04/J5412) (Unit of replacement: CABLE, FIXING DRIVE) - Harness between the Fixing Drawer (DR01/J5401) and the Fixing Pressure Release Sensor (PS13/J5403) (Unit of replacement: CABLE, FIXING ASSEMBLY) - Fixing Pressure Release Sensor (PS13) (Unit of replacement: PHOTO INTERRUPTER) - Fixing Drive Unit (Unit of replacement: FIXING DRIVE ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Low Voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E009	0002	05	Title	Fixing disengagement timeout error
			Detection description	Signal of the Fixing Pressure Release Sensor could not be detected at pressure release operation of the Fixing Pressure Release Cam, and the operation was not completed within 4 sec from the start of counterclockwise rotation of the Fixing Motor.
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Harness between the Fixing Drawer (DR01/J5401) and the DC Controller PCB (UN04/J134) (Unit of replacement: INTERLOCK ASSEMBLY) - Harness between the DC Controller PCB (UN04/J135) and the Fixing Motor (M04/J5412) (Unit of replacement: CABLE, FIXING DRIVE) - Harness between the Fixing Drawer (DR01/J5401) and the Fixing Pressure Release Sensor (PS13/J5403) (Unit of replacement: CABLE, FIXING ASSEMBLY) - Fixing Pressure Release Sensor (PS13) (Unit of replacement: PHOTO INTERRUPTER) - Fixing Drive Unit (Unit of replacement: FIXING DRIVE ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, POWER SUPPLY) - Low Voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E009	0003	05	Title	Fixing pressure retry error
			Detection description	Signal of the Fixing Pressure Release Sensor could not be detected at pressure application operation of the Fixing Pressure Release Cam, and the operation was not completed within 3 times from the start of counterclockwise rotation of the Fixing Motor.
			Remedy	[Remedy] Replace the Fixing Assembly. (Unit of replacement: Fixing Assembly)
E009	0004	05	Title	Fixing disengagement retry error
			Detection description	Signal of the Fixing Pressure Release Sensor could not be detected at pressure release operation of the Fixing Pressure Release Cam, and the operation was not completed within 3 times from the start of counterclockwise rotation of the Fixing Motor.
			Remedy	[Remedy] Replace the Fixing Assembly. (Unit of replacement: Fixing Assembly)
E010	0001	05	Title	Bk Drum_ITB Motor error
			Detection description	It did not become the specified speed for 500 consecutive msec although 1000 msec have passed from the startup of the Bk Drum_ITB Motor in the Main Drive Unit. (The detection timing varies depending on the paper feed conditions.)

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Harnesses connecting the Bk Drum_ITB Motor (M02/J5702), the Relay Connector (8P) and the DC Controller PCB (UN04/J140) (Unit of replacement: MAIN DRIVE ASSEMBLY) - Fuse in the Low-voltage Power Supply PCB (UN01/FU14) (Unit of replacement: POWER SUPPLY ASSEMBLY) - Bk Drum_ITB Motor (M02) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] It is highly possible that the Bk Drum_ITB Motor is not rotating due to overload or an electrical trouble. Perform the following in the order while checking whether the error is cleared. 1. Check whether the gears of the Main Drive Unit can be rotated by hand. a. If they cannot be rotated, replace the Main Drive Unit. b. If they can be rotated, check the harnesses from the Bk Drum_ITB Motor to the DC Controller PCB. 2. Measure the both ends of the fuse in the Low-voltage Power Supply PCB using a tester. a. If power is flowing to it (the measurement value is less than 1 ohm), 1. Replace the Bk Drum_ITB Motor. 2. Replace the DC Controller PCB. b. If the power is not flowing to it (the measurement value is 1 ohm or higher), replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E010	0002	05	Title	Bk Drum_ITB Motor error
			Detection description	The specified speed could not be detected for 500 consecutive msec although it became the specified speed at least once from the startup of the Bk Drum_ITB Motor in the Main Drive Unit.

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Harnesses connecting the Bk Drum_ITB Motor (M02/J5702), the Relay Connector (8P) and the DC Controller PCB (UN04/J140) (Unit of replacement: MAIN DRIVE ASSEMBLY) - Fuse in the Low-voltage Power Supply PCB (UN01/FU14) (Unit of replacement: POWER SUPPLY ASSEMBLY) - Bk Drum_ITB Motor (M02) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] It is highly possible that the Bk Drum_ITB Motor is not rotating due to overload or an electrical trouble. Perform the following in the order while checking whether the error is cleared. 1. Check whether the gears of the Main Drive Unit can be rotated by hand. a. If they cannot be rotated, replace the Main Drive Unit. b. If they can be rotated, check the harnesses from the Bk Drum_ITB Motor to the DC Controller PCB. 2. Measure the both ends of the fuse in the Low-voltage Power Supply PCB using a tester. a. If power is flowing to it (the measurement value is less than 1 ohm), 1. Replace the Bk Drum_ITB Motor. 2. Replace the DC Controller PCB. b. If the power is not flowing to it (the measurement value is 1 ohm or higher), replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E010	0003	05	Title	Bk Drum_ITB Motor error
			Detection description	There was no FG signal input for 300 msec from the startup of the Bk Drum_ITB Motor in the Main Drive Unit.

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Harnesses connecting the Bk Drum_ITB Motor (M02/J5702), the Relay Connector (8P) and the DC Controller PCB (UN04/J140) (Unit of replacement: MAIN DRIVE ASSEMBLY) - Fuse in the Low-voltage Power Supply PCB (UN01/FU14) (Unit of replacement: POWER SUPPLY ASSEMBLY) - Bk Drum_ITB Motor (M02) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] It is highly possible that the Bk Drum_ITB Motor is not rotating due to overload or an electrical trouble. Perform the following in the order while checking whether the error is cleared. 1. Check whether the gears of the Main Drive Unit can be rotated by hand. a. If they cannot be rotated, replace the Main Drive Unit. b. If they can be rotated, check the harnesses from the Bk Drum_ITB Motor to the DC Controller PCB. 2. Measure the both ends of the fuse in the Low-voltage Power Supply PCB using a tester. a. If power is flowing to it (the measurement value is less than 1 ohm), 1. Replace the Bk Drum_ITB Motor. 2. Replace the DC Controller PCB. b. If the power is not flowing to it (the measurement value is 1 ohm or higher), replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E012	0001	05	Title	CL Drum Motor error
			Detection description	It did not become the specified speed for 500 consecutive msec although 1000 msec have passed from the startup of the CL Drum Motor in the Main Drive Unit. (The detection timing varies depending on the paper feed conditions.)

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Harness between the CL Drum Motor (M01/J5701) and the DC Controller PCB (UN04/J140) (Unit of replacement: MAIN DRIVE ASSEMBLY) - Fuse in the Low-voltage Power Supply PCB (UN01/FU14) (Unit of replacement: POWER SUPPLY ASSEMBLY) - CL Drum Motor (M01) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] It is highly possible that the CL Drum Motor is not rotating due to overload or an electrical trouble. Perform the following in the order while checking whether the error is cleared. 1. Check whether the gears of the Main Drive Unit can be rotated by hand. a. If they cannot be rotated, replace the Main Drive Unit. b. If they can be rotated, check the harness between the CL Drum Motor and the DC Controller PCB. 2. Measure the both ends of the fuse in the Low-voltage Power Supply PCB using a tester. a. If power is flowing to it (the measurement value is less than 1 ohm), 1. Replace the CL Drum Motor. 2. Replace the DC Controller PCB. b. If the power is not flowing to it (the measurement value is 1 ohm or higher), replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E012	0002	05	Title	CL Drum Motor error
			Detection description	The specified speed could not be detected for 500 consecutive msec although it became the specified speed at least once from the startup of the CL Drum Motor in the Main Drive Unit.

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Harness between the CL Drum Motor (M01/J5701) and the DC Controller PCB (UN04/J140) (Unit of replacement: MAIN DRIVE ASSEMBLY) - Fuse in the Low-voltage Power Supply PCB (UN01/FU14) (Unit of replacement: POWER SUPPLY ASSEMBLY) - CL Drum Motor (M01) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] It is highly possible that the CL Drum Motor is not rotating due to overload or an electrical trouble. Perform the following in the order while checking whether the error is cleared. 1. Check whether the gears of the Main Drive Unit can be rotated by hand. a. If they cannot be rotated, replace the Main Drive Unit. b. If they can be rotated, check the harness between the CL Drum Motor and the DC Controller PCB. 2. Measure the both ends of the fuse in the Low-voltage Power Supply PCB using a tester. a. If power is flowing to it (the measurement value is less than 1 ohm), 1. Replace the CL Drum Motor. 2. Replace the DC Controller PCB. b. If the power is not flowing to it (the measurement value is 1 ohm or higher), replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E012	0003	05	Title	CL Drum Motor error
			Detection description	There was no FG signal input for 300 msec from the startup of the CL Drum Motor in the Main Drive Unit.

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Harness between the CL Drum Motor (M01/J5701) and the DC Controller PCB (UN04/J140) (Unit of replacement: MAIN DRIVE ASSEMBLY) - Fuse in the Low-voltage Power Supply PCB (UN01/FU14) (Unit of replacement: POWER SUPPLY ASSEMBLY) - CL Drum Motor (M01) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] It is highly possible that the CL Drum Motor is not rotating due to overload or an electrical trouble. Perform the following in the order while checking whether the error is cleared. 1. Check whether the gears of the Main Drive Unit can be rotated by hand. a. If they cannot be rotated, replace the Main Drive Unit. b. If they can be rotated, check the harness between the CL Drum Motor and the DC Controller PCB. 2. Measure the both ends of the fuse in the Low-voltage Power Supply PCB using a tester. a. If power is flowing to it (the measurement value is less than 1 ohm), 1. Replace the CL Drum Motor. 2. Replace the DC Controller PCB. b. If the power is not flowing to it (the measurement value is 1 ohm or higher), replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E014	0001	05	Title	Fixing Motor error
			Detection description	It did not become the specified speed for 500 consecutive msec although 1000 msec have passed from the startup of the Fixing Motor. (The detection timing varies depending on the paper feed conditions.)
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Idler Gear in the Fixing Assembly (Unit of replacement: GEAR, 29T) - Pressure Roller Gear in the Fixing Assembly (Unit of replacement: GEAR, 24T) - Harness between the DC Controller PCB (UN04/J135) and the Fixing Motor (M04/J5412) (Unit of replacement: CABLE, FIXING DRIVE) - Fuse in the DC Controller PCB (UN04/FU1) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Fixing Motor (M04) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check that the Fixing Assembly is pushed into the host machine so the handle is locked and there is no backlash while it is installed. 2. Remove the Fixing Assembly, and rotate the Idler Gear and the Pressure Roller Gear by hand to check visually that there is no bent or missing teeth or abnormal abrasion (edge of the gear is no longer tooth-shaped). 3. Replace the Fixing Assembly. 4. Check the harness between the DC Controller PCB and the Fixing Motor. 5. Measure the both ends of the fuse in the DC Controller PCB using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the Fixing Motor. 2. Replace the DC Controller PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the DC Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E014	0002	05	Title	Fixing Motor error
			Detection description	The specified speed could not be detected for 500 consecutive msec although it became the specified speed at least once from the startup of the Fixing Motor. (The detection timing varies depending on the paper feed conditions.)
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Idler Gear in the Fixing Assembly (Unit of replacement: GEAR, 29T) - Pressure Roller Gear in the Fixing Assembly (Unit of replacement: GEAR, 24T) - Harness between the DC Controller PCB (UN04/J135) and the Fixing Motor (M04/J5412) (Unit of replacement: CABLE, FIXING DRIVE) - Fuse in the DC Controller PCB (UN04/FU1) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Fixing Motor (M04) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check that the Fixing Assembly is pushed into the host machine so the handle is locked and there is no backlash while it is installed. 2. Remove the Fixing Assembly, and rotate the Idler Gear and the Pressure Roller Gear by hand to check visually that there is no bent or missing teeth or abnormal abrasion (edge of the gear is no longer tooth-shaped). 3. Replace the Fixing Assembly. 4. Check the harness between the DC Controller PCB and the Fixing Motor. 5. Measure the both ends of the fuse in the DC Controller PCB using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the Fixing Motor. 2. Replace the DC Controller PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the DC Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E014	0003	05	Title	Fixing Motor error
			Detection description	There was no FG signal input for 300 msec from the startup of the Fixing Motor. (The detection timing varies depending on the paper feed conditions.)
			Remedy	[Related parts] - Fixing Assembly (Unit of replacement: Fixing Assembly) - Idler Gear in the Fixing Assembly (Unit of replacement: GEAR, 29T) - Pressure Roller Gear in the Fixing Assembly (Unit of replacement: GEAR, 24T) - Harness between the DC Controller PCB (UN04/J135) and the Fixing Motor (M04/J5412) (Unit of replacement: CABLE, FIXING DRIVE) - Fuse in the DC Controller PCB (UN04/FU1) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Fixing Motor (M04) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check that the Fixing Assembly is pushed into the host machine so the handle is locked and there is no backlash while it is installed. 2. Remove the Fixing Assembly, and rotate the Idler Gear and the Pressure Roller Gear by hand to check visually that there is no bent or missing teeth or abnormal abrasion (edge of the gear is no longer tooth-shaped). 3. Replace the Fixing Assembly. 4. Check the harness between the DC Controller PCB and the Fixing Motor. 5. Measure the both ends of the fuse in the DC Controller PCB using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the Fixing Motor. 2. Replace the DC Controller PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the DC Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E020	01A8	05	Title	ATR Sensor (Y)output error
			Detection description	The output value of the ATR Sensor (Y) in the Drum Unit (Y) did not fall within the range from 10 or higher to 245 or less for 2 consecutive times during printing.
			Remedy	[Related parts] - ATR Sensor (Y) (UN34) (Unit of replacement: DEVE_UNIT_Y) - Drum Unit (Y) (Unit of replacement: DEVE_UNIT_Y) - Harness between the ATR Sensor (Y) (UN34/J6021) and the Drum Unit Memory PCB (Y) (UN12/J6011) (Unit of replacement: DEVE_UNIT_Y) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (Y) (UN08/J6001) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (Y) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E020	01B8	05	Title	ATR Sensor (Y) output error
			Detection description	a. The output value of the ATR Sensor (Y) in the Drum Unit (Y) did not fall within the range from 10 or higher to 990 or less for 2 consecutive times at initialization. b. The output value did not exceed 140 although the control voltage of the ATR Sensor (Y) in the Drum Unit (Y) was increased to 248 or higher, or it did not fall below 140 although the voltage was decreased to 8 at initialization.
			Remedy	[Related parts] - ATR Sensor (Y) (UN34) (Unit of replacement: DEVE_UNIT_Y) - Drum Unit (Y) (Unit of replacement: DEVE_UNIT_Y) - Harness between the ATR Sensor (Y) (UN34/J6021) and the Drum Unit Memory PCB (Y) (UN12/J6011) (Unit of replacement: DEVE_UNIT_Y) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (Y) (UN08/J6001) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (Y) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E020	01C0	05	Title	Error in take-up of Sealing Member (Y)
			Detection description	The patch output value (SigR) failed to be 900 or less during initialization of the Drum Unit (Y).
			Remedy	[Remedy] Replace the Drum Unit (Y). (Unit of replacement: DEVE_UNIT_Y)
E020	01F0	05	Title	Error in toner density (Y) at communication failure of the Drum Unit Memory PCB (Y)
			Detection description	Communication between the DC Controller PCB and the Drum Unit Memory PCB (Y) was not available, and the output value (SigR) of the ATR Sensor (Y) did not fall within the range from 50 or higher to 800 or less for 2 consecutive times.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (Y) (UN08/J6001) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit (Y) (Unit of replacement: DEVE_UNIT_Y) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (Y) is soiled, clean it with a blower. [Remedy] Check/replace the related parts.

Error code	Detail Code	Location	Item	Description
E020	02A8	05	Title	ATR Sensor (M) output error
			Detection description	The output value of the ATR Sensor (M) in the Drum Unit (M) did not fall within the range from 10 or higher to 245 or less for 2 consecutive times during printing.
			Remedy	[Related parts] - ATR Sensor (M) (UN35) (Unit of replacement: DEVE_UNIT_M) - Drum Unit (M) (Unit of replacement: DEVE_UNIT_M) - Harness between the ATR Sensor (M) (UN35/J6022) and the Drum Unit Memory PCB (M) (UN13/J6012) (Unit of replacement: DEVE_UNIT_M) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (M) (UN09/J6002) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (M) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E020	02B8	05	Title	ATR Sensor (M) output error
			Detection description	a. The output value of the ATR Sensor (M) in the Drum Unit (M) did not fall within the range from 10 or higher to 990 or less for 2 consecutive times at initialization. b. The output value did not exceed 140 although the control voltage of the ATR Sensor (M) in the Drum Unit (M) was increased to 248 or higher, or it did not fall below 140 although the voltage was decreased to 8 at initialization.
			Remedy	[Related parts] - ATR Sensor (M) (UN35) (Unit of replacement: DEVE_UNIT_M) - Drum Unit (M) (Unit of replacement: DEVE_UNIT_M) - Harness between the ATR Sensor (M) (UN35/J6022) and the Drum Unit Memory PCB (M) (UN13/J6012) (Unit of replacement: DEVE_UNIT_M) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (M) (UN09/J6002) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (M) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E020	02C0	05	Title	Error in take-up of Sealing Member (M)
			Detection description	The patch output value (SigR) failed to be 900 or less during initialization of the Drum Unit (M).
			Remedy	[Remedy] Replace the Drum Unit (M). (Unit of replacement: DEVE_UNIT_M)
E020	02F0	05	Title	Error in toner density (M) at communication failure of the Drum Unit Memory PCB (M)
			Detection description	Communication between the DC Controller PCB and the Drum Unit Memory PCB (M) was not available, and the output value (SigR) of the ATR Sensor (M) did not fall within the range from 50 or higher to 800 or less for 2 consecutive times.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (M) (UN09/J6002) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit (M) (Unit of replacement: DEVE_UNIT_M) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (M) is soiled, clean it with a blower. [Remedy] Check/replace the related parts.

Error code	Detail Code	Location	Item	Description
E020	03A8	05	Title	ATR Sensor (C) output error
			Detection description	The output value of the ATR Sensor (C) in the Drum Unit (C) did not fall within the range from 10 or higher to 245 or less for 2 consecutive times during printing.
			Remedy	[Related parts] - ATR Sensor (C) (UN36) (Unit of replacement: DEVE_UNIT_C) - Drum Unit (C) (Unit of replacement: DEVE_UNIT_C) - Harness between the ATR Sensor (C) (UN36/J6023) and the Drum Unit Memory PCB (C) (UN14/J6013) (Unit of replacement: DEVE_UNIT_C) - Harness between the DC Controller PCB (UN04/J162) and the Drum Unit Relay PCB (C) (UN10/J6003) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (C) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E020	03B8	05	Title	ATR Sensor (C) output error
			Detection description	a. The output value of the ATR Sensor (C) in the Drum Unit (C) did not fall within the range from 10 or higher to 990 or less for 2 consecutive times at initialization. b. The output value did not exceed 140 although the control voltage of the ATR Sensor (C) in the Drum Unit (C) was increased to 248 or higher, or it did not fall below 140 although the voltage was decreased to 8 at initialization.
			Remedy	[Related parts] - ATR Sensor (C) (UN36) (Unit of replacement: DEVE_UNIT_C) - Drum Unit (C) (Unit of replacement: DEVE_UNIT_C) - Harness between the ATR Sensor (C) (UN36/J6023) and the Drum Unit Memory PCB (C) (UN14/J6013) (Unit of replacement: DEVE_UNIT_C) - Harness between the DC Controller PCB (UN04/J162) and the Drum Unit Relay PCB (C) (UN10/J6003) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (C) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E020	03C0	05	Title	Error in take-up of Sealing Member (C)
			Detection description	The patch output value (SigR) failed to be 900 or less during initialization of the Drum Unit (C).
			Remedy	[Remedy] Replace the Drum Unit (C). (Unit of replacement: DEVE_UNIT_C)
E020	03F0	05	Title	Error in toner density (C) at communication failure of the Drum Unit Memory PCB (C)
			Detection description	Communication between the DC Controller PCB and the Drum Unit Memory PCB (C) was not available, and the output value (SigR) of the ATR Sensor (C) did not fall within the range from 50 or higher to 800 or less for 2 consecutive times.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J162) and the Drum Unit Relay PCB (Y) (UN10/J6003) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit (C) (Unit of replacement: DEVE_UNIT_C) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (C) is soiled, clean it with a blower. [Remedy] Check/replace the related parts.

Error code	Detail Code	Location	Item	Description
E020	04A8	05	Title	ATR Sensor (Bk) output error
			Detection description	The output value of the ATR Sensor (Bk) in the Drum Unit (Bk) did not fall within the range from 10 or higher to 245 or less for 2 consecutive times during printing.
			Remedy	[Related parts] - ATR Sensor (Bk) (UN37) (Unit of replacement: P-UNIT_BK) - Drum Unit (Bk) (Unit of replacement: P-UNIT_BK) - Harness between the ATR Sensor (Bk) (UN37/J6024) and the Drum Unit Memory PCB (Bk) (UN15/J6014) (Unit of replacement: P-UNIT_BK) - Harness between the DC Controller PCB (UN04/J162) and the Drum Unit Relay PCB (Bk) (UN11/J6004) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (Bk) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E020	04B8	05	Title	ATR Sensor (Bk) output error
			Detection description	a. The output value of the ATR Sensor (Bk) in the Drum Unit (Bk) did not fall within the range from 10 or higher to 990 or less for 2 consecutive times at initialization. b. The output value did not exceed 140 although the control voltage of the ATR Sensor (Bk) in the Drum Unit (Bk) was increased to 248 or higher, or it did not fall below 140 although the voltage was decreased to 8 at initialization.
			Remedy	[Related parts] - ATR Sensor (Bk) (UN37) (Unit of replacement: P-UNIT_BK) - Drum Unit (Bk) (Unit of replacement: P-UNIT_BK) - Harness between the ATR Sensor (Bk) (UN37/J6024) and the Drum Unit Memory PCB (Bk) (UN15/J6014) (Unit of replacement: P-UNIT_BK) - Harness between the DC Controller PCB (UN04/J162) and the Drum Unit Relay PCB (Bk) (UN11/J6004) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (Bk) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES
E020	04C0	05	Title	Error in take-up of Sealing Member (Bk)
			Detection description	The patch output value (SigR) failed to be 900 or less during initialization of the Drum Unit (Bk).
			Remedy	[Remedy] Replace the Drum Unit (Bk). (Unit of replacement: P-UNIT_BK)

Error code	Detail Code	Location	Item	Description
E020	04F0	05	Title	Error in toner density (Bk) at communication failure of the Drum Unit Memory PCB (Bk)
			Detection description	Communication between the DC Controller PCB and the Drum Unit Memory PCB (Bk) was not available, and the output value (SigR) of the ATR Sensor (Bk) did not fall within the range from 50 or higher to 800 or less for 2 consecutive times.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J162) and the Drum Unit Relay PCB (Bk) (UN11/J6004) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit (Bk) (Unit of replacement: P-UNIT_BK) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (Bk) is soiled, clean it with a blower. [Remedy] Check/replace the related parts.

Error code	Detail Code	Location	Item	Description
E021	0001	05	Title	Developing Motor error
			Detection description	It did not become the specified speed for 500 consecutive msec although 1000 msec have passed from the startup of the Developing Motor. (The detection timing varies depending on the paper feed conditions.)

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Harness between the Developing Motor (M03) and the DC Controller PCB (UN04/J142) (Unit of replacement: MAIN DRIVE ASSEMBLY) - Fuse in the DC Controller PCB (UN04/FU4) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Developing Motor (M03) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] It is highly possible that the Developing Motor is not rotating due to overload or an electrical trouble. Perform the following in the order while checking whether the error is cleared. 1. Check whether the gears of the Main Drive Unit can be rotated by hand. a. If they cannot be rotated, replace the Main Drive Unit. b. If they can be rotated, check the harness between the Developing Motor and the DC Controller PCB. 2. Measure the both ends of the fuse in the DC Controller PCB using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the Developing Motor. 2. Replace the DC Controller PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the DC Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E021	0002	05	Title	Developing Motor error
			Detection description	The specified speed could not be detected for 500 consecutive msec although it became the specified speed at least once from the startup of the Developing Motor.

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Harness between the Developing Motor (M03) and the DC Controller PCB (UN04/J142) (Unit of replacement: MAIN DRIVE ASSEMBLY) - Fuse in the DC Controller PCB (UN04/FU4) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Developing Motor (M03) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] It is highly possible that the Developing Motor is not rotating due to overload or an electrical trouble. Perform the following in the order while checking whether the error is cleared. 1. Check whether the gears of the Main Drive Unit can be rotated by hand. a. If they cannot be rotated, replace the Main Drive Unit. b. If they can be rotated, check the harness between the Developing Motor and the DC Controller PCB. 2. Measure the both ends of the fuse in the DC Controller PCB using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the Developing Motor. 2. Replace the DC Controller PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the DC Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E021	0003	05	Title	Developing Motor error
			Detection description	There was no FG signal input for 300 msec from the startup of the Developing Motor.

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Harness between the Developing Motor (M03) and the DC Controller PCB (UN04/J142) (Unit of replacement: MAIN DRIVE ASSEMBLY) - Fuse in the DC Controller PCB (UN04/FU4) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Developing Motor (M03) (Unit of replacement: MOTOR, DC) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] It is highly possible that the Developing Motor is not rotating due to overload or an electrical trouble. Perform the following in the order while checking whether the error is cleared. 1. Check whether the gears of the Main Drive Unit can be rotated by hand. a. If they cannot be rotated, replace the Main Drive Unit. b. If they can be rotated, check the harness between the Developing Motor and the DC Controller PCB. 2. Measure the both ends of the fuse in the DC Controller PCB using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the Developing Motor. 2. Replace the DC Controller PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the DC Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E021	0120	05	Title	Developing Screw rotation detection error (Y)
			Detection description	The difference between the maximum and the minimum of sampling values detected by the ATR Sensor (Y) in the Drum Unit (Y) was 0.5 V or less.
			Remedy	[Related parts] - Drum Unit (Y) (Unit of replacement: DEVE_UNIT_Y) - Harness between the Drum Unit Relay PCB (Y) (UN08/J6001) and the DC Controller PCB (UN04/J160) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit Relay PCB (Y) (UN08) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit Memory PCB (Y) (UN12) (Unit of replacement: DEVE_UNIT_Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (Y) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E021	0220	05	Title	Developing Screw rotation detection error (M)
			Detection description	The difference between the maximum and the minimum of sampling values detected by the ATR Sensor (M) in the Drum Unit (M) was 0.5 V or less.
			Remedy	[Related parts] - Drum Unit (M) (Unit of replacement: DEVE_UNIT_M) - Harness between the Drum Unit Relay PCB (M) (UN09/J6002) and the DC Controller PCB (UN04/J160) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit Relay PCB (M) (UN09) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit Memory PCB (M) (UN13) (Unit of replacement: DEVE_UNIT_M) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (M) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E021	0320	05	Title	Developing Screw rotation detection error (C)
			Detection description	The difference between the maximum and the minimum of sampling values detected by the ATR Sensor (C) in the Drum Unit (C) was 0.5 V or less.
			Remedy	[Related parts] - Drum Unit (C) (Unit of replacement: DEVE_UNIT_C) - Harness between the Drum Unit Relay PCB (C) (UN10/J6003) and the DC Controller PCB (UN04/J162) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit Relay PCB (C) (UN10) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit Memory PCB (C) (UN14) (Unit of replacement: DEVE_UNIT_C) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (C) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E021	0420	05	Title	Developing Screw rotation detection error (Bk)
			Detection description	The difference between the maximum and the minimum of sampling values detected by the ATR Sensor (Bk) in the Drum Unit (Bk) was 0.5 V or less.
			Remedy	[Related parts] - Drum Unit (Bk) (Unit of replacement: P-UNIT_BK) - Harness between the Drum Unit Relay PCB (Bk) (UN11/J6004) and the DC Controller PCB (UN04/J162) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit Relay PCB (Bk) (UN11) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Drum Unit Memory PCB (Bk) (UN15) (Unit of replacement: P-UNIT_BK) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - If the Drum Unit Memory PCB (Bk) is soiled, clean it with a blower. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E025	0110	05	Title	Bottle Motor (YM) error (Y)
			Detection description	The Bottle Rotation Sensor (Y) did not detect rotation for 5 times in a row although 0.8 sec (2 sec in the case of right before replacement of the Toner Container) has passed after the Bottle Motor (YM) was turned ON.
			Remedy	[Related parts] - Toner Container (Y) - Harness between the DC Controller PCB (UN04/J155) and the Bottle Motor (YM) (M09/J6301) (Unit of replacement: CABLE, MAIN) - Harnesses from the DC Controller PCB to the Bottle Rotation Sensor (Y) 1. DC Controller PCB (UN04/J151) to Relay Connector (3P) (Unit of replacement: CABLE, MAIN) 2. Relay Connector (3P) to Bottle Rotation Sensor (Y) (PS06/J5301) (Unit of replacement: CABLE, BOTTLE SENSOR, Y/C) - Bottle Rotation Sensor (Y) (PS06) (Unit of replacement: PHOTO INTERRUPTER) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Bottle Drive Unit (YM) (Unit of replacement: BOTTLE DRIVE ASSEMBLY) - Hopper Unit (Y) (Unit of replacement: HOPPER ASSEMBLY) [Points to note at work] - Be sure to turn over the Door Lock Lever when removing the Bottle Drive Unit (YM) and rotating the drive section by hand. - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E025	0168	05	Title	No toner detection error (Y)
			Detection description	The state without toner was detected although the recovery sequence was performed for 5 times after replacement of the Toner Container (Y).
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Hopper Unit (Y) (Unit of replacement: HOPPER ASSEMBLY) - Toner Bottle Mount Unit (Y) (Unit of replacement: BOTTLE MOUNT ASSEMBLY) - Drum Unit (Y) (Unit of replacement: DEVE_UNIT_Y) - Toner Container (Y) [Remedy] Check/replace the related parts. [Reference] If a user inserts an empty Toner Container (Y) repeatedly, the error may occur.

Error code	Detail Code	Location	Item	Description
E025	0210	05	Title	Bottle Motor (YM) error (M)
			Detection description	The Bottle Rotation Sensor (M) did not detect rotation for 5 times in a row although 1.5 sec (2 sec in the case of right before replacement of the Toner Container) has passed after the Bottle Motor (YM) was turned ON.
			Remedy	[Related parts] - Toner Container (M) - Harness between the DC Controller PCB (UN04/J155) and the Bottle Motor (YM) (M09/J6301) (Unit of replacement: CABLE, MAIN) - Harnesses from the DC Controller PCB to the Bottle Rotation Sensor (M) 1. DC Controller PCB (UN04/J151) to Relay Connector (3P) (Unit of replacement: CABLE, MAIN) 2. Relay Connector (3P) to Bottle Rotation Sensor (M) (PS07/J5302) (Unit of replacement: CABLE, BOTTLE SENSOR, M/K) - Bottle Rotation Sensor (M) (PS07) (Unit of replacement: PHOTO INTERRUPTER) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Bottle Drive Unit (YM) (Unit of replacement: BOTTLE DRIVE ASSEMBLY) - Hopper Unit (M) (Unit of replacement: HOPPER ASSEMBLY) [Points to note at work] - Be sure to turn over the Door Lock Lever when removing the Bottle Drive Unit (YM) and rotating the drive section by hand. - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E025	0268	05	Title	No toner detection error (M)
			Detection description	The state without toner was detected although the recovery sequence was performed for 5 times after replacement of the Toner Container (M).
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Hopper Unit (M) (Unit of replacement: HOPPER ASSEMBLY) - Toner Bottle Mount Unit (M) (Unit of replacement: BOTTLE MOUNT ASSEMBLY) - Drum Unit (M) (Unit of replacement: DEVE_UNIT_M) - Toner Container (M) [Remedy] Check/replace the related parts. [Reference] If a user inserts an empty Toner Container (M) repeatedly, the error may occur.

Error code	Detail Code	Location	Item	Description
E025	0310	05	Title	Bottle Motor (CK) error (C)
			Detection description	The Bottle Rotation Sensor (C) did not detect rotation for 5 times in a row although 1.5 sec (2 sec in the case of right before replacement of the Toner Container) has passed after the Bottle Motor (CK) was turned ON.
			Remedy	[Related parts] - Toner Container (C) - Harness between the DC Controller PCB (UN04/J155) and the Bottle Motor (CK) (M10/J6302) (Unit of replacement: CABLE, MAIN) - Harnesses from the DC Controller PCB to the Bottle Rotation Sensor (C) 1. DC Controller PCB (UN04/J151) to Relay Connector (3P) (Unit of replacement: CABLE, MAIN) 2. Relay Connector (3P) to Bottle Rotation Sensor (C) (PS08/J5303) (Unit of replacement: CABLE, BOTTLE SENSOR, Y/C) - Bottle Rotation Sensor (C) (PS08) (Unit of replacement: PHOTO INTERRUPTER) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Bottle Drive Unit (CK) (Unit of replacement: BOTTLE DRIVE ASSEMBLY) - Hopper Unit (C) (Unit of replacement: HOPPER ASSEMBLY) [Points to note at work] - Be sure to turn over the Door Lock Lever when removing the Bottle Drive Unit (CK) and rotating the drive section by hand. - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E025	0368	05	Title	No toner detection error (C)
			Detection description	The state without toner was detected although the recovery sequence was performed for 5 times after replacement of the Toner Container (C).
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Hopper Unit (C) (Unit of replacement: HOPPER ASSEMBLY) - Toner Bottle Mount Unit (C) (Unit of replacement: BOTTLE MOUNT ASSEMBLY) - Drum Unit (C) (Unit of replacement: DEVE_UNIT_C) - Toner Container (C) [Remedy] Check/replace the related parts. [Reference] If a user inserts an empty Toner Container (C) repeatedly, the error may occur.

Error code	Detail Code	Location	Item	Description
E025	0410	05	Title	Bottle Motor (CK) error (Bk)
			Detection description	The Bottle Rotation Sensor (Bk) did not detect rotation for 5 times in a row although 1.5 sec (2 sec in the case of right before replacement of the Toner Container) has passed after the Bottle Motor (CK) was turned ON.
			Remedy	[Related parts] - Toner Container (Bk) - Harness between the DC Controller PCB (UN04/J155) and the Bottle Motor (CK) (M10/J6302) (Unit of replacement: CABLE, MAIN) - Harnesses from the DC Controller PCB to the Bottle Rotation Sensor (Bk) 1. DC Controller PCB (UN04/J151) to Relay Connector (3P) (Unit of replacement: CABLE, MAIN) 2. Relay Connector (3P) to Bottle Rotation Sensor (Bk) (PS09/J5304) (Unit of replacement: CABLE, BOTTLE SENSOR, M/K) - Bottle Rotation Sensor (Bk) (PS09) (Unit of replacement: PHOTO INTERRUPTER) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Bottle Drive Unit (CK) (Unit of replacement: BOTTLE DRIVE ASSEMBLY) - Hopper Unit (Bk) (Unit of replacement: HOPPER ASSEMBLY) [Points to note at work] - Be sure to turn over the Door Lock Lever when removing the Bottle Drive Unit (CK) and rotating the drive section by hand. - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E025	0468	05	Title	No toner detection error (Bk)
			Detection description	The state without toner was detected although the recovery sequence was performed for 5 times after replacement of the Toner Container (Bk).
			Remedy	[Related parts] - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - Hopper Unit (Bk) (Unit of replacement: HOPPER ASSEMBLY) - Toner Bottle Mount Unit (Bk) (Unit of replacement: BOTTLE MOUNT ASSEMBLY) - Drum Unit (Bk) (Unit of replacement: P-UNIT_BK) - Toner Container (Bk) [Remedy] Check/replace the related parts. [Reference] If a user inserts an empty Toner Container (Bk) repeatedly, the error may occur.

Error code	Detail Code	Location	Item	Description
E029	5008	05	Title	Registration Patch Sensor (Front) light intensity error
			Detection description	The background regular reflection output of the Registration Patch Sensor at the front side did not fall within the specified range for 2 consecutive times at initialization.
			Remedy	[Related parts] - Registration Patch Sensor Unit (Front) (UN31) (Unit of replacement: REGISTRATION SENSOR ASSEMBLY) - Registration Patch Sensor Unit (Front) Shutter (Unit of replacement: SHUTTER, REGISTRATION SENSOR) - Registration Shutter Solenoid (SL03) (Unit of replacement: SOLENOID) - Harness between the Registration Patch Sensor Unit (Front) and the DC Controller PCB 1. Registration Patch Sensor Unit (Front) (UN31/J5603) to Relay Connector (16P) (Unit of replacement: CABLE, REG. DETECT) 2. Relay Connector (16P) to Relay Connector (16P) (Unit of replacement: CABLE CONNECTING ASSEMBLY) 3. Relay Connector (16P) to DC Controller PCB (UN04/J170) (Unit of replacement: 2ST TRANS. H.V. CONTACT ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. Check the background regular reflection output value (front) in COPIER (level 2)> DISPLAY> DENS> P-B-P-C. a. If the value is less than 10, 1. Check if the sensor window of the Registration Patch Sensor Unit (Front) is soiled. If it is soiled, clean it with a blower. 2. Check that the Registration Patch Sensor Unit (Front) Shutter is properly installed and it is not damaged or deformed. If it is deformed or damaged, replace the Registration Patch Sensor Unit (Front). 3. Check the operation of the Registration Shutter Solenoid. 3-1. If the Registration Shutter Solenoid moves, 3-1-1. Replace the Registration Patch Sensor Unit (Front). 3-1-2. Replace the DC Controller PCB. 3-2. If the solenoid does not move, replace the Registration Shutter Solenoid. b. If the value is above 250, 1. Check the harness between the Registration Patch Sensor Unit (Front) and the DC Controller PCB. 2. Replace the harness between the Registration Patch Sensor Unit (Front) and the DC Controller PCB. 3. Replace the Registration Patch Sensor Unit (Front). 4. Replace the DC Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E029	7008	05	Title	Registration Patch Sensor (Rear) light intensity error
			Detection description	The background regular reflection output of the Registration Patch Sensor at the rear side did not fall within the specified range for 2 consecutive times at initialization.
			Remedy	[Related parts] - Registration Patch Sensor Unit (Rear) (UN32) (Unit of replacement: REGISTRATION SENSOR ASSEMBLY) - Registration Patch Sensor Unit (Rear) Shutter (Unit of replacement: SHUTTER, REGISTRATION SENSOR) - Registration Shutter Solenoid (SL03) (Unit of replacement: SOLENOID) - Harness between the Registration Patch Sensor Unit (Rear) and the DC Controller PCB 1. Registration Patch Sensor Unit (Rear) (UN32/J5604) to Relay Connector (16P) (Unit of replacement: CABLE, REG. DETECT) 2. Relay Connector (16P) to Relay Connector (16P) (Unit of replacement: CABLE CONNECTING ASSEMBLY) 3. Relay Connector (16P) to DC Controller PCB (UN04/J170) (Unit of replacement: 2ST TRANS. H.V. CONTACT ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. Check the background regular reflection output value (rear) in COPIER (level 2)> DISPLAY> DENS> P-B-P-Y. a. If the value is less than 10, 1. Check if the sensor window of the Registration Patch Sensor Unit (Rear) is soiled. If it is soiled, clean it with a blower. 2. Check that the Registration Patch Sensor Unit (Rear) Shutter is properly installed and it is not damaged or deformed. If it is deformed or damaged, replace the Registration Patch Sensor Unit (Rear). 3. Check the operation of the Registration Shutter Solenoid. 3-1. If the Registration Shutter Solenoid moves, 3-1-1. Replace the Registration Patch Sensor Unit (Rear). 3-1-2. Replace the DC Controller PCB. 3-2. If the solenoid does not move, replace the Registration Shutter Solenoid. b. If the value is above 250, 1. Check the harness between the Registration Patch Sensor Unit (Rear) and the DC Controller PCB. 2. Replace the harness between the Registration Patch Sensor Unit (Rear) and the DC Controller PCB. 3. Replace the Registration Patch Sensor Unit (Rear). 4. Replace the DC Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E073	0001	05	Title	Interlock error
			Detection description	No detection of Interlock (24 V) although all the Doors (Front Cover and Right Cover) of the host machine were closed.
			Remedy	[Related parts] - Front Cover/Right Cover - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/pin 1 and 2) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Low-voltage Power Supply PCB (UN01/J315) and the DC Controller PCB (UN04/J20) (Unit of replacement: CABLE, POWER SUPPLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check that the Front Cover/Right Cover is closed. 2. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 3. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 4. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 5. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 6. Replace the DC Controller PCB. 7. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E074	0000	05	Title	Primary Transfer Roller disengagement control error
			Detection description	Signal was not detected although the ITB Pressure Release Switch was turned ON/OFF for 6 times.
			Remedy	[Related parts] - ITB Unit (Unit of replacement: INTER. TRANSFER BELT ASS'Y) - Harnesses from the DC Controller PCB to the ITB Pressure Release Switch 1. DC Controller PCB (UN04/J162) to Relay Connector (2P) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) 2. Relay Connector (2P) to ITB Pressure Release Switch (SW07/J6005) - Harness between the DC Controller PCB (UN04/J140) and the Primary Transfer Separation Solenoid (SL01/J5708) (Unit of replacement: MAIN DRIVE ASSEMBLY) - Fuse in the DC Controller PCB (UN04/FU07) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - ITB Guide Rail (Unit of replacement: RAIL, I.T.B., FRONT/ RAIL, I.T.B., REAR) - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check that the ITB Unit is installed in the machine. 2. Replace the ITB Unit. 3. Check the harness between the DC Controller PCB and the ITB Pressure Release Switch. 4. Check the harness between the DC Controller PCB and the Primary Transfer Separation Solenoid. 5. Measure the both ends of the fuse in the DC Controller PCB using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the ITB Guide Rail (Front/Rear). 2. Replace the Main Drive Unit. 3. Replace the DC Controller PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the DC Controller PCB. [Caution] After replacing the DC Controller PCB, measure the resistance value between the Low-voltage Power Supply PCB (UN01/J315/4-pin) and the DC Controller PCB (UN04/J20/1-pin) using a tester before turning ON the main power to prevent blowout of a fuse again. If the measurement value is 1 ohm or higher (non conduction state), perform the following in the order while checking whether the error is cleared. 1. Replace the harness between the DC Controller PCB and the ITB Pressure Release Switch. 2. Replace the harness between the DC Controller PCB and the Primary Transfer Separation Solenoid. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E074	0002	05	Title	Error in Primary Transfer Roller operation
			Detection description	The ITB Pressure Release Switch could not detect the engagement operation within the specified period of time at engagement operation of the Primary Transfer Roller.
			Remedy	[Related parts] - ITB Unit (Unit of replacement: INTER. TRANSFER BELT ASS'Y) - Harnesses from the DC Controller PCB to the ITB Pressure Release Switch 1. DC Controller PCB (UN04/J162) to Relay Connector (2P) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) 2. Relay Connector (2P) to ITB Pressure (Unit of replacement: 1ST TRANS. H.V. CONTACT ASS'Y) Release Switch (SW07/J6005) - Harness between the DC Controller PCB (UN04/J140) and the Primary Transfer Separation Solenoid (SL01/J5708) (Unit of replacement: MAIN DRIVE ASSEMBLY) - Fuse in the DC Controller PCB (UN04/FU07) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - ITB Guide Rail (Unit of replacement: RAIL, I.T.B., FRONT/ RAIL, I.T.B., REAR) - Main Drive Unit (Unit of replacement: MAIN DRIVE ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/ cable..

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check that the ITB Unit is installed in the machine. 2. Replace the ITB Unit. 3. Check the harness between the DC Controller PCB and the ITB Pressure Release Switch. 4. Check the harness between the DC Controller PCB and the Primary Transfer Separation Solenoid. 5. Measure the both ends of the fuse in the DC Controller PCB using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the ITB Guide Rail (Front/Rear). 2. Replace the Main Drive Unit. 3. Replace the DC Controller PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the DC Controller PCB. [Caution] After replacing the DC Controller PCB, measure the resistance value between the Low-voltage Power Supply PCB (UN01/J315/4-pin) and the DC Controller PCB (UN04/J20/1-pin) using a tester before turning ON the main power to prevent blowout of a fuse again. If the measurement value is 1 ohm or higher (non conduction state), perform the following in the order while checking whether the error is cleared. 1. Replace the harness between the DC Controller PCB and the ITB Pressure Release Switch. 2. Replace the harness between the DC Controller PCB and the Primary Transfer Separation Solenoid. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E100	0001	05	Title	BD error
			Detection description	The BD lock was unlocked although it had been locked once.
			Remedy	[Related parts] - Front Cover/Right Cover - Interlock Switch 1 and 2 (SW02 and SW03/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Flexible Cable between the Main Controller PCB (UN81/J7002) and the Y/M/C/Bk Laser Driver PCB (UN05/J201) (Unit of replacement: CABLE, FLAT) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) - Low Voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E102	0001	05	Title	EEPROM error
			Detection description	An error has occurred in EEPROM of the Laser Scanner.
			Remedy	[Related parts] - Laser Scanner Unit (Unit of replacement: LASER SCANNER ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Interlock Switch 1 and 2 (SW02 and SW03/J24/pin 1 and 2) (Unit of replacement: COVER, INNER, FRONT, RIGHT) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Caution] After replacing the related parts, execute “Settings/Registration> Adjustment/Maintenance> Adjust Image Quality> Auto Correct Color Mismatch”.

Error code	Detail Code	Location	Item	Description
E110	0001	05	Title	Scanner Motor error
			Detection description	The speed was not locked by FG control within 5.5 sec after startup of Scanner Motor.
			Remedy	[Related parts] - Front Cover/Right Cover - Interlock Switch 1 and 2 (SW02 and SW03/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Flexible Cable between the Main Controller PCB (UN81/J7002) and the Y/M/C/Bk Laser Driver PCB (UN05/J201) (Unit of replacement: CABLE, FLAT) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) - Low Voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E110	0002	05	Title	Scanner Motor error
			Detection description	The speed was not locked by BD control within 5.5 sec after startup of Scanner Motor.
			Remedy	[Related parts] - Front Cover/Right Cover - Interlock Switch 1 and 2 (SW02 and SW03/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Flexible Cable between the Main Controller PCB (UN81/J7002) and the Y/M/C/Bk Laser Driver PCB (UN05/J201) (Unit of replacement: CABLE, FLAT) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) - Low Voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E110	0003	05	Title	Scanner Motor error
			Detection description	The phase was not locked by BD control within 5.5 sec after startup of Scanner Motor.
			Remedy	[Related parts] - Front Cover/Right Cover - Interlock Switch 1 and 2 (SW02 and SW03/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Flexible Cable between the Main Controller PCB (UN81/J7002) and the Y/M/C/Bk Laser Driver PCB (UN05/J201) (Unit of replacement: CABLE, FLAT) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) - Low Voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E193	0001	05	Title	Image ASIC communication error
			Detection description	Communication between the DC Controller PCB (CPU) and IMG1L (ASIC) in the Main Controller PCB was not available.
			Remedy	[Related parts] - Front Cover/Right Cover - Interlock Switch 1 and 2 (SW02 and SW03/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Flexible Cable between the DC Controller PCB (UN04/J112) and the Main Controller PCB (UN81/J7001) (Unit of replacement: CABLE, FLAT) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0000	05	Title	EEPROM communication error
			Detection description	The NACK (a negative reply sent by the reception side to the sending side) was received for 3 times in communication from the DC Controller PCB (CPU) to the DCON EEPROM on the DC Controller PCB.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0001	05	Title	EEPROM communication error
			Detection description	Although access to the DCON EEPROM from the DC Controller PCB (CPU) was performed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0002	05	Title	EEPROM communication error
			Detection description	Although write polling to the DCON EEPROM from the DC Controller PCB (CPU) was performed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0003	05	Title	EEPROM communication error
			Detection description	EEPROM data in DCON could not be read at startup.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES
E196	000F	05	Title	EEPROM communication error
			Detection description	The number of read/write job data to the DCON EEPROM (device information) exceeded 100.
			Remedy	[Remedy] Turn OFF and then ON the main power. [Reference] Data (device information) is reset by turning OFF and then ON the main power.

Error code	Detail Code	Location	Item	Description
E196	0100	05	Title	EEPROM communication error
			Detection description	The NACK (a negative reply sent by the reception side to the sending side) was received for 3 times in communication from the DC Controller PCB (CPU) to the SCNR EEPROM.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0101	05	Title	EEPROM communication error
			Detection description	Although access to the SCNR EEPROM from the DC Controller PCB (CPU) was executed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0102	05	Title	EEPROM communication error
			Detection description	Although write polling to the SCNR EEPROM from the DC Controller PCB (CPU) was performed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	010F	05	Title	EEPROM communication error
			Detection description	The number of read/write job data to the SCNR EEPROM (device information) exceeded 100.
			Remedy	[Remedy] Turn OFF and then ON the main power. [Reference] Data (device information) is reset by turning OFF and then ON the main power.

Error code	Detail Code	Location	Item	Description
E196	0200	05	Title	EEPROM communication error
			Detection description	The NACK (a negative reply sent by the reception side to the sending side) was received for 3 times in communication from the DC Controller PCB (CPU) to the PCRG_Y EEPROM.
			Remedy	[Related parts] - Drum Unit (Y) (Unit of replacement: DEVE_UNIT_Y) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (Y) (UN12) (Unit of replacement: DEVE_UNIT_Y) - Drum Unit Relay PCB (Y) (UN08) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (Y) (UN08/J6001) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (Y), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (Y) and the Drum Unit Relay PCB (Y) are damaged or deformed, and replace the Drum Unit (Y) if necessary. 7. Check if the Drum Unit Memory PCB (Y) and the Drum Unit Relay PCB (Y) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0201	05	Title	EEPROM communication error
			Detection description	Although access to the PCRG_Y EEPROM from the DC Controller PCB (CPU) was executed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Drum Unit (Y) (Unit of replacement: DEVE_UNIT_Y) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (Y) (UN12) (Unit of replacement: DEVE_UNIT_Y) - Drum Unit Relay PCB (Y) (UN08) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (Y) (UN08/J6001) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (Y), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (Y) and the Drum Unit Relay PCB (Y) are damaged or deformed, and replace the Drum Unit (Y) if necessary. 7. Check if the Drum Unit Memory PCB (Y) and the Drum Unit Relay PCB (Y) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0202	05	Title	EEPROM communication error
			Detection description	Although write polling to the PCRG_Y EEPROM from the DC Controller PCB (CPU) was performed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Drum Unit (Y) (Unit of replacement: DEVE_UNIT_Y) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (Y) (UN12) (Unit of replacement: DEVE_UNIT_Y) - Drum Unit Relay PCB (Y) (UN08) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (Y) (UN08/J6001) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (Y), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (Y) and the Drum Unit Relay PCB (Y) are damaged or deformed, and replace the Drum Unit (Y) if necessary. 7. Check if the Drum Unit Memory PCB (Y) and the Drum Unit Relay PCB (Y) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	020F	05	Title	EEPROM communication error
			Detection description	The number of read/write job data to the PCRG_Y EEPROM (device information) exceeded 100.
			Remedy	[Remedy] Turn OFF and then ON the main power. [Reference] Data (device information) is reset by turning OFF and then ON the main power.
E196	0300	05	Title	EEPROM communication error
			Detection description	The NACK (a negative reply sent by the reception side to the sending side) was received for 3 times in communication from the DC Controller PCB (CPU) to the PCRG_M EEPROM.
			Remedy	[Related parts] - Drum Unit (M) (Unit of replacement: DEVE_UNIT_M) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (M) (UN13) (Unit of replacement: DEVE_UNIT_M) - Drum Unit Relay PCB (M) (UN09) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (M) (UN09/J6002) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (M), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (M) and the Drum Unit Relay PCB (M) are damaged or deformed, and replace the Drum Unit (M) if necessary. 7. Check if the Drum Unit Memory PCB (M) and the Drum Unit Relay PCB (M) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0301	05	Title	EEPROM communication error
			Detection description	Although access to the PCRG_M EEPROM from the DC Controller PCB (CPU) was executed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Drum Unit (M) (Unit of replacement: DEVE_UNIT_M) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (M) (UN13) (Unit of replacement: DEVE_UNIT_M) - Drum Unit Relay PCB (M) (UN09) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (M) (UN09/J6002) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (M), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (M) and the Drum Unit Relay PCB (M) are damaged or deformed, and replace the Drum Unit (M) if necessary. 7. Check if the Drum Unit Memory PCB (M) and the Drum Unit Relay PCB (M) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0302	05	Title	EEPROM communication error
			Detection description	Although write polling to the PCRG_M EEPROM from the DC Controller PCB (CPU) was performed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Drum Unit (M) (Unit of replacement: DEVE_UNIT_M) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (M) (UN13) (Unit of replacement: DEVE_UNIT_M) - Drum Unit Relay PCB (M) (UN09) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (M) (UN09/J6002) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (M), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (M) and the Drum Unit Relay PCB (M) are damaged or deformed, and replace the Drum Unit (M) if necessary. 7. Check if the Drum Unit Memory PCB (M) and the Drum Unit Relay PCB (M) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	030F	05	Title	EEPROM communication error
			Detection description	The number of read/write job data to the PCRG_M EEPROM (device information) exceeded 100.
			Remedy	[Remedy] Turn OFF and then ON the main power. [Reference] Data (device information) is reset by turning OFF and then ON the main power.
E196	0400	05	Title	EEPROM communication error
			Detection description	The NACK (a negative reply sent by the reception side to the sending side) was received for 3 times in communication from the DC Controller PCB (CPU) to the PCRG_C EEPROM.
			Remedy	[Related parts] - Drum Unit (C) (Unit of replacement: DEVE_UNIT_C) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (C) (UN14) (Unit of replacement: DEVE_UNIT_C) - Drum Unit Relay PCB (C) (UN10) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (C) (UN10/J6003) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (C), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (C) and the Drum Unit Relay PCB (C) are damaged or deformed, and replace the Drum Unit (C) if necessary. 7. Check if the Drum Unit Memory PCB (C) and the Drum Unit Relay PCB (C) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0401	05	Title	EEPROM communication error
			Detection description	Although access to the PCRG_C EEPROM from the DC Controller PCB (CPU) was executed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Drum Unit (C) (Unit of replacement: DEVE_UNIT_C) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (C) (UN14) (Unit of replacement: DEVE_UNIT_C) - Drum Unit Relay PCB (C) (UN10) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (C) (UN10/J6003) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (C), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (C) and the Drum Unit Relay PCB (C) are damaged or deformed, and replace the Drum Unit (C) if necessary. 7. Check if the Drum Unit Memory PCB (C) and the Drum Unit Relay PCB (C) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0402	05	Title	EEPROM communication error
			Detection description	Although write polling to the PCRG_C EEPROM from the DC Controller PCB (CPU) was performed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Drum Unit (C) (Unit of replacement: DEVE_UNIT_C) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (C) (UN14) (Unit of replacement: DEVE_UNIT_C) - Drum Unit Relay PCB (C) (UN10) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J160) and the Drum Unit Relay PCB (C) (UN10/J6003) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (C), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (C) and the Drum Unit Relay PCB (C) are damaged or deformed, and replace the Drum Unit (C) if necessary. 7. Check if the Drum Unit Memory PCB (C) and the Drum Unit Relay PCB (C) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	040F	05	Title	EEPROM communication error
			Detection description	The number of read/write job data to the PCRG_C EEPROM (device information) exceeded 100.
			Remedy	[Remedy] Turn OFF and then ON the main power. [Reference] Data (device information) is reset by turning OFF and then ON the main power.
E196	0500	05	Title	EEPROM communication error
			Detection description	The NACK (a negative reply sent by the reception side to the sending side) was received for 3 times in communication from the DC Controller PCB (CPU) to the PCRG_Bk EEPROM.
			Remedy	[Related parts] - Drum Unit (Bk) (Unit of replacement: P-UNIT_BK) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (Bk) (UN15) (Unit of replacement: P-UNIT_BK) - Drum Unit Relay PCB (Bk) (UN11) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J162) and the Drum Unit Relay PCB (Bk) (UN11/J6004) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (Bk), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (Bk) and the Drum Unit Relay PCB (Bk) are damaged or deformed, and replace the Drum Unit (Bk) if necessary. 7. Check if the Drum Unit Memory PCB (Bk) and the Drum Unit Relay PCB (Bk) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0501	05	Title	EEPROM communication error
			Detection description	Although access to the PCRG_Bk EEPROM from the DC Controller PCB (CPU) was executed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Drum Unit (Bk) (Unit of replacement: P-UNIT_BK) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (Bk) (UN15) (Unit of replacement: P-UNIT_BK) - Drum Unit Relay PCB (Bk) (UN11) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J162) and the Drum Unit Relay PCB (Bk) (UN11/J6004) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (Bk), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (Bk) and the Drum Unit Relay PCB (Bk) are damaged or deformed, and replace the Drum Unit (Bk) if necessary. 7. Check if the Drum Unit Memory PCB (Bk) and the Drum Unit Relay PCB (Bk) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0502	05	Title	EEPROM communication error
			Detection description	Although write polling to the PCRG_Bk EEPROM from the DC Controller PCB (CPU) was performed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Drum Unit (Bk) (Unit of replacement: P-UNIT_BK) - Front Cover/Right Cover - Interlock Switch 1 and 2 (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Harness between the Interlock Switch 1 and 2 (SW02 and SW03) and the DC Controller PCB (UN04/J24/1-pin and 2-pin) (Unit of replacement: COVER, INNER, FRONT, RIGHT) - Drum Unit Memory PCB (Bk) (UN15) (Unit of replacement: P-UNIT_BK) - Drum Unit Relay PCB (Bk) (UN11) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - Harness between the DC Controller PCB (UN04/J162) and the Drum Unit Relay PCB (Bk) (UN11/J6004) (Unit of replacement: PROCESS CONTROL PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Harness between the Low-voltage Power Supply PCB (UN01/J315 and J322) and the DC Controller PCB (UN04/J20 and J22) (Unit of replacement: CABLE, PANEL POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Remove and then install the Drum Unit (Bk), and check whether the error is cleared. [Reference] EEPROMs on the Drum Units of all colors are connected each other with signal cables. Therefore, even if the error is not cleared with step 1, it may be cleared by removing and then installing the Drum Units of all colors. 2. Check that the Front Cover/Right Cover is closed. 3. Visually check that the Interlock Switch 1 and 2 are turned ON/OFF by opening/closing the Front Cover/Right Cover. 4. Turn OFF and then ON the main power, and check whether the error is cleared. 5. Check that the harness between the Interlock Switch 1 and 2 and the DC Controller PCB is not short-circuited (the harness does not come in contact with the plate while the cable sheath is peeled). 6. Check if the Drum Unit Memory PCB (Bk) and the Drum Unit Relay PCB (Bk) are damaged or deformed, and replace the Drum Unit (Bk) if necessary. 7. Check if the Drum Unit Memory PCB (Bk) and the Drum Unit Relay PCB (Bk) are soiled. If it is soiled, clean it with a blower. 8. Disconnect the connector (J24) of the DC Controller while the Front Cover and the Right Cover are closed, and measure the resistance value between the connectors J24/1-pin and the J24/2-pin on the J24 harness side using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the DC Controller PCB. 2. Replace the Low-voltage Power Supply PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the harness between the Interlock Switch 1 and 2 and the DC Controller PCB. 9. Check the harness between the Low-voltage Power Supply PCB and the DC Controller PCB. 10. Replace the DC Controller PCB. 11. Replace the Low-voltage Power Supply PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	050F	05	Title	EEPROM communication error
			Detection description	The number of read/write job data to the PCRG_Bk EEPROM (device information) exceeded 100.
			Remedy	[Remedy] Turn OFF and then ON the main power. [Reference] Data (device information) is reset by turning OFF and then ON the main power.
E196	0600	05	Title	EEPROM communication error
			Detection description	The NACK (a negative reply sent by the reception side to the sending side) was received for 3 times in communication from the DC Controller PCB (CPU) to the RTC.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0601	05	Title	EEPROM communication error
			Detection description	Although access to the RTC from the DC Controller PCB (CPU) was executed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0602	05	Title	EEPROM communication error
			Detection description	Although write polling to the RTC from the DC Controller PCB (CPU) was performed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES
E196	060F	05	Title	EEPROM communication error
			Detection description	The number of read/write job data to the RTC (device information) exceeded 100.
			Remedy	[Remedy] Turn OFF and then ON the main power. [Reference] Data (device information) is reset by turning OFF and then ON the main power.

Error code	Detail Code	Location	Item	Description
E196	0800	05	Title	EEPROM communication error
			Detection description	The NACK (a negative reply sent by the reception side to the sending side) was received for 3 times in communication from the DC Controller PCB (CPU) to the HVT EEPROM.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0801	05	Title	EEPROM communication error
			Detection description	Although access to the HVT EEPROM from the DC Controller PCB (CPU) was executed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E196	0802	05	Title	EEPROM communication error
			Detection description	Although write polling to the HVT EEPROM from the DC Controller PCB (CPU) was performed for 3 times, no response was received and timeout occurred.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J110) and the Y/M/C/Bk Laser Driver PCB (UN05/J202) (Unit of replacement: CABLE, LASER SCANNER) - Harness between the DC Controller PCB (UN04/J184) and the Developing High-voltage PCB (UN06/J241) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - Y/M/C/Bk Laser Driver PCB (UN05) (Unit of replacement: LASER SCANNER ASSEMBLY) - Developing High-voltage PCB (UN06) (Unit of replacement: 2ND TRNSFR. H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES
E196	080F	05	Title	EEPROM communication error
			Detection description	The number of read/write job data to the HVT EEPROM (device information) exceeded 100.
			Remedy	[Remedy] Turn OFF and then ON the main power. [Reference] Data (device information) is reset by turning OFF and then ON the main power.

Error code	Detail Code	Location	Item	Description
E197	0000	05	Title	Communication error
			Detection description	Although access to KONA1 (ASIC) in the DC Controller PCB from the DC Controller PCB (CPU) was performed, the NACK (a negative reply sent by the reception side to the sending side) was received for 3 times.
			Remedy	[Remedy] Replace the DC Controller PCB (UN04). (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES
E197	0F00	05	Title	Communication error
			Detection description	Although access to KONA1 (ASIC) in the DC Controller PCB from the DC Controller PCB (CPU) was performed, no response was received and timeout occurred.
			Remedy	[Remedy] Replace the DC Controller PCB (UN04). (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES
E197	1000	05	Title	Communication error
			Detection description	Although access to KONA2 (ASIC) in the DC Controller PCB from the DC Controller PCB (CPU) was performed, the NACK (a negative reply sent by the reception side to the sending side) was received for 3 times.
			Remedy	[Remedy] Replace the DC Controller PCB (UN04). (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E197	1F00	05	Title	Communication error
			Detection description	Although access to KONA2 (ASIC) in the DC Controller PCB from the DC Controller PCB (CPU) was performed, no response was received and timeout occurred.
			Remedy	[Remedy] Replace the DC Controller PCB (UN04). (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E197	2000	05	Title	Communication error
			Detection description	Although access to KONA3 (ASIC) in the Cassette Module Controller PCB from the DC Controller PCB (CPU) was performed, the NACK (a negative reply sent by the reception side to the sending side) was received for 3 times.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J190) and the cassette unit drawer (DR03/J5904) on the host machine side (Unit of replacement: OPTION CST. DRAWER ASSEMBLY) - Harness between the cassette unit drawer (DR03/J5904) on the host machine side and drawer (DR101/J5950) on the cassette unit side - Harness between the drawer (DR101/J5950) on the cassette unit side and the Cassette Module Controller PCB (UN101/650) (Unit of replacement: DRAWER CABLE ASSEMBLY) - Fuse in the DC Controller PCB (UN04/FU19) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Cassette Module Controller PCB (UN101) (Unit of replacement: CST. PEDESTAL CONT. PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. 2. Check the harness between the DC Controller PCB and the cassette unit drawer on the host machine side. 3. Visually check if the cassette unit drawer on the host machine side and the drawer on the cassette unit side are damaged or if there is any bent pin. If so, replace the drawer. 4. Check the harness between the drawer on the cassette unit side and the Cassette Module Controller PCB. 5. Measure the both ends of the fuse in the DC Controller PCB using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the Cassette Module Controller PCB. 2. Replace the DC Controller PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the DC Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E197	2101	05	Title	Communication error
			Detection description	Although access to KONA3 (ASIC) in the Cassette Module Controller PCB from the DC Controller PCB (CPU) was performed, no response was received and timeout occurred.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J190) and the cassette unit drawer (DR03/J5904) on the host machine side (Unit of replacement: OPTION CST. DRAWER ASSEMBLY) - Harness between the cassette unit drawer (DR03/J5904) on the host machine side and drawer (DR101/J5950) on the cassette unit side - Harness between the drawer (DR101/J5950) on the cassette unit side and the Cassette Module Controller PCB (UN101/J650) (Unit of replacement: DRAWER CABLE ASSEMBLY) - Fuse in the DC Controller PCB (UN04/FU19) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Cassette Module Controller PCB (UN101/J650) (Unit of replacement: CST. PEDESTAL CONT. PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. 2. Check the harness between the DC Controller PCB and the cassette unit drawer on the host machine side. 3. Visually check if the cassette unit drawer on the host machine side and the drawer on the cassette unit side are damaged or if there is any bent pin. If so, replace the drawer. 4. Check the harness between the drawer on the cassette unit side and the Cassette Module Controller PCB. 5. Measure the both ends of the fuse in the DC Controller PCB using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the Cassette Module Controller PCB. 2. Replace the DC Controller PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the DC Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E197	2F00	05	Title	Communication error
			Detection description	Although access to KONA3 (ASIC) in the Cassette Module Controller PCB from the DC Controller PCB (CPU) was performed, no response was received and timeout occurred.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J190) and the cassette unit drawer (DR03/J5904) on the host machine side (Unit of replacement: OPTION CST. DRAWER ASSEMBLY) - Harness between the cassette unit drawer (DR03/J5904) on the host machine side and drawer (DR101/J5950) on the cassette unit side - Harness between the drawer (DR101/J5950) on the cassette unit side and the Cassette Module Controller PCB (UN101/J650) (Unit of replacement: DRAWER CABLE ASSEMBLY) - Fuse in the DC Controller PCB (UN04/FU19) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Cassette Module Controller PCB (UN101/J650) (Unit of replacement: CST. PEDESTAL CONT. PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. 2. Check the harness between the DC Controller PCB and the cassette unit drawer on the host machine side. 3. Visually check if the cassette unit drawer on the host machine side and the drawer on the cassette unit side are damaged or if there is any bent pin. If so, replace the drawer. 4. Check the harness between the drawer on the cassette unit side and the Cassette Module Controller PCB. 5. Measure the both ends of the fuse in the DC Controller PCB using a tester. a. If the measurement value is less than 1 ohm (conduction state), 1. Replace the Cassette Module Controller PCB. 2. Replace the DC Controller PCB. b. If the measurement value is 1 ohm or higher (non conduction state), replace the DC Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E202	0001	04	Title	Scanner Unit HP error
			Detection description	The HP of the Scanner Unit could not be detected when starting scanning operation.
			Remedy	[Related parts] - Harnesses from the Reader Assembly HP Sensor to the Main Controller PCB 1. Reader Assembly HP Sensor (PS01/J913) to Relay Connector (3P) (Unit of replacement: CABLE, HOME POSITION SENSOR) 2. Relay Connector (3P) to Main Controller PCB (UN81/J8103) (Unit of replacement: CABLE, READER MAIN) - Harness between the Reader Motor (M01/J901) and the Main Controller PCB (UN81/J8103) (Unit of replacement: CABLE, READER MAIN) - Reader Motor (M01) (Unit of replacement: MOTOR, STEPPING) - CIS HP Sensor (PS01) (Unit of replacement: PHOTO INTERRUPTER) - BOOK Motor (Unit of replacement: MOTOR, STEPPING) - Pulley Gear 85T/20T (Unit of replacement: GEAR, 85T/20T) - Carriage Timing Belt (Unit of replacement: BELT, TIMING, COGGED) - Idler Pulley (Unit of replacement: PULLEY, IDLER) - Idler Pulley Holder (Unit of replacement: READER ASSEMBLY) - FB Shaft (Unit of replacement: READER ASSEMBLY) - Electrolytic capacitor on the Main Controller PCB (C8002) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) - 24V power supply for driving the Reader on the Main Controller PCB side (J7003/pin 1) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) - Harness between the Main Controller PCB (UN81/J7003) and the Low-voltage Power Supply PCB (UN01/J313) (Unit of replacement: CABLE, POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the harness between the Reader Assembly HP Sensor and the Main Controller PCB. 2. Check the harness between the Reader Motor and the Main Controller PCB. 3. At initial operation of the Reader startup after the main power is turned ON, check if the Reader Motor operates (whether the Scanner Unit moves or operation sound is heard). If it operates, move the Carriage Timing Belt by hand and check if load is appropriate. a. If it is appropriate, replace the CIS HP Sensor. b. If it is not appropriate (overloaded), replace the following parts. - Stepping Motor - Z85_T20 Pulley Gear - Carriage Timing Belt - Idler Pulley - Idler Pulley Holder 4. Check for soiling or scar on the surface of the FB Shaft on which the Scanner Unit is installed. If there is soiling or scar, replace the FB Shaft. 5. Measure the electrolytic capacitor on the Main Controller PCB using a tester. If the measurement value is 24V, replace the Main Controller PCB. 6. Measure the 24V power supply for driving the Reader on the Main Controller PCB side using a tester. If the measurement value is 24 V, replace the Main Controller PCB. 7. Check the harness between the Main Controller PCB and the Low-voltage Power Supply PCB. 8. Perform step 6 again. If the measurement value is 24 V, replace the Low-voltage Power Supply PCB.

Error code	Detail Code	Location	Item	Description
E202	0002	04	Title	Scanner Unit HP error
			Detection description	The HP of the Scanner Unit could not be detected when completing scanning operation.
			Remedy	[Related parts] - Harnesses from the Reader Assembly HP Sensor to the Main Controller PCB 1. Reader Assembly HP Sensor (PS01/J913) to Relay Connector (3P) (Unit of replacement: CABLE, HOME POSITION SENSOR) 2. Relay Connector (3P) to Main Controller PCB (UN81/J8103) (Unit of replacement: CABLE, READER MAIN) - Harness between the Reader Motor (M01/J901) and the Main Controller PCB (UN81/J8103) (Unit of replacement: CABLE, READER MAIN) - Reader Motor (M01) (Unit of replacement: MOTOR, STEPPING) - CIS HP Sensor (PS01) (Unit of replacement: PHOTO INTERRUPTER) - BOOK Motor (Unit of replacement: MOTOR, STEPPING) - Pulley Gear 85T/20T (Unit of replacement: GEAR, 85T/20T) - Carriage Timing Belt (Unit of replacement: BELT, TIMING, COGGED) - Idler Pulley (Unit of replacement: PULLEY, IDLER) - Idler Pulley Holder (Unit of replacement: READER ASSEMBLY) - FB Shaft (Unit of replacement: READER ASSEMBLY) - Electrolytic capacitor on the Main Controller PCB (C8002) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) - 24V power supply for driving the Reader on the Main Controller PCB side (J7003/pin 1) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) - Harness between the Main Controller PCB (UN81/J7003) and the Low-voltage Power Supply PCB (UN01/J313) (Unit of replacement: CABLE, POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the harness between the Reader Assembly HP Sensor and the Main Controller PCB. 2. Check the harness between the Reader Motor and the Main Controller PCB. 3. At initial operation of the Reader startup after the main power is turned ON, check if the Reader Motor operates (whether the Scanner Unit moves or operation sound is heard). If it operates, move the Carriage Timing Belt by hand and check if load is appropriate. a. If it is appropriate, replace the CIS HP Sensor. b. If it is not appropriate (overloaded), replace the following parts. - Stepping Motor - Z85_T20 Pulley Gear - Carriage Timing Belt - Idler Pulley - Idler Pulley Holder 4. Check for soiling or scar on the surface of the FB Shaft on which the Scanner Unit is installed. If there is soiling or scar, replace the FB Shaft. 5. Measure the electrolytic capacitor on the Main Controller PCB using a tester. If the measurement value is 24V, replace the Main Controller PCB. 6. Measure the 24V power supply for driving the Reader on the Main Controller PCB side using a tester. If the measurement value is 24 V, replace the Main Controller PCB. 7. Check the harness between the Main Controller PCB and the Low-voltage Power Supply PCB. 8. Perform step 6 again. If the measurement value is 24 V, replace the Low-voltage Power Supply PCB.

Error code	Detail Code	Location	Item	Description
E240	0000	00	Title	Controller communication error
			Detection description	A sequence error with the controller occurred.
			Remedy	[Related parts] - Flexible Cable between the DC Controller PCB (UN04/J112) and the Main Controller PCB (UN81/J7001) (Unit of replacement: CABLE, FLAT) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the harness between the DC Controller PCB and the Main Controller PCB. 2. Turn ON the power, and check if the initialization is executed at startup. 2-1. If the initialization is not executed, replace the DC Controller PCB. 2-2. If the initialization is executed, replace the Main Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E240	0005	00	Title	Controller communication error
			Detection description	A sequence error with the controller occurred.
			Remedy	[Related parts] - Flexible Cable between the DC Controller PCB (UN04/J112) and the Main Controller PCB (UN81/J7001) (Unit of replacement: CABLE, FLAT) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the harness between the DC Controller PCB and the Main Controller PCB. 2. Turn ON the power, and check if the initialization is executed at startup. 2-1. If the initialization is not executed, replace the DC Controller PCB. 2-2. If the initialization is executed, replace the Main Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E240	0D00	00	Title	Controller communication error
			Detection description	A sequence error with the controller occurred.
			Remedy	[Related parts] - Flexible Cable between the DC Controller PCB (UN04/J112) and the Main Controller PCB (UN81/J7001) (Unit of replacement: CABLE, FLAT) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the harness between the DC Controller PCB and the Main Controller PCB. 2. Turn ON the power, and check if the initialization is executed at startup. 2-1. If the initialization is not executed, replace the DC Controller PCB. 2-2. If the initialization is executed, replace the Main Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES
E246	0001	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E246	0002	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E246	0003	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E246	0005	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E247	0001	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E247	0002	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E247	0003	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E247	0004	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E248	0001	04	Title	Reader backup error
			Detection description	Reading error was detected when the Controller IC of the Main Controller PCB read the Reader backup value in the Flash PCB.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. After performing the remedy, enter the value of the service label again. 1. After executing “COPIER> FUNCTION> CLEAR> R-CON”, turn OFF and then ON the main power, and check whether the error is cleared. 2. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.

Error code	Detail Code	Location	Item	Description
E248	0002	04	Title	Reader backup error
			Detection description	The Controller IC of the Main Controller PCB failed to rewrite the Reader backup value in the Flash PCB.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. After performing the remedy, enter the value of the service label again. 1. After executing “COPIER> FUNCTION> CLEAR> R-CON”, turn OFF and then ON the main power, and check whether the error is cleared. 2. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.
E280	0004	04	Title	Scanner Unit communication error
			Detection description	1. The CIS was not connected. 2. A CIS other than that for iR-ADV C250/C350 was connected.
			Remedy	[Related parts] - Flexible Cable between the Scanner Unit (CIS01, CIS02/ J911) and the Main Controller PCB (UN81/J8101) (Unit of replacement: CABLE, FLAT) - Scanner Unit (CIS01/CIS02) (Unit of replacement: CONTACT IMAGE SENSOR ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Caution] The parts numbers of the Scanner Unit are different between iR-ADV C250 and C350. Be sure to use the correct one.

Error code	Detail Code	Location	Item	Description
E280	0005	04	Title	Scanner Unit communication error
			Detection description	1. The CIS for iR-ADV C250 was installed to iR-ADV C350. 2. The CIS for iR-ADV C350 was installed to iR-ADV C250.
			Remedy	[Remedy] Replace the Scanner Unit (CIS01/CIS02) with the one for the model. (Unit of replacement: CONTACT IMAGE SENSOR ASSEMBLY) [Caution] The parts numbers of the Scanner Unit are different between iR-ADV C250 and C350. Be sure to use the correct one.
E301	0001	04	Title	Reading light intensity error
			Detection description	1. Light intensity at shading was insufficient. 2. Light intensity when no light was emitted from CIS was too much.
			Remedy	[Related parts] - Flexible Cable between the Scanner Unit (CIS01, CIS02/ J911) and the Main Controller PCB (UN81/J8101) (Unit of replacement: CABLE, FLAT) - Scanner Unit (CIS01/CIS02) (Unit of replacement: CONTACT IMAGE SENSOR ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Caution] The parts numbers of the Scanner Unit are different between iR-ADV C250 and C350. Be sure to use the correct one.

Error code	Detail Code	Location	Item	Description
E301	0002	04	Title	Reading light intensity error
			Detection description	Image sampling for shading was not completed.
			Remedy	[Related parts] - Flexible Cable between the Scanner Unit (CIS01, CIS02/ J911) and the Main Controller PCB (UN81/J8101) (Unit of replacement: CABLE, FLAT) - Scanner Unit (CIS01/CIS02) (Unit of replacement: CONTACT IMAGE SENSOR ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Caution] The parts numbers of the Scanner Unit are different between iR-ADV C250 and C350. Be sure to use the correct one.
E315	0007	00	Title	Image processing device error
			Detection description	JBIG encode error.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)

Error code	Detail Code	Location	Item	Description
E315	000D	00	Title	Image processing device error
			Detection description	JBIG decode error.
			Remedy	[Related parts] - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) - HDD (Unit of replacement: HARD DISK DRIVE) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. 2. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “5”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power (so the current job is deleted). 3. After turning OFF the main power, replace the HDD and the Main Controller PCB at the same time. 4. Execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory.
E315	000E	00	Title	Image processing device error
			Detection description	Error at software decoding.
			Remedy	[Related parts] - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) - HDD (Unit of replacement: HARD DISK DRIVE) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. 2. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “5”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power (so the current job is deleted). 3. After turning OFF the main power, replace the HDD and the Main Controller PCB at the same time. 4. Execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory.
E315	000F	00	Title	Image processing device error
			Detection description	Error at MemoryCopy
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)

Error code	Detail Code	Location	Item	Description
E315	0027	00	Title	Image processing device error
			Detection description	ROTU timeout error.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0035	00	Title	Image processing device error
			Detection description	MemFill timeout error.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0100	00	Title	Image processing device error
			Detection description	PRIO overrun.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0500	00	Title	Device timeout error
			Detection description	An image synchronous signal from the Main Controller PCB to the Reader could not be detected for 30 sec or longer.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0501	00	Title	Image processing device error
			Detection description	An abnormal signal from the Main Controller PCB to the Reader was detected.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0510	00	Title	Device timeout error
			Detection description	An image synchronous signal from the Main Controller PCB to the Reader could not be detected for 30 sec or longer.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0511	00	Title	Image processing device error
			Detection description	An abnormal signal from the Main Controller PCB to the Reader was detected.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0520	00	Title	Device timeout error
			Detection description	An image synchronous signal from the Main Controller PCB to the Reader could not be detected for 30 sec or longer.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0521	00	Title	Image processing device error
			Detection description	An abnormal signal from the Main Controller PCB to the Reader was detected.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0530	00	Title	Device timeout error
			Detection description	An image synchronous signal from the Main Controller PCB to the Reader could not be detected for 30 sec or longer.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0531	00	Title	Image processing device error
			Detection description	An abnormal signal from the Main Controller PCB to the Reader was detected.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0540	00	Title	Device timeout error
			Detection description	An image synchronous signal from the Main Controller PCB to the Reader could not be detected for 30 sec or longer.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0541	00	Title	Image processing device error
			Detection description	An abnormal signal from the Main Controller PCB to the Reader was detected.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0550	00	Title	Device timeout error
			Detection description	An image synchronous signal from the Main Controller PCB to the Reader could not be detected for 30 sec or longer.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E315	0551	00	Title	Image processing device error
			Detection description	An abnormal signal from the Main Controller PCB to the Reader was detected.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E350	0000	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E350	0001	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E350	0002	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.

Error code	Detail Code	Location	Item	Description
E350	0003	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E350	3000	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E351	0000	00	Title	Main Controller PCB communication error
			Detection description	Communication function of the Main Controller PCB did not work properly.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E354	0001	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E354	0002	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E355	0001	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E355	0002	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E355	0003	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E355	0004	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E500	0000	02	Title	Finisher communication error
			Detection description	An error was detected on the finisher side.
			Remedy	1. Check that the connector (CN1/P3/J3) of the Interface Harness is not disconnected. 2. Replace the Finisher Controller PCB. 3. Replace the Interface Harness.

Error code	Detail Code	Location	Item	Description
E530	0001	02	Title	Front Alignment Plate HP Sensor error
			Detection description	The Front Alignment Motor did not move from the HP.
			Remedy	1. Check that the connector (P8-3/P8/J8) of the Front Alignment Plate HP Sensor (S4) is not disconnected. 2. Check that the connector (P6-12/P6-2/J6-2/P6/J6) of the Front Alignment Motor (M4) is not disconnected. 3. Replace the Front Alignment Plate HP Sensor (S4). 4. Replace the Front Alignment Motor (M4). 5. Check the conditions of the front alignment drive parts (belt and gear). 6. Replace the Finisher Controller PCB. 7. Replace the Harness Assembly.
E530	0002	02	Title	Front Alignment Motor error
			Detection description	The Front Alignment Motor did not return to the HP.
			Remedy	1. Check that the connector (P8-3/P8/J8) of the Front Alignment Plate HP Sensor (S4) is not disconnected. 2. Check that the connector (P6-12/P6-2/J6-2/P6/J6) of the Front Alignment Motor (M4) is not disconnected. 3. Replace the Front Alignment Plate HP Sensor (S4). 4. Replace the Front Alignment Motor (M4). 5. Check the conditions of the front alignment drive parts (belt and gear). 6. Replace the Finisher Controller PCB. 7. Replace the Harness Assembly.
E531	8001	02	Title	Staple Motor error
			Detection description	The Staple Motor did not move from the HP.
			Remedy	1. Check that the connector (P9-1/P9/J9) of the Staple HP Sensor (S11) is not disconnected. 2. Check that the connector (P10-1/P10/J10) of the Staple Motor (M9) is not disconnected. 3. Replace the Stapler. 4. Replace the Finisher Controller PCB. 5. Replace the Harness Assembly.
E531	8002	02	Title	Staple Motor error
			Detection description	The Staple Motor did not return to the HP.
			Remedy	1. Check that the connector (P9-1/P9/J9) of the Staple HP Sensor (S11) is not disconnected. 2. Check that the connector (P10-1/P10/J10) of the Staple Motor (M9) is not disconnected. 3. Replace the Stapler. 4. Replace the Finisher Controller PCB. 5. Replace the Harness Assembly.

Error code	Detail Code	Location	Item	Description
E537	0001	02	Title	Rear Alignment Motor error
			Detection description	The Rear Alignment Motor did not move from the HP.
			Remedy	1. Check that the connector (P7-5/P7/J7) of the Rear Alignment Plate HP Sensor (S5) is not disconnected. 2. Check that the connector (P5-13/P5-3/J5-3/P5/J5) of the Rear Alignment Motor (M5) is not disconnected. 3. Replace the Rear Alignment Plate HP Sensor (S5). 4. Replace the Rear Alignment Motor (M5). 5. Check the conditions of the rear alignment drive parts (belt and gear). 6. Replace the Finisher Controller PCB. 7. Replace the Harness Assembly.
E537	0002	02	Title	Rear Alignment Motor error
			Detection description	The Rear Alignment Motor did not return to the HP.
			Remedy	1. Check that the connector (P7-5/P7/J7) of the Rear Alignment Plate HP Sensor (S5) is not disconnected. 2. Check that the connector (P5-13/P5-3/J5-3/P5/J5) of the Rear Alignment Motor (M5) is not disconnected. 3. Replace the Rear Alignment Plate HP Sensor (S5). 4. Replace the Rear Alignment Motor (M5). 5. Check the conditions of the rear alignment drive parts (belt and gear). 6. Replace the Finisher Controller PCB. 7. Replace the Harness Assembly.
E540	0001	02	Title	Stack Tray Shift Motor timeout
			Detection description	Timeout
			Remedy	1. Check that the connector (P8-11/P8-1/J8-1/J8) of the Stack Tray Paper Height Sensor (S9) is not disconnected. 2. Check that the connector (J14-3/P14-3/P14/J14) of the Stack Tray Shift Motor (M8) is not disconnected. 3. Replace the Stack Tray Paper Height Sensor (S9). 4. Replace the Stack Tray Shift Motor (M8). 5. Check the conditions of the stack tray shift motor drive parts (belt and gear). 6. Replace the Finisher Controller PCB. 7. Replace the Harness Assembly.

Error code	Detail Code	Location	Item	Description
E575	0001	02	Title	Gripper Motor error
			Detection description	The Gripper Motor did not move from the HP.
			Remedy	1. Check that the connector (P7-14/P7-6/J7-6/P7/J7) of the Gripper HP Sensor (S7) is not disconnected. 2. Check that the connector (P6-3/J6-3/P6/J6) of the Gripper Motor (M7) is not disconnected. 3. Replace the Gripper HP Sensor (S7). 4. Replace the Gripper Motor (M7). 5. Check the conditions of the gripper drive parts (belt and gear). 6. Replace the Finisher Controller PCB. 7. Replace the Harness Assembly.
E575	0002	02	Title	Gripper Motor error
			Detection description	The Gripper Motor did not return to the HP.
			Remedy	1. Check that the connector (P7-14/P7-6/J7-6/P7/J7) of the Gripper HP Sensor (S7) is not disconnected. 2. Check that the connector (P6-3/J6-3/P6/J6) of the Gripper Motor (M7) is not disconnected. 3. Replace the Gripper HP Sensor (S7). 4. Replace the Gripper Motor (M7). 5. Check the conditions of the gripper drive parts (belt and gear). 6. Replace the Finisher Controller PCB. 7. Replace the Harness Assembly.
E575	0004	02	Title	Gripper clock error
			Detection description	Clock error
			Remedy	1. Check that the connector (P13-1/P13/J13) of the Gripper Encoder Sensor (S8) is not disconnected. 2. Replace the Gripper Encoder Sensor (S8).
E577	0001	02	Title	Paddle Motor error
			Detection description	The Paddle Motor did not move from the HP.
			Remedy	1. Check that the connector (P8-4/P8/J8) of the Paddle HP Sensor (S3) is not disconnected. 2. Check that the connector (P5-4/P5/J5) of the Paddle Motor (M3) is not disconnected. 3. Replace the Paddle HP Sensor (S3). 4. Replace the Paddle Motor (M3). 5. Check the conditions of the paddle drive parts (gear). 6. Replace the Finisher Controller PCB. 7. Replace the Harness Assembly.

Error code	Detail Code	Location	Item	Description
E577	0002	02	Title	Paddle Motor error
			Detection description	The Paddle Motor did not return to the HP.
			Remedy	1. Check that the connector (P8-4/P8/J8) of the Paddle HP Sensor (S3) is not disconnected. 2. Check that the connector (P5-4/P5/J5) of the Paddle Motor (M3) is not disconnected. 3. Replace the Paddle HP Sensor (S3). 4. Replace the Paddle Motor (M3). 5. Check the conditions of the paddle drive parts (gear). 6. Replace the Finisher Controller PCB. 7. Replace the Harness Assembly.
E583	0001	02	Title	Tray Auxiliary Guide Motor error
			Detection description	The Tray Auxiliary Guide Motor did not move from the HP.
			Remedy	1. Check that the connector (P8-12/P8-2/J8-2/P8/J8) of the Tray Auxiliary Guide HP Sensor (S6) is not disconnected. 2. Check that the connector (P6-1/P6/J6) of the Tray Auxiliary Guide Motor (M6) is not disconnected. 3. Replace the Tray Auxiliary Guide HP Sensor (S6). 4. Replace the Tray Auxiliary Guide Motor (M6). 5. Check the conditions of the tray auxiliary guide drive parts (gear). 6. Replace the Finisher Controller PCB. 7. Replace the Harness Assembly.
E583	0002	02	Title	Tray Auxiliary Guide Motor error
			Detection description	The Tray Auxiliary Guide Motor did not return to the HP.
			Remedy	1. Check that the connector (P8-12/P8-2/J8-2/P8/J8) of the Tray Auxiliary Guide HP Sensor (S6) is not disconnected. 2. Check that the connector (P6-1/P6/J6) of the Tray Auxiliary Guide Motor (M6) is not disconnected. 3. Replace the Tray Auxiliary Guide HP Sensor (S6). 4. Replace the Tray Auxiliary Guide Motor (M6). 5. Check the conditions of the tray auxiliary guide drive parts (gear). 6. Replace the Finisher Controller PCB. 7. Replace the Harness Assembly.

Error code	Detail Code	Location	Item	Description
E602	0001	00	Title	HDD error
			Detection description	HDD failed to be Ready, or HDD was not formatted. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - Encryption Board - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. Reinstall the necessary application software once the error is cleared. 1. Check the cable between the Main Controller PCB and the HDD. [Caution] If the Encryption Board is installed, check the connection of the board. 2. Turn ON the main power, and check whether the error is cleared. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 4. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 5. If the Encryption Board is installed, remove the board and then format the HDD again. If the error is cleared, replace the Encryption Board. 6. After replacing the HDD, perform step 4 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts.

Error code	Detail Code	Location	Item	Description
E602	0101	00	Title	HDD error
			Detection description	Error in system area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. - To delete MEAP area, the special license is issued by the sales company as needed. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “1”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 3. After replacing the HDD, perform step 2 to format the HDD. 4. Replace the Main Controller PCB. 5. Check/replace the related parts.

Error code	Detail Code	Location	Item	Description
E602	0111	00	Title	HDD error
			Detection description	Error in system area (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. - To delete MEAP area, the special license is issued by the sales company as needed. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “1”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 3. After replacing the HDD, perform step 2 to format the HDD. 4. Replace the Main Controller PCB. 5. Check/replace the related parts.

Error code	Detail Code	Location	Item	Description
E602	0201	00	Title	HDD error
			Detection description	Error in SWAP (temporary file/memory alternative area) (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Obtain the necessary backup data by referring to the backup data list. [Reference] Restore the backup data once the error is cleared. 2. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “2”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 4. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 5. Replace the HDD, and perform step 4 to format the HDD. 6. Replace the Main Controller PCB. 7. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0211	00	Title	HDD error
			Detection description	Error in SWAP (temporary file/memory alternative area) (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Obtain the necessary backup data by referring to the backup data list. [Reference] Restore the backup data once the error is cleared. 2. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “2”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 4. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 5. Replace the HDD, and perform step 4 to format the HDD. 6. Replace the Main Controller PCB. 7. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0301	00	Title	HDD error
			Detection description	Error in MEAP-related area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. - To delete MEAP area, the special license is issued by the sales company as needed.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. - To delete MEAP area, the special license is issued by the sales company as needed.

Error code	Detail Code	Location	Item	Description
E602	0311	00	Title	HDD error
			Detection description	Error in MEAP-related area (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. - To delete MEAP area, the special license is issued by the sales company as needed.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “3”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “3”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0401	00	Title	HDD error
			Detection description	Error in logical partition (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Obtain the necessary backup data by referring to the backup data list. [Reference] Restore the backup data once the error is cleared. 2. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 3. After replacing the HDD, perform step 2 to format the HDD. 4. Replace the Main Controller PCB. 5. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0411	00	Title	HDD error
			Detection description	Error in logical partition (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Obtain the necessary backup data by referring to the backup data list. [Reference] Restore the backup data once the error is cleared. 2. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 3. After replacing the HDD, perform step 2 to format the HDD. 4. Replace the Main Controller PCB. 5. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0501	00	Title	HDD error
			Detection description	Error in image data storage area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “5”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “5”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0511	00	Title	HDD error
			Detection description	Error in image data storage area (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “5”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “5”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0601	00	Title	HDD error
			Detection description	Error in PDL-related file storage area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “6”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “6”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0611	00	Title	HDD error
			Detection description	Error in PDL-related file storage area (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “6”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “6”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0701	00	Title	HDD error
			Detection description	Error in image data storage area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “7”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “7”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0711	00	Title	HDD error
			Detection description	Error in image data storage area (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “7”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “7”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0801	00	Title	HDD error
			Detection description	Error in PDL spool data (temporary file) (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “8”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “8”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0811	00	Title	HDD error
			Detection description	Error in PDL spool data (temporary file) (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “8”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “8”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0901	00	Title	HDD error
			Detection description	Error in general application temporary area (temporary file) (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “9”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “9”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	0911	00	Title	HDD error
			Detection description	Error in general application temporary area (temporary file) (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “9”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “9”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	1001	00	Title	HDD error
			Detection description	Error in SEND-related area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared..

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “10”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “10”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	1011	00	Title	HDD error
			Detection description	Error in SEND-related area (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “10”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “10”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	1101	00	Title	HDD error
			Detection description	Error in general application-related area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	1111	00	Title	HDD error
			Detection description	Error in general application-related area (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	1201	00	Title	HDD error
			Detection description	Error in update-related area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “12”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “12”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	1211	00	Title	HDD error
			Detection description	Error in update-related area (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “12”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “12”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	1301	00	Title	HDD error
			Detection description	Error in license-related area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Obtain the necessary backup data by referring to the backup data list. [Reference] Restore the backup data once the error is cleared. 2. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 3. After replacing the HDD, perform step 2 to format the HDD. 4. Replace the Main Controller PCB. 5. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	1311	00	Title	HDD error
			Detection description	Error in license-related area (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Obtain the necessary backup data by referring to the backup data list. [Reference] Restore the backup data once the error is cleared. 2. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 3. After replacing the HDD, perform step 2 to format the HDD. 4. Replace the Main Controller PCB. 5. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	1401	00	Title	HDD error
			Detection description	Error in debug log area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “14”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “14”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	1411	00	Title	HDD error
			Detection description	Error in debug log area (file could not be written in the HDD after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared.

Error code	Detail Code	Location	Item	Description
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “14”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “14”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	2000	00	Title	Authentication error between the host machine and the Encryption Board
			Detection description	Authentication between the host machine and the Encryption Board could not be performed because I/O error occurred in the file system after startup.
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check that the HDD Encryption Board is installed properly by removing and then installing it again. 2. Turn ON the main power, and check whether the error is cleared. 3. Execute the key clear using SST (to make an unformatted disk). [Caution] E602-0001 will be indicated if activating the machine with the unformatted disk. Therefore, be sure to format the HDD. 4. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [1] Disk Format (HDD format) using SST or a USB memory. 5. Reinstall the necessary application software.
E602	5001	00	Title	Authentication error between the host machine and the Encryption Board
			Detection description	The HDD Encryption Board was installed improperly.
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. After removing the HDD Encryption Board, install the HDD only. Then, turn ON the main power. 2. Execute “COPIER> FUNCTION> INSTALL> HD-CRYP”. 3. Install the HDD Encryption Board.
E602	5002	00	Title	HDD error
			Detection description	A non-genuine HDD was detected.
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Install a genuine HDD. 2. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [1] Disk Format (HDD format) using SST or a USB memory. 3. Reinstall the necessary application software.

Error code	Detail Code	Location	Item	Description
E602	FF01	00	Title	HDD error
			Detection description	HDD error was detected at startup. (unidentified) (at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, check the cable between the Main Controller PCB and the HDD. 2. Turn ON the main power, and check whether the error is cleared. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 4. Obtain the necessary backup data by referring to the backup data list. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E602	FF11	00	Title	HDD error
			Detection description	HDD error (unidentified) (after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, check the cable between the Main Controller PCB and the HDD. 2. Turn ON the main power, and check whether the error is cleared. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 4. Obtain the necessary backup data by referring to the backup data list. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. 8. Check/replace the related parts. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E611	0000	07	Title	Fax transmission retry error
			Detection description	Rebooting and retransmission were repeated 3 times in a short period of time (12 hours).
			Remedy	[Related parts] Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Clear fax job information by executing “COPIER> FUNCTION> CLEAR> FXTX-CLR. Then, turn OFF and then ON the main power. 2. Replace the Main Controller PCB.
E614	0001	00	Title	Flash PCB error
			Detection description	The Flash PCB could not be recognized, or the Flash PCB was not formatted.
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, remove and then install the Flash PCB to check that it is installed properly. 2. Turn ON the main power, and check whether the error is cleared. 3. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [2] Flash Format (Flash format) using a USB memory. 4. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 5. Replace the Main Controller PCB.

Error code	Detail Code	Location	Item	Description
E614	0002	00	Title	Error in file system on the Flash PCB
			Detection description	The file system could not be initialized normally at startup. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, remove and then install the Flash PCB to check that it is installed properly. 2. Turn ON the main power, and check whether the error is cleared. 3. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [2] Flash Format (Flash format) using a USB memory. 4. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 5. Replace the Main Controller PCB.
E614	0006	00	Title	Error in file system on the Flash PCB
			Detection description	Bootable was not found on the Flash PCB.
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, remove and then install the Flash PCB to check that it is installed properly. 2. Turn ON the main power, and check whether the error is cleared. 3. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [2] Flash Format (Flash format) using a USB memory. 4. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 5. Replace the Main Controller PCB.

Error code	Detail Code	Location	Item	Description
E614	0101	00	Title	Flash PCB error
			Detection description	Error in system area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, remove and then install the Flash PCB to check that it is installed properly. 2. Turn ON the main power, and check whether the error is cleared. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 4. Obtain the necessary backup data by referring to the backup data list. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [2] Flash Format (Flash format) using a USB memory. 6. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 7. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0111	00	Title	Flash PCB error
			Detection description	Error in system area (file could not be written in the Flash PCB after startup, or I/O error after startup)
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, remove and then install the Flash PCB to check that it is installed properly. 2. Turn ON the main power, and check whether the error is cleared. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 4. Obtain the necessary backup data by referring to the backup data list. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [2] Flash Format (Flash format) using a USB memory. 6. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 7. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0201	00	Title	Flash PCB error
			Detection description	Error in system area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, remove and then install the Flash PCB to check that it is installed properly. 2. Turn ON the main power, and check whether the error is cleared. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 4. Obtain the necessary backup data by referring to the backup data list. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [2] Flash Format (Flash format) using a USB memory. 6. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 7. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0211	00	Title	Flash PCB error
			Detection description	Error in system area (file could not be written in the Flash PCB after startup, or I/O error after startup)
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, remove and then install the Flash PCB to check that it is installed properly. 2. Turn ON the main power, and check whether the error is cleared. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 4. Obtain the necessary backup data by referring to the backup data list. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [2] Flash Format (Flash format) using a USB memory. 6. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 7. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0301	00	Title	Flash PCB error
			Detection description	Error in system area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, remove and then install the Flash PCB to check that it is installed properly. 2. Turn ON the main power, and check whether the error is cleared. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 4. Obtain the necessary backup data by referring to the backup data list. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [2] Flash Format (Flash format) using a USB memory. 6. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 7. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0311	00	Title	Flash PCB error
			Detection description	Error in system area (file could not be written in the Flash PCB after startup, or I/O error after startup)
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, remove and then install the Flash PCB to check that it is installed properly. 2. Turn ON the main power, and check whether the error is cleared. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 4. Obtain the necessary backup data by referring to the backup data list. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [2] Flash Format (Flash format) using a USB memory. 6. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 7. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0401	00	Title	Flash PCB error
			Detection description	Error in logical partition (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, remove and then install the Flash PCB to check that it is installed properly. 2. Turn ON the main power, and check whether the error is cleared. 3. Obtain the necessary backup data by referring to the backup data list. 4. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 5. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 6. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0411	00	Title	Flash PCB error
			Detection description	Error in logical partition (file could not be written in the Flash PCB after startup, or I/O error after startup)
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After turning OFF the main power, remove and then install the Flash PCB to check that it is installed properly. 2. Turn ON the main power, and check whether the error is cleared. 3. Obtain the necessary backup data by referring to the backup data list. 4. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 5. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 6. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.
E614	0501	00	Title	Flash PCB error
			Detection description	Error in general application-related area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0511	00	Title	Flash PCB error
			Detection description	Error in general application-related area (file could not be written in the Flash PCB after startup, or I/O error after startup)

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0601	00	Title	Flash PCB error
			Detection description	Error in license-related area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. When prioritizing clearing of the error, perform Remedy 2 and later. 1. Obtain the necessary backup data by referring to the backup data list. 2. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 4. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0611	00	Title	Flash PCB error
			Detection description	Error in license-related area (file could not be written in the Flash PCB after startup, or I/O error after startup)
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. When prioritizing clearing of the error, perform Remedy 2 and later. 1. Obtain the necessary backup data by referring to the backup data list. 2. Enter safe mode using (2+8) startup, and execute [4] Clear/ Format> [2] Flash Format (Flash format) using a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 4. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0701	00	Title	Flash PCB error
			Detection description	Error in system setting value (service mode, etc.) storage area (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	0711	00	Title	Flash PCB error
			Detection description	Error in system setting value (service mode, etc.) storage area (file could not be written in the Flash PCB after startup, or I/O error after startup)

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. - Although the error is cleared by “HD-CHECK”, it may occur again. Thus, perform Remedies 1 to 3. - When prioritizing clearing of the error, perform Remedy 3 and later. 1. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “11”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] Only the data in the corresponding partitions is deleted. 4. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 5. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. [Reference] All data in the HDD is deleted. 6. After replacing the HDD, perform step 5 to format the HDD. 7. Replace the Main Controller PCB. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.

Error code	Detail Code	Location	Item	Description
E614	4000	00	Title	Error in file system on the Flash PCB
			Detection description	The OS could not be recognized. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. Format the system. 2-1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2-2. Reinstall the system software using SST or a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.
E614	4001	00	Title	Error in file system on the Flash PCB
			Detection description	The OS boot file was not found. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. Format the system. 2-1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2-2. Reinstall the system software using SST or a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.

Error code	Detail Code	Location	Item	Description
E614	4002	00	Title	Error in file system on the Flash PCB
			Detection description	The OS kernel was not found. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. Format the system. 2-1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2-2. Reinstall the system software using SST or a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.
E614	4003	00	Title	Error in file system on the Flash PCB
			Detection description	The OS boot loader was not found. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. Format the system. 2-1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2-2. Reinstall the system software using SST or a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.

Error code	Detail Code	Location	Item	Description
E614	4010	00	Title	Error in file system on the Flash PCB
			Detection description	The OS in safe mode could not be recognized. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.
E614	4011	00	Title	Error in file system on the Flash PCB
			Detection description	The file for booting the OS in safe mode was not found. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.
E614	4012	00	Title	Error in file system on the Flash PCB
			Detection description	The kernel in safe mode was not found. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.

Error code	Detail Code	Location	Item	Description
E614	9000	00	Title	Error in file system on the Flash PCB
			Detection description	SRAM device access-related error (at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. Format the system. 2-1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2-2. Reinstall the system software using SST or a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.
E614	9001	00	Title	Error in file system on the Flash PCB
			Detection description	Error in securing memory/invalid memory (at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. Format the system. 2-1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2-2. Reinstall the system software using SST or a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.

Error code	Detail Code	Location	Item	Description
E614	9002	00	Title	Error in file system on the Flash PCB
			Detection description	Setting file error was detected at startup. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. Format the system. 2-1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2-2. Reinstall the system software using SST or a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.
E614	9003	00	Title	Error in file system on the Flash PCB
			Detection description	Parameter error was detected at startup. When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. Format the system. 2-1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2-2. Reinstall the system software using SST or a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.

Error code	Detail Code	Location	Item	Description
E614	9004	00	Title	Error in file system on the Flash PCB
			Detection description	Startup error When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] Flash PCB (UN96) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connectors of the Flash PCB and the Main Power Switch, and check if there is any bent pin or cable disconnection. 2. Format the system. 2-1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2-2. Reinstall the system software using SST or a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory.

Error code	Detail Code	Location	Item	Description
E614	FF01	00	Title	Flash PCB error
			Detection description	Flash error (unidentified) (Initialization failed at startup, or I/O error at startup) When this error occurs, the system has not been started normally. Therefore, it may not be recorded in the error log.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the cable between the Main Controller PCB and the HDD. 2. Turn ON the main power, and check whether the error is cleared. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 4. Obtain the necessary backup data by referring to the backup data list. 5. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 6. After replacement of the HDD, enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] For backup and restoration, refer to “Adjustment> Main Controller System” and “Appendix> Backup Data List” in the Service Manual.

Error code	Detail Code	Location	Item	Description
E614	FF11	00	Title	Flash PCB error
			Detection description	Flash error (unidentified) (file could not be written in the Flash PCB after startup, or I/O error after startup)
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - HDD (Unit of replacement: HARD DISK DRIVE) [Points to note at work] - When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. - Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the cable between the Main Controller PCB and the HDD. 2. Turn ON the main power, and check whether the error is cleared. 3. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CHECK”. Then, turn OFF and then ON the main power. 4. Obtain the necessary backup data by referring to the backup data list. 5. Select COPIER> FUNCTION> SYSTEM> CHK-TYPE> “0”, and execute “HD-CLEAR”. Then, turn OFF and then ON the main power. [Reference] All the partitions that can be deleted are deleted. 6. After replacement of the HDD, enter safe mode using (2+8) startup, and execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. [Reference] For backup and restoration, refer to “Adjustment> Main Controller System” and “Appendix> Backup Data List” in the Service Manual.

Error code	Detail Code	Location	Item	Description
E615	0001	00	Title	Error in self-diagnosis of the encryption module
			Detection description	An error was detected in self-diagnosis of the encryption library.
			Remedy	[Related parts] Flash PCB (UN96) [Points to note at work] Reinstall the necessary application software and restore the backup data once the error is cleared. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After reinstalling the system software using SST or a USB memory, turn OFF and then ON the main power. 2. Obtain the necessary backup data by referring to the backup data list. 3. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 4. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. [Reference] For backup and restoration, refer to the Service Manual “Adjustment> Main Controller System” and “Appendix> Backup Data List”.
E674	0001	07	Title	Fax Board communication error
			Detection description	An error was detected for the specified number of times in communication with the Fax Board.
			Remedy	[Related parts] - Harness between the Fax Board and the Main Controller PCB (UN81/J7013, J7019) - Fax Board - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts.

Error code	Detail Code	Location	Item	Description
E674	0004	07	Title	Fax Board communication error
			Detection description	A communication error occurred when accessing the modem IC used for fax.
			Remedy	[Related parts] - Harness between the Fax Board and the Main Controller PCB (UN81/J7013, J7019) - Fax Board - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts.
E674	0008	07	Title	Fax Board communication error
			Detection description	A communication error occurred when accessing the port IC used for On Board Fax.
			Remedy	[Related parts] - Harness between the Fax Board and the Main Controller PCB (UN81/J7013, J7019) - Fax Board - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts.

Error code	Detail Code	Location	Item	Description
E674	000C	07	Title	Fax Board communication error
			Detection description	A communication error occurred when accessing the modem IC and the port IC used for fax.
			Remedy	[Related parts] - Harness between the Fax Board and the Main Controller PCB (UN81/J7013, J7019) - Fax Board - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts.
E674	0010	07	Title	Fax Board communication error
			Detection description	A communication error occurred when opening the Timer Device used for fax.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E674	0011	07	Title	Fax Board communication error
			Detection description	A communication error occurred when starting the Timer Device used for fax.
			Remedy	[Remedy] Replace the Main Controller PCB (UN81). (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY)
E674	0100	07	Title	Fax Board communication error
			Detection description	After completion of fax communication, writing of the communication information (log) failed, and the log could not be read.

Error code	Detail Code	Location	Item	Description
			Remedy	[Related parts] - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. [Caution] By executing “COPIER> FUNCTION> CLEAR> FXTX-CLR”, job logs in “Status Monitor/Cancel> Send> Log> Fax Transmission Completion Log” are cleared. 2. After deleting the system software using USB memory, reinstall it using SST or a USB memory. 3. After replacing the HDD, execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. 4. Replace the Main Controller PCB.
E674	0200	07	Title	HDD access error
			Detection description	An error occurred when accessing the HDD.
			Remedy	[Related parts] - HDD (Unit of replacement: HARD DISK DRIVE) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. [Caution] By executing “COPIER> FUNCTION> CLEAR> FXTX-CLR”, job logs in “Status Monitor/Cancel> Send> Log> Fax Transmission Completion Log” are cleared. 2. After deleting the system software using USB memory, reinstall it using SST or a USB memory. 3. After replacing the HDD, execute [4] Clear/Format> [1] Disk Format (HDD format) using SST or a USB memory. 4. Replace the Main Controller PCB.
E713	0000	05	Title	Communication error
			Detection description	The operation was not completed although retry of the communication between the host machine (Dcon) and the Finisher was performed for 3 consecutive times.
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check that the connector (CN1/P3/J3) of the Interface Harness is not disconnected. 2. Replace the Finisher Controller PCB. 3. Replace the Interface Harness.

Error code	Detail Code	Location	Item	Description
E719	0001	00	Title	Coin vendor error
			Detection description	The coin vendor which was connected before turning OFF the main power was not connected at power-on.
			Remedy	[Related parts] Cable between the charging management equipment and the host machine [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Reference] When operating the machine without the charging management equipment, execute “COPIER> FUNCTION> CLEAR> ERR”. (It is designed to generate an error to prevent the misuse by removing the charging management equipment.)
E719	0002	00	Title	Coin vendor error
			Detection description	IPC error while the coin vendor is running. - Open circuit of the IPC Communication Cable, or IPC communication could not be recovered. - Open circuit of the pickup/delivery signal cable was detected. - Invalid connection was detected.
			Remedy	[Related parts] Cable between the charging management equipment and the host machine [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Reference] When operating the machine without the charging management equipment, execute “COPIER> FUNCTION> CLEAR> ERR”. (It is designed to generate an error to prevent the misuse by removing the charging management equipment.)

Error code	Detail Code	Location	Item	Description
E719	0003	00	Title	Coin vendor error
			Detection description	A communication error with the coin vendor occurred during unit price acquisition at startup.
			Remedy	[Related parts] Cable between the charging management equipment and the host machine [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Reference] When operating the machine without the charging management equipment, execute “COPIER> FUNCTION> CLEAR> ERR”. (It is designed to generate an error to prevent the misuse by removing the charging management equipment.)
E719	0031	00	Title	Card Reader communication error
			Detection description	Communication with the Card Reader could not be established at startup.
			Remedy	[Related parts] - Harness between the Card Reader and the Main Controller PCB (UN81/J20) - Card Reader [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the cable between the Card Reader and the Main Controller PCB. 2. After removing the Card Reader, execute “COPIER> FUNCTION> CLEAR> CARD” and “ERR”. [Caution] Data related to card ID (department) is cleared.

Error code	Detail Code	Location	Item	Description
E719	0032	00	Title	Card Reader communication error
			Detection description	Although communication with the Card Reader was possible at startup, it became unavailable in the middle of the communication.
			Remedy	[Related parts] - Harness between the Card Reader and the Main Controller PCB (UN81/J20) - Card Reader [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the cable between the Card Reader and the Main Controller PCB. 2. After removing the Card Reader, execute “COPIER> FUNCTION> CLEAR> CARD” and “ERR”. [Caution] Data related to card ID (department) is cleared.
E720	0000	05	Title	Error due to non-compatible Finisher
			Detection description	A finisher which cannot be connected to the host machine was connected.
			Remedy	[Remedy] Connect the Finisher (STAPLE FINISHER-S1) for this model.

Error code	Detail Code	Location	Item	Description
E720	0100	05	Title	Cassette Pedestal detection error
			Detection description	Connection of the Cassette Pedestal could not be detected.
			Remedy	[Related parts] - Cassette Pedestal - Harness between the DC Controller PCB (UN04/J190) and the drawer connector (J5904) on the host machine side (Unit of replacement: OPTION CST. DRAWER ASSEMBLY) - Harness between the drawer connector (J5950) on the Cassette Pedestal side and the Cassette Module Controller PCB (UN101/J650) (Unit of replacement: DRAWER CABLE ASSEMBLY) - Drawer on the host machine side (Unit of replacement: OPTION CST. DRAWER ASSEMBLY) - Drawer on the Cassette Pedestal side (Unit of replacement: DRAWER CABLE ASSEMBLY) - Cassette Module Controller PCB (UN101) (Unit of replacement: CST. PEDESTAL CONT. PCB ASS'Y) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts.
E730	A006	00	Title	PDL communication error
			Detection description	Response from PDL could not be detected.
			Remedy	[Related parts] Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Select "Settings/Registration> Function Settings> Printer> Printer Settings> Utility> Initialize Printer", and execute PDL reset processing. 2. Turn OFF and then ON the main power, and check whether the error is cleared. 3. Reinstall the system software. 4. Replace the Main Controller PCB.

Error code	Detail Code	Location	Item	Description
E730	A007	00	Title	Mismatch of PDL version
			Detection description	Version of the host machine control software and version of PDL control software were different.
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. After deleting the system software using USB memory, reinstall it using SST or a USB memory. 2. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 3. Replace the Main Controller PCB.
E730	B013	00	Title	PDL embedded font error
			Detection description	Font data was corrupted.
			Remedy	[Related parts] - Flash PCB (UN96) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. 2. After deleting the system software using USB memory, reinstall it using SST or a USB memory. 3. After replacing the Flash PCB, reinstall the system software using SST or a USB memory. 4. Replace the Main Controller PCB.

Error code	Detail Code	Location	Item	Description
E732	0001	00	Title	Scanner communication error
			Detection description	DDI-S communication error.
			Remedy	[Related parts] - Flexible Cable between the Scanner Unit (CIS01, CIS02/ J911) and the Main Controller PCB (UN81/J8101) (Unit of replacement: CABLE, FLAT) - Scanner Unit (CIS01/CIS02) (Unit of replacement: CONTACT IMAGE SENSOR ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. After performing the remedy, check that the copy image is output normally.
E732	0010	00	Title	Scanner communication error
			Detection description	DDI-S communication error (Vsync detection error)
			Remedy	[Related parts] - Flexible Cable between the Scanner Unit (CIS01, CIS02/ J911) and the Main Controller PCB (UN81/J8101) (Unit of replacement: CABLE, FLAT) - Scanner Unit (CIS01/CIS02) (Unit of replacement: CONTACT IMAGE SENSOR ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. After performing the remedy, check that the copy image is output normally.

Error code	Detail Code	Location	Item	Description
E733	0000	00	Title	Printer communication error
			Detection description	Communication between the DC Controller PCB and the Main Controller PCB was not available at startup.
			Remedy	[Related parts] - DC Controller PCB (UN04/J20) and the Harness between the Low-voltage Power Supply PCB (UN01/J315) (Unit of replacement: CABLE, POWER SUPPLY) - Flexible Cable between the DC Controller PCB (UN04/ J112) and the Main Controller PCB (UN81/J7001) (Unit of replacement: CABLE, FLAT) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the harness between the DC Controller PCB and the Low-voltage Power Supply PCB. 2. Check the harness between the DC Controller PCB and the Main Controller PCB. 3. Turn ON the power, and check if the initialization is executed at startup. 3-1. If the initialization is not executed, replace the DC Controller PCB. 3-2. If the initialization is executed, replace the Main Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E733	0001	00	Title	Printer communication error
			Detection description	- DDI-P communication error - DDI-L communication error (parity error)
			Remedy	[Related parts] - Flexible Cable between the DC Controller PCB (UN04/J112) and the Main Controller PCB (UN81/J7001) (Unit of replacement: CABLE, FLAT) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the harness between the DC Controller PCB and the Main Controller PCB. 2. Turn ON the power, and check if the initialization is executed at startup. 2-1. If the initialization is not executed, replace the DC Controller PCB. 2-2. If the initialization is executed, replace the Main Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E733	0002	00	Title	Printer communication error
			Detection description	DDI-P communication error (invalid packet)
			Remedy	[Related parts] - Flexible Cable between the DC Controller PCB (UN04/J112) and the Main Controller PCB (UN81/J7001) (Unit of replacement: CABLE, FLAT) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check the harness between the DC Controller PCB and the Main Controller PCB. 2. Turn ON the power, and check if the initialization is executed at startup. 2-1. If the initialization is not executed, replace the DC Controller PCB. 2-2. If the initialization is executed, replace the Main Controller PCB. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES
E733	0F00	05	Title	Printer communication error
			Detection description	A communication error that can be recovered by reboot. If it is detected again after reboot, E733-0000 is generated.
			Remedy	[Remedy] It is not necessary to perform a remedy because the machine is automatically rebooted after log collection.

Error code	Detail Code	Location	Item	Description
E733	0F01	05	Title	Printer communication error
			Detection description	A communication error that can be recovered by reboot. If it is detected again after reboot, E733-0001 is generated.
			Remedy	[Remedy] It is not necessary to perform a remedy because the machine is automatically rebooted after log collection.
E733	0F02	05	Title	Printer communication error
			Detection description	A communication error that can be recovered by reboot. If it is detected again after reboot, E733-0002 is generated.
			Remedy	[Remedy] It is not necessary to perform a remedy because the machine is automatically rebooted after log collection.
E733	F001	00	Title	Printer communication error
			Detection description	Disconnection of the Flexible Cable between the Main Controller PCB and the DC Controller PCB was detected.
			Remedy	[Remedy] Check/replace the Flexible Cable between the DC Controller PCB (UN04/J112) and the Main Controller PCB (UN81/J7001) (unit of replacement: CABLE, FLAT).
E733	F002	00	Title	Printer communication error
			Detection description	Disconnection of the Flexible Cable between the Main Controller PCB and the Y/M/C/Bk Laser Driver PCB was detected.
			Remedy	[Remedy] Check/replace the Flexible Cable between the Y/M/C/Bk Laser Driver PCB (UN05/J201) and the Main Controller PCB (UN81/J7002). (Unit of replacement: CABLE, FLAT)
E743	0000	04	Title	DDI communication error
			Detection description	Software sequence error
			Remedy	[Remedy] Collect debug log and contact to the sales company.
E744	0001	00	Title	Language file error
			Detection description	Version of language in the Flash PCB and version of Bootable are different.
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Reinstall the correct language file or system software using SST or a USB memory.

Error code	Detail Code	Location	Item	Description
E744	4000	05	Title	Error due to the DC Controller not compatible with the model
			Detection description	The DC Controller PCB or the Main Controller PCB which was used with another model was detected.
			Remedy	[Related parts] DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Remedy] This error occurs only when replacing the DC Controller PCB. Perform the following in the order while checking whether the error is cleared. 1. Install the previously used DC Controller PCB (UN04) again. [Caution] If another error code is displayed after reinstalling the previously used PCB, refer to the appropriate error code. 2. If the error is not cleared although the previously used DC Controller PCB is installed again, replace it with a new one. [Reference] - DC Controller PCB does not have model information at the time of shipment. Model information is written in when the PCB is installed to the host machine. Therefore, the DC Controller PCB which was installed to iR-ADV C350 can be installed only to iR-ADV C350. - Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES
E746	0022	00	Title	Image Analysis Board error
			Detection description	Wrong version of the Image Analysis Board (Although the license for Document Scan Lock was enabled, the Image Analysis Board with the firmware which version is supported by the model was not connected.)
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Reinstall the firmware of the Image Analysis Board or the system software which version is supported by this model using SST or a USB memory. 2. After replacing the Image Analysis Board, perform step 1.

Error code	Detail Code	Location	Item	Description
E746	0023	00	Title	Image Analysis Board error
			Detection description	Communication from the Image Analysis Board could not be detected. (Although the license for Document Scan Lock was enabled, it was recognized that no Image Analysis Board was connected to the machine.)
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check that the Image Analysis Board is installed properly by removing and then installing it again. 2. Turn OFF and then ON the main power, and check whether the error is cleared. 3. After replacing the Image Analysis Board, reinstall the firmware of the Image Analysis Board or the system software which version is supported by this model using SST or a USB memory.
E746	0024	00	Title	Image Analysis Board error
			Detection description	An error in the operation of the Image Analysis Board was detected. (Although the license for Document Scan Lock was enabled, response from the Image Analysis Board was invalid.)
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Check that the Image Analysis Board is installed properly by removing and then installing it again. 2. Turn OFF and then ON the main power, and check whether the error is cleared. 3. After replacing the Image Analysis Board, reinstall the firmware of the Image Analysis Board or the system software which version is supported by this model using SST or a USB memory.

Error code	Detail Code	Location	Item	Description
E746	0031	00	Title	TPM error
			Detection description	A communication error has occurred between the Main Controller PCB and the TPM PCB at startup.
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. 2. After turning OFF the main power, replace the TPM PCB (UN82) (Unit of replacement: TPM PCB ASSEMBLY). 3. If the TPM key was backed up, restore the key. 3-1. Connect the USB memory which stores the TPM key. 3-2. Execute “Settings/Registration> Log In> Management Settings> Data Management> TPM Settings> Restore TPM Key”. [Caution] Ask the customer to enter “System Manager ID” and “Password” when logging in. 3-3. Enter the password set at backup operation. 3-4. When the restoration completion screen is displayed, click “OK”. Remove the USB memory, and turn OFF and then ON the main power.
E746	0032	00	Title	TPM error
			Detection description	TPM key mismatch.
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Format the system. 1-1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2-2. Reinstall the system software using SST or a USB memory. 2. Replace the TPM PCB (UN82) (Unit of replacement: TPM PCB ASSEMBLY). 3. If the TPM key was backed up, restore the key. 3-1. Connect the USB memory which stores the TPM key. 3-2. Execute “Settings/Registration> Log In> Management Settings> Data Management> TPM Settings> Restore TPM Key”. [Caution] Ask the customer to enter “System Manager ID” and “Password” when logging in. 3-3. Enter the password set at backup operation. 3-4. When the restoration completion screen is displayed, click “OK”. Remove the USB memory, and turn OFF and then ON the main power.

Error code	Detail Code	Location	Item	Description
E746	0033	00	Title	TPM error
			Detection description	It was detected that data in TPM was inconsistent.
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. Perform the appropriate remedy according to the status whether the TPM key was backed up. a. If the TPM key was backed up, restore the key. 1. Connect the USB memory which stores the TPM key. 2. Execute “Settings/Registration> Log In> Management Settings> Data Management> TPM Settings> Restore TPM Key”. [Caution] Ask the customer to enter “System Manager ID” and “Password” when logging in. 3. Enter the password set at backup operation. 4. When the restoration completion screen is displayed, click “OK”. Remove the USB memory, and turn OFF and then ON the main power. b. If the TPM key was not backed up, format the system. 1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2. Reinstall the system software using SST or a USB memory.

Error code	Detail Code	Location	Item	Description
E746	0034	00	Title	TPM auto recovery error
			Detection description	The error occurred when clearing HDD while TPM setting was ON.
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Turn OFF and then ON the main power, and check whether the error is cleared. a. If the error is cleared, execute “Settings/Registration> Log In> Management Settings> Data Management> Initialize All Data/Settings”. b. If the error is not cleared, format the system. 1. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using a USB memory. 2. Reinstall the system software using SST or a USB memory. 2. If the TPM key was backed up, restore the key. 2-1. Connect the USB memory which stores the TPM key. 2-2. Execute “Settings/Registration> Log In> Management Settings> Data Management> TPM Settings> Restore TPM Key”. [Caution] Ask the customer to enter “System Manager ID” and “Password” when logging in. 2-3. Enter the password set at backup operation. 2-4. When the restoration completion screen is displayed, click “OK”. Remove the USB memory, and turn OFF and then ON the main power.
E746	0035	00	Title	TPM version error
			Detection description	TPM PCB which cannot be used in this machine was installed.
			Remedy	[Remedy] Install the TPM PCB (UN82) for this model. (Unit of replacement: TPM PCB ASSEMBLY)

Error code	Detail Code	Location	Item	Description
E748	2010	00	Title	Flash PCB error / HDD error
			Detection description	IPL (startup program) was not found, or the HDD could not be recognized.
			Remedy	[Related parts] - Cable between the Main Controller PCB (UN81/J7008 and J7018) and the HDD (Unit of replacement: CABLE, SATA POWER, CABLE, SATA SIGNAL) - Flash PCB (UN96) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Perform the following in the order while checking whether the error is cleared. 1. Disconnect the cable between the Main Controller PCB and the HDD, and turn ON the main power. a. When the error code has not been changed: 1. Obtain the necessary backup data by referring to the backup data list. 2. Enter safe mode using (2+8) startup, and execute [4] Clear/Format> [2] Flash Format (Flash format) using SST or a USB memory. 3. After replacement of the Flash PCB, reinstall the system software using SST or a USB memory. 4. Restore the backup data. b. When the error code has been changed to another one, see the remedy for the corresponding code. [Reference] For backup and restoration, refer to “Adjustment> Main Controller System” and “Appendix> Backup Data List” in the Service Manual.
E748	9000	00	Title	System error
			Detection description	System error
			Remedy	Contact to the sales company.
E749	0005	00	Title	Error due to change in hardware configuration
			Detection description	There was a change in option configuration that requires turning OFF and then ON the main power.
			Remedy	[Remedy] Turn OFF and then ON the main power. [Reference] It is configured to recognize the options again by turning OFF and then ON the main power.

Error code	Detail Code	Location	Item	Description
E749	0006	00	Title	Error due to change in hardware configuration
			Detection description	There was a change in option configuration during quick off.
			Remedy	[Remedy] Turn OFF and then ON the main power. [Reference] It is configured to recognize the options again by turning OFF and then ON the main power.
E753	0001	00	Title	Download error
			Detection description	Update of the Main Controller PCB ended in failure. (Power supply was interrupted during update without backup.)
			Remedy	[Remedy] Perform the following in the order while checking whether the error is cleared. 1. Reinstall the system software using SST or a USB memory. 2. After replacing the Flash PCB (UN96), reinstall the system software using SST or a USB memory. 3. Collect debug log and contact to the sales company.
E804	0000	00	Title	Power Supply Cooling Fan error
			Detection description	It was detected that the Power Supply Cooling Fan was locked.
			Remedy	[Related parts] - Harness between the Low-voltage Power Supply PCB (UN01/J323) and the Power Supply Cooling Fan (FM05/J5215) (Unit of replacement: CABLE, POWER SUPPLY) - Harness between the Low-voltage Power Supply PCB (UN01/J321) and the Main Controller PCB (UN81/J7010) (Unit of replacement: CABLE, POWER SUPPLY) - Power Supply Cooling Fan (FM05) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts.

Error code	Detail Code	Location	Item	Description
E806	0100	05	Title	Drum Unit Suction Cooling Fan error
			Detection description	The Drum Unit Suction Cooling Fan did not rotate for the specified period of time since the start of drive.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J180) and the Primary Transfer High-voltage PCB (UN03/J271) (Unit of replacement: CABLE, PRIMARY TRANSFER H.V.) - Harness between the Primary Transfer High-voltage PCB (UN03/J272) and the Drum Unit Suction Cooling Fan (FM01) - Drum Unit Suction Cooling Fan (FM01) - Primary Transfer High-voltage PCB (UN03) (Unit of replacement: 1ST TRANSFER H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E806	0101	05	Title	Drum Unit Suction Cooling Fan error
			Detection description	The Drum Unit Suction Cooling Fan rotated for more than the specified period of time after the stop of drive.
			Remedy	[Related parts] - Harness between the DC Controller PCB (UN04/J180) and the Primary Transfer High-voltage PCB (UN03/J271) (Unit of replacement: CABLE, PRIMARY TRANSFER H.V.) - Harness between the Primary Transfer High-voltage PCB (UN03/J272) and the Drum Unit Suction Cooling Fan (FM01) - Drum Unit Suction Cooling Fan (FM01) - Primary Transfer High-voltage PCB (UN03) (Unit of replacement: 1ST TRANSFER H.V. PCB ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E806	0300	05	Title	Delivery Cooling Fan error
			Detection description	The Delivery Cooling Fan did not rotate for the specified period of time since the start of drive.
			Remedy	[Related parts] - Harnesses from the DC Controller PCB to the Delivery Cooling Fan 1. DC Controller PCB (UN04/J151) to Relay Connector (3P) (Unit of replacement: CABLE, MAIN) 2. Relay Connector (3P) to Delivery Cooling Fan (FM03) - Delivery Cooling Fan (FM03) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E806	0301	05	Title	Delivery Cooling Fan error
			Detection description	The Delivery Cooling Fan rotated for more than the specified period of time after the stop of drive.
			Remedy	[Related parts] - Harnesses from the DC Controller PCB to the Delivery Cooling Fan 1. DC Controller PCB (UN04/J151) to Relay Connector (3P) (Unit of replacement: CABLE, MAIN) 2. Relay Connector (3P) to Delivery Cooling Fan (FM03) - Delivery Cooling Fan (FM03) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E806	0400	05	Title	Duplex Cooling Fan error
			Detection description	The Duplex Cooling Fan in the Right Cover did not rotate for the specified period of time since the start of drive.
			Remedy	[Related parts] - Harnesses from the DC Controller PCB to the Duplex Cooling Fan 1. DC Controller PCB (UN04/J122) to Relay Connector (17P) (Unit of replacement: 2ST TRANS. H.V. CONTACT ASS'Y) 2. Relay Connector (17P) to Relay Connector (3P) (Unit of replacement: CABLE, DOOR, RIGHT) 3. Relay Connector (3P) to Relay Connector (3P) (Unit of replacement: CABLE, DOOR FAN, RIGHT) 4. Relay Connector (3P) to Duplex Cooling Fan (FM04) - Duplex Cooling Fan (FM04) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E806	0401	05	Title	Duplex Cooling Fan error
			Detection description	The Duplex Cooling Fan in the Right Cover rotated for more than the specified period of time after the stop of drive.
			Remedy	[Related parts] - Harnesses from the DC Controller PCB to the Duplex Cooling Fan 1. DC Controller PCB (UN04/J122) to Relay Connector (17P) (Unit of replacement: 2ST TRANS. H.V. CONTACT ASS'Y) 2. Relay Connector (17P) to Relay Connector (3P) (Unit of replacement: CABLE, DOOR, RIGHT) 3. Relay Connector (3P) to Relay Connector (3P) (Unit of replacement: CABLE, DOOR FAN, RIGHT) 4. Relay Connector (3P) to Duplex Cooling Fan (FM04) - Duplex Cooling Fan (FM04) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E808	0001	05	Title	Zero cross signal detection error
			Detection description	An electrical trouble caused by zero cross signal error. Frequency between 43 Hz and 57 Hz could not be detected for 5000 msec or longer.
			Remedy	[Related parts] - Harness between the Low-voltage Power Supply PCB (UN01/J322) and the DC Controller PCB (UN04/J22) (Unit of replacement: CABLE, POWER SUPPLY) - Low-voltage Power Supply PCB (UN01) (Unit of replacement: POWER SUPPLY ASSEMBLY) - DC Controller PCB (UN04) (Unit of replacement: DC CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts. [Reference] Before replacing the DC Controller PCB, back up the service mode data (approx. 2 min) and restore the backup data after the replacement so the data may be able to be protected. - Backup: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMBUP - Restoration: COPIER (LEVEL2)> FUNCTION> SYSTEM> DSRAMRES

Error code	Detail Code	Location	Item	Description
E880	0001	00	Title	Controller Cooling Fan error
			Detection description	It was detected that the Controller Cooling Fan was locked.
			Remedy	[Related parts] - Main Controller Cooling Fan (UN81/J15) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) - Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Points to note at work] When checking the harness/cable or connector, perform the following work. 1. Disconnect and then connect the connector to check that there is no bent pin and cable disconnection. 2. Visually check that the harness is not caught or open circuit. 3. If there is any error, replace the corresponding harness/cable. [Remedy] Check/replace the related parts.

Error code	Detail Code	Location	Item	Description
E881	0001	00	Title	Board over heat error
			Detection description	Abnormal temperature of CPU on the Main Controller PCB was detected.
			Remedy	[Related parts] Main Controller PCB (UN81) (Unit of replacement: MAIN CONTROLLER PCB ASSEMBLY) [Remedy] Perform the following in the order while checking whether the error is cleared. a. If the error occurred during a service visit and then occurred again, replace the Main Controller PCB. b. If the error does not occur during a service visit but is found in the log: 1. Clean the inlet on the side where the fan is installed and remove dust. 2. Remove dust from the fan in the Controller Box. 3. If the space on the side where the fan is installed is less than 10 cm, ask the customer to secure enough space.
E996	0071	04	Title	Error for collecting sequence jam log (ADF)
			Detection description	Error for collecting sequence jam log (ADF)
			Remedy	[Remedy] Collect debug log and contact to the sales company. [Reference] By setting “COPIER (LEVEL2)> OPTION> FNC-SW> JM-ERR-R” to “0” (default), it is handled as a jam, instead of an error.
E996	0CA0	05	Title	Error for collecting sequence jam log (Printer)
			Detection description	Error for collecting jam log (Printer)
			Remedy	[Remedy] Collect debug log and contact to the sales company. [Reference] By setting “COPIER (LEVEL2)> OPTION> FNC-SW> JM-ERR-D” to “0” (default), it is handled as a jam, instead of an error.
E996	0CA1	05	Title	Error for collecting sequence jam log (Printer)
			Detection description	Error for collecting jam log (Printer)
			Remedy	[Remedy] Collect debug log and contact to the sales company. [Reference] By setting “COPIER (LEVEL2)> OPTION> FNC-SW> JM-ERR-D” to “0” (default), it is handled as a jam, instead of an error.

Error code	Detail Code	Location	Item	Description
E996	0CA2	05	Title	Error for collecting sequence jam log (Printer)
			Detection description	Error for collecting jam log (Printer)
			Remedy	[Remedy] Collect debug log and contact to the sales company. [Reference] By setting “COPIER (LEVEL2)> OPTION> FNC-SW> JM-ERR-D” to “0” (default), it is handled as a jam, instead of an error.
E996	0CA3	05	Title	Error for collecting sequence jam log (Printer)
			Detection description	Error for collecting jam log (Printer)
			Remedy	[Remedy] Collect debug log and contact to the sales company. [Reference] By setting “COPIER (LEVEL2)> OPTION> FNC-SW> JM-ERR-D” to “0” (default), it is handled as a jam, instead of an error.
E996	0CA4	05	Title	Error for collecting sequence jam log (Printer)
			Detection description	Error for collecting jam log (Printer)
			Remedy	[Remedy] Collect debug log and contact to the sales company. [Reference] By setting “COPIER (LEVEL2)> OPTION> FNC-SW> JM-ERR-D” to “0” (default), it is handled as a jam, instead of an error.
E996	0CA9	05	Title	Error for collecting sequence jam log (Printer)
			Detection description	Error for collecting jam log (Printer)
			Remedy	[Remedy] Collect debug log and contact to the sales company. [Reference] By setting “COPIER (LEVEL2)> OPTION> FNC-SW> JM-ERR-D” to “0” (default), it is handled as a jam, instead of an error.
E996	0CAB	05	Title	Error for collecting sequence jam log (Printer)
			Detection description	Error for collecting jam log (Printer)
			Remedy	[Remedy] Collect debug log and contact to the sales company. [Reference] By setting “COPIER (LEVEL2)> OPTION> FNC-SW> JM-ERR-D” to “0” (default), it is handled as a jam, instead of an error.

Error code	Detail Code	Location	Item	Description
E996	0CAD	05	Title	Error for collecting sequence jam log (Printer)
			Detection description	Error for collecting jam log (Printer)
			Remedy	[Remedy] Collect debug log and contact to the sales company. [Reference] By setting “COPIER (LEVEL2)> OPTION> FNC-SW> JM-ERR-D” to “0” (default), it is handled as a jam, instead of an error.
E996	0CAE	05	Title	Error for collecting sequence jam log (Printer)
			Detection description	Error for collecting jam log (Printer)
			Remedy	[Remedy] Collect debug log and contact to the sales company. [Reference] By setting “COPIER (LEVEL2)> OPTION> FNC-SW> JM-ERR-D” to “0” (default), it is handled as a jam, instead of an error.
E996	0CAF	05	Title	Error for collecting sequence jam log (Finisher)
			Detection description	Error for collecting jam log (Finisher)
			Remedy	[Remedy] Collect debug log and contact to the sales company. [Reference] By setting “COPIER (LEVEL2)> OPTION> FNC-SW> JM-ERR-D” to “0” (default), it is handled as a jam, instead of an error.

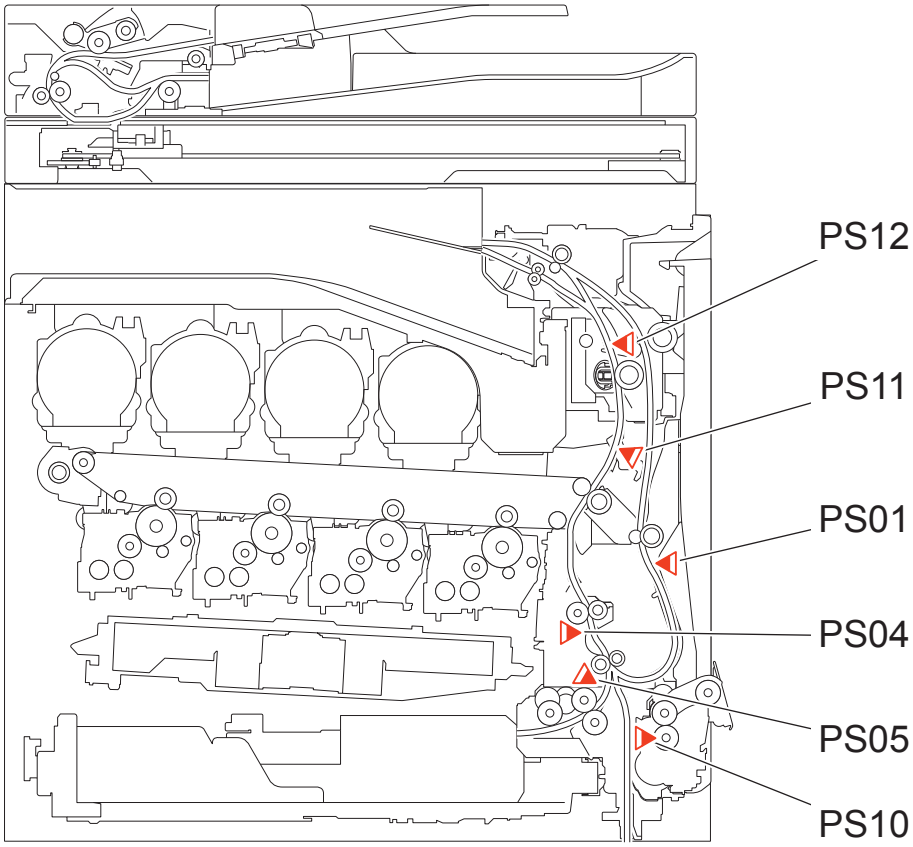
T-7-4

Jam Code

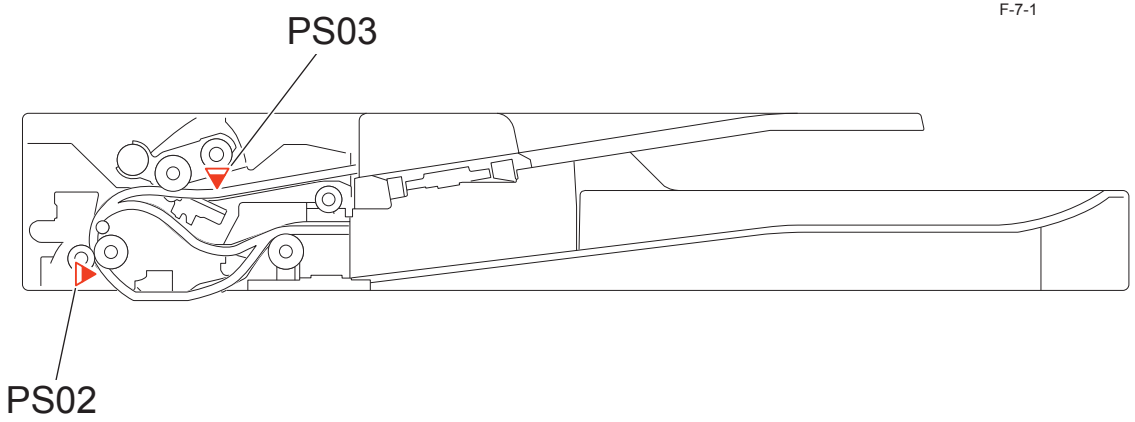
Jam Type

Type	Detection description	Possible symptoms	Cause and remedy
Delay(01xx)	- The sensor was not turned ON although a specified period of time had passed.	• A paper is being caught on paper lint/foreign matters on the feed path. • The roller does not rotate due to failure of the Feed Motor/open circuit/poor connection of the connector. • The status does not change (it is not turned ON) although a paper passed through due to open circuit in the sensor/poor connection of the connector.	- Perform the following in the order while checking whether the jam is cleared. 1. Check/remove the residual paper lint/foreign matters on the feed path. 2. Check/replace the Feed Motor. 3. Check/replace the sensor.
Stationary(02xx)	- The sensor was not turned OFF although a specified period of time had passed since it was turned ON.	• A paper is being caught on paper lint/foreign matters on the feed path. • The roller does not rotate due to failure of the Feed Motor/open circuit/poor connection of the connector. • The status does not change (it is not turned OFF) although a paper passed through due to open circuit in the sensor/poor connection of the connector.	- Perform the following in the order while checking whether the jam is cleared. 1. Check/remove the residual paper lint/foreign matters on the feed path. 2. Check/replace the Feed Motor. 3. Check/replace the sensor.
Door open	- The machine stopped as emergency stop because a cover of the host machine/option was opened during printing.	• A cover of the host machine/option was opened due to vibration during operation. • The status of a cover was detected incorrectly as opened due to open circuit of the Cover Sensor/poor connection of the connector.	- Perform the following in the order while checking whether the jam is cleared. 1. Check whether the corresponding cover is closed properly by checking detection signal of the Cover Sensor in the host machine/option using service mode. 2. Check/replace the Cover Sensor.
Sequence	- An error caused by sporadic noise of the sensor detection signal or firmware of an equipment was detected.	• An error caused by sporadic noise signal to the sensor was detected. • An error caused by firmware was detected.	- Perform the following in the order while checking whether the jam is cleared. 1. Remove the residual papers by following the jam removal procedure. 2. Check the latest version of the firmware, and upgrade it if necessary.
Power-on(0Axx)	- Paper remained on the feed path at power-on.	• Power was turned ON without removing residual paper after occurrence of an error/jam. • It was detected incorrectly that there was residual paper at power-on due to open circuit of the sensor/poor connection of the connector.	- Perform the following in the order while checking whether the jam is cleared. 1. Check the error/jam log, and remove the residual papers by following the jam removal procedure. 2.Check/replace the sensor.
Error avoidance	- The machine was stopped because an error in the machine other than parts failure was detected.	• An error caused by sporadic noise signal was detected. • Operation failure occurred due to one-time catch on a mechanical part.	- Normally, the machine can be used after removing the residual papers by following the jam removal procedure. - In the case of parts failure, an error occurs at retry operation. In such a case, perform remedy according to the displayed error code.
Size error	- Position of the Cassette Guide Plate was not appropriate for the size of paper being loaded.	• Different size of paper was loaded without changing position of the Cassette Guide Plate and output was performed. • Paper size was detected incorrectly due to mechanical error of the Size Detection Unit, open circuit in the sensor/poor connection of the connector.	- Perform the following in the order while checking whether the jam is cleared. 1. Set the position of the Cassette Guide Plate again. 2. Check/replace the mechanical mechanism of the Size Detection Unit/sensor.
Different media	- The type of loaded paper differed from the setting.	• Output was performed with wrong paper settings (although transparency was set as paper type, different type of paper was loaded, and vice versa). • Transparency could not be detected due to failure of the Transparency Sensor/open circuit/poor connection of the connector.	- Perform the following in the order while checking whether the jam is cleared. 1. Make the paper settings correctly/load paper again. 2. Check/replace the Transparency Sensor.

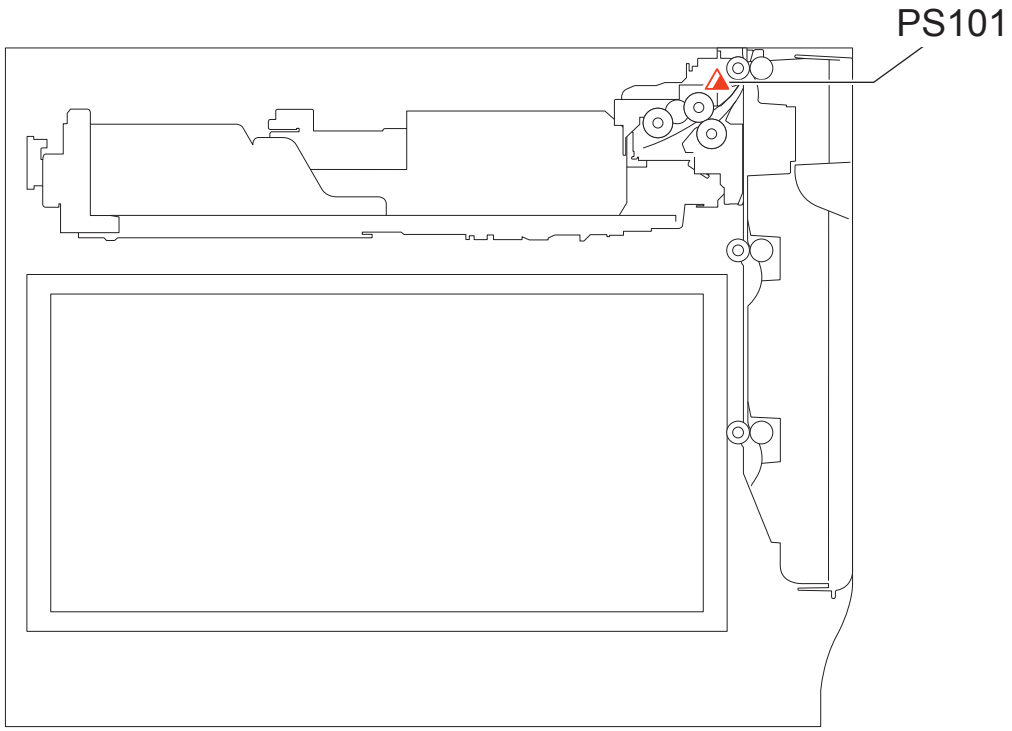
T-7-5



F-7-1

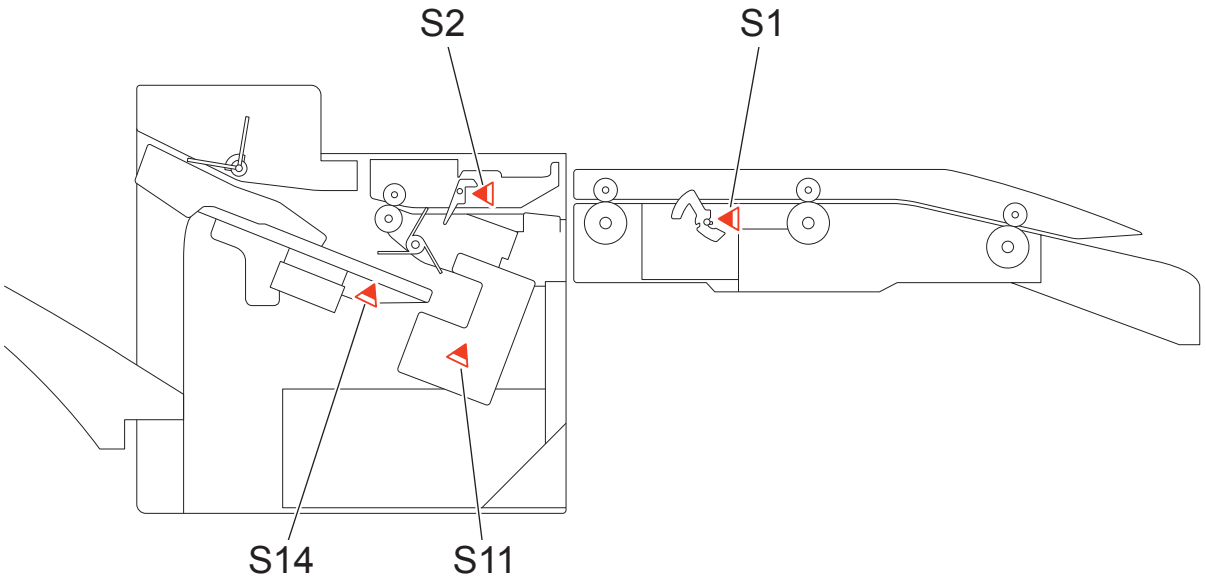


F-7-2


PS101

F-7-3

F-7-4



F-7-5

Jam Code

ACCID	Jam Code	Type	Sensor Name	Sensor ID	I/O		
					Address	bit	Remarks
00	0101	Delay	Cassette 1 Pickup Sensor	PS05	P005	14	1:paper
00	0102	Delay	Cassette 2 Pullout Sensor	PS101	P022	2	1:paper
00	0103	Delay	Cassette 3 Pullout Sensor	PS102	P024	13	1:paper
00	0104	Delay	Cassette 4 Pullout Sensor	PS103	P024	8	1:paper
00	0105	Delay	Pre-Registration Sensor	PS04	P010	3	1:paper
00	0106	Delay	Delivery Sensor	PS12	P005	14	1:paper
00	0107	Delay	Duplex Sensor	PS01	P011	12	1:paper
00	0202	Stationary	Cassette 2 Pullout Sensor	PS101	P022	2	1:paper
00	0203	Stationary	Cassette 3 Pullout Sensor	PS102	P024	13	1:paper
00	0204	Stationary	Cassette 4 Pullout Sensor	PS103	P024	8	1:paper
00	0205	Stationary	Pre-Registration Sensor	PS04	P010	3	1:paper
00	0206	Stationary	Delivery Sensor	PS12	P005	14	1:paper
00	0706	Fixing paper wrapping	Fixing paper wrapping jam	-	-	-	-
00	0709	Fixing paper wrapping	Fixing paper wrapping jam	-	-	-	-
00	0A01	Power ON	Cassette 1 Pickup Sensor	PS05	P010	5	1:paper
00	0A02	Power ON	Cassette 2 Pullout Sensor	PS101	P022	2	1:paper
00	0A03	Power ON	Cassette 3 Pullout Sensor	PS102	P024	13	1:paper
00	0A04	Power ON	Cassette 4 Pullout Sensor	PS103	P024	8	1:paper
00	0A06	Power ON	Delivery Sensor	PS12	P005	14	1:paper
00	0A07	Power ON	Duplex Sensor	PS01	P011	12	1:paper
00	0A08	Power ON	Arch Sensor	PS11	P006	7	1:deep roop /0:shallow roop
00	0190	Delay	Pre-Registration Sensor	PS04	P010	3	1:paper
00	0191	Delay	Multi-purpose Tray HP Sensor	PS10	-	-	-
00	0A92	Power ON	Multi-purpose Tray HP Sensor	PS10	-	-	-
00	0B00	Door Open	-	-	-	-	-
00	0B0D	No drum jam*	-	-	-	-	-
00	0CA1	Sequence	Software sequence (Feed status cannot be returned)	-	-	-	-
00	0CA2	Sequence	Software sequence (ImageReady cannot be sent)	-	-	-	-
00	0CA3	Sequence	Software sequence (Stop due to jam is not possible)	-	-	-	-
00	0CA4	Sequence	Software sequence (Finisher-related)	-	-	-	-
00	0CA9	Sequence	Software sequence error (Automatic adjustment-related)	-	-	-	-
00	0CAF	Sequence	Finisher sequence jam	-	-	-	-
00	0CC1	Sequence	Software sequence error (Automatic adjustment: Transfer-related)	-	-	-	-
00	0CC2	Sequence	Software sequence error (Automatic adjustment: Image formation-related)	-	-	-	-

ACCID	Jam Code	Type	Sensor Name	Sensor ID	I/O		
					Address	bit	Remarks
00	0CC3	Sequence	Software sequence error (Automatic adjustment: Last rotation-related)	-	-	-	-
00	0CC5	Sequence	Software sequence error (Transfer-related)	-	-	-	-
00	0CC6	Sequence	Software sequence error (Prevention of ITB displacement)	-	-	-	-
00	0CF1	Sequence	Error avoidance jam	-	-	-	-
00	0CF2	Sequence	Software sequence error (Vsync error)	-	-	-	-
00	0D91	Size error	Wrong size (small)	-	-	-	-
00	1CF1	Error avoidance	Finisher error avoidance jam	-	-	-	-
01	0001	Delay	Document End Sensor	PS02	P001	0	1:paper
01	0002	Stationary	Document End Sensor	PS02	P001	0	1:paper
01	0004	Delay (at the time of reversing)	Document End Sensor	PS02	P001	0	1:paper
01	0005	Stationary (at the time of reversing)	Document End Sensor	PS02	P001	0	1:paper
01	0021	Timing	Document End Sensor	PS02	P001	0	1:paper
01	0071	Timing Error	Timing Error Jam	-	-	-	-
01	0094	Power ON	Document End Sensor	PS02	P001	0	1:paper
			Document Sensor	PS03	P001	1	1:paper
01	0096	Limited function mode	DF Job Error Jam	-	-	-	-
02	1001	Delay	Buffer Sensor	S1	-	-	-
02	1004	Delay	Feed Path Sensor	S2	-	-	-
02	1104	Stationary	Feed Path Sensor	S2	-	-	-
02	1301	Power ON	Buffer Sensor	S1	-	-	-
02	1304	Power ON	Feed Path Sensor	S2	-	-	-
02	1401	Door Open	Buffer Sensor	S1	-	-	-
02	1404	Door Open	Feed Path Sensor	S2	-	-	-
02	1500	Stapler	Staple HP Sensor	S11	-	-	-
02	1F01	Early arrival	Buffer Sensor	S1	-	-	-
02	2F30	Error avoidance	Front Alignment Motor	-	-	-	-
02	2F31	Error avoidance	Staple Motor	-	-	-	-
02	2F37	Error avoidance	Rear Alignment Motor	-	-	-	-
02	2F40	Error avoidance	Stack Tray Shift Motor	-	-	-	-
02	2F75	Error avoidance	Gripper Motor	-	-	-	-
02	2F77	Error avoidance	Paddle Motor	-	-	-	-
02	2F83	Error avoidance	Tray Auxiliary Guide Motor	-	-	-	-

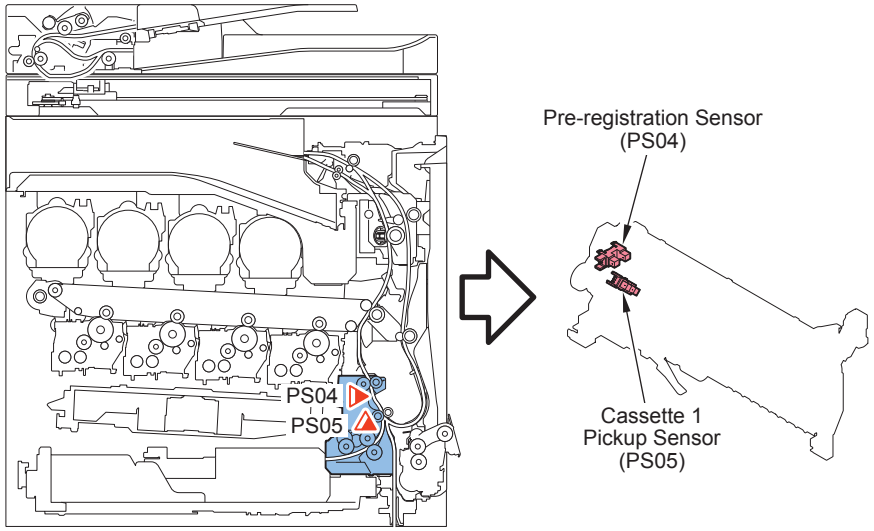
*:Drum Unit detection may not be executed at times such as at recovery from sleep mode (of 4 or more hours).
"No drum jam" is detected when a print job is executed with no Drum Unit installed in the machine.

T-7-6

Detailed Jam Codes

ACCID	Jam Code	Type	Sensor Name	Sensor ID	I/O		
					Address	bit	Remarks
00	0105	Delay	Pre-Registration Sensor	PS04	P010	3	1:paper
00	0205	Stationary	Pre-Registration Sensor	PS04	P010	3	1:paper
00	0190	Delay	Pre-Registration Sensor	PS04	P010	3	1:paper
00	0101	Delay	Cassette 1 Pickup Sensor	PS05	P005	14	1:paper
00	0A01	Power ON	Cassette 1 Pickup Sensor	PS05	P010	5	1:paper

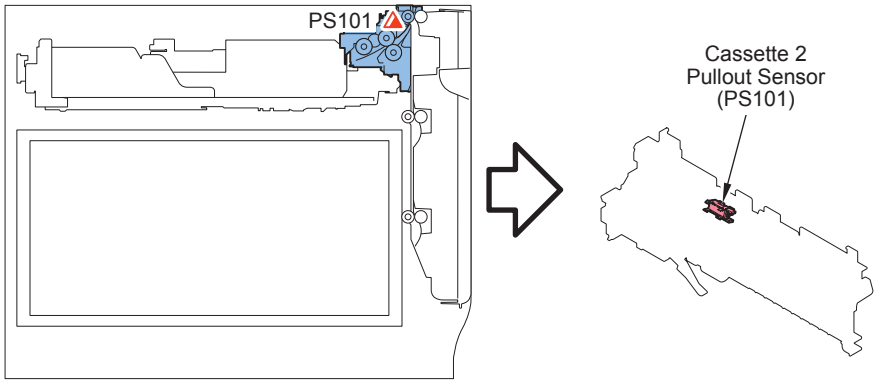
T-7-7



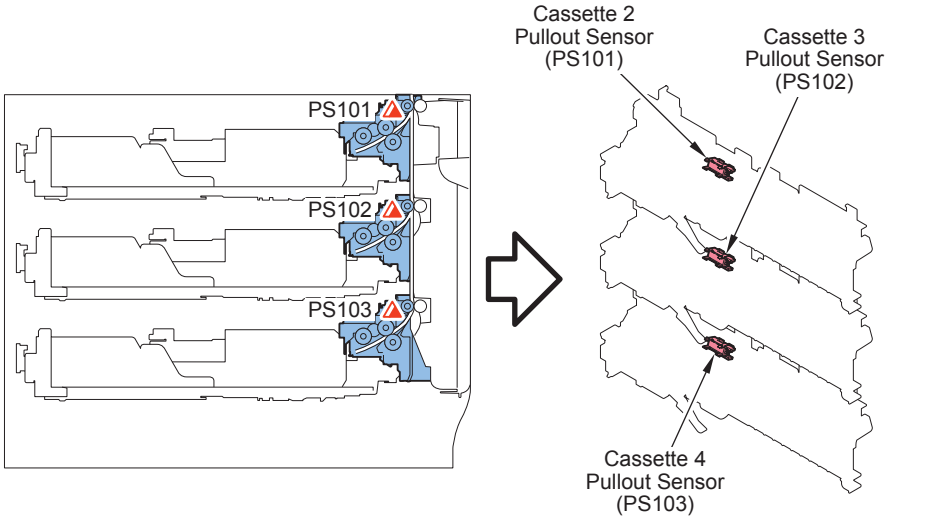
F-7-6

ACCID	Jam Code	Type	Sensor Name	Sensor ID	I/O		
					Address	bit	Remarks
00	0102	Delay	Cassette 2 Pullout Sensor	PS101	P022	2	1:paper
00	0202	Stationary	Cassette 2 Pullout Sensor	PS101	P022	2	1:paper
00	0A02	Power ON	Cassette 2 Pullout Sensor	PS101	P022	2	1:paper
00	0103	Delay	Cassette 3 Pullout Sensor	PS102	P024	13	1:paper
00	0203	Stationary	Cassette 3 Pullout Sensor	PS102	P024	13	1:paper
00	0A03	Power ON	Cassette 3 Pullout Sensor	PS102	P024	13	1:paper
00	0104	Delay	Cassette 4 Pullout Sensor	PS103	P024	8	1:paper
00	0204	Stationary	Cassette 4 Pullout Sensor	PS103	P024	8	1:paper
00	0A04	Power ON	Cassette 4 Pullout Sensor	PS103	P024	8	1:paper

T-7-8



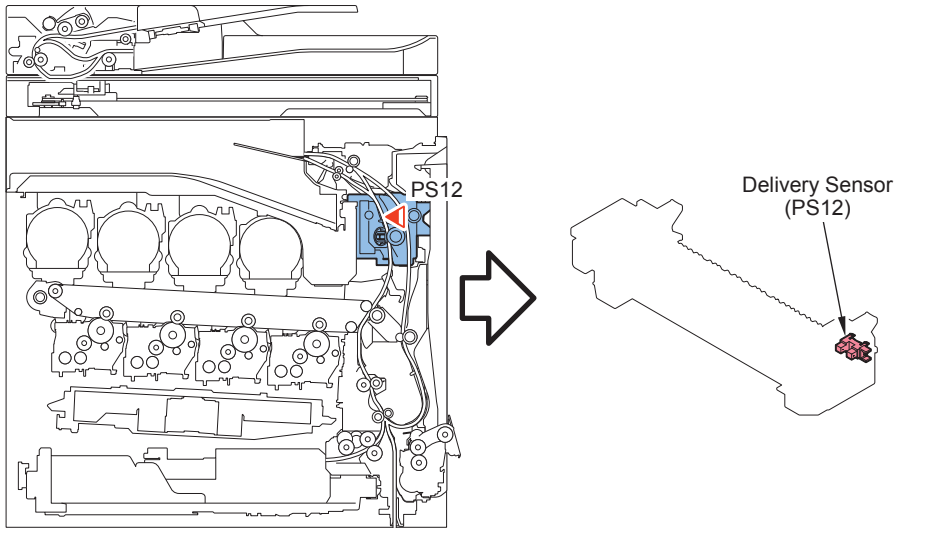
F-7-7



F-7-8

ACCID	Jam Code	Type	Sensor Name	Sensor ID	I/O		
					Address	bit	Remarks
00	0106	Delay	Delivery Sensor	PS12	P005	14	1:paper
00	0206	Stationary	Delivery Sensor	PS12	P005	14	1:paper
00	0A06	Power ON	Delivery Sensor	PS12	P005	14	1:paper

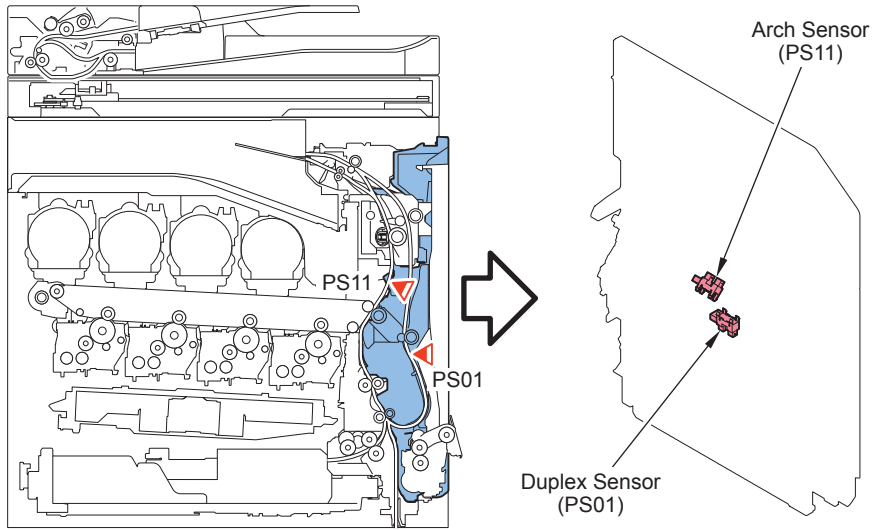
T-7-9



F-7-9

ACCID	Jam Code	Type	Sensor Name	Sensor ID	I/O		
					Address	bit	Remarks
00	0107	Delay	Duplex Sensor	PS01	P011	12	1:paper
00	0A07	Power ON	Duplex Sensor	PS01	P011	12	1:paper
00	0706	Fixing paper wrapping	Fixing paper wrapping jam	-	-	-	-
00	0709	Fixing paper wrapping	Fixing paper wrapping jam	-	-	-	-
00	0A08	Power ON	Arch Sensor	PS11	P006	7	1:deep roop /0:shallow roop

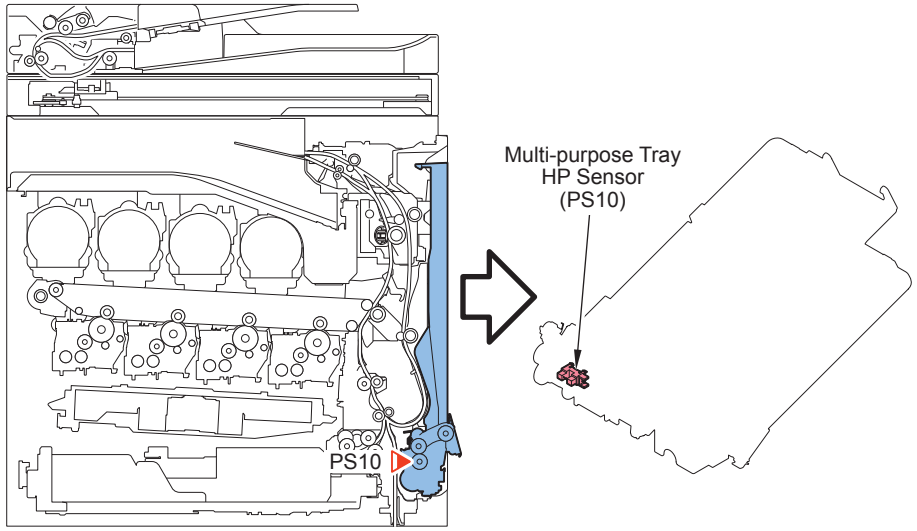
T-7-10



F-7-10

ACCID	Jam Code	Type	Sensor Name	Sensor ID	I/O		
					Address	bit	Remarks
00	0191	Delay	Multi-purpose Tray HP Sensor	PS10	-	-	-
00	0A92	Power ON	Multi-purpose Tray HP Sensor	PS10	-	-	-

T-7-11



F-7-11

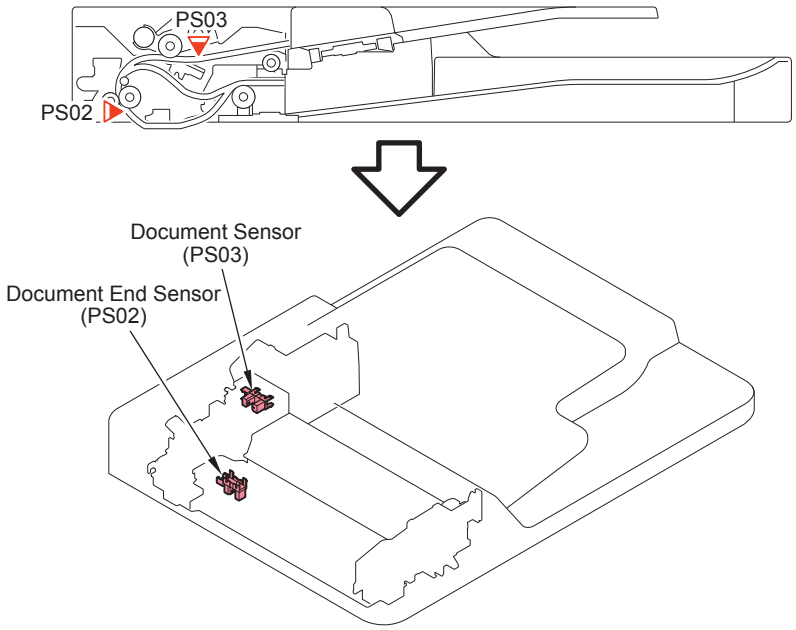
ACCID	Jam Code	Type	Sensor Name	Sensor ID	I/O		
					Address	bit	Remarks
00	0B00	Door open	-	-	-	-	-
00	0B0D	No drum jam	-	-	-	-	-
00	0CA1	Sequence	Software sequence (Feed status cannot be returned)	-	-	-	-
00	0CA2	Sequence	Software sequence (ImageReady cannot be sent)	-	-	-	-
00	0CA3	Sequence	Software sequence (Stop due to jam is not possible)	-	-	-	-
00	0CA4	Sequence	Software sequence (Finisher-related)	-	-	-	-
00	0CA9	Sequence	Software sequence error (Automatic adjustment-related)	-	-	-	-
00	0CAF	Sequence	Finisher sequence jam	-	-	-	-
00	0CC1	Sequence	Software sequence error (Automatic adjustment: Transfer-related)	-	-	-	-
00	0CC2	Sequence	Software sequence error (Automatic adjustment: Image formation-related)	-	-	-	-
00	0CC3	Sequence	Software sequence error (Automatic adjustment: Last rotation-related)	-	-	-	-
00	0CC5	Sequence	Software sequence error (Transfer-related)	-	-	-	-
00	0CC6	Sequence	Software sequence error (Prevention of ITB displacement)	-	-	-	-
00	0CF1	Sequence	Error avoidance jam	-	-	-	-
00	0CF2	Sequence	Error avoidance jam	-	-	-	-
00	0D91	Size error	Wrong size (small)	-	-	-	-
00	1CF1	Error avoidance	Finisher error avoidance jam	-	-	-	-

T-7-12

■ Detailed Jam Codes(ADF)

ACCID	Jam Code	Type	Sensor Name	Sensor ID	Jam description		I/O		
							Address	bit	Remarks
01	0001	Delay	Document End Sensor	PS02	Description	When the Document End Sensor (PS02) does not detect the paper although a specified period of time has passed since the Document Sensor (PS03) detected the paper.	P001	0	1:paper
	0002	Stationary	Document End Sensor	PS02	Description	When the Feed Path Sensor (S2) is not turned OFF although a specified period of time has passed since the Document End Sensor (PS02) detected the paper.	P001	0	1:paper
	0004	Delay (at the time of reversing)	Document End Sensor	PS02	Description	When the Document End Sensor (PS02) does not detect the paper although a specified period of time has passed since the Document Sensor (PS03) detected the paper after reversing.	P001	0	1:paper
	0005	Stationary (at the time of reversing)	Document End Sensor	PS02	Description	When the Feed Path Sensor (S2) is not turned OFF although a specified period of time has passed since the Document End Sensor (PS02) detected the paper after reversing.	P001	0	1:paper
	0021	Timing	Document End Sensor	PS02	Description	At 1-sided or 2-sided printing, the leading edge of the paper failed to be detected because it arrived the Document End Sensor (PS02) before the specified period of time passes.	P001	0	1:paper
	0071	Timing Error	Timing Error Jam	-	Description	An error occurred in the software sequence for some reasons. The error may be cleared by placing the paper on the Original Tray.	-	-	-
	0094	Power-on	Document End Sensor	PS02	Description	When the Document End Sensor (PS02) detects the paper at power-on.	P001	0	1:paper
			Document Sensor	PS03	Description	When the Document Sensor (PS03) detects the paper at power-on.	P001	1	1:paper
	0096	Limited function mode	DF Job Error Jam	-	Description	If an error occurs for some reasons, a jam message is displayed to prompt the user to perform jam removal. After that, an error is displayed, and the device enters limited functions mode. The machine recovers when the cause of the error is solved.	-	-	-

T-7-13

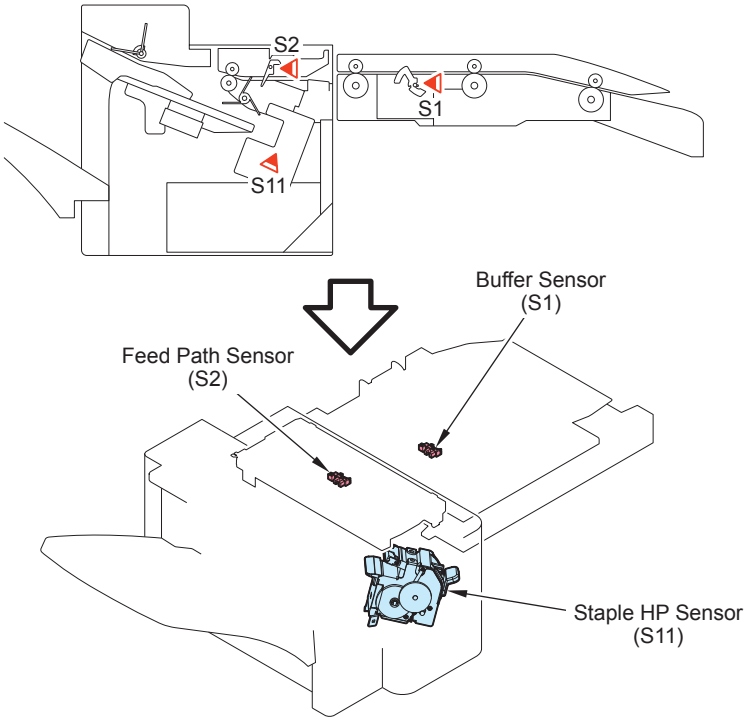


F-7-12

■ Detailed Jam Codes(Finisher)

ACCID	Jam Code	Type	Sensor Name	Sensor ID	Jam description		I/O		
							Address	bit	Remarks
02	1001	Delay	Buffer Sensor	S1	Description	Detected when the Buffer Sensor (S1) does not detect paper after lapse of the specified time since reception of a paper delivery signal from the host machine.	-	-	-
	1301	Power ON	Buffer Sensor	S1	Description	Detected when the Buffer Sensor (S1) detects paper during power-on.	-	-	-
	1401	Door open	Buffer Sensor	S1	Description	Detected when the front door is opened while paper is being fed (the Buffer Sensor (S1) detects paper).	-	-	-
	1F01	Early arrival jam	Buffer Sensor	S1	Description	Detected when the Buffer Sensor (S1) detects paper without receiving a delivery signal from the host machine. Or detected when the Buffer Sensor (S1) detects paper earlier than the specified timing after reception of a delivery signal from the host machine.	-	-	-
	1004	Delay	Feed Path Sensor	S2	Description	Detected when the Feed Path Sensor (S2) does not detect paper after lapse of the specified time since detection of paper by the Buffer Sensor (S1).	-	-	-
	1104	Staionary	Feed Path Sensor	S2	Description	Detected when the Feed Path Sensor (S2) does not turn off after lapse of the specified time since detection of paper by the Feed Path Sensor (S2).	-	-	-
	1304	Power ON	Feed Path Sensor	S2	Description	Detected when the Feed Path Sensor (S2) detects paper during power-on.	-	-	-
	1404	Door open	Feed Path Sensor	S2	Description	Detected when the front door is opened while paper is being fed (the Feed Path Sensor (S2) detects paper).	-	-	-
	1500	Stapler	Staple HP Sensor	S11	Description	Detected when the staple HP sensor (S11) cannot detect the stapler again even after the specified time has lapsed since the stapler passed through the staple HP sensor (S11) when stapling is executed. Or detected when the staple edging sensor (S12) cannot detect a staple even when recovery operation is performed ten times when staple edging is executed.	-	-	-
	2F30	Error avoidance	Front Alignment Motor	-	Description	When the controller detected the following errors during feeding operation. Error in the front alignment motor (E530)	-	-	-
	2F31	Error avoidance	Staple Motor	-	Description	When the controller detected the following errors during feeding operation. Error in the staple motor (E531)	-	-	-
	2F37	Error avoidance	Rear Alignment Motor	-	Description	When the controller detected the following errors during feeding operation. Error in the rear alignment motor (E537)	-	-	-
	2F40	Error avoidance	Stack Tray Shift Motor	-	Description	When the controller detected the following errors during feeding operation. Error in the stack tray shift motor (E540)	-	-	-
	2F75	Error avoidance	Gripper Motor	-	Description	When the controller detected the following errors during feeding operation. Error in the gripper motor (E575)	-	-	-
	2F77	Error avoidance	Paddle Motor	-	Description	When the controller detected the following errors during feeding operation. Error in the paddle motor (E577)	-	-	-
	2F83	Error avoidance	Tray Auxiliary Guide Motor	-	Description	When the controller detected the following errors during feeding operation. Error in the tray auxiliary guide motor (E583)	-	-	-

T-7-14


S2
S1
S11
Buffer Sensor
(S1)
Feed Path Sensor
(S2)
Staple HP Sensor
(S11)

F-7-13

Alarm Code

Alarm Code

Location Code	Alarm Code	Description	Details
00	0085	A notice of stat	-
00	0246	For R&D	-
00	0247	For R&D	-
04	0001	Cassette 1 Lifter error	Cause: Error in Lift Motor or Lifter Sensor Measures: 1. While Cassette 1 is removed, turn ON the power and then insert Cassette 1. When there is operation sound of the motor 1-1. Check the harness/connector between the DC Controller and the Cassette 1 Lifter Sensor 2-1. Check if the Cassette 1 Lifter Sensor is installed. 3-1. Extend the Sensor Flag of the Cassette 1 Lifter Sensor by approx. 1.5 mm with Plastic Film, etc. 4-1. Check the condition of the gear at the host machine side (to see if there is missing or swing with the gear) 5-1. Replace the Cassette 1 Lifter Sensor 6-1. Replace the DC Controller PCB When there is no operation sound of the motor 1-2. Check the harness/connector between the DC Controller and the Cassette 1 Lifter Motor 2-2. Check conduction of the fuse of the DC Controller 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) 4-2. Check the Cassette 1 Lifter Motor 5-2. Replace the DC Controller
04	0002	Cassette 2 Lifter error	Cause: Error in Lift Motor or Lifter Sensor Measures: 1. While Cassette 2 is removed, turn ON the power and then insert Cassette 2. When there is operation sound of the motor 1-1. Check the harness/connector between the DC Controller and the Cassette 2 Lifter Sensor 2-1. Check if the Cassette 2 Lifter Sensor is installed. 3-1. Extend the Sensor Flag of the Cassette 2 Lifter Sensor by approx. 1.5 mm with Plastic Film, etc. 4-1. Check the condition of the gear at the host machine side (to see if there is missing or swing with the gear) 5-1. Replace the Cassette 2 Lifter Sensor 6-1. Replace the DC Controller PCB When there is no operation sound of the motor 1-2. Check the harness/connector between the DC Controller and the Cassette 2 Lifter Motor 2-2. Check conduction of the fuse of the DC Controller 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) 4-2. Check the Cassette 2 Lifter Motor 5-2. Replace the DC Controller

Location Code	Alarm Code	Description	Details
04	0003	Cassette 3 Lifter error	Cause: Error in Lift Motor or Lifter Sensor Measures: 1. While Cassette 3 is removed, turn ON the power and then insert Cassette 3. When there is operation sound of the motor 1-1. Check the harness/connector between the DC Controller and the Cassette 3 Lifter Sensor 2-1. Check if the Cassette 3 Lifter Sensor is installed. 3-1. Extend the Sensor Flag of the Cassette 3 Lifter Sensor by approx. 1.5 mm with Plastic Film, etc. 4-1. Check the condition of the gear at the host machine side (to see if there is missing or swing with the gear) 5-1. Replace the Cassette 3 Lifter Sensor 6-1. Replace the DC Controller PCB When there is no operation sound of the motor 1-2. Check the harness/connector between the DC Controller and the Cassette 3 Lifter Motor 2-2. Check conduction of the fuse of the DC Controller 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) 4-2. Check the Cassette 3 Lifter Motor 5-2. Replace the DC Controller

Location Code	Alarm Code	Description	Details
04	0004	Cassette 4 Lifter error	Cause: Error in Lift Motor or Lifter Sensor Measures: 1. While Cassette 4 is removed, turn ON the power and then insert Cassette 4. When there is operation sound of the motor 1-1. Check the harness/connector between the DC Controller and the Cassette 4 Lifter Sensor 2-1. Check if the Cassette 4 Lifter Sensor is installed. 3-1. Extend the Sensor Flag of the Cassette 4 Lifter Sensor by approx. 1.5 mm with Plastic Film, etc. 4-1. Check the condition of the gear at the host machine side (to see if there is missing or swing with the gear) 5-1. Replace the Cassette 4 Lifter Sensor 6-1. Replace the DC Controller PCB When there is no operation sound of the motor 1-2. Check the harness/connector between the DC Controller and the Cassette 4 Lifter Motor 2-2. Check conduction of the fuse of the DC Controller 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) 4-2. Check the Cassette 4 Lifter Motor 5-2. Replace the DC Controller

Location Code	Alarm Code	Description	Details
04	0007	MP Tray Lifter error	Cause: Error in Lift Motor or Lifter Sensor Measures: 1. While MP Tray is removed, turn ON the power and then insert MP Tray. When there is operation sound of the motor 1-1. Check the harness/connector between the DC Controller and the MP Tray Lifter Sensor 2-1. Check if the MP Tray Lifter Sensor is installed. 3-1. Extend the Sensor Flag of the MP Tray Lifter Sensor by approx. 1.5 mm with Plastic Film, etc. 4-1. Check the condition of the gear at the host machine side (to see if there is missing or swing with the gear) 5-1. Replace the MP Tray Lifter Sensor 6-1. Replace the DC Controller PCB When there is no operation sound of the motor 1-2. Check the harness/connector between the DC Controller and the MP Tray Lifter Motor 2-2. Check conduction of the fuse of the DC Controller 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) 4-2. Check the MP Tray Lifter Motor 5-2. Replace the DC Controller
04	0011	Cassette 1 paper feed retry error	Movement: Nothing in particular. Cause: The paper does not picked up even if the paper feed retry operation is carried out 4 times. Measures: Check the Cassette 1 Pickup and Feed and Separation Rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
04	0012	Cassette 2 paper feed retry error	Movement: Nothing in particular. Cause: The paper does not picked up even if the paper feed retry operation is carried out 4 times. Measures: Check the Cassette 2 Pickup and Feed and Separation Rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
04	0013	Cassette 3 paper feed retry error	Movement: Nothing in particular. Cause: The paper does not picked up even if the paper feed retry operation is carried out 4 times. Measures: Check the Cassette 3 Pickup and Feed and Separation Rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
04	0014	Cassette 4 paper feed retry error	Movement: Nothing in particular. Cause: The paper does not picked up even if the paper feed retry operation is carried out 4 times. Measures: Check the Cassette 4 Pickup and Feed and Separation Rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
09	0010	Drum memory tag detection error (Y)	Unable to detect the memory tag of the Drum Unit (Y).
09	0011	Drum memory tag detection error (M)	Unable to detect the memory tag of the Drum Unit (M).
09	0012	Drum memory tag detection error (C)	Unable to detect the memory tag of the Drum Unit (C).
09	0013	Drum memory tag detection error (Bk)	Unable to detect the memory tag of the Drum Unit (Bk).
10	0006	Patch Sensor error 1	Movement: The background correction coefficient value was not updated. Cause: Each sampling value of the background reflection output of the Front Sensor did not fall within the range from 10 or higher to 250 or less for 2 consecutive times during printing. Measures: 1. Clean the Patch Sensor window. 2. Check the connector connection of the Patch Sensor. 3. Check the connector connection of the Patch Sensor Shutter Solenoid. 4. Replace the Patch Sensor Unit.
10	0007	Patch Sensor error 2	Movement: The background correction coefficient value was not updated. Cause: Each sampling value of the background reflection output of the Front Sensor did not fall within the range from 10 or higher to 250 or less for 2 consecutive times during printing. Measures: 1. Clean the Patch Sensor window. 2. Check the connector connection of the Patch Sensor. 3. Check the connector connection of the Patch Sensor Shutter Solenoid. 4. Replace the Patch Sensor Unit.
10	0017	Toner (Y) prior delivery alarm	An alarm for requesting a prior delivery is sent to UGW as the value of Toner level detect value has reached the value set in COPIER > OPTION > FNC-SW > T-DLV-CL.

Location Code	Alarm Code	Description	Details
10	0018	Toner (M) prior delivery alarm	An alarm for requesting a prior delivery is sent to UGW as the value of Toner level detect value has reached the value set in COPIER > OPTION > FNC-SW > T-DLV-CL.
10	0019	Toner (C) prior delivery alarm	An alarm for requesting a prior delivery is sent to UGW as the value of Toner level detect value has reached the value set in COPIER > OPTION > FNC-SW > T-DLV-CL.
10	0020	Toner (Bk) prior delivery alarm	An alarm for requesting a prior delivery is sent to UGW as the value of Toner level detect value has reached the value set in COPIER > OPTION > FNC-SW > T-DLV-BK.
10	0022	Patch detection light intensity abnormal change alarm	
10	0100	Toner bottle replacement completion alarm	The replacement of the Toner Container was detected.
10	0201	Toner Container (Y) level detection error	-
10	0202	Toner Container (M) level detection error	-
10	0203	Toner Container (C) level detection error	-
10	0204	Toner Container (Bk) level detection error	-
11	0001	Waste Toner Container full level	"Movement: A message ""The waste toner container is full."" is displayed on the Control Panel, and the machine is stopped. Cause: The Waste Toner Counter reaches full. Measures: Replace the Waste Toner Container."
11	0010	Display of Waste Toner Container preparation warning	"Movement: A message is displayed on the Control Panel. (Continuous printing is enabled.) Cause: Display of Waste Toner Box preparation warning"

Location Code	Alarm Code	Description	Details
30	0021	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 and the DC Controller PCB (open circuit, trapped cable, connector disconnection). -> Replace the harness if it is faulty 2. Check connection failure between the Primary Transfer High Voltage PCB 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 4. Replace the ITB Unit 5. Replace the DC Controller PCB
30	0022	Tried to apply abnormally great primary transfer voltage at primary transfer ATVC control for magenta.	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 and the DC Controller PCB (open circuit, trapped cable, connector disconnection). -> Replace the harness if it is faulty 2. Check connection failure between the Primary Transfer High Voltage PCB 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 4. Replace the ITB Unit 5. Replace the DC Controller PCB
30	0023	Tried to apply abnormally great primary transfer voltage at primary transfer ATVC control for cyan.	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 and the DC Controller PCB (open circuit, trapped cable, connector disconnection). -> Replace the harness if it is faulty 2. Check connection failure between the Primary Transfer High Voltage PCB 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 4. Replace the ITB Unit 5. Replace the DC Controller PCB

Location Code	Alarm Code	Description	Details
30	0024	Tried to apply abnormally great primary transfer voltage at primary transfer ATVC control for black.	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 and the DC Controller PCB (open circuit, trapped cable, connector disconnection). -> Replace the harness if it is faulty 2. Check connection failure between the Primary Transfer High Voltage PCB 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 4. Replace the ITB Unit 5. Replace the DC Controller PCB
30	0025	Tried to apply abnormally great primary transfer voltage at primary transfer ATVC control for yellow.	-
30	0026	Tried to apply abnormally great primary transfer voltage at primary transfer ATVC control for magenta.	-
30	0027	Tried to apply abnormally great primary transfer voltage at primary transfer ATVC control for cyan.	-
30	0028	Tried to apply abnormally great primary transfer voltage at primary transfer ATVC control for black.	-
30	0031	Error in secondary transfer ATVC (above the upper limit)	-
30	0032	Error in secondary transfer ATVC (below the lower limit)	-
30	0121	Current values at 2 points were not changed with primary transfer ATVC control for yellow.	-
30	0122	Current values at 2 points were not changed with primary transfer ATVC control for magenta.	-
30	0123	Current values at 2 points were not changed with primary transfer ATVC control for cyan.	-
30	0124	Current values at 2 points were not changed with primary transfer ATVC control for black.	-
30	0131	Current values at 2 points were not changed with secondary transfer ATVC control.	-
30	0137	The value of data for correcting high voltage output value was not within the range.	-
31	0002	Power supply relay durability alarm	-
31	0008	HDD failure prediction alarm	Movement: A message "The hard disk needs to be replaced. (Call service rep.)" is displayed on the Control Panel. Cause: Error in the S.M.A.R.T. value of HDD It indicates a physical error of the HDD, which is expected to soon lead to a failure. *: S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology) = It is a self-diagnosis function built in the HDD, and monitors the occurrence rate of reading errors, reading/writing speed, total number of times of motor start-up/stop, total length of power-on time, etc. Continuously using the machine without taking any measures may lead to E602. Measures: Back up the data stored in the HDD, and restore the data after replacing the HDD.
31	0009	FLASH failure prediction alarm	Cause: Error in the S.M.A.R.T. value of FLASH memory It indicates a physical error of the FLASH memory, which is expected to soon lead to a failure. *: S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology) = It is a self-diagnosis function built in the FLASH memory, and monitors the occurrence rate of reading errors, reading/writing speed, total number of times of motor start-up/stop, total length of power-on time, etc. Continuously using the machine without taking any measures may lead to E614. Measures: Back up the data stored in the FLASH memory, and restore the data after replacing the FLASH memory.

Location Code	Alarm Code	Description	Details
31	000A	For R&D	-
33	0009	Right Door Fan alarm	"Cause: Connector disconnection of the Right Door Fan. Failure of the Right Door Fan. Measures: Check the connector -> Replace the Right Door Fan."
34	0001	Auto registration adjustment	Zero (0) was entered in the reading data of auto registration pattern -> Due to misalignment in reading data as a result of misdetection that soil or scar on the belt was detected as pattern
34	0002	Auto registration adjustment	When there is abnormal data in 8 or more sets among the 10 auto registration pattern sets -> Due to misalignment in reading data as a result of misdetection that soil or scar on the belt is detected as pattern
34	0006	Horizontal scanning magnification ratio correction limiter was exceeded	-
35	0006	ITB replacement completion alarm	"Pushed was a replacement completion button of ITB Unit Counter was cleared."
35	0013	Transfer Roller replacement completion alarm	"Pushed was a replacement completion button of Transfer Roller Counter was cleared."
35	0070	Drum Unit (Y) replacement completion alarm	The replacement of the Drum Unit was detected.
35	0071	Drum Unit (M) replacement completion alarm	The replacement of the Drum Unit was detected.
35	0072	Drum Unit (C) replacement completion alarm	The replacement of the Drum Unit was detected.
35	0073	Drum Unit (Bk) replacement completion alarm	The replacement of the Drum Unit was detected.
35	0076	Fixing Assembly replacement completion alarm	"Pushed was a replacement completion button of Fixing Assembly Counter was cleared."
35	0077	MP Pickup Roller replacement completion alarm	"Pushed was a replacement completion button of MP Pickup Roller Counter was cleared."
35	0078	MP Separation Roller replacement completion alarm	"Pushed was a replacement completion button of MP Separation Roller Counter was cleared."
35	0079	Cassette 1 Pickup Roller replacement completion alarm	Counter was cleared.
35	0080	Cassette 1 Feed Roller replacement completion alarm	"Pushed was a replacement completion button of Cassette 1 Feed Roller Counter was cleared."
35	0081	Cassette 1 Separation Roller replacement completion alarm	"Pushed was a replacement completion button of Cassette 1 Separation Roller Counter was cleared."
35	0082	Cassette 2 Pickup Roller replacement completion alarm	Counter was cleared.
35	0083	Cassette 2 Feed Roller replacement completion alarm	"Pushed was a replacement completion button of Cassette 2 Feed Roller Counter was cleared."
35	0084	Cassette 2 Separation Roller replacement completion alarm	"Pushed was a replacement completion button of Cassette 2 Separation Roller Counter was cleared."
35	0085	Cassette 3 Pickup Roller replacement completion alarm	Counter was cleared.
35	0086	Cassette 3 Feed Roller replacement completion alarm	"Pushed was a replacement completion button of Cassette 3 Feed Roller Counter was cleared."
35	0087	Cassette 3 Separation Roller replacement completion alarm	"Pushed was a replacement completion button of Cassette 3 Separation Roller Counter was cleared."
35	0088	Cassette 4 Pickup Roller replacement completion alarm	Counter was cleared.
35	0089	Cassette 4 Feed Roller replacement completion alarm	"Pushed was a replacement completion button of Cassette 4 Feed Roller Counter was cleared."
35	0090	Cassette 4 Separation Roller replacement completion alarm	"Pushed was a replacement completion button of Cassette 4 Separation Roller Counter was cleared."
35	0091	ADF Pickup Roller replacement completion alarm	"Pushed was a replacement completion button of ADF Pickup Roller Counter was cleared."
35	0092	ADF Separation Pad replacement completion alarm	"Pushed was a replacement completion button of ADF Separation Pad Counter was cleared."
35	0093	MP Feed Roller replacement completion alarm	Counter was cleared.
37	0001	For R&D	-
37	0002	For R&D	-
37	0003	For R&D	-
37	0004	For R&D	-

Location Code	Alarm Code	Description	Details
37	0005	For R&D	-
37	0006	For R&D	-
37	0007	For R&D	-
37	1000	For R&D	-
37	2000	For R&D	-
38	0001	For R&D	
38	0002	For R&D	
40	0070	Drum Unit (Y) prior delivery alarm	An alarm for requesting a prior delivery is sent to UGW as the value of COPIER > COUNTER > LF > Y-DRM-LF has reached the value set in COPIER > OPTION > FNC-SW > D-DLV-CL.
40	0071	Drum Unit (M) prior delivery alarm	An alarm for requesting a prior delivery is sent to UGW as the value of COPIER > COUNTER > LF > M-DRM-LF has reached the value set in COPIER > OPTION > FNC-SW > D-DLV-CL.
40	0072	Drum Unit (C) prior delivery alarm	An alarm for requesting a prior delivery is sent to UGW as the value of COPIER > COUNTER > LF > C-DRM-LF has reached the value set in COPIER > OPTION > FNC-SW > D-DLV-CL.
40	0073	Drum Unit (Bk) prior delivery alarm	An alarm for requesting a prior delivery is sent to UGW as the value of COPIER > COUNTER > LF > K-DRM-LF has reached the value set in COPIER > OPTION > FNC-SW > D-DLV-BK.
50	0010	Alarm due to original separation failure	Movement: Nothing in particular. Cause: Condition unable to separate 1st sheet of original from the ADF occurs 3 times. Measures: Check the rotation of the Delivery Reversal Motor (M12) -> Check the operation of the Pickup Solenoid (SL5) -> Check the life of the Pickup and Feed Rollers and Separation Pad -> Check if the paper lint is at the pickup slot.
61	0001	No staple	-
64	0001	Delivery Fan (Upper) alarm	-
70	0086	For R&D	-
73	0004	For R&D	-
73	0006	For R&D	-
73	0007	For R&D	-
73	0008	For R&D	-
73	0009	For R&D	-
73	0010	For R&D	-
73	0011	For R&D	-
73	0012	For R&D	-
73	0013	For R&D	-
73	0014	For R&D	-
73	0015	For R&D	-
73	0016	For R&D	-
73	0017	For R&D	-
73	0018	For R&D	-
73	0019	For R&D	-
73	0020	For R&D	-
73	0021	For R&D	-
73	0022	For R&D	-
73	0023	For R&D	-
73	0024	For R&D	-
73	0025	For R&D	-
73	0026	For R&D	-
76	0001	For R&D	-
76	0002	Insufficient work area	Work area of the font that is downloaded at Resource Download is insufficient. Delete the unnecessary font.
76	0003	For R&D	-
76	0004	For R&D	-
76	0005	For R&D	-
76	0006	For R&D	-
76	0007	For R&D	-
76	0008	For R&D	-
76	0009	For R&D	-
77	0001	For R&D	-
77	0002	For R&D	-
77	0003	For R&D	-
77	0005	For R&D	-
77	0006	System memory insufficient	[PCL5] Change the mode of the printer driver (Property > Quality > Advanced Settings... > Graphics Mode > Raster Mode).
78	0001	For R&D	-
78	0002	For R&D	-
78	0003	For R&D	-
78	0004	For R&D	-
78	0005	For R&D	-
79	0001	For R&D	-
79	0002	For R&D	-
79	0003	Memory insufficient	[PCL5] Change the mode of the printer driver (Property > Quality > Advanced Settings... > Graphics Mode > Raster Mode).
79	0004	Download overflow	After deleting the download resource, turn OFF and then ON the power.
80	0001	For R&D	-
80	0003	For R&D	-
80	0010	For R&D	-
80	0011	For R&D	-

Location Code	Alarm Code	Description	Details
80	0015	Invalid BDL data	Use the latest version of the printer driver for the model.
80	0016	For R&D	-
80	0018	For R&D	-
80	0019	For R&D	-
81	0001	Invalid data	Since there is a high possibility that format of the data is not supported, collect the data if possible.
81	0002	For R&D	-
81	0003	For R&D	-
81	0004	For R&D	-
81	0005	For R&D	-
83	0005	PDF memory insufficient	"Reduce the size of the PDF file to be printed, or split the file into parts and print them again. In some cases, it can be printed properly by opening the file with the application software and using the printer driver."
83	0015	PDF data decoding error	Check the password and the authentication settings.
83	0016	PDF print range error	Specify the print range again that can be printed
83	0017	For R&D	-
83	0020	Reception of ESCP unanalyzable data	Since PDL automatic judgment may be wrong, select the appropriate PDL in Settings/Registration > Function Settings > Printer > Printer Settings > Settings > Printer Operation Mode, and send the data.
83	0021	Reception of I5577 unanalyzable data	Since PDL automatic judgment may be wrong, select the appropriate PDL in Settings/Registration > Function Settings > Printer > Printer Settings > Settings > Printer Operation Mode, and send the data.
83	0022	Reception of HPGL unanalyzable data	Since PDL automatic judgment may be wrong, select the appropriate PDL in Settings/Registration > Function Settings > Printer > Printer Settings > Settings > Printer Operation Mode, and send the data.
83	0023	Reception of N201 unanalyzable data	Since PDL automatic judgment may be wrong, select the appropriate PDL in Settings/Registration > Function Settings > Printer > Printer Settings > Settings > Printer Operation Mode, and send the data.
84	0001	For R&D	-
84	0002	For R&D	-
84	0003	XPS print range error	There is no page that be can be processed within the specified print range. Specify the print range correctly.
84	0004	For R&D	-
84	0005	For R&D	-
84	0006	For R&D	-
84	0007	For R&D	-
84	0008	XPS non-support image error	Convert Jpeg XR in data into another format.
84	0009	For R&D	-

T-7-15

8 Service Mode

- Overview
- COPIER
- FEEDER
- SORTER
- BOARD

Overview

Overview

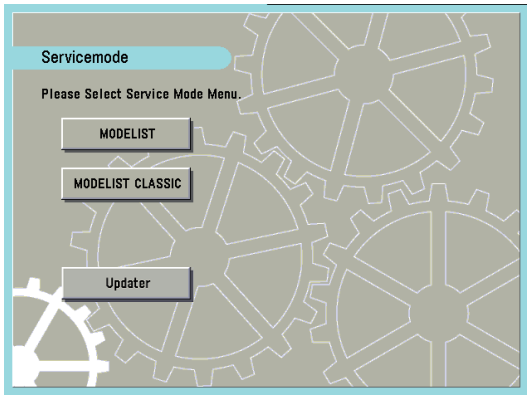
Instructions on how to use service mode items can be found within the service mode itself.
The information explains what items have been added or changed from previous models.

Entering Service Mode

Contact the sales company for the method to enter service mode

Service Mode Menu

TOP Screen



F-8-1

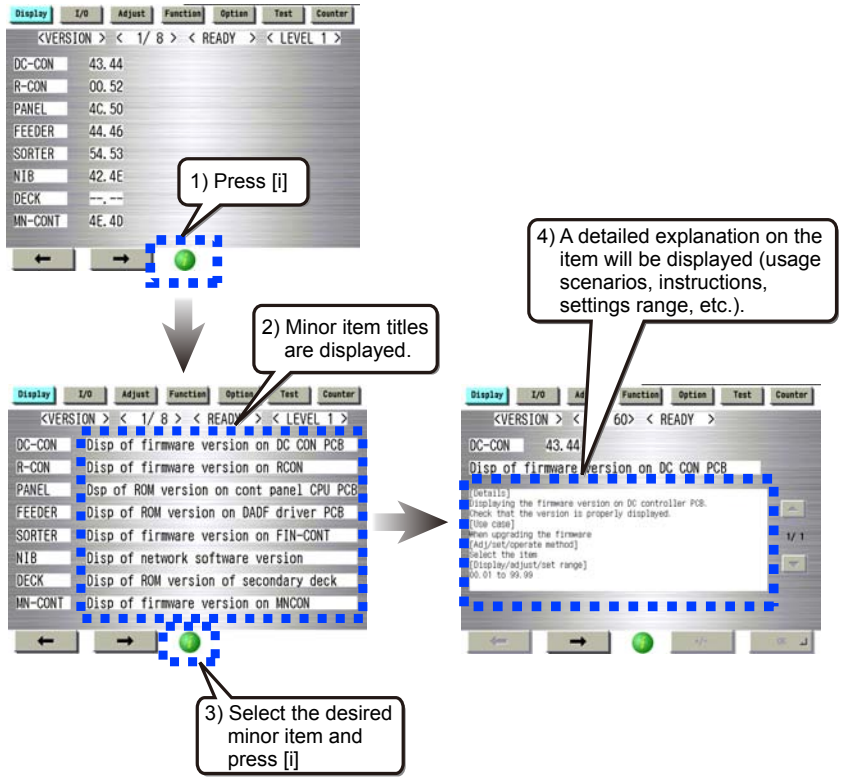
"MODELIST"	A brand new additional mode in the host machine. A function that can be used as a reference on how to use each item in Service Mode is installed. The new function, which will be described later, is available in MODELIST Mode.
"MODELIST CLASSIC"	This mode is same as the old machine. The new function, which will be described later, is not available in the MODELIST CLASSIC Mode.
“Updater”	This is a MEAP application with functions of network communication to Content Delivery System V1.0 (hereinafter CDS) and installation of firmware, MEAP applications or system options. (Refer to Updater V1.0 service manual.)

If " MODELIST " or " MODELIST CLASSIC " or “Updater” is pressed, the screen will switch to initial screen for each mode.

Service mode item explanations

Explanatory texts for the initial window, main items, sub items and minor items can be displayed.
Select the desired initial window, main item, sub item or minor item, then pres [i] (Information button) to display an explanatory text (hereafter, service mode contents) on the selected item.

E.g., COPIER> DISPLAY> Version window

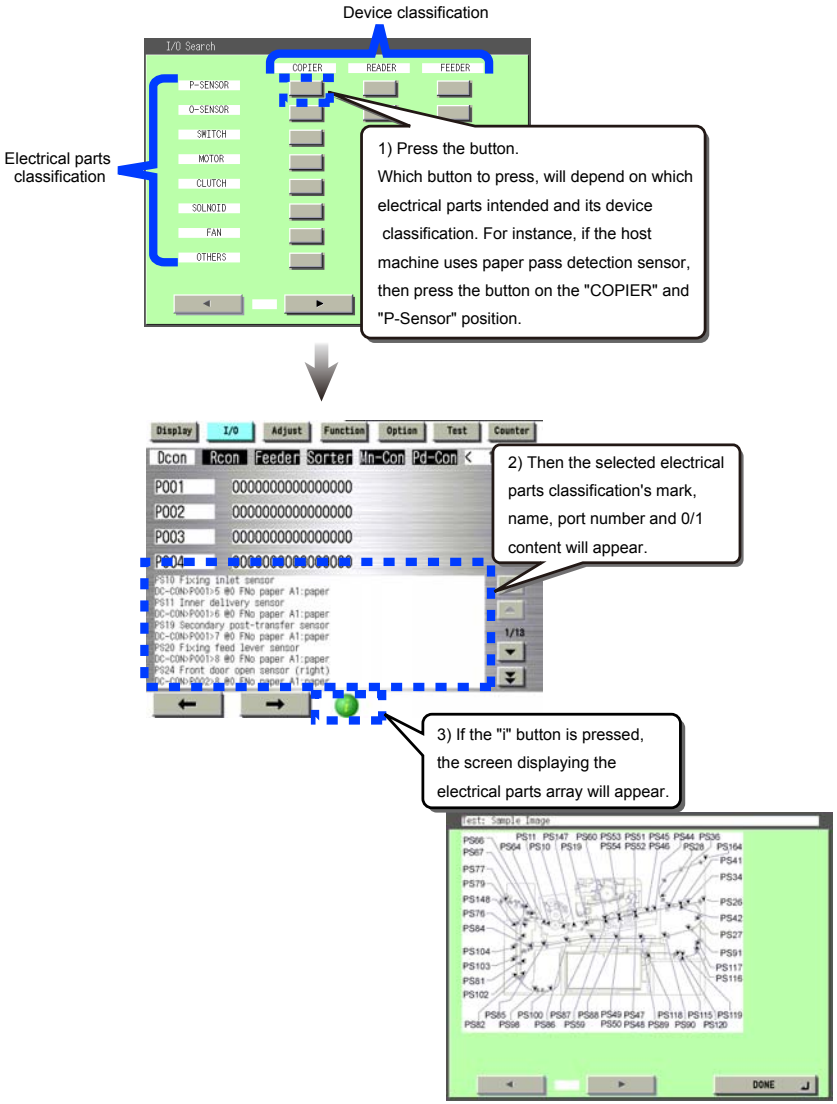


F-8-2

- 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.

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.

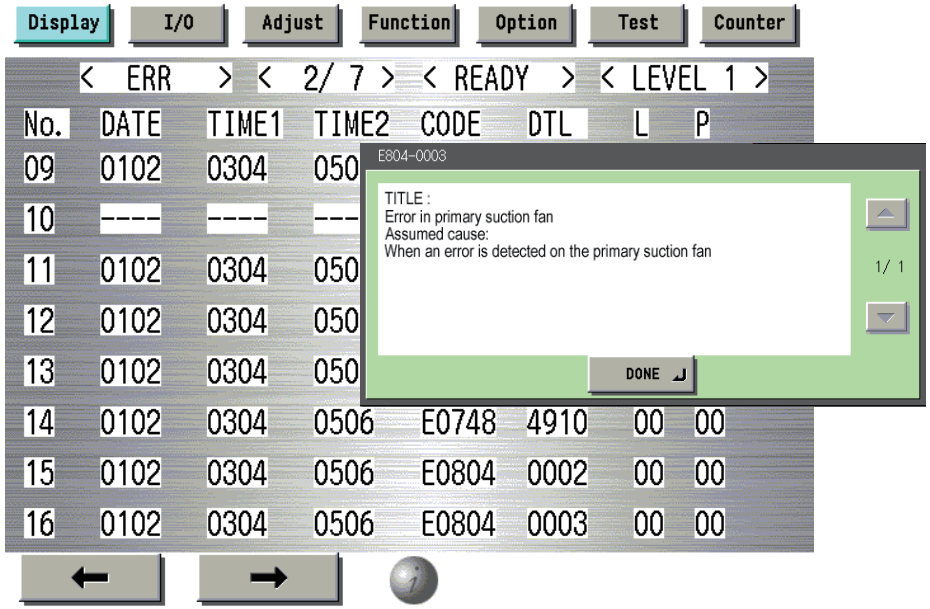


F-8-3

Display of Error Code/Alarm Code description

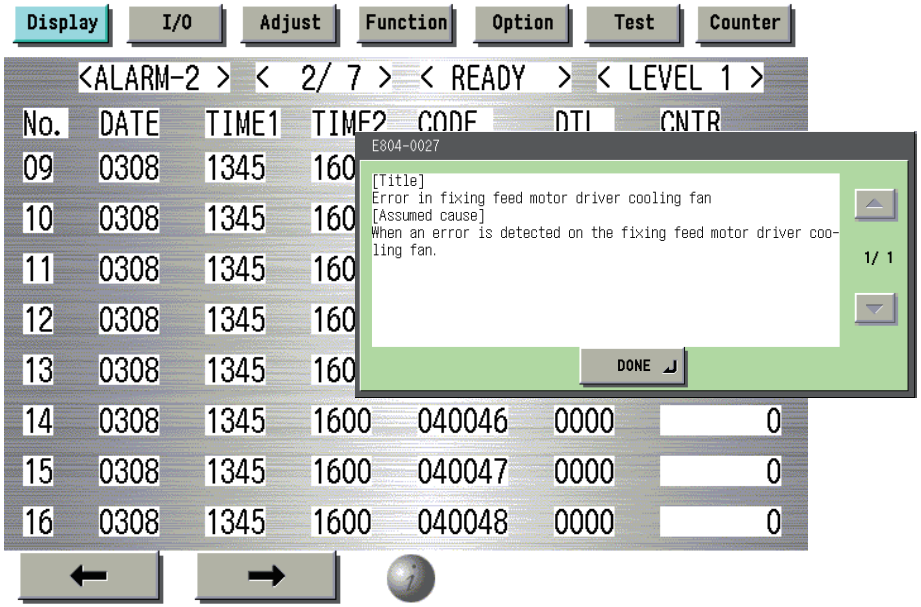
The detail description of each code can be viewed on the error code and alarm code occurrence record screen.

ERROR CODE : COPIER> DISPLAY>ERR



F-8-4

ALARM CODE : COPIER> DISPLAY> ALARM-2
COPIER> DISPLAY> ALARM-3



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	Transfer related
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, 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.

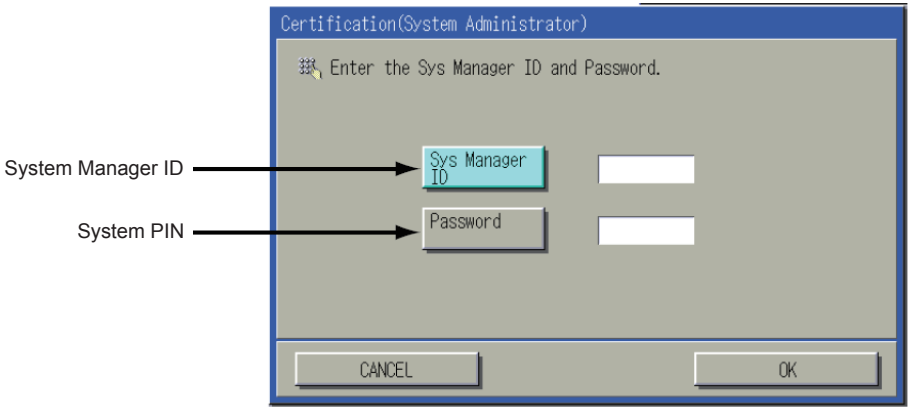
- COPIER> OPTION> FNC-SW> SM-PSWD (Level2)
  Password for service engineer for transition to service mode.
- <Setting range>

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) Enter System Manager ID> enter System PIN> press OK button.
(System Mangeger ID and System PIN can be set up in [Settings/Registration> Management Settings> User Management> System Manager Information Settings].)



F-8-6

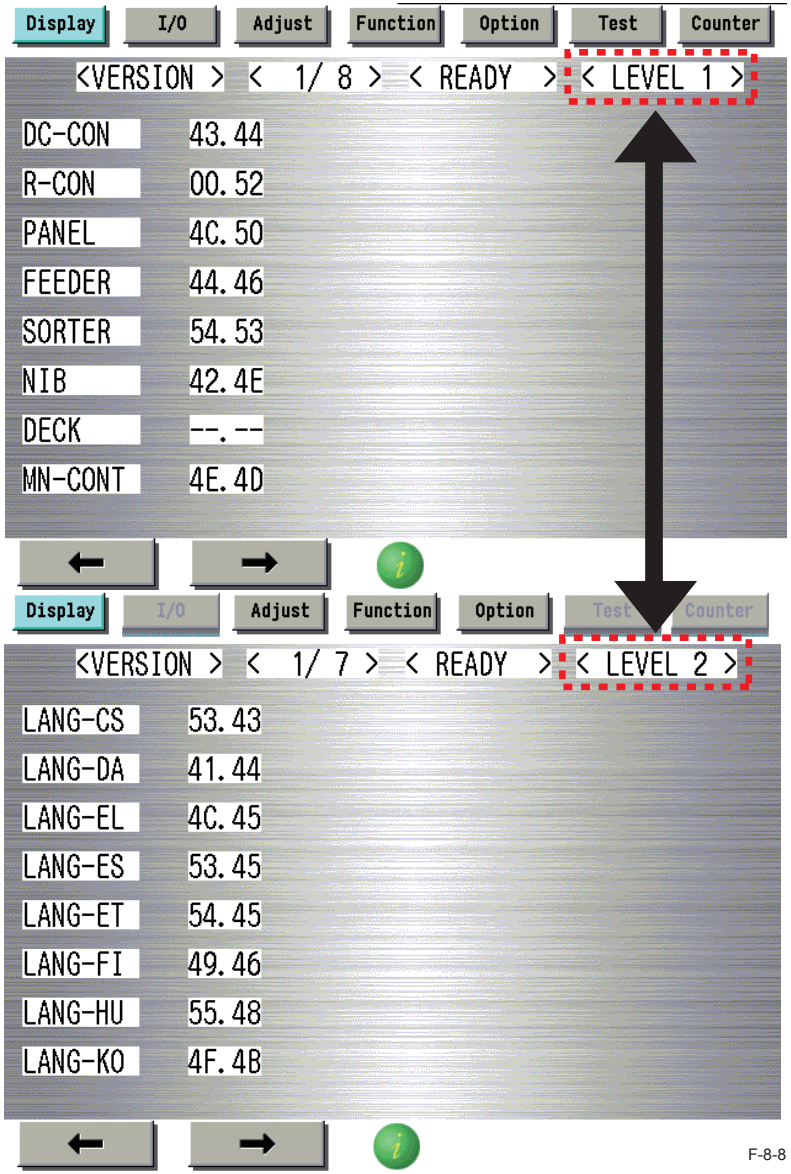
2) After entering the password for service technician (Service mode: COPIER> Option> FNC-SW> SM-PSWD), press OK button.

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.

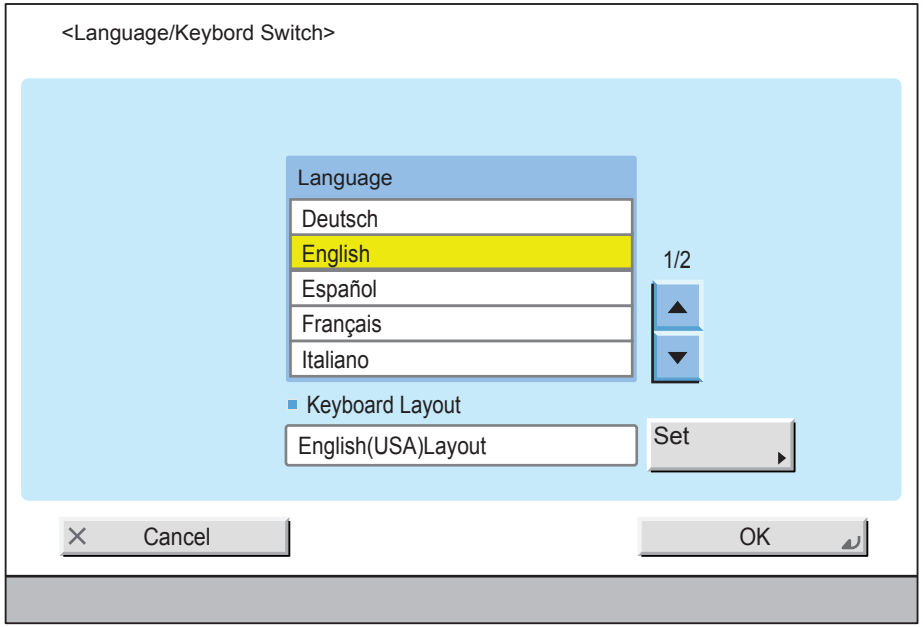


F-8-8

Language switch

The language of the explanatory text displayed in the Service Mode can be switched by performing the below languange switch operation in User Mode

Settings/Registration> Preferences> Display Settings> Language/Keyboard Switch



F-8-9

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 CIS unit or 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.

Service label: Inside the Front Cover of the host machine

F-8-10

Service Label

The item of Service Label.

Item	Factry	Field1	Field2	Item	Factry	Field1	Field2	Item	Factry	Field1	Field2
COPIER>ADJUST>ADJ-XY				MTF2-M6				MTF-S1			
ADJ-X				MTF2-M7				MTF-S2			
ADJ-Y				MTF2-M8				MTF-S3			
ADJ-X-MG				MTF2-M9				MTF-S4			
ADJ-Y-DF				MTF2-S1				MTF-S5			
COPIER>ADJUST>CCD				MTF2-S2				MTF-S6			
W-PLT-X				MTF2-S3				MTF-S7			
W-PLT-Y				MTF2-S4				MTF-S8			
W-PLT-Z				MTF2-S5				MTF-S9			
50-RG				MTF2-S6				COPIER>ADJUST>PASCAL			
50-GB				MTF2-S7				OFST-P-Y			
100-RG				MTF2-S8				OFST-P-M			
100-GB				MTF2-S9				OFST-P-C			
50DF-RG				MTF-M1				OFST-P-K			
50DF-GB				MTF-M2				FEEDER>ADJUST			
100DF-RG				MTF-M3				DOCST			
100DF-GB				MTF-M4				DOCST2			
MTF2-M1				MTF-M5				LA-SPEED			
MTF2-M2				MTF-M6				LA-SPD2			
MTF2-M3				MTF-M7				DOCSTDUP			
MTF2-M4				MTF-M8							
MTF2-M5				MTF-M9							

F-8-11

Item	Factry	Field1	Field2	Item	Factry	Field1	Field2
COPIER>ADJUST>IMG-REG				ADJ-C1RE			
BEND-Y				ADJ-C2RE			
BEND-M				ADJ-C3RE			
BEND-C				ADJ-C4RE			
BEND-K				ADJ-MFRE			
COPIER>ADJUST>FEED-ADJ				REG-THCK			
REGIST				REG-DUP1			
ADJ-C1				REG-DUP2			
ADJ-C2				REG-DUP3			
ADJ-C3				REG-SPD			
ADJ-C4				REG-LEFT			
ADJ-MF				REG-N3			

F-8-12

The data output of the service data print

Overview

- Data output of service print such as P-PRINT is supported.
- Service mode level 1 > COPIER > FUNCTION > MISC-P > RPT-FILE > [OK].
  The created data file is saved in the HDD of the machine.
- The created (saved) data is deleted when it is moved to the SST or a USB memory device.
- Even if the machine has stopped operation due to a no-paper error, data can be moved to the SST or the USB memory device as long as the machine can enter download mode.

NOTE:
- While an error is occurring, data of service print cannot be create.
- When connecting a USB device that operates on an external power supply, the machine needs to be started with the USB device ON. A USB device connected after starting the machine cannot be recognized.

Service Prints and Data File Names That Support File Output

Service Mode	Content
P-PRINT	Output of service mode setting value
HIST-PRT	Output of jam and error history
USER-PRT	Output of UI menu list
D-PRINT	Output of service mode (DISPLAY)
ENV-PRT	Inside temp/hmdy & fix roller temp log
PJH-P-1	Detail info of print job history:100 job
PJH-P-2	Detail info of print job history:all job
KEY-HIST	Not used
USBH-PRT	Output of USB device information report
TNRB	Output of Toner Container ID report

T-8-2

How to Move Service Print Files to a USB Memory Device

Preparation

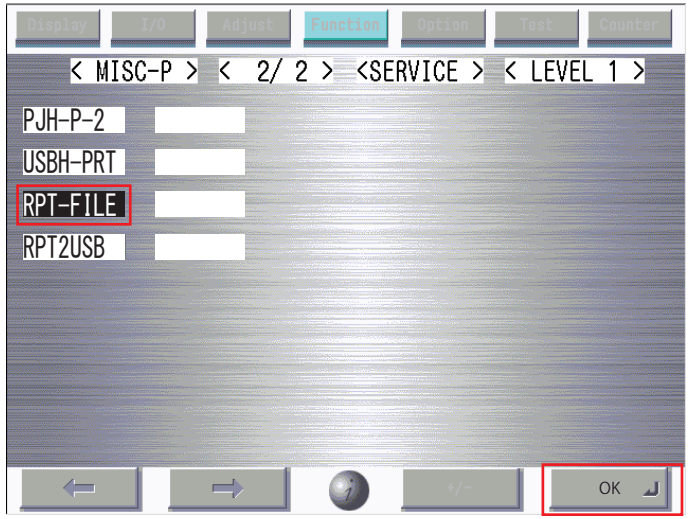
- PC with SST running,
  or
- USB memory device
  FAT32 format file system, with no password locks. To display the USB menu, the firmware of the corresponding model needs to have been registered.

Overall flow

1. Selecting RPT-FILE
   Select service mode > Copier > Function > MISC-P > RPT-FILE; and then press OK.
2. Generating report file
3. Using SST or USB memory device to collect the report file
   Transfer the report data which was collected from the machine to the USB memory device.

operation

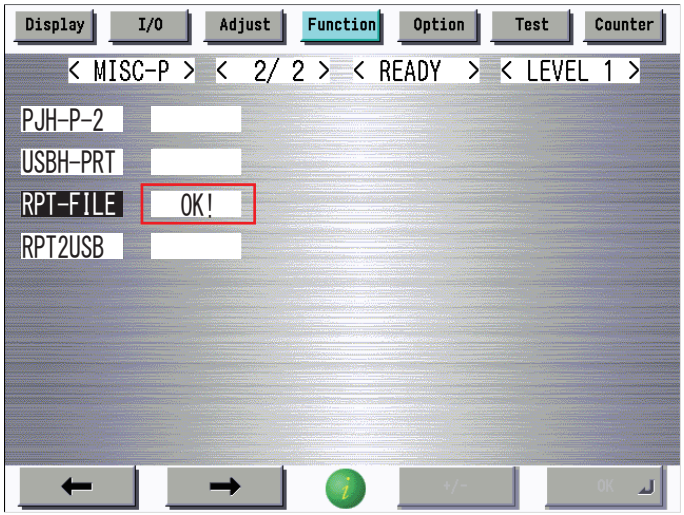
1. Select service mode (Level 1) > Copier > Function > MISC-P > RPT-FILE; and then press "OK".



F-8-13

2. Generating report file

After the “ACTIVE” blinks for 3 to 4 minutes, generation of a report file is complete as “OK!” is displayed.



F-8-14

3. Enter download mode.
4. Connect the USB memory storage device to the USB port.
5. Press the control panel keys. [8]:

```
[[[[[[[[[[ Root Menu (USB) ]]]]]]]]]]
----------------------------------------
 [1]: Select Version

 [4]: Clear/Format
 [5]: Backup/Restore
 [8]: Download File

 [Reset]: Start shutdown sequence
```

F-8-15

6. Download ServicePrint.

Press the control panel keys. [4] -> [0]:

[4] ServicePrint : Transfer the report data from the machine to the USB memory device.

```
[[[[[[[ Download File Menu (USB) ]]]]]]]
----------------------------------------
 [1]: SUBLOG Download
 [4]: ServicePrint Download
 [C]: Return to Main Menu

 [Reset]: Start shutdown sequence

/[4] has been selected. Execute?/
 - (OK):0 / (CANCEL):Any other keys -
```

F-8-16

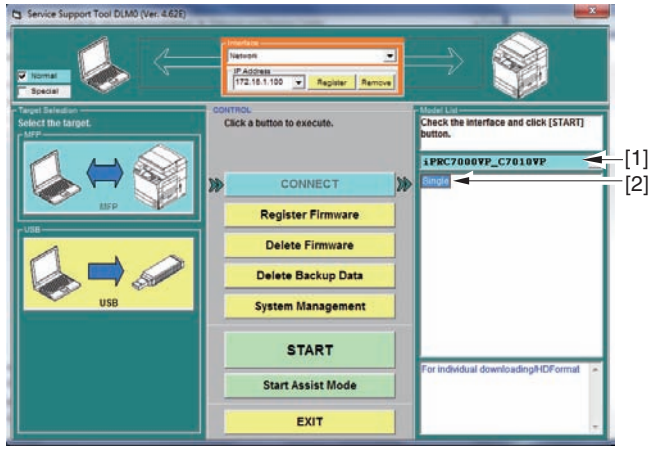
NOTE:

- If the downloaded file is opened as plain text, the paragraphs are misaligned, which makes it difficult to read the data.
- When the file is dragged to WordPad, an image similar to the image output on paper may be displayed in some cases.

How to Move Service Print Files to a PC using the SST

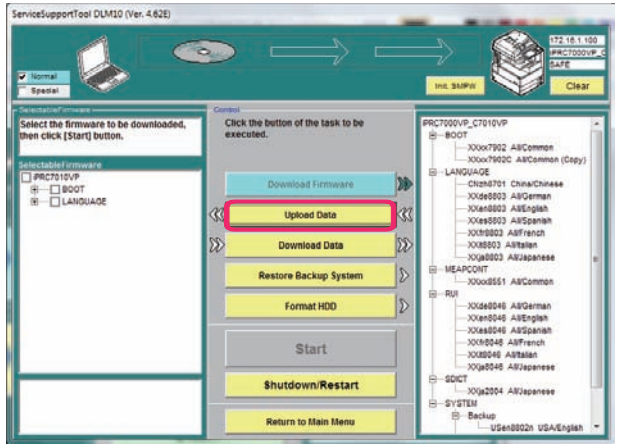
Introduce it in SST Ver.4.6x.

1. Start up the SST.
2. Select the model [1] and the type of system software [2] ('Single'); then, check the network settings, and click [START].



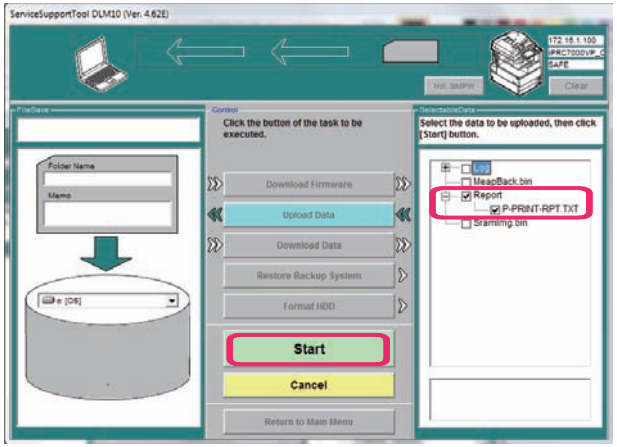
F-8-17

3. Click [Upload Data].



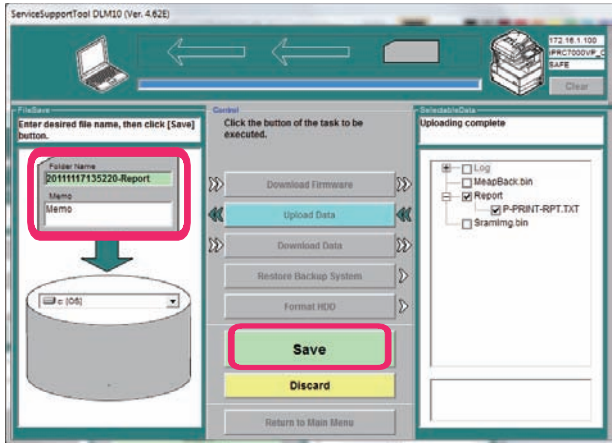
F-8-18

4. Select 'P-PRINT-RPT.txt', and click [Start].



F-8-19

5. Select the name of the Folder to store and, as necessary, a brief description; then, click [Save].



F-8-20

6. Click [OK].

COPIER

DISPLAY

VERSION

COPIER> DISPLAY> VERSION		
DC-CON		Display of DCON firmware version
Lv.1	Details	To display the firmware version of DC Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
PANEL		Dspl of Control Panel CPU PCB ROM ver
Lv.1	Details	To display the ROM version of Control Panel CPU PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ECO		Display of ECO PCB ROM version
Lv.1	Details	To display the ROM version of ECO PCB
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SORTER		Display of FIN-CONT firmware version
Lv.1	Details	To display the firmware version of Finisher Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NIB		Display of network software version
Lv.1	Details	To display the version of the network software.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MN-CONT		Display of MNCON firmware version
Lv.1	Details	To display the firmware version of Main Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-EN		Display of English language file version
Lv.1	Details	To display the version of English language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
LANG-FR		Display of French language file version
Lv.1	Details	To display the version of French language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-DE		Display of German language file version
Lv.1	Details	To display the version of German language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-IT		Display of Italian language file version
Lv.1	Details	To display the version of Italian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-JP		Display of Japanese language file ver
Lv.1	Details	To display the version of Japanese language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-CS		Display of Czech language file version
Lv.2	Details	To display the version of Czech language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-DA		Display of Danish language file version
Lv.2	Details	To display the version of Danish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-EL		Display of Greek language file version
Lv.2	Details	To display the version of Greek language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-ES		Display of Spanish language file version
Lv.1	Details	To display the version of Spanish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-ET		Display of Estonian language file ver
Lv.2	Details	To display the version of Estonian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
LANG-FI		Display of Finnish language file version
Lv.2	Details	To display the version of Finnish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-HU		Display of Hungarian language file ver
Lv.2	Details	To display the version of Hungarian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-KO		Display of Korean language file version
Lv.2	Details	To display the version of Korean language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-NL		Display of Dutch language file version
Lv.2	Details	To display the version of Dutch language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-NO		Display of Norwegian language file ver
Lv.2	Details	To display the version of Norwegian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-PL		Display of Polish language file version
Lv.2	Details	To display the version of Polish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-PT		Display of Portuguese language file ver
Lv.2	Details	To display the version of Portuguese language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-RU		Display of Russian language file version
Lv.2	Details	To display the version of Russian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-SL		Display of Slovenian language file ver
Lv.2	Details	To display the version of Slovenian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
LANG-SV		Display of Swedish language file version
Lv.2	Details	To display the version of Swedish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-TW		Dspl of Chinese language file ver: trad
Lv.2	Details	To display the version of Chinese language file (traditional).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-ZH		Dspl of Chinese language file ver: smpl
Lv.2	Details	To display the version of Chinese language file (simplified).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-BU		Display of Bulgarian language file ver
Lv.2	Details	To display the version of Bulgarian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-CR		Display of Croatian language file ver
Lv.2	Details	To display the version of Croatian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-RM		Display of Romanian language file ver
Lv.2	Details	To display the version of Romanian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-SK		Display of Slovak language file version
Lv.2	Details	To display the version of Slovak language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-TK		Display of Turkish language file version
Lv.2	Details	To display the version of Turkish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-CA		Display of Catalan language file version
Lv.2	Details	To display the version of Catalan language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
FAX1		Display of 1-line FAX PCB ROM version
Lv.1	Details	To display the ROM version of 1-line FAX PCB. Nothing is displayed if the PCB is not connected.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	ASCII character string (12 digits)
IOCS		Display of BIOS version
Lv.1	Details	To display the BIOS version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TSP-JLK		Dspl of Image Data Analyzer PCB version
Lv.1	Details	To display the version of Image Data Analyzer PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-FR		Dspl of COPY appli French file version
Lv.1	Details	To display the French language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-IT		Dspl of COPY appli Italian file version
Lv.1	Details	To display the Italian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-DE		Dspl of COPY appli German file version
Lv.1	Details	To display the German language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ES		Dspl of COPY appli Spanish file version
Lv.1	Details	To display the Spanish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
COPY-ZH		Dspl COPY appli Chinese file ver: smpl
Lv.2	Details	To display the simplified Chinese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-TW		Dspl of COPY appli Chinese file ver:trad
Lv.2	Details	To display the traditional Chinese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-KO		Dspl of COPY appli Korean file version
Lv.2	Details	To display the Korean language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-CS		Dspl of COPY appli Czech file version
Lv.2	Details	To display the Czech language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-DA		Dspl of COPY appli Danish file version
Lv.2	Details	To display the Danish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-EL		Dspl of COPY appli Greek file version
Lv.2	Details	To display the Greek language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ET		Dspl of COPY appli Estonian file version
Lv.2	Details	To display the Estonian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
COPY-FI		Dspl of COPY appli Finnish file version
Lv.2	Details	To display the Finnish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-HU		Dspl of COPY appli Hungarian file ver
Lv.2	Details	To display the Hungarian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-NL		Dspl of COPY appli Dutch file version
Lv.2	Details	To display the Dutch language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-NO		Dspl of COPY appli Norwegian file ver
Lv.2	Details	To display the Norwegian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-PL		Dspl of COPY appli Polish file version
Lv.2	Details	To display the Polish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-PT		Dspl of COPY appli Portuguese file ver
Lv.2	Details	To display the Portuguese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-RU		Dspl of COPY appli Russian file version
Lv.2	Details	To display the Russian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
COPY-SL		Dspl of COPY appli Slovenian file ver
Lv.2	Details	To display the Slovenian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-SV		Dspl of COPY appli Swedish file version
Lv.2	Details	To display the Swedish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ID		Dspl of COPY appli Indonesian file ver
Lv.2	Details	To display the Indonesian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-BU		Dspl of COPY appli Bulgarian file ver
Lv.2	Details	To display the Bulgarian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-CR		Dspl of COPY appli Croatian file version
Lv.2	Details	To display the Croatian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-RM		Dspl of COPY appli Romanian file version
Lv.2	Details	To display the Romanian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-SK		Dspl of COPY appli Slovak file version
Lv.2	Details	To display the Slovak language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
COPY-TK		Dspl of COPY appli Turkish file version
Lv.2	Details	To display the Turkish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-CA		Dspl of COPY appli Catalan file version
Lv.2	Details	To display the Catalan language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-TH		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-VN		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-FR		Dspl of SEND appli French file version
Lv.1	Details	To display the French language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-IT		Dspl of SEND appli Italian file version
Lv.1	Details	To display the Italian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-DE		Dspl of SEND appli German file version
Lv.1	Details	To display the German language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
SEND-ES		Dspl of SEND appli Spanish file version
Lv.1	Details	To display the Spanish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ZH		Dspl SEND appli Chinese file ver: smpl
Lv.2	Details	To display the simplified Chinese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-TW		Dspl of SEND appli Chinese file ver:trad
Lv.2	Details	To display the traditional Chinese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-KO		Dspl of SEND appli Korean file version
Lv.2	Details	To display the Korean language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-CS		Dspl of SEND appli Czech file version
Lv.2	Details	To display the Czech language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-DA		Dspl of SEND appli Danish file version
Lv.2	Details	To display the Danish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-EL		Dspl of SEND appli Greek file version
Lv.2	Details	To display the Greek language file version of the SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
SEND-ET		Dspl of SEND appli Estonian file version
Lv.2	Details	To display the Estonian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-FI		Dspl of SEND appli Finnish file version
Lv.2	Details	To display the Finnish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-HU		Dspl of SEND appli Hungarian file ver
Lv.2	Details	To display the Hungarian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-NL		Dspl of SEND appli Dutch file version
Lv.2	Details	To display the Dutch language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-NO		Dspl of SEND appli Norwegian file ver
Lv.2	Details	To display the Norwegian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-PL		Dspl of SEND appli Polish file version
Lv.2	Details	To display the Polish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-PT		Dspl of SEND appli Portuguese file ver
Lv.2	Details	To display the Portuguese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
SEND-RU		Dspl of SEND appli Russian file version
Lv.2	Details	To display the Russian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-SL		Dspl of SEND appli Slovenian file ver
Lv.2	Details	To display the Slovenian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-SV		Dspl of SEND appli Swedish file version
Lv.2	Details	To display the Swedish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ID		Dspl of SEND appli Indonesian file ver
Lv.2	Details	To display the Indonesian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-BU		Dspl of SEND appli Bulgarian file ver
Lv.2	Details	To display the Bulgarian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-CR		Dspl of SEND appli Croatian file version
Lv.2	Details	To display the Croatian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-RM		Dspl of SEND appli Romanian file version
Lv.2	Details	To display the Romanian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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SEND-SK		Dspl of SEND appli Slovak file version
Lv.2	Details	To display the Slovak language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-TK		Dspl of SEND appli Turkish file version
Lv.2	Details	To display the Turkish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-CA		Dspl of SEND appli Catalan file version
Lv.2	Details	To display the Catalan language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-TH		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-VN		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-FR		Dspl of usful feat intro French file ver
Lv.1	Details	To display the version of French language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-IT		Dspl useful feat intro Italian file ver
Lv.1	Details	To display the version of Italian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-DE		Dspl of usful feat intro German file ver
Lv.1	Details	To display the version of German language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ES		Dspl useful feat intro Spanish file ver
Lv.1	Details	To display the version of Spanish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ZH		Useful feat intro Chinese file ver: smpl
Lv.2	Details	To display the version of simplified Chinese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-TW		Useful feat intro Chinese file ver: trad
Lv.2	Details	To display the version of traditional Chinese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-KO		Dspl of usful feat intro Korean file ver
Lv.2	Details	To display the version of Korean language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-CS		Dspl of useful feat intro Czech file ver
Lv.2	Details	To display the version of Czech language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-DA		Dspl of usful feat intro Danish file ver
Lv.2	Details	To display the version of Danish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-EL		Dspl of useful feat intro Greek file ver
Lv.2	Details	To display the version of Greek language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ET		Dspl useful feat intro Estonian file ver
Lv.2	Details	To display the version of Estonian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-FI		Dspl useful feat intro Finnish file ver
Lv.2	Details	To display the version of Finnish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-HU		Dspl usful feat intro Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-NL		Dspl of useful feat intro Dutch file ver
Lv.2	Details	To display the version of Dutch language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-NO		Dspl usful feat intro Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-PL		Dspl of usful feat intro Polish file ver
Lv.2	Details	To display the version of Polish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-PT		Dspl usful feat intro Portuguese filever
Lv.2	Details	To display the version of Portuguese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-RU		Dspl useful feat intro Russian file ver
Lv.2	Details	To display the version of Russian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-SL		Dspl usful feat intro Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-SV		Dspl useful func intro Swedish file ver
Lv.2	Details	To display the version of Swedish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ID		Dspl of useful feat intro Indon file ver
Lv.2	Details	To display the version of Indonesian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-BU		Dspl usful feat intro Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-CR		Dspl useful feat intro Croatian file ver
Lv.2	Details	To display the version of Croatian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-RM		Dspl useful feat intro Romanian file ver
Lv.2	Details	To display the version of Romanian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-SK		Dspl of usful feat intro Slovak file ver
Lv.2	Details	To display the version of Slovak language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-TK		Dspl useful feat intro Turkish file ver
Lv.2	Details	To display the version of Turkish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-CA		Dspl useful feat intro Catalan file ver
Lv.2	Details	To display the version of Catalan language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-TH		Dspl useful feat 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-VN		Useful feat 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-FR		Dspl of custom menu French file version
Lv.1	Details	To display the version of French language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-IT		Dspl of custom menu Italian file version
Lv.1	Details	To display the version of Italian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-DE		Dspl of custom menu German file version
Lv.1	Details	To display the version of German language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ES		Dspl of custom menu Spanish file version
Lv.1	Details	To display the version of Spanish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ZH		Dspl custom menu Chinese file ver: smpl
Lv.2	Details	To display the version of simplified Chinese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-TW		Dspl custom menu Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-KO		Dspl of custom menu Korean file version
Lv.2	Details	To display the version of Korean language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-CS		Dspl of custom menu Czech file version
Lv.2	Details	To display the version of Czech language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-DA		Dspl of custom menu Danish file version
Lv.2	Details	To display the version of Danish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-EL		Dspl of custom menu Greek file version
Lv.2	Details	To display the version of Greek language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ET		Dspl of custom menu Estonian file ver
Lv.2	Details	To display the version of Estonian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-FI		Dspl of custom menu Finnish file version
Lv.2	Details	To display the version of Finnish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-HU		Dspl of custom menu Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-NL		Dspl of custom menu Dutch file version
Lv.2	Details	To display the version of Dutch language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-NO		Dspl of custom menu Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-PL		Dspl of custom menu Polish file version
Lv.2	Details	To display the version of Polish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-PT		Dspl of custom menu Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-RU		Dspl of custom menu Russian file version
Lv.2	Details	To display the version of Russian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-SL		Dspl of custom menu Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-SV		Dspl of custom menu Swedish file version
Lv.2	Details	To display the version of Swedish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ID		Dspl of custom menu Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-BU		Dspl of custom menu Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-CR		Dspl of custom menu Croatian file ver
Lv.2	Details	To display the version of Croatian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-RM		Dspl of custom menu Romanian file ver
Lv.2	Details	To display the version of Romanian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-SK		Dspl of custom menu Slovak file version
Lv.2	Details	To display the version of Slovak language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-TK		Dspl of custom menu Turkish file version
Lv.2	Details	To display the version of Turkish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-CA		Dspl of custom menu Catalan file version
Lv.2	Details	To display the version of Catalan language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-TH		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-VN		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
ACSBT-FR		Dspl of accessibility French file ver
Lv.1	Details	To display the version of French language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-IT		Dspl of accessibility Italian file ver
Lv.1	Details	To display the version of Italian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-DE		Dspl of accessibility German file ver
Lv.1	Details	To display the version of German language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ES		Dspl of accessibility Spanish file ver
Lv.1	Details	To display the version of Spanish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ZH		Dspl accessibility Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-TW		Dspl accessibility Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-KO		Dspl of accessibility Korean file ver
Lv.2	Details	To display the version of Korean language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
ACSBT-CS		Dspl of accessibility Czech file version
Lv.2	Details	To display the version of Czech language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-DA		Dspl of accessibility Danish file ver
Lv.2	Details	To display the version of Danish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-EL		Dspl of accessibility Greek file version
Lv.2	Details	To display the version of Greek language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ET		Dspl of accessibility Estonian file ver
Lv.2	Details	To display the version of Estonian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-FI		Dspl of accessibility Finnish file ver
Lv.2	Details	To display the version of Finnish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-HU		Dspl of accessibility Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-NL		Dspl of accessibility Dutch file version
Lv.2	Details	To display the version of Dutch language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
ACSBT-NO		Dspl of accessibility Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-PL		Dspl of accessibility Polish file ver
Lv.2	Details	To display the version of Polish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-PT		Dspl accessibility Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-RU		Dspl of accessibility Russian file ver
Lv.2	Details	To display the version of Russian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-SL		Dspl of accessibility Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-SV		Dspl of accessibility Swedish file ver
Lv.2	Details	To display the version of Swedish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ID		Dspl accessibility Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
ACSBT-BU		Dspl of accessibility Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-CR		Dspl of accessibility Croatian file ver
Lv.2	Details	To display the version of Croatian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-RM		Dspl of accessibility Romanian file ver
Lv.2	Details	To display the version of Romanian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-SK		Dspl accessibility Slovak file version
Lv.2	Details	To display the version of Slovak language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-TK		Dspl of accessibility Turkish file ver
Lv.2	Details	To display the version of Turkish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-CA		Dspl of accessibility Catalan file ver
Lv.2	Details	To display the version of Catalan language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-TH		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-VN		Dspl accessibility Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-FR		Display of ERS French file version
Lv.1	Details	To display the version of French language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-DE		Display of ERS German file version
Lv.1	Details	To display the version of German language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System

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ERS-KO		Display of ERS Korean file version
Lv.2	Details	To display the version of Korean language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-ET		Display of ERS Estonian file version
Lv.2	Details	To display the version of Estonian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System

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ERS-NL		Display of ERS Dutch file version
Lv.2	Details	To display the version of Dutch language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-SV		Display of ERS Swedish file version
Lv.2	Details	To display the version of Swedish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System

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ERS-ID		Display of ERS Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System

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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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
LS-ROM-V		Dspl of Laser Scanner Unit EEPROM ver
Lv.2	Details	To display the EEPROM version written in EEPROM of Laser Scanner Unit.
	Use case	When checking the EEPROM version written in EEPROM of Laser Scanner Unit
	Adj/set/operate method	N/A (display only)
	Display/adj/set range	00.01 to 99.99
LS-UNT-V		Dspl of Laser Scanner Unit version
Lv.2	Details	To display the version written in EEPROM of Laser Scanner Unit.
	Use case	When checking the version written in EEPROM of Laser Scanner Unit
	Adj/set/operate method	N/A (display only)
	Display/adj/set range	00.01 to 99.99
LS-SRL		Dspl of serial No. of Laser Scanner Unit
Lv.2	Details	To display the serial number written in EEPROM of Laser Scanner Unit.
	Use case	When checking the serial number written in EEPROM of Laser Scanner Unit
	Adj/set/operate method	N/A (display only)
	Display/adj/set range	00000001 to 99999999
BCT		Display of self diagnosis tool version
Lv.1	Details	To display the version of self diagnosis tool.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-FR		Display of BOX appli French file version
Lv.1	Details	To display the version of French language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-IT		Dspl of BOX appli Italian file version
Lv.1	Details	To display the version of Italian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-DE		Display of BOX appli German file version
Lv.1	Details	To display the version of German language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ES		Dspl of BOX appli Spanish file version
Lv.1	Details	To display the version of Spanish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ZH		Dspl of BOX appli Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-TW		Dspl of BOX appli Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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BOX-KO		Display of BOX appli Korean file version
Lv.2	Details	To display the version of Korean language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-CS		Display of BOX appli Czech file version
Lv.2	Details	To display the version of Czech language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-DA		Display of BOX appli Danish file version
Lv.2	Details	To display the version of Danish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-EL		Display of BOX appli Greek file version
Lv.2	Details	To display the version of Greek language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ET		Dspl of BOX appli Estonian file version
Lv.2	Details	To display the version of Estonian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-FI		Dspl of BOX appli Finnish file version
Lv.2	Details	To display the version of Finnish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-HU		Dspl of BOX appli Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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BOX-NL		Display of BOX appli Dutch file version
Lv.2	Details	To display the version of Dutch language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-NO		Dspl of BOX appli Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-PL		Display of BOX appli Polish file version
Lv.2	Details	To display the version of Polish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-PT		Display of BOX appli Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-RU		Dspl of BOX appli Russian file version
Lv.2	Details	To display the version of Russian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-SL		Dspl of BOX appli Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-SV		Dspl of BOX appli Swedish file version
Lv.2	Details	To display the version of Swedish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
BOX-ID		Display of BOX appli Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-BU		Dspl of BOX appli Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-CR		Dspl of BOX appli Croatian file version
Lv.2	Details	To display the version of Croatian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-RM		Dspl of BOX appli Romanian file version
Lv.2	Details	To display the version of Romanian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-SK		Display of BOX appli Slovak file version
Lv.2	Details	To display the version of Slovak language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-TK		Dspl of BOX appli Turkish file version
Lv.2	Details	To display the version of Turkish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-CA		Dspl of BOX appli Catalan file version
Lv.2	Details	To display the version of Catalan language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
BOX-TH		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-VN		Dspl of BOX appli Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-IT		Dspl 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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-ES		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-ZH		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
SC-TW		Dspl 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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-ET		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-FI		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
SC-HU		Dspl 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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-NO		Dspl 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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-RU		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-SL		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
SC-SV		Dspl 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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-BU		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-CR		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-RM		Dspl 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
	Adj/set/operate method	N/A (Display only)
	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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-TK		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER> DISPLAY> VERSION		
SC-CA		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-TH		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SC-VN		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

T-8-3

■ USER

COPIER> DISPLAY>USER		
SPDTYPE		Display of engine speed type
Lv.1	Details	To display the engine speed type of this machine.
	Use case	When checking the engine speed type
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	25 to 35
BRWS-STS		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-STS 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-STS is 1, turn OFF/ON the main power switch.
	Use case	When checking the operation mode of the service browser
	Adj/set/operate method	N/A (Display only)
	Caution	The value of BRWS-STS 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	0 to 2 0: OFF (Not available), 1: ON (Available), 2: OFF (Not available)
	Related service mode	COPIER> FUCNTION> INSTALL> BRWS-ACT

T-8-4

■ ACC-STS

COPIER> DISPLAY> ACC-STS		
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)
CARD		Dspl 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
	Display/adj/set range	1024 (Fixed)
COINROBO		Dspl 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
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
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

COPIER> DISPLAY> ACC-STS		
MN-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 Main Controller PCB
	Display/adj/set range	1024 (Fixed)

T-8-5

■ 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 60
	Unit	1 deg C
	Appropriate target value	20 - 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	5 to 90
	Unit	1 %
	Appropriate target value	30 - 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 100
	Unit	1 g
	Appropriate target value	0 - 22
FIX-E		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 300
	Unit	1 deg C
FIX-E2		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 300
	Unit	1 deg C

COPIER> DISPLAY> ANALOG		
TEMP2		Display of 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 100
	Unit	1 deg C
	Appropriate target value	Room temperature - Room temperature+15 deg C
	Related service mode	COPIER> DISPLAY> ANALOG> TEMP
FIX-E3		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 300
	Unit	1 deg C

T-8-6

HV-STS

COPIER> DISPLAY> HV-STS		
1ATVC-Y		Dspl of primary transfer current (Y)
Lv.2	Details	To display the decuple value of the current flown to the Primary Transfer Roller (Y) by the primary transfer ATVC control. When the two values are out of the target value range (50 to 700), clear the log information for the appropriate control (COPIER> FUNCTION> CLEAR> 1TR-CLR). If the two values are both small, the Primary Transfer Roller may have reached the end of life.
	Use case	When estimating the life of Primary Transfer Roller based on the displayed value
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 900
	Unit	1 uA
	Appropriate target value	50 - 700
	Related service mode	COPIER> FUNCTION> CLEAR> 1TR-CLR
1ATVC-M		Dspl of primary transfer current (M)
Lv.2	Details	To display the decuple value of the current flown to the Primary Transfer Roller (M) by the primary transfer ATVC control. When the two values are out of the target value range (50 to 700), clear the log information for the appropriate control (COPIER> FUNCTION> CLEAR> 1TR-CLR). If the two values are both small, the Primary Transfer Roller may have reached the end of life.
	Use case	When estimating the life of Primary Transfer Roller based on the displayed value
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 900
	Unit	1 uA
	Appropriate target value	50 - 700
	Related service mode	COPIER> FUNCTION> CLEAR> 1TR-CLR
1ATVC-C		Dspl of primary transfer current (C)
Lv.2	Details	To display the decuple value of the current flown to the Primary Transfer Roller (C) by the primary transfer ATVC control. When the two values are out of the target value range (50 to 700), clear the log information for the appropriate control (COPIER> FUNCTION> CLEAR> 1TR-CLR). If the two values are both small, the Primary Transfer Roller may have reached the end of life.
	Use case	When estimating the life of Primary Transfer Roller based on the displayed value
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 900
	Unit	1 uA
	Appropriate target value	50 - 700
	Related service mode	COPIER> FUNCTION> CLEAR> 1TR-CLR

COPIER> DISPLAY> HV-STS		
1ATVC-K4		Dspl prmry trns current(Bk):full clr mod
Lv.2	Details	To display the decuple value of the current flown to the Primary Transfer Roller (Bk) by the primary transfer ATVC control in full color mode. When the two values are out of the target value range (50 to 700), clear the log information for the appropriate control (COPIER> FUNCTION> CLEAR> 1TR-CLR). If the two values are both small, the Primary Transfer Roller may have reached the end of life.
	Use case	When estimating the life of Primary Transfer Roller based on the displayed value
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 900
	Unit	1 uA
	Appropriate target value	50 - 700
	Related service mode	COPIER> FUNCTION> CLEAR> 1TR-CLR
2ATVC		Dspl secondary transfer ATVC tgt current
Lv.2	Details	To display the decuple value of the voltage flown to the Secondary Transfer Outer Roller derived from the secondary transfer ATVC control. If there is no problem in the result of the control, 3 values are displayed in ascending order. As the usage of the Secondary Transfer Outer Roller is extended, the value decreases.
	Use case	When identifying the cause at the occurrence of an image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 65535
	Unit	1 uA
	Appropriate target value	50 - 700
	Related service mode	COPIER> FUNCTION> CLEAR> 2TR-CLR
2ATVCENV		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 9999
	Unit	0.01 g/m3
	Appropriate target value	0 - 4000

T-8-7

■ CCD

COPIER> DISPLAY> CCD		
TARGET-B		Shading target value (B)
Lv.2	Details	To display the shading target value of Blue. Continuous display of 0 (minimum) or 2048 (maximum) is considered a failure of the White Plate data.
	Use case	When the scanned image failure occurs
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 2048
	Appropriate target value	512 - 2047
TARGET-G		Shading target value (G)
Lv.2	Details	To display the target value of Green. Continuous display of 0 (minimum) or 2048 (maximum) is considered a failure of the White Plate data.
	Use case	When the scanned image failure occurs
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 2048
	Appropriate target value	512 - 2047
TARGET-R		Shading target value (R)
Lv.2	Details	To display the shading target value of Red. Continuous display of 0 (minimum) or 2048 (maximum) is considered a failure of the White Plate data.
	Use case	When the scanned image failure occurs
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 2048
	Appropriate target value	512 - 2047

T-8-8

DPOT

COPIER> DISPLAY> DPOT		
2TR-PPR		Dspl of sec trns ATVC ppr allotted voltg
Lv.2	Details	To display the paper allotted voltage set by the latest secondary transfer ATVC control. The appropriate range may be exceeded due to wrong media setting.
	Use case	When transfer failure occurs on certain media
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 5000
	Unit	1 V
2TR-BASE		Dspl of sec transfer ATVC base voltage
Lv.2	Details	To display the base voltage set by the latest secondary transfer ATVC control. The appropriate range may be exceeded due to wrong media setting.
	Use case	When transfer failure occurs on certain media
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 6000
	Unit	1 V
	Appropriate target value	500 - 5000
1TR-DC-Y		Dspl of primary transfer voltage (Y)
Lv.2	Details	To display the voltage lastly applied to the Primary Transfer Roller (Y).
	Use case	When transfer failure occurs due to the primary transfer
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 5000
	Unit	1 V
	Appropriate target value	50 - 2000
1TR-DC-M		Dspl of primary transfer voltage (M)
Lv.2	Details	To display the voltage lastly applied to the Primary Transfer Roller (M).
	Use case	When transfer failure occurs due to the primary transfer
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 5000
	Unit	1 V
	Appropriate target value	50 - 2000
1TR-DC-C		Dspl of primary transfer voltage (C)
Lv.2	Details	To display the voltage lastly applied to the Primary Transfer Roller (C).
	Use case	When transfer failure occurs due to the primary transfer
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 5000
	Unit	1 V
	Appropriate target value	50 - 2000

COPIER> DISPLAY> DPOT		
1TR-DC-K		Dspl of primary transfer voltage (Bk)
Lv.2	Details	To display the voltage lastly applied to the Primary Transfer Roller (Bk).
	Use case	When transfer failure occurs due to the primary transfer
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 5000
	Unit	1 V
	Appropriate target value	50 - 2000
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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00 - FF (hexadecimal)
	Appropriate target value	60 - FF
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust
LPWR-M		Display of laser power (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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00 - FF (hexadecimal)
	Appropriate target value	60 - FF
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust
LPWR-C		Display of laser power (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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00 - FF (hexadecimal)
	Appropriate target value	60 - FF
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust

COPIER> DISPLAY> DPOT		
LPWR-K		Display of laser power (Bk)
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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00 - FF (hexadecimal)
	Appropriate target value	60 - FF
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust

T-8-9

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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-7 to 7
	Unit	1 %
	Appropriate target value	-4.5 - 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-7 to 7
	Unit	1 %
	Appropriate target value	-4.5 - 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-7 to 7
	Unit	1 %
	Appropriate target value	-4.5 - 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-7 to 7
	Unit	1 %
	Appropriate target value	-4.5 - 3.5
	Related service mode	COPIER> DISPLAY> DENS> SGNL-K
DENS-S-Y		Dspl 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.)
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
	Appropriate target value	-350 - 200

COPIER> DISPLAY> DENS		
DENS-S-M		Dspl differ from M patch density tgt VL
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.)
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
	Appropriate target value	-350 - 200
DENS-S-C		Dspl 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.)
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
	Appropriate target value	-350 - 200
DENS-S-K		Dspl 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.)
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
	Appropriate target value	-350 - 200
D-Y-TRGT		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 65535
	Appropriate target value	450 - 640
D-M-TRGT		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 65535
	Appropriate target value	450 - 640
D-C-TRGT		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 65535
	Appropriate target value	450 - 640

COPIER> DISPLAY> DENS		
REF-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Appropriate target value	50 - 200
REF-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Appropriate target value	50 - 200
REF-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Appropriate target value	50 - 200
REF-K		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Appropriate target value	50 - 200
DEV-DC-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1000 to 0
	Unit	1 V
	Appropriate target value	-570 - -450
DEV-DC-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1000 to 0
	Unit	1 V
	Appropriate target value	-570 - -450

COPIER> DISPLAY> DENS		
DEV-DC-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1000 to 0
	Unit	1 V
	Appropriate target value	-570 - -450
DEV-DC-K		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1000 to 0
	Unit	1 V
	Appropriate target value	-570 - -450
CHG-DC-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1500 to 0
	Unit	1 V
	Appropriate target value	-1400 - -1200
CHG-DC-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1500 to 0
	Unit	1 V
	Appropriate target value	-1400 - -1200
CHG-DC-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1500 to 0
	Unit	1 V
	Appropriate target value	-1400 - -1200

COPIER> DISPLAY> DENS		
CHG-DC-K		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1500 to 0
	Unit	1 V
	Appropriate target value	-1400 - -1200
D-K-TRGT		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 65535
	Appropriate target value	450 - 640
P-D-P-Y		Dspl Y/M (R) drk crrnt (Pwave):ATR ctrl
Lv.2	Details	To display the Y/M color dark current (P-wave) detected by the Registration Patch Sensor Unit (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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	50 - 150
P-D-P-C		Dspl C/Bk (F) drk crrnt (Pwave):ATR ctrl
Lv.2	Details	To display the C/Bk color dark current (P-wave) detected by the Registration Patch Sensor Unit (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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	50 - 150
P-B-P-Y		ITB rear base intensity (Pwave):ATR ctrl
Lv.2	Details	To display the ITB background light intensity (P-wave) detected by the Registration Patch Sensor Unit (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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	300 - 650

COPIER> DISPLAY> DENS		
P-B-P-C		ITB frt base intensity (Pwave):ATR ctrl
Lv.2	Details	To display the ITB background light intensity (P-wave) detected by the Registration Patch Sensor Unit (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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	300 - 650
P-B-S-Y		ITB rear base intensity (Swave):ATR ctrl
Lv.2	Details	To display the ITB background light intensity (S-wave) detected by the Registration Patch Sensor Unit (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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Appropriate target value	0 - 239
P-B-S-C		ITB frt base intensity (Swave):ATR ctrl
Lv.2	Details	To display the ITB background light intensity (S-wave) detected by the Registration Patch Sensor Unit (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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
P-D-S-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	100 - 200
P-D-S-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	100 - 200

COPIER> DISPLAY> DENS		
CONT-M		Dspl ATR Sensor (M) control voltage
Lv.2	Details	To display the density detection control voltage of the ATR Sensor (M).
	Use case	When checking before clearing RAM data
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Unit	1 V
	Appropriate target value	6 - 85
	Related service mode	COPIER> ADJUST> DENS> CONT-M
CONT-Y		Dspl ATR Sensor (Y) control voltage
Lv.2	Details	To display the density detection control voltage of the ATR Sensor (Y).
	Use case	When checking before clearing RAM data
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Unit	1 V
	Appropriate target value	6 - 85
	Related service mode	COPIER> ADJUST> DENS> CONT-Y
CONT-C		Dspl ATR Sensor (C) control voltage
Lv.2	Details	To display the density detection control voltage of the ATR Sensor (C).
	Use case	When checking before clearing RAM data
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Unit	1 V
	Appropriate target value	6 - 85
	Related service mode	COPIER> ADJUST> DENS> CONT-C
CONT-K		Dspl ATR Sensor (Bk) control voltage
Lv.2	Details	To display the density detection control voltage of the ATR Sensor (Bk).
	Use case	When checking before clearing RAM data
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Unit	1 V
	Appropriate target value	6 - 85
	Related service mode	COPIER> ADJUST> DENS> CONT-K
D-Y-LVL		Display of ATR patch form level (Y)
Lv.2	Details	To display the ATR patch form level of Y-color.
	Use case	When judging whether there is an error in the ATR patch form level at E020 occurrence
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-30 to 30
	Related service mode	COPIER> DISPLAY> DENS> D-Y-TRGT

COPIER> DISPLAY> DENS		
D-M-LVL		Display of ATR patch form level (M)
Lv.2	Details	To display the ATR patch form level of M-color.
	Use case	When judging whether there is an error in the ATR patch form level at E020 occurrence
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-30 to 30
	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.
	Use case	When judging whether there is an error in the ATR patch form level at E020 occurrence
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-30 to 30
	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.
	Use case	When judging whether there is an error in the ATR patch form level at E020 occurrence
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-30 to 30
	Related service mode	COPIER> DISPLAY> DENS> D-K-TRGT

T-8-10

MISC

COPIER> DISPLAY> MISC		
LPOWER-Y		Display of laser power (Y)
Lv.2	Details	To display the Y laser power at the latest output.
	Use case	When analyzing the cause of image failure (low density, ghost, etc.)
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust
LPOWER-M		Display of laser power (M)
Lv.2	Details	To display the M laser power at the latest output.
	Use case	When analyzing the cause of image failure (low density, ghost, etc.)
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust
LPOWER-C		Display of laser power (C)
Lv.2	Details	To display the C laser power at the latest output.
	Use case	When analyzing the cause of image failure (low density, ghost, etc.)
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust
LPOWER-K		Display of laser power (Bk)
Lv.2	Details	To display the Bk laser power at the latest output.
	Use case	When analyzing the cause of image failure (low density, ghost, etc.)
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
TNRB-IDY		Display of Y-color Toner Container ID
Lv.1	Details	To display the ID of Y-color Toner Container that is installed to the machine
	Use case	When checking whether the barcode ID on the Toner Container is read correctly
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	12-digit decimal number
TNRB-IDM		Display of M-color Toner Container ID
Lv.1	Details	To display the ID of M-color Toner Container that is installed to the machine
	Use case	When checking whether the barcode ID on the Toner Container is read correctly
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	12-digit decimal number

COPIER> DISPLAY> MISC		
TNRB-IDC		Display of C-color Toner Container ID
Lv.1	Details	To display the ID of C-color Toner Container that is installed to the machine
	Use case	When checking whether the barcode ID on the Toner Container is read correctly
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	12-digit decimal number
TNRB-IDK		Display of Bk-color Toner Container ID
Lv.1	Details	To display the ID of Bk-color Toner Container that is installed to the machine
	Use case	When checking whether the barcode ID on the Toner Container is read correctly
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	12-digit decimal number
ENV-1TR		Dspl of prmry trns ATVC ctrl environment
Lv.2	Details	To display the environment (relative humidity) at execution of the primary transfer ATVC control.
	Use case	When checking the environment where the primary transfer ATVC control is executed
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 6

T-8-11

HT-C

COPIER> DISPLAY> HT-C		
TGT-A-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700
TGT-A-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700
TGT-A-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700
TGT-A-K		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700

COPIER> DISPLAY> HT-C		
TGT-B-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700
TGT-B-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700
TGT-B-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700
TGT-B-K		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700
TGT-C-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700

COPIER> DISPLAY> HT-C		
TGT-C-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700
TGT-C-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700
TGT-C-K		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
	Appropriate target value	0 - 700
SUM-A-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
SUM-A-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023

COPIER> DISPLAY> HT-C		
SUM-A-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
SUM-A-K		Dspl ARCDAT screen A Bk-clr 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
SUM-B-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
SUM-B-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
SUM-B-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023

COPIER> DISPLAY> HT-C		
SUM-B-K		Dspl ARCDAT screen B Bk-clr 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
SUM-C-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
SUM-C-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
SUM-C-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
SUM-C-K		Dspl ARCDAT screen C Bk-clr 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023

COPIER> DISPLAY> HT-C		
SGNL-A-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
SGNL-A-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
SGNL-A-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
SGNL-A-K		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
SGNL-B-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
SGNL-B-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023

COPIER> DISPLAY> HT-C		
SGNL-B-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
SGNL-B-K		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
SGNL-C-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
SGNL-C-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
SGNL-C-K		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023
SGNL-C-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1023

COPIER> DISPLAY> HT-C		
DLTA-A-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
DLTA-A-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
DLTA-A-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
DLTA-A-K		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023

COPIER> DISPLAY> HT-C		
DLTA-B-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
DLTA-B-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
DLTA-B-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
DLTA-B-K		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023

COPIER> DISPLAY> HT-C		
DLTA-C-Y		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
DLTA-C-M		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
DLTA-C-C		Dspl 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
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
DLTA-C-K		Dspl 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 the auto gradation adjustment (reset the target value). Check the Patch Sensor or replace the developer if not alleviated.
	Use case	When hue variation occurs
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-1023 to 1023
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-8-12

I/O

Main Body_DC Controller (DC-CON> P001 to P026)

Main Body

Cassette Feeding Unit-AG1 / Cassette Feeding Unit-AH1

Address	bit	Name	Symbol	Remarks
P001	15-0	Not used	-	
P002	15-0	Not used	-	
P003	15-0	Not used	-	
P004	15	Not used	-	
	14	Fixing Pressure Release Sensor	PS13	0:engage
	13	Not used	-	
	12	Not used	-	
	11	Cassette PCB Connector Detection	-	1:conect
	10	Finisher Detection	-	0:conect
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Multi-purpose Tray Paper Sensor	PS3	1:paper
	2	Not used	-	
	1	Front Door Open/Close Switch	SW6	1:close/0:open
	0	Not used	-	
P005	15	Delivery Paper Full Sensor	PS14	1:full
	14	Delivery Sensor	PS12	1:paper
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	
P006	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Cassette 1 Paper Sensor	PS2	0:paper
	9	Not used	-	
	8	Not used	-	
	7	Arch Sensor	PS11	1:deep roop /0:shallow roop
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Cassette 1 Paper Surface Sensor	PS18	0:full 1:mid
	2	Not used	-	
	1	Not used	-	
	0	Right Door Open/Close Detection Switch	SW5	1:close/0:open
P007	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Cassette 1 Lifter Motor	M11	1:ON
	1	Not used	-	
	0	Not used	-	

Address	bit	Name	Symbol	Remarks
P008	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Waste Toner Sensor PCB	UN17	0:full
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	
P009	15-0	Not used	-	
P010	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Cassette 1 Pickup Sensor	PS5	1:paper
	4	Not used	-	
	3	Pre-Registration Sensor	PS4	1:paper
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	

Address	bit	Name	Symbol	Remarks
P011	15	Not used	-	
	14	Not used	-	
	13	ITB Pressure Release Switch	SW7	1:closes/0:open
	12	Duplex Sensor	PS1	1:paper
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Multi-purpose Tray HP Sensor	PS10	1:HP
	0	Not used	-	
P012	15-0	Not used	-	
P013	15-0	Not used	-	
P014	15-0	Not used	-	
P015	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Developing Cylinder Clutch (Bk)	CL4	1:ON / 0:OFF
	8	Not used	-	
	7	Developing Cylinder Clutch (C)	CL3	1:ON / 0:OFF
	6	Developing Cylinder Clutch (M)	CL2	1:ON / 0:OFF
	5	Developing Cylinder Clutch (Y)	CL1	1:ON / 0:OFF
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	
P016	15-0	Not used	-	
P017	15-0	Not used	-	
P018	15-0	Not used	-	
P019	15-0	Not used	-	
P020	15-0	Not used	-	

Address	bit	Name	Symbol	Remarks
P021	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Duplex Solenoid	SL02	1:ON / 0:OFF
	11	Registration Shutter Solenoid	SL03	1:ON / 0:OFF
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	
P022	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Cassette 2 Paper Level Sensor	PS110	0:full 1:mid
	3	Cassette 2 Paper Sensor	PS104	0:paper
	2	Cassette 2 Pullout Sensor	PS101	1:paper
	1	Cassette 2 Paper Surface Sensor	PS107	0:full 1:mid
	0	Not used	-	

Address	bit	Name	Symbol	Remarks
P023	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Cassette 4 Paper Level Sensor	PS112	0:full 1:mid
	3	Cassette 3 Paper Level Sensor	PS111	0:full 1:mid
	2	Cassette Right Door Open/Close Detection Switch	SW104	1:close/0:open
	1	Not used	-	
	0	Not used	-	
P024	15	Not used	-	
	14	Not used	-	
	13	Cassette 3 Pullout Sensor	PS102	1:paper
	12	Cassette 3 Paper Surface Sensor	PS108	0:full 1:mid
	11	Cassette 3 Paper Sensor	PS105	0:paper
	10	Cassette 4 Paper Sensor	PS106	0:paper
	9	Cassette 4 Paper Surface Sensor	PS109	0:full 1:mid
	8	Cassette 4 Pullout Sensor	PS103	1:paper
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	
P025	15-0	Not used	-	

Address	bit	Name	Symbol	Remarks
P026	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Cassette 2 Lifter Motor	M104	1:ON
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	

T-8-13

■ Reader (R-CON> P001)

Address	bit	Name	Symbol	Remarks
P001	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	CIS HP Sensor	PS1	0:HP
	1	Not used	-	
	0	Not used	-	

T-8-14

■ ADF (R-CON> P001)

Address	bit	Name	Symbol	Remarks
P001	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	DS	PS3	1:paper
	0	DES	PS2	1:paper

T-8-15

ADJUST

ADJ-XY

COPIER> ADJUST> ADJ-XY		
ADJ-X		Adj of img pstn in book mode: vert scan
Lv.1	Details	To adjust the image reading start position (image leading edge position) in vertical scanning direction. When replacing the Scanner Unit or Main Controller PCB/clearing the Reader-related RAM data, enter the value of service label. When the non-image width is larger than the standard value, set the smaller value. When out of original area is copied, set the larger value. As the value is incremented by 1, the image position moves to the trailing edge side by 0.1 mm.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-30 to 30
	Unit	0.1 mm
	Default value	0
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 Scanner Unit or Main Controller PCB/clearing the Reader-related RAM data, enter the value of service label. When the non-image width is larger than the standard value, set the smaller value. When out of original area is copied, set the larger value. As the value is incremented by 1, the image position moves to the rear side by 0.1 mm.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-15 to 15
	Unit	0.1 mm
	Default value	0

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 0.1 mm.
	Use case	When clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When COPIER> FUNCTION> INSTALL> RDSHDPOS is executed, the value of this item may change. If the value is changed, write the value in the service label.
	Display/adj/set range	-20 to 20
	Unit	0.1 mm
	Default value	0
	Related service mode	COPIER> FUNCTION> INSTALL> RDSHDPOS
	Supplement/memo	The shading position can be adjusted automatically by COPIER> FUNCTION> INSTALL> RDSHDPOS.
ADJ-Y-DF		Adj img pstn in DADF mode:horz scan[Frt]
Lv.1	Details	To adjust the image reading start position in horizontal scanning direction at DADF reading. When replacing the Scanner Unit or Main Controller PCB/clearing the Reader-related RAM data, enter the value of service label. As the value is incremented by 1, the image position moves to the rear side by 0.1 mm.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-15 to 15
	Unit	0.1 mm
	Default value	0

COPIER> ADJUST> ADJ-XY		
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 Scanner Unit or Main Controller PCB/clearing the Reader-related RAM data, enter the value of service label.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-30 to 20
	Unit	0.1 mm
	Default value	0
	Related service mode	COPIER> FUNCTION> INSTALL> STRD-POS
ADJ-X-MG		Fine adj img ratio: book mode, vert scan
Lv.1	Details	To make a fine adjustment of image magnification ratio in vertical scanning direction at copyboard reading. When replacing the Scanner Unit or Main Controller PCB/clearing the Reader-related RAM data, enter the value of service label. As the value is incremented by 1, the image magnification ratio changes by 0.01 %. +: Enlarge -: Reduce
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-200 to 200
	Unit	0.01 %
	Default value	0

T-8-16

■ CCD

COPIER> ADJUST> CCD		
W-PLT-X		White level data(X) entry of White Plate
Lv.1	Details	When replacing the Reader Controller PCB/clearing the Reader-related RAM data, 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 Main Controller PCB - When clearing the Reader-related RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value and 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	7000 to 9999
	Default value	8273
	Related service mode	COPIER> ADJUST> CCD> W-PLT-Y/Z COPIER> FUNCTION> MISC-P> P-PRINT
W-PLT-Y		White level data(Y) entry of White Plate
Lv.1	Details	When replacing the Reader Controller PCB/clearing the Reader-related RAM data, 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 Main Controller PCB - When clearing the Reader-related RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value and 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	7000 to 9999
	Default value	8737
	Related service mode	COPIER> ADJUST> CCD> W-PLT-X/Z COPIER> FUNCTION> MISC-P> P-PRINT
W-PLT-Z		White level data(Z) entry of White Plate
Lv.1	Details	When replacing the Reader Controller PCB/clearing the Reader-related RAM data, 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 Main Controller PCB - When clearing the Reader-related RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value and 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	7000 to 9999
	Default value	9427
	Related service mode	COPIER> ADJUST> CCD> W-PLT-X/Y COPIER> FUNCTION> MISC-P> P-PRINT

COPIER> ADJUST> CCD		
50-RG		RG clr displace crrct: 300dpi book mode
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 copyboard reading with 300 dpi. When replacing the Scanner Unit, enter the value of service label on the unit. When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 512
	Unit	0.001 line
	Default value	-333
50-GB		GB clr displace crrct: 300dpi book mode
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 copyboard reading with 300 dpi. When replacing the Scanner Unit, enter the value of service label on the unit. When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 512
	Unit	0.001 line
	Default value	333

COPIER> ADJUST> CCD		
100-RG		RG clr displace crrct: 600dpi book mode
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 copyboard reading with 600 dpi. When replacing the Scanner Unit, enter the value of service label on the unit. When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 512
	Unit	0.001 line
	Default value	-333
100-GB		GB clr displace crrct: 600dpi book mode
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 copyboard reading with 600 dpi. When replacing the Scanner Unit, enter the value of service label on the unit. When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 512
	Unit	0.001 line
	Default value	333

COPIER> ADJUST> CCD		
50DF-RG		RG clr displace crrct: 300dpi DADF mode
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 DADF reading with 300 dpi. When replacing the Scanner Unit, enter the value of service label on the unit. When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 512
	Unit	0.001 line
	Default value	-333
50DF-GB		GB clr displace crrct: 300dpi DADF mode
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 DADF reading with 300 dpi. When replacing the Scanner Unit, enter the value of service label on the unit. When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 512
	Unit	0.001 line
	Default value	333

COPIER> ADJUST> CCD		
100DF-RG		RG clr displace crrct: 600dpi DADF mode
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 DADF reading with 600 dpi. When replacing the Scanner Unit, enter the value of service label on the unit. When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 512
	Unit	0.001 line
	Default value	-333
100DF-GB		GB clr displace crrct: 600dpi DADF mode
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 DADF reading with 600 dpi. When replacing the Scanner Unit, enter the value of service label on the unit. When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 512
	Unit	0.001 line
	Default value	333

COPIER> ADJUST> CCD		
DFTAR-R		Shading tgt VL(R) [1st reading position]
Lv.1	Details	When clearing the Reader-related RAM data, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit, execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1105
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT
DFTAR-G		Shading tgt VL(G) [1st reading position]
Lv.1	Details	When clearing the Reader-related RAM data, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit, execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1129
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT
DFTAR-B		Shading tgt VL(B) [1st reading position]
Lv.1	Details	When clearing the Reader-related RAM data, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit, execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1151
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT

COPIER> ADJUST> CCD		
DFTAR2-R		Shading tgt VL(R) [2nd reading position]
Lv.1	Details	When clearing the Reader-related RAM data, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit, execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1105
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT
DFTAR2-G		Shading tgt VL(G) [2nd reading position]
Lv.1	Details	When clearing the Reader-related RAM data, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit, execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1129
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT
DFTAR2-B		Shading tgt VL(B) [2nd reading position]
Lv.1	Details	When clearing the Reader-related RAM data, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit, execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1151
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT

COPIER> ADJUST> CCD		
MTF2-M1		MTF value 1 setting: horz scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-M2		MTF value 2 setting: horz scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-M3		MTF value 3 setting: horz scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
MTF2-M4		MTF value 4 setting: horz scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-M5		MTF value 5 setting: horz scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-M6		MTF value 6 setting: horz scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
MTF2-M7		MTF value 7 setting: horz scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-M8		MTF value 8 setting: horz scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-M9		MTF value 9 setting: horz scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
MTF2-S1		MTF value 1 setting: vert scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-S2		MTF value 2 setting: vert scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-S3		MTF value 3 setting: vert scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
MTF2-S4		MTF value 4 setting: vert scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-S5		MTF value 5 setting: vert scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-S6		MTF value 6 setting: vert scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
MTF2-S7		MTF value 7 setting: vert scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-S8		MTF value 8 setting: vert scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF2-S9		MTF value 9 setting: vert scan [Cpybrd]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
MTF-M1		MTF value 1 setting: horz scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-M2		MTF value 2 setting: horz scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-M3		MTF value 3 setting: horz scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
MTF-M4		MTF value 4 setting: horz scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-M5		MTF value 5 setting: horz scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-M6		MTF value 6 setting: horz scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
MTF-M7		MTF value 7 setting: horz scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-M8		MTF value 8 setting: horz scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-M9		MTF value 9 setting: horz scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
MTF-S1		MTF value 1 setting: vert scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-S2		MTF value 2 setting: vert scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-S3		MTF value 3 setting: vert scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
MTF-S4		MTF value 4 setting: vert scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-S5		MTF value 5 setting: vert scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-S6		MTF value 6 setting: vert scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
MTF-S7		MTF value 7 setting: vert scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-S8		MTF value 8 setting: vert scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100
MTF-S9		MTF value 9 setting: vert scan [DADF]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	- When replacing the Scanner Unit - When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value 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	0 to 100
	Unit	1 %
	Default value	100

COPIER> ADJUST> CCD		
DFTAR3-R		Shading tgt VL (R): DADF [3rd read pstn]
Lv.1	Details	When clearing the Reader-related RAM data, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit, execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1105
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT
DFTAR3-G		Shading tgt VL (G): DADF [3rd read pstn]
Lv.1	Details	When clearing the Reader-related RAM data, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit, execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1129
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT
DFTAR3-B		Shading tgt VL (B): DADF [3rd read pstn]
Lv.1	Details	When clearing the Reader-related RAM data, enter the value of P-PRINT. When replacing the Copyboard Glass/Scanner Unit, execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1151
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT

COPIER> ADJUST> CCD		
OFST-CL0		Adj CIS-ch0 offset: color mode, 300 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 0 in color mode with 300 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
OFST-CL1		Adj CIS-ch1 offset: color mode, 300 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 1 in color mode with 300 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
OFST-CL2		Adj CIS-ch2 offset: color mode, 300 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 2 in color mode with 300 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
OFST-CL3		Adj CIS-ch3 offset: color mode, 300 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 3 in color mode with 300 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.

COPIER> ADJUST> CCD		
OFST-CL4		Adj CIS-ch4 offset: color mode, 300 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 4 in color mode with 300 dpi. This setting is not available for a 25-ppm machine.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
OFST-CL5		Adj CIS-ch5 offset: color mode, 300 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 5 in color mode with 300 dpi. This setting is not available for a 25-ppm machine.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
OFST2CL0		Adj CIS-ch0 offset: color mode, 600 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 0 in color mode with 600 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
OFST2CL1		Adj CIS-ch1 offset: color mode, 600 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 1 in color mode with 600 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.

COPIER> ADJUST> CCD		
OFST2CL2		Adj CIS-ch2 offset: color mode, 600 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 2 in color mode with 600 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
OFST2CL3		Adj CIS-ch3 offset: color mode, 600 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 3 in color mode with 600 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
OFST2CL4		Adj CIS-ch4 offset: color mode, 600 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 4 in color mode with 600 dpi. This setting is not available for a 25-ppm machine.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
OFST2CL5		Adj CIS-ch5 offset: color mode, 600 dpi
Lv.1	Details	To adjust the offset (black level) of the Scanner Unit on channel 5 in color mode with 600 dpi. This setting is not available for a 25-ppm machine.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	216
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.

COPIER> ADJUST> CCD		
GAIN-CL0		Adj CIS gain level: color mode, 300 dpi
Lv.1	Details	To adjust the gain (amplification of detection level) of the Scanner Unit in color mode with 300 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	0
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
GAIN2CL0		Adj CIS gain level: color mode, 600 dpi
Lv.1	Details	To adjust the gain (amplification of detection level) of the Scanner Unit in color mode with 600 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 255
	Default value	0
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
LED-CL-R		Adj LEDSTOP VL (R): color mode, 300 dpi
Lv.1	Details	To adjust the lighting time of the red color LED which is a primary light source of the Scanner Unit in color mode with 300 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	544 (iR-ADV C250)/408 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
LED-CL-G		Adj LEDSTOP VL (G): color mode, 300 dpi
Lv.1	Details	To adjust the lighting time of the green color LED which is a primary light source of the Scanner Unit in color mode with 300 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	720 (iR-ADV C250)/650 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.

COPIER> ADJUST> CCD		
LED-CL-B		Adj LEDSTOP VL (B): color mode, 300 dpi
Lv.1	Details	To adjust the lighting time of the blue color LED which is a primary light source of the Scanner Unit in color mode with 300 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	496 (iR-ADV C250)/454 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
LED2CL-R		Adj LEDSTOP VL (R): color mode, 600 dpi
Lv.1	Details	To adjust the lighting time of the red color LED which is a primary light source of the Scanner Unit in color mode with 600 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1192 (iR-ADV C250)/678 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
LED2CL-G		Adj LEDSTOP VL (G): color mode, 600 dpi
Lv.1	Details	To adjust the lighting time of the green color LED which is a primary light source of the Scanner Unit in color mode with 600 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1469 (iR-ADV C250)/1020 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.
LED2CL-B		Adj LEDSTOP VL (B): color mode, 600 dpi
Lv.1	Details	To adjust the lighting time of the blue color LED which is a primary light source of the Scanner Unit in color mode with 600 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2048
	Default value	1016 (iR-ADV C250)/714 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed.

COPIER> ADJUST> CCD		
LED-CLR2		Adj sec lgt src LEDSTOP VL(R):clr,300dpi
Lv.1	Details	To adjust the lighting time of the red color LED which is a secondary light source of the Scanner Unit in color mode with 300 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When replacing the Scanner Unit, execute COPIER> FUNCTION> CCD> CL-AGC and write the value of this item in the service label.
	Display/adj/set range	0 to 2048
	Default value	544 (iR-ADV C250)/408 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed. The secondary light source exposes light to the light guide at the right side of CIS (at trailing edge side of original at copyboard reading).
LED-CLG2		Adj sec lgt src LEDSTOP VL(G):clr,300dpi
Lv.1	Details	To adjust the lighting time of the green color LED which is a secondary light source of the Scanner Unit in color mode with 300 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When replacing the Scanner Unit, execute COPIER> FUNCTION> CCD> CL-AGC and write the value of this item in the service label.
	Display/adj/set range	0 to 2048
	Default value	720 (iR-ADV C250)/650 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed. The secondary light source exposes light to the light guide at the right side of CIS (at trailing edge side of original at copyboard reading).

COPIER> ADJUST> CCD		
LED-CLB2		Adj sec lgt src LEDSTOP VL(B):clr,300dpi
Lv.1	Details	To adjust the lighting time of the blue color LED which is a secondary light source of the Scanner Unit in color mode with 300 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When replacing the Scanner Unit, execute COPIER> FUNCTION> CCD> CL-AGC and write the value of this item in the service label.
	Display/adj/set range	0 to 2048
	Default value	496 (iR-ADV C250)/454 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed. The secondary light source exposes light to the light guide at the right side of CIS (at trailing edge side of original at copyboard reading).
LED2CLR2		Adj sec lgt src LEDSTOP VL(R):clr,600dpi
Lv.1	Details	To adjust the lighting time of the red color LED which is a secondary light source of the Scanner Unit in color mode with 600 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When replacing the Scanner Unit, execute COPIER> FUNCTION> CCD> CL-AGC and write the value of this item in the service label.
	Display/adj/set range	0 to 2048
	Default value	1192 (iR-ADV C250)/678 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed. The secondary light source exposes light to the light guide at the right side of CIS (at trailing edge side of original at copyboard reading).

COPIER> ADJUST> CCD		
LED2CLG2		Adj sec lgt src LEDSTOP VL(G):clr,600dpi
Lv.1	Details	To adjust the lighting time of the green color LED which is a secondary light source of the Scanner Unit in color mode with 600 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When replacing the Scanner Unit, execute COPIER> FUNCTION> CCD> CL-AGC and write the value of this item in the service label.
	Display/adj/set range	0 to 2048
	Default value	1469 (iR-ADV C250)/1020 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed. The secondary light source exposes light to the light guide at the right side of CIS (at trailing edge side of original at copyboard reading).
LED2CLB2		Adj sec lgt src LEDSTOP VL(B):clr,600dpi
Lv.1	Details	To adjust the lighting time of the blue color LED which is a secondary light source of the Scanner Unit in color mode with 600 dpi.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When replacing the Scanner Unit, execute COPIER> FUNCTION> CCD> CL-AGC and write the value of this item in the service label.
	Display/adj/set range	0 to 2048
	Default value	1016 (iR-ADV C250)/714 (iR-ADV C350)
	Related service mode	COPIER> FUNCTION> CCD> CL-AGC
	Supplement/memo	It is updated automatically when the value of CL-AGC is changed. The secondary light source exposes light to the light guide at the right side of CIS (at trailing edge side of original at copyboard reading).

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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
	Default value	0
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
	Default value	0
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
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

COPIER> ADJUST> IMG-REG		
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 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
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

COPIER> ADJUST> IMG-REG		
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
REG-HS-M		Fine adj M write start pstn: 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

COPIER> ADJUST> IMG-REG		
BEND-Y		Y-color laser distortion crrct:vert scan
Lv.1	Details	To correct distortion of Y-color laser in vertical scanning direction. (Digital registration) As the value is incremented by 1, degree of distortion is changed by 1 micro m. Y-color is the reference for M/C/Bk-color.
	Use case	When distortion occurs in vertical scanning direction
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Output a test print in COPIER> TEST> PG> TYPE> 6 (Grid). 3) Perform visual check, and repeat the procedures as needed.
	Caution	In principle, do not change the setting because Y-color is the reference.
	Display/adj/set range	-100 to 100
	Unit	1 um
	Default value	0
BEND-M		M-color laser distortion crrct:vert scan
Lv.1	Details	To correct distortion of M-color laser in vertical scanning direction. (Digital registration) As the value is incremented by 1, degree of distortion is changed by 1 micro m with reference to Y-color.
	Use case	When distortion occurs in vertical scanning direction
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Output a test print in COPIER> TEST> PG> TYPE> 6 (Grid). 3) Perform visual check, and repeat the procedures as needed.
	Display/adj/set range	-100 to 100
	Unit	1 um
	Default value	0
BEND-K		Bk-clr laser distortion crrct:vert scan
Lv.1	Details	To correct distortion of Bk-color laser in vertical scanning direction. (Digital registration) As the value is incremented by 1, degree of distortion is changed by 1 micro m with reference to Y-color.
	Use case	When distortion occurs in vertical scanning direction
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Output a test print in COPIER> TEST> PG> TYPE> 6 (Grid). 3) Perform visual check, and repeat the procedures as needed.
	Display/adj/set range	-100 to 100
	Unit	1 um
	Default value	0

COPIER> ADJUST> IMG-REG		
LSR-V-M1		Adj M wrt start pstn:vert scan, 1st sht
Lv.2	Details	To adjust the write start position of M-color image in vertical scanning direction when color displacement occurs only with the image on the 1st sheet. As the value is changed by 1, M-color image moves by 1 pixel. +: Move in the trailing edge direction -: Move in the leading edge direction Since image formation is performed based on Y-color, adjust the position of M/C/Bk-color even if it seems that color displacement occurs only with Y-color.
	Use case	When color displacement occurs only on the 1st sheet
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Use this mode only when color displacement occurs on the 1st sheet.
	Display/adj/set range	-5 to 5
	Unit	1 pixel
	Appropriate target value	0
	Default value	0
	Related service mode	COPIER> ADJUST> IMG-REG> LSR-V-C1/K1
LSR-V-C1		Adj C wrt start pstn:vert scan, 1st sht
Lv.2	Details	To adjust the write start position of C-color image in vertical scanning direction when color displacement occurs only with the image on the 1st sheet. As the value is changed by 1, C-color image moves by 1 pixel. +: Move in the trailing edge direction -: Move in the leading edge direction Since image formation is performed based on Y-color, adjust the position of M/C/Bk-color even if it seems that color displacement occurs only with Y-color.
	Use case	When color displacement occurs only on the 1st sheet
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Use this mode only when color displacement occurs on the 1st sheet.
	Display/adj/set range	-5 to 5
	Unit	1 pixel
	Appropriate target value	0
	Default value	0
	Related service mode	COPIER> ADJUST> IMG-REG> LSR-V-M1/K1

COPIER> ADJUST> IMG-REG		
LSR-V-K1		Adj Bk wrt start pstn:vert scan, 1st sht
Lv.2	Details	To adjust the write start position of Bk-color image in vertical scanning direction when color displacement occurs only with the image on the 1st sheet. As the value is changed by 1, Bk-color image moves by 1 pixel. +: Move in the trailing edge direction -: Move in the leading edge direction Since image formation is performed based on Y-color, adjust the position of M/C/Bk-color even if it seems that color displacement occurs only with Y-color.
	Use case	When color displacement occurs only on the 1st sheet
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Use this mode only when color displacement occurs on the 1st sheet.
	Display/adj/set range	-5 to 5
	Unit	1 pixel
	Appropriate target value	0
	Default value	0
	Related service mode	COPIER> ADJUST> IMG-REG> LSR-V-M1/C1
ITBDRBL1		For R&D
BEND-C		C-color laser distortion crrct:vert scan
Lv.1	Details	To correct distortion of C-color laser in vertical scanning direction. (Digital registration) As the value is incremented by 1, degree of distortion is changed by 1 micro m with reference to Y-color.
	Use case	When distortion occurs in vertical scanning direction
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Output a test print in COPIER> TEST> PG> TYPE> 6 (Grid). 3) Perform visual check, and repeat the procedures as needed.
	Display/adj/set range	-100 to 100
	Unit	1 um
	Default value	0

COPIER> ADJUST> IMG-REG		
SLOP-Y		Adjustment of image squareness
Lv.2	Details	To adjust skew of image (squareness) in vertical scanning direction by adjusting skew of Y-color laser in vertical scanning direction digitally. By performing auto color displacement correction after this adjustment, adjustment is made for other colors in accordance with adjustment for Y-color.
	Use case	When corners of an image are not square
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch. 3) Execute auto color displacement correction.
	Caution	Be sure to perform auto color displacement correction after adjustment. If the setting value is changed dramatically, be sure to perform auto color displacement correction twice.
	Display/adj/set range	-84 to 84
	Unit	1 um
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Correct Color Mismatch

T-8-18

■ DENS

COPIER> ADJUST> DENS		
HLMT-PTY		Adj ATR Sensor (Y) dens crrct upr limit
Lv.2	Details	To adjust the upper limit of the target density correction (lower limit of TD ratio) of the ATR 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 (switch negative/positive by -/+ key) and 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	0.5 %
	Default value	0
HLMT-PTM		Adj ATR Sensor (M) dens crrct upr limit
Lv.2	Details	To adjust the upper limit of the target density correction (lower limit of TD ratio) of the ATR 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.
	Use case	When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) 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	Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	-5 to 5
	Unit	0.5 %
	Default value	0

COPIER> ADJUST> DENS		
HLMT-PTC		Adj ATR Sensor (C) dens crrct upr limit
Lv.2	Details	To adjust the upper limit of the target density correction (lower limit of TD ratio) of the ATR 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.
	Use case	When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) 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	Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	-5 to 5
	Unit	0.5 %
	Default value	0
LLMT-PTY		Adj ATR Sensor (Y)dens crrct lowr limit
Lv.2	Details	To adjust the lower limit of the target density correction (upper limit of TD ratio) of the ATR 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.
	Use case	When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) 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	Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	-5 to 5
	Unit	0.5 %
	Default value	0

COPIER> ADJUST> DENS		
LLMT-PTM		Adj ATR Sensor (M)dens crrct lowr limit
Lv.2	Details	To adjust the lower limit of the target density correction (upper limit of TD ratio) of the ATR 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.
	Use case	When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) 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	Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	-5 to 5
	Unit	0.5 %
	Default value	0
LLMT-PTC		Adj ATR Sensor (C)dens crrct lowr limit
Lv.2	Details	To adjust the lower limit of the target density correction (upper limit of TD ratio) of the ATR 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.
	Use case	When an image failure (density failure, fogging, carrier adherence, and scattering, etc.) 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	Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	-5 to 5
	Unit	0.5 %
	Default value	0
T-SPLY-Y		Adj toner supply amount for all colors
Lv.2	Details	To adjust the offset value of toner supply amount for all colors. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When a symptom that toner supply amount is decreased at an NTD high latitude 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.
	Display/adj/set range	-3 to 3
	Unit	10 %
	Default value	0

COPIER> ADJUST> DENS		
T-SPLY-M		Adjustment of M toner supply amount
Lv.2	Details	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 (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Unit	10 %
	Default value	0
T-SPLY-C		Adjustment of C toner supply amount
Lv.2	Details	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 (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Unit	10 %
	Default value	0
T-SPLY-K		Adjustment of Bk toner supply amount
Lv.2	Details	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 (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Unit	10 %
	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 (switch negative/positive by -/+ key) and press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust

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 (switch negative/positive by -/+ key) and press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust
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 (switch negative/positive by -/+ key) and press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust
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
	Default value	0
	Related UI menu	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
	Default value	0
	Related UI menu	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
	Default value	0
	Related UI menu	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
	Default value	0
	Related UI menu	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 (switch negative/positive by -/+ key) and press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust
HLMT-PTK		Adj ATR Sensor (Bk) dens crrct upr limit
Lv.2	Details	To adjust the upper limit of the target density correction (lower limit of TD ratio) of the ATR 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 (switch negative/positive by -/+ key) and 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	0.5 %
	Default value	0

COPIER> ADJUST> DENS		
LLMT-PTK		Adj ATR Sensor (Bk) dens crrct low limit
Lv.2	Details	To adjust the lower limit of the target density correction (upper limit of TD ratio) of the ATR 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 (switch negative/positive by -/+ key) and 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	0.5 %
	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. Output the service mode setting values by P-PRINT beforehand.
	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 (0.0423 mm).
	Use case	- When reducing the margin upon user's request - When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1000
	Unit	1 pixel
	Default value	59
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 (0.0423 mm).
	Use case	- When reducing the margin upon user's request - When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1000
	Unit	1 pixel
	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 (0.0423 mm).
	Use case	- When reducing the margin upon user's request - When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1000
	Unit	1 pixel
	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 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-M/C/K
	Related UI menu	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/C/K
	Related UI menu	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/M/K
	Related UI menu	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 contrast potential 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/M/C
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust Adjustment/Maintenance> Adjust Image Quality> Density Adjustment Mode

COPIER> ADJUST> V-CONT		
VBACK-Y		Adj Y-clr fog remov potntl:pln/rcycl 1,2
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for Y-color when printing plain paper 1, 2/recycled paper 1, 2 (which paper width is A4 or larger). 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	-5 to 5
	Unit	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK-M/C/K
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust
VBACK-M		Adj M-clr fog remov potntl:pln/rcycl 1,2
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for M-color when printing plain paper 1, 2/recycled paper 1, 2 (which paper width is A4 or larger). 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	-5 to 5
	Unit	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK-Y/C/K
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust

COPIER> ADJUST> V-CONT		
VBACK-C		Adj C-clr fog remov potntl:pln/rcycl 1,2
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for C-color when printing plain paper 1, 2/recycled paper 1, 2 (which paper width is A4 or larger). 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	-5 to 5
	Unit	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK-Y/M/K
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust
VBACK-K		Adj Bk-clr fog remov potntl:pln/rcycl1,2
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for Bk-color when printing plain paper 1, 2/recycled paper 1, 2 (which paper width is A4 or larger). 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	-5 to 5
	Unit	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK-Y/M/C
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust

COPIER> ADJUST> V-CONT		
VBACK2-Y		Adj Y fog remov potntl: pln/rcycl 3, etc
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for Y-color when printing plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3, or recycled paper 3. +: Fogging is alleviated, but white/black spots are increased due to carrier adherence. -: White/black spots are alleviated, but fogging is increased.
	Use case	When any image failure occurs in case of printing plain paper 1, 2/ recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3 or recycled paper 3
	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. 3) 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	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK2-M/C/K
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust Adjustment/Maintenance> Adjust Image Quality> Correct Color Cast
VBACK2-M		Adj M fog remov potntl: pln/rcycl 3, etc
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for M-color when printing plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3, or recycled paper 3. +: Fogging is alleviated, but white/black spots are increased due to carrier adherence. -: White/black spots are alleviated, but fogging is increased.
	Use case	When any image failure occurs in case of printing plain paper 1, 2/ recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3 or recycled paper 3
	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. 3) 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	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK2-Y/C/K
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust Adjustment/Maintenance> Adjust Image Quality> Correct Color Cast

COPIER> ADJUST> V-CONT		
VBACK2-C		Adj C fog remov potntl: pln/rcycl 3, etc
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for C-color when printing plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3, or recycled paper 3. +: Fogging is alleviated, but white/black spots are increased due to carrier adherence. -: White/black spots are alleviated, but fogging is increased.
	Use case	When any image failure occurs in case of printing plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3 or recycled paper 3
	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. 3) 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	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK2-Y/M/K
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust Adjustment/Maintenance> Adjust Image Quality> Correct Color Cast
VBACK2-K		Adj Bk fog remov potntl:pln/rcycl 3, etc
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for Bk-color when printing plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3, or recycled paper 3. +: Fogging is alleviated, but white/black spots are increased due to carrier adherence. -: White/black spots are alleviated, but fogging is increased.
	Use case	When any image failure occurs in case of printing plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3 or recycled paper 3
	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. 3) 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	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK2-Y/M/C
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust Adjustment/Maintenance> Adjust Image Quality> Correct Color Cast

COPIER> ADJUST> V-CONT		
VBACK3-Y		Adj Y fog remov potntl:excpt pln, rcycl
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for Y-color when printing paper other than plain paper 1, 2, 3/recycled paper 1, 2, 3. +: Fogging is alleviated, but white/black spots are increased due to carrier adherence. -: White/black spots are alleviated, but fogging is increased.
	Use case	When any image failure occurs in case of printing paper other than plain paper 1, 2, 3/recycled paper 1, 2, 3
	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. 3) 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	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK3-M/C/K
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust Adjustment/Maintenance> Adjust Image Quality> Correct Color Cast
VBACK3-M		Adj M fog remov potntl:excpt pln, rcycl
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for M-color when printing paper other than plain paper 1, 2, 3/recycled paper 1, 2, 3. +: Fogging is alleviated, but white/black spots are increased due to carrier adherence. -: White/black spots are alleviated, but fogging is increased.
	Use case	When any image failure occurs in case of printing paper other than plain paper 1, 2, 3/recycled paper 1, 2, 3
	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. 3) 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	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK3-Y/C/K
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust Adjustment/Maintenance> Adjust Image Quality> Correct Color Cast

COPIER> ADJUST> V-CONT		
VBACK3-C		Adj C fog remov potntl:excpt pln, rcycl
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for C-color when printing paper other than plain paper 1, 2, 3/recycled paper 1, 2, 3. +: Fogging is alleviated, but white/black spots are increased due to carrier adherence. -: White/black spots are alleviated, but fogging is increased.
	Use case	When any image failure occurs in case of printing paper other than plain paper 1, 2, 3/recycled paper 1, 2, 3
	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. 3) 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	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK3-Y/M/K
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust Adjustment/Maintenance> Adjust Image Quality> Correct Color Cast
VBACK3-K		Adj Bk fog remov potntl:excpt pln, rcycl
Lv.2	Details	To adjust the offset of the fogging removal potential Vback for Bk-color when printing paper other than plain paper 1, 2, 3/recycled paper 1, 2, 3. +: Fogging is alleviated, but white/black spots are increased due to carrier adherence. -: White/black spots are alleviated, but fogging is increased.
	Use case	When any image failure occurs in case of printing paper other than plain paper 1, 2, 3/recycled paper 1, 2, 3
	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. 3) 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	5 V
	Default value	0
	Related service mode	COPIER> ADJUST> V-CONT> VBACK3-Y/M/C
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust Adjustment/Maintenance> Adjust Image Quality> Correct Color Cast

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 gradation adjustment (full adjustment). When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label. As the value is larger, the image after adjustment gets darker.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 128
	Default value	0
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 gradation adjustment (full adjustment). When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label. As the value is larger, the image after adjustment gets darker.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 128
	Default value	0
OFST-P-C		C density adj at test print reading
Lv.1	Details	To adjust the offset of C-color test print reading signal at auto gradation adjustment (full adjustment). When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label. As the value is larger, the image after adjustment gets darker.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 128
	Default value	0

COPIER> ADJUST> PASCAL		
OFST-P-K		Bk density adj at test print reading
Lv.1	Details	To adjust the offset of Bk-color test print reading signal at auto gradation adjustment (full adjustment). When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label. As the value is larger, the image after adjustment gets darker.
	Use case	When replacing the Main Controller PCB/clearing the Reader-related RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 128
	Default value	0

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		M-color balance adjustment
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		C-color balance adjustment
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 Settings/Registration> Adjustment/ Maintenance> Adjust Image Quality> Color Balance.
	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 UI menu	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 Settings/Registration> Adjustment/ Maintenance> Adjust Image Quality> Color Balance.
	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 UI menu	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 Settings/Registration> Adjustment/ Maintenance> Adjust Image Quality> Color Balance.
	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 UI menu	Adjustment/Maintenance> Adjust Image Quality> Color Balance

COPIER> ADJUST> COLOR		
OFST-K		Adj Bk bright area dens&color balance
Lv.1	Details	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 Settings/Registration> Adjustment/ Maintenance> Adjust Image Quality> Color Balance.
	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 UI menu	Adjustment/Maintenance> Adjust Image Quality> Color Balance
LD-OFS-Y		Color balance adj of Y low dens area
Lv.2	Details	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 Settings/Registration> 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.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Color Balance
LD-OFS-M		Color balance adj of M low dens area
Lv.2	Details	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 Settings/Registration> 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.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Color Balance

COPIER> ADJUST> COLOR		
LD-OFS-C		Color balance adj of C low dens area
Lv.2	Details	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 Settings/Registration> 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.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Color Balance
LD-OFS-K		Color balance adj of Bk low dens area
Lv.2	Details	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 Settings/Registration> 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.
	Caution	- Do not use this when the machine is operating correctly. - Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Color Balance
MD-OFS-Y		Color balance adj of Y mid dens area
Lv.2	Details	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 Settings/Registration> 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.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Color Balance

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 Settings/Registration> 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.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	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 Settings/Registration> 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.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	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 Settings/Registration> 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.
	Caution	- Do not use this when the machine is operating correctly. - Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	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 Settings/Registration> 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.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	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 Settings/Registration> 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.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	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 Settings/Registration> 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.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	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 Settings/Registration> 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.
	Caution	- Do not use this when the machine is operating correctly. - Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	-8 to 8
	Default value	0
	Related UI menu	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.
	Caution	Do not use this when the machine is operating correctly.
	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.
	Caution	Do not use this when the machine is operating correctly.
	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.
	Caution	Do not use this when the machine is operating correctly.
	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.
	Caution	- Do not use this when the machine is operating correctly. - Output the service mode setting values by P-PRINT beforehand.
	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.
	Caution	Do not use this when the machine is operating correctly.
	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.
	Caution	Do not use this when the machine is operating correctly.
	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.
	Caution	Do not use this when the machine is operating correctly.
	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.
	Caution	- Do not use this when the machine is operating correctly. - Output the service mode setting values by P-PRINT beforehand.
	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.
	Caution	Do not use this when the machine is operating correctly.
	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.
	Caution	Do not use this when the machine is operating correctly.
	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.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-8 to 8
	Default value	0

COPIER> ADJUST> COLOR		
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.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	-8 to 8
	Default value	0

T-8-23

HV-TR

COPIER> ADJUST> HV-TR		
1TR-TGY		Y pry trn ATVC tgt crrnt:pln/rcycl1,2
Lv.2	Details	To adjust the offset of the target current value for Y-color upon primary transfer ATVC control for plain paper 1, 2/recycled paper 1, 2 (which paper width is A4 or larger). Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	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	-50 to 50
	Unit	1 uA
	Default value	0
1TR-TGM		M pry trn ATVC tgt crrnt:pln/rcycl1,2
Lv.2	Details	To adjust the offset of the target current value for M-color upon primary transfer ATVC control for plain paper 1, 2/recycled paper 1, 2 (which paper width is A4 or larger). Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	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	-50 to 50
	Unit	1 uA
	Default value	0
1TR-TGC		C pry trn ATVC tgt crrnt:pln/rcycl1,2
Lv.2	Details	To adjust the offset of the target current value for C-color upon primary transfer ATVC control for plain paper 1, 2/recycled paper 1, 2 (which paper width is A4 or larger). Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	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	-50 to 50
	Unit	1 uA
	Default value	0

COPIER> ADJUST> HV-TR		
1TR-TGK1		Bk-m pry trn ATVC tgt crrnt:pln/rcycl1,2
Lv.2	Details	To adjust the offset of the target current value for single Bk-color upon primary transfer ATVC control for plain paper 1, 2/recycled paper 1, 2 (which paper width is A4 or larger). Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	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	-50 to 50
	Unit	1 uA
	Default value	0
1TR-TGK4		Bk-c pry trn ATVC tgt crrnt:pln/rcycl1,2
Lv.2	Details	To adjust the offset of the target current value for Bk-color (color) upon primary transfer ATVC control for plain paper 1, 2/recycled paper 1, 2 (which paper width is A4 or larger). Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	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	-50 to 50
	Unit	1 uA
	Default value	0
2TR-OFF		Uniform adj sec trn ATVC ppr allot voltg
Lv.1	Details	To uniformly adjust paper allotted voltage in secondary transfer ATVC control regardless of paper type, 1st/2nd side or environment. When transfer failure occurs on an image, increase/decrease the value in the -30 to 30 (-900 to 900 V) range in increments of 10 (30 V). When white dots occur on an image, increase/decrease the value in the -100 to -10 (-3000 to -300 V) range in increments of 10 (30 V). When the value is decreased too much, transfer failure occurs.
	Use case	When similar image failures occur regardless of the conditions
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	The setting is applied to all paper types and both sides of paper. When limiting the condition, be sure to make settings individually.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> 2TR-Nx-1/2, 2TR-Rx-1/2, 2TR-Hx-1/2, 2TR-Cx-1/2, 2TR-P-1/2, 2TR-O-1/2, 2TR-PA-1/2, 2TR-B-1/2, 2TR-LA-1/2, 2TR-CP-1/2

COPIER> ADJUST> HV-TR		
1TR-TGY2		Adj Y pry trns ATVC tgt crrnt: other ppr
Lv.2	Details	To adjust the offset of the target current value for Y-color upon primary transfer ATVC control for other types of papers. Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	Use case	When an image failure due to the primary transfer 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	To reflect the setting immediately, execute primary ATVC control.
	Display/adj/set range	-50 to 50
	Unit	1 uA
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> 1ATVC-EX
1TR-TGM2		Adj M pry trns ATVC tgt crrnt: other ppr
Lv.2	Details	To adjust the offset of the target current value for M-color upon primary transfer ATVC control for other types of papers. Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	Use case	When an image failure due to the primary transfer 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	To reflect the setting immediately, execute primary ATVC control.
	Display/adj/set range	-50 to 50
	Unit	1 uA
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> 1ATVC-EX

COPIER> ADJUST> HV-TR		
1TR-TGC2		Adj C pry trns ATVC tgt crrnt: other ppr
Lv.2	Details	To adjust the offset of the target current value for C-color upon primary transfer ATVC control for other types of papers. Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	Use case	When an image failure due to the primary transfer 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	To reflect the setting immediately, execute primary ATVC control.
	Display/adj/set range	-50 to 50
	Unit	1 uA
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> 1ATVC-EX
1TR-TK12		Bk-m pry trns ATVC tgt crrnt: other ppr
Lv.2	Details	To adjust the offset of the target current value for single Bk-color upon primary transfer ATVC control for other types of papers. Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	Use case	When an image failure due to the primary transfer 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	To reflect the setting immediately, execute primary ATVC control.
	Display/adj/set range	-50 to 50
	Unit	1 uA
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> 1ATVC-EX

COPIER> ADJUST> HV-TR		
1TR-TGY3		Adj Y pry trn ATVC tgt crrnt:pln/rcycl 3
Lv.2	Details	To adjust the offset of the target current value for Y-color upon primary transfer ATVC control for plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3, or recycled paper 3. Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	Use case	When an image failure due to the primary transfer 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	To reflect the setting immediately, execute primary ATVC control.
	Display/adj/set range	-50 to 50
	Unit	1 uA
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> 1ATVC-EX
1TR-TGM3		Adj M pry trn ATVC tgt crrnt:pln/rcycl 3
Lv.2	Details	To adjust the offset of the target current value for M-color upon primary transfer ATVC control for plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3, or recycled paper 3. Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	Use case	When an image failure due to the primary transfer 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	To reflect the setting immediately, execute primary ATVC control.
	Display/adj/set range	-50 to 50
	Unit	1 uA
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> 1ATVC-EX

COPIER> ADJUST> HV-TR		
1TR-TGC3		Adj C pry trn ATVC tgt crrnt:pln/rcycl 3
Lv.2	Details	To adjust the offset of the target current value for C-color upon primary transfer ATVC control for plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3, or recycled paper 3. Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	Use case	When an image failure due to the primary transfer 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	To reflect the setting immediately, execute primary ATVC control.
	Display/adj/set range	-50 to 50
	Unit	1 uA
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> 1ATVC-EX
1TR-TK13		Bk-m pry trn ATVC tgt crrnt: pln/rcycl 3
Lv.2	Details	To adjust the offset of the target current value for single Bk-color upon primary transfer ATVC control for plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3, or recycled paper 3. Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	Use case	When an image failure due to the primary transfer 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	To reflect the setting immediately, execute primary ATVC control.
	Display/adj/set range	-50 to 50
	Unit	1 uA
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> 1ATVC-EX

COPIER> ADJUST> HV-TR		
1TR-TK42		Bk-c pry trns ATVC tgt crrnt: other ppr
Lv.2	Details	To adjust the offset of the target current value for Bk-color (in full color mode) upon primary transfer ATVC control for other types of papers. Increase the value when spots, mottled image, or image failure due to insufficient transfer current occurs. Decrease the value when image fogging due to transfer memory or drum memory due to strong transfer current occurs.
	Use case	When an image failure due to the primary transfer 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	To reflect the setting immediately, execute primary ATVC control.
	Display/adj/set range	-50 to 50
	Unit	2 uA
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> 1ATVC-EX
1TR-TK43		Bk-c pry trns ATVC tgt crrnt:pln/rcycl 3
Lv.2	Details	To adjust the offset of the target current value for Bk-color (in full color mode) upon primary transfer ATVC control for plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than A4), plain paper 3, or recycled paper 3. As the value is incremented by 1, the offset is increased by 2 micro A. Increase the value if spots (white spots), leopard pattern image occurs. Decrease the value if white spots occur. Decrease the value if mottled image due to paper surface nature occurs when paper type is heavy paper 1/2.
	Use case	When an image failure due to the primary transfer 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	To reflect the setting immediately, execute primary ATVC control.
	Display/adj/set range	-50 to 50
	Unit	2 uA
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> 1ATVC-EX

COPIER> ADJUST> HV-TR		
2TR-N1-1		Sec trn ATVC ctrl ppr allot V: pln1 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of plain paper 1 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-N1-2		Sec trn ATVC ctrl ppr allot V: pln1 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of plain paper 1 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-N2-1		Sec trn ATVC ctrl ppr allot V: pln2 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of plain paper 2 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
2TR-N2-2		Sec trn ATVC ctrl ppr allot V: pln2 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of plain paper 2 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-N3-1		Sec trn ATVC ctrl ppr allot V: pln3 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of plain paper 3 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-N3-2		Sec trn ATVC ctrl ppr allot V: pln3 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of plain paper 3 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
2TR-R1-1		Sec trn ATVC ctrl ppr allot V:rcycl1 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of recycled paper 1 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-R1-2		Sec trn ATVC ctrl ppr allot V:rcycl1 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of recycled paper 1 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-R2-1		Sec trn ATVC ctrl ppr allot V:rcycl2 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of recycled paper 2 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
2TR-R2-2		Sec trn ATVC ctrl ppr allot V:rcycl2 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of recycled paper 2 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-R3-1		Sec trn ATVC ctrl ppr allot V:rcycl3 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of recycled paper 3 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-R3-2		Sec trn ATVC ctrl ppr allot V:rcycl3 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of recycled paper 3 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
2TR-H1-1		Sec trn ATVC ctrl ppr allot V: hvy1 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of heavy paper 1 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-H1-2		Sec trn ATVC ctrl ppr allot V: hvy1 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of heavy paper 1 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-H2-1		Sec trn ATVC ctrl ppr allot V: hvy2 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of heavy paper 2 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
2TR-H2-2		Sec trn ATVC ctrl ppr allot V: hvy2 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of heavy paper 2 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-H3-1		Sec trn ATVC ctrl ppr allot V: hvy3 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of heavy paper 3 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-H3-2		Sec trn ATVC ctrl ppr allot V: hvy3 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of heavy paper 3 at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
2TR-CP-1		Sec trn ATVC ctrl ppr allot V: color 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of color paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-CP-2		Sec trn ATVC ctrl ppr allot V: color 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of color paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-O-1		Sec trn ATVC ctrl ppr allot V:transp 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of transparency at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
2TR-LA-1		Sec trn ATVC ctrl ppr allot V: label 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of label paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-LA-2		Sec trn ATVC ctrl ppr allot V: label 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of label paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-NC-1		Sec trn ATVC ctrl ppr allotV:no-crbn 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of non-carbon paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
2TR-NC-2		Sec trn ATVC ctrl ppr allotV:no-crbn 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of non-carbon paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-B-1		Sec trn ATVC ctrl ppr allot V: bond 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of bond paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-B-2		Sec trn ATVC ctrl ppr allot V: bond 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of bond paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
2TR-PA-1		Sec trn ATVC ctrl ppr allot V: punch 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of pre-punched paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-PA-2		Sec trn ATVC ctrl ppr allot V: punch 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of pre-punched paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-EN-1		Sec trn ATVC ctrl ppr allot V: envlp 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of envelope at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
2TR-EN-2		Sec trn ATVC ctrl ppr allot V: envlp 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of envelope at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-P-1		Sec trn ATVC ctrl ppr allot V: crd 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of postcard at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
2TR-P-2		Sec trn ATVC ctrl ppr allot V: crd 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of postcard at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
T2TR-N1		Adj of lead edge weak bias: pln ppr 1
Lv.2	Details	To adjust the offset of the leading edge weak bias for plain paper 1. Decrease the value if white spots occur. Increase the value if density on the leading edge of paper is low (transfer is weak).
	Use case	When an image failure (white spots at the leading edge) 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	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
T2TR-N2		Adj of lead edge weak bias: pln ppr 2
Lv.2	Details	To adjust the offset of the leading edge weak bias for plain paper 2. Decrease the value if white spots occur. Increase the value if density on the leading edge of paper is low (transfer is weak).
	Use case	When an image failure (white spots at the leading edge) 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	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
T2TR-N3		Adj of lead edge weak bias: pln ppr 3
Lv.2	Details	To adjust the offset of the leading edge weak bias for plain paper 3. Decrease the value if white spots occur. Increase the value if density on the leading edge of paper is low (transfer is weak).
	Use case	When an image failure (white spots at the leading edge) 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	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
T2TR-R1		Adj of lead edge weak bias: rcycl ppr 1
Lv.2	Details	To adjust the offset of the leading edge weak bias for recycled paper 1. Decrease the value if white spots occur. Increase the value if density on the leading edge of paper is low (transfer is weak).
	Use case	When an image failure (white spots at the leading edge) 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	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
T2TR-R2		Adj of lead edge weak bias: rcycl ppr 2
Lv.2	Details	To adjust the offset of the leading edge weak bias for recycled paper 2. Decrease the value if white spots occur. Increase the value if density on the leading edge of paper is low (transfer is weak).
	Use case	When an image failure (white spots at the leading edge) 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	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
T2TR-R3		Adj of lead edge weak bias: rcycl ppr 3
Lv.2	Details	To adjust the offset of the leading edge weak bias for recycled paper 3. Decrease the value if white spots occur. Increase the value if density on the leading edge of paper is low (transfer is weak).
	Use case	When an image failure (white spots at the leading edge) 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	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
T2TR-H1		Adj of lead edge weak bias: heavy ppr 1
Lv.2	Details	To adjust the offset of the leading edge weak bias for heavy paper 1. Decrease the value if white spots occur. Increase the value if density on the leading edge of paper is low (transfer is weak).
	Use case	When an image failure (white spots at the leading edge) 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	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
T2TR-H2		Adj of lead edge weak bias: heavy ppr 2
Lv.2	Details	To adjust the offset of the leading edge weak bias for heavy paper 2. Decrease the value if white spots occur. Increase the value if density on the leading edge of paper is low (transfer is weak).
	Use case	When an image failure (white spots at the leading edge) 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	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
T2TR-H3		Adj of lead edge weak bias: heavy ppr 3
Lv.2	Details	To adjust the offset of the leading edge weak bias for heavy paper 3. Decrease the value if white spots occur. Increase the value if density on the leading edge of paper is low (transfer is weak).
	Use case	When an image failure (white spots at the leading edge) 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	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
T2TR-P		Adj of leading edge weak bias: postcard
Lv.2	Details	To adjust the offset of the leading edge weak bias for postcard. Decrease the value if white spots occur. Increase the value if density on the leading edge of paper is low (transfer is weak).
	Use case	When an image failure (white spots at the leading edge) 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	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
T2TR-LNG		Adj of lead edge weak bias apply length
Lv.2	Details	To adjust the length (distance from the leading edge of paper) to apply leading edge weak bias. Increase the value when white spots occur in a broad area of the leading edge of paper.
	Use case	When an image failure (white spots at the leading edge) 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	Use this item only when an image failure occurs.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	0
2TR-TH-1		Sec trn ATVC ctrl ppr allot V: thin 1st
Lv.1	Details	To adjust the paper allotted voltage applied to the 1st side of thin paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

COPIER> ADJUST> HV-TR		
2TR-TH-2		Sec trn ATVC ctrl ppr allot V: thin 2nd
Lv.1	Details	To adjust the paper allotted voltage applied to the 2nd side of thin paper at secondary transfer ATVC control. When mottled image occurs, increase the value if it is due to insufficient secondary transfer current and decrease the value if it is due to overcurrent.
	Use case	When adjusting the secondary transfer bias individually according to paper type and 1st/2nd side
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0
T2TR-TH		Adj of leading edge weak bias:thin paper
Lv.2	Details	To adjust the offset of the leading edge weak bias for thin paper. Decrease the value if white spots occur. Increase the value if density on the leading edge of paper is low (transfer is weak).
	Use case	When an image failure (white spots at the leading edge) occurs
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Use this item only when an image failure occurs.
	Display/adj/set range	-128 to 127
	Unit	30 V
	Default value	0

T-8-24

■ FEED-ADJ

COPIER> ADJUST> FEED-ADJ		
REGIST		Registration start timing adj: 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
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

COPIER> ADJUST> FEED-ADJ		
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
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

COPIER> ADJUST> FEED-ADJ		
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
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

COPIER> ADJUST> FEED-ADJ		
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
REG-THCK		Register start timing adj: 1/2 speed
Lv.1	Details	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.)
	Use case	When adjusting the leading edge margin
	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

COPIER> ADJUST> FEED-ADJ		
REG-DUP1		Rgst start timing adj: Plain, 2nd side
Lv.1	Details	To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding the second side of plain paper. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes larger. (An image moves downward.) -: Top margin becomes smaller. (An image moves upward.)
	Use case	When adjusting the leading edge margin
	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
LP-FEED1		Adj of per-rest arch amount: 1/1 speed
Lv.1	Details	To adjust the arch amount before registration at 1/1 speed. The setting is applied in case of pickup from a cassette/Multi-purpose Tray and 1-sided/2-sided printing. As the value is incremented by 1, the arch amount changes by 0.1 mm. +: Increase -: Decrease
	Use case	When adjusting the arch amount before registration 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	-20 to 20
	Unit	0.1 mm
	Default value	0
LP-FEED2		Adj of pre-rgst arch amount: 1/2 speed
Lv.1	Details	To adjust the arch amount before registration at 1/2 speed. The setting is applied in case of pickup from a cassette/Multi-purpose Tray and 1-sided/2-sided printing. As the value is incremented by 1, the arch amount changes by 0.1 mm. +: Increase -: Decrease
	Use case	When adjusting the arch amount before registration at 1/2 speed
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-20 to 20
	Unit	0.1 mm
	Default value	0

COPIER> ADJUST> FEED-ADJ		
REG-SPD		Speed adjustment of Registration Motor
Lv.1	Details	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.
	Use case	When color displacement in vertical scanning direction occurs since the part is close to the end of life
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-5 to 5
	Unit	0.2 %
	Default value	0
REG-LEFT		Adj of img write start pstn in horz scan
Lv.1	Details	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.
	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

COPIER> ADJUST> FEED-ADJ		
REG-MF		Adj lead edg margin: plain,rcycl,thn,MP
Lv.1	Details	To adjust the leading edge margin by changing the timing to turn ON the Registration Motor when feeding plain paper 1/2/3, recycled paper 1/2/3 and thin paper from the Multi-purpose Tray. As the value is changed by 1, the leading edge margin is changed by 0.1 mm. +: Leading edge margin becomes smaller. (An image moves upward.) -: Leading edge margin becomes larger. (An image moves downward.) When replacing the DC Controller PCB/clearing RAM data, either restore the backup data or enter the value of service label.
	Use case	- When adjusting the leading edge margin - When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If data is not backed up before replacing the DC Controller PCB/ clearing RAM data, enter the value of service label.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	The value differs according to the product configuration.
REG-MFH1		Adj ppr lead edge margin: heavy 1/2, MP
Lv.1	Details	To adjust the leading edge margin by changing the timing to turn ON the Registration Motor when feeding heavy paper 1/2 from the Multi-purpose Tray. As the value is changed by 1, the leading edge margin is changed by 0.1 mm. +: Leading edge margin becomes smaller. (An image moves upward.) -: Leading edge margin becomes larger. (An image moves downward.) When replacing the DC Controller PCB/clearing RAM data, either restore the backup data or enter the value of service label.
	Use case	- When adjusting the leading edge margin - When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If data is not backed up before replacing the DC Controller PCB/ clearing RAM data, enter the value of service label.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	The value differs according to the product configuration.

COPIER> ADJUST> FEED-ADJ		
REG-MFH2		Adj ppr lead edge margin: heavy 3, MP
Lv.1	Details	To adjust the leading edge margin by changing the timing to turn ON the Registration Motor when feeding heavy paper 3 from the Multi-purpose Tray. As the value is changed by 1, the leading edge margin is changed by 0.1 mm. +: Leading edge margin becomes smaller. (An image moves upward.) -: Leading edge margin becomes larger. (An image moves downward.) When replacing the DC Controller PCB/clearing RAM data, either restore the backup data or enter the value of service label.
	Use case	- When adjusting the leading edge margin - When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If data is not backed up before replacing the DC Controller PCB/ clearing RAM data, enter the value of service label.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	The value differs according to the product configuration.
LP-FEED3		Adj of per-rest arch amount: 2/3 speed
Lv.1	Details	To adjust the arch amount before registration at 2/3 speed. The setting is applied in case of pickup from a cassette/Multi-purpose Tray and 1-sided/2-sided printing. As the value is incremented by 1, the arch amount changes by 0.1 mm. +: Increase -: Decrease
	Use case	When adjusting the arch amount before registration at 2/3 speed
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-20 to 20
	Unit	0.1 mm
	Default value	0

COPIER> ADJUST> FEED-ADJ		
REG-MENV		Adj ppr lead edge margin: envelope, MP
Lv.1	Details	To adjust the leading edge margin by changing the timing to turn ON the Registration Motor when feeding envelope from the Multi-purpose Tray. As the value is changed by 1, the leading edge margin is changed by 0.1 mm. +: Leading edge margin becomes smaller. (An image moves upward.) -: Leading edge margin becomes larger. (An image moves downward.) When replacing the DC Controller PCB/clearing RAM data, either restore the backup data or enter the value of service label.
	Use case	- When adjusting the leading edge margin - When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If data is not backed up before replacing the DC Controller PCB/ clearing RAM data, enter the value of service label.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	The value differs according to the product configuration.
REG-ENV		Adj ppr lead edge margin: envelope, cst
Lv.1	Details	To adjust the leading edge margin by changing the timing to turn ON the Registration Motor when feeding envelope from a cassette. As the value is changed by 1, the leading edge margin is changed by 0.1 mm. +: Leading edge margin becomes smaller. (An image moves upward.) -: Leading edge margin becomes larger. (An image moves downward.) When replacing the DC Controller PCB/clearing RAM data, either restore the backup data or enter the value of service label.
	Use case	- When adjusting the leading edge margin - When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If data is not backed up before replacing the DC Controller PCB/ clearing RAM data, enter the value of service label.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	The value differs according to the product configuration.

COPIER> ADJUST> FEED-ADJ		
REG-MFPC		Adj ppr lead edge margin: postcard, MP
Lv.1	Details	To adjust the leading edge margin by changing the timing to turn ON the Registration Motor when feeding postcard from the Multi-purpose Tray. As the value is changed by 1, the leading edge margin is changed by 0.1 mm. +: Leading edge margin becomes smaller. (An image moves upward.) -: Leading edge margin becomes larger. (An image moves downward.) When replacing the DC Controller PCB/clearing RAM data, either restore the backup data or enter the value of service label.
	Use case	- When adjusting the leading edge margin - When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If data is not backed up before replacing the DC Controller PCB/ clearing RAM data, enter the value of service label.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	The value differs according to the product configuration.
ADJ-ENV		Cst1 write start pstn in horz scan:envlp
Lv.2	Details	To adjust the image write start position in the horizontal scanning direction when feeding envelope from the Cassette 1. To specify the position of envelope relative to the position specified by ADJ-C1. As the value is changed by 1, the left margin is changed by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.)
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	In principle, the image write start position of envelope needs to be set with printer driver by the user. If the user points out that it is bothersome to make a setting whenever making an output, set this item.
	Display/adj/set range	-23 to 15
	Unit	0.1 mm
	Appropriate target value	-8
	Default value	-8
	Related service mode	COPIER> ADJUST> FEED-ADJ> ADJ-C1

T-8-25

■ CST-ADJ

COPIER> ADJUST> CST-ADJ		
CST-VLM1		Adj Cassette 1 level detect threshold VL
Lv.2	Details	To adjust the timing to switch the scale indicating paper level in the Cassette 1 from "3" to "2". As the value is larger, switching of the level display becomes earlier. For example, if you prefer to switch the scale when paper level reaches 25 mm instead of 15 mm, place a stack of papers which height is approx. 25 mm in the cassette and then increase the setting value by 1 at a time until the scale becomes "2". If the scale is switched although paper level is 40 mm, place a stack of papers which height is approx. 35 mm in the cassette and then decrease the setting value by 1 at a time until the scale becomes "3". If the value that satisfy both of the above conditions is set, the scale is switched when paper level is in the range of 25 to 35 mm.
	Use case	Upon user's request (to individually adjust the timing to switch the paper level display)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Pull out and then insert the cassette.
	Caution	- The setting is reflected after removing and then installing the cassette. - When the value is increased/decreased greatly, the actual timing may be deviated from the target. Therefore, change the value by 1 at a time while checking the scale.
	Display/adj/set range	-4 to 4
	Appropriate target value	0
	Default value	0
	Supplement/memo	The timing to switch the scale of paper level from "3" to "2" varies (9 to 40 mm) due to individual difference of the motor. With this item, the variation is corrected. Since paper levels corresponding to the other scales can be detected almost correctly, there is no need to adjust the timing of switching.

COPIER> ADJUST> CST-ADJ		
CST-VLM2		Adj Cassette 2 l evel detect threshold VL
Lv.2	Details	To adjust the timing to switch the scale indicating paper level in the Cassette 2 from “3” to “2”. As the value is larger, switching of the level display becomes earlier. For example, if you prefer to switch the scale when paper level reaches 25 mm instead of 15 mm, place a stack of papers which height is approx. 25 mm in the cassette and then increase the setting value by 1 at a time until the scale becomes “2”. If the scale is switched although paper level is 40 mm, place a stack of papers which height is approx. 35 mm in the cassette and then decrease the setting value by 1 at a time until the scale becomes “3”. If the value that satisfy both of the above conditions is set, the scale is switched when paper level is in the range of 25 to 35 mm.
	Use case	Upon user’s request (to individually adjust the timing to switch the paper level display)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Pull out and then insert the cassette.
	Caution	- The setting is reflected after removing and then installing the cassette. - When the value is increased/decreased greatly, the actual timing may be deviated from the target. Therefore, change the value by 1 at a time while checking the scale.
	Display/adj/set range	-4 to 4
	Appropriate target value	0
	Default value	0
	Supplement/memo	The timing to switch the scale of paper level from “3” to “2” varies (9 to 40 mm) due to individual difference of the motor. With this item, the variation is corrected. Since paper levels corresponding to the other scales can be detected almost correctly, there is no need to adjust the timing of switching.

COPIER> ADJUST> CST-ADJ		
CST-VLM3		Adj Cassette 3 level detect threshold VL
Lv.2	Details	To adjust the timing to switch the scale indicating paper level in the Cassette 3 from “3” to “2”. As the value is larger, switching of the level display becomes earlier. For example, if you prefer to switch the scale when paper level reaches 25 mm instead of 15 mm, place a stack of papers which height is approx. 25 mm in the cassette and then increase the setting value by 1 at a time until the scale becomes “2”. If the scale is switched although paper level is 40 mm, place a stack of papers which height is approx. 35 mm in the cassette and then decrease the setting value by 1 at a time until the scale becomes “3”. If the value that satisfy both of the above conditions is set, the scale is switched when paper level is in the range of 25 to 35 mm.
	Use case	Upon user’s request (to individually adjust the timing to switch the paper level display)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Pull out and then insert the cassette.
	Caution	- The setting is reflected after removing and then installing the cassette. - When the value is increased/decreased greatly, the actual timing may be deviated from the target. Therefore, change the value by 1 at a time while checking the scale.
	Display/adj/set range	-4 to 4
	Appropriate target value	0
	Default value	0
	Supplement/memo	The timing to switch the scale of paper level from “3” to “2” varies (9 to 40 mm) due to individual difference of the motor. With this item, the variation is corrected. Since paper levels corresponding to the other scales can be detected almost correctly, there is no need to adjust the timing of switching.

COPIER> ADJUST> CST-ADJ		
CST-VLM4		Adj Cassette 4 level detect threshold VL
Lv.2	Details	To adjust the timing to switch the scale indicating paper level in the Cassette 4 from “3” to “2”. As the value is larger, switching of the level display becomes earlier. For example, if you prefer to switch the scale when paper level reaches 25 mm instead of 15 mm, place a stack of papers which height is approx. 25 mm in the cassette and then increase the setting value by 1 at a time until the scale becomes “2”. If the scale is switched although paper level is 40 mm, place a stack of papers which height is approx. 35 mm in the cassette and then decrease the setting value by 1 at a time until the scale becomes “3”. If the value that satisfy both of the above conditions is set, the scale is switched when paper level is in the range of 25 to 35 mm.
	Use case	Upon user’s request (to individually adjust the timing to switch the paper level display)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Pull out and then insert the cassette.
	Caution	- The setting is reflected after removing and then installing the cassette. - When the value is increased/decreased greatly, the actual timing may be deviated from the target. Therefore, change the value by 1 at a time while checking the scale.
	Display/adj/set range	-4 to 4
	Appropriate target value	0
	Default value	0
	Supplement/memo	The timing to switch the scale of paper level from “3” to “2” varies (9 to 40 mm) due to individual difference of the motor. With this item, the variation is corrected. Since paper levels corresponding to the other scales can be detected almost correctly, there is no need to adjust the timing of switching.

T-8-26

■ 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. Take necessary action in accordance with the instructions from the QA Center.
	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
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.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	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 widen.
	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	Details	To adjust the sharpness of the images which are set in Settings/ Registration. - 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 As the value is larger, the image gets sharper. If the value is too large, moire is likely to occur in an output image of COPY and SEND. 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.
	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 UI menu	Adjustment/Maintenance> Adjust Image Quality> Sharpness

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FUNCTION

INSTALL

COPIER> FUNCTION> INSTALL		
STRD-POS		Adj reading position:DADF stream reading
Lv.1	Details	To adjust the reading position at DADF stream reading. After the adjustment, write the value displayed by COPIER> ADJUST> ADJ-XY> STRD-POS in the service label.
	Use case	At DADF installation/uninstallation
	Adj/set/operate method	1) Close the DADF. 2) Select the item, and then press OK key. It stops automatically.
	Caution	Write the adjusted value in the service label.
	Display/adj/set range	At normal termination: OK, At abnormal termination: NG
	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
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

COPIER> FUNCTION> INSTALL		
E-RDS		Set use/no use of Embedded-RDS function
Lv.1	Details	To set whether to use the Embedded-RDS function.
	Use case	When using Embedded-RDS
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	0 to 1 0: Not used, 1: Used (All the counter information is sent.)
	Default value	0
	Related service mode	COPIER> FUNCTION> INSTALL> RGW-PORT, COM-TEST, COM-LOG, RGW-ADR COPIER> FUNCTION> CLEAR> ERDS-DAT
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
RGW-PORT		Set port number of Sales Co's server
Lv.1	Details	To set the port number of the sales company's server to be used for Embedded-RDS.
	Use case	When using Embedded-RDS
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	1 to 65535
	Default value	443
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, COM-TEST, COM-LOG, RGW-ADR COPIER> FUNCTION> CLEAR>ERDS-DAT
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
COM-TEST		Dspl connect result w/ Sales Co's server
Lv.1	Details	To display the result of the connection test with the sales company's server.
	Use case	When using Embedded-RDS
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	During operation: ACTIVE, When connection is completed: OK, When connection is failed: NG
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-LOG, RGW-ADR
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol

COPIER> FUNCTION> INSTALL		
COM-LOG		Dspl 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	N/A (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 COPIER> FUNCTION> CLEAR>ERDS-DAT
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
RGW-ADR		URL setting of Sales Company's server
Lv.1	Details	To set the URL of the sales company's server to be used for Embedded-RDS.
	Use case	When using Embedded-RDS
	Adj/set/operate method	1) Select the URL. 2) Enter the URL, and then press OK key. 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 COPIER> FUNCTION> CLEAR> ERDS-DAT
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
CNT-DATE		Set counter send start date to SC server
Lv.1	Details	To set the year, month, date, hour and minute to send counter information to the sales company's server. This is displayed only when the Embedded-RDS third-party extended function is available.
	Use case	When the Embedded-RDS third-party expanded function is available
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	YYYYMMDDHHMM (12 digits) YYYY: Year, MM: Month, DD: Date, HH: Hour, MM: Minute
	Default value	000000000000
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol

COPIER> FUNCTION> INSTALL		
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 to the sales company's server via SOAP protocol
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-STS (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-STS.
	Display/adj/set range	At normal termination: OK!, At abnormal termination: NG!
	Related service mode	COPIER> FUNCTION> INSTALL> COM-TEST COPIER> DISPLAY> USER> BRWS-STS
CDS-CTL		Set country/area when using CDS
Lv.1	Details	To set the country/area to enable the CDS.
	Use case	When enabling CDS
	Adj/set/operate method	Enter the setting value, and then press OK key.
	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	Equivalent to COPIER> OPTION> FNC-SW> CONFIG
	Related service mode	COPIER> OPTION> FNC-SW> CONFIG
	Supplement/memo	CDS: Contents Delivery System

COPIER> FUNCTION> INSTALL		
HD-CRYP		Exe HDD Encrypt Board ini install mod
Lv.1	Details	To automatically execute operation necessary for initial installation of the HDD Encryption Board. By turning OFF the main power switch after execution, the HDD Encryption Board can be installed.
	Use case	At installation of the HDD Encryption Board
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to install the HDD Encryption Board after executing the service mode and turning OFF the main power switch. If you make a mistake in the procedure, remove the HDD Encryption Board and redo the procedure.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
RDSHDPOS		Auto adj of Reader shading position
Lv.1	Details	To adjust the shading position automatically based on the result of reading of the Standard White Plate.
	Use case	- When replacing the Reading Sensor Unit - When replacing the Copyboard Glass - When clearing the Reader-related RAM data
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	When this item is executed, the value set by COPIER> ADJUST> ADJ-XY> ADJ-S may change. After the execution, write the value of ADJ-S in the service label.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Required time	10 sec
	Related service mode	COPIER> ADJUST> ADJ-XY> ADJ-S
	Supplement/memo	The shading position can be adjusted manually by COPIER> ADJUST> ADJ-XY> ADJ-S.
BIT-SVC		OFF/ON of Web service of eRDS
Lv.1	Details	To switch ON/OFF of the Web Service function of eRDS. When OFF is selected, authentication information cannot be obtained from eRDS.
	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

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■ 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 Scanner Unit - When clearing the Reader-related RAM data
	Adj/set/operate method	1) Set paper on the Copyboard Glass. 2) Select the item, and then press OK key.
	Caution	Be sure to execute DF-WLVL2 in a row.
	Display/adj/set range	During operation: ACTIVE, When 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 Scanner Unit - When clearing the Reader-related RAM data
	Adj/set/operate method	1) Set paper on the DADF. 2) Select the item, and then press OK key.
	Caution	Be sure to execute this item after DF-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/G/B COPIER> ADJUST> CCD> DFTAR2-R/G/B COPIER> ADJUST> CCD> DFTAR3-R/G/B
CL-AGC		Adj Scan Unit white/black ref level: AGC
Lv.1	Details	To adjust the black/white reference level of the Scanner Unit automatically (automatic gain control). To make the adjustment with both resolutions 300 dpi and 600 dpi.
	Use case	- When replacing the Copyboard Glass - When replacing the Scanner Unit
	Adj/set/operate method	1) Select the item, and then press OK key. 2) After "OK!" is displayed, turn OFF/ON the main power switch.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> OFST-CL0 - OFST-CL5, OFST2CL0 - OFST2CL5, GAIN-CL0, GAIN2CL0, LED-CL-R/G/B, LED2CL-R/G/B, LED-CLR2, LED-CLG2, LED-CLB2, LED2CLR2, LED2CLG2, LED2CLB2

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■ CLEANING

COPIER> FUNCTION> CLEANING		
TBLT-CLN		Toner ejection and ITB cleaning
Lv.1	Details	To form a halftone band on the ITB and execute ITB cleaning. Deteriorated toner can be ejected, and soiling on the ITB can be removed. The same processing is performed by selecting the following: Settings/Registration> Adjustment/Maintenance> Maintenance> Clean Inside Main Unit.
	Use case	- When removing the soiling on the ITB - When ejecting the deteriorated toner
	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!
	Related UI menu	Adjustment/Maintenance> Maintenance> Clean Inside Main Unit
2TR-CLN		Clean of Secondary Transfer Outer Roller
Lv.1	Details	To clean soiling adhered on the Secondary Transfer Outer Roller. Transfer toner to the Secondary Transfer Outer Roller once and then execute bias cleaning to remove soiling.
	Use case	- When the backside of the paper is soiled by the Secondary Transfer Outer Roller - When contacting with the Secondary Transfer Outer Roller at the time of jam processing, etc.
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
TNR-COAT		Exe toner application to Sec Trns Roller
Lv.1	Details	When the Secondary Transfer Outer Roller is replaced with a new one, substances leaking from the new roller may adhere to the ITB. By executing this item after replacement, Y-color toner is applied onto the surface of the roller, so adhesion of substances leaking from the roller can be prevented.
	Use case	When replacing the Secondary Transfer Outer Roller
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to execute this item to the roller which surface is not soiled.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!

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■ 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.

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PART-CHK

COPIER> FUNCTION> PART-CHK		
CL		Specification of operation Clutch
Lv.1	Details	To specify the Clutch to operate.
	Use case	When replacing the Clutch/checking the operation
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 1 1: Developing Cylinder Clutch (Y) (CL01) 2: Developing Cylinder Clutch (M) (CL02) 3: Developing Cylinder Clutch (C) (CL03) 4: Developing Cylinder Clutch (Bk) (CL04)
	Related service mode	COPIER> FUNCTION> PART-CHK> CL-ON
CL-ON		Operation check of Clutch
Lv.1	Details	To start operation check of the clutch specified by CL. The specified clutch is turned ON 1 second from the Developing Motor (M03) is turned ON, and then both the motor and the clutch are turned OFF 5 seconds later.
	Use case	When replacing the Clutch/checking the operation
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> PART-CHK> CL
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: Drum Unit Suction Cooling Fan (FM01), 2: Duplex Cooling Fan (FM04), 3: Delivery Cooling Fan (FM03), 4 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!
	Related service mode	COPIER> FUNCTION> PART-CHK> FAN

COPIER> FUNCTION> PART-CHK		
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: CL Drum Motor (M01), 2: Bk Drum_ITB Motor (M02), 3: Developing Motor (M03), 4: Fixing Motor (M04), 5: Cassette 1_Multi-purpose Traty Pickup Motor (M05), 6: Pre-registration Motor (M06), 7: Registration Motor (M07), 8: Reverce Motor (M08), 9: Bottle Motor (YM) (M09), 10: Bottle Motor (CK) (M10), 11: Cassette 1 Lifter Motor (M11), 12: Cassette 2 Pickup Motor (M102), 13: Cassette 2 Pullout Motor (M106), 14: Cassette 2 Lifter Motor (M104), 15: Cassette 3, 4 Pickup Motor (M101), 16: Cassette 3, 4 Pullout Motor (M105), 17: Cassette 3, 4 Lifter Motor (M103), 18: Registration Motor (Waste Toner Container, Negative rotation operation of M07), 19 to 23: Not used
	Default value	1
	Related service mode	COPIER> FUNCTION> PART-CHK> MTR-ON
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.
	Caution	While the Bottle Motor is active, be sure to remove the Toner Container. Otherwise, toner leakage may occur in the machine.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	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 3 1: Primary Transfer Disengagement Solenoid (SL01), 2: Duplex Solenoid (SL02), 3: Registration Shutter Solenoid (SL03)
	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!
	Related service mode	COPIER> FUNCTION> PART-CHK> SL

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■ 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	- Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. - The RAM data is cleared After the main power switch is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
R-CON		Clear of Reader-related RAM data
Lv.1	Details	To clear the Reader-related RAM data of the Main Controller PCB.
	Use case	When clearing the Reader-related RAM data
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting value. - The RAM data is cleared by pressing OK key. - Data is stored in the Main Controller PCB.
	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 Settings/ Registration.
	Use case	When clearing the password of the system administrator
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.

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 (COPIER> OPTION) to the default value (value at the time of RAM clear).
	Use case	When clearing setting value of OPTION
	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 Settings/Registration set VL
Lv.1	Details	To clear the Settings/Registration setting values . - Preferences (excluding Paper Type Management Settings) - Adjustment/Maintenance - Function Settings (excluding Printer Settings) - Management Settings (excluding Device Management)
	Use case	When clearing various setting values related to display on the Control Panel menu
	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 area equivalent to the Main Controller PCB SRAM Board. All data in the area equivalent to the SRAM Board is initialized.
	Use case	When clearing the area equivalent to 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/DCM. 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.
ALARM		Clear of alarm code history
Lv.1	Details	To clear the alarm code log (COPIER> DISPLAY> ALARM-2, ALARM-3).
	Use case	When clearing the alarm code history
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The alarm log is cleared after the main power switch is turned OFF/ON.
	Related service mode	COPIER> DISPLAY> ALARM-2, ALARM-3

COPIER> FUNCTION> CLEAR		
CA-KEY		Init of key pair, certificate and CRL
Lv.2	Details	To simultaneously delete the key pair, certificate and CRL which are additionally registered by the user, and return to the default state.
	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 key pair, certificate and CRL 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 key pair,certificate and CRL 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 - 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	After this function is executed, the registered key pair, certificate and CRL are initialized upon turning OFF and the ON the main power, and the key pair, certificate and CRL registered at the time of factory shipment are decompressed from the archive.
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
	Related service mode	COPIER> FUNCTION> INSTALL> HD-CRYP
	Supplement/memo	Be sure to install the HDD Encryption Board after executing COPIER> FUNCTION> INSTALL> HD-CRYP and turning OFF the main power switch. If you make a mistake in the procedure, remove the HDD Encryption Board and redo the procedure.
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 Settings/Registration 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 UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Quick Adjust 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.

COPIER> FUNCTION> CLEAR		
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.
LANG-CLR		Uninstallation of language files
Lv.2	Details	To uninstall the language file (file other than JEFIGS/JECKTS files) installed in HDD. When installing a new language file while the maximum number of language files (8 files) have been already installed, an existing language file needs to be uninstalled. However, 6 language files (JEFIGS/JECKTS files) cannot be uninstalled. Up to 2 language files can be switched.
	Use case	When deleting/switching a language file other than JEFIGS/JECKTS 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. (JEFIGS/JECKTS 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 Scanning Lamp/LED
Lv.1	Details	To light up the Scanning Lamp/LED for 3 seconds.
	Use case	When replacing the Scanning Lamp/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 sec
SCAN-ON		Execution of copyboard reading operation
Lv.1	Details	To execute the reading operation with the Copyboard.
	Use case	When checking the operation of the motor of the Reader
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!

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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.
	Caution	- To print the setting values, 10 or more pages of A4 size paper are needed and it takes 3 or more minutes. Depending on the situation, be sure to obtain the data. - Be sure to use A4/LTR size plain paper/recycled paper.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
HIST-PRT		Output of jam and error log
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.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
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	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
	Related UI menu	Fax/I-Fax Inbox> Memory RX Inbox
USER-PRT		Output of Settings/Registration list
Lv.1	Details	To print the Settings/Registration list.
	Use case	When printing the Settings/Registration list
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	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.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
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.
	Use case	When checking items in DISPLAY
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!

COPIER> FUNCTION> MISC-P		
1ATVC-EX		Execute of primary transfer ATVC control
Lv.1	Details	To execute the primary transfer ATVC control.
	Use case	When reflecting the changed target current of primary transfer ATVC control
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> HV-TR> 1TR-TGY/2/3, 1TR-TGM/2/3, 1TR-TGC/2/3, 1TR-TGK1, 1TR-TK12/13, 1TR-TGK4, 1TR-TK42/43
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.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
PJH-P-1		Detail info of print job log: 100 jobs
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.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Supplement/memo	Output the print job history with detailed information which is not displayed/printed in the job history screen under “System Monitor>Print>Log>Printer” and in the report of the print job history.
PJH-P-2		Detail info of print job log: all jobs
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.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	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		
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.
	Use case	When outputting USB device information in the form of a report
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
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 Drum Unit/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 Drum Unit/ITB
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
RPT-FILE		Saving of service report as a file
Lv.1	Details	To save various service reports in HDD as a file. The saved files can be obtained using PC to which SST has been installed or USB memory after starting the machine in download mode.
	Use case	When obtaining the service report as a file instead of printout
	Adj/set/operate method	Select the item, and then press OK key.
	Supplement/memo	File size: Approx. 1 MB at a maximum
TNRB-PRT		Output of Toner Container ID report
Lv.1	Details	To output the Toner Container ID report.
	Use case	When checking the ID of the Toner Container
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	ASCII character string (12 digits)

COPIER> FUNCTION> MISC-P		
FX-RG-H		Exe of ppr side rgst displace check mode
Lv.2	Details	To execute the mode to check side registration displacement of paper based on the position at the Fixing Assembly. By executing this item, a paper is picked up from the paper source specified by FX-RGPOS and it stops at the position where a specified length of it comes out from the Fixing Assembly. Adjust the paper position at pickup side (inside a cassette) based on the side registration position at that time.
	Use case	When feeding speed of A4 size paper is decreased
	Adj/set/operate method	1) Specify a paper source by FX-RGPOS. 2) Select the item, and then press OK key. A paper stops at the Fixing Assembly. 3) Turn OFF the main power switch. 4) Remove the Fixing Assembly, and check the side registration position of the paper. 5) Pull out the paper, and install the Fixing Assembly. 6) Turn ON the main power switch. 7) Enter 0, and then press OK key. 8) Execute mechanical adjustment using the Adjustment Plate in a cassette to adjust the side registration position of paper. 9) Repeat the above procedure as needed.
	Caution	Be sure to set A4 paper on the paper source (Cassette 2 to 4, Multi-purpose Tray) specified by FX-RGPOS.
	Related service mode	COPIER> FUNCTION> MISC-P> FX-RGPOS
FX-RGPOS		Spec ppr src at side reg displc ppr chck
Lv.2	Details	To specify the paper source that is used for checking side registration displacement of paper. After setting A4R paper on the specified paper source, execute COPIER> FUNCTION> MISC-P> FX-RG-H.
	Use case	When feeding speed of A4 size paper is decreased
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Be sure to set A4 paper on the specified paper source.
	Display/adj/set range	1 to 5 1: Cassette 1, 2: Cassette 2, 3: Cassette 3, 4: Cassette 4, 5: Multi-purpose Tray
	Related service mode	COPIER> FUNCTION> MISC-P> FX-RG-H
OPF-DSEQ		Set of DADF pickup noise reduction
Lv.2	Details	To set whether to control drive noise that is generated when picking up paper (plain paper, thin paper, etc.) from DADF at 1/1 speed. When 1 is set, noise is alleviated, but productivity is decreased (A4R, 35 ppm -> 32.2 ppm). The setting is not applied to pickup at 1/2 speed (heavy paper).
	Use case	Upon user's request (to alleviate noise)
	Adj/set/operate method	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

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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/USB.
	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		HD-CLEAR/HD-CHECK exe partition No.
Lv.1	Details	To specify the partition number of the HDD to execute HD-CLEAR/HD-CHECK. Since the partition number on the Flash side cannot be specified, specify the partition number on the HDD side that is also deleted when E614 (Flash error) occurs.
	Use case	When specifying the repair area at occurrence of E614/E602 (file corruption, HDD failure, etc.)
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 32 0: Entire HDD/related Flash area 1 to 32: Target partition number of the HDD 1: System area *1 2: SWAP (temporary file/memory alternative area) *1 3: MEAP-related storage area 4: Not used *1 5: Image data storage area *2 6: PDL-related file storage area 7: Image data storage area *2 8: PDL spool data (temporary file) *3 9: General application storage area (temporary file) *3 10: SEND-related data storage area 11: General application storage area *3 12: Update-related area *3 13: License-related area *1 14: Debug log-related area *3 15 to 32: Not used *1: The area is not cleared even if HD-CLEAR is executed. *2: Although which area is specified, HD-CLEAR/HD-CHECK is executed to both areas. *3: Although which area is specified, HD-CLEAR/HD-CHECK is executed to all of the areas.
	Default value	0
	Related service mode	COPIER> FUNCTION> SYSTEM> HD-CLEAR, HD-CHECK

COPIER> FUNCTION> SYSTEM		
HD-CHECK		HDD file system check
Lv.1	Details	To execute the HDD file system check at the next startup.
	Use case	When trying to recover the HDD when ECODE such as file corruption occurs
	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: Executed
	Default value	0
	Related service mode	COPIER> FUNCTION> SYSTEM> CHK-TYPE
HD-CLEAR		Initialization of specified partition
Lv.1	Details	To initialize the partition specified by CHK-TYPE at next startup.
	Use case	When initializing HDD when ECODE such as file corruption occurs
	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: Executed
	Default value	0
	Related service mode	COPIER> FUNCTION> SYSTEM> CHK-TYPE
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 with the old setting data and the new data is deleted.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	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 with the old setting data and the new data is deleted.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> DSRAMBUP

COPIER> FUNCTION> SYSTEM		
RSRAMBUP		Backup of Reader-related setting data
Lv.2	Details	To back up the Reader-related setting data in RAM of the Main Controller PCB.
	Use case	When replacing the Main Controller PCB for troubleshooting
	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 the old setting data and the new data is deleted.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> RSRAMRES
RSRAMRES		Restoration of Reader-related set data
Lv.2	Details	To restore the Reader-related setting data to RAM of the Main Controller PCB.
	Use case	When replacing the Main Controller PCB for troubleshooting
	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 the old setting data and the new data is deleted.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> RSRAMBUP
R-REBOOT		Reboot of host machine: remote
Lv.1	Details	To reboot the host machine by remote control via RUI.
	Use case	When rebooting the host machine by remote control
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	0
	Default value	0

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DBG-LOG

COPIER> FUNCTION> DBG-LOG		
LOG2USB		Storage of debug log to USB memory
Lv.2	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
	Related service mode	COPIER> FUNCTION> DBG-LOG> LOG-TRIG
LOG2SRVR		Transfer of debug log to server
Lv.2	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.2	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
	Related service mode	COPIER> FUNCTION> DBG-LOG> LOG2USB, LOG2SRVR
HIT-STS		Display of debug log state
Lv.2	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	When an automatically stored log exists: OK, When no automatically stored log exists: --
	Related service mode	COPIER> FUNCTION> DBG-LOG> LOG-TRIG
SYSLOG		Setting of syslog function
Lv.2	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
	Related service mode	COPIER> FUNCTION> DBG-LOG> LOG2USB, LOG2SRVR
DEFAULT		Reset of debug log setting
Lv.2	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.
	Display/adj/set range	At normal state: OK, At failure occurrence: --
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.
	Display/adj/set range	At normal state: OK, At failure occurrence: --

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	When an automatically stored log exists: OK, When no automatically stored log exists: --
	Related service mode	COPIER> FUNCTION> DBG-LOG> LOG-TRIG

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OPTION

FNC-SW

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 (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	When the value of MODEL-SZ is changed, the value of FEED-CNF is also changed. When MODEL-SZ = 0, 2, or 3: FEED-CNF = 0 When MODEL-SZ = 1: FEED-CNF = 1
	Display/adj/set range	0 to 3 0: AB configuration (6R5E) for Japan, 1: Inch configuration (5R4E) for North/Middle/South America, 2: A configuration (3R3E) for Europe, 3: AB/Inch configuration (6R5E) for Asia, Oceania, South America
	Default value	It differs according to the location.
	Related service mode	COPIER> OPTION> FNC-SW > MODELSZ2, KSIZE-SW, FEED-CNF
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
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust

COPIER> OPTION> FNC-SW		
CONFIG		Set country/regn/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.
	Caution	The initial value differs according to the location.
	Display/adj/set range	XX YY.ZZ.AA XX: Country/region JP: Japan, US: United States, GB: England, FR: France, DE: Germany, IT: Italia, AU: Australia, SG: Singapore, NL: Netherlands, KR: Korea, CN: China, TW: Taiwan, ES: Spain, SE: Sweden, PT: Portugal, NO: Norway, DK: Denmark, FI: Finland, PL: Poland, HU: Hungary, CZ: Czech, SI: Slovenia, GR: Greek, EE: Estonia, RU: Russia, AD: Andorra, AL: Albania, AM: Armenia, AR: Argentine, AT: Austria, BA: Bosnia Herzegovina, BE: Belgium, BG: Bulgaria, BO: Bolivia, BR: Brazil, CA: Canada, CH: Switzerland, CL: Chile, CY: Cyprus, HR: Croatia, ID: Indonesia, IE: Ireland, IL: Israel, IN: India, IS: Iseland, LU: Luxembourg, LV: Latvia, MX: Mexico, MY: Malaysia, NZ: New Zealand, PE: Peru, PH: Philippine, PY: Paraguay, RO: Romania, SK: Slovakia, TH: Thailand, TR: Turkey, UA: Ukraine, UY: Uruguay, VE: Venezuela, VN: Vietnam YY: Language (Fixed; e.g. ja: Japanese) ZZ: Location (Fixed; e.g. 00: CANON) AA: Paper size configuration (00: AB configuration, 01: Inch configuration, 02: A configuration, 03: Inch/AB configuration)
	Default value	It differs according to the location.
	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		
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 (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-1 to 3 -1: Every 30 sheets at last rotation, every 80 sheets at paper interval 0: Every 50 sheets at last rotation, every 100 sheets at paper interval 1: Every 100 sheets at last rotation, every 150 sheets at paper interval 2: Every 150 sheets at last rotation, every 200 sheets at paper interval 3: Every 200 sheets at last rotation, every 250 sheets at paper interval
	Default value	0
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	-20 to 2000
	Default value	0

COPIER> OPTION> FNC-SW		
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. When keeping the productivity even though there are some density variations, set 1.
	Use case	- When the density variation is not within the requested range at continuous output of a large volume of papers - When keeping the productivity even though there are some density variations
	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	2
BK-4CSW		Set simple full clr mode: hvy ppr, Bk-m
Lv.2	Details	To set the conditions to switch single Bk-color mode to simple full color mode according to the type of heavy paper. In single Bk-color mode, shock image at 75/122 mm from the leading edge is likely to occur due to impact triggered by paper entering the secondary transfer section. By switching to simple full color mode where black is made by using small amount of Y, M and C toners, shock image is alleviated. When 0 (normal) is set, the mode is switched to simple full color mode with heavy paper 3 after printing the specified number of sheets since the replacement of the Drum Unit (Bk). When 1, 2, or 3 is set, simple full color mode is always applied to heavy paper 1/2/3. When 4 is set, it is not switched to simple full color mode.
	Use case	When shock image occurs with heavy paper at single Bk-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 4 0: Normal, 1: Heavy paper 3, 2: Heavy paper 2/3, 3: Heavy paper 1/2/3, 4: OFF
	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: Factory default 1: [Settings/Registration] - Pressing [4] and [9] at the same time - [Settings/Registration]
	Default value	0

COPIER> OPTION> FNC-SW		
FXWRNLVL		Set Fix Film life display threshold VL
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	When preventing the occurrence of fixing failure caused by the continuous use of the Fixing Film beyond its 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 life counter reaches the specified value. 2. Warning is displayed when the print counter reaches the specified value. 3: Warning is displayed when either the life counter or the print counter reaches the specified value.
	Default value	0
	Related service mode	COPIER> OPTION> DSPLY-SW> FXMSG-SW
KSIZE-SW		Set of Chinese paper (K-size) support
Lv.2	Details	To set whether to detect/display the Chinese paper (K-size paper: 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	16K paper: 270 x 195 mm
PDF-RDCT		PDF reduction set at forwarding
Lv.2	Details	To set whether to reduce the image for transmission when converting the image received by IFAX into PDF for e-mail/file transmission.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Following the current setting, 1: Image reduction
	Default value	0

COPIER> OPTION> FNC-SW		
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 2 0: 50 jobs, 1: 90 jobs, 2: No limit
	Default value	1
CARD-RNG		Card number setting (department number)
Lv.2	Details	To set the number of cards (departments) that can be used with the Card Reader.
	Use case	When setting the number of cards (departments)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 1000
	Default value	1000
SJOB-CL		Set of scan job canceling by logout
Lv.1	Details	To set whether to cancel the scan job in operation by logout of the user.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- The job in scanning operation cannot be canceled. - Cancel by logout is kept in the log.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Supplement/memo	Scan job: A job after the scanning operation is completed.
USB-RCNT		Auto connect set at USB device disconnct
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

COPIER> OPTION> FNC-SW		
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).
	Use case	For customization
	Adj/set/operate method	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- 6
CNTR-SW		Init parts counter estimated life value
Lv.1	Details	To return the estimated life value of parts counter to the initial value.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter 0, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: Returned to the initial value
	Default value	0
PSWD-SW		Password type set to enter service mode
Lv.1	Details	To set the type of password that is required to enter when getting into service mode. 2 types are available: one for "service technician" and the other for "system administrator + service technician". When selecting the type for "system administrator + service technician", enter the password for service technician after the password entry by the user's system administrator.
	Use case	Upon request from the user who concerns security
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: No password, 1: Service technician, 2: System administrator + service technician
	Default value	0
SM-PSWD		Password setting for service technician
Lv.2	Details	To set password for service technician that is used when getting into service mode.
	Use case	When password is required to get into service mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to select 1 or 2 with PSWD-SW in advance.
	Display/adj/set range	1 to 99999999
	Default value	11111111
	Related service mode	COPIER> OPTION> FNC-SW> PSWD-SW

COPIER> OPTION> FNC-SW		
RPT2SIDE		Set of report 1-sided/2-sided output
Lv.1	Details	To set whether to use 1-sided or 2-sided for report output of service mode.
	Use case	When making 2-sided report output to reduce the number of output pages
	Adj/set/operate method	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
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 technicians 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
INVALPDL		Disable of PDL license
Lv.1	Details	To disable the registered PDL license. When "1: Disabled" is set, PDL is disabled even if a PDL license is registered. This is set to the machines installed at convenience stores, which do not allow PDL to be used.
	Use case	When prohibiting the use of PDL
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Registered PDL license is enabled, 1: Disabled
	Default value	0
IMGCNTPR		Setting of image quality mode
Lv.1	Details	To set the image quality mode. The counter priority mode is applied when 1 is set, and the image quality priority mode is applied when 0 is set.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	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 Settings/ Registration.
	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	JP:0, USA:0, EUR:1, AU:0, CN:0, KR:0, TW:0, ASIA:0
CDS-MEAP		Set to allow MEAP installation by admin
Lv.1	Details	To set whether to permit the user (administrator) to install MEAP applications and enable iR options from CDS. When “1: Enabled” is set, Updater can be activated from Settings/ Registration.
	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
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
	Adj/set/operate method	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

COPIER> OPTION> FNC-SW		
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
SDLMTWRN		ON/OFF cpcty warn dspl: E-mail/I-Fax TX
Lv.2	Details	To set whether to display the warning message when sending data that exceeds the upper limit value for the transmission data size via E-mail/I-Fax.
	Use case	For customization
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related UI menu	Function Settings> Send> E-Mail/I-Fax Settings> Maximum Data Size for Sending
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
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

COPIER> OPTION> FNC-SW		
FAX-INT		Set FAX RX print interruption oprtn mode
Lv.2	Details	To set the mode performing interruption operation of FAX reception print automatically.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal, 1: Interruption operation mode
	Default value	0
PDL-Z-LG		Setting of drawing 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 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 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: Drawing algorithm of iR-ADV C series, 1: Drawing algorithm of the conventional iR C series, 2, 3: For R&D use
	Default value	0

COPIER> OPTION> FNC-SW		
CDS-LVUP		Set to allow CDS periodical update
Lv.1	Details	To set whether to allow the user (administrator)/service technician to perform the periodical update linked with CDS. When 1 is set, the periodical update setting screen is displayed in Settings/Registration menu and Register/Update Software menu on RUI. When 2 is set, the periodical update can be performed from service mode.
	Use case	When allowing the user/service technician to perform periodical update
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not set 1 in Japan. It is not assumed that the user performs firmware update.
	Display/adj/set range	0 to 2 0: Prohibited, 1: Allowed update by the user, 2: Allowed update by service technician
	Default value	JP:0, USA:0, EUR:1, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Supplement/memo	CDS: Content Delivery System
AMSOFFSW		OFF of AMS mode
Lv.1	Details	(1) AMS license which is an iR option is installed. (2) AMS-supported Login application is activated. Normally, when the conditions (1) and (2) are satisfied, it enters AMS mode automatically. Use this mode when preferring to disable AMS mode. For North/Middle/South America and for Europe, this setting is set to 1 by default. Use this mode when preferring to enable AMS mode.
	Use case	When preferring to disable AMS mode When preferring to enable AMS mode (for North/Middle/South America and for Europe)
	Adj/set/operate method	1) Press Counter button, and check that "ACCESS MANAGEMENT SYSTEM" is displayed on the Device Configuration screen. 2) Set the service mode to 1. 3) Turn OFF/ON the main power switch. 4) Check that AMS is disabled. Press Counter button, and check that "ACCESS MANAGEMENT SYSTEM" is not displayed on the Device Configuration screen.
	Display/adj/set range	0 to 1 0: AMS mode enabled, 1: AMS mode disabled
	Default value	JP:0, USA:1, EUR:1, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Supplement/memo	AMS: Access Management System When the device is in AMS mode, "ACCESS MANAGEMENT SYSTEM" is displayed in Check Counter> Check Device Configuration.

COPIER> OPTION> FNC-SW		
DMAX-DAY		Set D-max control execution frequency
Lv.1	Details	To set the frequency of D-max control that is executed after a specified number of sheets is fed. When 0 is set, the execution frequency of D-max control is decreased by half.
	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: Half, 1: Normal
	Default value	1
UA-OFFSW		ON/OFF of unified auth function
Lv.1	Details	To set ON/OFF of the Unified Authentication function. Set the value to 0 when not preferring to use the Unified Authentication function because of security concern.
	Use case	Upon user's request (not to use the Unified Authentication 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: ON, 1: OFF
	Default value	0
	Supplement/memo	Unified Authentication: A function with which it is considered that login authentication under it is performed by logging in it using SSO-H.
MIB-NVTA		RFC-compatible character stringMIB write
Lv.1	Details	As default, MIB object which NVT-ASCII can be written exists in order to link with LUI entry value. This violates RFC order, so a problem like garbled 2-byte characters may occur in the SNMP monitoring system, such as the 3rd vendor's MPS. Whether non-RFC-compatible character strings are written in MIB can be set using this mode. When 1 is set, only the character strings which are strictly compatible with RFC are written. (Writing operation is executed from the SNMP manager.) LUI is not linked.
	Use case	Upon user's request (operation with RFC-compatible system)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Compatible in a conventional manner, 1: RFC-compatible, 2 to 3: Not used
	Default value	0
	Supplement/memo	RFC: Document of Internet-related technical standards NVT-ASCII: Network Virtual Terminal-ASCII

COPIER> OPTION> FNC-SW		
SVC-RUI		Enabling of RUI function for servicing
Lv.1	Details	To set whether to enable the RUI function for servicing (not provided to end users). When 0 is set, the RUI function is disabled. When setting the value other than 0, RUI function is enabled. The value entered becomes password to use the RUI function.
	Use case	When preferring to use the import function of background image file of main menu
	Adj/set/operate method	Enter the setting value (other then 0), and then press OK key.
	Display/adj/set range	0 to 65535
	Default value	0
LCDSFLG		Enabling of local CDS server
Lv.1	Details	To set whether to use the local CDS server. When CDSFIRM is 1, this setting is enabled. When this setting is enabled, the [Setting] screen is displayed Settings/Registration> Management Settings> License/Other> Register/Update Software> Software Management Setting.
	Use case	When using the local CDS server
	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 only when 1 is selected in COPIER> OPTION> FNC-SW> CDS-FIRM.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Related service mode	COPIER> OPTION> FNC-SW> CDS-FIRM
	Related UI menu	Management Settings> License/Other> Register/Update Software> Software Management Setting> Setting
	Supplement/memo	When local CDS is used, iW EMC/MC device firmware update plug-in is required.
NO-LGOUT		Display/hide of logout button
Lv.1	Details	To set whether to display or hide [Logout] button. When 0 is set, [Logout] button is displayed on the screen, and logout with the ID key is enabled. (Normal) When 1 is set, [Logout] button is not displayed, and logout with the ID key is disabled.
	Use case	Upon user's request (for customization, etc.)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Display, 1: Hide
	Default value	0

COPIER> OPTION> FNC-SW		
T-DLV-BK		Set Bk pre-toner low alarm notice timing
Lv.1	Details	To set the timing to notify the pre-toner low alarm for Bk-color (toner level).
	Use case	When changing the timing to notify the end of life according to the usage status
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Since toner level is calculated based on the developing supply count, some errors may occur.
	Display/adj/set range	0 to 40
	Unit	1 %
	Default value	It differs according to the location.
	Related service mode	COPIER> OPTION> FNC-SW> T-DLV-CL
T-DLV-CL		Set YMC pre-toner low alarm notice tmg
Lv.1	Details	To set the timing to notify the pre-toner low alarm for Y/M/C-color (toner level).
	Use case	When changing the timing to notify the end of life according to the usage status
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Since toner level is calculated based on the developing supply count, some errors may occur.
	Display/adj/set range	0 to 40
	Unit	1 %
	Default value	It differs according to the location.
	Related service mode	COPIER> OPTION> FNC-SW> T-DLV-BK
D-DLV-BK		Set Bk Drum auto delvry alarm notice tmg
Lv.1	Details	To set the timing to notify the auto delivery alarm for the Drum Unit (Bk).
	Use case	When changing the timing to notify the end of life according to the usage status
	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 drum is integrated with the Developing Assembly, some errors may occur depending on the usage conditions.
	Display/adj/set range	50 to 200
	Unit	1 %
	Default value	100
	Related service mode	COPIER> COUNTER> LF> K-DRM-LF

COPIER> OPTION> FNC-SW		
D-DLV-CL		Set YMC Drum auto dvry alarm notice tmg
Lv.1	Details	To set the timing to notify the auto delivery alarm for the Drum Unit (Y/M/C).
	Use case	When changing the timing to notify the end of life according to the usage status
	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 drum is integrated with the Developing Assembly, some errors may occur depending on the usage conditions.
	Display/adj/set range	50 to 200
	Unit	1 %
	Default value	100
	Related service mode	COPIER> COUNTER> LF> Y/M/C-DRM-LF
JM-ERR-D		Set of error display of 0CAx jam (DCON)
Lv.2	Details	To set whether to display “0CAF” jam as the error “E996-0CAF”. In the case of a jam, log cannot be obtained depending on the timing. By selecting 1 when the jam “0CAF” occurs, it is displayed as the error “E996-0CAF” so that the log can be obtained.
	Use case	When obtaining a log at the occurrence of 0CAF jam
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Display as a jam, 1: Display as an error
	Default value	0
JM-ERR-R		Set of error display of 0071 jam (RCON)
Lv.2	Details	To set whether to display “0071” jam as the error “E996-0071”. In the case of a jam, the target log will be lost, so that it may not be able to be checked. When 1 is set, it is handled as an error so that the log which has been backed up can be obtained.
	Use case	When checking the occurrence of 0071 jam
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Display as a jam, 1: Display as an error
	Default value	0
	Related service mode	COPIER> OPTION> FNC-SW> JM-ERR-D
DFTSCNSZ		Setting of default scan size
Lv.1	Details	To set the default scan size when scan size is not specified.
	Use case	Upon user’s request
	Display/adj/set range	0 to 1 0: LTR, 1: LGL
	Default value	0

COPIER> OPTION> FNC-SW		
ASLPMAX		Set auto sleep shift time maximum value
Lv.1	Details	Set auto sleep shift time maximum value.
	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: 4 hours, 1: 60 minutes
	Default value	JP:0, USA:0, EUR:1, AU:0, CN:0, KR:0, TW:0, ASIA:0
TNR-RS		Set of Toner Container rotation speed
Lv.2	Details	To set the rotation speed of Toner Container. As the value is larger, the Toner Container rotates faster so enough amount of toner is supplied for high duty (high image ratio) image, but noise becomes louder.
	Use case	- When the rotation drive noise is loud - When not enough amount of toner is supplied for high duty image
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-3 to 3
	Unit	1
	Default value	0
TNNEWQCK		Set new Tonr Cntner chck seq aftr rplce
Lv.2	Details	To set whether to execute the new Toner Container check sequence after replacement. In case of processing a large job immediately after replacement of the Toner Container when 0 is set, downtime due to the new Toner Container check sequence occurs during the processing. When 1 is set, control to print the specified number of sheets is turned OFF and the new Toner Container check sequence is executed immediately after the replacement.
	Use case	When downtime occurs due to the new Toner Container check sequence during the processing of a large job
	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	0 to 1 0: OFF, 1: ON
	Default value	0

COPIER> OPTION> FNC-SW		
R-DR-FAN		Adj Right Door Unit Fan airflow amount
Lv.2	Details	To set the rotation speed of the Right Door Unit Fan during printing. When 2 is set, the heat exhaust efficiency is improved so it can alleviate papers to be stuck together at the time of delivery. However, the machine is more likely to shift to temperature rising prevention mode.
	Use case	When delivered papers stick together frequently
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When 2 is set, the machine is more likely to shift to temperature rising prevention mode.
	Display/adj/set range	0 to 2 0: Automatic, 1: Half speed, 2: Full speed
	Default value	0
PWR-FAN		Adj Power Supply Fan airflow amnt: stby
Lv.2	Details	To adjust the airflow amount of the Power Supply Fan at standby. As the value is larger, heat exhaust efficiency is improved, but noise becomes louder.
	Use case	- When the machine is installed in a high temperature environment in which damage of component parts of the Power Unit or HDD damage is likely to occur - When HDD damage occurs frequently
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Noise becomes louder.
	Display/adj/set range	0 to 2 0: Automatic, 1: Half speed, 2: Full speed
	Default value	0
	Supplement/memo	The Power Supply Fan also cools the Controller PCB.
DLVY-FAN		Adj Delivery Cooling Fan airflow amount
Lv.2	Details	To set the rotation speed of the Delivery Cooling Fan during printing. When 2 is set, the heat exhaust efficiency is improved so it can alleviate papers to be stuck together at the time of delivery. However stacking performance decreases.
	Use case	When delivered papers stick together frequently
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When 2 is set, stacking performance at the time of delivery decreases.
	Display/adj/set range	0 to 2 0: Automatic, 1: Half speed, 2: Full speed
	Default value	0

COPIER> OPTION> FNC-SW		
CRG-FANR		Adj Drum-U Exhst Fan airflow amnt: print
Lv.2	Details	To set the rotation speed of the Drum Unit Exhaust Fan during printing. When 2 is set, the heat exhaust efficiency is improved so temperature rising can be controlled. However, noise becomes louder.
	Use case	When the machine shifts to temperature rising prevention mode frequently in case of continuous output for a long time
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Noise becomes louder.
	Display/adj/set range	0 to 2 0: Automatic, 1: Half speed, 2: Full speed
	Default value	0
CRG-FANF		Adj Drum-U Suctn Fan airflow amnt: print
Lv.2	Details	To set the rotation speed of the Drum Unit Suction Fan during printing. When 2 is set, the heat exhaust efficiency is improved so temperature rising can be controlled. However, noise becomes louder.
	Use case	When the machine shifts to temperature rising prevention mode frequently in case of continuous output for a long time
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Noise becomes louder.
	Display/adj/set range	0 to 2 0: Automatic, 1: Half speed, 2: Full speed
	Default value	0
ECO-TMP		Setting of eco mode shift temperature
Lv.2	Details	To set the offset value of temperature to shift to eco mode. When the Environment Sensor detects that the temperature drops to the specified temperature, the machine enters eco mode and the fan stops. Decrease the value when any problem (sticking of delivered papers together, toner adhesion, etc.) occurs in eco mode. (The machine is more likely to be recovered from eco mode.) To reduce the drive noise from the fan, increase the value. (The machine is more likely to enter eco mode.)
	Use case	- When changing the temperature to shift to eco mode - When any problem (sticking of delivered papers together, toner adhesion, etc.) occurs in eco mode - Upon user's request (to reduce fan drive noise)
	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 deg C
	Default value	0

COPIER> OPTION> FNC-SW		
STP-TMP		Temp rise prev mod stop seq temp thrshld
Lv.2	Details	To set the threshold value of the temperature of the Developing Assembly to execute temperature rising prevention mode stop sequence. Decrease the value when any problem (toner adhesion, etc.) occurs.
	Use case	- When changing the temperature to execute temperature rising prevention mode stop sequence - When any problem (toner adhesion, etc.) occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 50
	Default value	48
2TR-TBLS		Set sec transfer bias correction table
Lv.1	Details	To set the secondary transfer bias correction table. Since physical characteristics of paper are different between paper for Japan and it for other countries, secondary transfer bias correction table is used according to the market. If the table and paper type are not matched, mottled image may occur. Set 1 when using paper for overseas (outside Japan) in Japan. Set 0 when using paper for Japan in other countries.
	Use case	- When using paper for overseas (outside Japan) in Japan - When using paper for Japan in other countries
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: For Japan, 1: For others
	Default value	JP:0, USA:1, EUR:1, AU:1, CN:1, KR:1, TW:1, ASIA:1
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Image Adjustment Mode for Solid Area

COPIER> OPTION> FNC-SW		
WT-FL-LM		No. of fed sht after wst tonr full dtct
Lv.2	Details	Since the Waste Toner Full Sensor detects toner full optically, timing to display the waste toner near full notice may vary depending on the concentration of toner. Usually, when approx. 1000 sheets (calculated with full color, 5% image ratio) are fed after the near full notice, it is judged as full level, but in some cases, it is not actually reached to the full level. According to the usage status of the machine, set the number of sheets to be fed after the near full notice until toner full (the machine stops). As the value is changed by 1, the number of sheets is changed by 250 sheets (calculated with full color, 5% image ratio)
	Use case	- When the user points out that full waste toner is detected earlier than the actual timing - When replacement of the Waste Toner Container cannot be done in time at normal timing because of large volume output
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	- When image ratio is high, toner full may be detected before reaching the specified number of sheets. - Toner leak may occur when changing the value drastically.
	Display/adj/set range	0 to 8 0: 0 sheet (toner full immediately after near full), 1: 250 sheets, 2: 500 sheets, 3: 750 sheets, 4: 1000 sheets, ... 8: 2000 sheets
	Unit	250 time
	Default value	4
	Related service mode	COPIER> OPTION> DSPLY-SW> WT-WARN
DFAN-SPD		Set paper protrusion prevention:delivery
Lv.2	Details	When making 2-sided printing using thin paper/plain paper 1/recycled paper 1, papers may protrude from the Delivery Tray on which approx. 100 sheets are stacked. It is likely to occur with Vietnamese paper (Bayband 70g). When 1 is set, the Delivery Cooling Fan rotates at half speed. It can alleviate protrusion of papers, but delivered papers may be stuck together. When the finisher is installed, the fan rotates at full speed although 1 is set.
	Use case	When papers on the Delivery Tray protrude from the tray at the time of 2-sided printing using thin paper/plain paper 1/ recycled paper 1
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	- When 1 is set in a high temperature and high humidity environment, papers may be stuck together. - When the finisher is installed, the setting is disabled (remains at full speed).
	Display/adj/set range	0 to 1 0: Full speed, 1: Half speed only for 2-sided printing with thin paper/ plain paper 1/recycled paper 1; Full speed for others
	Default value	0

COPIER> OPTION> FNC-SW		
T1CL-UP		Set of mod shift tmg at clr/black switch
Lv.2	Details	To set the timing to shift from color mode to black mode when switching between color and black. When the image is switched from color to black, an image failure may occur on the B&W image. Set 1 if the image failure occurs only on special paper (plain paper 3, heavy paper, etc.), or set 2 if it occurs on plain paper.
	Use case	When taking a temporary measure until the ITB is replaced in the case of occurrence of an image failure
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	- Be sure to replace the ITB as soon as possible because this is a temporary measure in the case that there is no spare ITB on hand. - Be sure to check that the symptom cannot be improved by PRE-CURL (heavy paper curl alleviation mode) before execution. - Productivity may be decreased in the case of color/black mixed original or color/black linked jobs.
	Display/adj/set range	0 to 2 0: After switching, the first to fifth sheets are output in color mode, and the mode shifts to black mode from the sixth sheet. 1: Excluding thin paper of 210 mm or more in width (60 to 63 g/m2), plain paper 1 (64 to 75 g/m2), plain paper 2 (76 to 90 g/m2), recycled paper 1 (64 to 75 g/m2), recycled paper 2 (76 to 90 g/m2), color paper (64 to 75 g/m2), pre-punched paper (64 to 75 g/m2), and carbonless paper (60 g/m2), the mode shifts to black mode from the second sheet after switching. 2: At all speeds, the mode shifts to black mode from the second sheet after switching.
	Default value	0
	Related service mode	COPIER> OPTION> FNC-SW> PRE-CURL
	Supplement/memo	An image failure that occurs when the image is switched from color to black is likely to occur on strongly curled paper.

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■ DSPLY-SW

COPIER> OPTION> DSPLY-SW		
UI-COPY		Display/hide of copy screen
Lv.2	Details	To set whether to display or hide the copy function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-BOX		Display/hide of Inbox screen
Lv.2	Details	To set whether to display or hide the Inbox function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: No Inbox function (Storing is not available even with PDL to Inbox.) 1: Inbox function is active 2: Inbox function is active (with limitation; Storing is available with PDL to Inbox despite no display on the Control Panel/remote UI)
	Default value	1
	Related UI menu	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		Dspl timing of toner level warning mssg
Lv.2	Details	To set the threshold value of residual toner in the toner bottle. 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 user, etc.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When setting a value smaller than the initial value, absence of toner may be displayed before toner level warning message.
	Display/adj/set range	5 to 100
	Unit	1 %
	Default value	It differs according to the location.
	Related service mode	COPIER> OPTION> DSPLY-SW> TNR-WARN
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	0 (Coin-operated model)/1 (Normal model)
FXMSG-SW		ON/OFF of Fixing Assembly replace mssg
Lv.2	Details	To set whether to display the message prompting to replace the Fixing Assembly on the Control Panel when the counter for life judgment reaches the specified value. When FXMSG-SW is 1 and COPIER> OPTION> FNC-SW> FXWRNLVL is 1 (default: 0), the Fixing Assembly life detection is performed. When the Fixing Assembly reaches its life, the Fixing Assembly replacement message "Prepare new fixing assembly." is displayed.
	Use case	When displaying the Fixing Assembly replacement message
	Adj/set/operate method	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
	Related service mode	COPIER> OPTION> FNC-SW> FXWRNLVL

COPIER> OPTION> DSPLY-SW		
UI-PRINT		Display/hide of secured print screen
Lv.2	Details	To set whether to display or hide the secured 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.
	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 level warning message
Lv.1	Details	To set ON/OFF of toner warning display. When 1 is set, toner warning is not displayed until the toner runs out.
	Use case	When preferring not to display warning 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: Display, 1: Hide
	Default value	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related service mode	COPIER> OPTION> DSPLY-SW> T-LW-LVL
	Related UI menu	Preferences> Display Settings> Display Remaining Toner Error Message
	Supplement/memo	Display of the warning screen can be switched by Settings/ Registration> Preferences> Display Settings> Display Remaining Toner Error Message.

COPIER> OPTION> DSPLY-SW		
HPFL-DSP		ON/OFF pln 3, rcycl 3, hvy 1/2/3 mode
Lv.1	Details	To set whether to display the modes for plain paper 3, recycled paper 3, heavy paper 1/2/3 on the Auto Adjust Gradation screen at the time of full adjustment.
	Use case	When executing full adjustment with the mode for plain paper 3, recycled paper 3, or heavy paper 1/2/3
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: OFF 1: Display plain paper 1,2/recycled paper 1,2 and plain paper 3/ recycled paper 3 2: Display plain paper 1,2/recycled paper 1,2, plain paper 3/recycled paper 3, and heavy paper 1,2,3
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust
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	JP:1, USA:1, EUR:0, AU:1, CN:1, KR:1, TW:1, ASIA:1
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 Tutorial
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
ITB-DSP		ON/OFF of init after ITB rplce: Set/Reg
Lv.1	Details	To set whether to display “ITB” on Initialization screen after replacing parts in Settings/Registration. 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 UI menu	Adjustment/Maintenance> Maintenance> Initialize After Replacing Parts> ITB
FXU-DSP		ON/OFF init after Fx Ass’y rplce:Set/Reg
Lv.1	Details	To set whether to display “Fixing Unit” on Initialization screen after replacing parts in Settings/Registration. 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	1
	Related UI menu	Adjustment/Maintenance> Maintenance> Initialize After Replacing Parts> Fixing Unit
UI-CUSTM		ON/OFF of custom menu screen display
Lv.2	Details	To set ON/OFF of the Quick Menu screen.
	Use case	When not displaying the Quick Menu 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: 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 Settings/Registration, 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
USER-DSP		Display/hide of SSO-H login user name
Lv.1	Details	To set whether to display the name of the user who logs in using MEAP authentication (SSO-H) on the screen of the Control Panel (upper left area).
	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: Hide, 1: Display “display name”, 2: Display “user name”
	Default value	0
	Supplement/memo	MEAP authentication (SSO-H): local authentication and server authentication using the Single Sign On-Hybrid MEAP application.
SDTM-DSP		Display/hide of auto shutdown shift time
Lv.1	Details	To set whether to display or hide “Auto Shutdown Time” in Settings/Registration.
	Use case	When switching to display or hide auto shutdown time
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Be sure to set 0 for the model with fax for Europe. If 1 is set, fax reception cannot be performed normally.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	JP:0, USA:0, EUR:1, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Time/Energy Settings> AutoShutdown Time

COPIER> OPTION> DSPLY-SW		
WT-WARN		Dspl/hide of Wst Tonr Cntner prep mssg
Lv.1	Details	To set whether to display the preparation warning message of the Waste Toner Container on the status area of LUI.
	Use case	When there is no need to notify the preparation timing of the Waste Toner Container to 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	0 to 1 0: Hide, 1: Display
	Default value	1
	Related service mode	COPIER> OPTION> CUSTUM> EXT-TBOX
DF-DSP		Dspl/hide DADF Roll counter initial scrn
Lv.1	Details	To set whether to display the DADF Roller on the counter initialization screen in Settings/Registration.
	Use case	When the user does not replace the parts
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
2TR-DSP		Dspl/hide Sec Trn Out Rol cntr init scrn
Lv.1	Details	To set whether to display the Secondary Transfer Outer Roller on the counter initialization screen in Settings/Registration.
	Use case	When the user does not replace the parts
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
DRM-DSP		Cntr initial screen dspl sw: Drum Unit
Lv.1	Details	To set whether to display/hide the Drum Unit in the counter initial screen in Settings/Registration.
	Use case	When the customer replaces the parts
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Maintenance> Initialize After Replacing Parts> Drum Unit

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.
	Use case	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		Image leading edge control temp: pln 1
Lv.1	Details	To set the offset of image leading edge control temperature for plain paper 1 (60 to 75 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	When uneven gloss occurs on the leading edge (56.5 mm) of plain paper 1
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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		
TMP-TBL2		Fixing control temperature:Heavy paper 1
Lv.1	Details	To set the offset of fixing control temperature for heavy paper 1 (106 to 128 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on heavy paper 1
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TBL3		Fixing control temperature:Heavy paper 2
Lv.1	Details	To set the offset of fixing control temperature for heavy paper 2 (129 to 163 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on heavy paper 2
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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		
TMP-TBL4		Fixing control temperature:Heavy paper 3
Lv.1	Details	To set the offset of fixing control temperature for heavy paper 3 (164 to 220 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on heavy paper 3
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TBL5		Fixing control temperature: Thin ppr
Lv.1	Details	To set the offset of fixing control temperature for thin paper (60 to 63 g/m2). As the value is incremented by 1, the control temperature changes by 5 deg C from the specified value. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on thin paper
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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		
TMP-TBL6		Fixing control temperature: Envelope
Lv.1	Details	To set the offset of fixing control temperature for envelope. As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on envelope
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TMP2		Image leading edge control temp: heavy 1
Lv.1	Details	To set the offset of image leading edge control temperature for heavy paper 1 (106 to 128 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	When uneven gloss occurs on the leading edge (56.5 mm) of heavy paper 1
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TMP3		Image leading edge control temp: heavy 2
Lv.1	Details	To set the offset of image leading edge control temperature for heavy paper 2 (129 to 163 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	When uneven gloss occurs on the leading edge (56.5 mm) of heavy paper 2
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TMP4		Image leading edge control temp: heavy 3
Lv.1	Details	To set the offset of image leading edge control temperature for heavy paper 3 (164 to 220 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	When uneven gloss occurs on the leading edge (56.5 mm) of heavy paper 3
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TMP5		Image leading edge control temp: thin
Lv.1	Details	To set the offset of image leading edge control temperature for thin paper (60 to 63 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	When uneven gloss occurs on the leading edge (56.5 mm) of thin paper
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TMP6		Image leading edge control temp:envelope
Lv.1	Details	To set the offset of image leading edge control temperature for envelope. As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	When uneven gloss occurs on the leading edge (56.5 mm) of envelope
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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		
FXST2-N2		Set of ITOP wait time:Plain ppr in LL Ev
Lv.1	Details	To set initial rotation time when plain paper 1/2/3 is fed with a temperature lower than 10 deg C. Increase the value when a fixing failure occurs.
	Use case	When a fixing failure occurs in an environment where temperature is lower than 10 deg C
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	As the value is increased, (as the initial rotation time becomes longer), FCOT is increased.
	Display/adj/set range	0 to 20
	Unit	1 second
	Default value	0
FXST2-UH		Set of ITOP wait time:Heavy ppr in LL Ev
Lv.1	Details	To set initial rotation time when heavy paper 1/2/3 is fed with a temperature lower than 10 deg C. Increase the value when a fixing failure occurs.
	Use case	When a fixing failure occurs in an environment where temperature is lower than 10 deg C
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	As the value is increased, (as the initial rotation time becomes longer), FCOT is increased.
	Display/adj/set range	0 to 30
	Unit	1 second
	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

COPIER> OPTION> IMG-FIX		
TMP-TBL7		Fixing control temperature:Plain paper 2
Lv.1	Details	To set the offset of fixing control temperature for plain paper 2 (76 to 90 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on plain paper 2
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TBL8		Fixing control temperature: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 5 deg C from the specified value. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on transparency
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TMP7		Image leading edge control temp: pln 2
Lv.1	Details	To set the offset of image leading edge control temperature for plain paper 2 (76 to 90 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	When uneven gloss occurs on the leading edge (56.5 mm) of plain paper 2
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TMP8		Image leading edge control temp: transp
Lv.1	Details	To set the offset of image leading edge control temperature for transparency. As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	When uneven gloss occurs on the leading edge (56.5 mm) of transparency
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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		
FIXMIXBD		Setting of media mixed mode
Lv.1	Details	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.
	Use case	- If the fixing failure occurs in media mixed condition. - When decreasing downtime in media mixed situation
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-2 to 2
	Default value	0
PRE-FXRL		Pressure Roller soiling prevention mode
Lv.2	Details	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.
	Use case	Upon user's request (prevention of soiled Pressure Roller)
	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
TMP-TB12		Fixing control temperature:Plain paper 3
Lv.1	Details	To set the offset of fixing control temperature for plain paper 3 (91 to 105 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on plain paper 3
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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		
TMP-TB13		Fixing control temperature: Rcycl ppr 2
Lv.1	Details	To set the offset of fixing control temperature for recycled paper 2 (76 to 90 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on recycled paper 2
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TB11		Fixing control temperature: Rcycl ppr 1
Lv.1	Details	To set the offset of fixing control temperature for recycled paper 1(64 to 75 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on recycled paper 1
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TM11		Image leading edge control temp: rcycl 1
Lv.1	Details	To set the offset of image leading edge control temperature for recycled paper 1 (64 to 75 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	- When a fixing failure occurs on the leading edge of paper - When uneven gloss occurs on the leading edge (56.5 mm)
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TM12		Image leading edge control temp: pln 3
Lv.1	Details	To set the offset of image leading edge control temperature for plain paper 3 (91 to 105 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	When uneven gloss occurs on the leading edge (56.5 mm) of plain paper 3
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TM13		Image leading edge control temp: rcycl 2
Lv.1	Details	To set the offset of image leading edge control temperature for recycled paper 2 (76 to 90 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	- When a fixing failure occurs on the leading edge of paper - When uneven gloss occurs on the leading edge (56.5 mm)
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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-TM14		Image leading edge control temp: rcycl 3
Lv.1	Details	To set the offset of image leading edge control temperature for recycled paper 3 (91 to 105 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs on the leading edge of paper. Decrease the value when uneven gloss occurs on the leading edge (56.5 mm).
	Use case	- When a fixing failure occurs on the leading edge of paper - When uneven gloss occurs on the leading edge (56.5 mm)
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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		
TMP-TB17		Fixing control temperature: Rcycl ppr 3
Lv.1	Details	To set the offset of fixing control temperature for recycled paper 3 (91 to 105 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C from the specified value. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on recycled paper 3
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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

T-8-40

IMG-TR

COPIER > OPTION> IMG-TR		
2TR-RVON		Setting of trailing edge weak bias
Lv.2	Details	To set the conditions to apply weak bias on the trailing edge of paper. When 0 is set, weak bias is applied to the trailing edge of paper in single Bk mode. When 1 is set, the bias is applied in single Bk mode/ color mode. When 2 is set, the bias is not applied.
	Use case	When an image failure (white spots on the trailing edge) 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.
	Display/adj/set range	0 to 2 0: Single Bk mode, 1: Single Bk mode/color mode, 2: OFF
	Default value	0

T-8-41

IMG-DEV

COPIER> OPTION> IMG-DEV		
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
ADJ-VPP		Adj of dev AC bias Vpp: plain/rcycl 1/2
Lv.2	Details	To adjust Vpp of the developing AC bias when printing plain paper 1, 2/recycled paper 1, 2 (which paper width is A4 or larger). As the value is incremented by 1, Vpp changes by 100 V. Decrease the value when fogging/bias leak/high density occurs.
	Use case	When an image failure (carrier adherence, ring marks, etc.) occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Execute Auto Adjust Gradation > Full Adjust.
	Caution	If the value is too small, the contrast becomes weak.
	Display/adj/set range	0 to 5 0: +/-0 V, 1: -100 V, 2: -200 V, 3: -300 V, 4: -400 V, 5: -500 V
	Unit	100 V
	Appropriate target value	0
	Default value	0
	Related service mode	COPIER> OPTION> IMG-DEV> ADJ-VPPN, ADJ-VPP3

COPIER> OPTION> IMG-DEV		
DMX-OF-Y		Adj 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 (switch negative/positive by -/+ key), 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
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust
DMX-OF-M		Adj of M-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 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.
	Use case	When density of solid area is not appropriate even performing auto gradation adjustment
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key), 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
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust

COPIER> OPTION> IMG-DEV		
DMX-OF-C		Adj of C-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 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.
	Use case	When density of solid area is not appropriate even performing auto gradation adjustment
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key), 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
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust
DMX-OF-K		Adj of Bk-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 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.
	Use case	When density of solid area is not appropriate even performing auto gradation adjustment
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key), 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
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust, Quick Adjust

COPIER> OPTION> IMG-DEV		
ADJ-VPPN		Adj of dev AC bias Vpp: plain/rcycl3,etc
Lv.2	Details	To adjust the Vpp of the developing AC bias when printing plain paper 1, 2/recycled paper 1, 2 (which paper width is smaller than that of A4), plain paper 3, or recycled paper 3. As the value is incremented by 1, Vpp changes by 0.5 kV. Decrease the value when fogging/bias leak/high density occurs.
	Use case	When an image failure (carrier adherence, ring marks, etc.) occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Execute Auto Adjust Gradation> Full Adjust.
	Caution	If the value is too small, the contrast becomes weak.
	Display/adj/set range	0 to 5 0: +/-0 V, 1: -100 V, 2: -200 V, 3: -300 V, 4: -400 V, 5: -500 V
	Unit	100 V
	Appropriate target value	0
	Default value	0
	Related service mode	COPIER> OPTION> IMG-DEV> ADJ-VPP, ADJ-VPP3
DEVL-THY		Set toner ejectn img duty threshold (Y)
Lv.2	Details	To set the threshold value for average image ratio where Y-toner ejection is executed. 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	While printing low duty (low image ratio) images,- When graininess (coarseness) or decrease in density occurs- When 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	-2 to 5 -2: -0.2, -1: -0.1, 0: 0, 1: +0.5, 2: +1.0, 3: +1.5, 4: +2.0, 5: +3.0
	Default value	0
DEVL-THM		Set toner ejectn img duty threshold (M)
Lv.2	Details	To set the threshold value for average image ratio where M-toner ejection is executed. 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	While printing low duty (low image ratio) images,- When graininess (coarseness) or decrease in density occurs- When 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	-2 to 5 -2: -0.2, -1: -0.1, 0: 0, 1: +0.5, 2: +1.0, 3: +1.5, 4: +2.0, 5: +3.0
	Default value	0

COPIER> OPTION> IMG-DEV		
DEVL-THC		Set toner ejectn img duty threshold (C)
Lv.2	Details	To set the threshold value for average image ratio where C-toner ejection is executed. 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	While printing low duty (low image ratio) images,- When graininess (coarseness) or decrease in density occurs- When 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	-2 to 5 -2: -0.2, -1: -0.1, 0: 0, 1: +0.5, 2: +1.0, 3: +1.5, 4: +2.0, 5: +3.0
	Default value	0
DEVL-THK		Set toner ejectn img duty threshold (Bk)
Lv.2	Details	To set the threshold value for average image ratio where Bk-toner ejection is executed. 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	While printing low duty (low image ratio) images,- When graininess (coarseness) or decrease in density occurs- When 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	-2 to 5 -2: -0.2, -1: -0.1, 0: 0, 1: +0.5, 2: +1.0, 3: +1.5, 4: +2.0, 5: +3.0
	Default value	0

COPIER> OPTION> IMG-DEV		
TNNEWCNT		Set of new Toner Container check times
Lv.2	Details	To set the number of times to execute the new Toner Container check sequence. As the value is larger, whether the Toner Container is a new one can be checked accurately regardless of the period of time the container is being left, but downtime is increased.
	Use case	- When the user pointed out that the Toner Container is not recognized as a new one although it is replaced - When the amount of downtime is pointed out by the user
	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	3 to 10 3: 3 times, 4: 4 times, 5: 5 times, 6: 6 times, 7: 7 times, 8: 8 times, 9: 9 times, 10: 10 times
	Unit	1 time
	Default value	7
TNENDCNT		Setting of number of toner level check
Lv.2	Details	To set the number of times to execute the toner level check sequence. As the value is larger, the accuracy in toner level detection is increased because the toner level is checked more frequently, but downtime is increased.
	Use case	- When the user pointed out that the actual toner level is much higher than the estimated toner level - When the amount of downtime is pointed out by the user
	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	1 to 5 1: 1 time, 2: 2 times, 3: 3 times, 4: 4 times, 5: 5 times
	Unit	1 time
	Default value	2
D-PTN		Set of 47/96mm horizontal line prev mode
Lv.2	Details	To form dot patterns to control the occurrence of horizontal lines when they appear at 47/96 mm intervals.
	Use case	When horizontal lines appear at 47/96 mm intervals
	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	0 to 2
	Default value	1

COPIER> OPTION> IMG-DEV		
ADJ-VPP3		Adj of developing AC bias Vpp: other ppr
Lv.2	Details	To adjust Vpp of the developing AC bias at the time of printing with other types of papers. As the value is incremented by 1, Vpp changes by 0.5 kV. Decrease the value when fogging/bias leak/high density occurs.
	Use case	When an image failure (carrier adherence, ring marks, etc.) occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Execute Auto Adjust Gradation (Full Adjust).
	Caution	If the value is too small, the contrast becomes weak.
	Display/adj/set range	0 to 5 0: +/-0 V, 1: -100 V, 2: -200 V, 3: -300 V, 4: -400 V, 5: -500 V
	Unit	100 V
	Appropriate target value	0
	Default value	0
	Related service mode	COPIER> OPTION> IMG-DEV> ADJ-VPPN, ADJ-VPPN

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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 when black/white lines appear. As the value is larger, the small dust is more likely detected.
	Use case	- When black/white 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 decreasing the value too much, lines may appear on the image.
	Display/adj/set range	0 to 255 0 to 84: Weakest, 85 to 169: Weak, 170 to 254: Moderate, 255: Strong
	Default value	200
	Supplement/memo	Lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent lines once dust is detected. To turn OFF the control, make the following selection: Settings/ Registration> Function Settings> Common> Scan Settings> Removal of Soiled Lines, and set the item to "OFF".

T-8-43

■ 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 UI menu	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.
	Use case	When setting the error diffusion coefficient
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Small granularity/low dot stability 1: Small granularity/low dot stability (color mode), Large granularity/high dot stability (B&W mode) 2: Large granularity/high dot stability
	Default value	2

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 200 %, Text area 180 % (Normal) 1: 180 %, 165 % 2: 140 %, 130 % 3: 160 %, 150 % (Normal 1, Recycle 1 paper, Thin paper) 4: 160 %, 150 % 5: 160 %, 150 % (Transparency only)
	Default value	0
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Adjust Toner Amount at Color Printing
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 crrct
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.
	Use case	At image adjustment
	Adj/set/operate method	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		
REDU-CNT		Set toner deposit amount limt 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
VP-ART		Setting of line art processing
Lv.2	Details	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. Specify whether to convert the binary image outline into vector data or to recognize it as one line (as a thin line). For the thin line, the line width can be specified. Change this value when you want to obtain an output of a wide-width line as one line rather than as an outline (when you want to prioritize edit operation as a line rather than image quality).
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 99
	Default value	1

COPIER> OPTION> IMG-MCON		
VP-TXT		Set of character vectorization process
Lv.2	Details	To make a setting of vector conversion processing for text on scalable PDF. In the vector conversion processing, a binary image outline is extracted in the field which is recognized as text, and is converted into vector data. In regular vector conversion, function approximation is not used for small text because the image quality is not changed. When the value is changed, function approximation processing is executed for small text, which realizes smooth text although the image quality is changed. Change this value when you want to prioritize smoothness in small text.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 99
	Default value	1
PASCL-TY		Set of paper type for auto gradation adj
Lv.2	Details	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.
	Use case	When executing the auto gradation adjustment using a paper other than the recommended paper type
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not change the setting in the normal operation.
	Display/adj/set range	1 to 3 1: CS680 [Nippon Paper Industries] (Except for USA and EU. Mainly for Japan) 2: Hammermill Laser Print [International Paper] (For USA) 3: Canon Office 80 [Mondi Business Paper] (For EU)
	Default value	JP:1, USA:2, EUR:3, AU:1, CN:1, KR:1, TW:1, ASIA:1
	Related UI menu	Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation> Full Adjust

COPIER> OPTION> IMG-MCON		
AST-SEL		Adj of advanced smoothing effect
Lv.2	Details	To adjust the smoothing effect which is set in the advanced smoothing UI. Set 3 if no smoothing effect is obtained even though Strong is set in the advanced smoothing UI. Set 0 if too much effect is obtained even though Weak is set.
	Use case	When image failures (jaggy, moire) 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 3
	Default value	2
	Supplement/memo	AST: Advanced Smoothing Technology
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: Line dithering, 1: Dot dithering
	Default value	0
	Related service mode	COPIER> TEST> PG> TXPH
PSCL-TBL		Setting of Bk-color density increase
Lv.1	Details	To set whether to increase the density of Bk-color only without changing the density of Y/M/C-color. When 1 is set, the parameters of auto gradation adjustment (full adjustment) are adjusted so that only the density of Bk-color is increased.
	Use case	Upon user's request (to increase the density of Bk-color)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch. 3) Execute auto gradation adjustment (full adjustment).
	Display/adj/set range	0 to 1 0: Normal, 1: Only the density of Bk-color is high
	Default value	0

COPIER> OPTION> IMG-MCON		
BGE-OFS		Fine adj of background adjustment level
Lv.2	Details	To make a fine adjustment of the background adjustment (background removal) level which can be set manually. Break up the adjustment values into smaller ones when user does not satisfy with the default adjustment values.
	Use case	When color fogging occurs on the output image when copying yellowed blank paper as an original
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Since the background color is set to be washed out with this mode, not only the background of yellowed blank paper, but also other light colors (light blue, etc.) are washed out.
	Display/adj/set range	-15 to 15
	Default value	0
	Related UI menu	Copy> Options> Density> Background Density

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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 -2: -10 deg C, -1: -5 deg C, 0: +/-0 deg C, 1: +5 deg C, 2: +10 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-SPD> 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	30
	Related service mode	COPIER> OPTION> IMG-SPD> ARC-INT1
DWN-TMP3		Set ppr intvl 25cpm mode temp threshold
Lv.2	Details	To set the threshold value of the temperature of the Developing Assembly to shift to paper interval 25 cpm mode. Decrease the value when any problem (toner adhesion, etc.) occurs.
	Use case	- When changing the temperature to shift to paper interval 25 cpm mode - When any problem (toner adhesion, etc.) occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 50
	Default value	35

T-8-45

■ CLEANING

COPIER> OPTION> CLEANING		
OHP-PTH		Set of ITB clean transp threshold value
Lv.2	Details	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.
	Use case	When an image failure occurs due to lowering of the transfer efficiency
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10 0: No ITB cleaning
	Unit	1 sheet
	Default value	5
	Related service mode	COPIER> FUNCTION> CLEANING> TBLT-CLN
ITBB-TMG		Setting of ITB cleaning sheet interval
Lv.1	Details	To set the paper interval to execute the ITB cleaning. As the value is increased, image failure due to the soiled ITB is alleviated, but downtime and toner consumption are increased. Toner band width that is formed at ITB cleaning differs depending on the setting value (1<2<3=4=5).
	Use case	When setting the interval to execute ITB cleaning
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 5 0: Not executed, 1 to 3: 50 sheets, 4: 30 sheets, 5: 10 sheets
	Default value	0

COPIER> OPTION> CLEANING		
DR-CL-L		Set toner band length: Drum Clean Blade
Lv.2	Details	To set the length of toner band for preventing flipping of the Drum Cleaning Blade. Increase the value when noise comes from the Photosensitive Drum due to the flipping. If the length of toner band gets longer, flipping can be prevented, but toner consumption is increased. When 0 is set, toner band is not formed.
	Use case	- When noise comes from the Photosensitive Drum - When low productivity or high toner consumption is pointed out by the user
	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	0 to 100 0: OFF, 1: 1 mm, 2: 2 mm, ..., 100: 100 mm
	Unit	1 mm
	Default value	10
DR-CL-T		Set toner band form intvl:Drum Cln Blade
Lv.2	Details	To set the interval to form toner band for preventing flipping of the Drum Cleaning Blade. Decrease the value when noise comes from the Photosensitive Drum due to the flipping. If the interval to form toner band is decreased, flipping can be prevented, but toner consumption is increased.
	Use case	- When noise comes from the Photosensitive Drum - When 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	-3 to 5
	Unit	10000 mm
	Default value	0
ITB-CL-L		Set toner band length: ITB Clean Blade
Lv.2	Details	To set the length of toner band for preventing flipping of the ITB Cleaning Blade. Increase the value when noise comes from the ITB due to the flipping. If the length of toner band gets longer, flipping can be prevented, but toner consumption is increased. When 0 is set, toner band is not formed.
	Use case	- When noise comes from the ITB - When low productivity or high toner consumption is pointed out by the user
	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	0 to 100 0: OFF, 1: 1 mm, 2: 2 mm, ..., 100: 100 mm
	Unit	1 mm
	Default value	10

COPIER> OPTION> CLEANING		
ITB-CL-T		Set toner band form intvl: ITB Cln Blade
Lv.2	Details	To set the interval to form toner band for preventing flipping of the ITB Cleaning Blade. Decrease the value when noise comes from the ITB due to the flipping. If the interval to form toner band is decreased, flipping can be prevented, but toner consumption is increased.
	Use case	- When noise comes from the ITB - When 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	-3 to 5
	Unit	10000 mm
	Default value	0

T-8-46

■ ENV-SET

COPIER> OPTION> ENV-SET		
ENVP-INT		Temp, humid &Fix Film temp log get cycle
Lv.1	Details	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
	Use case	At trouble analysis
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 480
	Default value	60
	Related service mode	COPIER> DISPLAY> ENVRNT

T-8-47

■ FEED-SW

COPIER> OPTION> FEED-SW		
EVLP-SPD		Envelope feeding speed setting
Lv.1	Details	To set the envelope feeding speed. 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 2/3 speed, adhesion can be prevented, but fixing might be deteriorated in a low temperature environment. Because paper interval is widened at 2/3 speed, productivity is not changed. This service mode is enabled only when feeding paper from the Cassette 1.
	Use case	When a glue flap of envelope adheres
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	The fixing is deteriorated by setting 2/3 speed in a low temperature environment.
	Display/adj/set range	0 to 1 0: 1/2 speed, 1: 2/3 speed
	Default value	0
EVLP-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 envelope, and increase the value when wrinkles occur.
	Use case	When fine line displacement or wrinkles occur on trailing edge while feeding envelope
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Be sure to change the value a little at a time. Otherwise, fine line displacement/wrinkles occur when setting an extreme value.
	Display/adj/set range	-20 to 20
	Unit	0.1 %
	Default value	0
	Related service mode	COPIER> OPTION> FEED-SW> EVLP-SPD

T-8-48

■ NETWORK

COPIER> OPTION> NETWORK		
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
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

COPIER> OPTION> NETWORK		
STS-PORT		ON/OFF of TOT sync status comctn port
Lv.2	Details	To set ON/OFF for Inquiry/Response (sync)-mode status communication port with T.O.T. Select "1: ON" in the case of connecting the PC and the machine with the cross cable while Service NAVI is used.
	Use case	When the Service NAVI is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> NETWORK> CMD-PORT
	Supplement/memo	T.O.T: TUIF over TCP. Communication protocol to be used for communication with the built-in application (UI) and the internal application such as COPY/ SEND/ BOX, etc. (Canon's own protocol).
CMD-PORT		ON/OFF 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).
NS-CMD5		Limit CRAM-MD5 auth method at SMTP auth
Lv.2	Details	To restrict use of CRAM-MD5 authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.

COPIER> OPTION> NETWORK		
NS-GSAPI		Limit GSSAPI auth method at SMTP auth
Lv.2	Details	To restrict use of GSSAPI authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-NTLM		Limit NTLM auth method at SMTP auth
Lv.2	Details	To restrict use of NTLM authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-PLNWS		Limit PLAIN/LOGIN auth: 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.

COPIER> OPTION> NETWORK		
NS-PLN		Limit PLAIN auth at SMTP auth noencry
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.
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	1 to 65535
	Default value	8000

COPIER> OPTION> NETWORK		
CHNG-STS		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	1 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.
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

COPIER> OPTION> NETWORK		
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
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

COPIER> OPTION> NETWORK		
IFX-CHIG		Set operation by IFAX recv e-mail text
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 char
	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	1 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 are under management. SPD values can be initialized without clearing SRAM.
	Use case	At the time of SPD value mismatch when IPSec Board is added
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	SPD: Database that manages SA (Security Association). SPD value is managed when IPSec Board is used. Normally, SRAM needs to be cleared in the case of mismatch in SPD value.
NCONF-SW		ON/OFF of Network Configurator function
Lv.1	Details	To set ON/OFF of Network Configurator function. If the user does not use the function, select OFF to prevent remote attack through network.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Supplement/memo	Network Configurator function is a function to be used for communication with NetSpot Device Installer, etc., and the network setting can be changed from the remote.
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	1 second
	Default value	5
	Supplement/memo	IKE: Internet Key Exchange
IPSDEBLV		For R&D

COPIER> OPTION> NETWORK		
SP-LINK		Mode setting at 1W sleep
Lv.1	Details	To set the condition to shit to sleep mode When 0 is set, 10base-T standby is executed, therefore standby power 1W can be realized. When 1 is set, the machine enters sleep mode after negotiation (same as conventional machines).
	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: 10base-T standby, 1: Shift to sleep mode after negotiation
	Default value	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
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

COPIER> OPTION> NETWORK		
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/multicast TX
Lv.1	Details	To set whether to permit transmission of broadcast packets and multicast packets. Transmission of broadcast packets and multicast packets is permitted without specifying an exception address. It is permitted within the device even if it is rejected in the default setting of the IPv4/v6 transmission filter. Set "1: Disabled" when the user does not want to send them.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 5 0: Enabled, 1: Disabled, 2 to 5: Not used
	Default value	0
PFWFTPRT		Set of RST reply at IP filter FTP SEND
Lv.1	Details	When FTP SEND is executed using an IP filter by which packets from a specific remote PC are rejected, SYN is returned to the port 113 if the PC supports authentication of the FTP port 113. However, since the IP filter blocks the packets, the block logs are increased and the performance is lowered. When 1 is set, RST is returned to the port 113 without blocking packets.
	Use case	When executing FTP SEND against the OS which supports authentication of the FTP port 113 while the IP filter is enabled
	Adj/set/operate method	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> 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.
	Caution	With IPv6, use of MTU which size is less than 1280 bytes is not recommended by RFC. Therefore, when setting IPv6 to ON and MTU to 7 or smaller, communication using IPv6 may not be available.
	Display/adj/set range	1 to 10 1: 600 bytes, 2: 700 bytes, ..., 9: 1400 bytes, 10: 1500 bytes
	Unit	100 byte
	Default value	10
	Supplement/memo	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.)
DDNSINTV		Set of DDNS periodical update interval
Lv.1	Details	The registered contents are deleted in an environment where the DNS server settings are deleted at intervals. To set the interval of DDNS periodical update for not deleting the registered contents.
	Use case	When the DNS server settings are deleted at intervals
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 48 0: No periodical update, 1: 1-hour interval, 2: 2-hour interval, ..., 47: 47-hour interval, 48: 48-hour interval
	Unit	1 hour
	Default value	24
	Supplement/memo	DDNS (Dynamic Domain Name System): A system to dynamically register and manage the IP addresses which are dynamically allocated and their host names

COPIER> OPTION> NETWORK		
PRCLTYPE		Setting of dedicated protocol type
Lv.2	Details	To set the type of dedicated protocol (CPCA protocol). When 1 is set, only the commands where security has been improved are accepted, whereas conventional commands are rejected.
	Use case	Upon user's request (for customization) - Job assignment from Print/Scan/Fax driver at department management - AiRFAX transmission job assignment - Setting/changing of system administrator function from a remote utility such as Iwemc
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	With TYPE 1, compatibility with conventional drivers and iW products may be lost.
	Display/adj/set range	0 to 1 0: TYPE 0 (Compatible in conventional manner), 1: TYPE 1
	Default value	0
VLAN-SW		ON/OFF VLAN participation packets send
Lv.2	Details	To set whether to send packets for participating in dynamic VLAN. Packets are sent at startup, when LAN cable is connected or when the device recovers from deep sleep.
	Use case	When participating in dynamic VLAN
	Adj/set/operate method	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 (Packets are not sent.), 1: ON (Packets are sent.)
	Default value	0
	Related service mode	COPIER> OPTION> NETWORK> VLAN-PKT
	Supplement/memo	VLAN (Virtual LAN): A method for realizing grouping of terminals depending on the HUB, switch connection port, MAC address, protocol, etc. If IP address of the machine has not been set, an IP address is assigned after participating in VLAN.

COPIER> OPTION> NETWORK		
VLAN-PKT		No. of VLAN participation packet to send
Lv.2	Details	To set the number of packets for participating in VLAN. 3 sets of packets multiplied by the setting value are sent.
	Use case	When participating in dynamic VLAN
	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 is ignored when the setting is made not to send packets for participating in VLAN (VLAN-SW=0).
	Display/adj/set range	0 to 10
	Default value	1
	Related service mode	COPIER> OPTION> NETWORK> VLAN-SW
	Supplement/memo	VLAN (Virtual LAN): A method for realizing grouping of terminals depending on the HUB, switch connection port, MAC address, protocol, etc. If IP address of the machine has not been set, an IP address is assigned after participating in VLAN.
FTPMODE		Set of FTP print default operation mode
Lv.1	Details	To set the default operation mode of FTP print. Switch the default operation mode between ASCII mode and BIN mode in accordance with user's environment. Depending on the client application, FTP print becomes available without executing BIN command.
	Use case	At installation
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: ASCII mode, 1: BIN mode
	Default value	0
SSLMODE		Setting of HTTP/HTTPS port open/close
Lv.2	Details	To set whether to open or close HTTP/HTTPS port. When 1 is set, HTTP port is opened whereas HTTPS port is closed. When 2 is set, HTTP port is closed whereas HTTPS port is opened.
	Use case	When limiting the port to open because of security concern
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Normal, 1: Open HTTP port (80/8000) only, 2: Open HTTPS port (443/8443) only
	Default value	0

COPIER> OPTION> NETWORK		
SSLSTRNG		Allow weak encryption algorithm for SSL
Lv.2	Details	To set whether to allow using weak encryption algorithm for SSL. When 1 is set, weak encryption algorithm cannot be used.
	Use case	When prohibiting weak encryption algorithm because of security concern
	Adj/set/operate method	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: Secure mode (Not used TLS_RSA_WITH_RC4_128_SHA, TLS_RSA_WITH_RC4_128_MD5)
	Default value	0

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■ CUSTOM

COPIER> OPTION> CUSTOM		
TEMP-TBL		Fixing control temperature:Plain paper 1
Lv.1	Details	To set the offset of fixing control temperature for plain paper 1 (60 to 75 g/m2). As the value is incremented by 1, the control temperature is increased by 5 deg C. Increase the value when a fixing failure occurs. Decrease the value when fixing offset occurs.
	Use case	When offset/fixing failure occurs on plain paper 1
	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	Be sure to change the value a little at a time. Otherwise, offset/image failure occurs when setting an extreme value.
	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
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.
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
DEV-SP1		For R&D
DEV-SP2		For R&D
DEV-SP3		For R&D
DEV-SP4		For R&D
DEV-SP5		For R&D
DEV-SP6		For R&D
DEV-SP7		For R&D
DEV-SP8		For R&D

COPIER> OPTION> CUSTOM		
FAN-POST		Dup Cool Fan oprtn time:aftr 1-sided fd
Lv.2	Details	To set the operation time of the Duplex Cooling Fan after performing 1-sided feeding. As the value is larger, water droplets occurred on the Feed Path during 1-sided printing can be removed, but downtime is increased.
	Use case	When an image failure (droplet mark) occurs due to condensation after feeding moistened paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Downtime occurs.
	Display/adj/set range	0 to 3 0: OFF, 1: 15 seconds, 2: 30 seconds, 3: 60 seconds
	Default value	0
RDEV-SP1		RCON device special settings 1
Lv.2	Details	To execute the device special setting.
	Use case	For customization
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
RDEV-SP2		RCON device special settings 2
Lv.2	Details	To execute the device special setting.
	Use case	For customization
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
RDEV-SP3		RCON device special settings 3
Lv.2	Details	To execute the device special setting.
	Use case	For customization
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
RDEV-SP4		RCON device special settings 4
Lv.2	Details	To execute the device special setting.
	Use case	For customization
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0

COPIER> OPTION> CUSTOM		
RDEV-SP5		RCON device special settings 5
Lv.2	Details	To execute the device special setting.
	Use case	For customization
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
RDEV-SP6		RCON device special settings 6
Lv.2	Details	To execute the device special setting.
	Use case	For customization
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
RDEV-SP7		RCON device special settings 7
Lv.2	Details	To execute the device special setting.
	Use case	For customization
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
RDEV-SP8		RCON device special settings 8
Lv.2	Details	To execute the device special setting.
	Use case	For customization
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
MEAO-JBO		ON/OFF of MEAP appli continuous reading
Lv.2	Details	To set whether to receive continuous reading jobs from MEAP application.
	Use case	When performing continuous reading from MEAP application
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	Continuous reading is available only with MEAP application.

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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		ON/OFF 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
	Related UI menu	Preferences> Timer/Energy Settings> Auto Sleep Time
	Supplement/memo	The time to shift to the sleep mode can be set in Settings/ Registration> Preferences> Timer/Energy Settings> Auto Sleep Time.
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	N/A (Display only)
	Caution	Display only. No change is available.
	Display/adj/set range	0 to 999 0: Not registered
	Default value	Refer to the specification of counter display because it differs according to the model or 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	Refer to the specification of counter display because it differs according to the model or 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	Refer to the specification of counter display because it differs according to the model or 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	Refer to the specification of counter display because it differs according to the model or 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 date/time display format
Lv.2	Details	To set date/time display format according to the country or region. After the display format is set with this mode, the order of date is reflected to the followings: Preferences> Timer/Energy Settings> Date/Time Settings, and report output.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: YYMM/DD, 1: DD/MMYY, 2: MM/DD/YY
	Default value	According to the setting at shipment
	Related UI menu	Preferences> Timer/Energy Settings> Date/Time Settings
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
	Related service mode	COPIER > OPTION > ACC > COIN
CNT-DISP		Display/hide of serial number
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

COPIER> OPTION> USER		
P-CRG-LF		ON/OFF of Drum Unit life warning display
Lv.1	Details	To set whether to display a warning message when the Drum Unit reaches its life. By selecting 1, a warning message is displayed on the status line of LUI when the COPIER> COUNTER> LF> Y/M/C/K-DRM-LF value reaches 95.
	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 service mode	COPIER> COUNTER> LF> Y/M/C/K-DRM-LF COPIER> OPTION> FNC-SW> D-DLV-BK/CL
	Supplement/memo	Display timing can be adjusted by COPIER> OPTION> FNC-SW> D-DLV-BK/CL.
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 Settings/Registration. 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 UI menu	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

COPIER> OPTION> USER		
CNT-SW		Set default dspl 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
	Related service mode	COPIER> OPTION> FNC-SW> CONFIG
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	Charge 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) Execute COPIER> FUNCTION> CLEAR> JV-CACHE. 3) 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	JP:0, USA:0, EUR:2, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Function Settings> Copy> Select Color Settings for Copy> Use Auto (Color/Black)

COPIER> OPTION> USER		
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
FREG-SW		Dspl/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.

COPIER> OPTION> USER		
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 UI menu	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 Settings/ Registration.
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 UI menu	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 Settings/ Registration.

COPIER> OPTION> USER		
MEAPSAFE		Setting of MEAP safe mode
Lv.2	Details	To set safe mode for MEAP platform. MPSF is displayed on the Control Panel in safe mode. In safe mode, MEAP application is stopped while just the system application, which starts with initial state, is activated. This mode enables obtaining log for cause analysis of MEAP failure.
	Use case	Perform system recovery processing when MEAP platform fails to be activated due to resource confliction between MEAP applications, service registration or use order
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal mode, 1: Safe mode
	Default value	0
AFN-PSWD		Access limt set to Settings/Registration
Lv.2	Details	To set to restrict password entry when accessing to Settings/ Registration. 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

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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. When 8 is set, line width can be uniformed (strokeadjust = ON).
	Use case	Upon a request from user using PS 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 65535 0 to 7: No use of Adobe genuine PS (used with compatible PS machine) 8: Set strokeadjust = ON 9 to 65535: Spare
	Default value	0
CNCT-RLZ		Setting of connection serialize function
Lv.2	Details	Connection serialize is a function to assure job grouping function of imageWARE Output Manager Select Edition V1.0. The setting to enable this mode can avoid job rearrangement because the machine does not receive job data from other connection until it completes job data reception from the current connection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	Connection: Connection to be established through network between multiple hosts (PC, etc). Job grouping function: A function of imageWARE Output Manager Select Edition V1.0. This is to prevent job interruption from other PC by group job (sending multiple jobs in 1 session at job transmission).

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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.
	Use case	When supporting 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	JP:0, USA:1, EUR:1, AU:1, CN:1, KR:1, TW:1, ASIA:1
JA-FUNC		ON/OFF of job archive function
Lv.2	Details	To set ON/OFF of job archive function.
	Use case	When using the job archive function
	Adj/set/operate method	Display only. No change is available.
	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

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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.
	Use case	When using the job archive function
	Adj/set/operate method	Display only. No change is available.
	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.
	Use case	When using the job archive function
	Adj/set/operate method	Display only. No change is available.
	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 32 specification restrictions with Bit definition Bit0: Function to obtain image file (0: OFF, 1:ON) Bit1: Function to compose form registration (0: OFF, 1: ON) Bit2: Function to edit document (0:OFF, 1: ON)
	Default value	0
	Related service mode	COPIER> OPTION> USER> JA-FUNC
LDAP-SW		Search 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
	Related service mode	COPIER> OPTION> USER> LDAP-DEF
	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

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FROM-OF		Deletion of mail sender's field
Lv.1	Details	To set whether to delete the sender's field (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.
	Caution	Even if 1 is set, sender's field is added depending on the e-mail server settings.
	Display/adj/set range	0 to 1 0: Retained, 1: Deleted
	Default value	0
DOM-ADD		Additional entry of e-mail destn domain
Lv.2	Details	To set to automatically add the domain specified in Settings/Registration to the sending address (To) entered at the time of e-mail transmission. If specifying "xxx.com" as a domain in Settings/Registration 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
FILE-OF		File send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of file transmission. File transmission is not available by entering the address because of no display of "File" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0

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MAIL-OF		Mail send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of e-mail transmission. E-mail transmission is not available by entering the address because of no display of “E-Mail” on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
IFAX-OF		IFAX send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of I-Fax transmission. IFAX transmission is not available by entering the address because of no display of “I-Fax” on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
LDAP-DEF		Initial condtn set of LDAP server search
Lv.1	Details	To set initial condition for search target attribute that is specified at the time of LDAP server Details search.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 6 0: Name, 1: E-mail, 2: FAX, 3: Organization, 4: Organization unit, 5: No registration 1 (any setting), 6: No registration 2 (any setting)
	Default value	0
	Related service mode	COPIER> OPTION> USER> LDAP-SW
	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

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FREE-DSP		Display/hide of charge disable screen
Lv.2	Details	To set whether to display or hide the Use Charge Management screen for switching between charge and no charge. The hardware switch for switching charge/no charge in the Coin Manager enables the mode in which all the services are available for free (store manager mode) by temporarily releasing the charging system. Even without the hardware switch, the mode can be switched with the software switch when it is set to display the Use Charge Management screen in Settings/Registration.
	Use case	When enabling all the services to be provided for free by temporarily releasing the charging system
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
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	To support billing to customers who use a lot of toner.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Hide 1: Display (Toner Container counter only) 2: Not used 3: Display (Toner Container counter 07x and 18x)
	Default value	0
CLR-TIM		Set of HDD Encry Kit data delete timing
Lv.2	Details	To set the timing to completely delete the data when HDD Encryption Kit is used. Selecting 0 may reduce the job processing speed because page data that has been already processed is deleted while the other job is in process, causing overload to CPU and HDD access. Selecting 1 improves the job processing speed because the process is executed after a job is completed.
	Use case	Upon request to improve the job processing speed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: During job process, 1: After the job is completed
	Default value	0

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JA-FORMT		Display of job archive record format
Lv.2	Details	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.
	Use case	Upon user's request
	Adj/set/operate method	Display only. No change is available.
	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: Packet JPEG, 1: Raster JPEG
	Default value	0
HDCR-DSW		Dspl/hide of HDD complete delete ON/OFF
Lv.1	Details	To set whether to display or hide "Hard Disk Data Complete Deletion" in Settings/Registration. With this setting, HDD data complete deletion function is available with ON/OFF button on the screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not change the setting carelessly because the user (administrator) cannot use the HDD data complete deletion function when 0 is set.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
	Related UI menu	Management Settings> Data Management> HDD Data Complete Deletion> Hard Disk Data Complete Deletion
BWCL-DSP		ON/OFF of color/B&W selection screen
Lv.2	Details	To set whether to display the color/B&W selection screen to select the default of the color mode.
	Use case	When displaying the color mode default selection 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: OFF, 1: ON
	Default value	0

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STPL-MAX		Set of max number of sheets for staple
Lv.2	Details	To set the maximum number of sheets to be stapled in the Finisher. When 1 is set, the stapling capacity becomes 50 sheets.
	Use case	Upon user's request (to increase the stapling capacity)
	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 misalignment or jam may occur depending on the degree of paper curl.
	Display/adj/set range	0 to 1 0: 30 sheets, 1: 50 sheets
	Default value	0
SCALL-SW		[Not used]
SCALLCMP		[Not used]
USBH-DSP		Display/hide of "Use USB Host"
Lv.2	Details	To set whether to display "Preferences> External Interface> USB Settings> Use USB Host". By selecting "1: Display", whether to use USB host on USB 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 UI menu	Preferences> EXternal Interface> USB Settings> Use USB Host
USBM-DSP		Dspl/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 UI menu	Preferences> External Interface> USB Settings> Use MEAP Driver for USB External Device

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USBI-DSP		Dspl/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 UI menu	Preferences> External Interface> USB Settings> Use MEAP Driver for USB Input Device
CTCHKDSP		Display/hide of Print List
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
USBR-DSP		Dspl/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 UI menu	Preferences> External Interface> USB Settings> Use MEAP Driver for USB Infrared Device

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POL-SCAN		Dspl/hide 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	JP:1, USA:0, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
JA-SBOX		Setting of linking with Advanced Box:SAM
Lv.2	Details	To set the link with Advanced Box when iW SAM is enabled. When 1 is set, linking with Advanced Box is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-DFAX		Setting of direct fax transmission: SAM
Lv.2	Details	To set the direct fax transmission when iW SAM is enabled. When 1 is set, the direct fax transmission is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-REP		Setting of TX Report with image: SAM
Lv.2	Details	To set the TX Report with image when iW SAM is enabled. When 1 is set, the TX Report with image is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0

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JA-FREP		Setting of Fax TX Report with image: SAM
Lv.2	Details	To set the Fax TX Report with image when iW SAM is enabled. When 1 is set, the Fax TX Report with image is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-BOX		Setting of Inbox document operation: SAM
Lv.2	Details	To set the operation for Inbox document at the time of iW SAM When 1 is set, the Inbox document can be operated.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-FORM		Setting of image composition: SAM
Lv.2	Details	To set the image composition when iW SAM is enabled. When 1 is set, the image composition is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PREV		Setting of preview page deletion: SAM
Lv.2	Details	To set whether a page is deleted from the scan preview screen at the time of iW SAM When 1 is set, a page is deleted from the scan preview screen.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PULL		Setting of network scan: SAM
Lv.2	Details	To set the network scan when iW SAM is enabled. When 1 is set, the network scan is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0

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JA-PDLB		Set of printer driver multi box save:SAM
Lv.2	Details	To set whether a document can be simultaneously saved to multiple Inboxes from the printer driver at the time of iW SAM. When 1 is set, a document can be saved to multiple Inboxes from the printer driver.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-JOBK		Setting of job merge allowance:SAM
Lv.2	Details	To set whether merging jobs is allowed when iW SAM is enabled. When 1 is set, jobs can be merged.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-JDF		Setting of JDF: SAM
Lv.2	Details	To set the use of JDF when iW SAM is enabled. When 1 is set, JDF can be used.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-RUI		Setting of Inbox document access: SAM
Lv.2	Details	To set the Inbox document access from remote UI at the time of iW SAM When 1 is set, accessing to the Inbox document from remote UI is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0

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JA-WEB		Setting of Inbox document upload: SAM
Lv.2	Details	To set the Inbox document upload with the Web browser at the time of iW SAM. When 1 is set uploading to the Inbox document with the Web Browser is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
EXP-CRYP		Confdntial encrypt ON/OFF:add book exprt
Lv.1	Details	To set whether to encrypt the confidential part (password part) in the Address Book when exporting the address book and device settings via RUI. When 0 is set, the confidential part in the address book is exported without encryption.
	Use case	When there is a need to export password without encryption because of operation and tool
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure not to allow the user to execute export without encryption because of security concern.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
SMD-EXPT		Setting of export target data: remote UI
Lv.1	Details	To set whether to export “service mode data” from remote UI. When 1 is set, “service mode data” is displayed as the target data of export on remote UI. When installing more than 1 machine at the same time, the same service mode data can be registered.
	Use case	When installing more than 1 machine at the same 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: Hide, 1: Display
	Default value	0
	Supplement/memo	If selecting “service mode data” as the target data of export on remote UI after setting SMD-EXPT to 1, service mode data can be exported.

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SNDSTREN		Set of setting delete aftr scan and send
Lv.1	Details	To set whether to delete the transmission settings except for the address after transmission from the “Scan and Send” 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: Delete, 1: Retain
	Default value	JP:1, USA:0, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
FAXSTREN		Set of setting delete aftr fax transmit
Lv.1	Details	To set whether to delete the transmission settings except for the address after transmission from the “Fax” 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: Delete, 1: Retain
	Default value	JP:1, USA:0, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
PRTDP-SW		Set delivery side for 1-page job:2-sided
Lv.1	Details	To set whether to deliver paper face-up or face-down when printing only 1 page although 2-sided print is set. When 0 is set, paper is delivered face-down like 1-sided job. (Paper does not pass through the Duplex Path.) When 1 is set, paper is delivered face-up via the Duplex Path. Distance of paper feeding becomes longer so productivity is decreased.
	Use case	When changing the delivery side of 1-page print although 2-sided print is set
	Adj/set/operate method	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: Face-down delivery, 1: Face-up delivery
	Default value	0

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■ CST

COPIER> OPTION> CST		
U1-NAME		Dspl/hide ppr name in ppr size group U1
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	1
U2-NAME		Dspl/hide ppr name in ppr size group U2
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	1
CST1-P1		Setting of Cst1 paper size (A5R/STMTR)
Lv.1	Details	To set the paper size (A5R/STMTR) used in Cassette 1.
	Use case	When setting the paper size for the Cassette 1
	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	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection
CST2-P1		Setting of Cst2 paper size (A5R/STMTR)
Lv.1	Details	To set the paper size (A5R/STMTR) used in Cassette 2.
	Use case	When setting the paper size for the Cassette 2
	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	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection
CST3-P1		Setting of Cst3 paper size (A5R/STMTR)
Lv.1	Details	To set the paper size (A5R/STMTR) used in Cassette 3.
	Use case	When setting the paper size for the 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	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection

COPIER> OPTION> CST		
CST4-P1		Setting of Cst4 paper size (A5R/STMTR)
Lv.1	Details	To set the paper size (A5R/STMTR) used in Cassette 4.
	Use case	When setting the paper size for the 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	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection
CST1-U1		Set Cst1 area-spec stdrd size ppr ctgry1
Lv.1	Details	To set the area-specific standard size paper category 1 used in Cassette 1.
	Use case	When setting area-specific standard size paper for the Cassette 1
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 42 0 to 23 : Not use, 24: FLSC, 25: A-FLS, 26: OFI, 28: B-OFI, 34: G-LGL, 37: M-OFI, 42: FA4
	Default value	0
CST1-U2		Set Cst1 area-spec stdrd size ppr ctgry2
Lv.1	Details	To set the area-specific standard size paper category 2 used in Cassette 1.
	Use case	When setting area-specific standard size paper for the Cassette 1
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 44 0 to 13: Not use, 14: B5R, 23: K-LGLR, 32: G-LTRR, 41: 16KR, 44: EXECR
	Default value	JP:44, USA:44, EUR:44, AU:44, CN:41, KR:44, TW:44, ASIA:44
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection
CST2-U1		Set Cst2 area-spec stdrd size ppr ctgry1
Lv.1	Details	To set the area-specific standard size paper category 1 used in Cassette 2.
	Use case	When setting area-specific standard size paper for the 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 use, 24: FLSC, 25: A-FLS, 26: OFI, 28: B-OFI, 34: G-LGL, 37: M-OFI, 42: FA4
	Default value	0
CST2-U2		Set Cst2 area-spec stdrd size ppr ctgry2
Lv.1	Details	To set the area-specific standard size paper category 2 used in Cassette 2.
	Use case	When setting area-specific standard size paper for the Cassette 2
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 44 0 to 13: Not use, 14: B5R, 23: K-LGLR, 32: G-LTRR, 41: 16KR, 44: EXECR
	Default value	JP:44, USA:44, EUR:44, AU:44, CN:41, KR:44, TW:44, ASIA:44
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection

COPIER> OPTION> CST		
CST3-U1		Set Cst3 area-spec stdrd size ppr ctgry1
Lv.1	Details	To set the area-specific standard size paper category 1 used in Cassette 3.
	Use case	When setting area-specific standard size paper for the 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 use, 24: FLSC, 25: A-FLS, 26: OFI, 28: B-OFI, 34: G-LGL, 37: M-OFI, 42: FA4
	Default value	0
CST3-U2		Set Cst3 area-spec stdrd size ppr ctgry2
Lv.1	Details	To set the area-specific standard size paper category 2 used in Cassette 3.
	Use case	When setting area-specific standard size paper for the Cassette 3
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 44 0 to 13: Not use, 14: B5R, 23: K-LGLR, 32: G-LTRR, 41: 16KR, 44: EXECR
	Default value	JP:44, USA:44, EUR:44, AU:44, CN:41, KR:44, TW:44, ASIA:44
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection
CST4-U1		Set Cst4 area-spec stdrd size ppr ctgry1
Lv.1	Details	To set the area-specific standard size paper category 1 used in Cassette 4.
	Use case	When setting area-specific standard size paper for the 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 use, 24: FLSC, 25: A-FLS, 26: OFI, 28: B-OFI, 34: G-LGL, 37: M-OFI, 42: FA4
	Default value	0
CST4-U2		Set Cst4 area-spec stdrd size ppr ctgry2
Lv.1	Details	To set the area-specific standard size paper category 2 used in Cassette 4.
	Use case	When setting area-specific standard size paper for the Cassette 4
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 44 0 to 13: Not use, 14: B5R, 23: K-LGLR, 32: G-LTRR, 41: 16KR, 44: EXECR
	Default value	JP:44, USA:44, EUR:44, AU:44, CN:41, KR:44, TW:44, ASIA:44
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection

T-8-52

■ 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
	Related UI menu	Function Settings> Send> E-Mail/I-Fax Settings> Communication Settings Preferences> Network> TCP/IP Settings> DNS Settings> FTP Print Settings, IPP Print Settings
	Supplement/memo	Control card can be used with “0: No charge”. DA: Digital Accessory

COPIER> OPTION> ACC		
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
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
UNIT-PRC		Setting of Coin Manager currency unit
Lv.2	Details	To set currency unit to be handled with Coin Manager
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 6 0: Japanese yen, 1: Euro, 2: Pound, 3: Swiss Franc. 4: Dollar, 5: No currency unit (no fractional unit), 6: No currency unit (with fractional unit)
	Default value	0

COPIER> OPTION> ACC		
MIN-PRC		Set of Coin Manager minimum price
Lv.1	Details	To set the minimum amount to be handled with Coin Manager. Enter 10 when specifying 10 Japanese yen as the minimum amount to be handled with the Coin Manager that supports Japanese yen. In the case to specify 1 to 4 (Euro/Pound/Swiss Franc/Dollar) by going through the following: COPIER> OPTION> ACC> UNIT-PRC, entry is in fractional unit. Entry of 50 indicates 50 cents ($ 0.50).
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This mode is enabled when selecting 4 for the following: COPIER> OPTION> ACC> COIN.
	Display/adj/set range	0 to 9999
	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 menu.
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
	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 menu.

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
PDL-THR		Norm PDL print set: External charge mode
Lv.2	Details	To set the normal PDL print process when the external charge mode 6/7 is set in COIN. When “0” is set, a job is canceled. When “1” is set, a job is executed.
	Use case	When executing normal PDL print in external charge 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: Cancel, 1: Execute
	Default value	0
	Related service mode	COPIER> OPTION> ACC> COIN
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

COPIER> OPTION> ACC		
OPCST-BA		Set Cst Pedestal not connect error stop
Lv.2	Details	To set whether to stop the error that occurs when the Cassette Pedestal has not yet been connected. When 1 is set, the error does not occur even though operation check is performed only for the host machine.
	Use case	When performing operation check for the host machine with no option cassette connected at the time of installation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Be sure to return the value to 0 before the machine is used by the user.
	Display/adj/set range	0 to 1 0: Normal, 1: Error not displayed
	Default value	0

T-8-53

■ 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.
	Use case	When using PC application
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 5
	Default value	5
	Supplement/memo	Expected PC application: Network print application, E-mail function, cascade copy, MEAP network application, etc.

T-8-54

■ LCNS-TR

COPIER> OPTION> LCNS-TR		
ST-SEND		Installation state dspl of SEND function
Lv.2	Details	To display installation state of SEND function when disabling the function with license transfer.
	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	According to the setting at shipment
TR-SEND		Trns license key dspl of SEND function
Lv.2	Details	To display transfer license key to use SEND function when the function is disabled with license transfer.
	Use case	- When replacing the 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		Install state display of encrypted PDF
Lv.2	Details	To display installation state of encrypted PDF transmission function when disabling the function with license transfer.
	Use case	When checking whether encrypted PDF transmission function 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	According to the setting at shipment
TR-ENPDF		Trns license key dspl of encrypted PDF
Lv.2	Details	To display transfer license key to use encrypted PDF transmission function when the function is disabled with license transfer.
	Use case	- When replacing the 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		Install state display of searchable PDF
Lv.2	Details	To display installation state of searchable PDF transmission function when disabling the function with license transfer.
	Use case	When checking whether searchable PDF transmission function 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	According to the setting at shipment
TR-SPDF		Trns license key dspl of searchable PDF
Lv.2	Details	To display transfer license key to use searchable PDF transmission function when the function is disabled with license transfer.
	Use case	- When replacing the 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		Install state display of PDF Expansion
Lv.2	Details	To display installation state of PDF Expansion Kit when disabling the function with license transfer.
	Use case	When checking whether PDF Expansion Kit 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	According to the setting at shipment
	Supplement/memo	PDF Expansion Kit: encryption PDF + searchable PDF
TR-EXPDF		Trns license key dspl of PDF Expansion
Lv.2	Details	To display transfer license key to use PDF Expansion Kit when the function is disabled with license transfer.
	Use case	- When replacing the 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
	Supplement/memo	PDF Expansion Kit: encryption PDF + searchable PDF

COPIER> OPTION> LCNS-TR		
ST-PDFDR		Install state dspl of direct print PDF
Lv.2	Details	To display installation state of direct print PDF function when disabling the function with license transfer.
	Use case	When checking whether direct print PDF function 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	According to the setting at shipment
TR-PDFDR		Trns lcns key dspl of direct print PDF
Lv.2	Details	To display transfer license key to use direct print PDF function when the function is disabled with license transfer.
	Use case	- When replacing the 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 dspl of encry secure print
Lv.2	Details	To display installation state of encrypted secure print when disabling the function with license transfer.
	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	According to the setting at shipment
TR-SCR		Trns license key dspl: encry secure pnt
Lv.2	Details	To display transfer license key to use encrypted secure print when the function is disabled with license transfer.
	Use case	- When replacing the 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 dspl of BarDIMM function
Lv.2	Details	To display installation state of BarDIMM when disabling the function with license transfer.
	Use case	When checking whether BarDIMM 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	According to the setting at shipment
TR-BRDIM		Trns lcns key dspl of BarDIMM function
Lv.2	Details	To display transfer license key to use BarDIMM when the function is disabled with license transfer.
	Use case	- When replacing the 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 dspl of Remote Oprtr Soft
Lv.2	Details	To display installation state of Remote Operators Software when disabling the function with license transfer.
	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	According to the setting at shipment
TR-VNC		Trns lcns key dspl:Remote Operators Soft
Lv.2	Details	To display transfer license key to use Remote Operators Software when the function is disabled with license transfer.
	Use case	- When replacing the 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

COPIER> OPTION> LCNS-TR		
ST-WEB		Install state dspl: Web Access Software
Lv.2	Details	To display installation state of Web Access Software when disabling the function with license transfer.
	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	According to the setting at shipment
TR-WEB		Trns license key dspl of Web Access Soft
Lv.2	Details	To display transfer license key to use Web Access Software when the function is disabled with license transfer.
	Use case	- When replacing the 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 dspl of high compress PDF
Lv.2	Details	To display installation state of high compression PDF function when disabling the function with license transfer.
	Use case	When checking whether high compression PDF function 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	According to the setting at shipment
TR-HRPDF		Trns lcns key dspl of high compress PDF
Lv.2	Details	To display transfer license key to use high compression PDF function when the function is disabled with license transfer.
	Use case	- When replacing the 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 dspl: trial SEND function
Lv.2	Details	To display installation state of trial SEND function when disabling the function with license transfer.
	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	According to the setting at shipment
TR-TRSND		Trns lcns key dspl: trial SEND function
Lv.2	Details	To display transfer license key to use trial SEND function when the function is disabled with license transfer.
	Use case	- When replacing the 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 dspl of secure watermark
Lv.2	Details	To display installation state of secure watermark function when disabling the function with license transfer.
	Use case	When checking whether secure watermark function 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	According to the setting at shipment
TR-WTMRK		Trns license key dspl: secure watermark
Lv.2	Details	To display transfer license key to use secure watermark function when the function is disabled with license transfer.
	Use case	- When replacing the 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

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ST-TSPDF		Install state dspl of time stamp PDF: JP
Lv.2	Details	To display installation state of time stamp PDF transmission function (JP only) when disabling the function with license transfer.
	Use case	When checking whether time stamp PDF transmission function (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	According to the setting at shipment
TR-TSPDF		Trns lcns key dspl of time stamp PDF: JP
Lv.2	Details	To display transfer license key to use time stamp PDF transmission function (JP only) when the function is disabled with license transfer.
	Use case	- When replacing the 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 dspl of dgtl user sign PDF
Lv.2	Details	To display installation state of digital user signature PDF transmission function when disabling the function with license transfer.
	Use case	When checking whether digital user signature PDF transmission function 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	According to the setting at shipment
TR-USPDF		Trns lcns key dspl of dgtl user sign PDF
Lv.2	Details	To display transfer license key to use digital user signature PDF transmission function when the function is disabled with license transfer.
	Use case	- When replacing the 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

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ST-DVPDF		Install state dspl of device sign PDF
Lv.2	Details	To display installation state of device signature PDF transmission function when disabling the function with license transfer.
	Use case	When checking whether device signature PDF transmission function 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	According to the setting at shipment
TR-DVPDF		Trns lcns key dspl of device sign PDF
Lv.2	Details	To display transfer license key to use device signature PDF transmission function when the function is disabled with license transfer.
	Use case	- When replacing the 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 dspl of scalable PDF
Lv.2	Details	To display installation state of scalable PDF transmission function when disabling the function with license transfer.
	Use case	When checking whether scalable PDF transmission function 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	According to the setting at shipment
TR-SCPDF		Trns license key dspl of scalable PDF
Lv.2	Details	To display transfer license key to use scalable PDF transmission function when the function is disabled with license transfer.
	Use case	- When replacing the 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

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ST-AMS		Installation state display of AMS
Lv.2	Details	To display installation state of AMS when disabling the function with license transfer.
	Use case	When checking whether AMS 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	According to the setting at shipment
TR-AMS		Transfer license key display of AMS
Lv.2	Details	To display transfer license key to use AMS when the function is disabled with license transfer.
	Use case	- When replacing the 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 dspl: E-RDS 3rd pty expnsn
Lv.2	Details	To display installation state of E-RDS 3rd party expansion function when disabling the function with license transfer.
	Use case	When checking whether E-RDS 3rd party expansion function 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	According to the setting at shipment
	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 dspl: E-RDS 3rd pty expnsn
Lv.2	Details	To display transfer license key to use E-RDS 3rd party expansion function when the function is disabled with license transfer.
	Use case	- When replacing the 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.

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ST-PS		Install state display of PS function
Lv.2	Details	To display installation state of PS function when disabling the function with license transfer.
	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	According to the setting at shipment
TR-PS		Transfer license key dspl of PS function
Lv.2	Details	To display transfer license key to use PS function when the function is disabled with license transfer.
	Use case	- When replacing the 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 disabling the function with license transfer.
	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 dspl: PCL function
Lv.2	Details	To display transfer license key to use PCL function when the function is disabled with license transfer.
	Use case	- When replacing the 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

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ST-PSLI5		Installation state display of PS/UFR II
Lv.2	Details	To display installation state of PS/UFR II function when disabling the function with license transfer.
	Use case	When checking whether PS/UFR II 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		Transfer license key dspl of PS/UFR II
Lv.2	Details	To display transfer license key to use PS/UFR II function when the function is disabled with license transfer.
	Use case	- When replacing the 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		Installation state display of UFR II
Lv.2	Details	To display installation state of UFR II function when disabling the function with license transfer.
	Use case	When checking whether UFR II function 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	According to the setting at shipment
TR-LIPS5		Transfer lcns key dspl: UFR II function
Lv.2	Details	To display transfer license key to use UFR II function when the function is disabled with license transfer.
	Use case	- When replacing the 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 disabling the function with license transfer.
	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	According to the setting at shipment
TR-LIPS4		Trns license key dspl of LIPS4 func: JP
Lv.2	Details	To display transfer license key to use LIPS4 function (JP only) when the function is disabled with license transfer.
	Use case	- When replacing the 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 dspl of PS/PCL function
Lv.2	Details	To display installation state of PS/PCL function when disabling the function with license transfer.
	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	According to the setting at shipment
TR-PSPCL		Transfer license key dspl of PS/PCL func
Lv.2	Details	To display transfer license key to use PS/PCL function when the function is disabled with license transfer.
	Use case	- When replacing the 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

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ST-PCLUF		Install state dspl: PCL/UFR II function
Lv.2	Details	To display installation state of PCL/UFR II function when disabling the function with license transfer.
	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	According to the setting at shipment
TR-PCLUF		Trns license key dspl of PCL/UFR II func
Lv.2	Details	To display transfer license key to use PCL/UFR II function when the function is disabled with license transfer.
	Use case	- When replacing the 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		Installation state dspl of PS function
Lv.2	Details	To display installation state of PS function when disabling the function with license transfer.
	Use case	When checking whether PS function 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	According to the setting at shipment
TR-PSLIP		Transfer license key dspl of PS function
Lv.2	Details	To display transfer license key to use PS function when the function is disabled with license transfer.
	Use case	- When replacing the 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

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ST-PSPCU		Install state dspl of PS/PCL/UFR II func
Lv.2	Details	To display installation state of PS/PCL/UFR II function when disabling the function with license transfer.
	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	According to the setting at shipment
TR-PSPCU		Trns lcns key dspl of PS/PCL/UFR II func
Lv.2	Details	To display transfer license key to use PS/PCL/UFR II function when the function is disabled with license transfer.
	Use case	- When replacing the 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 display of UFR II function
Lv.2	Details	To display installation state of UFR II function when disabling the function with license transfer.
	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	According to the setting at shipment
TR-LXUFR		Trns license key dspl of UFR II function
Lv.2	Details	To display transfer license key to use UFR II function when the function is disabled with license transfer.
	Use case	- When replacing the 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

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ST-HDCR2		Install state dspl:HDD Init All Data/Set
Lv.2	Details	To display installation state of HDD Initialize All Data/Settings when disabling the function with license transfer.
	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.
	Caution	Do not change the setting because HDD Initialize All Data/Settings are set as a standard.
	Display/adj/set range	When operation finished normally: OK!
	Default value	According to the setting at shipment
TR-HDCR2		Trns lcns key dspl:HDD Init All Data/Set
Lv.2	Details	To display transfer license key to use HDD Initialize All Data/Settings when the function is disabled with license transfer.
	Use case	- When replacing the 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.
	Caution	Do not change the setting because HDD Initialize All Data/Settings are set as a standard.
	Display/adj/set range	24 digits
ST-JBLK		Install state dspl of Document Scan Lock
Lv.2	Details	To display installation state of Document Scan Lock when disabling the function with license transfer.
	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	According to the setting at shipment
TR-JBLK		Trns lcns key dspl of Document Scan Lock
Lv.2	Details	To display transfer license key to use Document Scan Lock when the function is disabled with license transfer.
	Use case	- When replacing the HDD - When replacing the device
	Adj/set/operate method	1) Select ST-JBLK. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-JBLK.
	Display/adj/set range	24 digits

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ST-AFAX		Installation state display of remote fax
Lv.2	Details	To display installation state of remote fax client function when disabling the function with license transfer.
	Use case	When checking whether remote fax client function 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	According to the setting at shipment
TR-AFAX		Transfer license key dspl of remote fax
Lv.2	Details	To display transfer license key to use remote fax client function when the function is disabled with license transfer.
	Use case	- When replacing the HDD - When replacing the device
	Adj/set/operate method	1) Select ST-AFAX. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-AFAX.
	Display/adj/set range	24 digits
ST-REPDF		Install state dspl:reader extensions PDF
Lv.2	Details	To display installation state of reader extensions PDF function when disabling the function with license transfer.
	Use case	When checking whether reader extensions PDF function 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	According to the setting at shipment
TR-REPDF		Trns lcns key dspl:reader extensions PDF
Lv.2	Details	To display transfer license key to use reader extensions PDF function when the function is disabled with license transfer.
	Use case	- When replacing the 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

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ST-OOXML		Install state display of Office Open XML
Lv.2	Details	To display installation state of Office Open XML transmission function when disabling the function with license transfer.
	Use case	When checking whether Office Open XML transmission function 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	According to the setting at shipment
TR-OOXML		Trns lcns key display of Office Open XML
Lv.2	Details	To display transfer license key to use Office Open XML when the function is disabled with license transfer.
	Use case	- When replacing the 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
ST-XPS		Install state dspl of direct print XPS
Lv.2	Details	To display installation state of direct print XPS when disabling the function with license transfer.
	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 dspl of direct print XPS
Lv.2	Details	To display transfer license key to use direct print XPS when the function is disabled with license transfer.
	Use case	- When replacing the 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

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ST-2600		Instal state dspl: IEEE2600.1 scrty func
Lv.2	Details	To display installation state of security function of IEEE2600.1 when disabling the function with license transfer.
	Use case	When checking whether security function of IEEE2600.1 is installed
	Adj/set/operate method	1) Select ST-2600. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-2600.
	Display/adj/set range	When operation finished normally: OK!
	Default value	According to the setting at shipment
TR-2600		Trn lcns key dspl: IEEE2600.1 scrty func
Lv.2	Details	To display transfer license key to use security function of IEEE2600.1 when the function is disabled with license transfer.
	Use case	- When replacing the HDD - When replacing the device
	Adj/set/operate method	1) Select ST-2600. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-2600.
	Display/adj/set range	24 digits
ST-OPFNT		Install state display of PCL function
Lv.2	Details	To display installation state of PCL Font Set when disabling the function with license transfer.
	Use case	When checking whether PCL Font Set is installed
	Adj/set/operate method	1) Select ST-OPFNT. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-OPFNT.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
	Supplement/memo	PCL Font Set can be installed only at installation by service technician or at pre-installation. When replacing the HDD, check that AndaleFont is displayed by going through the following: Settings/Registration> Function Settings> Printer> Output Report> PCL> Font List.

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TR-OPFNT		Trns license key dspl of PCL function
Lv.2	Details	To display transfer license key to use PCL Font Set when the function is disabled with license transfer.
	Use case	- When replacing the HDD - When replacing the device
	Adj/set/operate method	1) Select ST-OPFNT. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-OPFNT.
	Display/adj/set range	24 digits
	Supplement/memo	PCL Font Set can be installed only at installation by service technician or at pre-installation. When replacing the HDD, check that AndaleFont is displayed by going through the following: Settings/Registration> Function Settings> Printer> Output Report> PCL> Font List.

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TEST

PG

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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: YMCBk 64 gradations 13: For R&D use 14: Full color 16 gradations 15 to 100: For R&D use
	Default value	0
TXPH		Setting of test print image mode
Lv.1	Details	To set the image mode at the time of test print output. This mode is enabled for test print only.
	Use case	At trouble analysis
	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)

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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		C-color output setting at test print
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/single 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: Single color
	Default value	0

COPIER> TEST> PG		
PG-PICK		Setting of test print paper source
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: Multi-purpose Tray, 6 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
	Default value	0
PG-QTY		Setting of PG output quantity
Lv.1	Details	To set the number of sheets for PG output.
	Use case	At trouble analysis
	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-8-56

NETWORK

COPIER> TEST> NETWORK		
PING		Network connection check
Lv.1	Details	To check connection between this machine and TCP/IP network.
	Use case	- When checking network connection at the time of installation - At network connection failure
	Adj/set/operate method	1) Turn OFF the main power switch. 2) Connect the network cable to this machine, and then turn ON the main power switch. 3) Inform the system administrator at user's site that installation of this machine is complete, and ask for network setting. 4) Ask the system administrator to check the network connection, and check the remote host address of PING transmission target. 5) Select the item and enter the remote host address, and then press OK key and Start key. OK: Connection is normal. Checking procedure is complete. NG: Connection failed. Go to step 6) if the cable connection is OK. In case of cable connection failure, connect again and then go to step 5). 6) Select the item and enter loopback address, and then press OK key and Start key. OK: TCP/IP setting of this machine is normal. Go to step 7) to check NIC. NG: TCP/IP setting of this machine has failure. Go to step 3) to check the setting again. 7) Select the item and enter the local host address, and then press OK key. OK: Network setting of this machine and NIC are normal. Inform the system administrator that the trouble is due to network environment and ask for countermeasure. NG: Connection failure/fault with NIC. Check connection of NIC/ replace NIC.
	Display/adj/set range	0.0.0.0 to 255.255.255.255 At normal state: OK At failure occurrence: NG
	Supplement/memo	- Remote host address: IP address of PC terminal in network. - Loopback address: 127.0.0.1. Checking TCP/IP of this machine is available because the signal is returned before NIC. - NIC: Network interface board - Local host address: IP address of this machine
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

COPIER> TEST> NETWORK		
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.
	Use case	When checking the network connection condition in the IPv6 environment
	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 to 9, a to f) and a separator (:).
	Display/adj/set range	Valid IPv6 address
	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.
	Use case	When checking the network connection condition in the IPv6 environment
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
	Related service mode	COPIER> TEST> NETWORK> IPV6-ADR

T-8-57

COUNTER

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
	Use case	When checking the counter
	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
	Use case	When checking the counter
	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
	Use case	When checking the counter
	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
	Use case	When checking the counter
	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
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999
BOX-PRT		Inbox print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at Inbox print. Large size: 1, small size: 1
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999
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
	Use case	When checking the counter
	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
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999
SCAN		Scan counter
Lv.1	Details	To count the number of scan operations according to the charge counter when the scanning operation is complete. Large size: 1, small size: 1
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999

T-8-58

PICK-UP

COPIER> COUNTER> PICKUP		
C1		Cassette 1 pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Use case	When checking the Pickup counter
	Display/adj/set range	0 to 99999999
	Unit	1 sheet
	Default value	0
C2		Cassette 2 pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Use case	When checking the Pickup counter
	Display/adj/set range	0 to 99999999
	Unit	1 sheet
C3		Cassette 3 pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Use case	When checking the Pickup counter
	Display/adj/set range	0 to 99999999
	Unit	1 sheet
	Default value	0
C4		Cassette 4 pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Use case	When checking the Pickup counter
	Display/adj/set range	0 to 99999999
	Unit	1 sheet
	Default value	0
MF		Multi-purpose Tray pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Use case	When checking the Pickup counter
	Display/adj/set range	0 to 99999999
	Unit	1 sheet
2-SIDE		2-sided pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Use case	When checking the Pickup counter
	Display/adj/set range	0 to 99999999
	Unit	1 sheet

T-8-59

FEEDER

COPIER> COUNTER> FEEDER		
FEED		DADF original pickup total counter
Lv.1	Details	DADF original pickup total counter
	Use case	When checking the total counter of original pickup by DADF
	Display/adj/set range	0 to 99999999
	Unit	1 sheet

T-8-60

JAM

COPIER> COUNTER> JAM		
TOTAL		Printer total jam counter
Lv.1	Details	Checking the total jam counter of printer
	Use case	When checking the total jam counter of printer
	Display/adj/set range	0 to 99999999
	Unit	1 time
FEEDER		Feeder total jam counter
Lv.1	Details	Checking the total jam counter of feeder
	Use case	When checking the total jam counter of feeder
	Display/adj/set range	0 to 99999999
	Unit	1 time
SORTER		Finisher total jam counter
Lv.1	Details	Checking the total jam counter of finisher
	Use case	When checking the total jam counter of finisher
	Display/adj/set range	0 to 99999999
	Unit	1 time
2-SIDE		Duplex Unit jam counter
Lv.1	Details	Checking the jam counter of Duplex Unit
	Use case	When checking the jam counter of Duplex Unit
	Display/adj/set range	0 to 99999999
	Unit	1 time
MF		Multi-purpose Tray jam counter
Lv.1	Details	Checking the jam counter of Multi-purpose Tray
	Use case	When checking the jam counter of Multi-purpose Tray
	Display/adj/set range	0 to 99999999
	Unit	1 time
C1		Cassette 1 pickup jam counter
Lv.1	Details	Checking the jam counter of machine's Cassette 1
	Use case	When checking the jam counter of machine's Cassette 1
	Display/adj/set range	0 to 99999999
	Unit	1 time
C2		Cassette 2 pickup jam counter
Lv.1	Details	Checking the jam counter of machine's Cassette 2
	Use case	When checking the jam counter of machine's Cassette 2
	Display/adj/set range	0 to 99999999
	Unit	1 time
C3		Cassette 3 pickup jam counter
Lv.1	Details	Checking the jam counter of machine's Cassette 3
	Use case	When checking the jam counter of machine's Cassette 3
	Display/adj/set range	0 to 99999999
	Unit	1 time
C4		Cassette 4 pickup jam counter
Lv.1	Details	Checking the jam counter of machine's Cassette 4
	Use case	When checking the jam counter of machine's Cassette 4
	Display/adj/set range	0 to 99999999
	Unit	1 time

T-8-61

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
	Display/adj/set range	0 to 99999999
	Unit	1 block
	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
	Display/adj/set range	0 to 99999999
	Unit	1 block
	Default value	0
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
	Display/adj/set range	0 to 99999999
	Unit	1 block
	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
	Display/adj/set range	0 to 99999999
	Unit	1 block
	Default value	0
ALLPW-ON		For R&D
HDD-ON		Number of HDD start-up times
Lv.1	Details	To count up at HDD start-up.
	Use case	When checking the usage status of the product
	Display/adj/set range	0 to 99999999
	Unit	1 time
ST-NDL		Staple needle counter: Fin-C1
Lv.1	Details	To count the use of the staple needle.
	Use case	When checking the usage status of the staple needle.
	Display/adj/set range	0 to 99999999
	Unit	1 time

COPIER> COUNTER> MISC		
ENT-PTH		Finisher feed path counter
Lv.1	Details	Paper pass counter on the Finisher feed path
	Use case	- When checking the number of fed sheets - When replacing the Finisher
	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	- Be sure to clear the counter value when replacing the Finisher. - Do not clear the counter value when replacing the Buffer Path.
	Display/adj/set range	0 to 99999999
	Unit	1 sheet
SUC-A-Y		For R&D
SUC-A-M		For R&D
SUC-A-C		For R&D
SUC-A-K		For R&D

T-8-62

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.
	Use case	When checking the average paper length of job.
	Display/adj/set range	0 to 99999999
	Unit	1 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.
	Use case	When checking the average distance of job.
	Display/adj/set range	0 to 99999999
	Unit	1 mm

T-8-63

DRBL-1

COPIER> COUNTER> DRBL-1		
LSR-DRV		Laser Scanner 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
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	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	1 sheet
	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

COPIER> COUNTER> DRBL-1		
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
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
	Unit	1 sheet
	Default value	0
C1-FD-RL		Cassette 1 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	1 sheet
	Default value	0
M-PU-RL		Multi-purpose Tray Pickup Roll prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	1 sheet
	Default value	0

COPIER> COUNTER> DRBL-1		
M-SP-RL		Multi-purpose Tray Sprtn Roll prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	1 sheet
	Default value	0
M-FD-RL		Multi-purpose Tray Feed Roll prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	1 sheet
	Default value	0
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
	Unit	1 sheet
	Default value	0
MN-DR-U		Main Drive 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

COPIER> COUNTER> DRBL-1		
TNB-DRV1		Bottle Drive Unit 1 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
TNB-DRV2		Bottle Drive Unit 2 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
HOPPER-K		Hopper (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
HOPPER-Y		Hopper (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

COPIER> COUNTER> DRBL-1		
HOPPER-M		Hopper (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
HOPPER-C		Hopper (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-U		Regist/Paper 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
EXIT-U		Inner Delivery 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

COPIER> COUNTER> DRBL-1		
RDOOR-U		Right Inner 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
WST-TNR		Waste Toner Container parts counter
Lv.2	Details	Total counter value from the previous replacement
	Use case	When checking the consumption level of 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	1 sheet
	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

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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	1 sheet
	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	1 sheet
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
C3-PU-RL		Cassette 3 Pickup Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	1 sheet
	Default value	0

COPIER> COUNTER> DRBL-2		
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	1 sheet
	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
	Default value	0
C4-PU-RL		Cassette 4 Pickup Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	1 sheet
	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	1 sheet
	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
	Default value	0
C2-PU-RL		Cassette 2 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
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
	Unit	1 sheet
	Default value	0
C2-FD-RL		Cassette2 Feeding 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	1 sheet
	Default value	0

COPIER> COUNTER> DRBL-2		
FIN-MPDL		Paddle 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
FIN-SPDL		Paper Return Paddle 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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■ V-CNTR

COPIER> COUNTER> V-CNTR		
TOTAL		Video count total counter
Lv.1	Details	To display the total of video count values (YELLOW + MAGENTA + CYAN + BLACK).
	Use case	When checking distribution of video count
	Adj/set/operate method	N/A (Display only)
	Supplement/memo	Video count: The number of sheets for each image ratio classification (LOW/MID/HIGH) for each color on a A4 size conversion basis which is stored in the controller A sheet of large size paper with 5% image ratio is counted as “small size with 10% image ratio x 1 sheet”.
YELLOW		Video count Y counter
Lv.1	Details	To display the number of sheets (small size: 1, large size: 1) as the distribution of Y-color image ratio (LOW: less than 3%, MID: 3% or higher and less than 7%, HIGH: 7% or higher).
	Use case	When checking distribution of video count
	Adj/set/operate method	N/A (Display only)
	Supplement/memo	Video count: The number of sheets for each image ratio classification (LOW/MID/HIGH) for each color on a A4 size conversion basis which is stored in the controller A sheet of large size paper with 5% image ratio is counted as “small size with 10% image ratio x 1 sheet”.
MAGENTA		Video count M counter
Lv.1	Details	To display the number of sheets (small size: 1, large size: 1) as the distribution of M-color image ratio (LOW: less than 3%, MID: 3% or higher and less than 7%, HIGH: 7% or higher).
	Use case	When checking distribution of video count
	Adj/set/operate method	N/A (Display only)
	Supplement/memo	Video count: The number of sheets for each image ratio classification (LOW/MID/HIGH) for each color on a A4 size conversion basis which is stored in the controller A sheet of large size paper with 5% image ratio is counted as “small size with 10% image ratio x 1 sheet”.
CYAN		Video count C counter
Lv.1	Details	To display the number of sheets (small size: 1, large size: 1) as the distribution of C-color image ratio (LOW: less than 3%, MID: 3% or higher and less than 7%, HIGH: 7% or higher).
	Use case	When checking distribution of video count
	Adj/set/operate method	N/A (Display only)
	Supplement/memo	Video count: The number of sheets for each image ratio classification (LOW/MID/HIGH) for each color on a A4 size conversion basis which is stored in the controller A sheet of large size paper with 5% image ratio is counted as “small size with 10% image ratio x 1 sheet”.
BLACK		Video count Bk counter
Lv.1	Details	To display the number of sheets (small size: 1, large size: 1) as the distribution of Bk-color image ratio (LOW: less than 3%, MID: 3% or higher and less than 7%, HIGH: 7% or higher).
	Use case	When checking distribution of video count
	Adj/set/operate method	N/A (Display only)
	Supplement/memo	Video count: The number of sheets for each image ratio classification (LOW/MID/HIGH) for each color on a A4 size conversion basis which is stored in the controller A sheet of large size paper with 5% image ratio is counted as “small size with 10% image ratio x 1 sheet”.

T-8-66

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	1 %
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	1 %
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	1 %
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	1 %

T-8-67

FEEDER

DISPLAY

FEEDER> DISPLAY		
FEEDSIZE		Dspl of original size detected by DADF
Lv.1	Details	To display the original size detected by DADF.
	Use case	At original size detection error
	Display/adj/set range	0 to 999999

T-8-68

ADJUST

FEEDER> ADJUST		
DOCST		Adj of DADF img lead edge margin:1-sided
Lv.1	Details	To adjust the margin at the leading edge of the image at DADF 1-sided reading. As the value is incremented by 1, the margin at the leading edge of the image is decreased by 0.1 mm. (The image moves in the direction of the leading edge of the sheet.) Execute this item when the output image after DADF installation is displaced. When replacing the Scanner Unit or Controller PCB/clearing the Reader-related RAM data, enter the value of service label.
	Use case	- When installing DADF - When replacing the Scanner Unit - When clearing the Reader-related RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Be sure to use DOCSTDUP for the front side at the time of 2-sided reading.
	Display/adj/set range	-30 to 30
	Unit	0.1 mm
	Default value	0
	Related service mode	FEEDER> ADJUST> DOCSTDUP
	Supplement/memo	Since the front side reading operation differs between 1-sided and 2-sided reading, separate service modes have been prepared to improve the accuracy.
LA-SPEED		Fine adj of DADF image magnifictn: front
Lv.1	Details	To make a fine adjustment of the image magnification ratio in vertical scanning direction at DADF reading. As the value is incremented by 1, the image is reduced by 0.01% in vertical scanning direction. (The feeding speed increases, and the image is reduced.) When replacing the Scanner Unit or Main Controller PCB/clearing the Reader-related RAM data, enter the value of service label.
	Use case	- When installing DADF - When replacing the Scanner Unit - When clearing the Reader-related RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-200 to 200
	Unit	0.01 %
	Default value	0

FEEDER> ADJUST		
DOCST2		DADF img lead edge margin: back, 2-sided
Lv.1	Details	To adjust the margin at the leading edge of the image on the back side at DADF 2-sided reading. 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.) Execute this item when the output image after DADF installation is displaced. When replacing the Scanner Unit or Controller PCB/clearing the Reader-related RAM data, enter the value of service label.
	Use case	- When installing DADF - When replacing the Main 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	-30 to 30
	Unit	0.1 mm
	Default value	0
	Related service mode	FEEDER> ADJUST> DOCSTDUP
LA-SPD2		Fine adj of DADF image magnifictn: back
Lv.1	Details	To make a fine adjustment of the image magnification ratio in vertical scanning direction at DADF reading. As the value is incremented by 1, the image is reduced by 0.01% in vertical scanning direction. (The feeding speed increases, and the image is reduced.) When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.
	Use case	- When installing DADF - When replacing the Main 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	-200 to 200
	Unit	0.01 %
	Default value	0

FEEDER> ADJUST		
DOCSTDUP		DADF img lead edge margin:front, 2-sided
Lv.1	Details	To adjust the margin at the leading edge of the image on the front side at DADF 2-sided reading. 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.) Execute this item when the output image after DADF installation is displaced. When replacing the Scanner Unit or Controller PCB/clearing the Reader-related RAM data, enter the value of service label.
	Use case	- When installing DADF - When replacing the Scanner Unit - When clearing the Reader-related RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Be sure to use DOCST at the time of 1-sided reading.
	Display/adj/set range	-30 to 30
	Unit	0.1 mm
	Default value	0
	Related service mode	FEEDER> ADJUST> DOCST, DOCST2
	Supplement/memo	Since the front side reading operation differs between 1-sided and 2-sided reading, separate service modes have been prepared to improve the accuracy.

T-8-69

FUNCTION

FEEDER> FUNCTION		
FEED-CHK		Specify DADF individual feed mode
Lv.1	Details	To specify the feed mode for DADF. Feed operation is activated by FEED-ON.
	Use case	When checking the operation of the DADF Motor
	Adj/set/operate method	Enter the setting value and press OK key.
	Display/adj/set range	0 to 1 0: 1-sided pickup/delivery, 1: 2-sided pickup/delivery
	Related service mode	FEEDER> FUNCTION> FEED-ON
MTR-ON		Operation check of DADF Motor
Lv.1	Details	To drive the DADF Motor for approximately 5 seconds.
	Use case	When checking the operation of the DADF Motor
	Adj/set/operate method	1) Select the item, and then press OK key. It is driven for approximately 5 seconds and is automatically stopped. 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).
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
FEED-ON		Operation check of DADF individual feed
Lv.1	Details	To start operation check of the feed mode specified by FEED-CHK.
	Use case	When checking the operation of the DADF Motor
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	FEEDER> FUNCTION> FEED-CHK

T-8-70

SORTER

ADJUST

SORTER> ADJUST		
ST-ALG1		Adjustment of alignment position
Lv.1	Details	To adjust the alignment position. As the value is incremented by 1, the travel length of the Alignment Plate is increased by 0.25 mm.
	Use case	- When misalignment occurs - When adjusting the alignment position according to paper width and degree of paper curl
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Be sure to make an adjustment according to the paper width the user uses and degree of curl.
	Display/adj/set range	-20 to 20
	Unit	0.25 mm
	Default value	0

T-8-71

OPTION

SORTER> OPTION		
MD-SPRTN		Set restriction 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
	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: Function restriction
	Default value	0

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BOARD

OPTION

BOARD> OPTION		
MENU-1		Dspl/hide of printer set 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		[Not used]
MENU-3		Dspl/hide of printer set 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		[Not used]
TR-DSP		Hide/dspl 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. Tonercolor 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-8-73

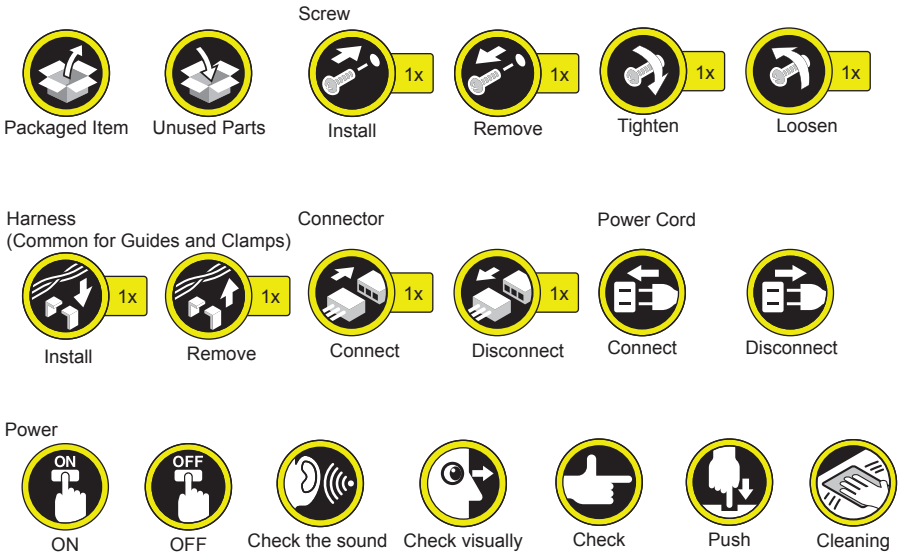
9 Installation

- How to Check this Installation Procedure
- Installation
- Document Scan Lock Kit-B1
- Serial Interface Kit-K2 / Copy Control Interface Kit-A1
- Copy Card Reader-F1
- IC Card Reader BOX-A1
- HDD Data Encryption Kit-C6
- PCL International Font Set-B1

How to Check this Installation Procedure

Symbols in the Illustration

The frequently-performed operations are described with symbols in this procedure.



F-9-1

Installation

This machine is able to be installed by the user.

For details of installation procedure, refer to the User's Manual.

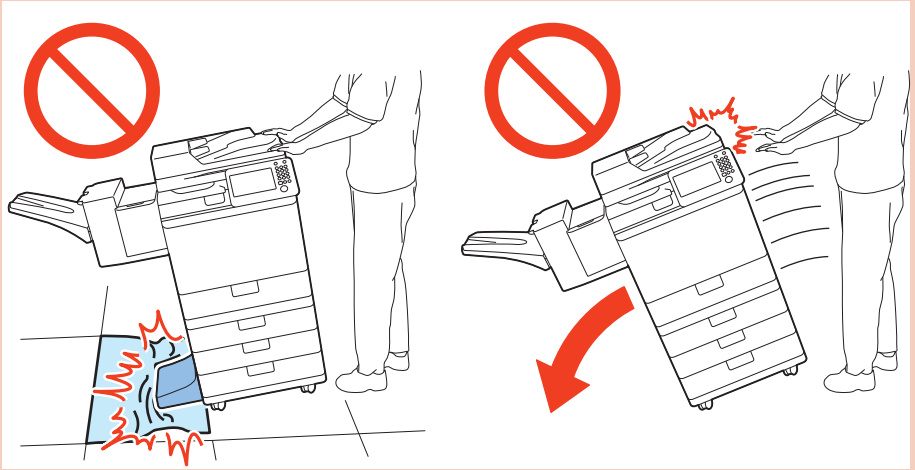
Points to Note When Relocating the Host machine

CAUTION:

If this machine with the Reinforcing Plate Cover is moved, followings may occur.

- Possibility of damaging customer's floor (carpeting, etc.)
- Possibility of overturning

Refer to the following Staple Finisher-S1 Service Manual Chapter 4 "Parts Replacement and Cleaning Procedure" > "Removing the Equipment" > "Removing the Finisher Unit from the Connected Equipment", "Removing the Reinforcing Plate Cover from the Connected Equipment" for the procedure of removal.



F-9-2

Document Scan Lock Kit-B1

Points to Note at Installation

- To enable the functions of the Image Analysis Board, the Document Scan Lock Kit-B1 which is a license option needs to be installed.
- Request the user to install the Document Scan Lock Kit-B1 which is a license option after installing the Image Analysis Board.
- When installing at the same time with the Copy Card Reader, be sure to install this equipment first.
- If the Copy Card Reader is installed, this equipment cannot be installed unless it is removed. For details of installation procedure, chapter on "Installation" in the Service Manual.

CAUTION:

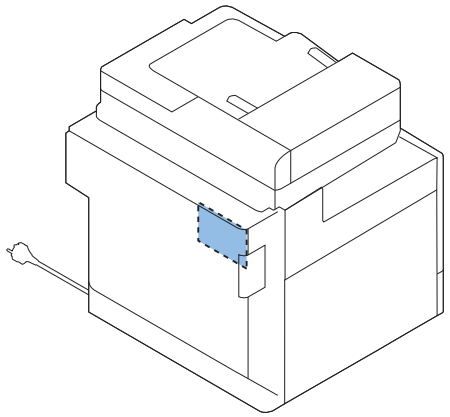
An error occurs when the license is installed before installing the Image Analysis Board, so make sure to install the license after installing the Image Analysis Board.

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

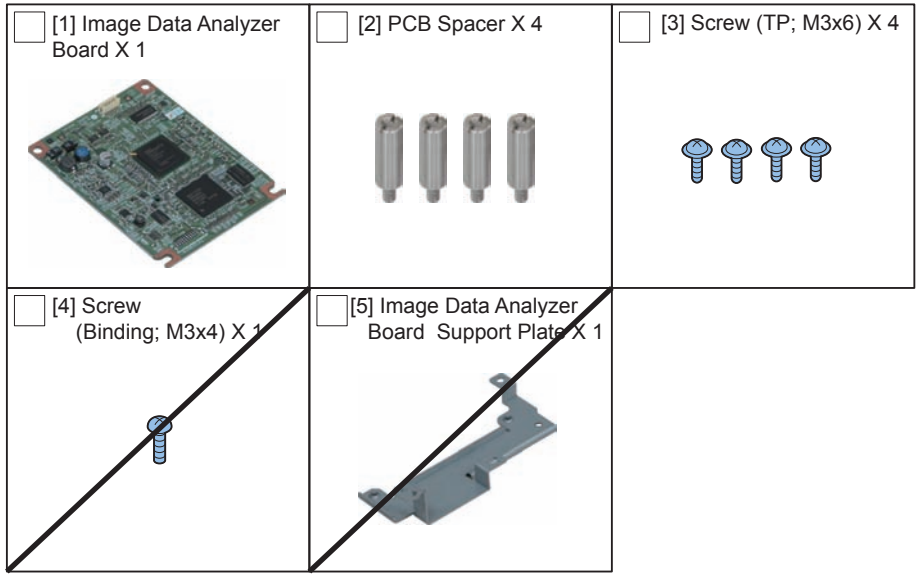
1) Turn OFF the main power switch.
2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing



F-9-3

Checking the Contents



F-9-4

< CD/Guides >

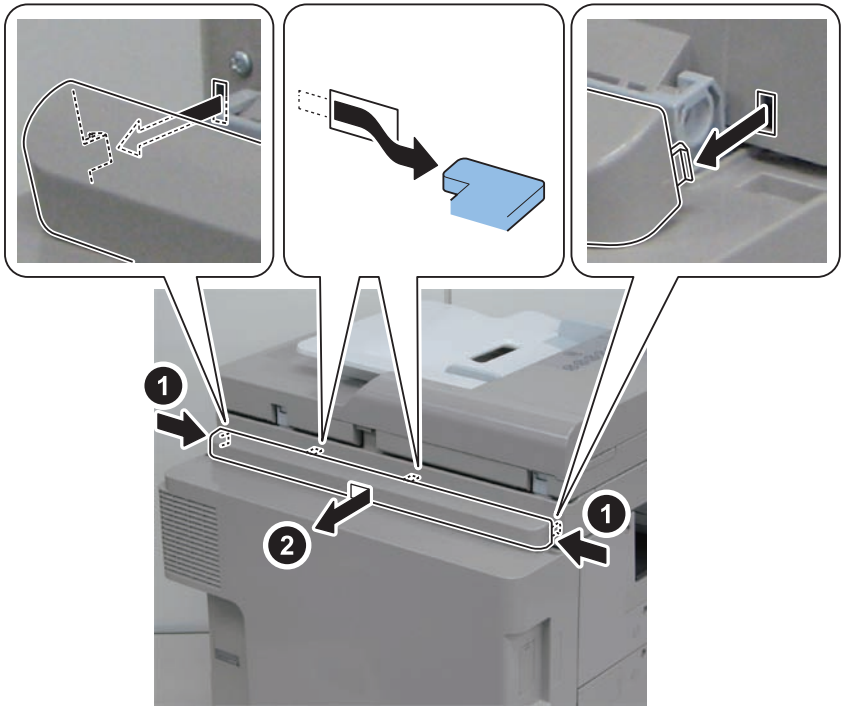
- License Access Number Certificate
- Document Scan Code Analyzer for MEAP CD
- FCC/IC sheet (only for USA/Europe)
- Notice for Delivered Installation sheet

Installation Procedure

☐

1) Remove the Reader Rear Cover. (Removed Reader Rear Cover will be used in step 13.)

- 2 Claws
- 2 Hooks



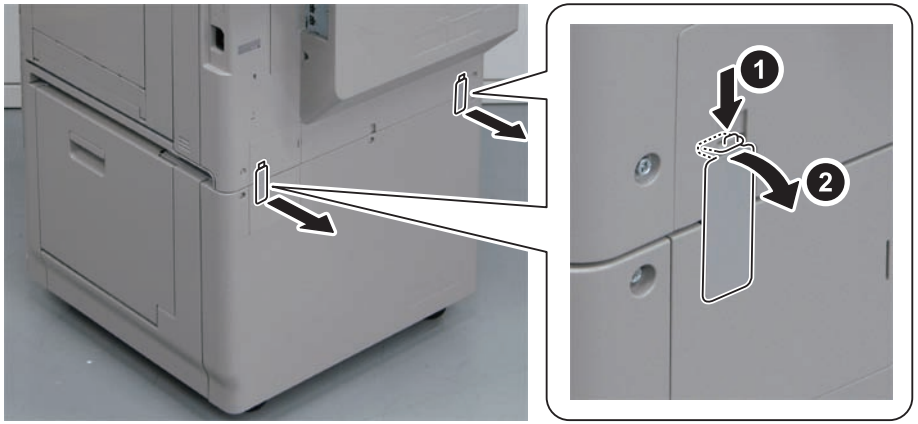
F-9-5

NOTE:
For following steps, proceed to step 2 in the case of the machine with the installed Cassette Feeding Unit and proceed to step 4 in the case of the machine without the installed Cassette Feeding Unit.

☐

2) Remove 2 Face Covers. (Removed Face Covers will be used in step 13.)

- 1 Claw each

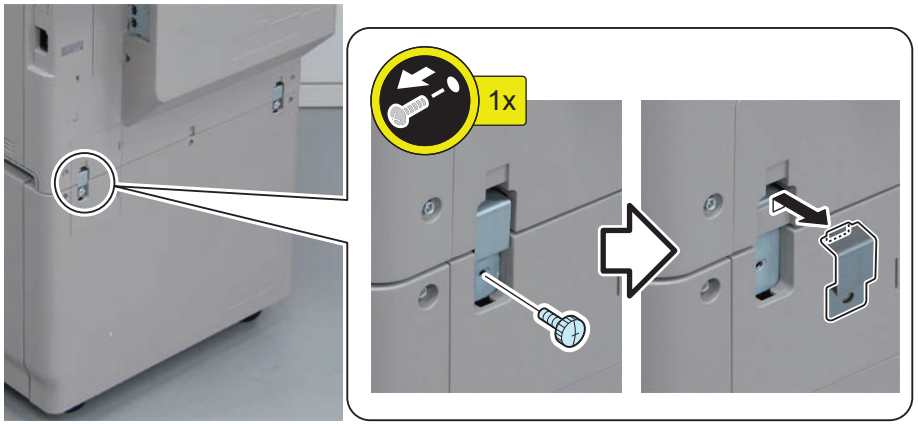


F-9-6

☐

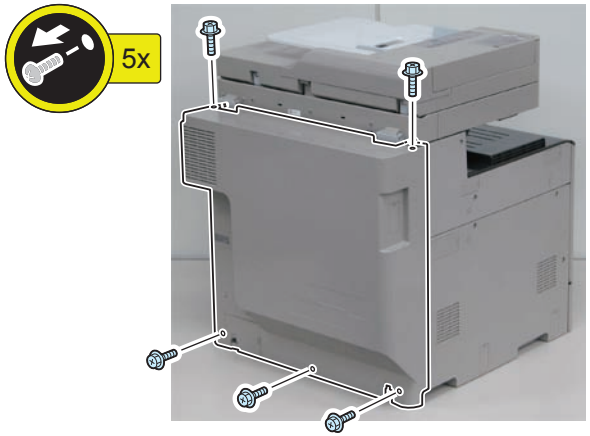
3) Remove 1 Connecting Plate. (Removed Connecting Plate will be used in step 13.)

- 1 Knurled Screw (Removed Knurled Screw will be used in step 13.)
- 1 Hook



F-9-7

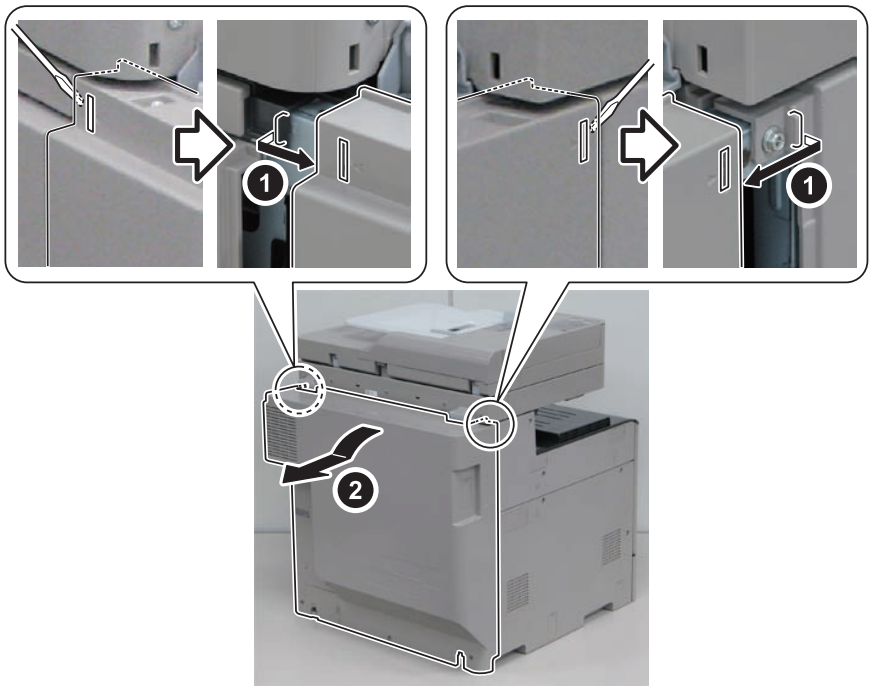
☐
4) Remove the screws of the Rear Cover. (Removed 5 screws will be used in step 13.)



F-9-8

☐
5) Remove the Rear Cover. (Removed Rear Cover will be used in step 13.)

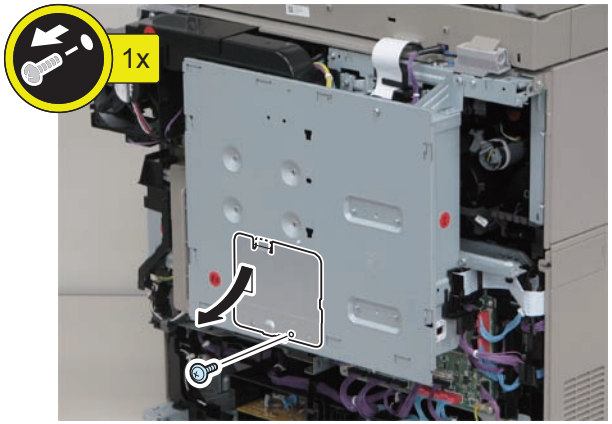
- 2 Protrusion



F-9-9

☐
6) Remove the small cover of the Controller Box Cover. (Removed small cover of the Controller Box Cover will be used in step 13.)

- 1 Screw (Removed Screw will be used in step 13.)

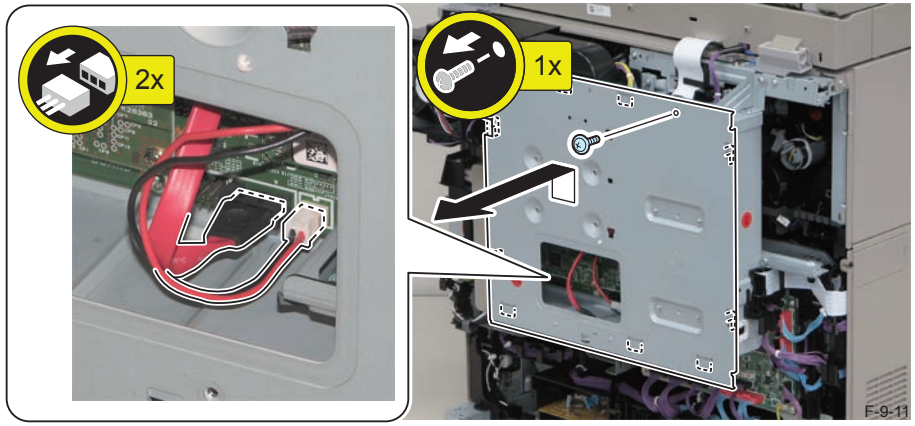


F-9-10

☐
7) Remove the Controller Box Cover.(Removed Controller Box Cover will be used in step 13.)

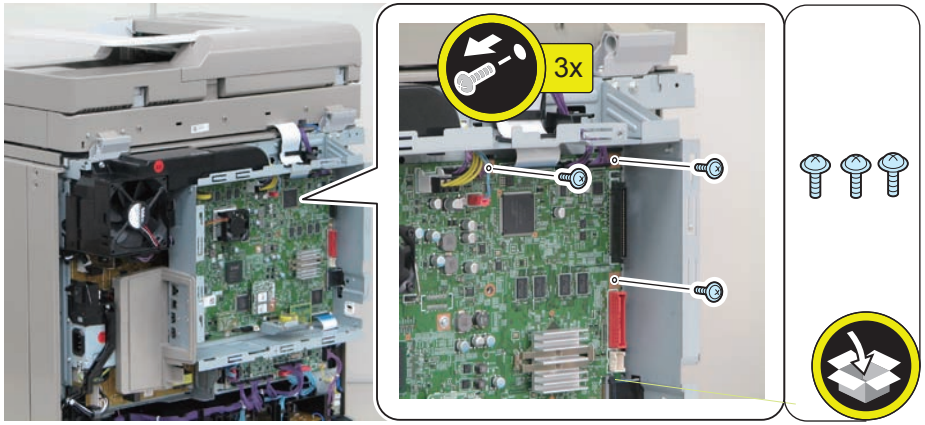
- 2 Connectors (Removed 2 Connectors will be used in step 13.)
- 1 Screw (Removed Screw will be used in step 13.)
- 10 Hooks

CAUTION:
When handling the hard disc, be careful not to vibrate or drop it.



F-9-11

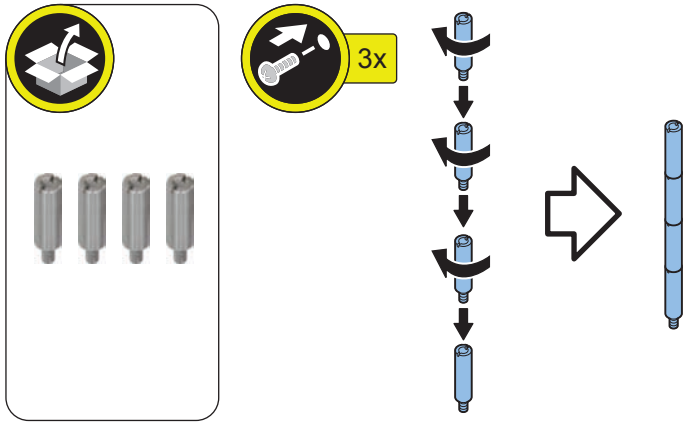
☐
8) Remove the 4 screws. (The removed screws will not be used.)



F-9-12

☐
9) Connect the 4 PCB Spacers.

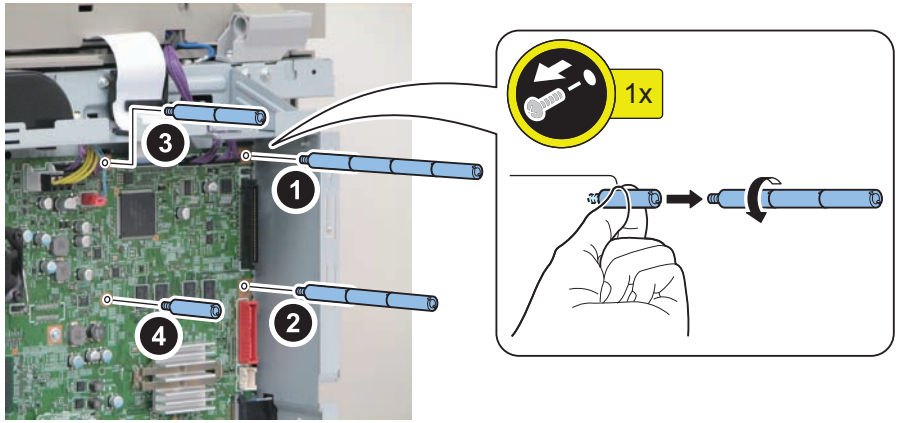
NOTE:
Be sure to connect the PCB spacers to improve work efficiency.



F-9-13

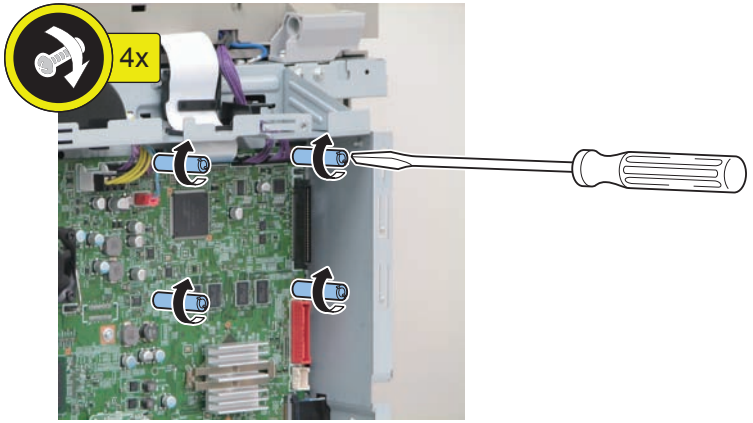
☐
10) Install the 4 PCB Spacers as shown in the figure.

NOTE:
- Be sure to install the PCB Spacers in the order of 1 to 4.
- Hold the first PCB Spacer with your fingers and remove the second and subsequent PCB Spacers.



F-9-14

☐
11) Use a flat-blade screwdriver, etc. to fully tighten the 4 PCB Spacers.

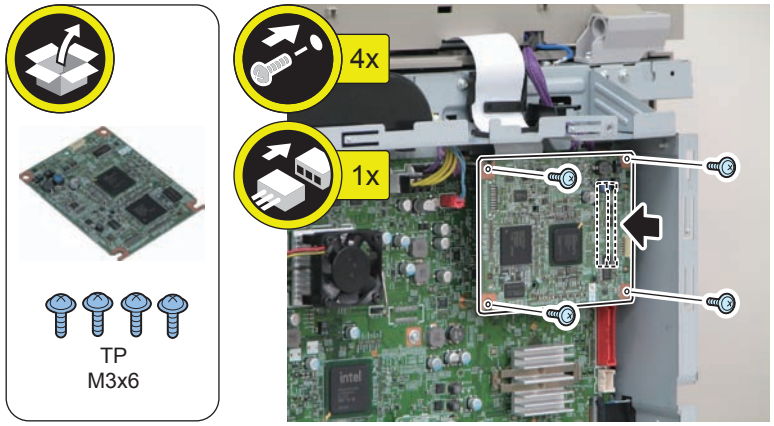


F-9-15

☐

12) Install the Image Analysis Board.

- 1 Connector
- 4 Screws (TP; M3x6)



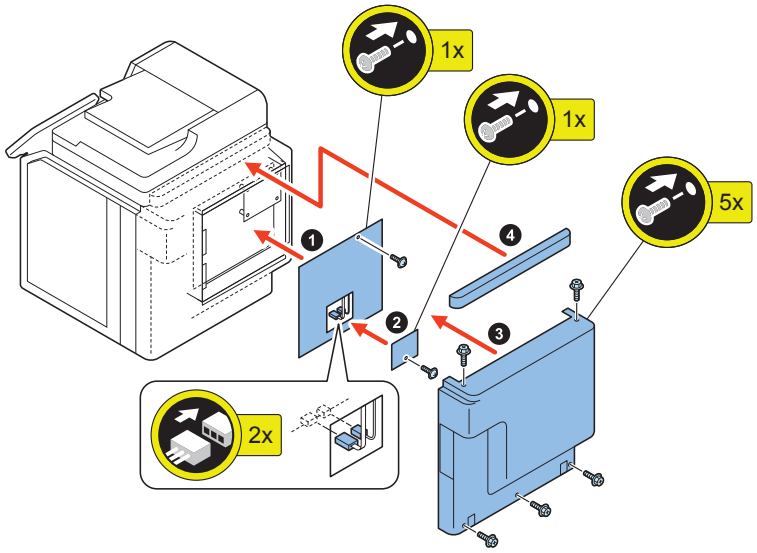
F-9-16

☐

13) Return the covers to their original positions.

<Without Cassette feeding Unit>

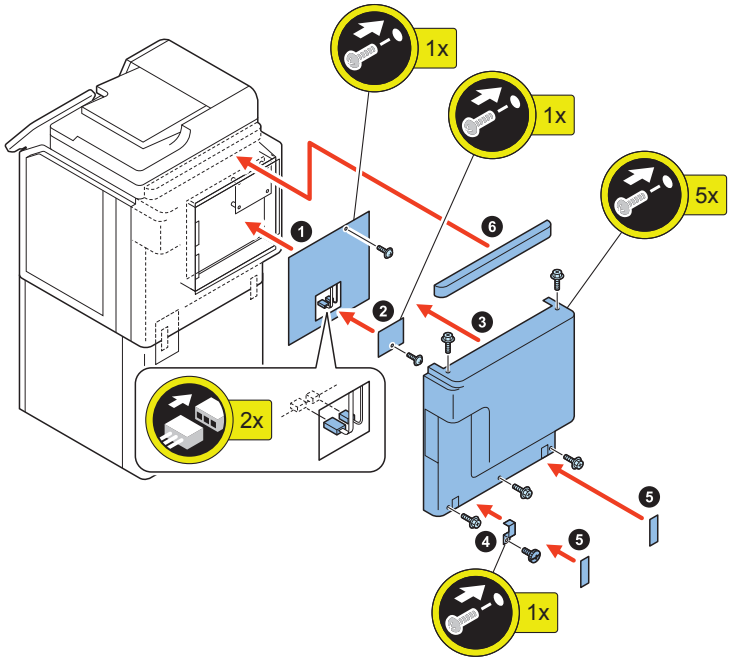
- Controller Box Cover (1 screw, 2 Connectors)
- Small Cover of the Controller Box Cover (1 screw)
- Rear Cover (5 screws)
- Reader Rear Cover



F-9-17

<With Cassette feeding Unit>

- Controller Box Cover (1 screw, 2 Connectors)
- Small Cover of the Controller Box Cover (1 screw)
- Rear Cover (5 screws)
- Connecting Plate (1 Knurled Screw)
- 2 Face Covers
- Reader Rear Cover



F-9-18

Checking after Installation

☐

1)»Connect the power plug of the host machine to the power outlet.
2)»Turn ON the main power switch.
3)»Request the user to install "Document Scan Lock Kit-B1".
4)»Turn OFF and then ON the power.
5)»Press the counter check key on the control panel.
6)»Press [Check Device Configuration].
7)»Check that [Image Analysis Board] is displayed in the options column.

Serial Interface Kit-K2 / Copy Control Interface Kit-A1

Points to Note at Installation

The following options cannot be used in combination with this equipment.

- Serial Interface Kit
- Copy Control Interface Kit
- Copy Card Reader

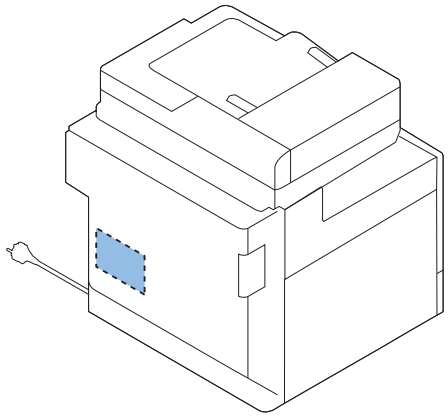
Check Items when Turning OFF the Main Power

Check that the main power switch is OFF

Turn OFF the main power switch of the host machine.

Check that display in the Control Panel and the lamp of the main power are turned off, then disconnect the power plug.

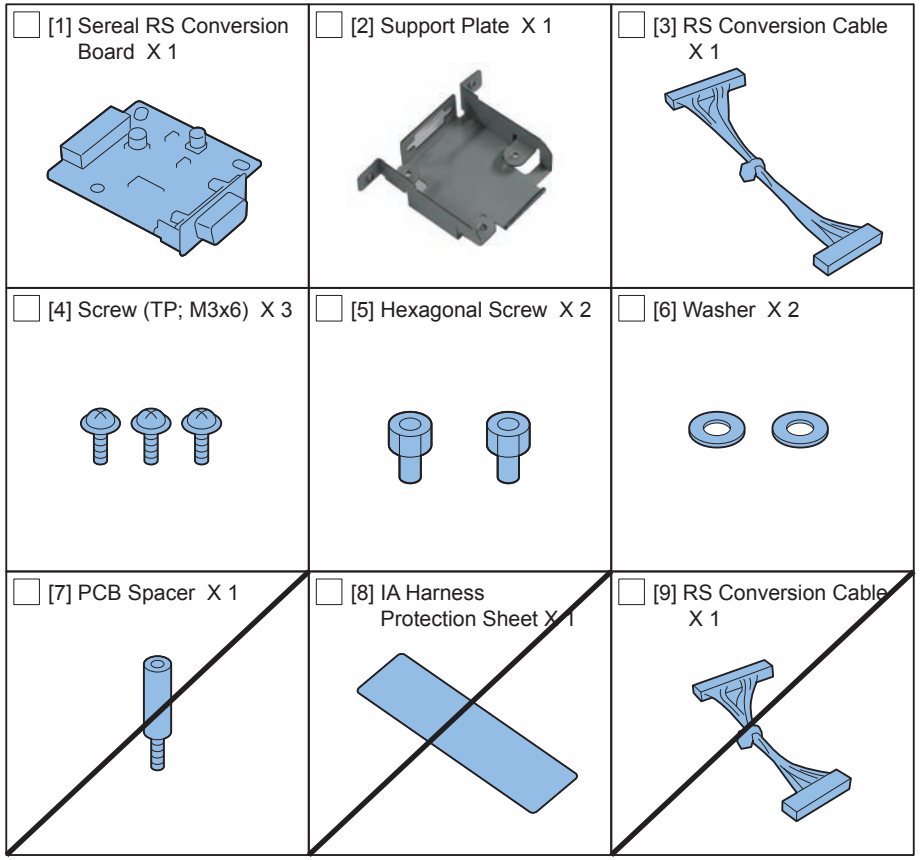
Installation Outline Drawing



F-9-19

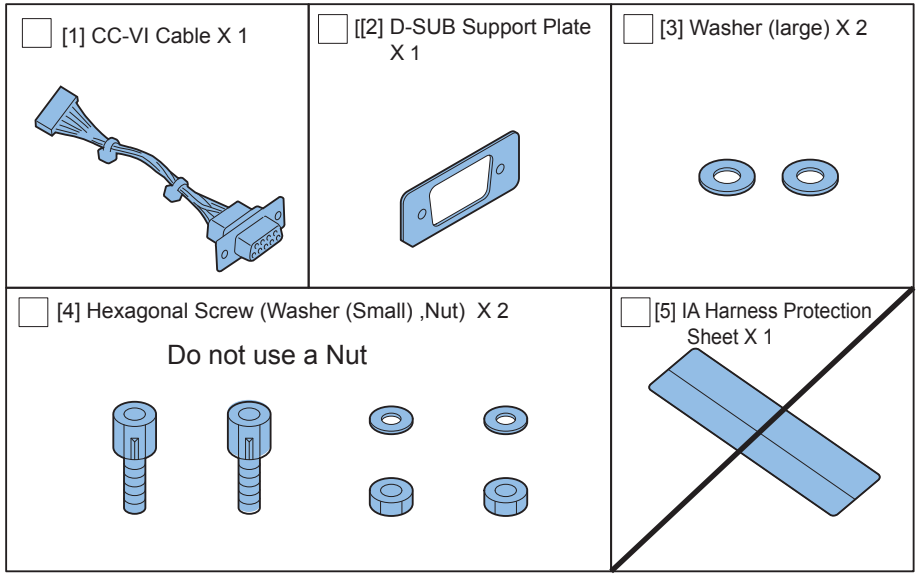
Checking the Contents

Serial Interface Kit-K2



F-9-20

■ Copy Control Interface Kit-A1



F-9-21

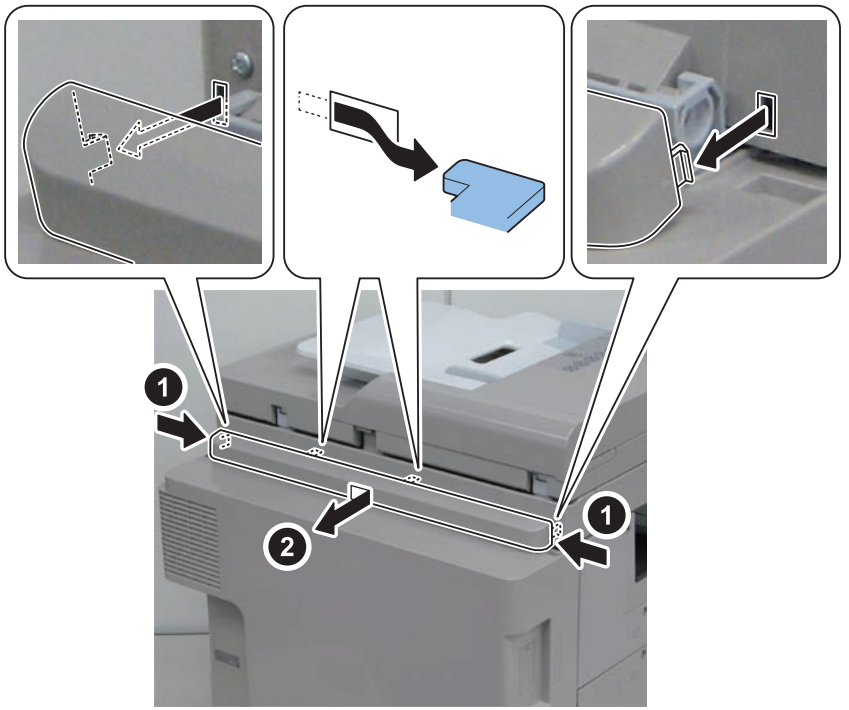
Installation Procedure

■ Preparation before Installation

☐

1) Remove the Reader Rear Cover. (Removed Reader Rear Cover will be used in step 1 of after Installation.).

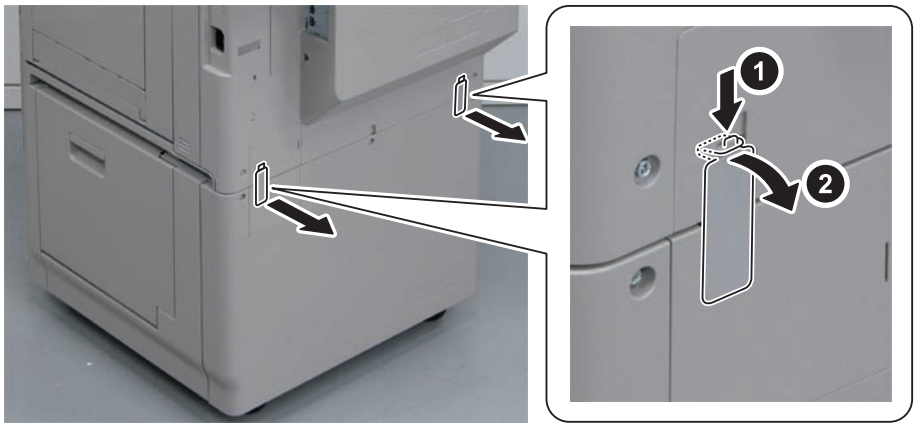
- 2 Claws
- 2 Hooks



F-9-22

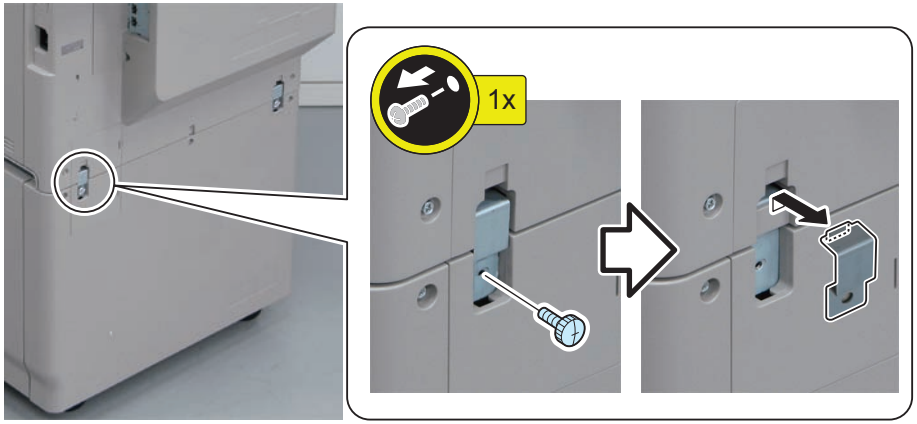
NOTE:
For following steps, proceed to step 2 in the case of the machine with the installed Cassette Feeding Unit and proceed to step 4 in the case of the machine without the installed Cassette Feeding Unit.

☐
2) Remove 2 Face Covers. (Removed 2 Face Covers will be used in step 1 of after Installation.)
- 1 Claw each



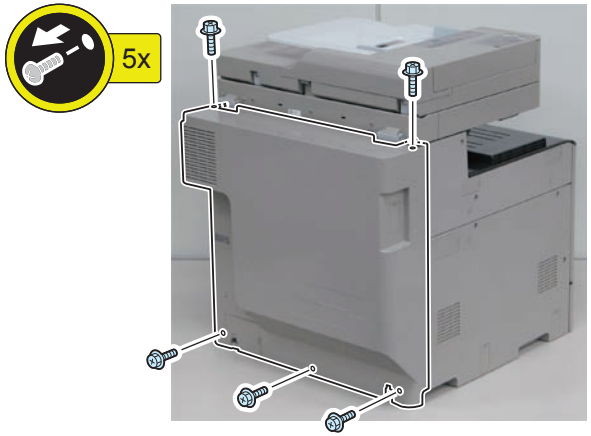
F-9-23

☐
3) Remove 1 Connecting Plate. (Removed Connecting Plate will be used in step 1 of after Installation.)
- 1 Knurled Screw (Removed Knurled Screw will be used in step 1 of after Installation.)
- 1 Hook



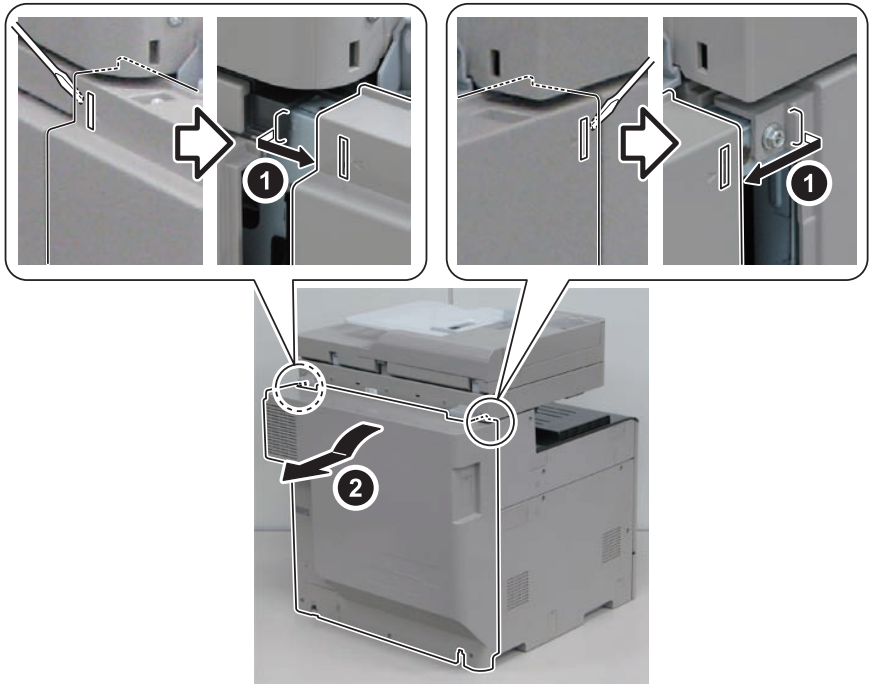
F-9-24

☐
4) Remove the 5 Screws of the Rear Cover. (Removed 5 Screws will be used in step 1 of after Installation.)



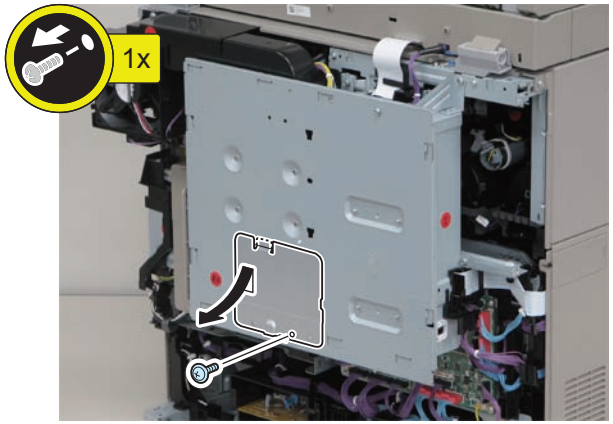
F-9-25

☐
5) Remove the Rear Cover. (Removed Rear Cover will be used in step 1 of after Installation.)
- 2 Protrusion



F-9-26

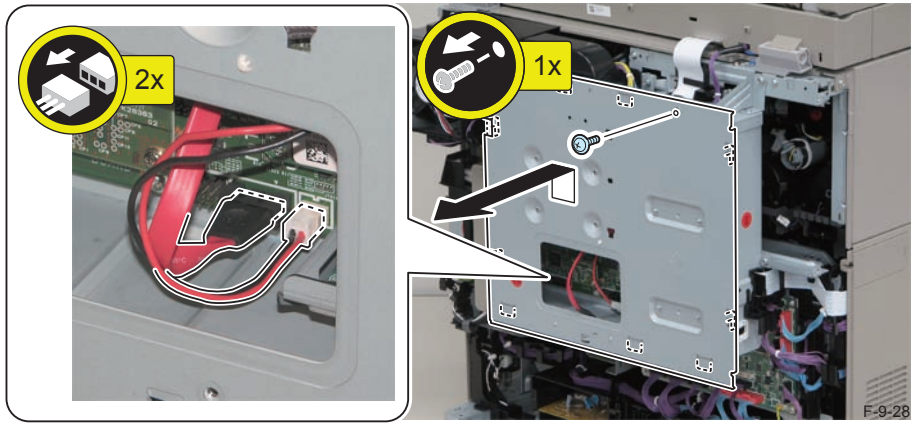
☐
6) Remove the small cover of the Controller Box Cover.(Removed small cover of the Controller Box Cover will be used in step 1 of after Installation.)
- 1 Screw (Removed Screw will be used in step 1 of after Installation.)



F-9-27

☐
7) Remove the Controller Box Cover.
- 2 Connectors (Removed 2 Connectors will be used in step 1 of after Installation.)
- 1 Screw (Removed Screw will be used in step 1 of after Installation.)
- 10 Hooks

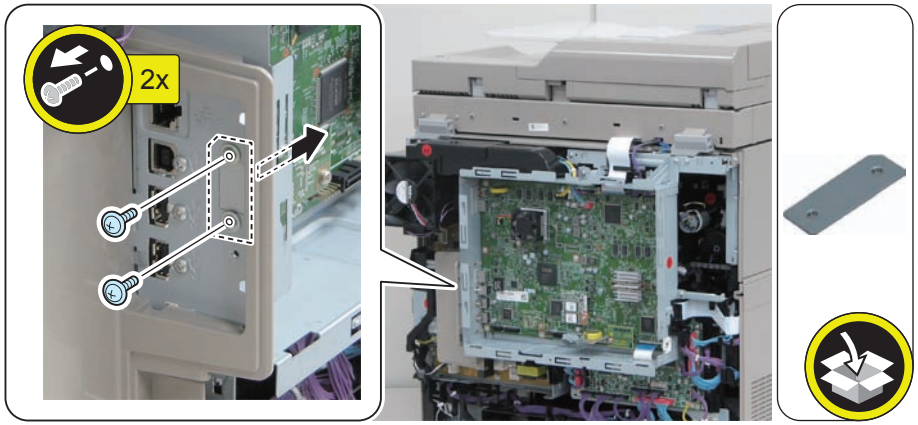
CAUTION:
When handling the hard disc, be careful not to vibrate or drop it.



F-9-28

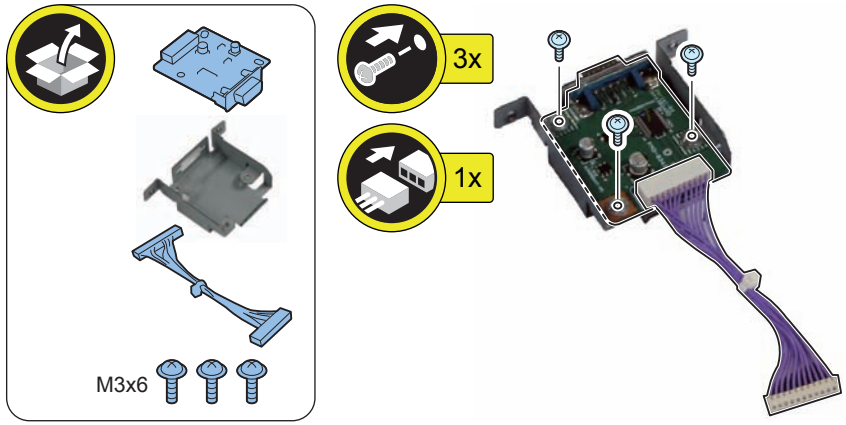
Installing the Serial Interface Kit-K2

☐
1) Remove the Face Plate. (Removed Face Plate will not be used.)
- 2 Screws (Removed screws will be used in step 3.)



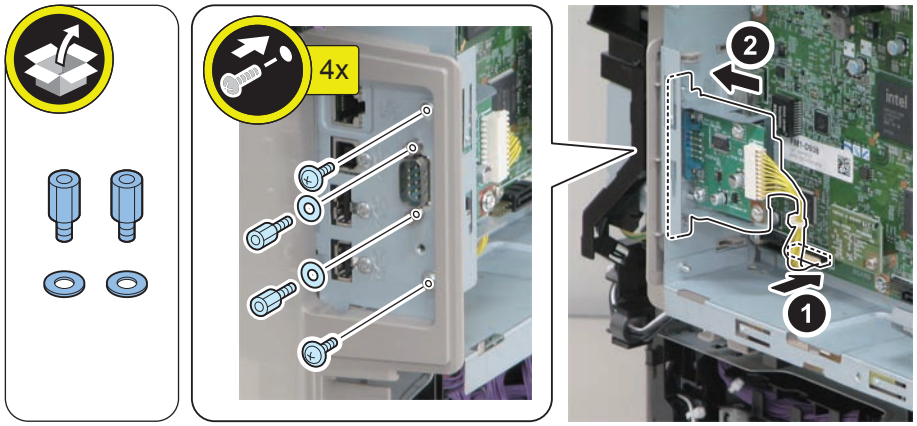
F-9-29

☐
2) Connect the RS Conversion Cable and Support Plate to the Serial RS Conversion Board.
- 3 Screws (TP; M3x6)
- 1 Connector



F-9-30

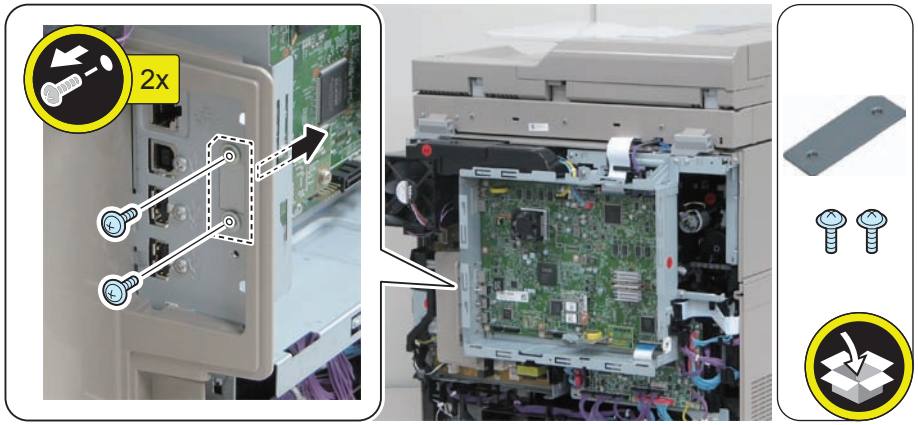
☐
3) Install the Serial RS Conversion Board.
- 1 Connector
- 2 Hexagon Screws
- 2 Washers
- 2 Screws (Use the screws removed in step 1.)



F-9-31

Installing the Copy Control Interface Kit-A1

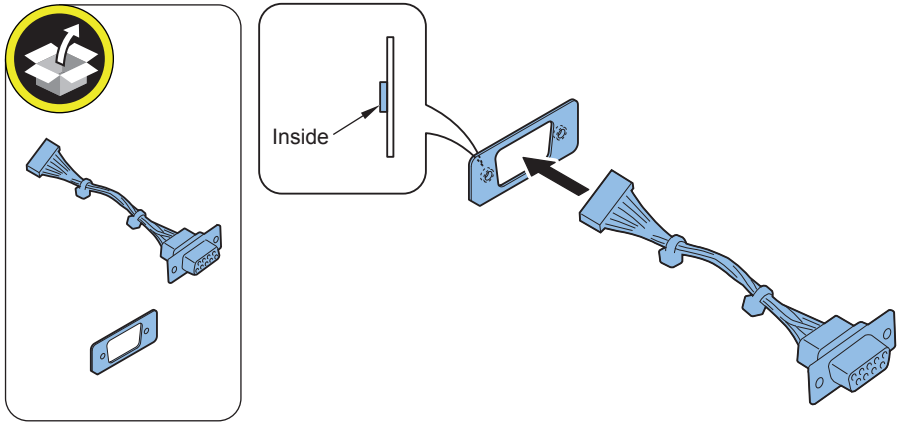
☐
1) Remove the Face Plate. (Removed Face Plate will not be used.)
- 2 Screws (Removed screws will be not be used.)



F-9-32

☐
2) Pass the connector of the CC-VI Cable through the D-SUB Support Plate.

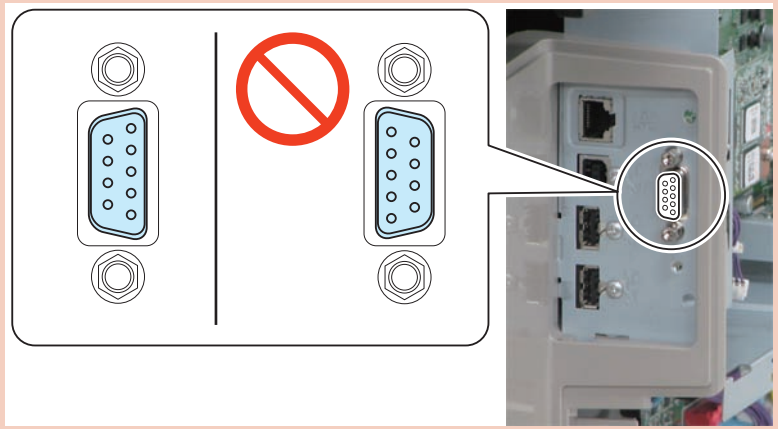
CAUTION:
Install the extruded side of the D-SUB Support Plate as shown in the figure.



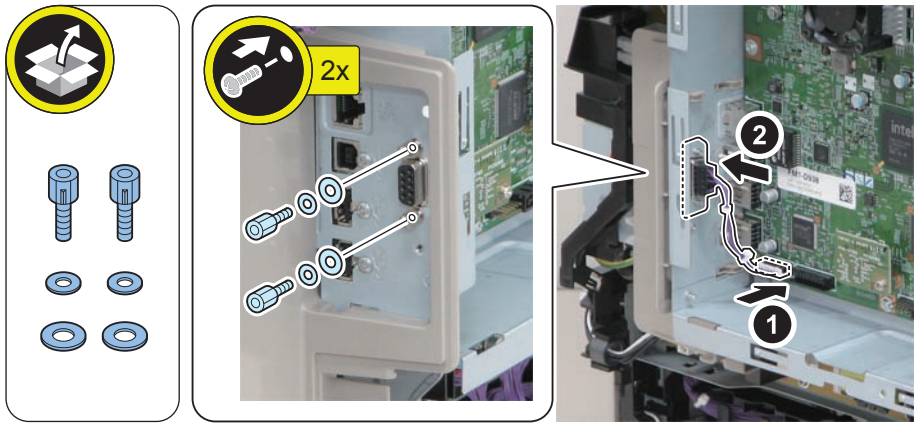
F-9-33

☐
3) Connect the CC-VI Cable to the Main Controller PCB.
- 2 Hexagon Screws (Nuts will not be used.)
- 2 Spring Washers (Small)
- 2 Washers (Large)
- 1 Connector

CAUTION:
Install the CC-VI Cable in the direction shown in the figure.



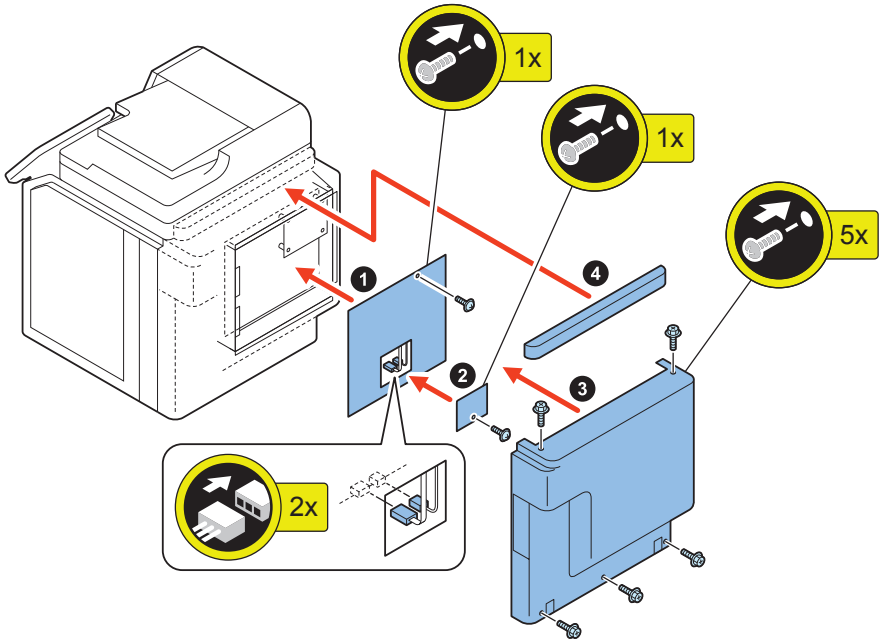
F-9-34



F-9-35

After Installation

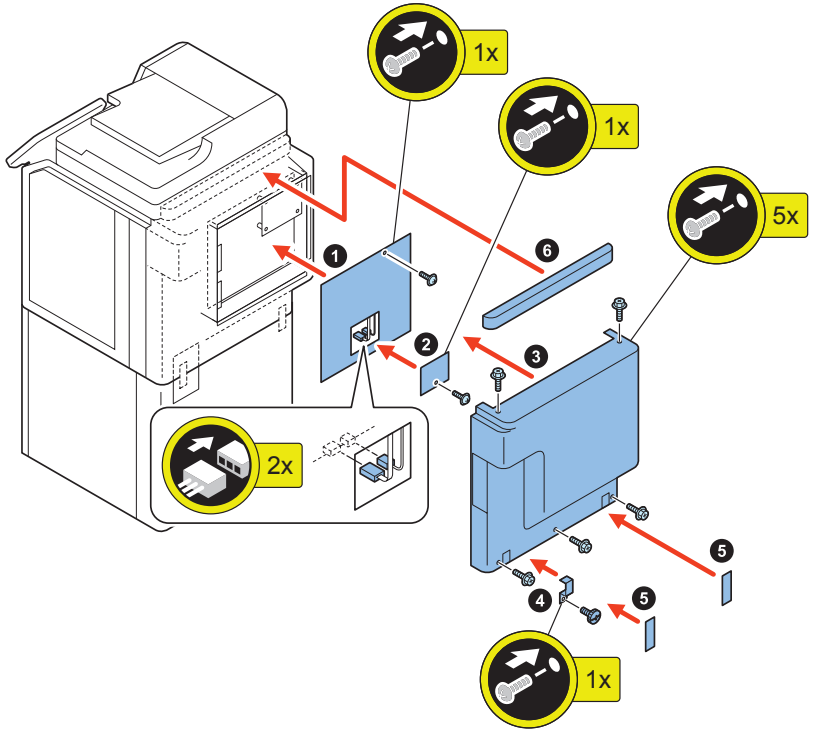
☐
1) Return the covers to their original positions.
<Without Cassette feeding Unit>
- Controller Box Cover (1 screw, 2 Connectors)
- Small Cover of the Controller Box Cover (1 screw)
- Rear Cover (5 screws)
- Reader Rear Cover



F-9-36

<With Cassette feeding Unit>

- Controller Box Cover (1 screw, 2 Connectors)
- Small Cover of the Controller Box Cover (1 screw)
- Rear Cover (5 screws)
- Connecting Plate (1 Knurled Screw)
- 2 Face Covers
- Reader Rear Cover



F-9-37

☐

2) Connect the power plug to the outlet.

3) Turn ON the main power switch.

Copy Card Reader-F1

Points to Note at Installation

- To install the Copy Card Reader-F1, the Copy Card Reader Attachment Kit-B4 is required.
- When installing at the same time with the Image Analysis Board, be sure to install this Image Analysis Board first.
- The following options cannot be used in combination with this equipment.
  - Serial Interface Kit
  - Copy Control Interface Kit

Check Items when Turning OFF the Main Power

Check that the power of the host machine is OFF.

1) Turn OFF the main power switch.
2) Check that display in the Control Panel and the lamp of the main power are turned off, then disconnect the power plug.

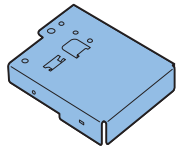
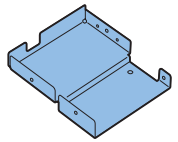
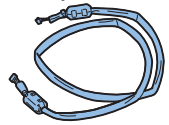
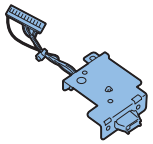
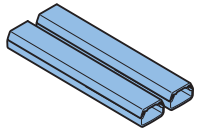
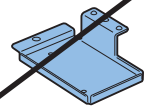
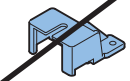
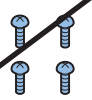
Checking the Contents

Copy Card Reader-F1

☐ [1] Card Reader Unit X 1 	☐ [2] Screw (RS tight; M4x10) X 1 	☐ [3] Toothed washer X 1 

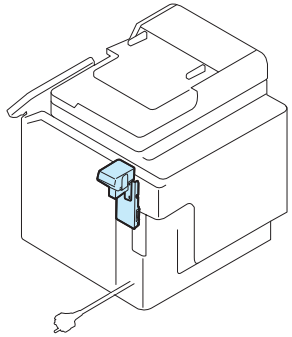
F-9-38

Copy Card Reader Attachment-B4

☐ [1] Card Reader Mounting Plate (front) Unit X 1 	☐ [2] Card Reader Mounting Plate (rear) Unit X 1 	☐ [3] Card reader External Relay Harness X 1 
☐ [4] Card Reader Relay Unit X 1 	☐ [5] Connector Cover X 1 	☐ [6] Cord Guide X 2 
☐ [7] Screw (W Sams; M3x14) X 2 	☐ [8] Screw (TP; M3x6) X 5 	☐ [9] Card Reader Mounting Plate (lower) Unit X 
☐ [10] Connector Cover X 1 	☐ [11] Wire Saddle X 1 	☐ [12] PCB Spacer X 1 
☐ [13] Screw (TP; M4x12) X 2 	☐ [14] Screw (TP; M3x12) X 2 	☐ [15] Screw (Binding; M4x6) X 4 

F-9-39

Installation Outline Drawing



F-9-40

Installation Procedure

CAUTION:

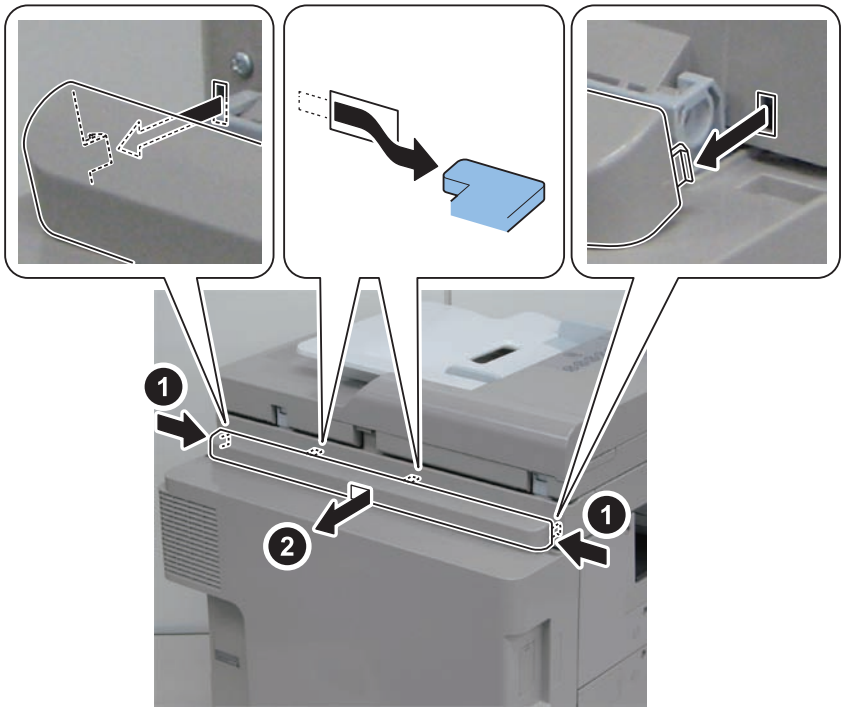
After installing the Copy Card Reader-F1, enter the card number to be used in the following service mode (Level 1): COPIER > FUNCTION > INSTALL > CARD.

Otherwise, the card will not be recognized even inserting it.

☐

1) Remove the Reader Rear Cover. (Removed Reader Rear Cover will be used in step 10.)

- 2 Claws
- 2 Hooks

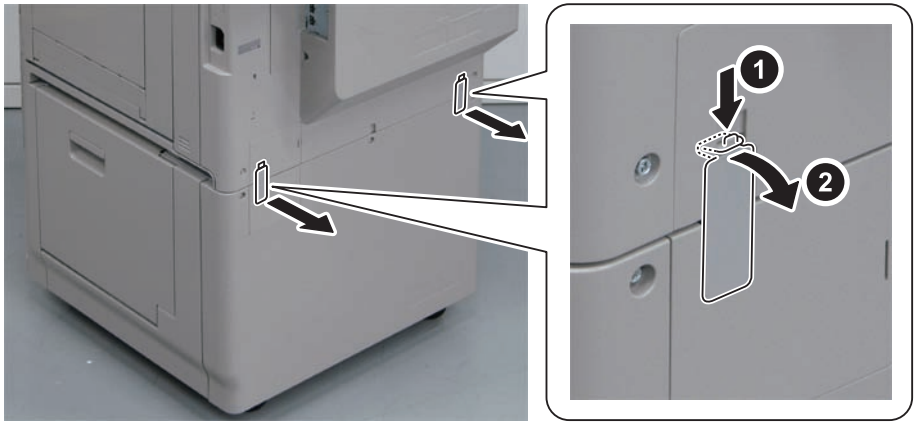


F-9-41

NOTE:
For following steps, proceed to step 2 in the case of the machine with the installed Cassette Feeding Unit and proceed to step 4 in the case of the machine without the installed Cassette Feeding Unit.

☐ 2) Remove 2 Face Covers. (Removed 2hen installing at the same time with the Finisher, be sure to install it before installing the Optional Harness Cover. Face Covers will be used in step 10.)

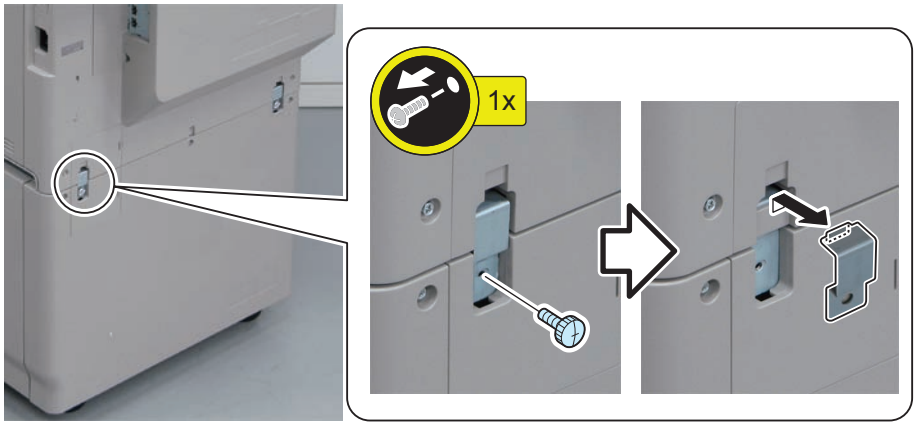
- 1 Claw each



F-9-42

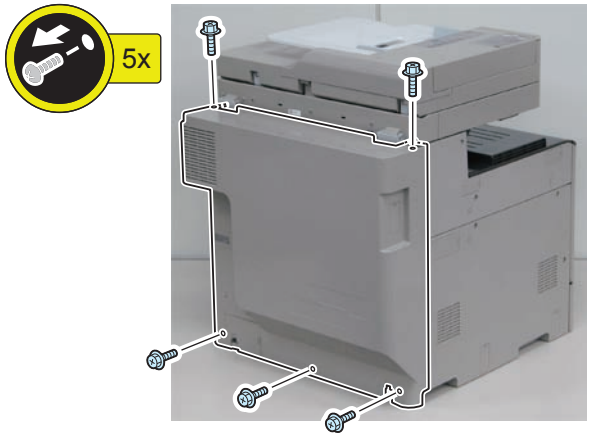
☐ 3) Remove 1 Connecting Plate. (Removed Connecting Plate will be used in step 10.)

- 1 Knurled Screw (Removed Knurled Screw will be used in step 10.)
- 1 Hook



F-9-43

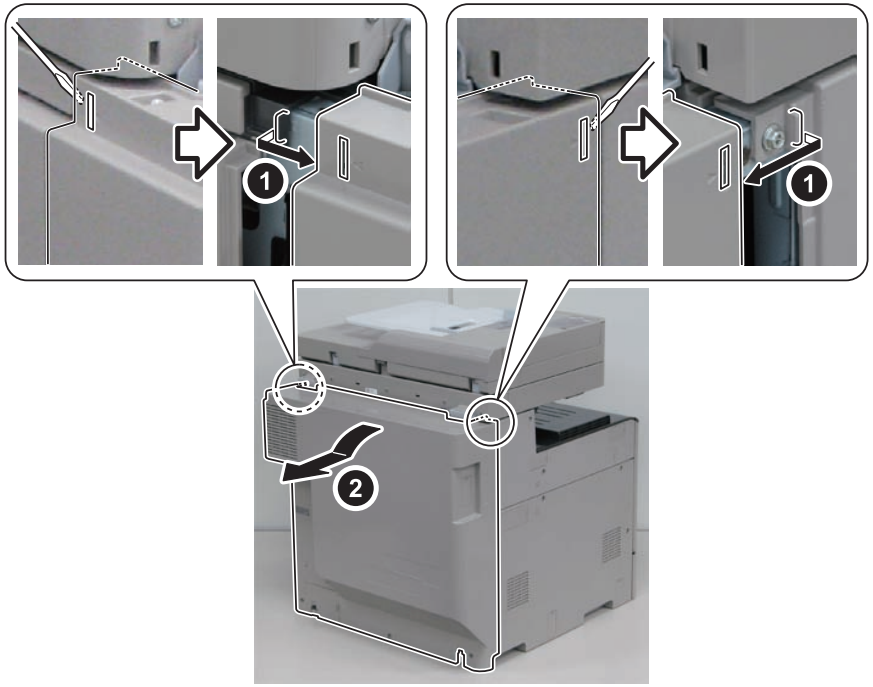
☐ 4) Remove the screws of the Rear Cover. (Removed 5 screws will be used in step 10.)



F-9-44

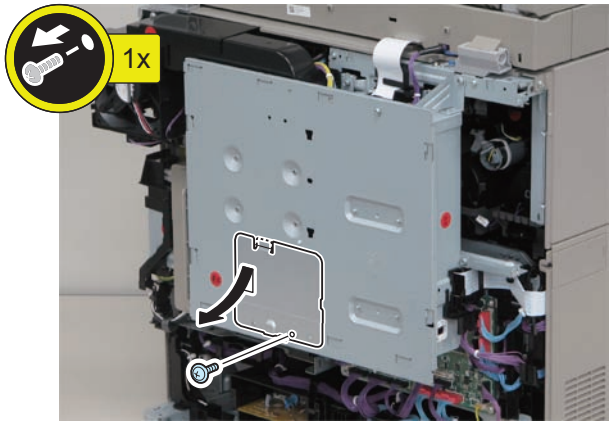
☐ 5) Remove the Rear Cover. (Removed Rear Cover will be used in step 10.)

- 2 Protrusion



F-9-45

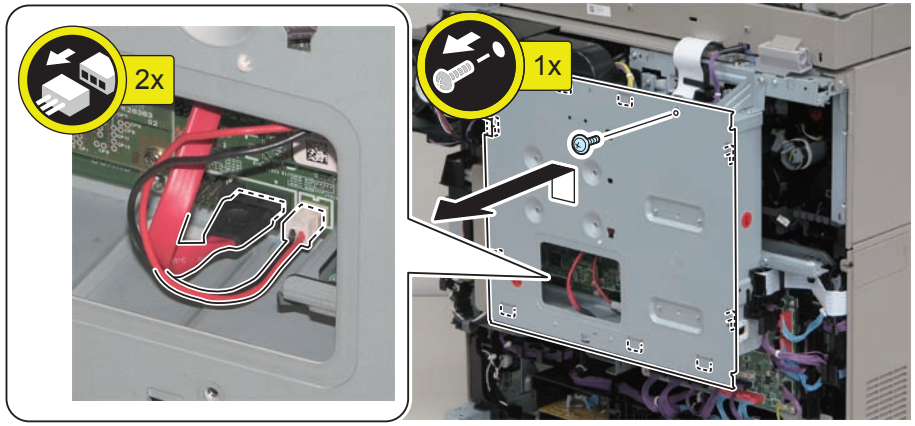
☐
6) Remove the small cover of the Controller Box Cover. (Removed small cover of the Controller Box Cover will be used in step 10.)
- 1 Screw (Removed Screw will be used in step 10)



F-9-46

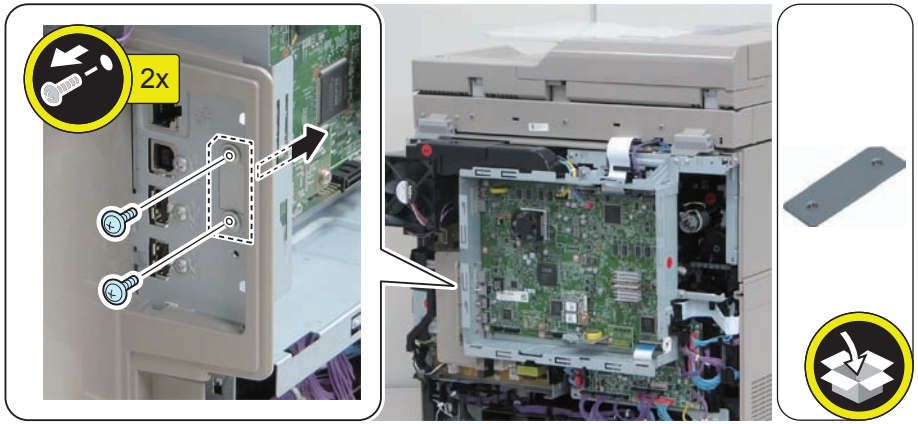
☐
7) Remove the Controller Box Cover.(Removed Controller Box Cover will be used in step 10.)
- 2 Connectors. (Removed 2 Connectors. will be used in step 10.)
- 1 Screw (Removed Screw will be used in step 10.)
- 10 Hooks

CAUTION:
When handling the hard disc, be careful not to vibrate or drop it.



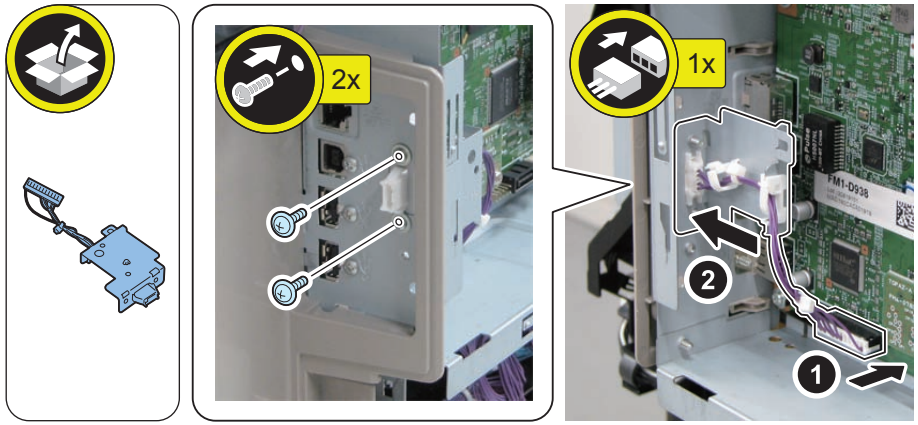
F-9-47

☐
8) Remove the Face Plate. (Removed Face Plate will not be used.)
- 2 Screws (Removed screws will be used in step 9.)



F-9-48

☐
9) Install the Card Reader Relay Connector Unit.
- 1 Connector
- 2 Screws (Use the screws removed in step 8.)



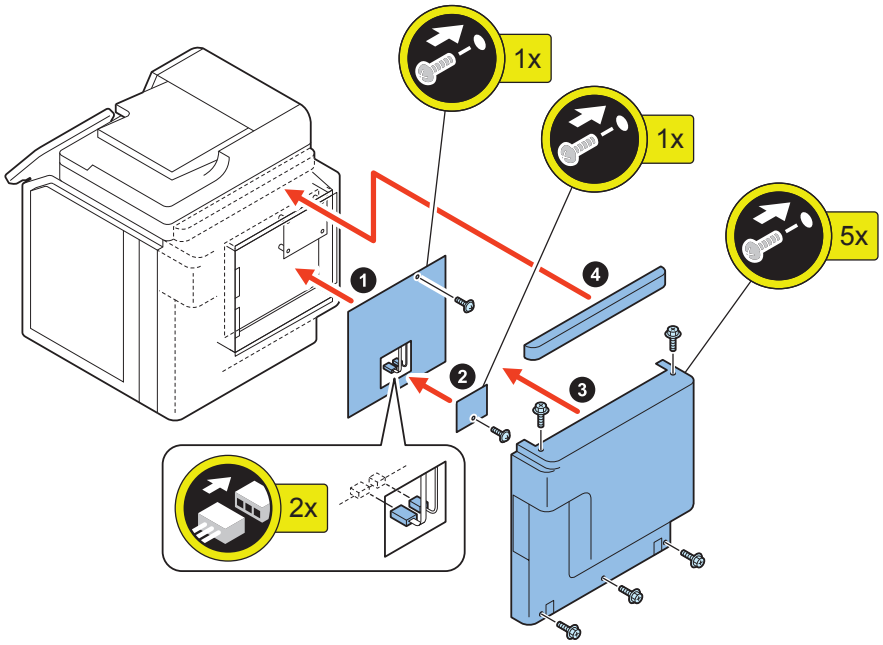
F-9-49

☐

10) Return the covers to their original positions.

<Without Cassette feeding Unit>

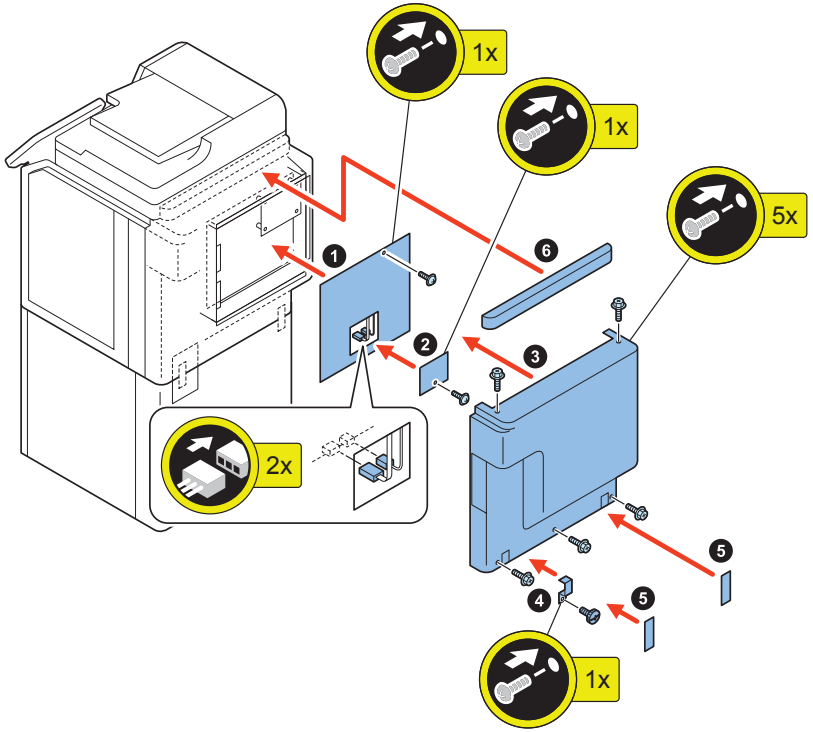
- Controller Box Cover (1 Screw, 2 Connectors)
- Small Cover of the Controller Box Cover (1 screw)
- Rear Cover (5 Screws)
- Reader Rear Cover



F-9-50

<With Cassette feeding Unit>

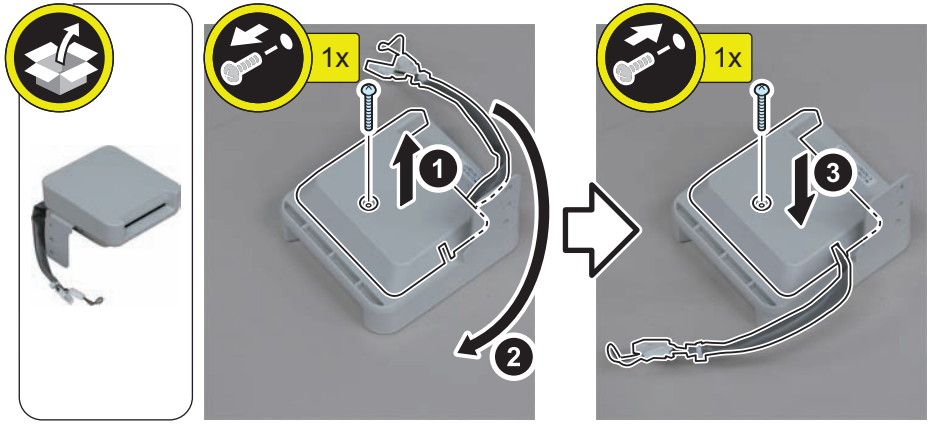
- Controller Box Cover (1 screw, 2 Connectors)
- Small Cover of the Controller Box Cover (1 Screw)
- Rear Cover (5 Screws)
- Connecting Plate (1 Knurled Screw)
- 2 Face Covers
- Reader Rear Cover



F-9-51

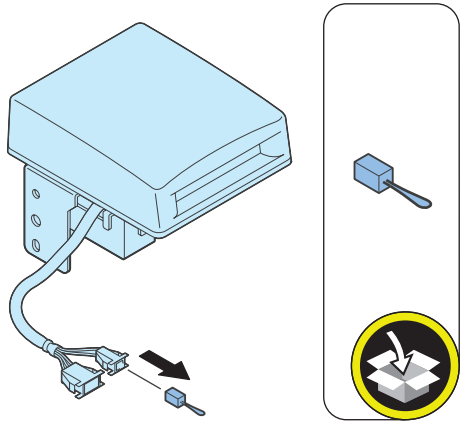
☐
11) Remove the Lower Cover of the Card Reader Unit, and change the position of the cable.
- 1 Screw (Removed screws will be used in step 12)

12) Install the Lower Cover of the Card Reader Unit.
- 1 Screw (Use the screws removed in step 11)



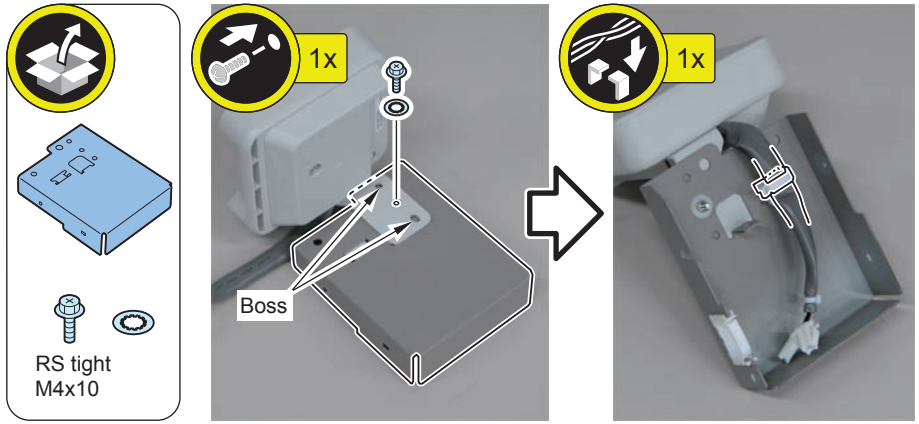
F-9-52

☐
13) Remove the short connector from the connector of the Card Reader Unit. (Removed short connector will not be used.)



F-9-53

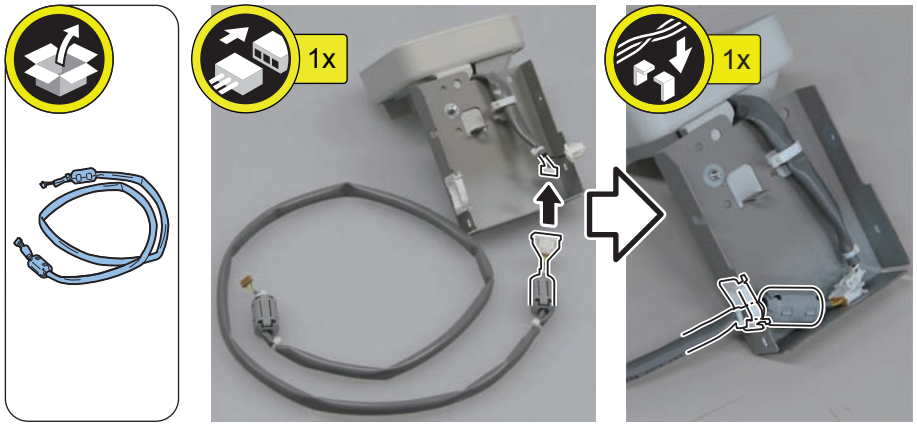
☐
14) Install the Card Reader Unit to the Card Reader Mounting Plate (Front) Unit.
- 2 Bosses
- 1 Toothed Washer
- 1 Screw(RS Tightening; M4x10)
- 1 Wire Saddle



F-9-54

☐
15) Connect the Card Reader External Relay Harness to the connector of the Card Reader Unit.
- 1 Connector
- 1 Edge Saddle

CAUTION:
Be sure that the core is inside the Edge Saddle.



F-9-55

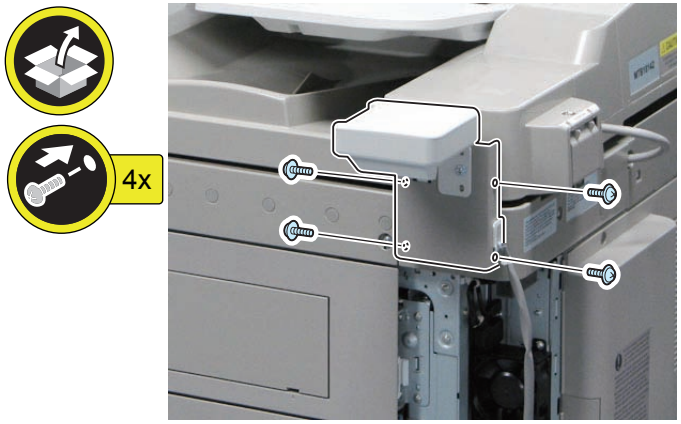
☐
16) Remove the 2 Face Seals from the right side of the host machine. (Removed Face Seals will not be used.)

F-9-56

☐
17) Install the Card Reader Mounting Plate (Rear) Unit to the host machine.
- 2 Screws (W Sems; M3x14)

F-9-57

☐
18) Install the Card Reader Mounting Plate (Front) Unit to the Card Reader (Rear) Unit.
- 4 Screws (TP; M3x6)

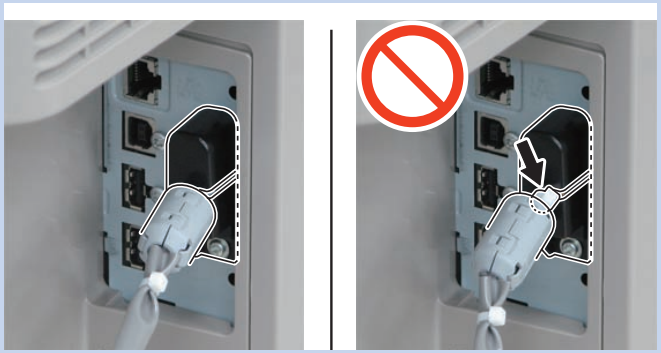


F-9-58

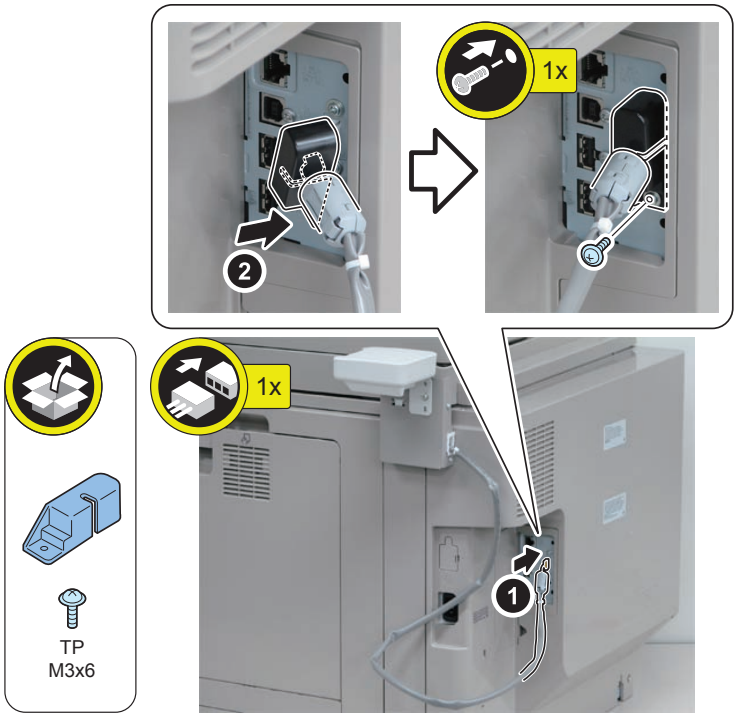
☐
19) Connect the connector of the Card Reader Relay Harness to the host machine, and install the Connector Cover.

- 1 Screw (TP; M3x6)

NOTE:
To ensure that the connector does not become disconnected, be sure to place the tie-wrap of the Card Reader External Relay Harness on the inside of the Connector Cover.

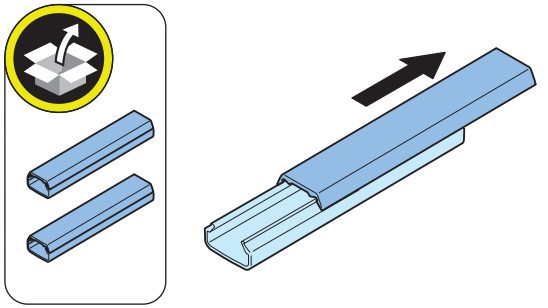


F-9-59



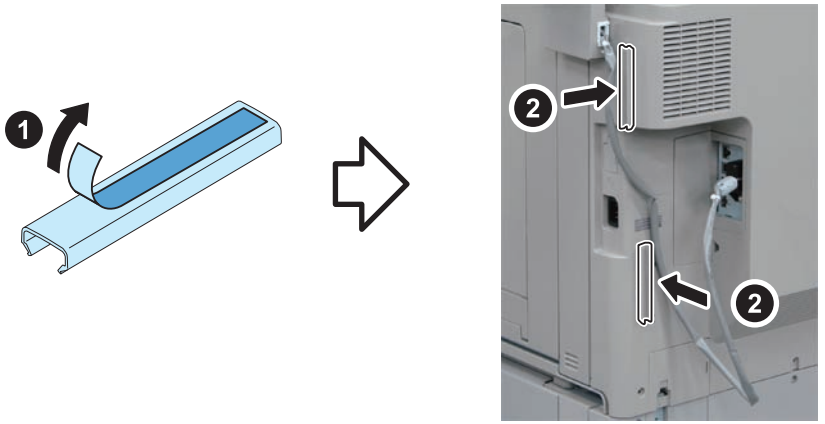
F-9-60

☐
20) Remove the covers of the 2 Cord Guides.



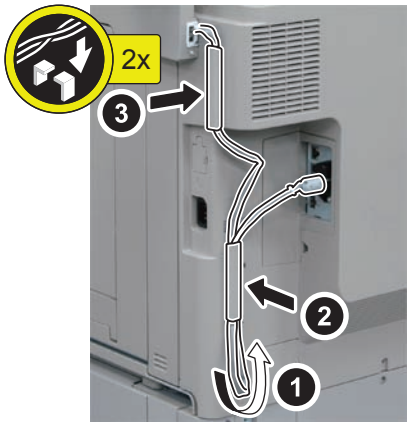
F-9-61

☐
21) Remove the release paper from the Cord Guides, and affix the guides to the areas indicated in the figure.



F-9-62

☐
22) Put the Card Reader Relay Harness through the Cord Guides, and install the covers of the guides.



F-9-63

☐
23) Connect the power plug to the outlet.
24) Turn ON the main power switch.

Settings after installation

☐
1) Set the model of the Card Reader in service mode.
- Check that the setting value is "0" in the following service mode (Level 1): COPIER > OPTION > ACC > CR-TYPE.

☐
2) Set the number of card (number of department ID) that can be used with the Card Reader in service mode.
- Set any value in the following service mode (Level 2): COPIER > OPTION > FNC-SW > CARD-RNG.

☐
3) Enter the card number to be used (1 to 2001) in the following service mode (Level 1): COPIER > FUNCTION > INSTALL > CARD.
- Enter the smallest card number to be used by the user.
- From the entered card number, 1000 cards can be used.

☐
4) Turn OFF and then ON the main power switch to enable the setting value.
5) Insert a card with a card number that has been registered, and check that the machine operates normally.

NOTE:
Perform the following operations to change the number of cards (departments) after it has been set. In such a case, counter information for each department is reset.
- Execute the following service mode (Level 1): COPIER > FUNCTION > CLEAR > CARD.
- Turn OFF and then ON the main power switch to enable the setting value.
- After that, perform from step 1.

IC Card Reader BOX-A1

Points to Note at Installation

- When installing this equipment, the Card Reader (sales company's option) is required.
- When installing at the same time with the Finisher, be sure to install it before installing the Optional Harness Cover.
- When installing this equipment to the finisher, be sure to install the IC Card Reader before installing the Optional Harness Cover of the finisher. As for steps to remove the Harness Cover, refer to "Removing the Equipment" in the chapter "Parts Replacement and Cleaning"of Service Manual for Staple Finisher-S1.
- When installing at the same time with the Copy Card Reader, be sure to install this equipment first.
- If the Copy Card Reader is installed, this equipment cannot be installed unless it is removed. For details of installation procedure, chapter on "Installation" in the Service Manual.

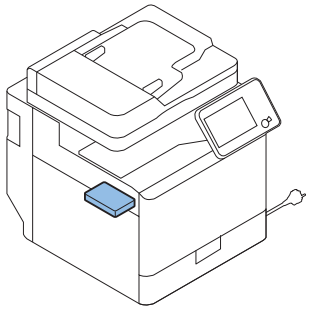
Check Items when Turning OFF the Power

Check that the power of the host machine is OFF.

1) Turn OFF the Power Switch of the host machine.
2) Be sure that display in the Control Panel and the Power Supply Lamp are turned off, then disconnect the power plug.

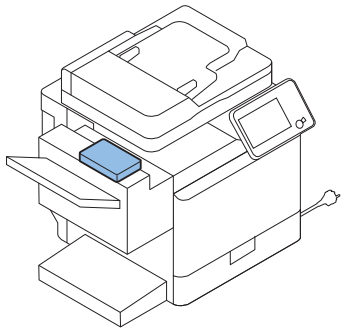
Installation Outline Drawing

<Host machine only>



F-9-64

<Host machine with Finisher>



F-9-65

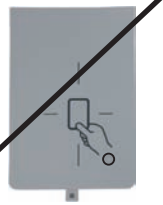
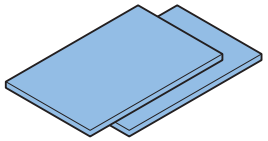
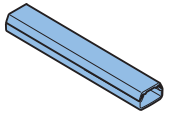
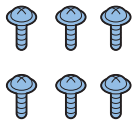
Checking the Contents

Staple Finisher Contents of

[1] Optional Harness Cover X 1	[2] Screw (P Tightening; M3x8) X 1
	

F-9-66

Equiment Contents of

☐ [1] IC Card Reader Box Unit X 1 	☐ [2] IC Card Reader Box Upper Cover X 1 	☐ [3] IC Card Reader Support Plate X 1 
☐ **[4] DPSheet (For Europe) X 1** 	☐ [5] DP Sheet (For Japan) X 1 	☐ [6] Sponge Sheet X 2 
☐ [7] Cord Guide X 1 	☐ [8] Wire Saddle (Large) X 2 	☐ [9] Wire Saddle (Small) X 3 
☐ [10] Screw (TP; M3x6) X 6 	☐ [11] Screw (P Tightening; M3x8) X 2 	

F-9-67

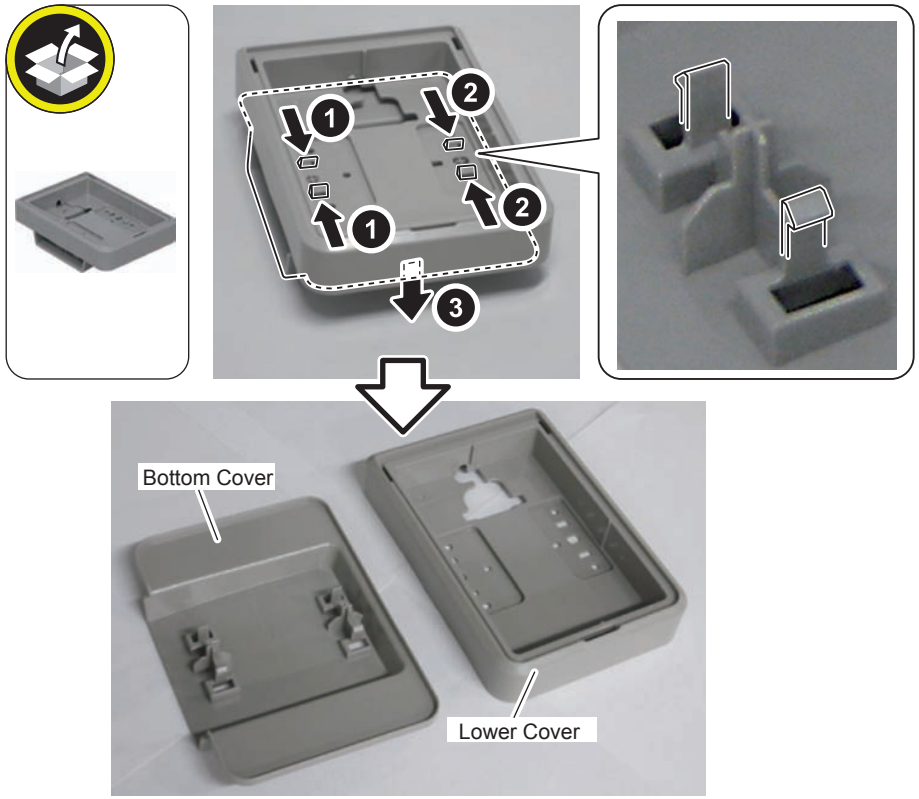
Installation Procedure

When Installing to the Host Machine

☐

1) Remove the claw on Bottom Cover of the IC Card Reader Box Unit by pinching it in the direction of the arrow. (Removed Bottom Cover of the IC Card Reader Box Unit will be used in step 21.)

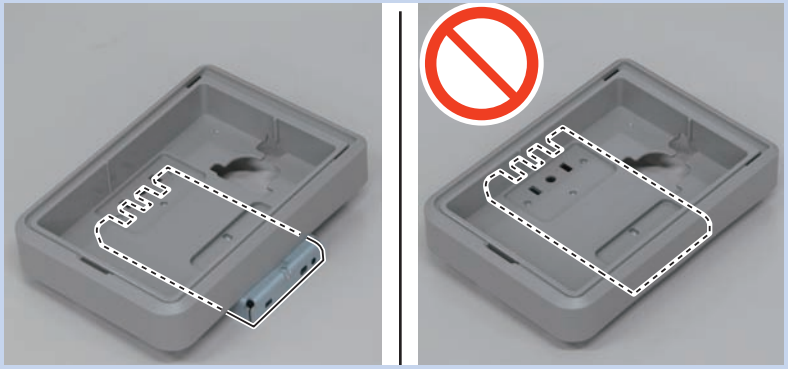
- 4 Claws



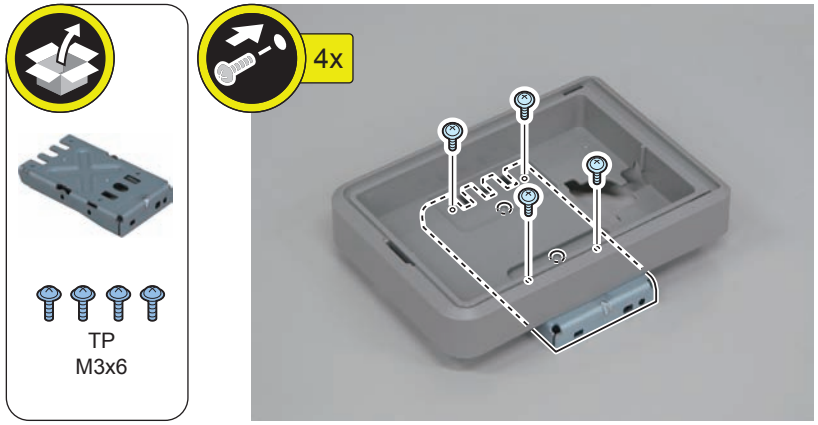
F-9-68

☐
2) Install the IC Card Reader Support Plate to the IC Card Reader Box Unit Lower Cover.
- 4 Screws (TP; M3x6)
- 2 Bosses

NOTE:
When installing the IC Card Reader Mount Plate, be sure to install as shown in the figure.

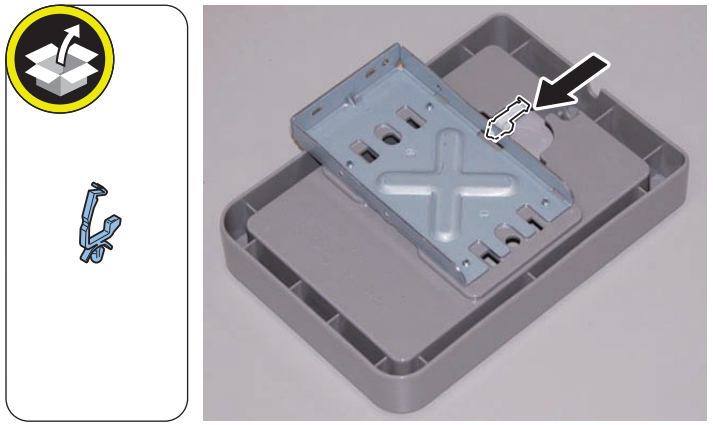


F-9-69



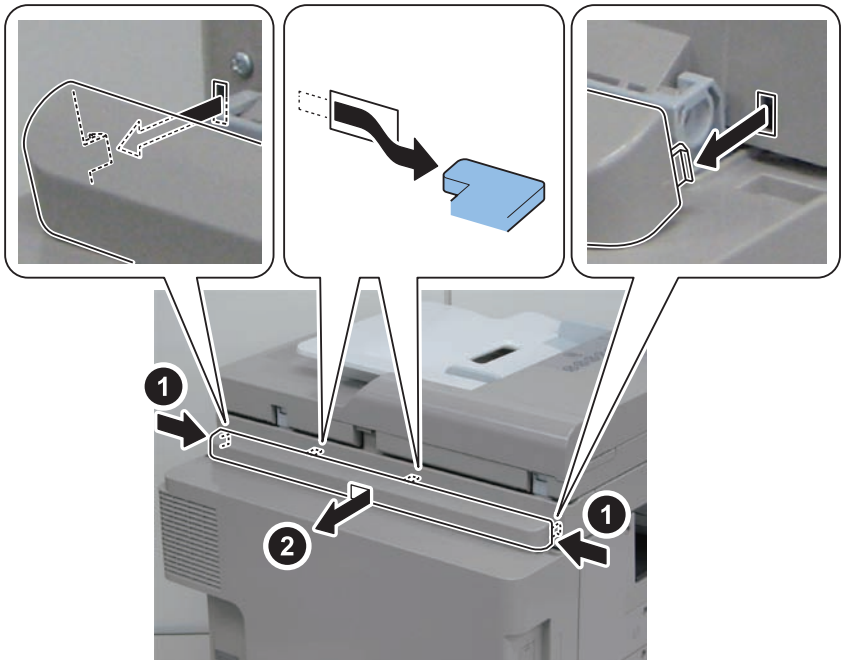
F-9-70

☐
3) Install the Wire Saddle (Small) to the IC Card Reader Support Plate.



F-9-71

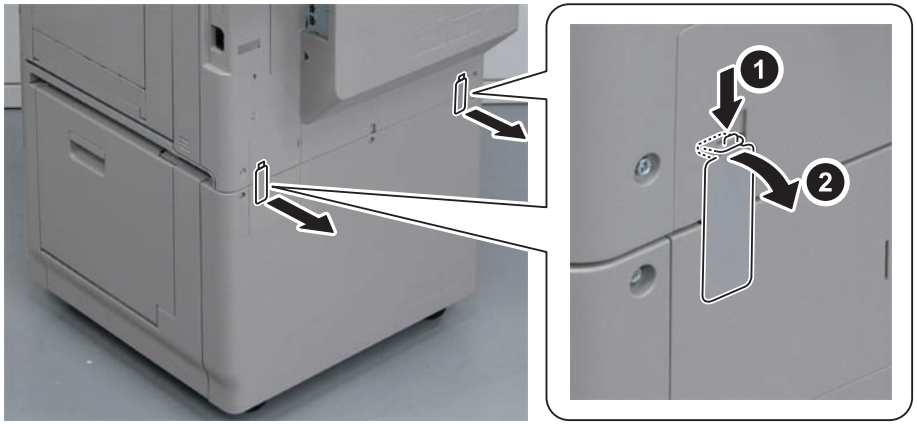
☐
4) Remove the Reader Rear Cover. (The removed Reader Rear Cover will be used in step 22.)
- 2 Claws
- 2 Hooks



F-9-72

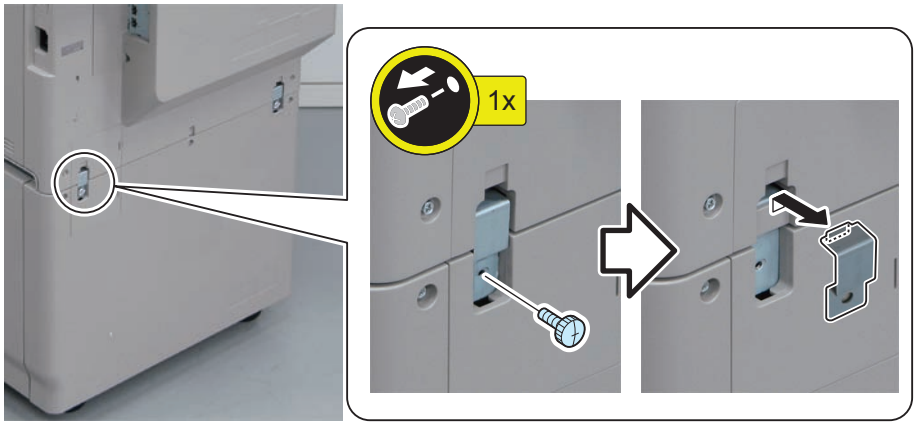
NOTE:
For following steps, proceed to step 5 in the case of the machine with the installed Cassette Feeding Unit and proceed to step 7 in the case of the machine without the installed Cassette Feeding Unit.

☐
5) Remove 2 Face Covers. (Removed 2. Face Covers will be used in step 22.)
- 1 Claw each



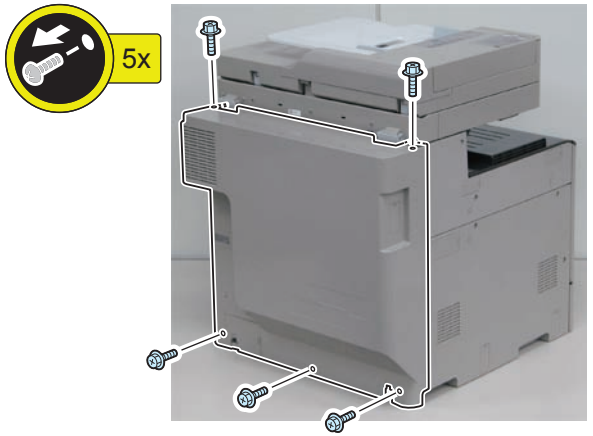
F-9-73

☐
6) Remove 1 Connecting Plate. (Removed Connecting Plate will be used in step 22.)
- 1 Knurled Screw (Removed Knurled Screw will be used in step 22.)
- 1 Hook



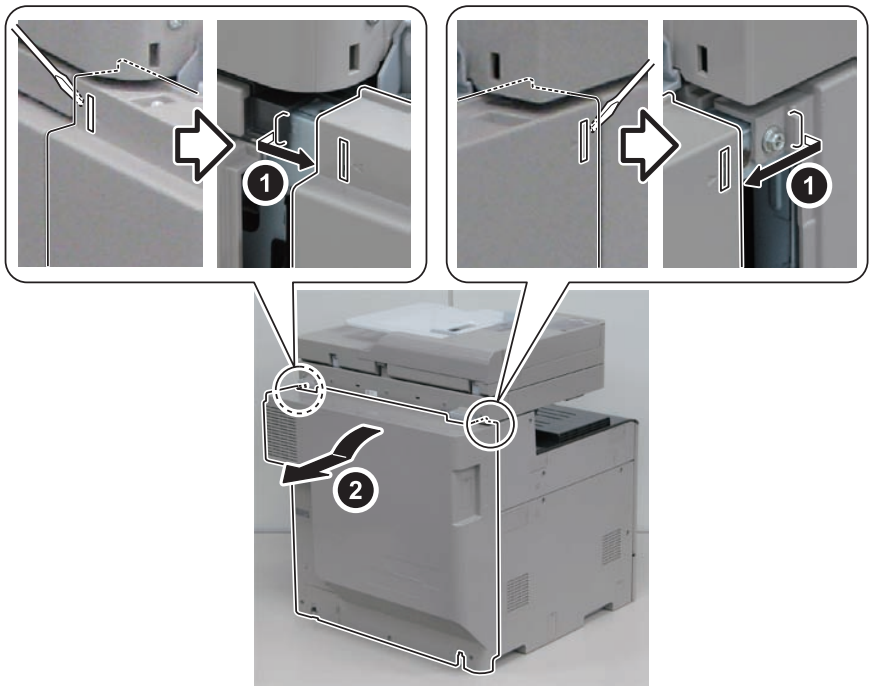
F-9-74

☐
7) Remove the 5 Screws of the Rear Cover. (Removed 5 screws will be used in step 22.)



F-9-75

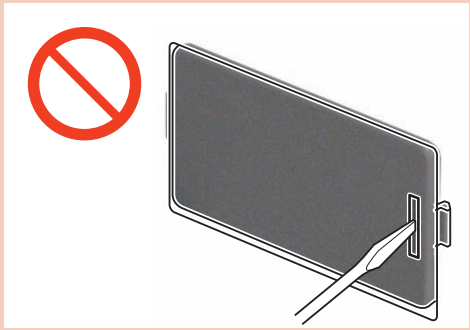
☐
8) Remove the Rear Cover. (Removed Rear Cover will be used in step 22.)
- 2 Protrusion



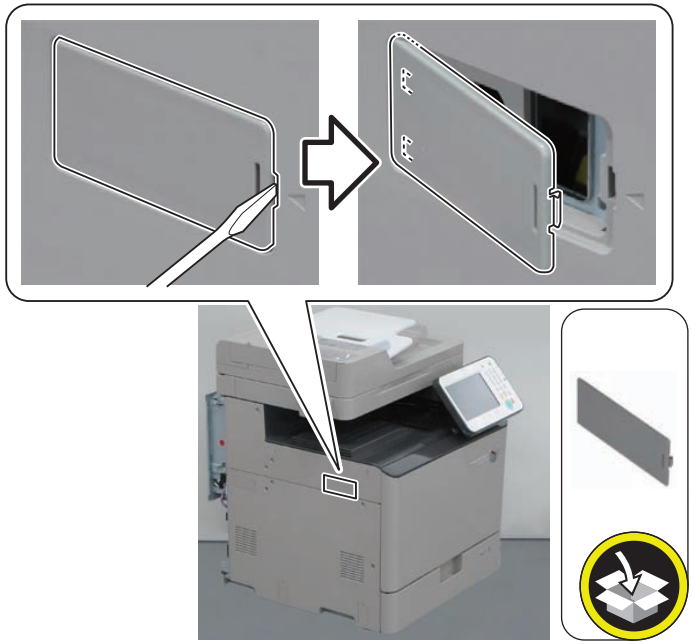
F-9-76

☐
9) Remove the Small Cover on the left side with a flat-blade screwdriver. (Removed Small Cover will not be used.)

CAUTION:
When removing the cover, do not insert a screwdriver in the oval hole.

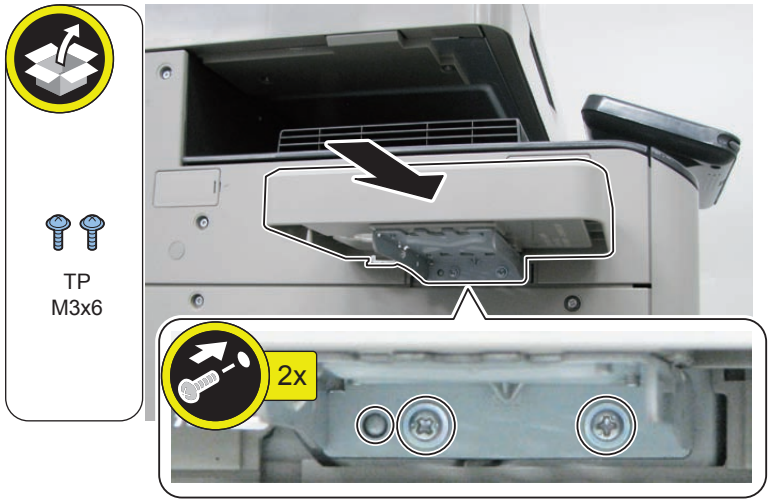


F-9-77



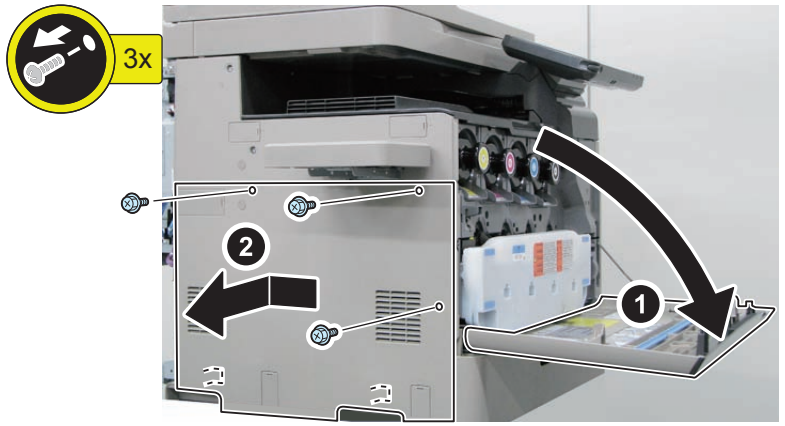
F-9-78

☐
10) Install the IC Card Reader Box Unit Lower Cover to the host machine.
- 1 Boss
- 2 Screws (TP; M3x6)



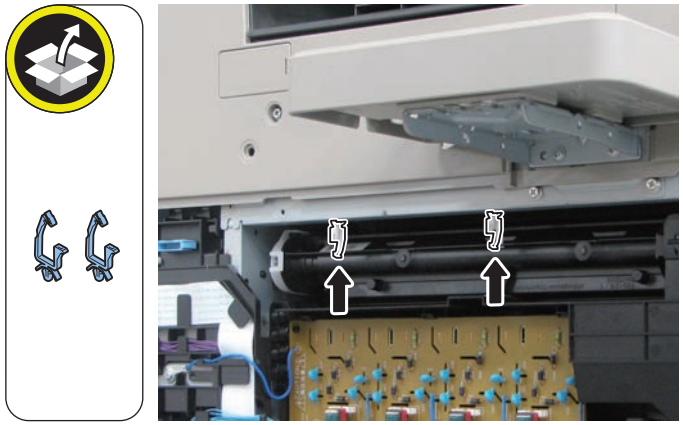
F-9-79

☐
11) Open the Front Cover and remove the Left Lower Cover. (Removed Left Lower Cover will be used in step 22.)
- 3 Screws (Removed screws will be used in step 22.)



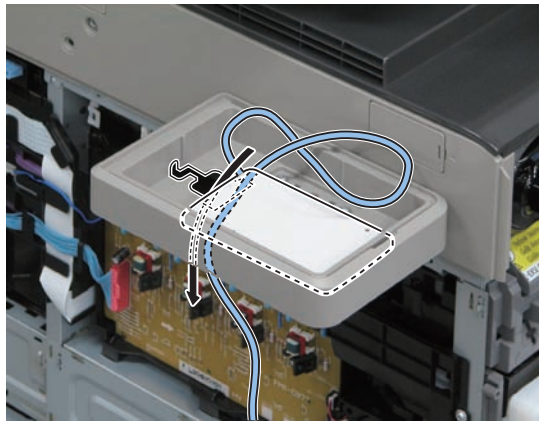
F-9-80

☐ 12) Install the 2 Wire Saddles (Small) to the host machine in the positions shown in the figure.



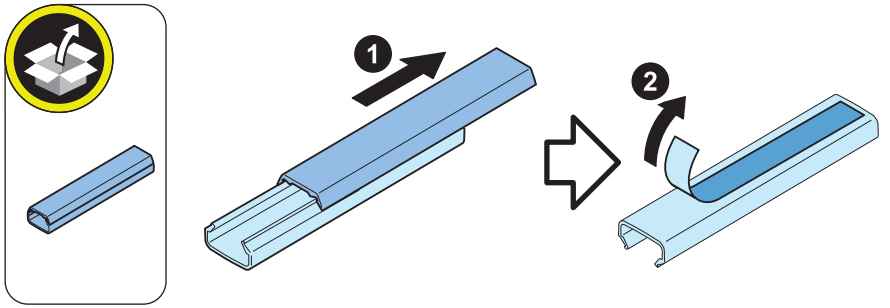
F-9-81

☐ 13) Pass the cable of the Card Reader (sales company's option) through the hole in the IC Card Reader Box Unit Lower Cover.



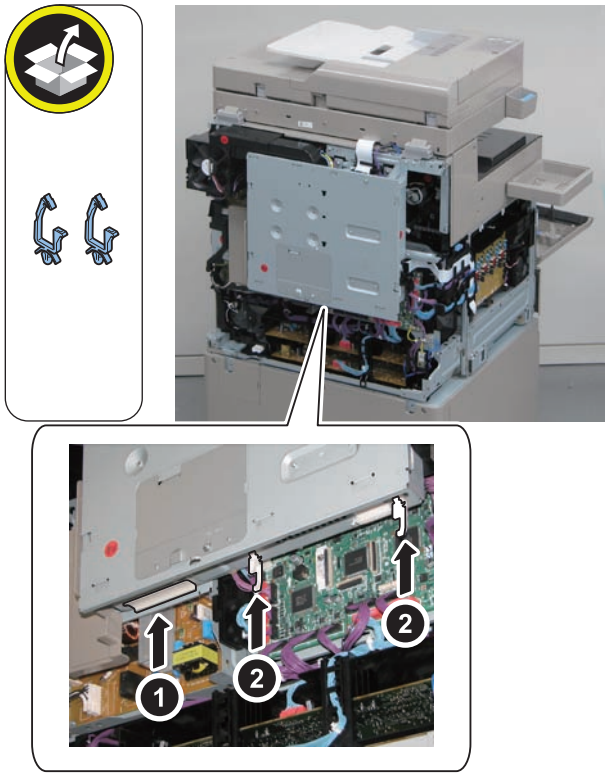
F-9-82

☐ 14) Remove the cover of Cord Guide and then remove the release paper.



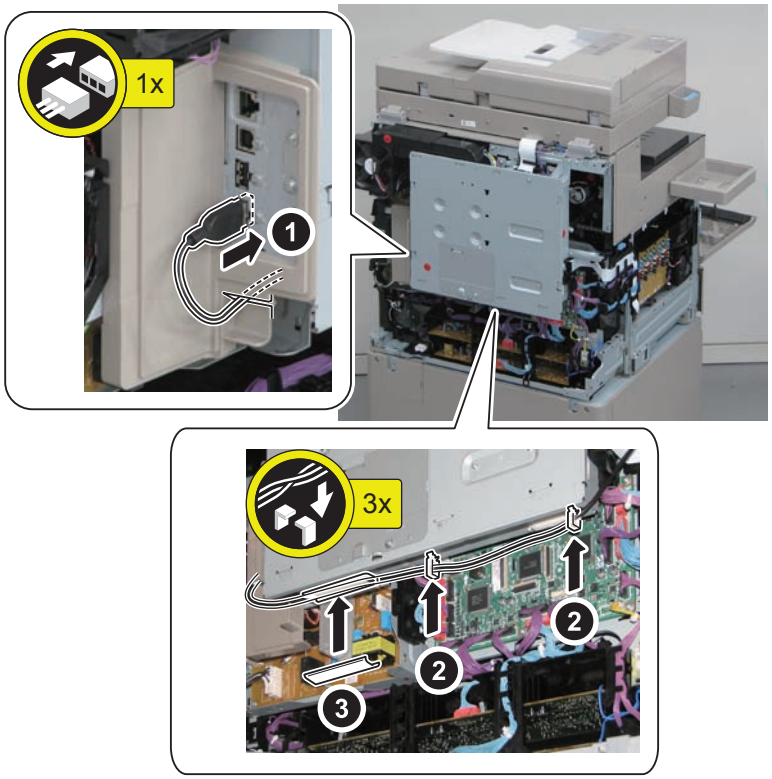
F-9-83

☐ 15) Affix the Cord Guide to the position on the figure and attach 2 Wire Saddles (Large).



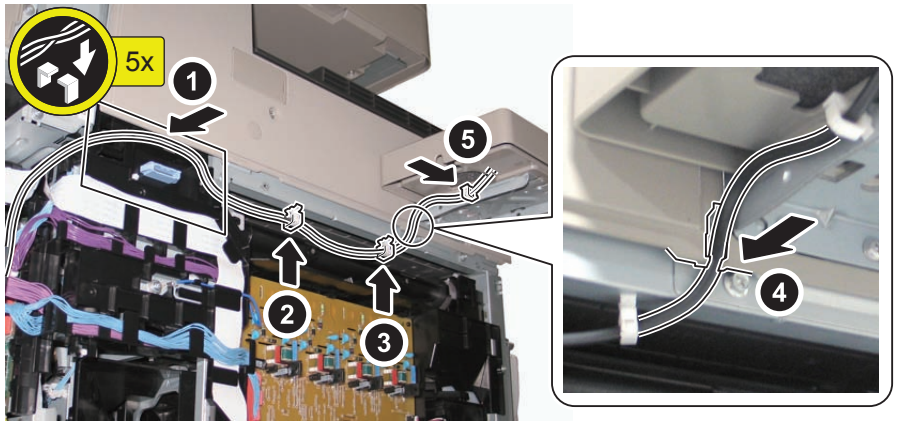
F-9-84

☐
16) Connect the USB, put the Speaker Cable through the Cord Guide, install the cover of the guide and secure the cable.



F-9-85

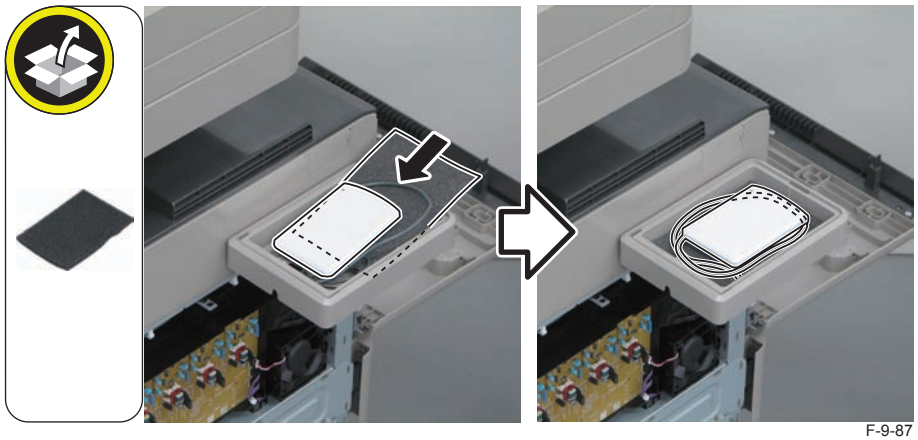
☐
17) Secure the cable of the Card Reader (sales company's option).
- Cable Guide
- 3 Wire Saddles (Small)



F-9-86

☐
18) Place the Sponge Sheet between the IC Card Reader Box Unit Lower Cover and Card Reader (sales company's option).
19) Secure the cable of the Card Reader (sales company's option).

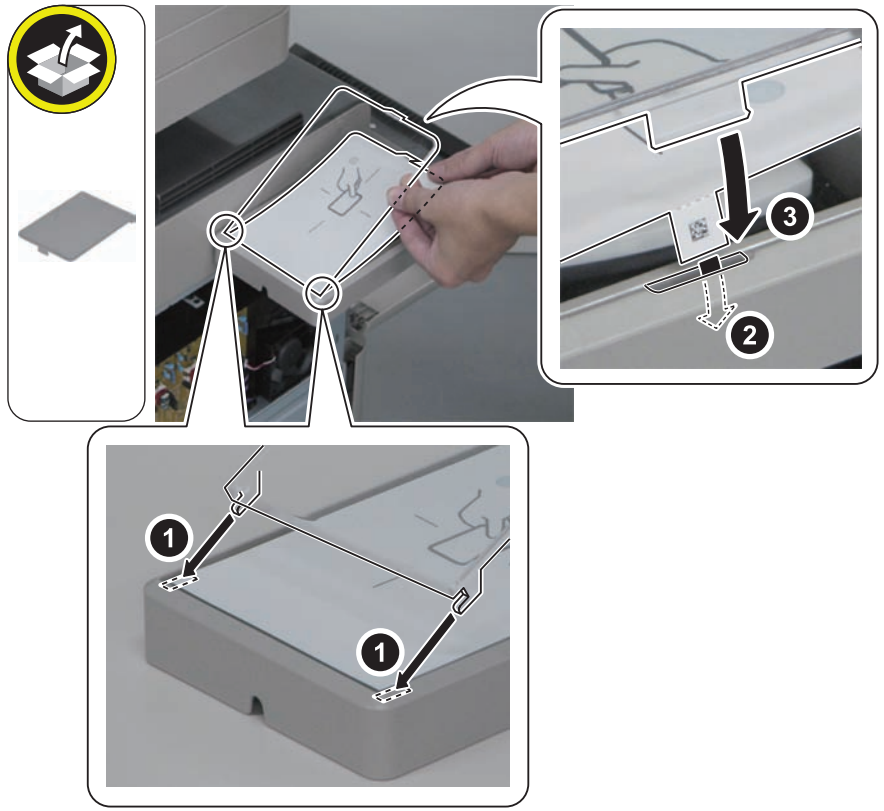
NOTE:
- Be sure to adjust the number of Sponge Sheets (1 or 2 sheets) according to how the cable of the Card Reader is stored.
- Work the cable to make sure that the IC Card Reader Box Upper Cover fits securely in step 20.



F-9-87

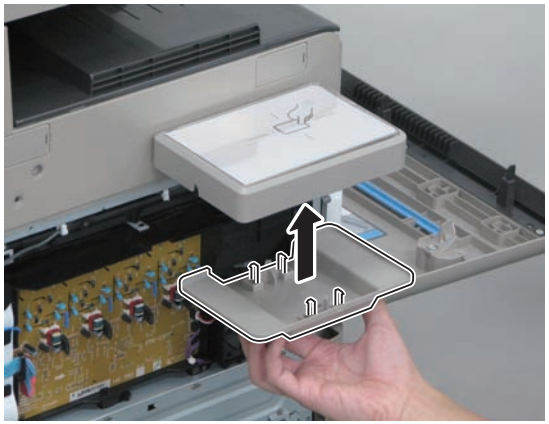
☐
20) Place the Card Reader Sheet on the Card Reader (sales company's option), and install the IC Card Reader Box Upper Cover.
- 2 Hook
- 1 Claw

NOTE:
- Insert the DP Sheet (for Europe) to the hole of IC Card Reader Box Unit Lower Cover with the illustration side facing up and bending the bar code area.
- Be sure that the IC Card Reader Box Upper Cover is installed properly.



F-9-88

☐
21) Install the Bottom Cover of the IC Card Reader Box Unit. (Use the screws removed in step 1.)
- 4 Claws



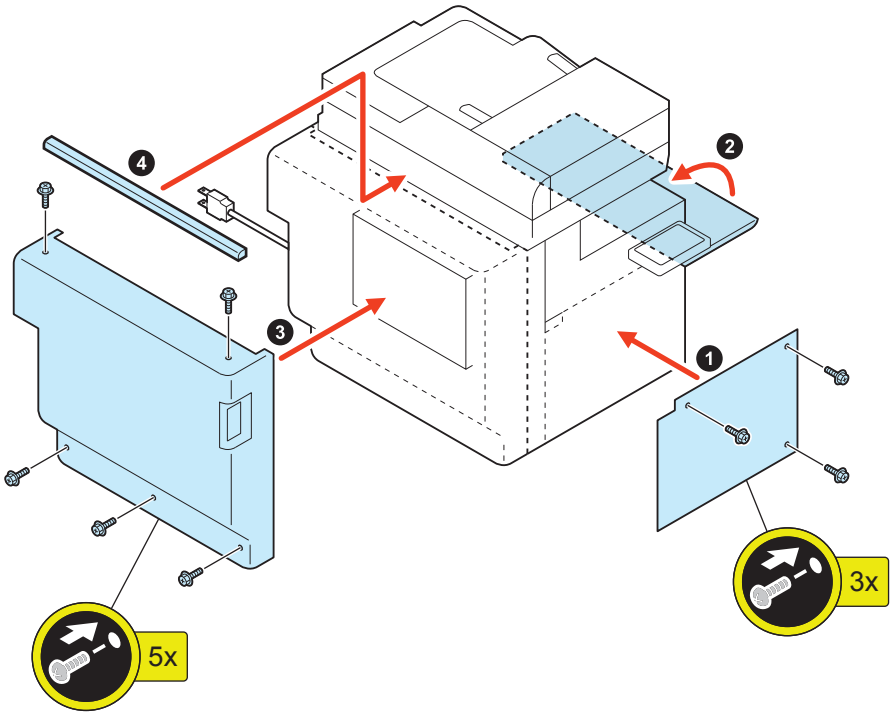
F-9-89

□

22) Return the covers to their original positions.

<Without Cassette feeding Unit>

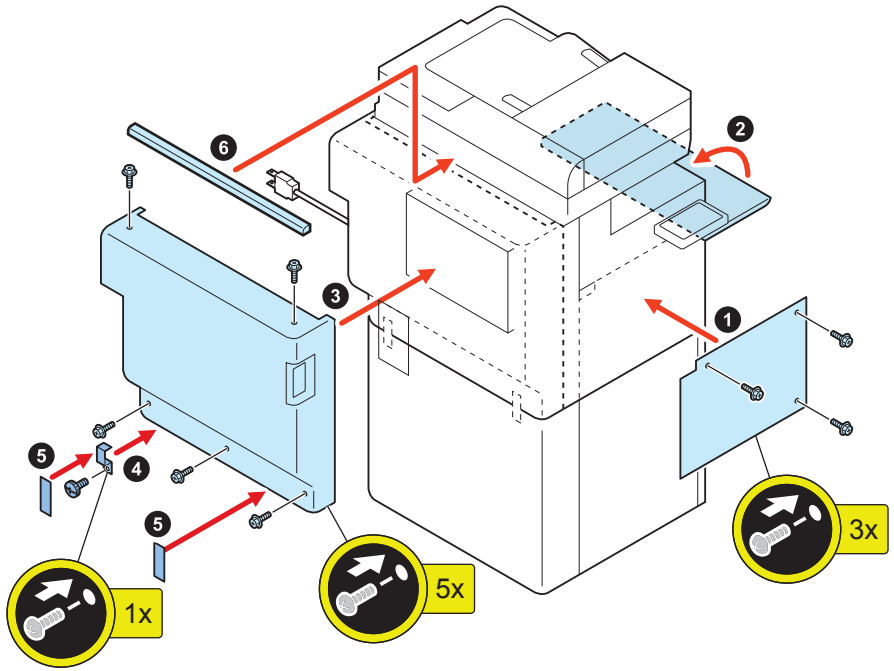
- Left Lower Cover (3 Screws)
- Close the Front Cover
- Rear Cover (5 Screws)
- Reader Rear Cover



F-9-90

<With Cassette feeding Unit>

- Left Lower Cover (3 Screws)
- Close the Front Cover
- Rear Cover (5 Screws)
- Connecting Plate (1 Knurled Screw)
- 2 Face Covers
- Reader Rear Cover



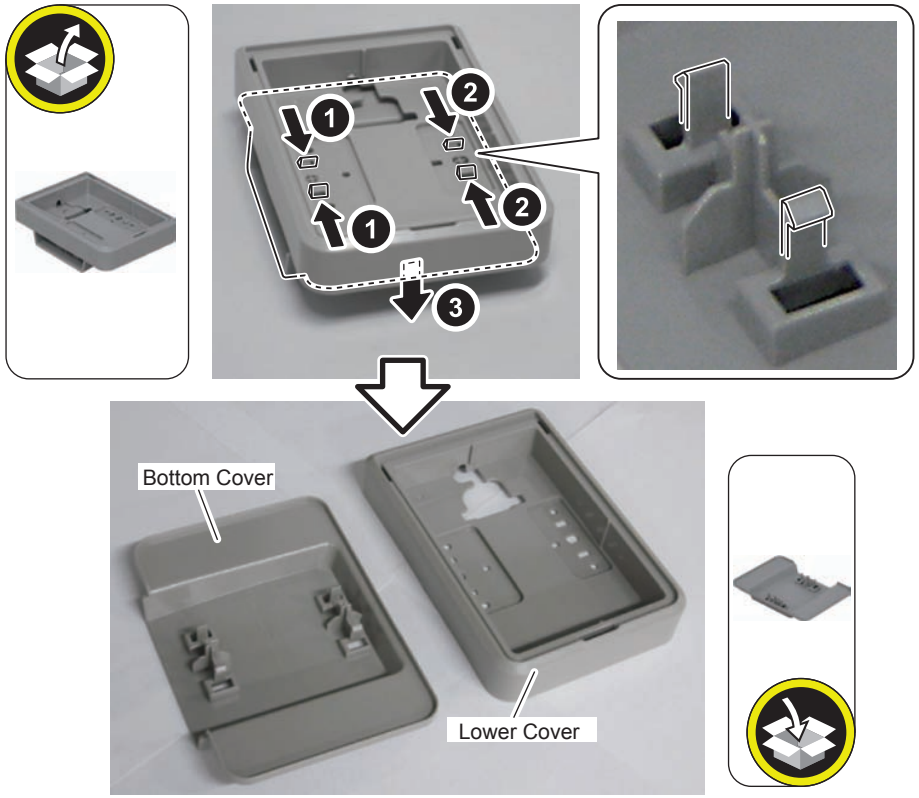
F-9-91

When Installing to the Finisher

☐

1) Remove the claw on Bottom Cover of the IC Card Reader Box Unit by pinching it in the direction of the arrow. (Removed Bottom Cover of the IC Card Reader Box Unit will not be used.)

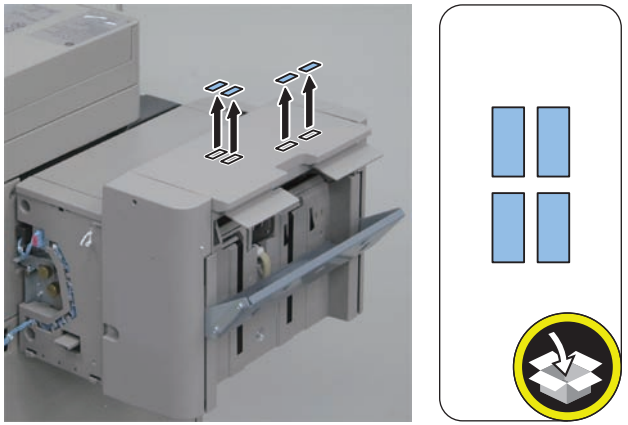
- 4 Claws



F-9-92

☐

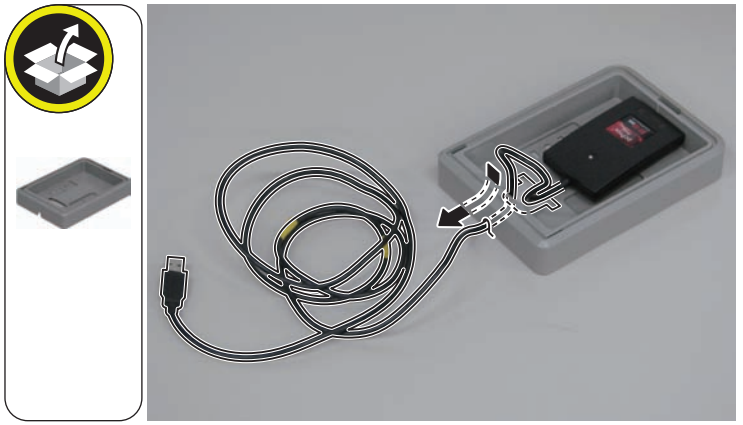
2) Remove the 4 Face Seals on top of the finisher. (The removed Face Seals will not be used.)



F-9-93

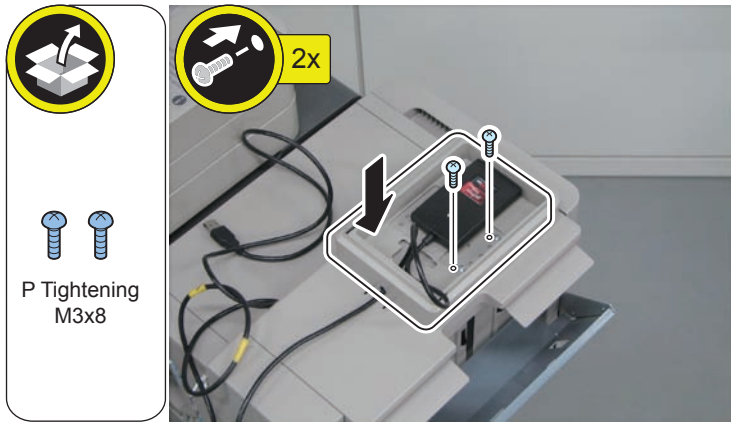
☐

3) Pass the cable of the Card Reader (sales company's option) through the hole in the IC Card Reader Box Unit Lower Cover.



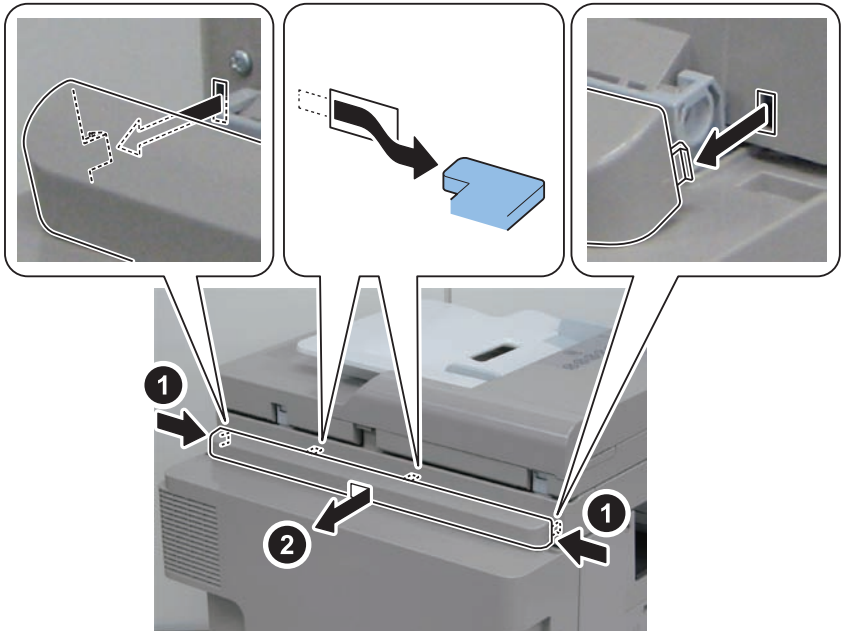
F-9-94

☐
4) Install the IC Card Reader Box Unit Lower Cover to the top of the finisher.
- 2 Screws (TP; M3x6)



F-9-95

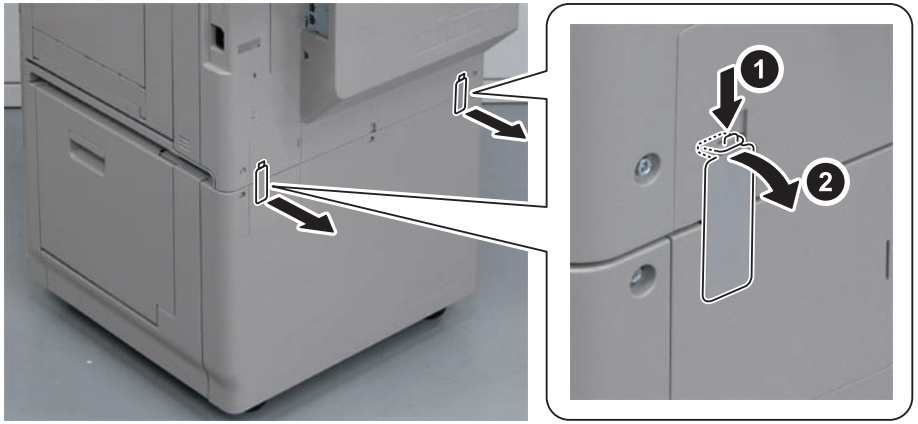
☐
5) Remove the Reader Rear Cover. (Removed Reader Rear Cover will be used in step 14.)
- 2 Hooks
- 2 Claws



F-9-96

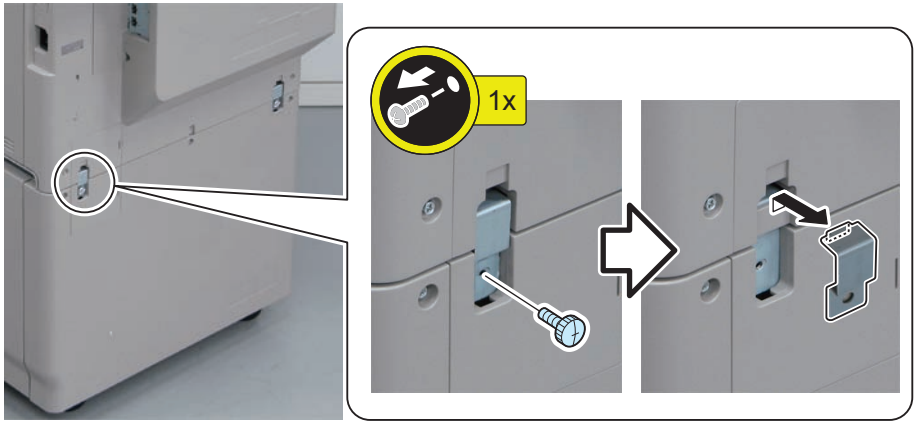
NOTE:
For following steps, proceed to step 6 in the case of the machine with the installed Cassette Feeding Unit and proceed to step 8 in the case of the machine without the installed Cassette Feeding Unit.

☐
6) Remove 2 Face Covers. (Removed 2. Face Covers will be used in step 14.)
- 1 Claw each



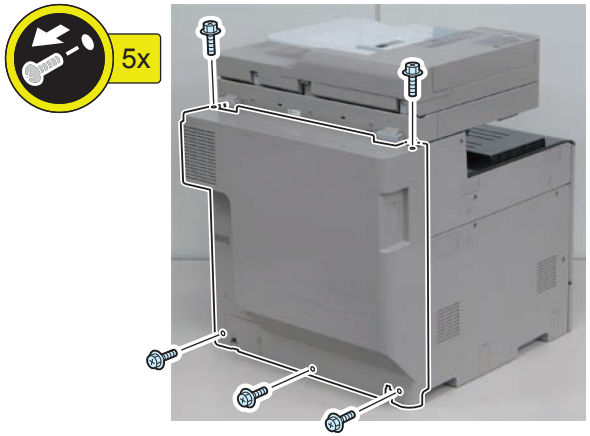
F-9-97

☐
7) Remove 1 Connecting Plate. (Removed Connecting Plate will be used in step 14.)
- 1 Knurled Screw (Removed Knurled Screw will be used in step 14.)
- 1 Hook



F-9-98

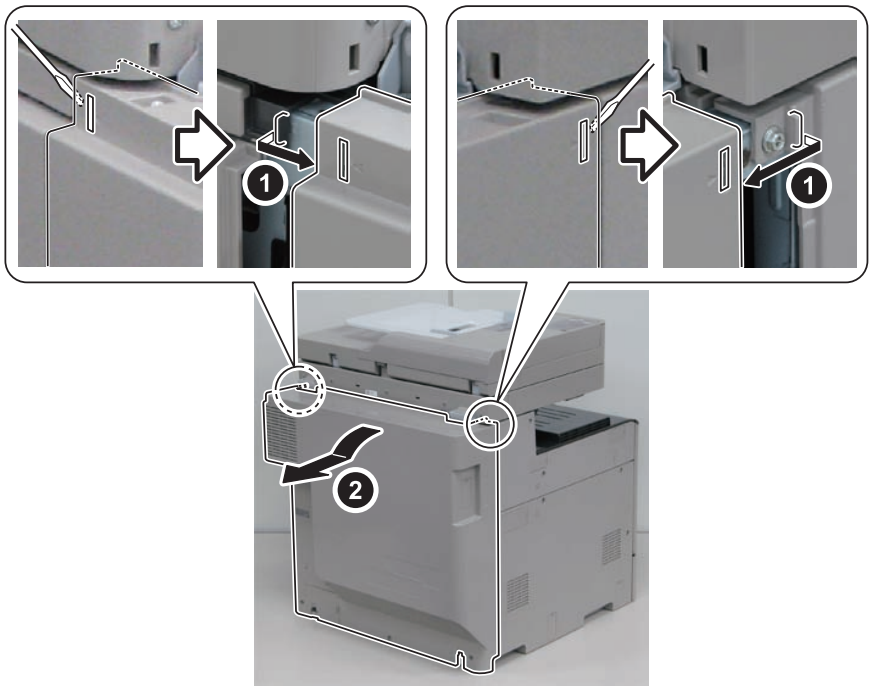
☐
8) Remove the 5 Screws of the Rear Cover. (Removed 5 screws will be used in step 14.)



F-9-99

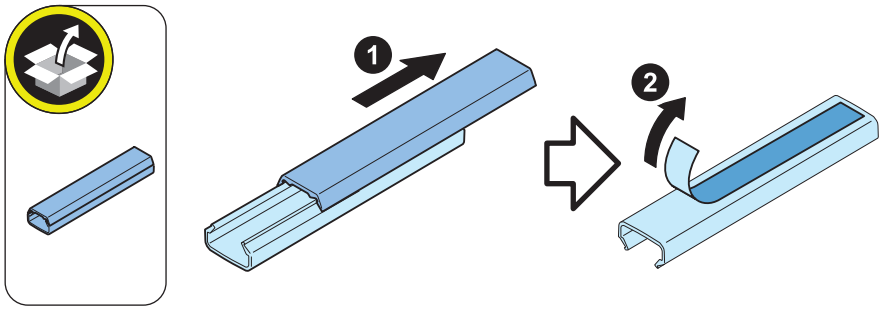
☐
9) Remove the Rear Cover. (Removed Rear Cover will be used in step 14.)

- 2 Protrusion



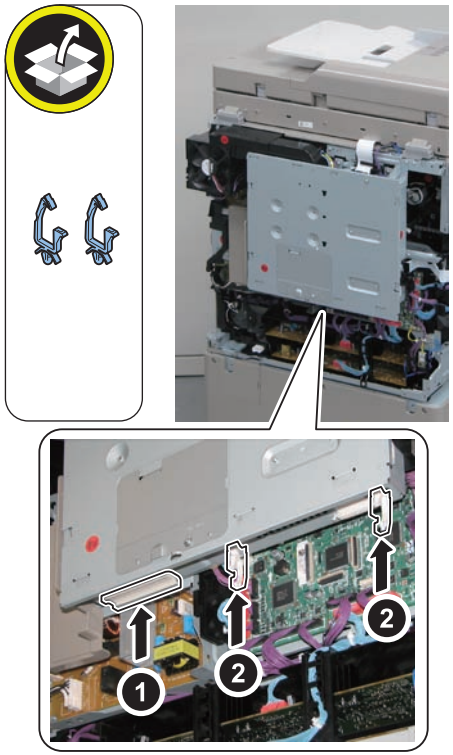
F-9-100

☐
10) Remove the cover of Cord Guide and then remove the release paper.



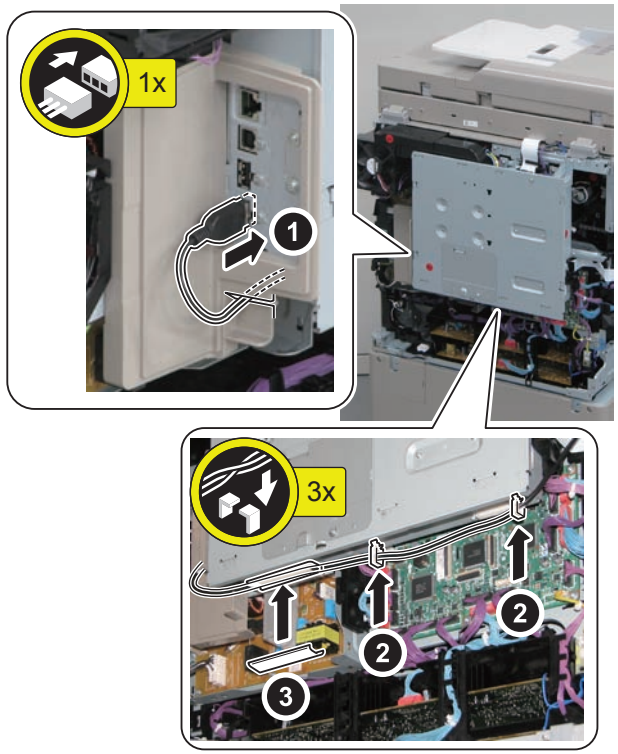
F-9-101

☐
11) Affix the Cord Guide to the position on the figure and attach 2 Wire Saddles (Large).



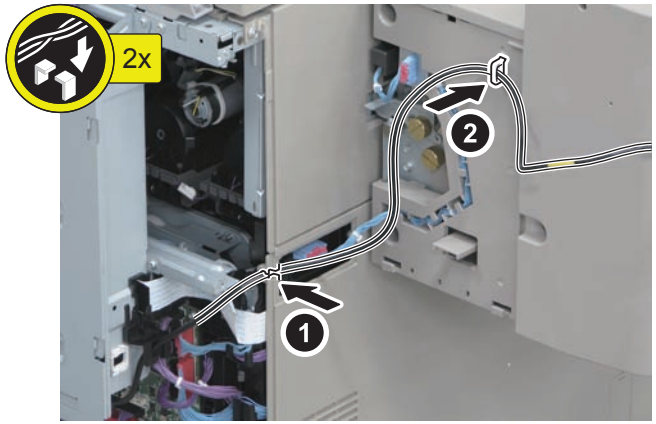
F-9-102

☐
12) Connect the USB, put the Speaker Cable through the Cord Guide, install the cover of the guide and secure the cable.
- 2 Wire Saddles (Large)



F-9-103

☐
13) Secure the cable of the Card Reader (sales company's option).
- Cable Guide
- 1 Wire Saddle

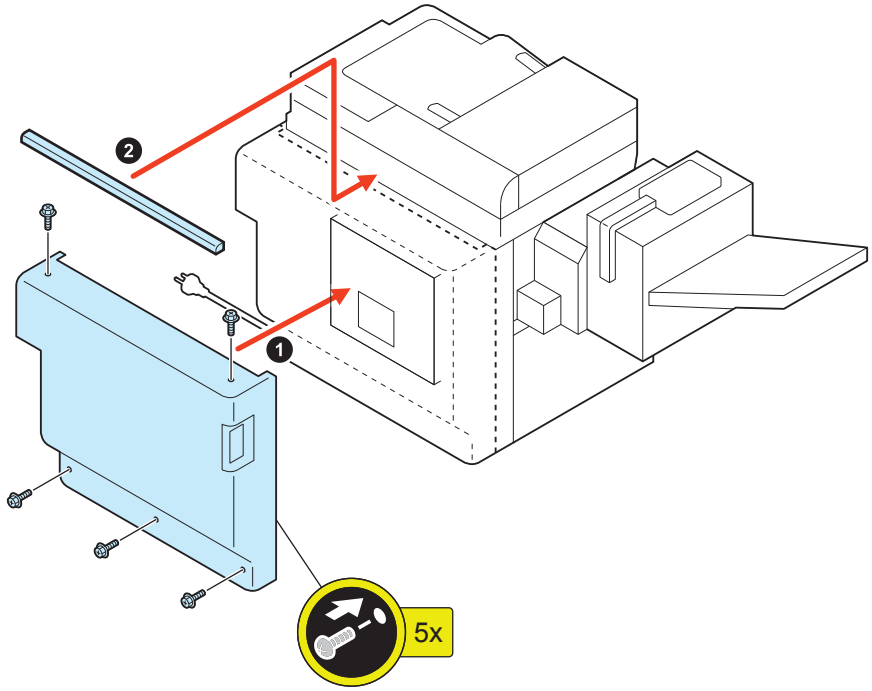


F-9-104

14) Return the covers to their original positions.

<Without Cassette feeding Unit>

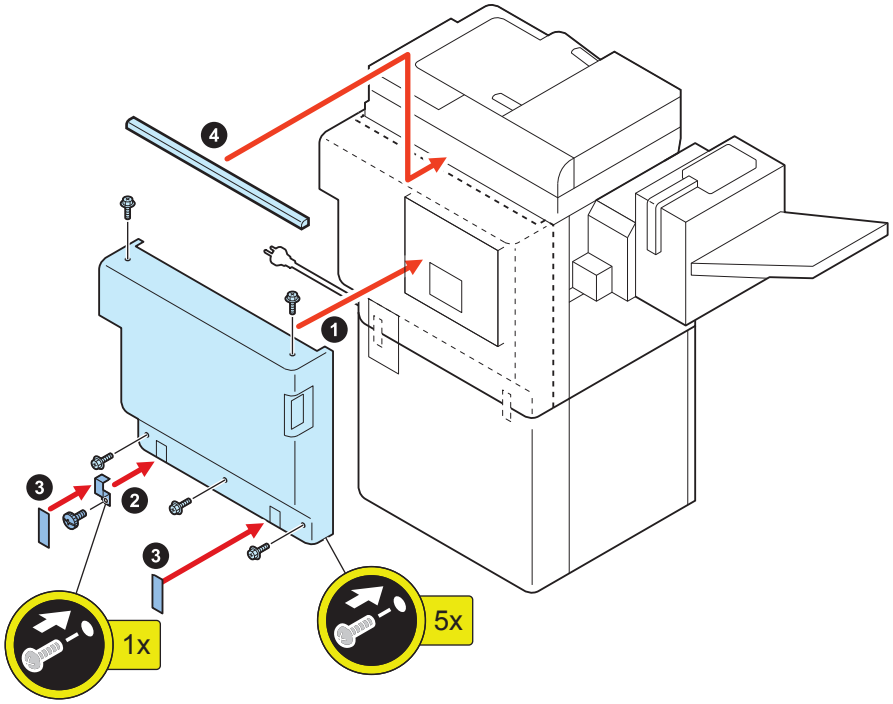
- Rear Cover (5 Screws)
- Reader Rear Cover



F-9-105

<With Cassette feeding Unit>

- Rear Cover (5 Screws)
- Connecting Plate (1 Knurled Screw)
- 2 Face Covers
- Reader Rear Cover

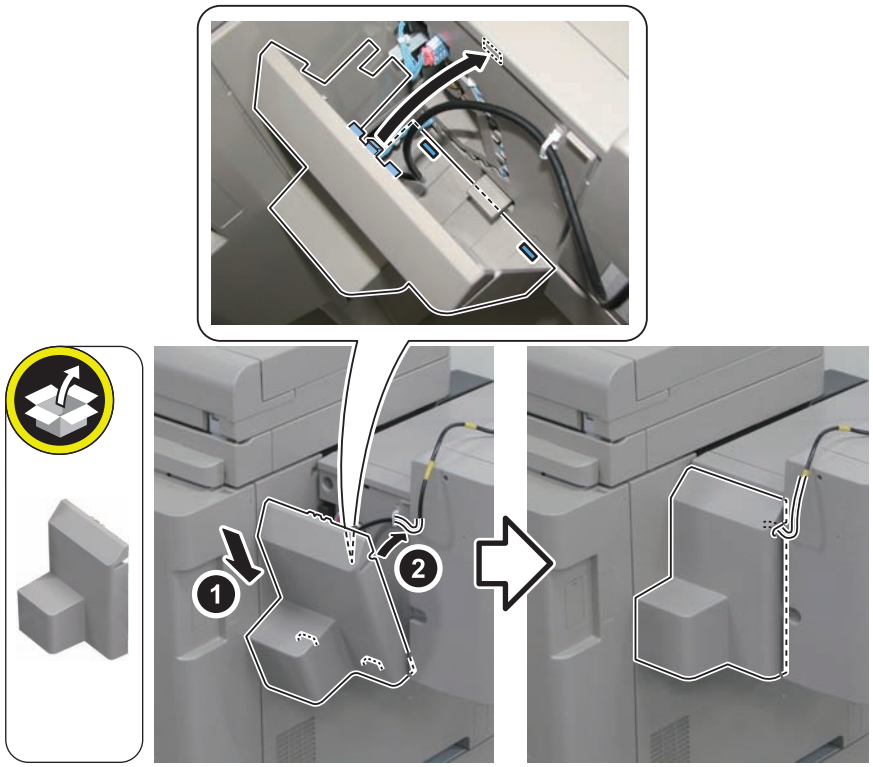


F-9-106

15) Pass the cable of the Card Reader (sales company's option) through the groove of the Harness Cover, and install the Optional Harness Cover.

- 2 Hooks
- 1 Claw
- 2 Protrusions

NOTE:
Be sure that 2 hooks of Finisher are properly hooked to holes of the Optional Harness Cover.



F-9-107

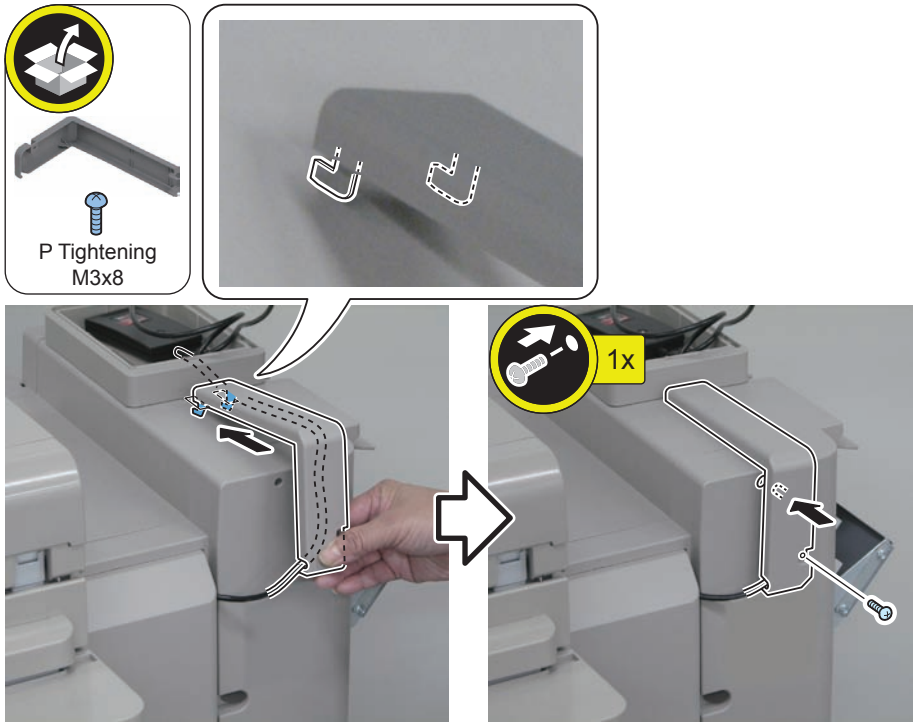
☐

16) Install the Optional Harness Cover (included with the Finisher-S1), and pass the cable of the Card Reader (sales company's option) through it.

- 2 Hooks
- 1 Screw (P Tightening; M3x8) (included with the Finisher-S1)

CAUTION:

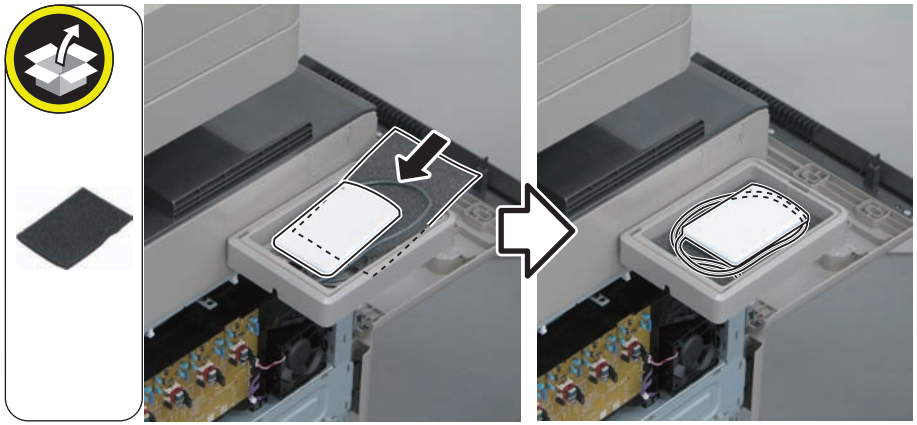
Be careful not to trap cables when installing the Optional Harness Cover.



F-9-108

☐
17) Place the Sponge Sheet between the IC Card Reader Box Unit Lower Cover and Card Reader (sales company's option).
18) Secure the cable of the Card Reader (sales company's option).

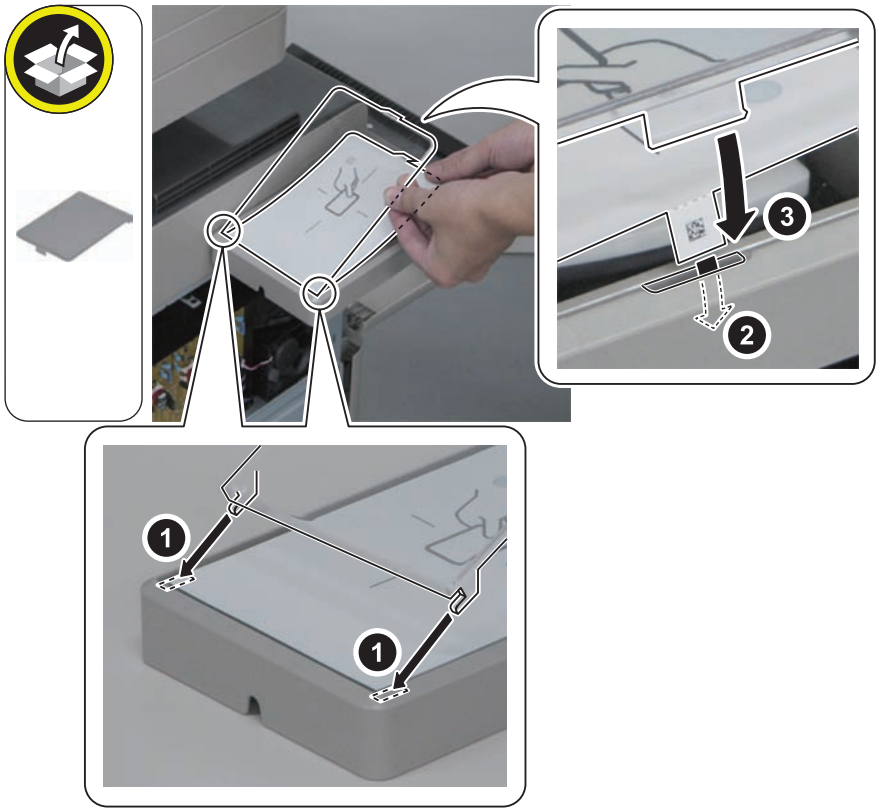
NOTE:
- Be sure to adjust the number of Sponge Sheets (1 or 2 sheets) according to how the cable of the Card Reader is stored.
- Work the cable to make sure that the IC Card Reader Box Upper Cover fits securely in step 19.



F-9-109

☐
19) Place the Card Reader Sheet on the Card Reader (sales company's option), and install the IC Card Reader Box Upper Cover.
- 2 Hook
- 1 Claw

NOTE:
- Insert the DP Sheet (for Europe) to the hole of IC Card Reader Box Unit Lower Cover with the illustration side facing up and bending the bar code area.
- Be sure that the IC Card Reader Box Upper Cover is installed properly.



F-9-110

HDD Data Encryption Kit-C6

Points to Note when Unpacking HDD Data Encryption Kit

A tamper-proof security sticker is affixed to the lid of the kit package. Check that the package has not been opened and the security sticker has not been broken.
If the package has been opened or the security seal has been broken, ask the user if the user has done it.

Setting Before Turning OFF the Power

CAUTION:
Be sure to turn OFF the main power after executing this service mode setting.
Turning OFF the main power without executing service mode causes
"E602-5001 (procedure error before installing the HDD Encryption Board)"
to occur when turning ON the main power after installing the Encryption Board.
Execute the following service mode (level 1).

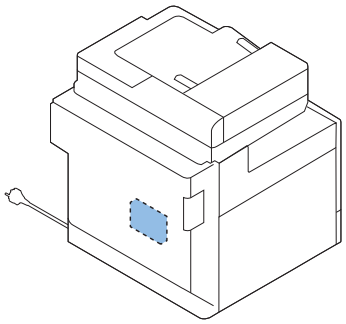
- COPIER > FUNCTION > INSTALL > HD-CRYP

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing

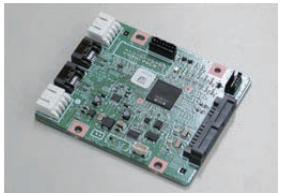


F-9-111

Points to Note at Installation

- When installing at the same time with the Copy Card Reader, be sure to install this equipment first.
- If the Copy Card Reader is installed, this equipment cannot be installed unless it is removed. For details of installation procedure, chapter on "Installation" in the Service Manual.

Checking the Contents

☐ [1] Encryption Board X 1 	☐ [2] Signal Cable (250mm; A:HDD-Sig) X 1 	☐ [3] Power Cable (270mm; A:HDD-Pow1) X 1 
☐ [4] Signal Cable (135mm; A:Cont-Sig) X 1 	☐ [5] Power Cable (135mm; A:Cont-Pow) X 1 	☐ [6] Harness Guide X 1 
☐ [7] Wire Saddle X 3 Use 2 of them 	☐ [8] Screw (TP; M3x6) X 4 	

< CD/Guides >

- Set of CD/Guides

F-9-112

Installation Procedure

Points to Note on Backing Up/Exporting Data

Before performing this installation work, inform the system administrator that the following data will be erased, and ask him to back up or export the data as needed.

The service technician should not back up or export the data for security reasons.

The series of steps is shown in this document for reference.

<List of Erased Data>

Erased data	Can the data be backed up?
Destination information registered in the address book	Yes
Settings specified in Settings/Registration	Yes *1
Registered forwarding settings	Yes
MEAP application license files	Yes
MEAP application	No
Data saved using MEAP applications	Yes *2
Registered favorite settings of the copy function and mail box function	No
Scan modes registered with the Send function	No
SMS (Service Management Service) password of MEAP (If the password has been changed, the default password is restored.)	No
Job log information	No
User authentication information registered in the local device authentication of SSO-H (Single Sign-On H)	Yes
Network place registration information	Yes
Registered key pairs and server certificates	No
Audit log	Yes
Passwords and PINs protected by the TPM	Yes *3
Encryption keys protected by the TPM	No
Web Access setting information	Yes *4
Quick Menu information	Yes

T-9-1

*1 It can be backed up only by using remote UI.

*2 Only when the MEAP application has a backup function.

*3 Some types of passwords and PINs cannot be backed up.

*4 Only saved favorites can be backed up.

<List of data that can be backed up>

Data that can be backed up	Reference
Basic information in Settings/Registration	See the e-Manual > Remote UI.
Paper type management settings	
Printer settings	
Forwarding Settings	
Mail box settings	
Department ID management settings	
Main menu settings	
Favorite settings	
Address book	
Quick menu settings	
MEAP application setting information	
User setting information	
Web Access setting information	See the e-Manual > Web Access.(It can be selected only when the web browser option is installed.)
MEAP application license files	For information on downloading license files, see the e-Manual > MEAP.
Data retained by MEAP applications	Data retained by some of the MEAP applications may be able to be backed up.See the instruction manuals for the MEAP applications.
User authentication information registered in SSO-H (Single Sign-On H)	See the e-Manual > MEAP.

T-9-2

CAUTION: Other Work Required after Installing This Kit

If user authentication was performed with SSO-H (Single Sign-On H) before installing this kit and starting the host machine,

it is necessary to select the login service again after restarting the host machine.

For information on changing the login service, see the e-Manual > MEAP.

Backup Procedure (Reference)

The backed up data can be restored after this installation has been completed. Since the data to be restored is the property of the user, request the system administrator to restore it.
The method for restoring data is shown in the User Guide.
Where to find the information is shown in the list of data that can be backed up.

User Settings Batch Export Procedure

The data that can be exported with a batch export is shown below.

- Basic information in Settings/Registration
- Paper Type Management Settings
- Forwarding Settings
- Mail box settings
- Department ID Management Settings
- Main Menu Settings
- Favorite Settings
- Address Book
- Quick Menu Settings
- MEAP Application Setting Information
- User Setting Information

1) Access the following URL to access the remote UI.
   http://[IP address of the device]/
   If a system manager ID and PIN are set in the machine, a dialog box prompting you to enter a user name and password is displayed.
   Enter the system manager ID for the user name and the PIN for the password, and click [Administrator Login].
2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export ALL] > [Export].
3) Select the items to export.

CAUTION:
If you are exporting only certain items, the association of setting information between multiple items may be lost and settings may be overwritten.
To avoid this, export related items at the same time.

4) Enter the password into [Encryption Password] and click on [Start Exporting].
5) Click [Check Status].
6) Check the result of the batch export.

Backing Up MEAP Applications

If MEAP applications are installed, the data retained by the MEAP applications and their licenses will be erased.
This is not a concern if no MEAP applications are installed. If the MEAP application has a backup function,
be sure to use that function to back up the data unique to that MEAP application.
For licenses, it is necessary to stop all applications from SMS (Service Management Service), disable the licenses, and then download the disabled license files.
The overview of the procedure for stopping MEAP applications, disabling licenses, and downloading disabled license files is shown below. For more information, see MEAPSMS Administrator Guide.

Stopping, Disabling, Downloading Disabled Licenses for, and Uninstalling MEAP Applications

1) Select the following URL to access SMS.
   http://<IP address of the device>:8000/sms/
   The default password is MeapSmsLogin. If the user has changed the SMS password, request the user to change the password after starting operation of this kit.

CAUTION:
Be sure to request the user to change the password, as the SMS password is initialized after starting operation of this kit.

2) Click [MEAP Application Management].
3) Click [Stop] for the application to stop on the MEAP Application Management page.
4) Confirm that the status of the MEAP application has changed to [Stop].
5) Click the name of the application to disable.
6) Click [License Control], and then click [Disable].
7) Click [Yes] on the screen confirming whether you want to disable the license.
8) Return to the MEAP Application Management page, and click the name of the corresponding application.
9) Click [License Management] on the Application/License Information page.
10) Click [[Download].
11) Follow the instructions on the screen to specify the location to save the file. Make sure to use a file name that enables you to identify which application the disabled license file is for.
    When you have downloaded the disabled license file to the PC, click [Delete].
    Click [Yes] on the screen confirming whether you want to delete the license.

12) Return to the MEAP Application Management page, and click [Uninstall] for the application you want to uninstall. Click [Yes] on the screen confirming whether you want to uninstall the application.
If there are multiple applications, repeat steps 1 to 7.

13) After starting operation of this kit, reinstall the applications using the application files (jar files) and disabled license files (lic files) that you backed up from SMS.

■ User Authentication Information Registered in SSO-H (Single Sign-On H)

If the MEAP login application has been changed to SSO-H, it is necessary to back up the user authentication information by following the procedure below.

1) Access the following URL.
http://<IP address of the device>:8000/sso/

2) Log in with a user name and password registered in SSO-H as an administrator.
The default administrator user is indicated below.
User Name: Administrator
Password: password

3) Click [User Control].

4) Click [Select All], and click [Export].

5) Click [Start Export] with the default file format and character encoding selected.

6) Follow the instructions on the screen to specify the location to save the file, and click [Save].

■ Import/export by service mode (external)

The following shows the procedure for importing and exporting the service mode setting values in service mode. With export by which data is collected from the machine, service mode setting values can be backed up. With import, data backed up from service mode and that backed up from remote UI can be restored.
The save destination of backup data can be selected from either a USB flash drive or HDD of the machine.

● Export

Preparation

- USB flash drive
  * Required when exporting to an external USB flash drive.
  It needs to have been formatted to be recognized by the device. No firmware registration is necessary.

Overall flow

Select the save destination between the internal HDD or external USB flash drive depending on the use case.

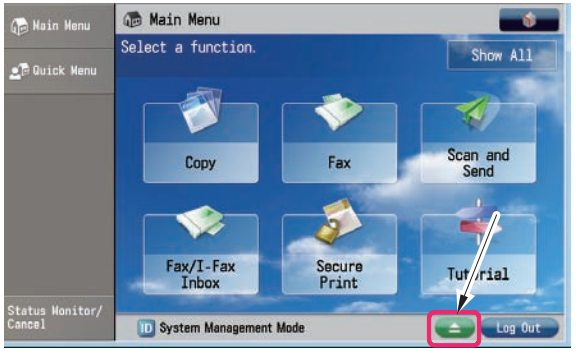
Procedure

1. Select external USB flash drive as save destination (LIST=1)
2. Register password
3. Export to external USB flash drive
4. Remove USB flash drive

Exporting data to an external USB flash drive

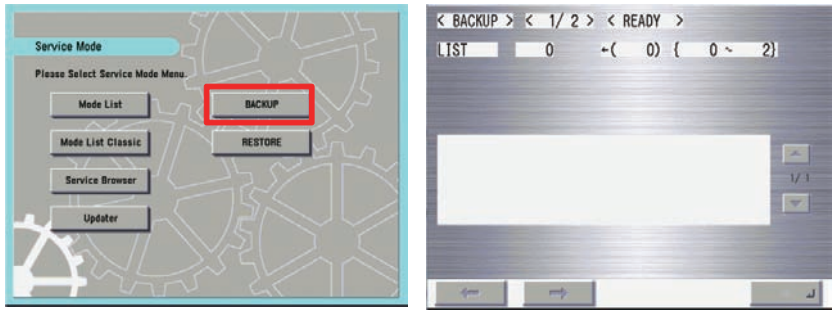
☐

1. Connect the USB flash drive and check that it has been mounted. (When using the external USB flash drive)



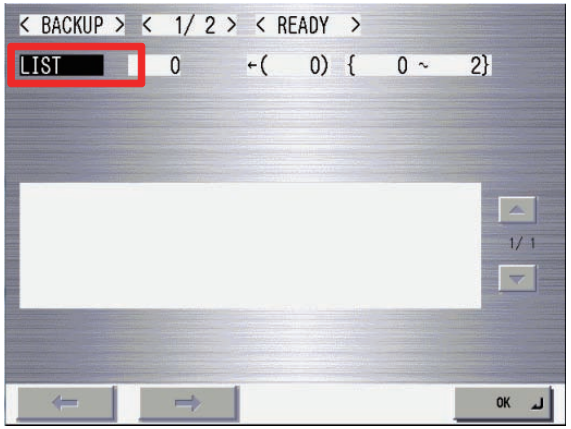
F-9-113

□
2. Log in to service mode and press ” BACKUP” .



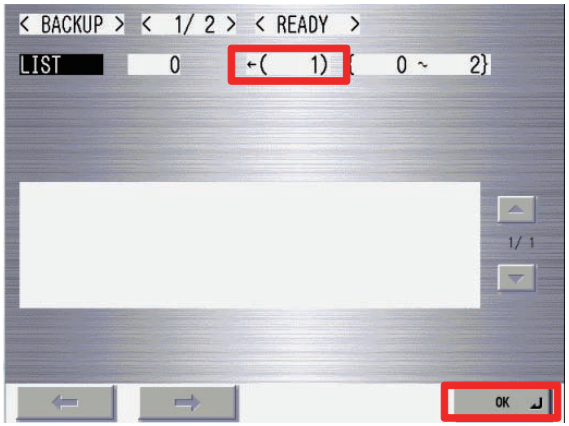
F-9-114

□
3. Select "LIST" after the screen moves to <BACKUP>.



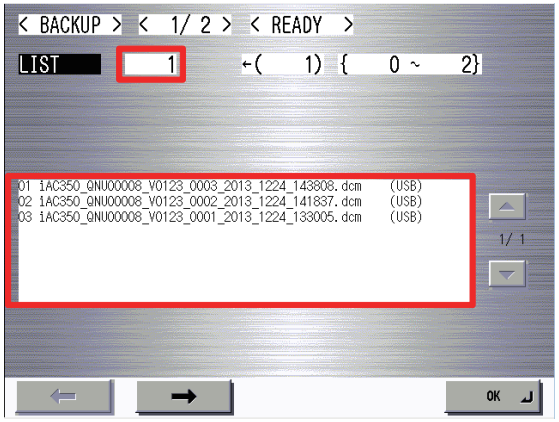
F-9-115

□
4. When saving to the external USB flash drive, select "1" and press "OK".



F-9-116

□
5. The names of .dcm files saved in the external USB flash drive are displayed.



F-9-117

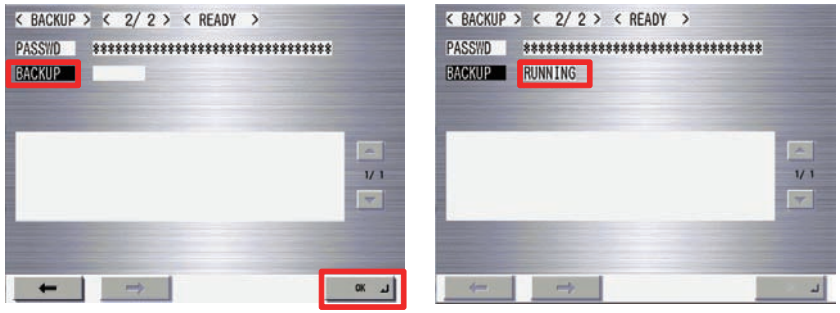
6. Select "PASSWD", enter a password from the software keyboard, and then press "OK".

F-9-118

Note:
Limitations regarding the DCM data password
- Character string of software keyboard: 0 to 32 characters
- No password is set when 0 character is entered. (The setting in which no password is set is allowed only for service mode.)
- No space is allowed in the middle of a password.
- Password is case sensitive.

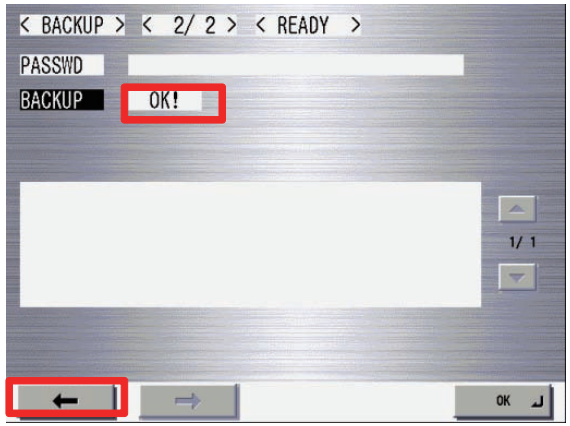
Limitations regarding the DCM data no password
- The exporting data cannot import from remote UI without appointing a password. You can import only from service mode UI.

7. After registering the password, select "BACKUP". Press "OK" to execute export.



F-9-119

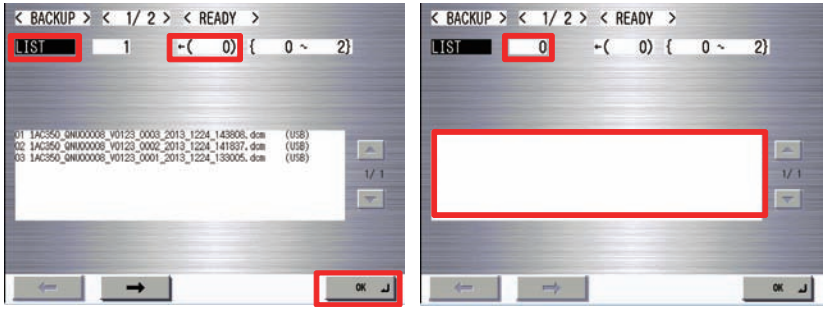
8. OK! is displayed in the status column when the processing is successfully completed. Press "<-".



F-9-120

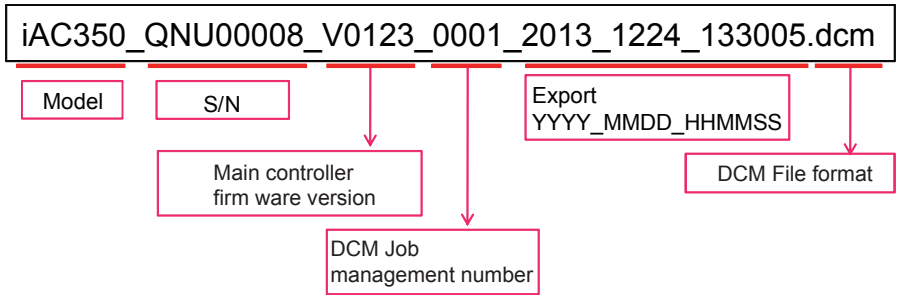
9. After access to the USB flash drive has occurred, select LIST=0 and press "OK". Unmount the USB flash drive.

It can also be removed by pressing the Remove button on the main menu.



F-9-121

Reference:



F-9-122

● Import

Preparation

- USB flash drive

Note:
- Required when importing from an external USB memory device.
- It needs to have been formatted to be recognized by the device. No firmware registration is necessary.
- When necessary, copy the files which you want to import using a PC in advance.
- Be sure to store them in the root folder of the USB memory device.
- Do not change the extension from .DCM. (only .DCM files can be recognized.)
- It is desirable to connect the USB memory device before entering service mode.

Overall flow

Procedure for restoring data from an external USB flash drive.

Procedure

1. Select external USB flash drive as save destination (LIST=1)
2. Names of saved DCM data files are displayed
3. Register password
4. Import from external USB flash drive
5. Remove USB flash drive
6. Specification of export file name

Procedure for restoring data from an external

☐ 1. Connect the USB flash drive. (When using the external USB flash drive)

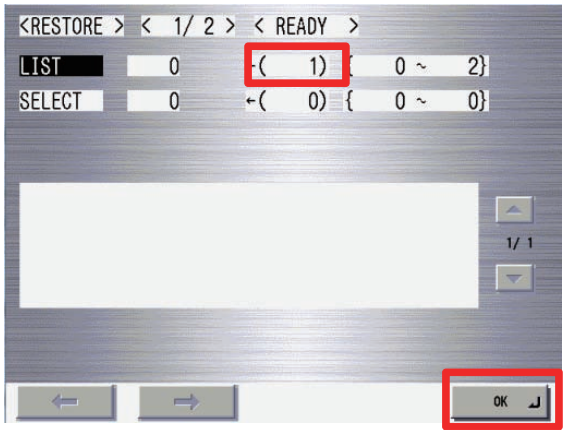
☐ 2. Log in to service mode and press "RESTORE".

F-9-123

☐ 3. Select "LIST" after the screen moves to <RESTORE>.

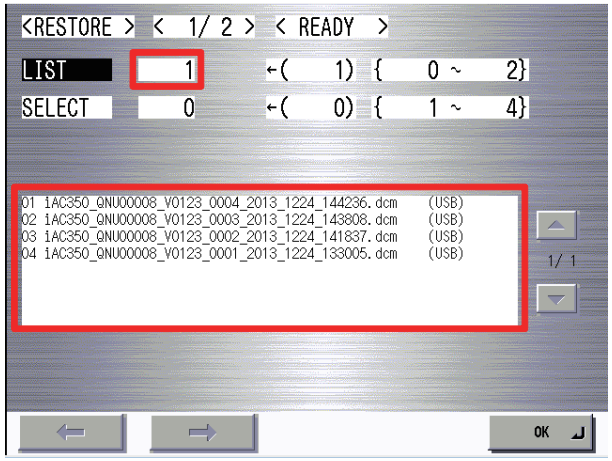
F-9-124

□
4. When referring to the external USB flash drive, select 1 and press "OK".



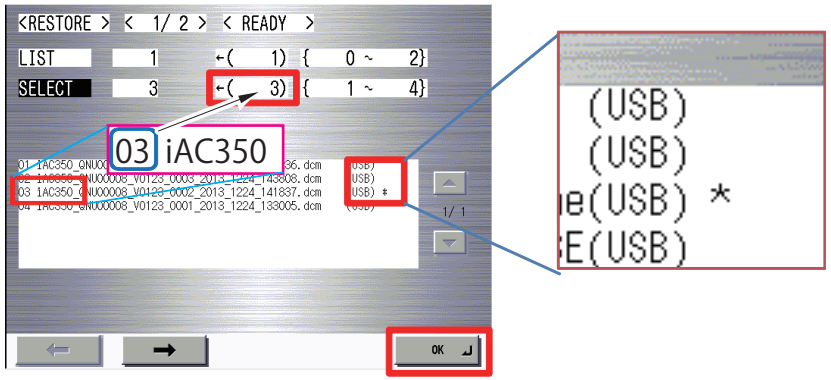
F-9-125

□
5. The names of .dcm files referred to in the external USB flash drive are displayed.



F-9-126

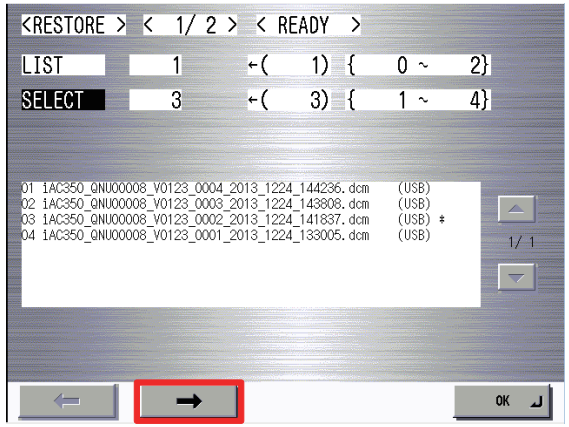
□
6. Select SELECT.
Enter the selection number displayed on the left side of the file to be selected and press "OK".
"*" is displayed on the right side of the file to indicate that the file has been selected.



F-9-127

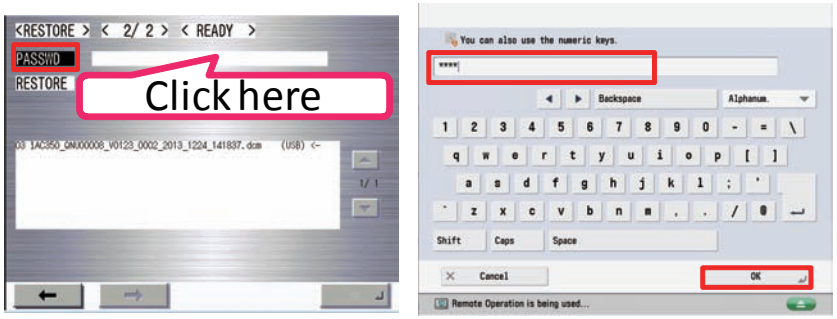
Note:
Up to 8 DCM files are displayed in one screen. It is necessary to switch screens when there are more than 8 files.

□
7. When the correct file is displayed, press "->".



F-9-128

8. Select "PASSWD", enter a password from the software keyboard, and then press "OK".



F-9-129

F-9-130

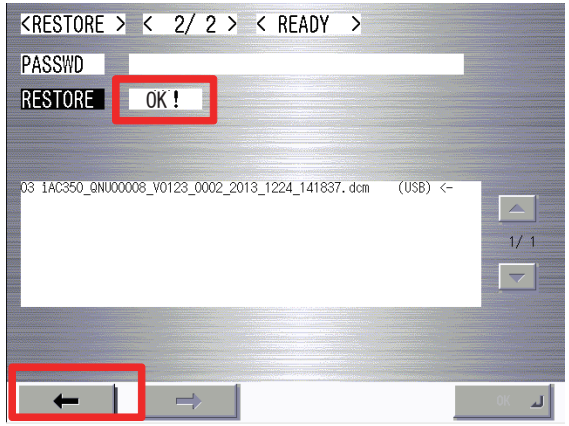
Note:

- "<-" is displayed on the right side of the file to indicate that the selection of the file has been confirmed.
- "***" is displayed after the password is entered.

9. After entering the password, select "RESTORE". Press "OK" to execute import.

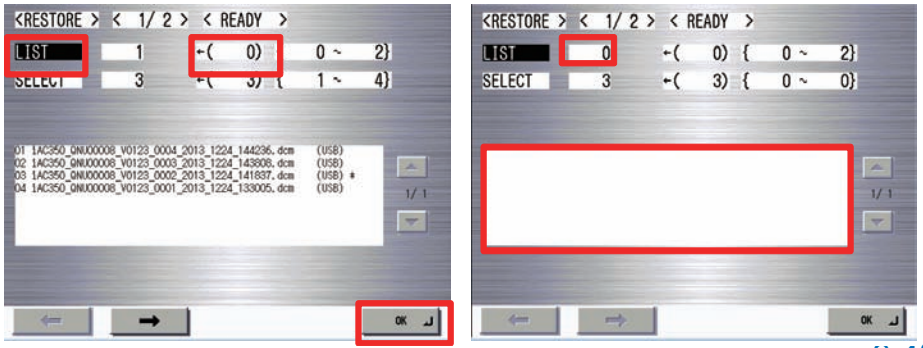
F-9-131

10. "OK!" is displayed in the status column when the processing is successfully completed. Press "<-".



F-9-132

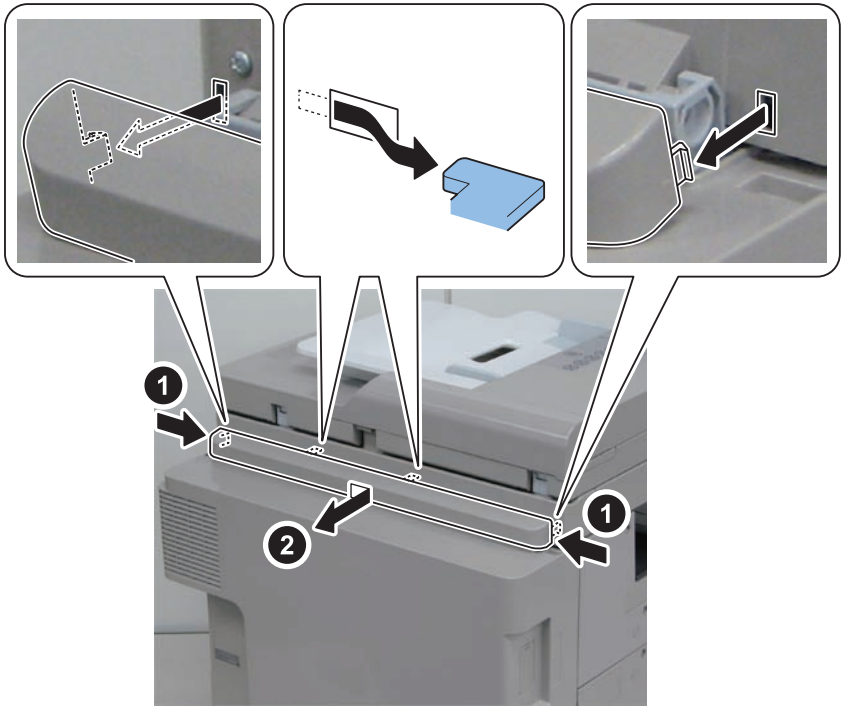
11. S"LIST",enter "0" and press "OK". Unmount the USB flash device. It can also be removed by pressing the Remove button on the main menu.



F-9-133

Installation Procedure

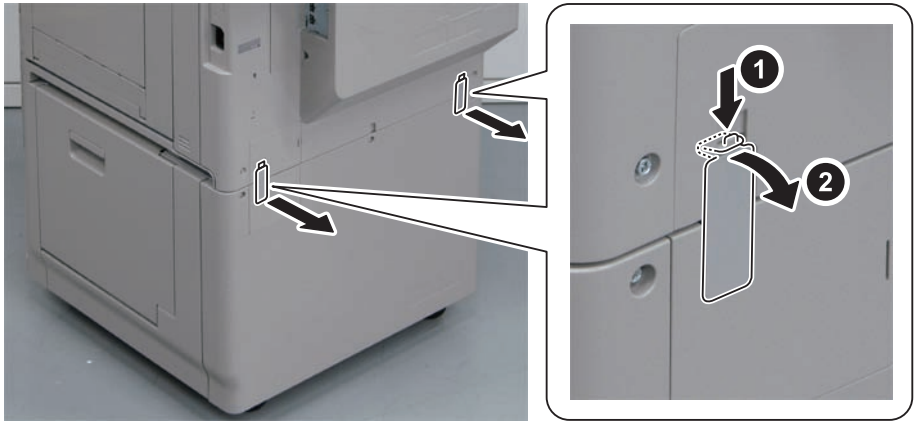
☐
1) Remove the Reader Rear Cover. (Removed Reader Rear Cover will be used in step 16.)
- 2 Claws
- 2 Hooks



F-9-134

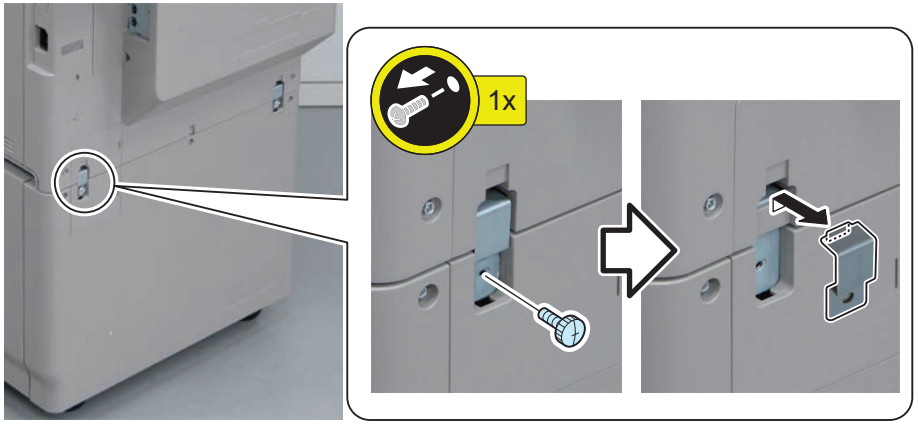
NOTE:
For following steps, proceed to step 2 in the case of the machine with the installed Cassette Feeding Unit and proceed to step 4 in the case of the machine without the installed Cassette Feeding Unit.

☐
2) Remove 2 Face Covers. (Removed Face Covers will be used in step 16.)
- 1 Claw each



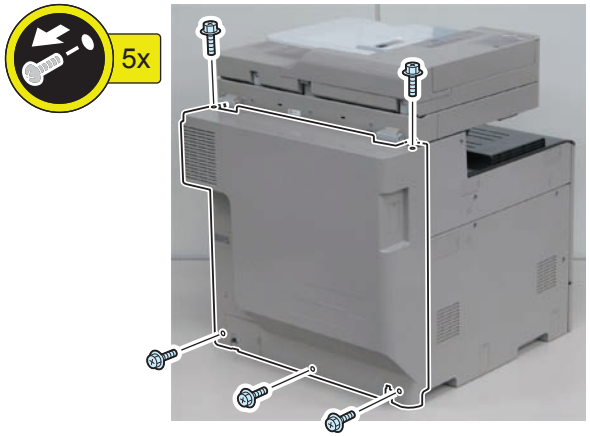
F-9-135

☐
3) Remove 1 Connecting Plate. (Removed Connecting Plate will be used in step 16.)
- 1 Knurled Screw (Removed Knurled Screw will be used in step 16.)
- 1 Hook



F-9-136

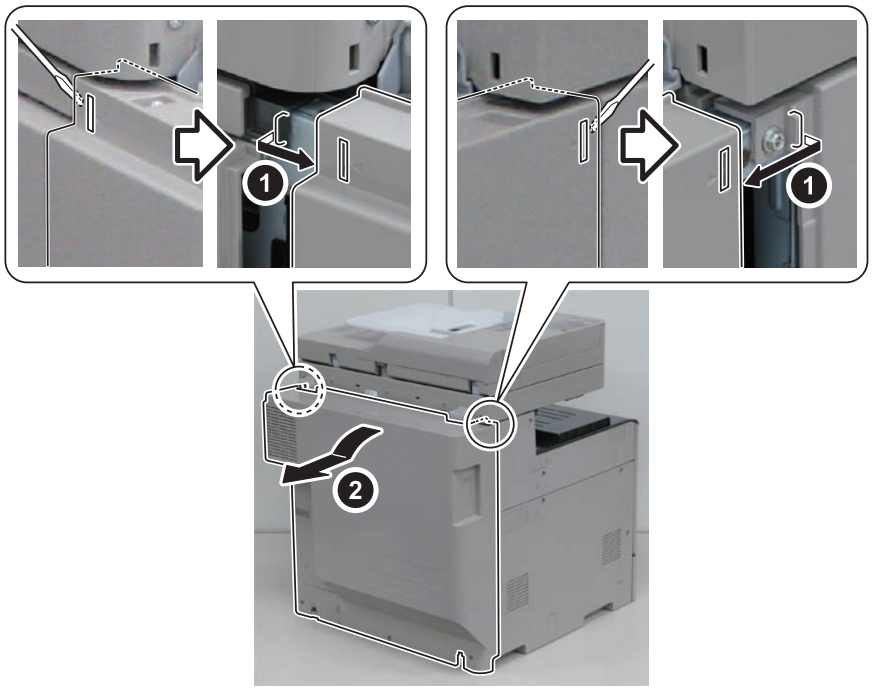
☐
4) Remove the screws of the Rear Cover. (Removed 5 screws will be used in step 16.)



F-9-137

☐
5) Remove the Rear Cover. (Removed Rear Cover will be used in step 16.)

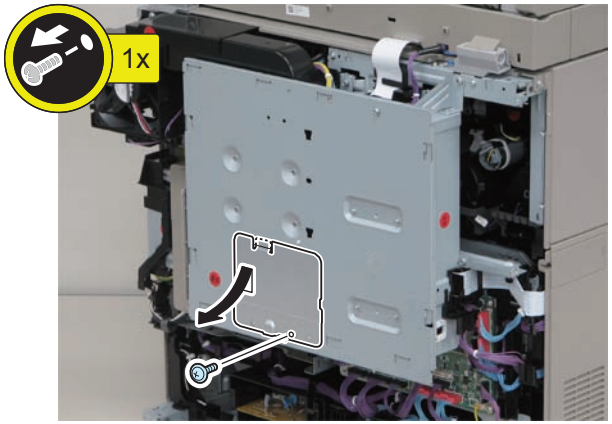
- 2 Protrusion



F-9-138

☐
6) Remove the small cover of the Controller Box Cover. (Removed small cover of the Controller Box Cover will be used in step 16.)

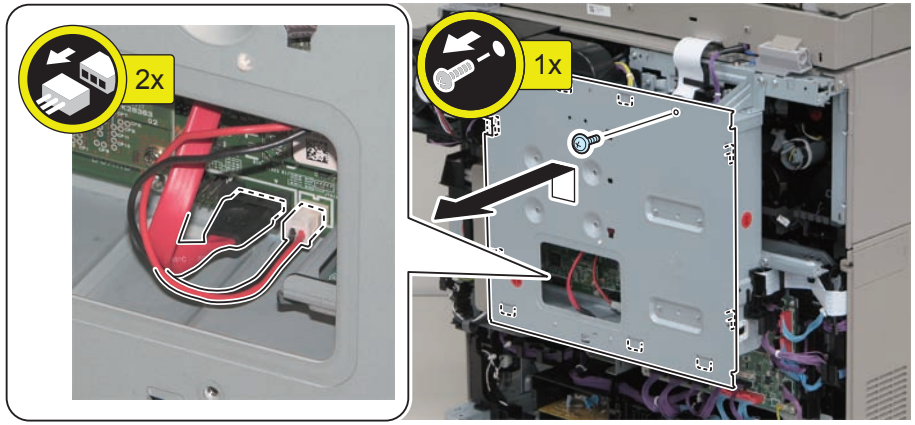
- 1 Screw (Removed Screw will be used in step 16.)



F-9-139

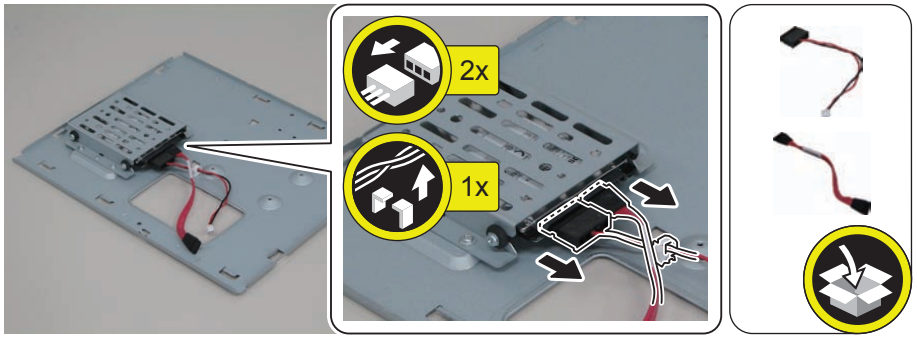
☐
7) Remove the Controller Box Cover.(Removed Controller Box Cover will be used in step 16.)

- 2 Connectors. (Removed 2 Connectors. will be used in step 16.)
- 1 Screw (Removed Screw will be used in step 16.)
- 10 Hooks



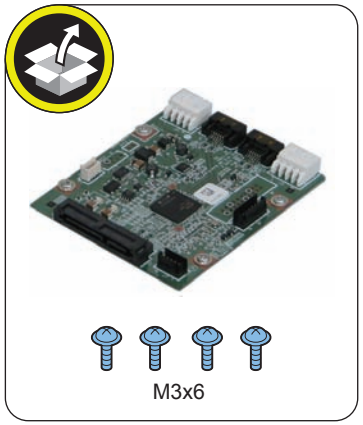
F-9-140

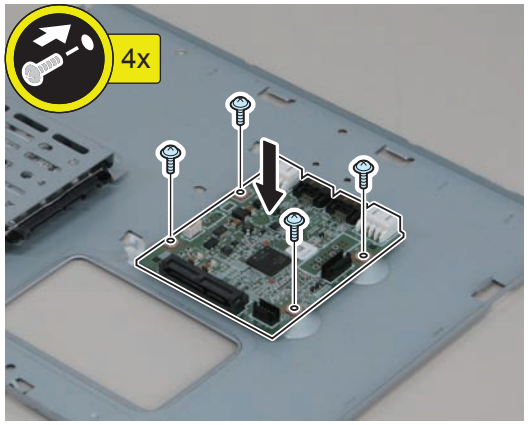
☐
8) Remove the Signal Cable and the Power Cable of the host machine from the HDD. (The removed cables will not be used.)
- 2 Connectors
- 1 Wire Saddle (Close as the Wire Saddle will not be used)



F-9-141

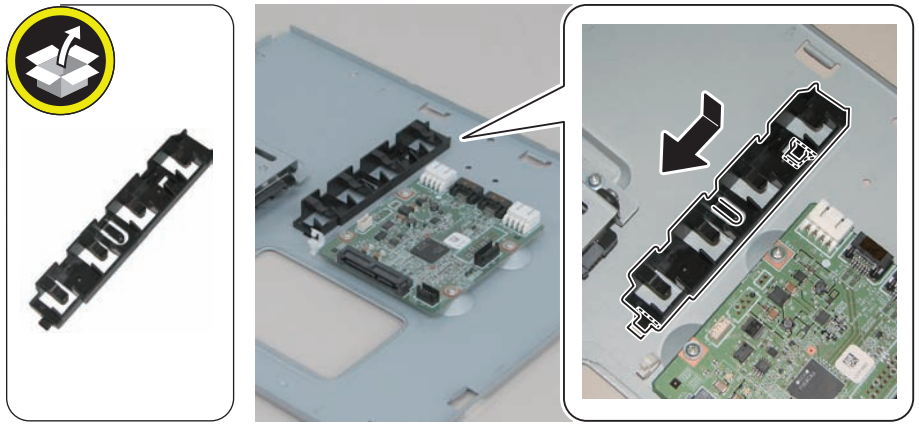
☐
9) Install the Encryption Board to the Controller Cover.
- 4 Screws (TP; M3x6)





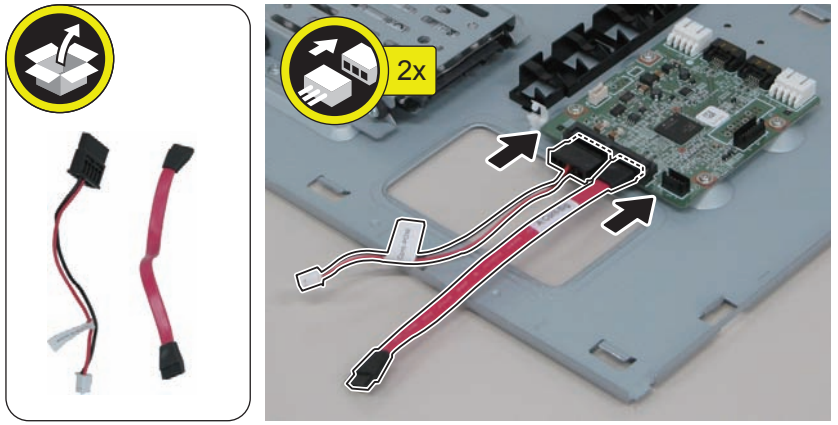
F-9-142

☐
10) Install the Harness Guide.
- 2 Hooks
- 1 Boss



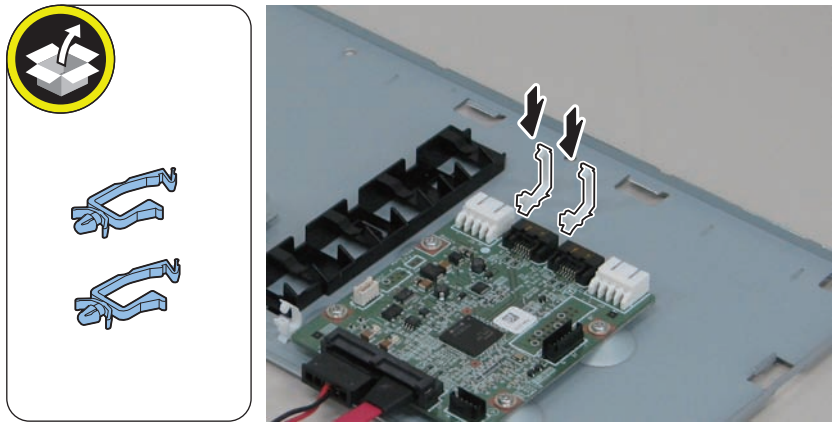
F-9-143

☐
11) Connect the Signal Cable (135mm; A:Cont-Sig) and the Power Cable (135mm; A:Cont-Pow) to the Encryption Board.
- 2 Connectors



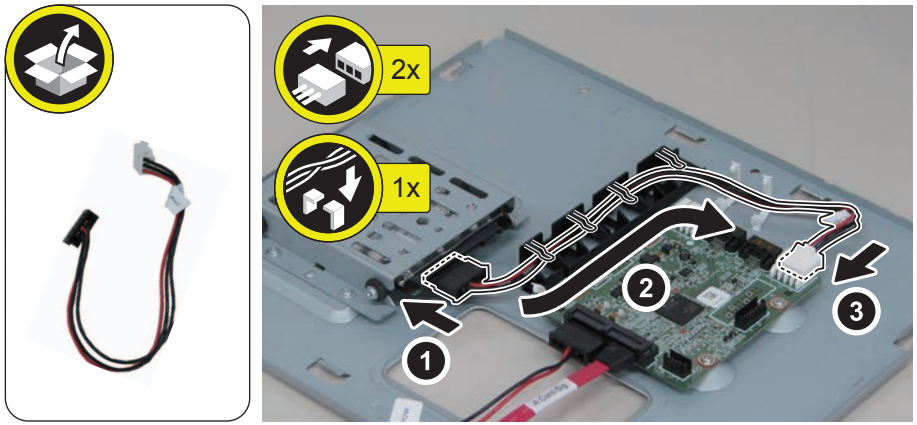
F-9-144

☐
12) Install the 2 Wire Saddles.



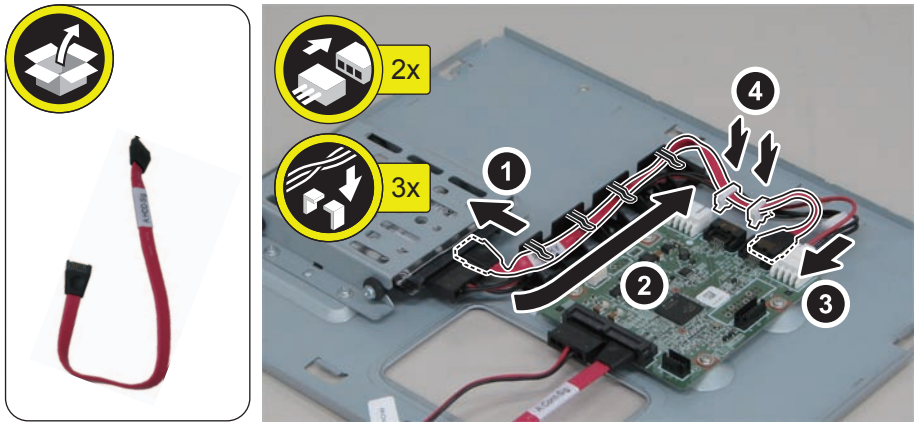
F-9-145

☐
13) Connect the connector of the Power Cable (270mm; A:HDD-Pow1) to the HDD, secure it with the Harness Guide, and connect it to the connector of the Encryption Board.



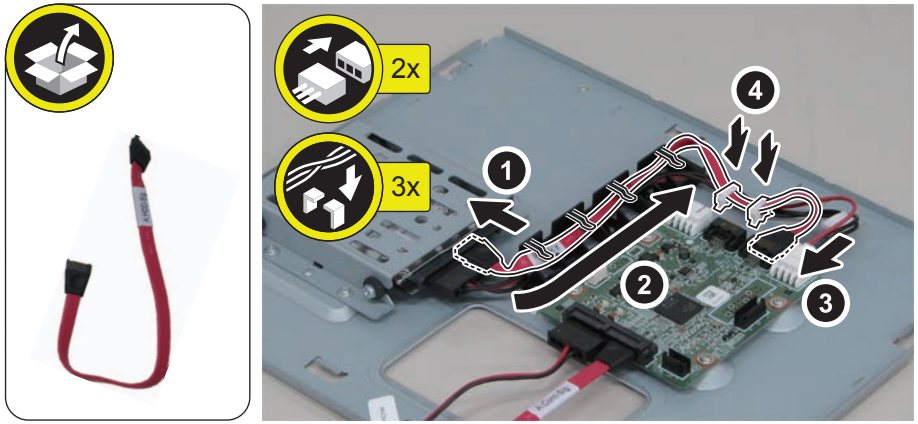
F-9-146

☐
14) Connect the connector of the Signal Cable (250mm; A:HDD-Sig) to the HDD, secure it with the Harness Guide, and connect it to the Encryption Board.



F-9-147

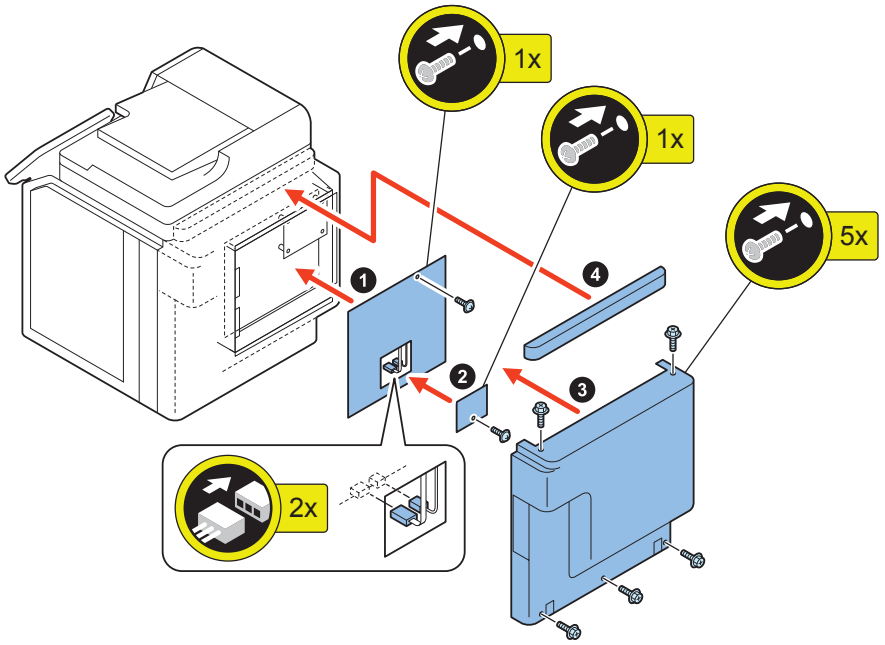
☐
15) Connect the Signal Cable (250mm; A:HDD-Sig) to the HDD, secure it with the Harness Guide, and connect it to the the Encryption Board.
16) SSecure the Power Cable (270mm; A:HDD-Pow1) and the Signal Cable (250mm; A:HDD-Sig) with the 2 Wire Saddles.



F-9-148

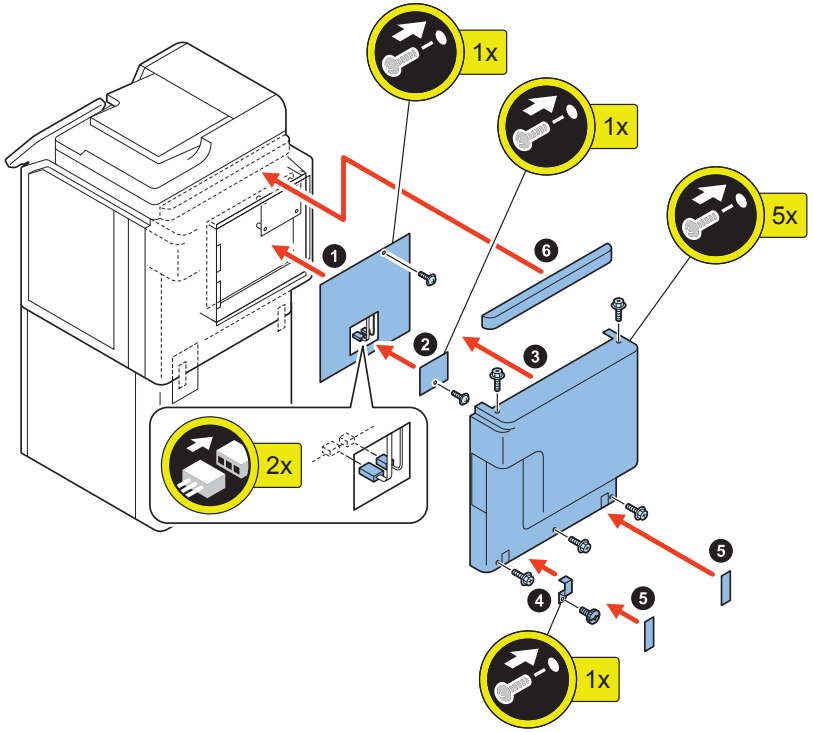
☐
17) Return the covers to their original positions.

<Without Cassette feeding Unit>
- Controller Box Cover (1 screw, 2 Connectors)
- Small Cover of the Controller Box Cover (1 screw)
- Rear Cover (5 screws)
- Reader Rear Cover



F-9-149

<With Cassette feeding Unit>
- Controller Box Cover (1 screw, 2 Connectors)
- Small Cover of the Controller Box Cover (1 screw)
- Rear Cover (5 screws)
- Connecting Plate (1 Knurled Screw)
- 2 Face Covers
- Reader Rear Cover



F-9-150

☐
18) Connect the power plug of the host machine to the outlet.
19) Turn ON the main power switch.

HDD Initialization Procedure

1. Items to be prepared

1) PC
Be sure that the version of the Service Support Tool that supports the host machine is installed.
2) Crossover Ethernet cable

2. Preparing for the Installation of the System Software of Host machine

1) If the PC and host machine have been started, turn the main power OFF.
2) Connect the PC and the machine using an Cross Ethernet cable.
3) Turn ON the power of the PC.

3. Registering the system software

1) Insert the latest System Software CD into the PC using the SST.
2) Start the SST.
3) Click 'Register Firmware'.
4) Select the drive where the system software CD has been inserted, and click the [SEARCH] button.
5) Click the [REGISTER] button.
6) Click [OK].

4. Initializing HDD

< In case of SST >
1) Start the host machine with download mode in safe mode.
2) Start the SST.
3) Select the model. Then, select [Single] and click [Start].
4) Click [Format HDD].
5) Select [All], and click [Start].
6) Click [Execute Format].
7) The Format is executed.
8) Check the following message on the host machine's Control Panel screen.
Starting HDD format
HDD format OK
9) Select [Shutdown/Restart], and click [Shutdown].
10) Click [OK]
11) The power of the host machine is turned OFF.
12) Terminate the SST.
13) Disconnect the Cross Ethernet Cable from the machine, and connect the user's network cable to the machine.

<In case of USB flash drive>
1) Connect the USB memory to the PC.
2) Start up SST, and click the USB icon displayed in the target selection screen.
3) Select the drive, the model series, and the version to be written to the USB flash drive, and click [Confirm].
4) Click [Start], and after the version has been written to the USB flash drive, click [OK] and then remove the USB flash drive.
5) Terminate the SST.
6) Disconnect the Cross Ethernet Cable from the machine, and connect the user's network cable to the machine.
7) Disconnect the Cross Ethernet Cable from the machine, and connect the user's network cable to the machine.
8) Connect the USB memory device to the host machine, and start the host machine with download mode in safe mode.
9) Press keys on the Control Panel in the order shown below.
- Press any keys
- [4] : Clear/Format
- [1] : Disk Format
- [0] : OK
- Press any keys
- [C] : Return to main menu
- [Reset] : Start shutdown sequence
- [0] : OK (The power of the host machine is turned OFF automatically.)

10) Remove the USB flash drive.

Checking the Security Version

1) Press the Counter Check key on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Confirm that '2.00' or '2.01' is displayed for the [Canon MFP Security Chip] item indicating the version of the security chip.
If multiple Encryption Boards are installed, the version information for each board is displayed.

CAUTION:
The user can refer to the version displayed in the [Canon MFP Security Chip] item indicating the version of the security chip to confirm that an Encryption Board that contains a security chip version that has received CC certification is operating correctly.

Checking the Security Mark

The user can check the security mark displayed on the Control Panel when using the host machine to confirm that security is being protected. This security mark is displayed only when an Encryption Board is installed and operating normally. The location where the security mark is displayed is described in the User's Guide as shown below.

< Confirming the Security Mark >

When the HDD Data Encryption Kit is operating normally, a security mark () is displayed on the lower left corner of a panel screen.

Informing the System Administrator That Installation Is Complete

When installation is complete, give the following explanation to the system administrator.
When installation is complete, inform the system administrator that the security functions have been added, and explain the procedure for checking whether the security functions are enabled.
This will enable the system administrator to quickly detect when the functions become disabled and request a service call to correct the error.

Checking That Installation Is Complete:

Following the section "Checking the Security Version", display the version information of the security chip from [Check Device Configuration] on the Control Panel, and show the system administrator that "2.00" or "2.01" is displayed for the [Canon MFP Security Chip] item.

Checking That the Security Functions Are Enabled:

Request the system administrator to refer to the section "Checking the Security Mark" to confirm that the security functions are enabled each time the host machine is started by checking the security mark.

Executing auto gradation adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation correction.
Therefore, execute full adjustment of auto gradation adjustment after installing this kit to enable proper images to be output.

Execution of the minimum installation work

Be sure to execute the minimum installation work in accordance with the Setup Guide because HDD is initialized when this kit is installed.

PCL International Font Set-B1

Preparation

Andale Font Data file

It is contained in a file in the Font Set Software CD.

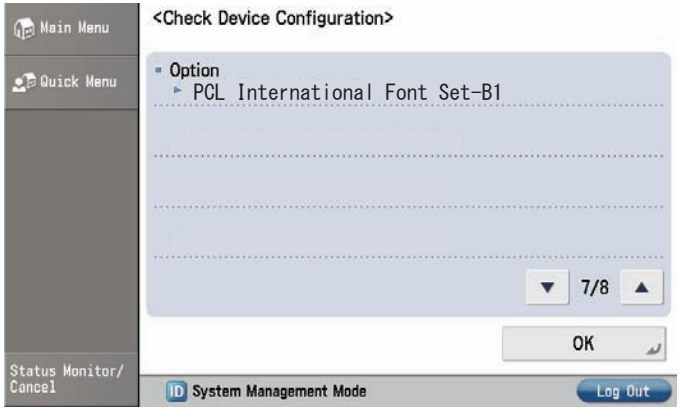
PC that supports SST

Transfer the Andale Font Data to a USB memory device using SST Ver.4.72 or later.

USB memory device

Connect it to the host machine, and register Andale Font in Download Mode.

NOTE:
- In this procedure, use a USB memory device where the system software for the host machine has been registered using the SST.
- Unless the LMS of Andale Font included in the kit is enabled, the installed font cannot be used.
  Counter Key > Check Device configuration > PCL International Font Set-B1



F-9-151

Checking the Contents

License Access Number Certificate
- Font set software CD

Installation Procedure

Register Andale Font using the SST.

System CD => SST

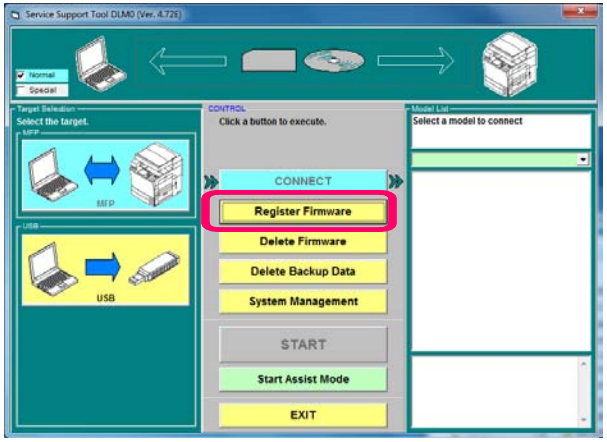
Register the system software, which is included in the system CD, in the SST.

Preparation

Requirements:
- PC with SST Ver. 4.72 or later installed
- Font set software CD containing Andale Font

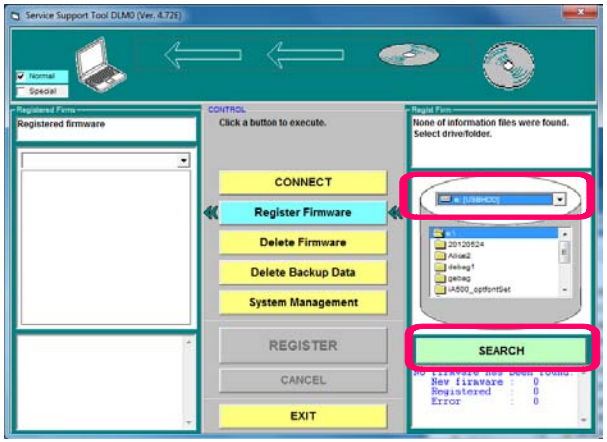
System software registration procedure

1) Start the PC.
2) Load the Font Set Software CD into the PC.
3) Start SST.
4) Click the "Register Firmware" button.



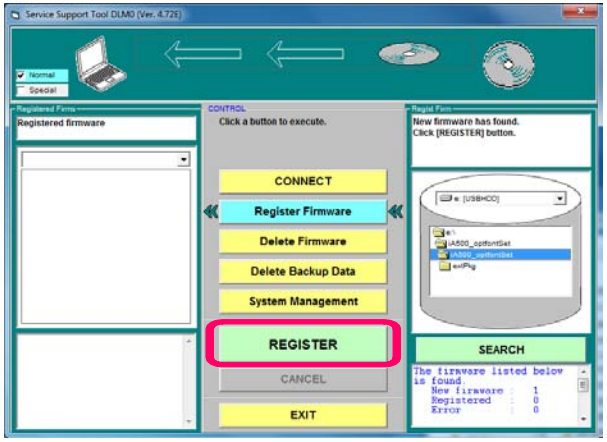
F-9-152

5) Select the drive where the Font Set Software CD has been loaded, then click the "SEARCH" button.



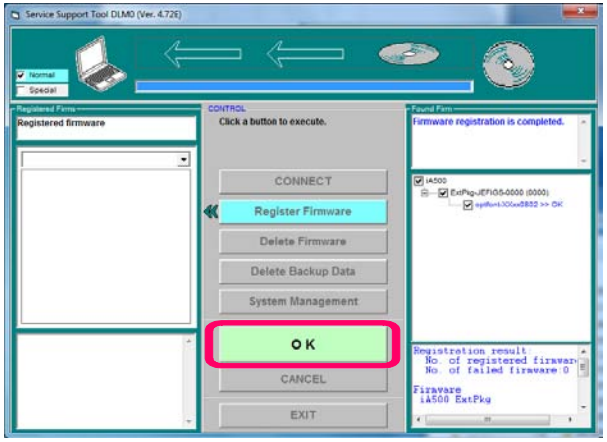
F-9-153

6) The font list in the Font Set Software CD will appear.
Click the "REGISTER" button.



F-9-154

7) "Registered firmware" will appear. Click the "OK" button.



F-9-155

Register Andale Font in the USB memory device.

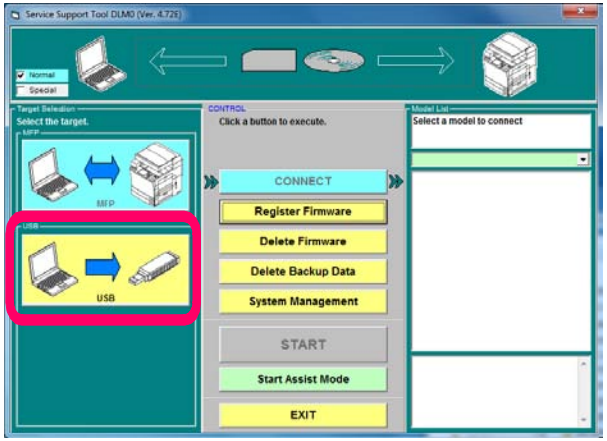
SST > USB memory device

Register the system software, which has been registered in the SST, in the USB memory device.

Preparation
Requirements:

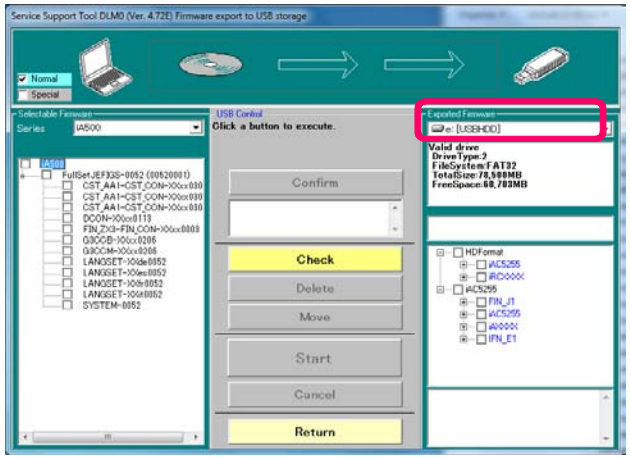
- PC with SST Ver. 4.72 or later installed
- USB memory storage device (*)
  Requirements for USB memory storage device:
  Interface: USB 1.1 or later (USB 2.0 is recommended)
  Memory capacity: 1GB or more is recommended (the total file size of the system software is approx. 500MB).
  Format: FAT (FAT 16), FAT32 (NTFS and HFS are not supported). The memory is formatted in a partition (multiple partitions are not supported)
  Unavailable USB memory: memory that is protected by a password or the encryption technology.

System software registration procedure
1) Start the PC.
2) Insert the USB memory storage device storage device to the slot of the PC.
3) Start SST.
4) Click the USB icon shown in "Select the target" Screen.



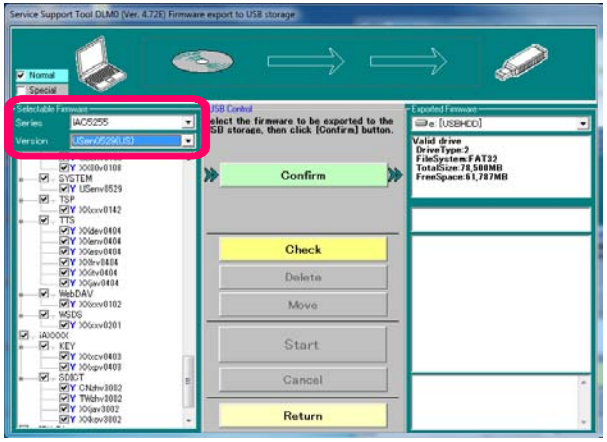
F-9-156

5) Select the drive (removable disk) where the USB memory storage device storage device is inserted.



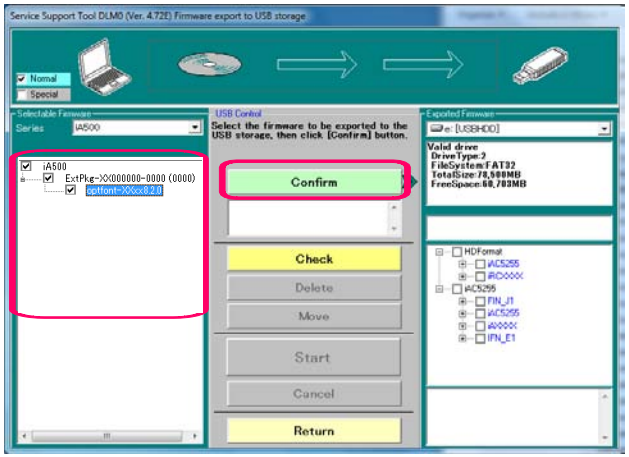
F-9-157

6) Select “Series” and “Version” (the System Version).



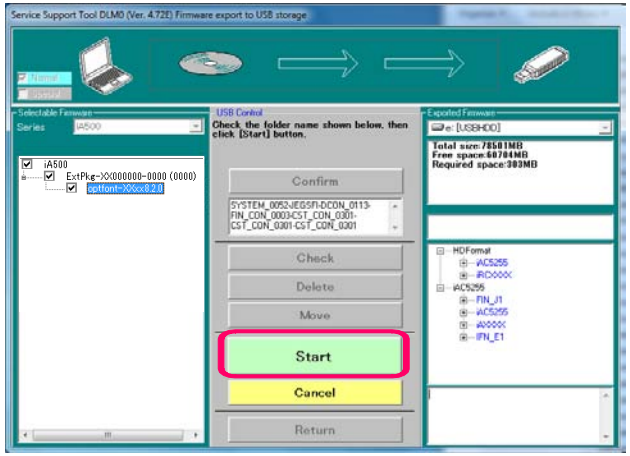
F-9-158

7) Select the file you want to register in the USB memory device, and select "Confirm".



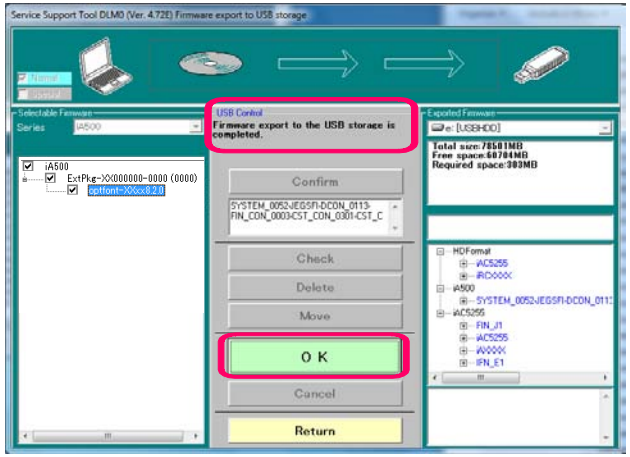
F-9-159

8) Select "Start".



F-9-160

9) A message "Firmware export to the USB storage is completed." will appear. Select "OK".



F-9-161

NOTE:
The folder name "iA500" needs to be changed if the model name differs.
Press the Counter Check button to refer to the displayed model names.
Example: iR-ADV 500(iA500) -> iA500
Andale Font can be registered by a means other than the above. It can be registered by using SST Ver.4.72 or later.

Register Andale Font in the host machine

Connection

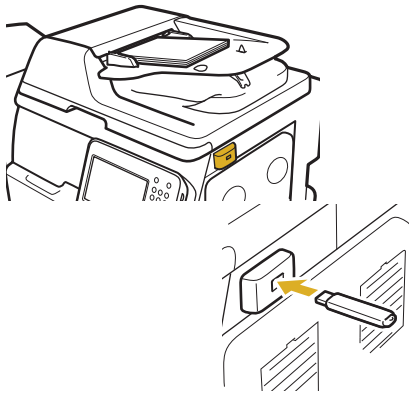
Preparation

Item to prepare: A USB memory device where the system software for this machine has been registered

Procedure

1) If the host machine is connected with a network cable, disconnect it.

2) Connect the USB memory device to the USB port.



F-9-162

3) Switch to the download mode to use.

In the case of normal mode (Recommended)

Select the following in Service Mode: COPIER > FUNCTION > SYSTEM > DOWNLOAD; and then press [OK].

- In the case of safe mode (This mode should not be used as general rule. To be used only when normal startup fails, such as a system error, etc.)
- While pressing 2 + 8 keys at the same time, turn ON the Main Power Switch.
- Once this machine recognizes the USB memory storage device, the following menu is displayed on the Control Panel.

CAUTION:

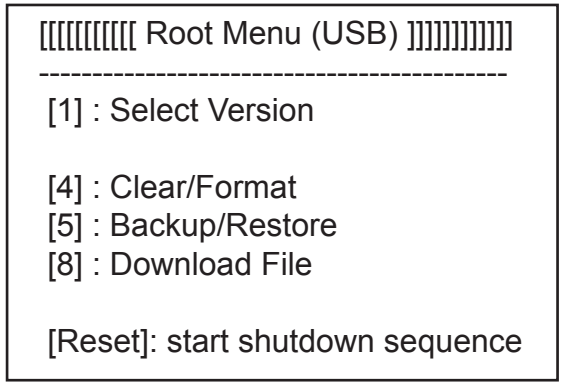
Depending on the manufacturer or the model, this machine may not recognize the USB memory storage device.

This machine retries the detection of a USB memory storage device for up to 60 seconds after power-ON. The above menu is not displayed if the recognition of a USB memory storage device is failed within the time period.

In such a case, use another USB memory storage device.

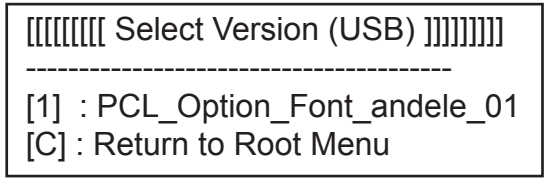
Downloading Andale Font

1) Select "[1]: Select Version".



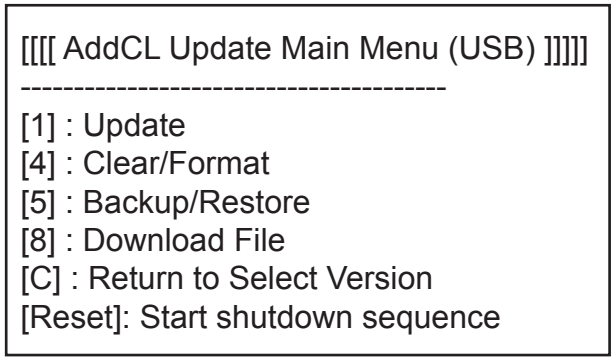
F-9-163

2) Select "[1]: PCL_Option_Font_andele_01".



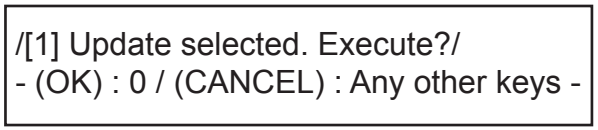
F-9-164

3) Select "[1]: Update".



F-9-165

4) Select "0".



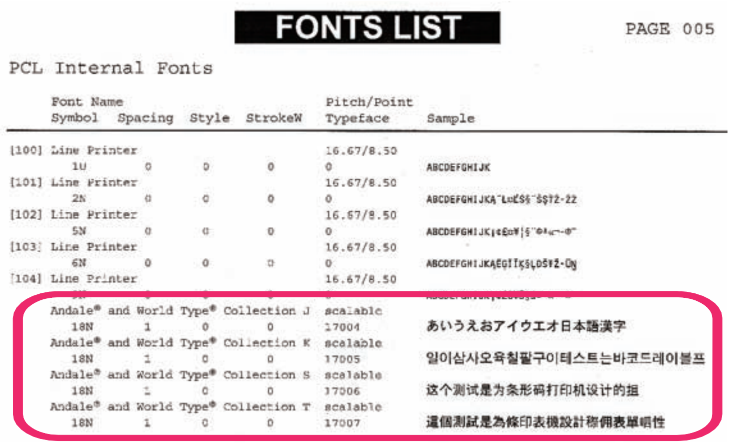
F-9-166

5) Completion of the update automatically restarts the device.

Operation check after making the settings

Output the font list, and check that the font has been added.

Function Settings > Printer > Output Report > PCL > Font List



FONTS LIST PAGE 005

PCL Internal Fonts

Font Name / Symbol	Spacing	Style	StrokeW	Pitch/Point / Typeface	Sample
[100] Line Printer				16.67/8.50	
1U	0	0	0	0	ABCDEFGHIJK
[101] Line Printer				16.67/8.50	
2N	0	0	0	0	ABCDEFGHIJK[illegible]
[102] Line Printer				16.67/8.50	
5N	0	0	0	0	ABCDEFGHIJK[illegible]
[103] Line Printer				16.67/8.50	
6N	0	0	0	0	ABCDEFGHIJK[illegible]
[104] Line Printer				16.67/8.50	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Andale® and World Type® Collection J				scalable	
18N	1	0	0	17004	あいうえおアイウエオ日本語漢字
Andale® and World Type® Collection K				scalable	
18N	1	0	0	17005	일이삼사오육칠팔구이테스트는바코드레이블프
Andale® and World Type® Collection S				scalable	
18N	1	0	0	17006	这个测试是为条形码打印机设计的担
Andale® and World Type® Collection T				scalable	
18N	1	0	0	17007	這個測試是為條印表機設計稱佣表單唱性

F-9-167

NOTE:
- Unless the LMS of Andale Font included in the kit is enabled, the installed font cannot be used.

Confirmation of the application condition

Please ask End User to confirm Readme.txt specifying terms and condition of using this software, which is included in Font Set Software CD

Service Book Holder

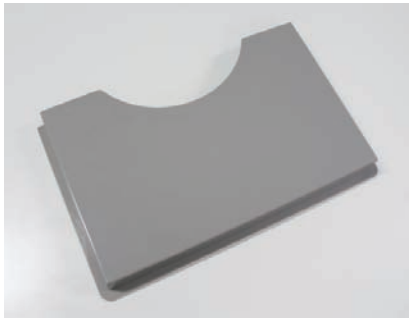
Installation Outline Drawing

F-9-168

Checking the Contents

Parts included with the host machine

☐ [1] Service Book Holder X 1

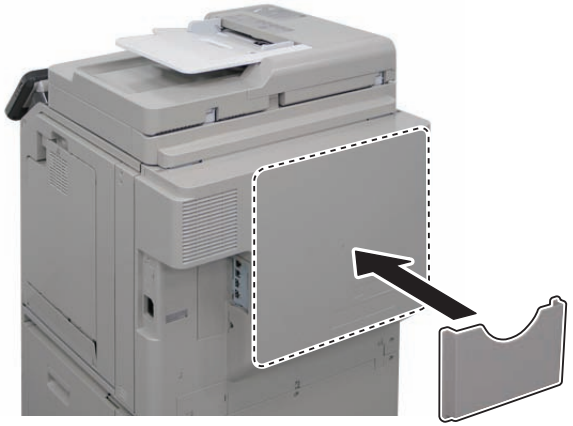


F-9-169

Installation Procedure

☐

1) Remove the release paper, and install the Service Book Holder.



F-9-170

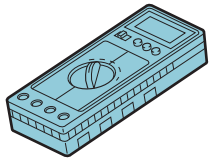
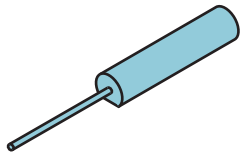
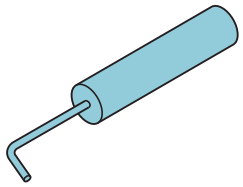
Appendix

- Service Tools
- General Circuit Diagram
- Backup Data
- Detail of HDD partition
- Soft counter specifications
- Removal

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.

T-10-1

Reference: Category

A: Must be kept by each service engineer.

B: Must be kept by each group of about five engineers.

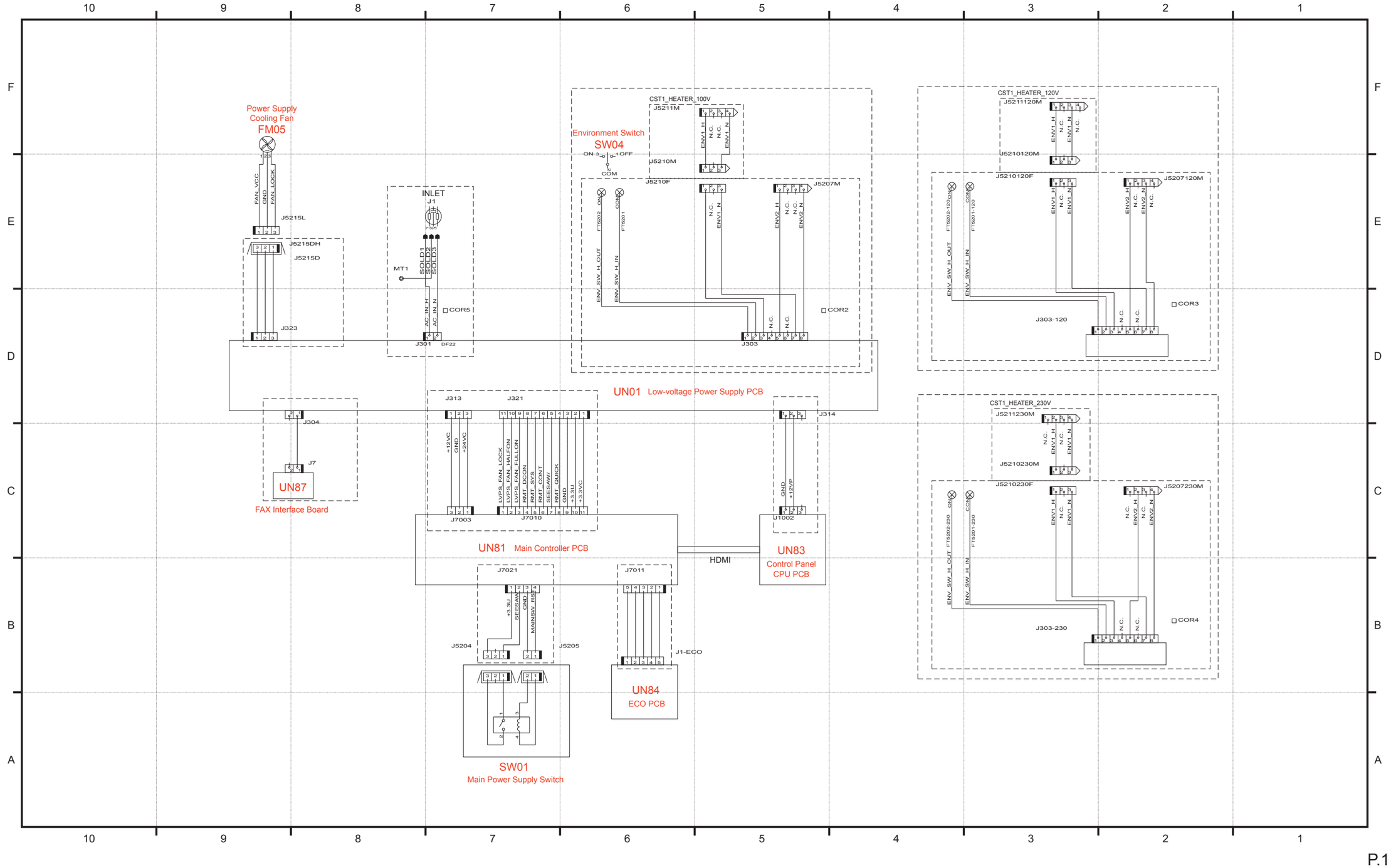
C: Must be kept by each warkshop

Solvents and Oils

None

General Circuit Diagram

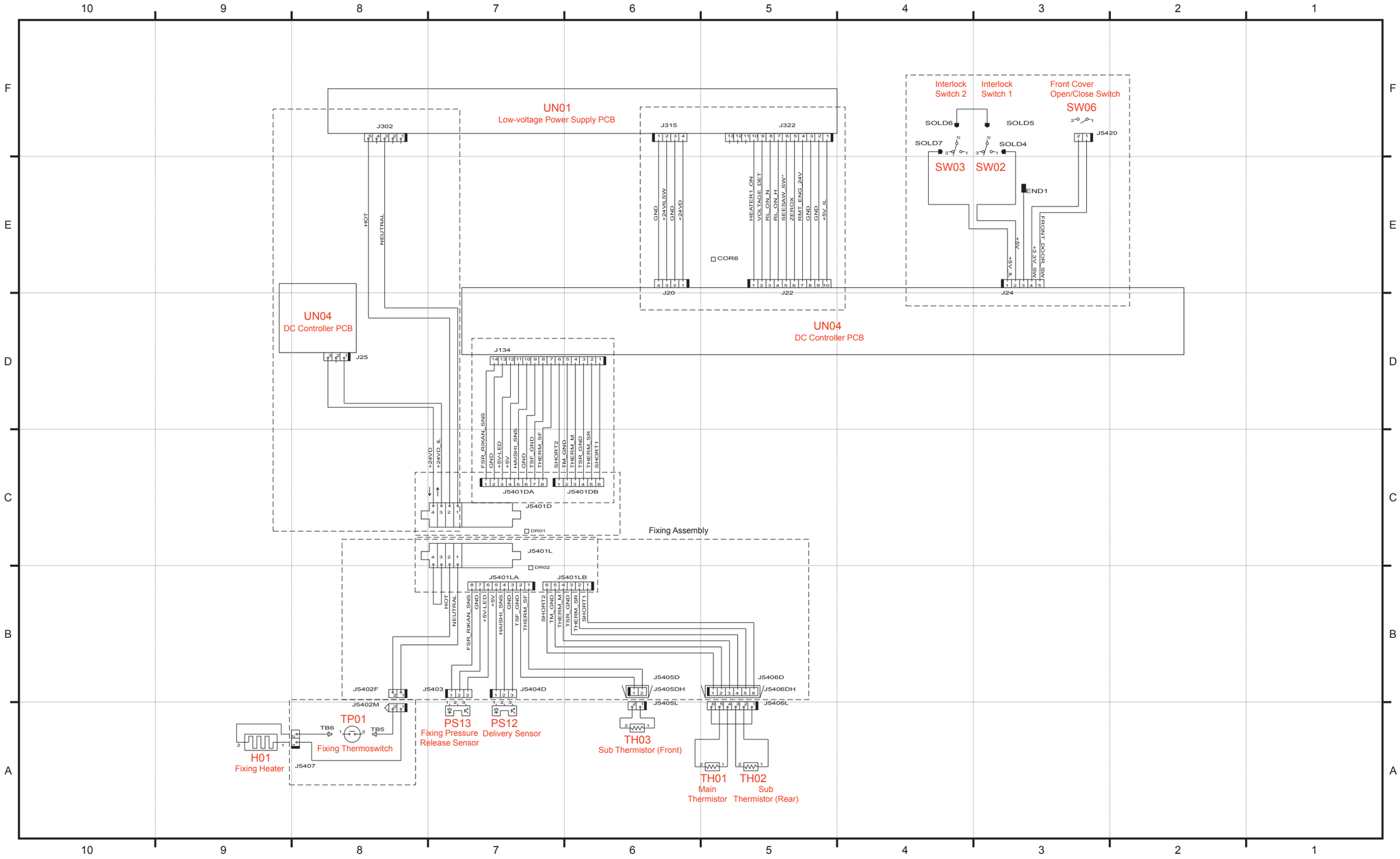
General Circuit Diagram (1/12)



P.1

F-10-1

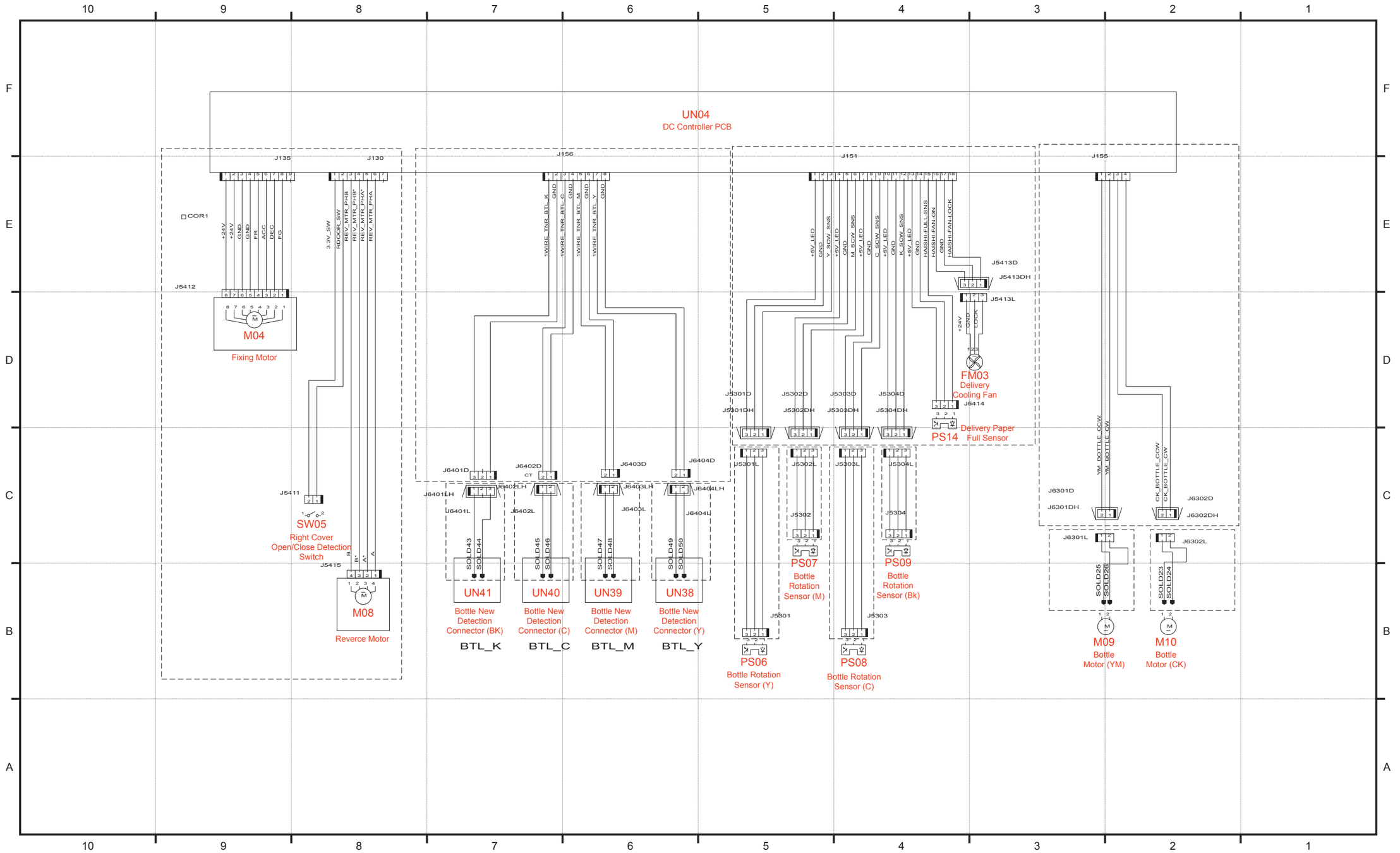
General Circuit Diagram (2/12)



P.2

F-10-2

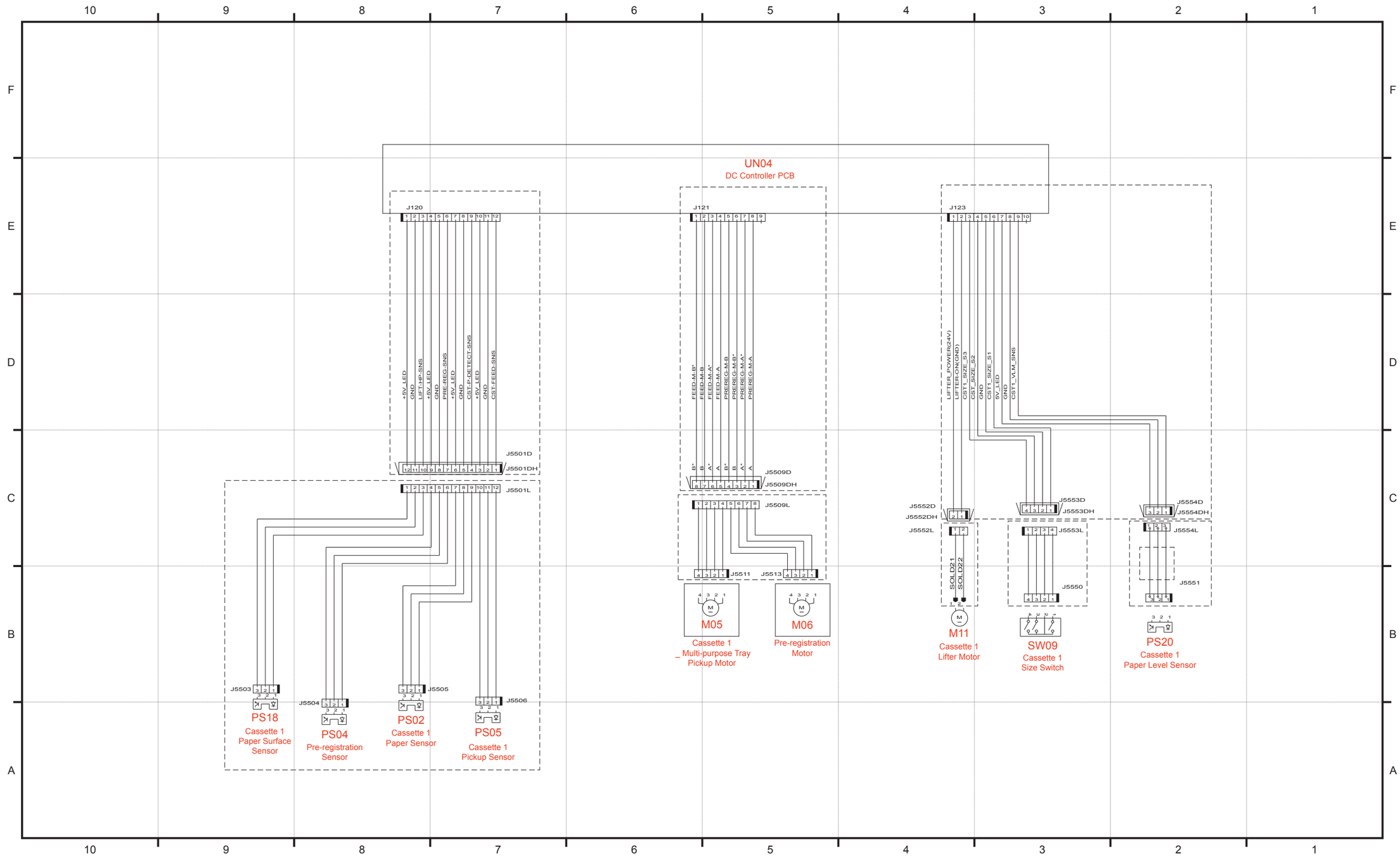
General Circuit Diagram (3/12)



P.3

F-10-3

General Circuit Diagram (4/12)

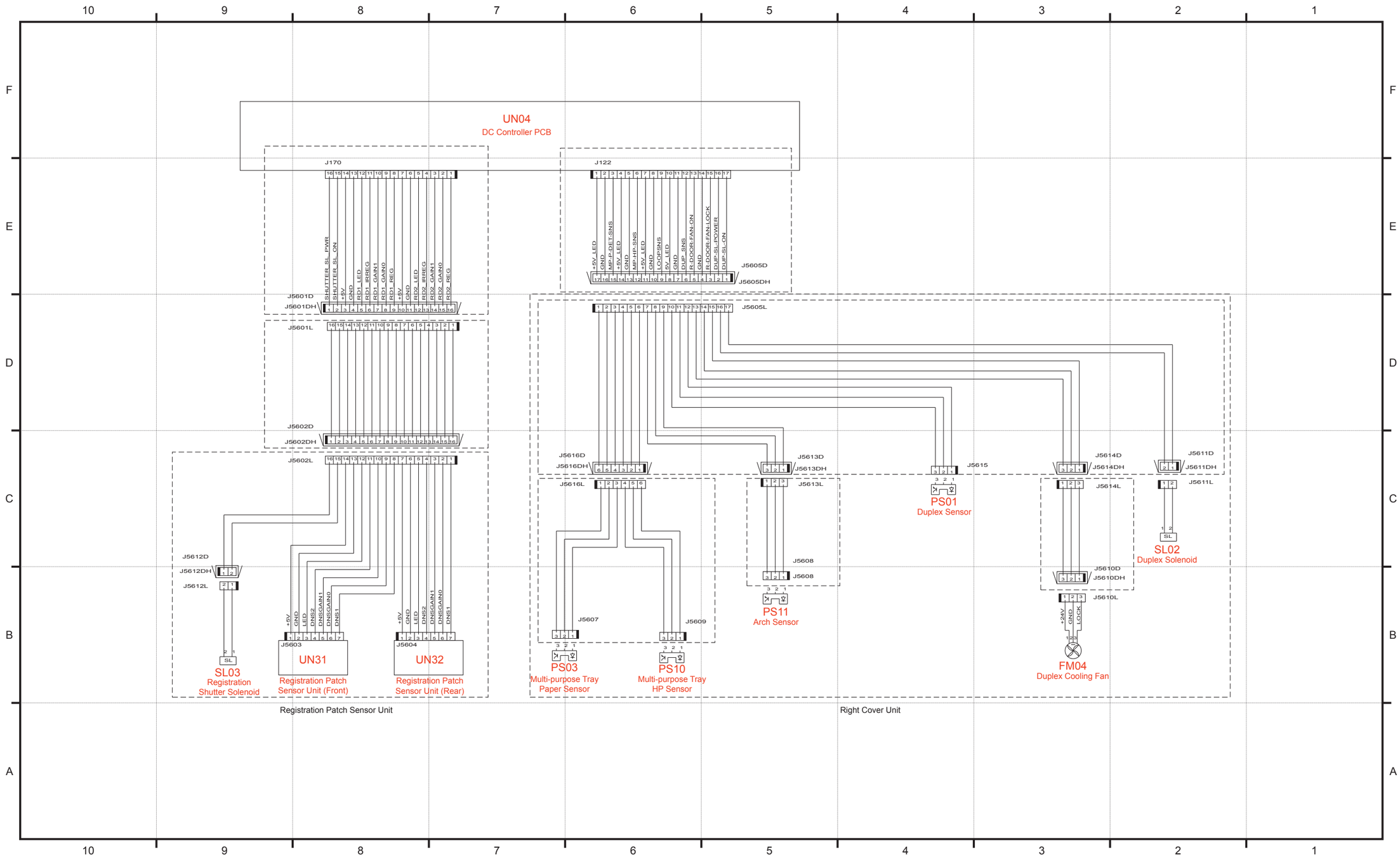


P.4

F-10-4

Appendix > General Circuit Diagram

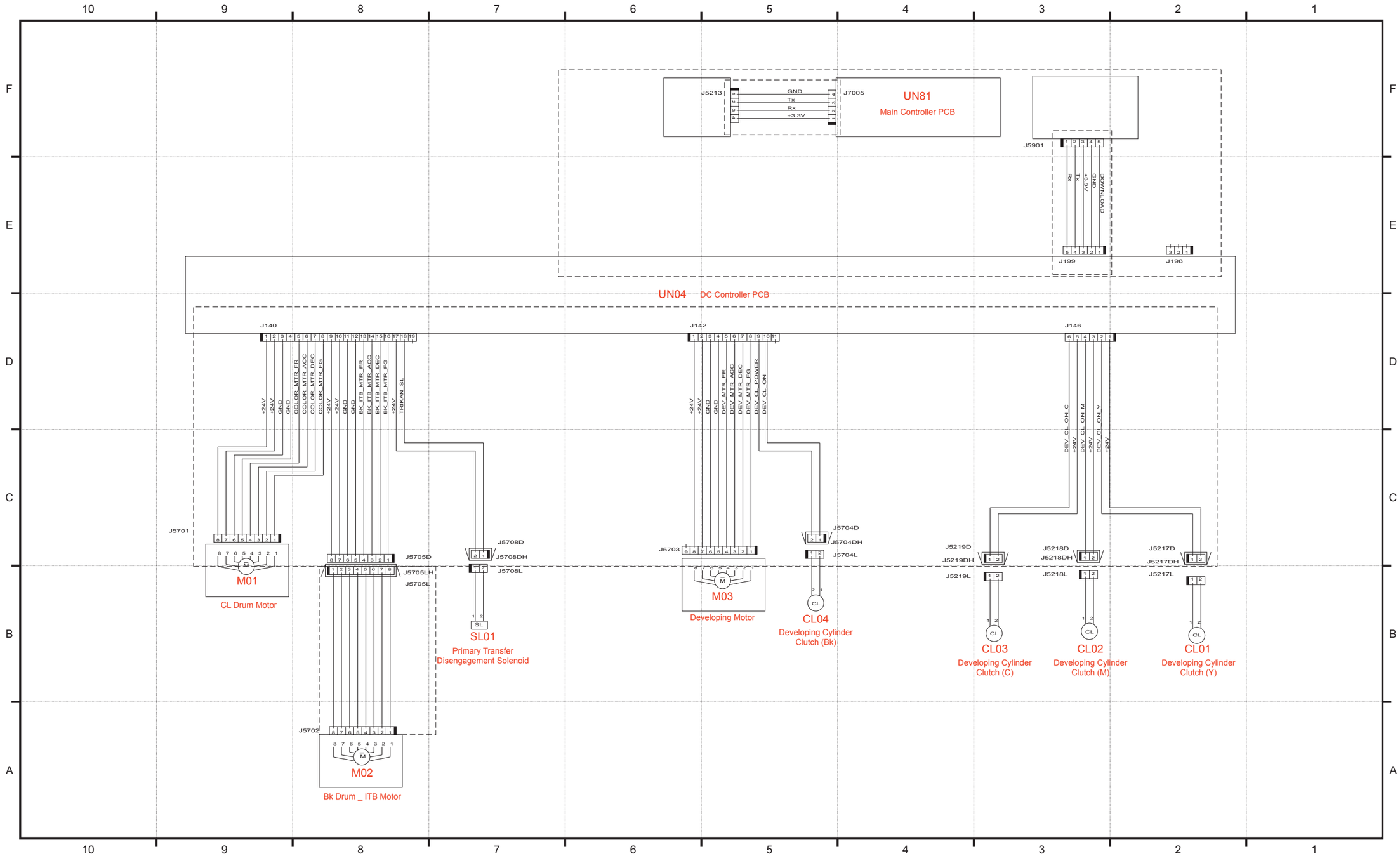
General Circuit Diagram (5/12)



P.5

F-10-5

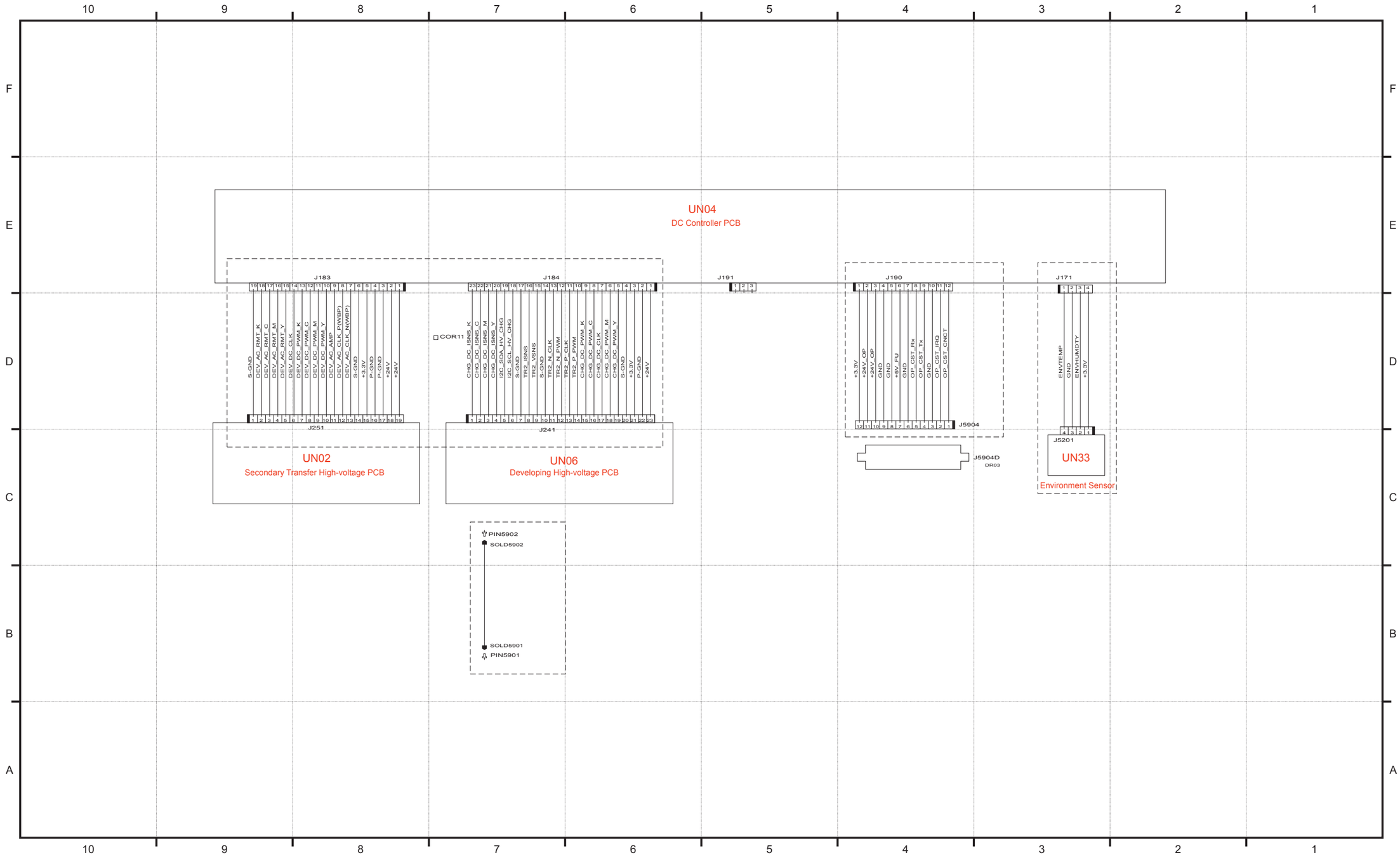
General Circuit Diagram (6/12)



P.6

F-10-6

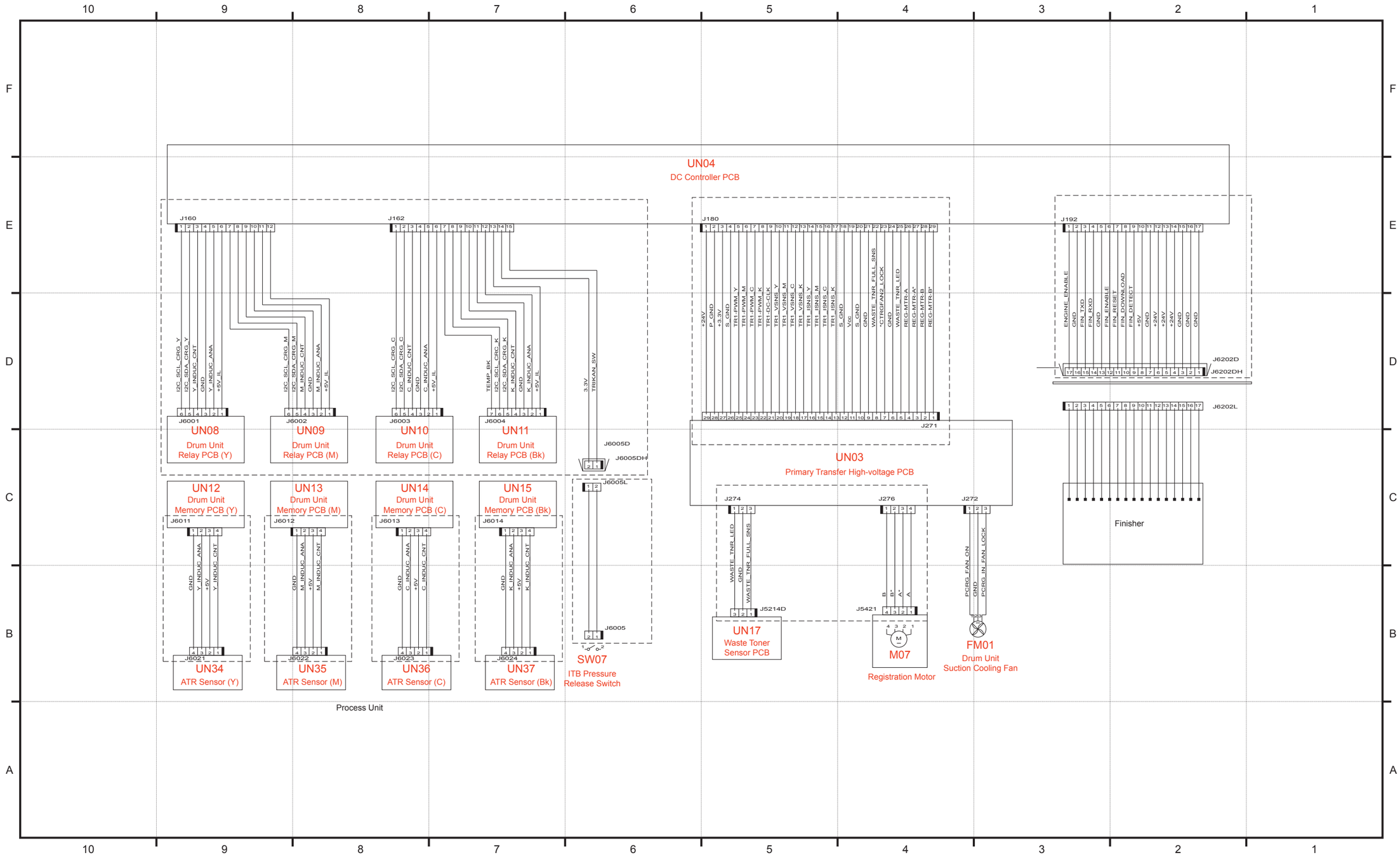
General Circuit Diagram (7/12)



F-10-7

Appendix > General Circuit Diagram

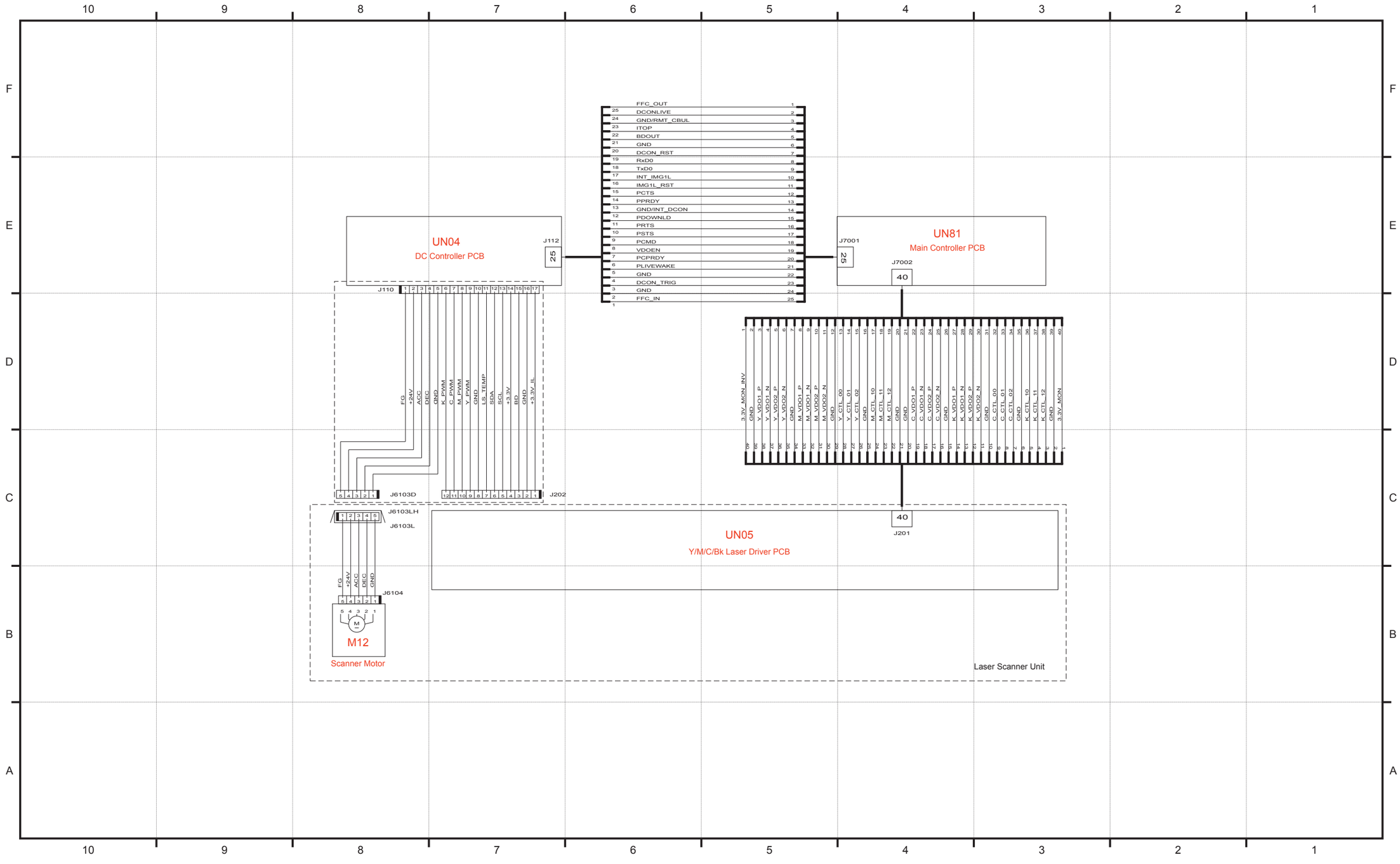
General Circuit Diagram (8/12)



P.8

F-10-8

General Circuit Diagram (9/12)

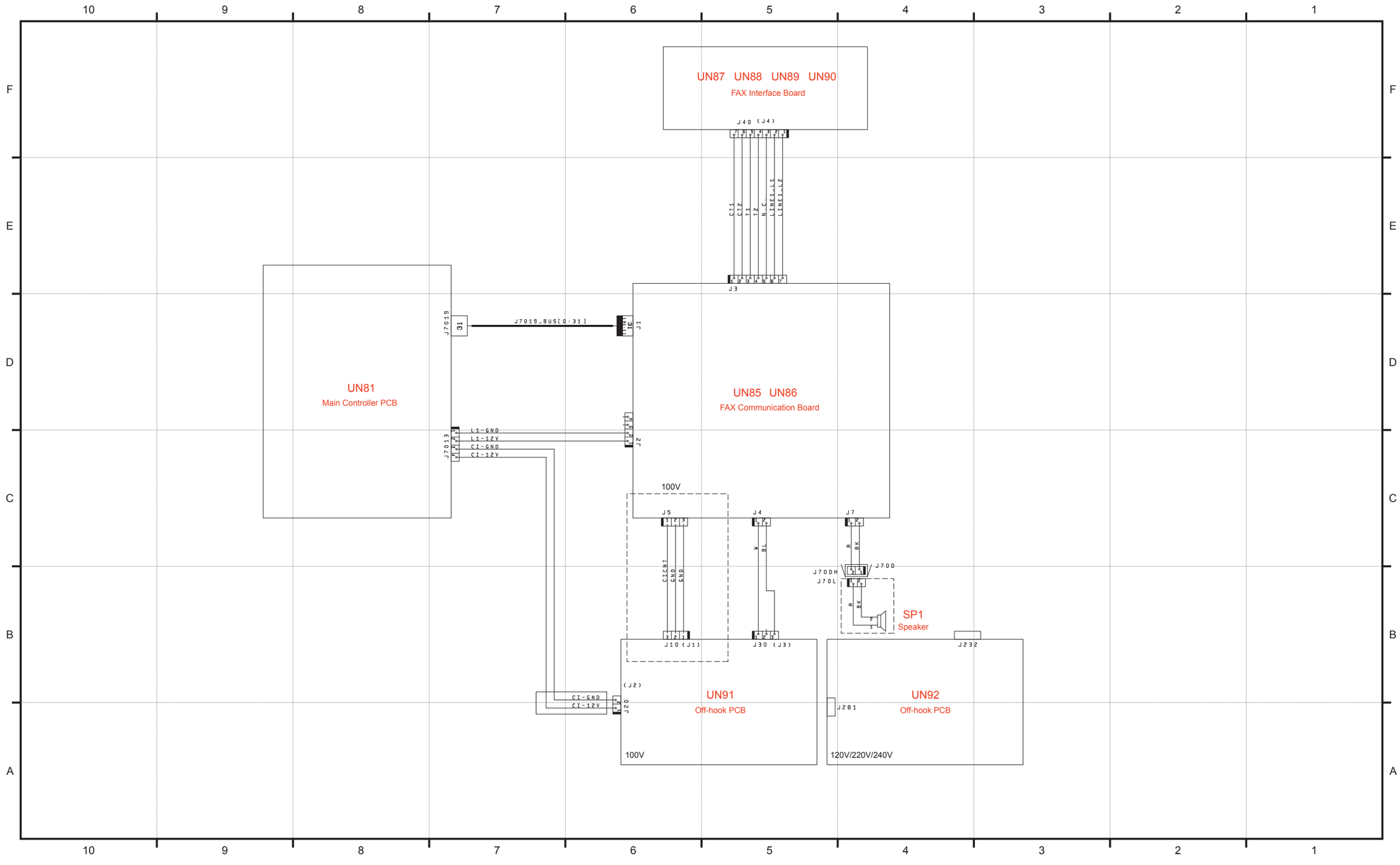


P.9

F-10-9

Appendix > General Circuit Diagram

General Circuit Diagram (10/12)

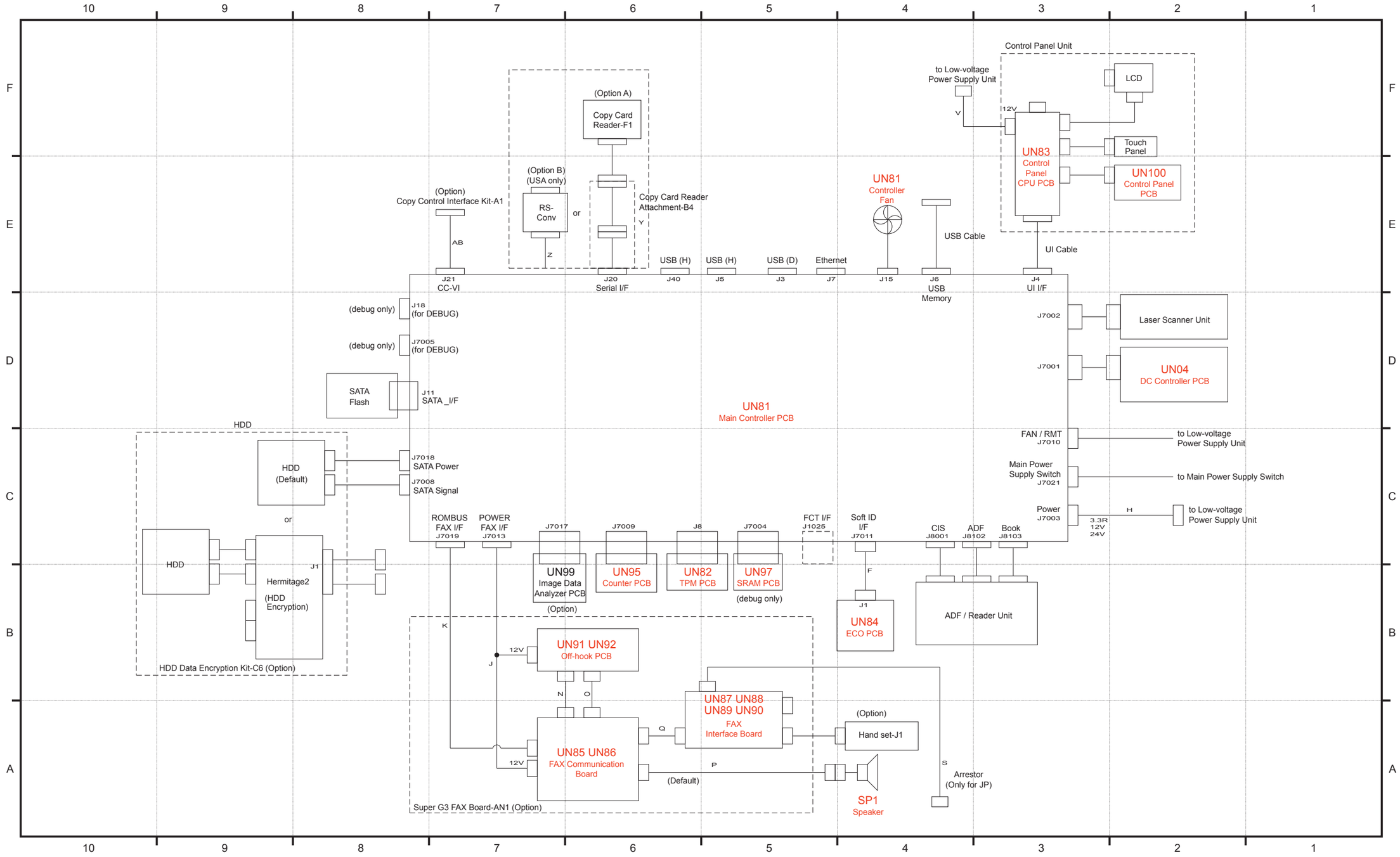


P.10

F-10-10

Appendix > General Circuit Diagram

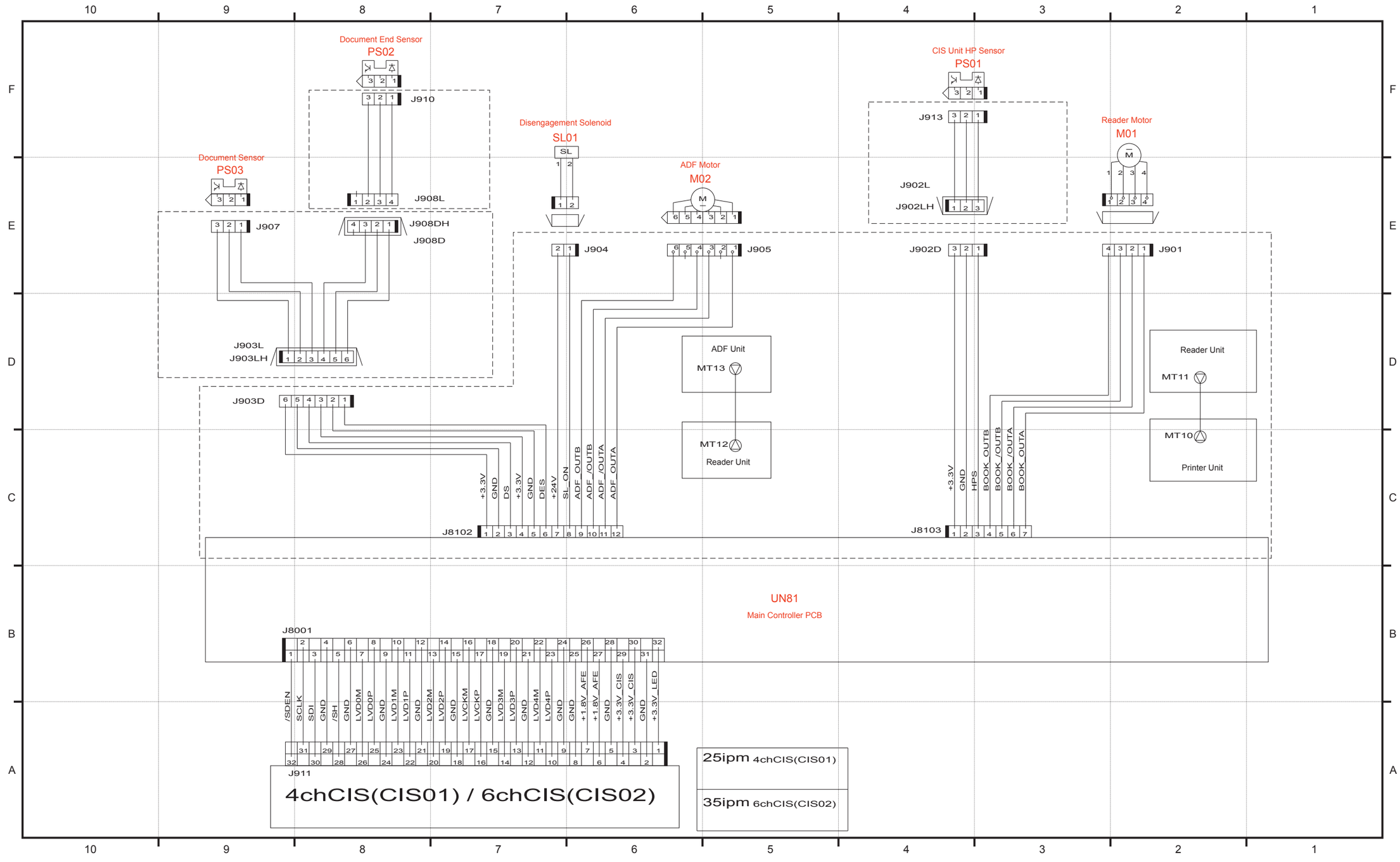
General Circuit Diagram (11/12)



P.11

F-10-11

General Circuit Diagram (12/12)



P.11

F-10-12

Backup Data

Data	Location	Replacement					CLEAR										
							User function					Service function					
								Settings/Registration > Function Settings				COPIER > Function > CLEAR					
		When Replacing HDD/Executing AllFormat	When Replacing Flash/Executing AllFormat	Main PCB	DC Controller PCB	TPM PCB	Initialize All Data/ Settings	Copy > Change Default Settings > Initialize	Send > Common Settings > Change Default Settings >Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	MN-CONT	MMI	DC-CON	R-CON	ADRS-BK	JV-CASHE
Address List	HDD/FLASH	Clear	Clear	Clear	-	-	Clear	-	-	-	-	Clear	-	-	-	Clear	-
Forwarding Settings	HDD/FLASH	Clear	Clear	Clear	-	-	Clear	-	-	-	-	Clear	Clear	-	-	-	-
Settings / Registration																	
Preferences (Except for Paper Type Management Settings)	FLASH	-	Clear	Clear	-	-	Clear	-	-	-	-	Clear	Clear	Clear(*1)	-	-	-
Adjustment/Maintenance	FLASH	-	Clear	Clear	-	-	Clear	-	-	-	-	Clear	Clear	-	-	-	-
Function Settings (Except for Printer Custom Settings, Forwarding Settings)	FLASH	-	Clear	Clear	Clear	-	Clear	Clear	Clear	Clear	-	Clear	Clear	Clear(*2)	Clear(*3)	-	-
Set Destination (Except for Address List)	HDD/FLASH	-	Clear	Clear	-	-	Clear	-	-	-	-	Clear	Clear	-	-	-	-
Management Settings (Except for Address List)	FLASH	-	Clear	Clear	-	-	Clear	-	-	-	-	Clear	Clear	-	-	-	-
Printer Settings	FLASH	-	Clear	Clear	-	-	Clear	-	-	-	Clear	Clear	Clear	-	-	-	-
Set Paper Information	FLASH	-	Clear	Clear	-	-	Clear	-	-	-	-	-	-	-	-	-	-
Setting items for each menu in Main Menu (Copy, Scan and Send, Fax, Scan and Store, Access Stored Files, Fax/I-Fax Inbox)																	
Favorite Settings	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
Default Settings	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
Shortcut settings for “Options”	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
Previous Settings	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
Setting items for Quick Menu																	
Button Size information	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
Wallpaper Setting	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
Button information in Quick Menu	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
Restrict Quick Menu	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
Setting items for Main Menu																	
Button settings in Main Menu	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-
Button settings on the top of the screen	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-
Wallpaper Setting for Main Menu	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-
Other settings for Main Menu	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-
Box settings																	
User Box specification settings (Register Box Name, Password, Time until Document Auto Erase, Print uponstoring from the printer driver)	HDD/FLASH	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-
Image data of User Box, Confidential Fax Box, and System Box Image Data	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-
Network Place Settings	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-
Web browser settings																	
Web Access setting information	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-
MEAP settings																	
MEAP application	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
License files for MEAP applications	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
Data saved using MEAP applications	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear
SMS (Service Management Service) password of MEAP	HDD	Clear	Clear	-	-	-	Clear(*4)	-	-	-	-	-	-	-	-	-	Clear
Universal data settings																	
Unsent documents (documents waiting to be sent with the Delayed Send mode)	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-
Job logs	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-
Key Pair and Server Certificate in Certificate Settings in TCP/IP Settings in Network Settings in System Settings (from the Additional Functions screen)	HDD	-	-	Clear	-	-	Clear	-	-	-	-	-	-	-	-	-	-
Auto Adjust Gradation setting values	FLASH	-	Clear	Clear	-	-	Clear	-	-	-	-	Clear	-	-	-	-	-
PS font	HDD	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-
Key information to be used for encryption when TPM is OFF	FLASH	Clear (*5)	Clear (*6)	-	-	-	Clear	-	-	-	-	Clear	-	-	-	-	-
Key and settings information to be used for encryption when TPM is ON	FLASH/HDD/ TPM	Clear (*7)	Clear (*7)	-	-	Clear	Clear (*9)	-	-	-	-	Clear (*8)	-	-	-	-	-

Data	Location	Replacement					CLEAR											
								User function				Service function						
		When Replacing HDD/Executing AllFormat	When Replacing Flash/Executing AllFormat	Main PCB	DC Cont-roller PCB	TPM PCB	Initialize All Data/ Settings	Settings/Registration > Function Settings				COPIER > Function > CLEAR						
								Copy > Change Default Settings > Initialize	Send > Common Settings > Change Default Settings >Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	MN-CONT	MMI	DC-CON	R-CON	ADRS-BK	JV-CASHE
Service Mode																		
Service Mode setting values (MN-CON)	FLASH	-	Clear	Clear	-	-	-	-	-	-	-	Clear	Clear	-	-	-	-
Service Mode setting values (DC-CON)	HDD	-	-	-	Clear	-	-	-	-	-	-	-	-	Clear	-	-	-
Service Mode setting values (R-CON)	FLASH	-	Clear	-	-	-	-	-	-	-	-	-	-	-	Clear	-	-
Audit Log	HDD	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear

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iR-ADV[(1)]	iR-ADV[(2)]
iR ADVANCE C2030/C2025/C2020 Series	iR ADVANCE C2230/C2225/C2220 Series
iR ADVANCE C5051/5045/5035/5030 Series	iR ADVANCE C5255/C5250/C5240/C5235 Series
iR ADVANCE C7065/C7055 Series	iR ADVANCE C7280/C7270/C7260 Series
iR ADVANCE C9075PRO/C9070PRO/C9065PRO/C9060PRO Series	iR ADVANCE C9280 PRO/9270 PRO Series
iR ADVANCE 4045/4035/4025 Series	iR ADVANCE 4245/4235/4225 Series
iR ADVANCE 6075/6065/6055 Series	iR ADVANCE 6275/6265/6255 Series
iR ADVANCE 8105/8095/8085 Series	iR ADVANCE 8205/8285/8295 Series

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*1	The following settings are deleted. Preferences > Paper Settings >Register Envelope Drawer Preferences > Paper Settings >B5/EXEC Paper Selection Preferences > Paper Settings >A5R/STMTR Paper Selection
*2	The following settings are deleted. Function Settings > Common > Paper Feed Settings > Paper Drawer Auto Selection On/Off Function Settings > Common > Paper Feed Settings > Feed Method Switch
*3	The following settings are deleted. Function Settings > Common > Scan Settings >Scanner Noise Settings Function Settings > Common > Scan Settings >Timing to Raise Feeder Tray Function Settings > Common > Scan Settings >Streak Prevention
*4	Since the password is TPM-encrypted and saved, password backed up after all data/settings have been initialized cannot be restored. When all data/settings have been initialized, initialize the password using a switch license for password initialization. [Reference] Since TPM encryption key is updated when all data/settings are initialized, the password which was backed up cannot be read.
*5	When replacing the HDD and FLASH PCB simultaneously, the key information is not restored automatically.
*6	An error code is displayed when "ON" is displayed for the TPM setting. After all data/settings are initialized after restart, select "ON" for the TPM setting to enable the TPM setting.
*7	If the TPM key information in the FLASH is lost, the key information in the FLASH is automatically recovered from the backup of the common key in the HDD. Then the internal state of TPM setting changes to "ON". However, the display on the UI remains "OFF", therefore the TPM setting needs to be manually changed to "ON".
*8	The TPM setting changes to "OFF" when all the data/settings have been initialized.
*9	Only backup in preparation for a TPM PCB failure is possible. Moreover, data cannot be restored to other machines where the TPM setting is set to "ON".

T-10-4

Data	Location	Backup Method											
		Backup Method (excluding DCM and device information delivery)											
		Backup by User						Backup by Service					
		Yes/No	Method	Location	Compatibility: Old model to this model	Compatibility: iR-ADV [1] to this model	Compatibility: iR-ADV [2] to this model	Yes/No	Method	Location	Compatibility: Old model to this model	Compatibility: iR-ADV [1] to this model	Compatibility: iR-ADV [2] to this model
Address List	HDD/FLASH	Yes	Remote UI (Import/Export Individually (Address Lists)) Remote UI (Import/Export Individually (Device Settings))	PC	Yes	Yes	Yes	No	-	-	-	-	-
Forwarding Settings	HDD/FLASH	Yes	Remote UI (Import/Export Individually (Device Settings))	PC	Yes	Yes	Yes	No	-	-	-	-	-
Settings / Registration													
Preferences (Except for Paper Type Management Settings)	FLASH	No	-	-	-	-	-	No	-	-	-	-	-
Adjustment/Maintenance	FLASH	No	-	-	-	-	-	No	-	-	-	-	-
Function Settingss (Except for Printer Custom Settings, Forwarding Settings)	FLASH	No	-	-	-	-	-	No	-	-	-	-	-
Set Destination (Except for Address List)	HDD/FLASH	No	-	-	-	-	-	No	-	-	-	-	-
Management Settings (Except for Address List)	FLASH	No	-	-	-	-	-	No	-	-	-	-	-
Printer Settings	FLASH	Yes	Remote UI (Import/Export Individually (Printer Settings))	PC	Yes	Yes	Yes	No	-	-	-	-	-
Set Paper Information	FLASH	Yes	Remote UI (Import/Export Individually (Paper Information))	PC	Yes (*10)	Yes (*10)	Yes (*10)	No	-	-	-	-	-
Setting items for each menu in Main Menu(Copy, Scan and Send, Fax, Scan and Store, Access Stored Files, Fax/I-Fax Inbox)													
Favorite Settings	HDD	Yes (*12)	Remote UI (Import/Export Individually (Device Settings))	PC	No	Yes	Yes	Yes (*14)	SST/USB (Meapback)	PC/USB	No	No	No
Default Settings	HDD	No	-	-	-	-	-	Yes (*14)	SST/USB (Meapback)	PC/USB	No	No	No
Shortcut settings for Options	HDD	No	-	-	-	-	-	Yes (*14)	SST/USB (Meapback)	PC/USB	No	No	No
Previous Settings	HDD	No	-	-	-	-	-	Yes (*14)	SST/USB (Meapback)	PC/USB	No	No	No
Setting items for Quick Menu													
Button Size information	HDD	Yes	Remote UI (Import/Export Individually (Quick Menu))	PC	No	No	Yes (*16)	Yes (*14)	SST/USB (Meapback)	PC/USB	No	No	No
Wallpaper Setting	HDD	Yes	Remote UI (Import/Export Individually (Quick Menu))	PC	No	No	Yes (*16)	Yes (*14)	SST/USB (Meapback)	PC/USB	No	No	No
Button information in Quick Menu	HDD	Yes	Remote UI (Import/Export Individually (Quick Menu))	PC	No	No	Yes (*16)	Yes (*14)	SST/USB (Meapback)	PC/USB	No	No	No
Restrict Quick Menu	HDD	Yes	Remote UI (Import/Export Individually (Quick Menu))	PC	No	No	Yes (*16)	Yes (*14)	SST/USB (Meapback)	PC/USB	No	No	No
Setting items for Main Menu													
Button settings in Main Menu	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Button settings on the top of the screen	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Wallpaper Setting for Main Menu	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Other settings for Main Menu	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Box settings													
User Box specification settings (Register Box Name, Password, Time until Document Auto Erase, Print uponstoring from the printer driver)	HDD/FLASH	No	-	-	-	-	-	No	-	-	-	-	-
Image data of User Box, Confidential Fax Box, and System Box Image Data	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Network place setting information	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Web browser settings													
Web Access setting information	HDD	Yes (*17)	Remote UI (block of Export/Import)	PC	Yes (*17)	Yes (*17)	Yes (*17)	No	-	-	-	-	-
MEAP settings													
MEAP application	HDD	No	-	-	-	-	-	Yes	SST/USB (Meapback)	PC/USB	No	No	No
License files for MEAP applications	HDD	Yes	SMS	PC	No	No	No	No	-	-	-	-	-
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	HDD	Yes	SSO-H	PC	No	No	No	Yes	SST/USB (Meapback)	PC/USB	No	No	No
Data saved using MEAP applications	HDD	Yes (*18)	iWEMC DAM plug-in	PC (iWEMC)(*18)	No	No	Yes (*18)	Yes	SST/USB (Meapback)	PC/USB	No	No	No
SMS (Service Management Service) password of MEAP	HDD	No	-	-	-	-	-	Yes	SST/USB (Meapback)	PC/USB	No	No	No

Data	Location	Backup Method											
		Backup Method (excluding DCM and device information delivery)											
		Backup by User						Backup by Service					
		Yes/No	Method	Location	Compatibility: Old model to this model	Compatibility: iR-ADV [1] to this model	Compatibility: iR-ADV [2] to this model	Yes/No	Method	Location	Compatibility: Old model to this model	Compatibility: iR-ADV [1] to this model	Compatibility: iR-ADV [2] to this model
Universal data settings													
Unsent documents (documents waiting to be sent with the Delayed Send mode)	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Job logs	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Key Pair and Certificate and CRL in Certificate Settings in TCP/IP Settings in Network Set-tings in System Settings (from the Additional Functions screen)	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Auto Adjust Gradation setting values	FLASH	No	-	-	-	-	-	No	-	-	-	-	-
PS font	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Key information to be used for encryption when TPM is OFF	FLASH	No	-	-	-	-	-	No	-	-	-	-	-
Key and settings information to be used for encryption when TPM is ON	FLASH/ HDD/ TPM	Yes (*20)	Settings/Registration (Management Settings > Data Managemnet > TPM Settings)	USB	No	No	No	No	-	-	-	-	-
Service Mode													
Service mode setting values (MN-CON)	FLASH	No	-	-	-	-	-	No	-	-	-	-	-
Service mode setting values (DC-CON)	HDD	No	-	-	-	-	-	Yes (*21)	COPIER> FUNCTION> SYSTEM> DSRAMBUP	HDD/ USB	No	No	No
Service mode setting values (R-CON)	FLASH	No	-	-	-	-	-	Yes (*21)	COPIER> FUNCTION> SYSTEM> RSRAMBUP	HDD/ USB	No	No	No
Audit Log	HDD	Yes	Remote UI (Settings/Registration > Device Management > Export/Clear Audit Log) (*23)	PC	No	No	No	No	-	-	-	-	-

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iR-ADV[1]	iR-ADV[2]
iR ADVANCE C2030/C2025/C2020 Series	iR ADVANCE C2230/C2225/C2220 Series
iR ADVANCE C5051/5045/5035/5030 Series	iR ADVANCE C5255/C5250/C5240/C5235 Series
iR ADVANCE C7065/C7055 Series	iR ADVANCE C7280/C7270/C7260 Series
iR ADVANCE C9075PRO/C9070PRO/C9065PRO/C9060PRO Series	iR ADVANCE C9280 PRO/9270 PRO Series
iR ADVANCE 4045/4035/4025 Series	iR ADVANCE 4245/4235/4225 Series
iR ADVANCE 6075/6065/6055 Series	iR ADVANCE 6275/6265/6255 Series
iR ADVANCE 8105/8095/8085 Series	iR ADVANCE 8205/8285/8295 Series

T-10-6

No	Explanation
10	Detailed parameters cannot be imported by default. Only basic parameters can be imported. When OFF is set for "Restrict Receiving for Each Function" in “Device Information Delivery Settings" in "Settings/Registration", the detailed parameters can also be imported. However, import of detailed parameters between different models is not recommended.
11	Detailed parameters cannot be imported by default. Only basic parameters can be imported. When OFF is set for "Restrict Receiving for Each Function" in “Device Information Delivery Settings" in "Settings/Registration", the detailed parameters can also be imported. However, import of detailed parameters between different models is not recommended. Import and export is possible only on Type 2.
12	Backup is available only "Favorite Settings" in "Scan to Send". "Copy", "Scan and Store" and "Fax" are not supported.
13	Send only between different models.
14	If start-up in download mode in safe mode is available in the event of an HDD failure, it is assumed that MEAP applications can be backed up using SST in some cases. In that case, the data can be recovered with the information of the MEAP applications maintained by checking that the machine starts normally after installation of the system after replacement of the HDD, starting the machine in download mode in safe mode, and restoring the backup data.
15	Send only. Copy, Box, Fax are not supported.
16	Between the same models only.
17	Only "favorites of web browser" can be backed improves.
18	Only when the MEAP applications have a backup function
19	Only when MEAP applications have a backup function
20	Backup only against TPM PCB failure is possible. In addition, restoration cannot be done to other machines whose TPM setting is set to "ON".
21	Backup is possible in DSRAMBUP, RSRAMBUP.
22	When You set it in COPIER> OPTION> USER> SMD-EXPT> ON, a backup/restore is possible in Service Mode Settings from the Remote UI. There is a backup button on the TOP page of the service mode. HDD and USB memory can back up Service Mode Settings by backup button.
23	Audit log that was exported cannot be put back to the device from which the log was exported.

T-10-7

Data	Location	Backup Method											
		Backup Method using DCM						Backup Method using Device Information Delivery					
		Yes/No	Method	Location	Compatibility: Old model to this model	Compatibility: iR-ADV [(1)] to this model	Compatibility: iR-ADV [(2)] to this model	Yes/No	Method	Location	Compatibility: Old model to this model	Compatibility: iR-ADV [(1)] to this model	Compatibility: iR-ADV [(2)] to this model
Address List	HDD/FLASH	Yes	RUI/WebService	PC	No	No	Yes	Yes	WebService	PC	Yes	Yes	Yes
Forwarding Settings	HDD/FLASH	Yes	RUI/WebService	PC	No	No	Yes	Yes	WebService	PC	Yes	Yes	Yes
Settings / Registration													
Preferences (Except for Paper Type Management Settings)	FLASH	Yes	RUI/WebService	PC	No	No	Yes	Yes	WebService	PC	Yes	Yes	Yes
Adjustment/Maintenance	FLASH	Yes	RUI/WebService	PC	No	No	Yes	Yes	WebService	PC	Yes	Yes	Yes
Function Settingss (Except for Printer Custom Settings, Forwarding Settings)	FLASH	Yes	RUI/WebService	PC	No	No	Yes	Yes	WebService	PC	Yes	Yes	Yes
Set Destination (Except for Address List)	HDD/FLASH	Yes	RUI/WebService	PC	No	No	Yes	Yes	WebService	PC	Yes	Yes	Yes
Management Settings (Except for Address List)	FLASH	Yes	RUI/WebService	PC	No	No	Yes	Yes	WebService	PC	Yes	Yes	Yes
Printer Settings	FLASH	No	-	-	-	-	-	Yes	WebService	PC	Yes	Yes	Yes
Set Paper Information	FLASH	Yes (*11)	RUI/WebService	PC	No	No	Yes (*11)	Yes (*10)	WebService	PC	Yes (*10)	Yes (*10)	Yes (*10)
Setting items for each menu in Main Menu(Copy, Scan and Send, Fax, Scan and Store, Access Stored Files, Fax/I-Fax Inbox)													
Favorite Settings	HDD	Yes	RUI/WebService	PC	No	No	Yes (*13)	Yes	WebService	PC	No	Yes (*15)	Yes (*15)
Default Settings	HDD	Yes	RUI/WebService	PC	No	No	Yes (*13)	No	-	-	-	-	-
Shortcut settings for Options	HDD	Yes	RUI/WebService	PC	No	No	Yes (*13)	No	-	-	-	-	-
Previous Settings	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Setting items for Quick Menu													
Button Size information	HDD	Yes	RUI/WebService	PC	No	No	Yes (*16)	No	-	-	-	-	-
Wallpaper Setting	HDD	Yes	RUI/WebService	PC	No	No	Yes (*16)	No	-	-	-	-	-
Button information in Quick Menu	HDD	Yes	RUI/WebService	PC	No	No	Yes (*16)	No	-	-	-	-	-
Restrict Quick Menu	HDD	Yes	RUI/WebService	PC	No	No	Yes (*16)	No	-	-	-	-	-
Setting items for Main Menu													
Button settings in Main Menu	HDD	Yes	RUI/WebService	PC	No	No	Yes	No	-	-	-	-	-
Button settings on the top of the screen	HDD	Yes	RUI/WebService	PC	No	No	Yes	No	-	-	-	-	-
Wallpaper Setting for Main Menu	HDD	Yes	RUI/WebService	PC	No	No	Yes	No	-	-	-	-	-
Other settings for Main Menu	HDD	Yes	RUI/WebService	PC	No	No	Yes	No	-	-	-	-	-
Box settings													
User Box specification settings (Register Box Name, Password, Time until Document Auto Erase, Print uponstoring from the printer driver)	HDD/FLASH	Yes	RUI/WebService	PC	No	No	Yes	Yes	WebService	PC	Yes	Yes	Yes
Image data of User Box, Confidential Fax Box, and System Box Image Data	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Network place setting information	HDD	Yes	RUI/WebService	PC	No	No	Yes	No	-	-	-	-	-
Web browser settings													
Web Access setting information	HDD	Yes	RUI/WebService	PC	No	No	Yes	Yes (*17)	WebService	PC	Yes (*17)	Yes (*17)	Yes (*17)
MEAP settings													
MEAP application	HDD	No	-	-	-	-	-	No	-	-	-	-	-
License files for MEAP applications	HDD	No	-	-	-	-	-	No	-	-	-	-	-
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Data saved using MEAP applications	HDD	Yes (*19)	RUI/WebService	PC	No	No	Yes (*19)	No	-	-	-	-	-
SMS (Service Management Service) password of MEAP	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Universal data settings													
Unsent documents (documents waiting to be sent with the Delayed Send mode)	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Job logs	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Key Pair and Certificate and CRL in Certificate Settings in TCP/IP Settings in Network Set-tings in System Settings (from the Additional Functions screen)	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Auto Adjust Gradation setting values	FLASH	No	-	-	-	-	-	No	-	-	-	-	-
PS font	HDD	No	-	-	-	-	-	No	-	-	-	-	-
Key information to be used for encryption when TPM is OFF	FLASH	No	-	-	-	-	-	No	-	-	-	-	-
Key and settings information to be used for encryption when TPM is ON	FLASH/HDD/TPM	No	-	-	-	-	-	No	-	-	-	-	-
Service Mode													
Service mode setting values (MN-CON)	FLASH	Yes (*22)	RUI/USB/HDD	PC/USB/HDD	No	No	Yes (*22)	No	-	-	-	-	-
Service mode setting values (DC-CON)	HDD	Yes (*22)	RUI/USB/HDD	PC/USB/HDD	No	No	Yes (*22)	No	-	-	-	-	-
Service mode setting values (R-CON)	FLASH	Yes (*22)	RUI/USB/HDD	PC/USB/HDD	No	No	Yes (*22)	No	-	-	-	-	-
Audit Log	HDD	No	-	-	-	-	-	No	-	-	-	-	-

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DCM backup exclusion items			
Preferences	Paper Settings	Paper Type Management Settings	Custom Type > Details/Edit > Change
		Register Multi-Purpose Tray Defaults	
	Network	Output Report	
		TCP/IP Settings	IP Address Settings (IPv4)
			IP Address Settings (IPv6)
			IPP Print Settings
			SSL Settings
			Confirm Dept. ID PIN
		IPSec settings	
		IEEE802.1X Settings	
		Firewall Settings	IP Address Block Log
Adjustment/ Maintenance	Adjust Image Quality	Auto Adjust Gradation	
		Conect Shading	
		Auto Correct Color Mismatch	
	Maintenance		
Function Settings	Common	Paper Feed Settings	Paper Drawer Auto Selection On/Off
		Print Settings	Local Print Default Settings
			Form for Superimpose Image
			Secure Watermark Settings > Adjust Background/Character Contrast
	Printer		
	Send	Output Report	TX/RX User Data List
			Fax User Data List
		E-Mail/I-Fax Settings	Communication Settings
	Receive/Forward	Output Report	
		Common Settings	Forwarding Settings
	Store/Access Files	Mail Box Settings	Settings for All Mail Boxes
		Network Settings	
Set Destination	Address Lists		
	Register Destinations		
	Register LDAP Server		
	Auto Serarch when using LDAP Server		
Management Settings	User Management	Department ID Management	Page Totals
			Print List
	Device Management	Device Information Delivery Settings	Manual Delivery
			Resor Data
			Communication Log
			Register Destination > Auto Serch/Registor
		Restrict Receiving Device Information	
		Limit Function when Security key is off	
		Certificate Settings	
	License/Other	Register License	
		MEAP Settings	Print System Information
			Remote UI On/Off
			Delete Massage Board Contents
	Data Management	Back Up	
		Restore	
		Back Up/Restore Log	
		Initialize All Data/Settings	
		TPM Settings	

T-10-9

Detail of HDD partition

Partition name Flash/HDD	CHK-TYPE	Description	HDD Format
Whole data storage	0	Whole data storage	CHK-TYPE=”3”,”5”,”6”,”7”,”8”,,”9”,,”10”,,”11”,”12”,”14”,, are formatted at same time
SYSDEV	1	The system-related area	Disabled
SWAP	2	SWAP (temporary file / memory alternative area)	Disabled
APL_MEAP	3	MEAP-related area	Enabled
-	4	Disabled	Disabled
FSTDEV	5	Image and document-related area	Enabled (* If 5 or 7 is selected, HD-CLEAR and HD-CHECK are executed simultaneously.)
PDLDEV	6	PDL-related area	Enabled
FSTCDEV	7	Image log-related area	Enabled (* If 5 or 7 is selected, HD-CLEAR and HD-CHECK are executed simultaneously.)
TMP_PSS	8	PDL spool-related area	Enabled (* If one of 8, 9, 11, 12, or 14 is selected, HD-CLEAR or HD-CHECK is executed all of them.)
TMP_GEN	9	General application temporary area	Enabled (* If one of 8, 9, 11, 12, or 14 is selected, HD-CLEAR or HD-CHECK is executed all of them.)
APL_SEND	10	SEND-related area	Enabled
APL_GEN	11	General application-related area	Enabled (* If one of 8, 9, 11, 12, or 14 is selected, HD-CLEAR or HD-CHECK is executed all of them.)
UPDATE	12	Update-related area	Enabled (* If one of 8, 9, 11, 12, or 14 is selected, HD-CLEAR or HD-CHECK is executed all of them.)
APL_KEEP	13	License-related area	Disabled
DBG_LOG	14	Debug-related area	Enabled (* If one of 8, 9, 11, 12, or 14 is selected, HD-CLEAR or HD-CHECK is executed all of them.)

T-10-10

APL_GEN Details of universal data

Category	Data
Settings / Registration	Preferences
	Adjustment/Maintenance
	Function Settings
	Set Destination
	Management Settings
	Printer Settings
	Paper Information Settings
Setting items for each menu in Main Menu	Button settings in Main Menu
	Button settings on the top of the screen
	Wallpaper Setting for Main Menu
	Other settings for Main Menu
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
	PS font

T-10-11

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

T-10-12

Meanings of symbols in tables

- L: Large size (larger than B4 size)
- S: Small size (smaller than B4 size)
- Copy: Local copy
- Copy A: Local copy
- Print: PDL print + report print
- Print A: PDL print + report print
- Scan: Black and white scan + color scan

No.	Counter Details
071	Toner bottle black
072	Toner bottle yellow
073	Toner bottle magenta
074	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 color2)
106	Total (full color2)
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)
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)

No.	Counter Details
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)
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)

No.	Counter Details
211	Local copy (large)
212	Local 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)
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)

No.	Counter Details
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)
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)

No.	Counter Details
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)
337	PDLPrint (mono color 1)
338	PDLPrint (mono color 2)
339	PDLPrint (black and white 1)
340	PDLPrint (black and white 2)
341	PDLPrint (full color /large)
342	PDLPrint (full color /small)
343	PDLPrint (mono color /large)
344	PDLPrint (mono color /small)
345	PDLPrint (black and white /large)
346	PDLPrint (black and white /small)
351	PDLPrint (full color /large /double sided)
352	PDLPrint (full color /small/double sided)
353	PDLPrint (mono color /large /double sided)
354	PDLPrint (mono 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)

No.	Counter Details
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)
631	Memory media pint (Total 1)
632	Memory media pint (Total 2)
633	Memory media pint (large)
634	Memory media pint (small)
635	Memory media pint (full color 1)
636	Memory media pint (full color 2)
639	Memory media pint (black and white 1)
640	Memory media pint (black and white 2)
641	Memory media pint (full color /large)
642	Memory media pint (full color /small)
645	Memory media pint (black and white /large)
646	Memory media pint (black and white /small)
651	Memory media pint (full color /large/double sided)
652	Memory media pint (full color /small/double sided)
655	Memory media pint (black and white /large/double sided)
656	Memory media pint (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)

No.	Counter Details
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)
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)
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)
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)

No.	Counter Details
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)
964	Super box local Scan (color)
965	Super box local Scan (black and white)

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Removal

Removal

Overview

- User data kept by the machine contains address books and inbox documents that users can recognize.
- By using the copy, print, or send function, there is also information left on the HDD of MFPs that is generally not recognizable but can be recovered as documents. (Refer to the illustration on the next page.)
- For security, the UI menu is provided to delete data on FLASH PCB and perform overwrite deletion to render user data on HDD unrecoverable.

User data delete

- To delete user data, execute Settings/Registration > System Management > Initialize All Data/Settings in UI menu. Performing Initialize All Data/Settings returns UI menu setting values to their factory defaults.
- Usually, one overwrite is enough. Note that increasing the number of overwrite increases the time required for the deletion operation.

Note:
- When you perform Initialize All Data/Settings, license and data of MEAP application are initialized to the state same as when the HDD is replaced. If MEAP application may be used by other users after the machine is removed, disable the MEAP application and uninstall it in advance.
- Performing Initialize All Data/Settings does not delete the license of the system option.

Deletion of Service Mode Settings

The user mode setting values may have been changed at the user's request. In that case, the service mode setting values should be changed back to the default values before removing the machine.

Work Procedure

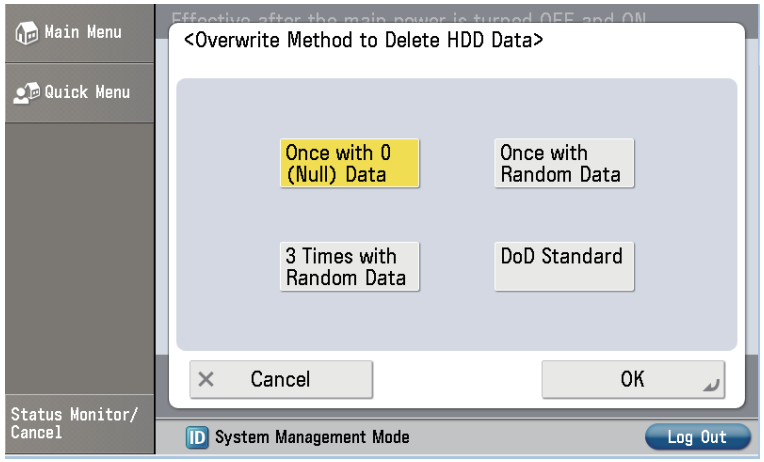
If the user uses MEAP applications, ask the user to uninstall the MEAP applications if necessary.

User data delete procedure

Settings/Registration > System Management > Initialize

Select a deletion mode

If the user has not given any instruction on which item in the deletion mode should be used, select the default "Once with 0 (Null) Data".



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Note:
- When all the data are initialized, the user data on the HDD and the user data on the Flash PCB are deleted. For the items to be deleted, refer to the backup list.
- Performing "Initialize All Data" turns auto gradation adjustment values and TPM settings to OFF. Therefore, to enable normal operation the next time, the operation performed at installation is necessary.
- Performing Initialize All Data/Settings does not delete the license of the system option.

Report output upon completion of Initialize All Data/Settings

Consider using this report to provide to user as a material to inform of work details when executing Initialize All Data/Settings upon user's request.

Operation after Initialize All Data/Settings

The machine is started normally at restart after Initialize All Data/Settings without displaying the message (Turn OFF the main power supply on the right side of the machine) on the screen to prompt shutdown

The report is output after startup.

```
*******************************
***   System Information   ***
*******************************


<< Initialize All Data/Settings Report >>

 Serial Number                 ZZZ99999
 Device Name                   iR-ADV 8205 (iA8205)

 Overwrite Method for Deletion Mode    Once with Random Data  (*1)


 The following data stored in the device has been completely erased.

   - Data stored in the temporary data area
   - User generated data
   - Settings under Settings/Registration (restored to factory defaults)
```

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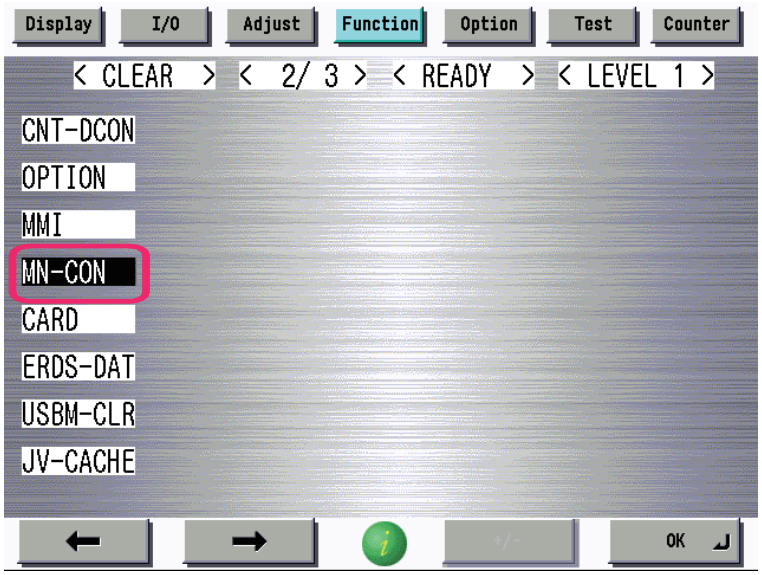
*1 display following one.
"Once with 0 (Null) Data"
"Once with Random Data"
"3 Times with Random Data"
"DoD Standard"

Limitations

The language of the report is only English, and cannot be changed.
The report is output without fail (a function to select ON/OFF of report output is not provided).
There is no second output of report when the machine is turned ON without paper.
Only the output of this report remains in the job log.

● Deletion of Service Mode Setting Values

Service Mode Lev1 > Function> CLEAR > MN-CONT



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Note:
When MN-CON clear is executed, the address book on the HDD is not deleted. As for the user data, initialize all the data.